

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

5 Lease Serial No
Jicarilla Apache Contract #60
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
Indian H #4A

9 APL Well No
30-039-30163

10 Field and Pool, or Exploratory
Blanco MV

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

L Section 22, T28N R3W

12 County or Parish
Rio Arriba
13 State
NM

1a Type of Work ☒ DRILL ☐ REENTER

070 FARMINGTON NM

1b Type of Well ☐ Oil Well ☒ Gas Well ☐ Other ☒ 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 2065' FSL & 820' 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 drng unit line, if any) 820'

16 No of Acres in lease

320

17 Spacing Unit dedicated to this well

320 W/2
460 (SW 1/4)

RCVD NOV 4 '08
OIL CONS. DIV.

18 Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft

2900'

19 Proposed Depth

6,330'

20 BLM/BIA Bond No on file

B001576

DIST. 3

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

6,956' GR

22 Approximate date work will start*

April 1, 2007

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

1-17-07

Title

Drilling COM

Approved by (Signature)

[Signature]

Name (Printed/Typed)

Office

FFO

Date

10/31/08

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 Mesa Verde 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 1867 2 foot pipeline tie would be required for this location and it is also located on Jicarilla Apache Nation Lands

1867' new access road will be needed to access this well.

A COMPLETE C-144 MUST BE SUBMITTED TO AND
APPROVED BY THE NMOC FOR: A PIT, CLOSED
LOOP SYSTEM, BELOW GRADE TANK, OR
PROPOSED ALTERNATIVE METHOD, PURSUANT TO
NMOC PART 19.15.17, PRIOR TO THE USE OR
CONSTRUCTION OF THE ABOVE APPLICATIONS.

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS".

This action is subject to technical and
procedural review pursuant to 43 CFR 3165.3
and appeal pursuant to 43 CFR 3165.4

NOV 07 2008

NMOC

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

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 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 30039-301103		Pool Code 72319	Pool Name BLANCO MESAVERDE
Property Code 17030	Property Name INDIAN H		Well Number 4A
OCRID No. 120782	Operator Name WILLIAMS PRODUCTION COMPANY		Elevation 6956

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
L	22	28N	3W		2065	SOUTH	820	WEