

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

2005 AUG 9 PM 4 09

FORM APPROVED  
OMB No 1004-0136  
Expires January 31, 2004

5. Lease Serial No

701-02-0014

6 If Indian, Allottee or Tribe Name

Jicarilla Apache Nation

7 If Unit or CA Agreement, Name and No

8 Lease Name and Well No

JAECO 26-3 22 #2

9 API Well No

30-039-30027

10 Field and Pool, or Exploratory

Blanco MV/Basin Dakota

11. Sec., T., R., M., or Blk. and Survey or Area

Section 22, T26N R3W

12 County or Parish

Rio Arriba

13 State

NM

1a Type of Work ☒ DRILL ☐ REENTER

1b. Type of Well ☐ Oil Well ☒ Gas Well ☐ Other

070 Single Zone ☒ Multiple Zone

2 Name of Operator

Williams Production Company, LLC

3a Address

P O. Box 640 Aztec, NM 87410

3b Phone No (include area code)

(505) 634-4208

4. Location of Well (Report location clearly and in accordance with any State requirements. \*)

At surface 1045' FNL & 1070' FWL

At proposed prod zone same

14 Distance in miles and direction from nearest town or post office\*

16 miles from Lindrith, NM

15. Distance from proposed\*

location to nearest  
property or lease line, ft  
(Also to nearest drig unit line, if any)

1045'

16 No. of Acres in lease

320

17. Spacing Unit dedicated to this well

320 (W/2)

18 Distance from proposed location\*

to nearest well, drilling, completed,  
applied for, on this lease, ft

2,000'

19 Proposed Depth

8,482'

20 BLM/BIA Bond No. on file

B001576

21 Elevations (Show whether DF, KDB, RT, GL, etc.)

7,158' GR

22 Approximate date work will start\*

November 1, 2005

23 Estimated duration

1 month

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No 1, shall be attached to this form

1. Well plat certified by a registered surveyor

2. A Drilling Plan

3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).

4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above)

5. Operator certification

6. Such other site specific information and/or plans as may be required by the authorized officer.

25 Signature

Larry Higgins

Name (Printed/Typed)

Larry Higgins

Date

8-8-06

Title

Drilling COM

Approved by (Signature)

ATM

Name (Printed/Typed)

Office

FFO

Date

10/24/07

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon

Conditions of approval, if any, are attached

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

\*(Instructions on reverse)

Williams Production Company, LLC, proposes to drill a vertical well to develop the Blanco M. formation at the above described location in accordance with the attached drilling and surface use plans.

The surface is located on Jicarilla Apache Nation lands.

This location has been archaeologically surveyed by Velarde Energy.

A 1817.1 foot pipeline tie would be required for this location and it is also located on Jicarilla

400' of new access road will be needed to access this well.

Obtain a pit permit from NMOCD  
prior to constructing location

NOTIFY AZTEC OCD 24 HRS.  
PRIOR TO CASING & CEMENT

NMOCD

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1361 W. Grand Avenue, Artesia, NM 88210  
District III  
1060 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 June 10, 2003  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

API Number <b>30-039-30027</b>	Pool Code <b>72319</b>	Pool Name <b>BLANCO MESAVERDE / BASIN DAKOTA</b>
Property Code <b>36210</b>	Property Name <b>Jaeco</b>	Well Number <b>2</b>
OGRID No. <b>120782</b>	Operator Name <b>JAECO</b>	Elevation <b>7158</b>

**10 Surface Location**

UT. or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>D</b>	<b>22</b>	<b>26N</b>	<b>3W</b>		<b>1045</b>	<b>NORTH</b>	<b>1070</b>	<b>WEST</b>	<b>RIO ARriba</b>

**11 Bottom Hole Location If Different From Surface**

UT. or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

" Dedicated Acres <b>320 (W/2)</b>	" Joint or Infill	" Consolidation Code	" Order No.
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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

<p>16.</p> <p>1045'</p> <p>1070'</p> <p>5280.00</p>		5285.58	<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Larry Higgins</i></p> <p>Signature</p> <p><b>LARRY HIGGINS</b></p> <p>Printed Name</p> <p><b>DRILLING COM</b></p> <p>Title and E-mail Address</p> <p><b>8-8-06</b></p> <p>Date</p>
		5284.07	<p>18 SURVEYOR CERTIFICATION</p> <p>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.</p> <p><b>CECIL B. TULLS</b></p> <p>NEW MEXICO</p> <p>9672</p> <p>REGISTERED SURVEYOR</p>



## WILLIAMS PRODUCTION COMPANY

### Operations Plan

(Note: This procedure will be adjusted on site based upon actual conditions)

<b><u>DATE:</u></b>	8/4/2006	<b><u>FIELD:</u></b>	Blanco MV/Basin DK
<b><u>WELL NAME:</u></b>	JAECO 26-3 22 #2	<b><u>SURFACE:</u></b>	<del>BOA</del> BIA
<b><u>BH LOCATION:</u></b>	NWNW Sec 22-26N-3W Rio Arriba, NM	<b><u>MINERALS:</u></b>	Jicarilla Apache
<b><u>ELEVATION:</u></b>	7,158' GR	<b><u>LEASE #</u></b>	MDA #701-02-0014
<b><u>MEASURED DEPTH:</u></b>	8,482'		

**I. GEOLOGY:** Surface formation - San Jose

**A. FORMATION TOPS:** (KB)

Name	MD	Name	MD
Nacimiento	2,497	Cliff House	5,502
Ojo Alamo	3,367	Menefee	5,617
Kirtland	3,552	Point Lookout	5,937
Fruitland	3,597	Mancos	6,222
Pictured Cliffs	3,772	Gallup	6,947
Lewis	3,697	Greenhorn	7,937
Huerfanito Bentonite	4,277	Graneros	8,002
		Dakota	8,047
		Morrison	8,382
		<b>TD</b>	<b>8,482</b>

- B. MUD LOGGING PROGRAM:** Mud log from 300' above Ojo Alamo to TD. Mud logger to pick TD.
- C. LOGGING PROGRAM:** HRI from surface casing to TD. SDL/DSN/DSEN over zones of interest. Onsite geologist to pick intervals.
- D. NATURAL GAUGES:** Gauge any noticeable increases in gas flow. Record all gauges in Tour book and on morning reports.

**II. DRILLING:**

- A. MUD PROGRAM:** Clear water with benex to 7" casing point. Convert to a LSND mud to log and run pipe. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. Notify Engineering of any mud losses. Use air w/Air Hammer from 7 in. csg. to TD.

- B. BOP TESTING:** While drill pipe is in use, the pipe rams and the blind rams will be function tested once each trip. The anticipated reservoir is expected to be less than 1300 psi, so the BOPE will be tested to **250 psi (Low) for 5 minutes** and **1500 psi (High) for 10 minutes**. Utilize a BOPE Testing Unit with a recording chart and appropriate test plug for testing. The drum brakes will be inspected and tested each tour. **All tests and inspections will be recorded in the tour book as to time and results.**

### III. MATERIALS

#### A. CASING PROGRAM:

CASING TYPE	OH SIZE (IN)	DEPTH (MD) (FT)	CASING SIZE (IN)	WEIGHT(LB)	GRADE
Surface	14 3/4	300	10 3/4	32.75	H-40
Intermediate	9 7/8	4,192	7 5/8	26.4	K-55
Longstring	6 3/4	8,482	5 1/2	17	N-80

#### B. FLOAT EQUIPMENT:

- SURFACE CASING:** 10-3/4" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (3) joints of Surface Casing.
- INTERMEDIATE CASING:** 7-5/8" cement nose guide shoe with a self-fill insert float. Place float collar one joint above the shoe. Install (1) Turbulent centralizer on each of the bottom (3) joints and one standard centralizer every (3) joints to 2,500 ft. Run (1) Turbulent centralizer at 2,700 ft., 2,500 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft. (NTL-FRA 90-1).
- PRODUCTION CASING:** 5-1/2" whirler type cement nose guide shoe with a latch collar on top of 20' bottom joint. Place marker joint above 5,400'. Place centralizers as needed across selected production intervals.

### IV. CEMENTING:

*(Note: Volumes may be adjusted onsite due to actual conditions)*

- SURFACE:** Slurry: 255sx (356 cu.ft.) of "Type III" + 2% CaCl<sub>2</sub> + 1/4 # of cello-flake/sk (Yield = 1.39 cu.ft./sk, Weight = 14.5 #/gal.). The 100% excess should circulate cement to the surface. WOC 12 hours. Test csg to 1500psi.
- INTERMEDIATE:** Lead - 730 sx (1522) cu.ft.) of "Type III" 65/35 poz with 8% gel, 1% CaCl<sub>2</sub> and 1/4# cello-flake/sk (Yield = 2.09 cu.ft./sk, Weight = 12.1 #/gal.). Tail - 100 sx (139cu.ft.) of "Type III" with 1/4# cello-flake/sk, and 1% CaCl<sub>2</sub> (Yield = 1.4 cu.ft./sk, Weight = 14.5#/gal.). Use **100% excess in Lead Slurry** to circulate to surface. **No excess in Tail Slurry.** Total volume = 1,661 cu.ft. Bump Plug to 1,500 psi. Notify engineering if cement is not circulated to surface.
- PRODUCTION CASING:** 10 bbl Gelled Water space. Cement: 210 sx (443 ft<sup>3</sup>) of Premium Light HS + 1% FL-52 + .2% CD-32, 0.1% R-3, 3 #/sk CSE, 1/4 #/sk cello flake and 4% Phenoseal. (Yield = 2.15 ft<sup>3</sup>/sk, Weight = 12.3 #/gal.). Displace cement at a minimum of 8 BPM. The 20% excess in lead and tail should cover 100 ft into intermediate casing. Total volume 440ft<sup>3</sup>. WOC 12 hours

**V. IV COMPLETION****A. CBL**

1. Run Cement Bond Log across all intervals to be perforated and find Top of Cement behind all casing strings if cement is not circulated to surface.

**B. PRESSURE TEST**

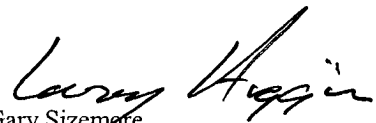
1. Pressure test 5-1/2" casing to 6000 psi for 15 minutes.

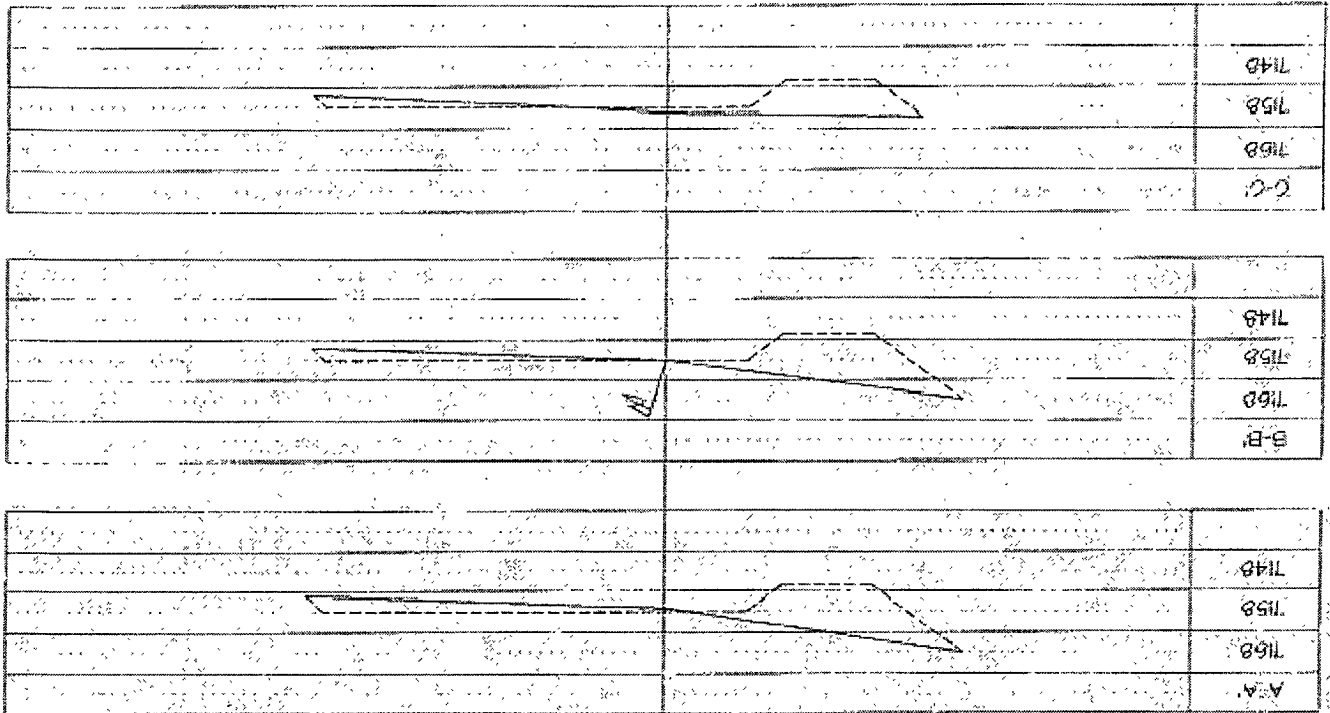
**C. STIMULATION**

1. Stimulate Dakota with approximately 70,000# of 20/40 sand in x-link foam.
2. Isolate Dakota with a RBP.
3. Stimulate Point Lookout with approximately 80,000# of 20/40 sand in slick water.
4. Isolate Point Lookout with a RBP.
5. Perforate the Menefee/Cliff House as determined from the open hole logs.
6. Stimulate with approximately 80,000# of 20/40 sand in slick water.
7. Test each zone before removing bridge plugs

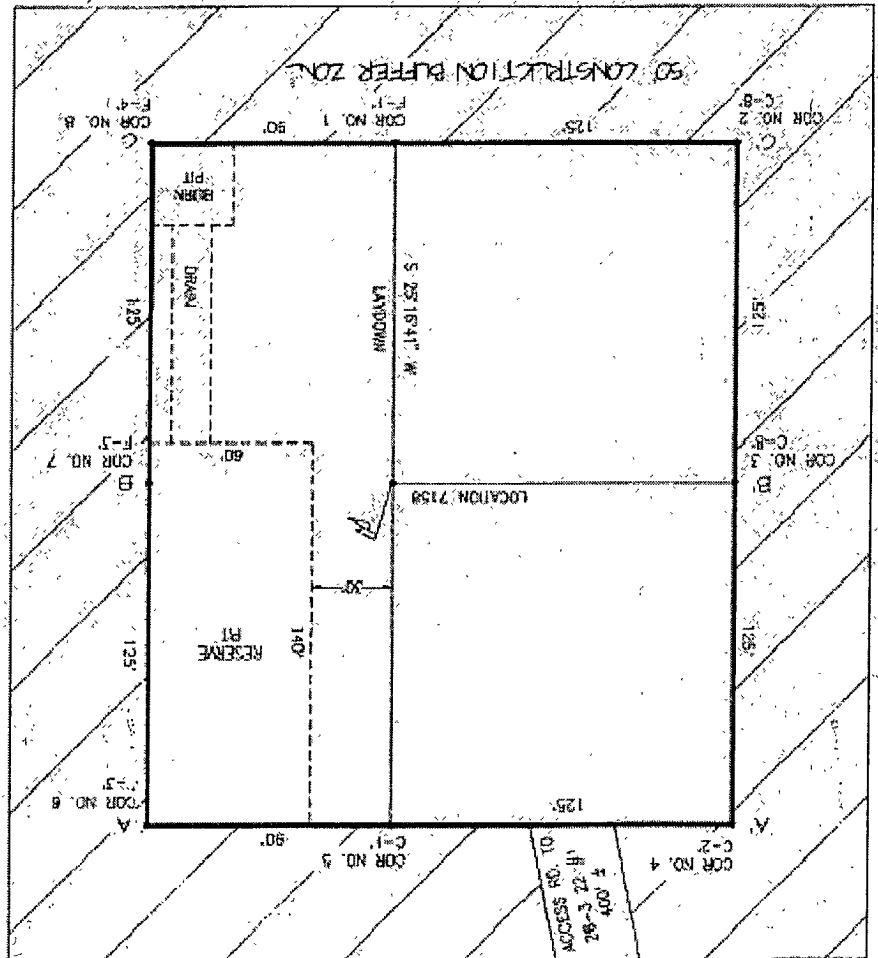
**D. RUNNING TUBING**

1. Dakota: Run 2-1/16", 3.25#, J-55, IJ tubing with 1/2 mule shoe on bottom, SN with pump-out plug on top of adeem joint and 5 Seal Units. Land tubing approximately 100' below top Dakota perf.
2. Mesa Verde: Run 2-1/16", 2.9#, J-55, EUE tubing with a SN (1.91" ID) on top of bottom joint. Land tubing approximately 25' above the bottom Point Lookout perforations.

  
Gary Sizemore  
1502 Sr. Drilling Engineer



LATITUDE: 36.28.35" N  
 LONGITUDE: 107.08.15" W  
 MGS 84  
 VERT. DATUM: NAD 1927



JACO  
 26-3-22 #2  
 1045 ENL & 1070 F/WL  
 SECTION 22 T36N R3W NMPM  
 RIO ARriba COUNTY, NEW MEXICO  
 ELEVATION: 7158

# Well Control Equipment Schematic for 2M Service

Attachment to Drilling Technical Program

## Exhibit #1 Typical BOP setup

Location: San Juan Basin, New Mexico

Date: August 20, 2001

By: John Thompson (Walsh E&P)

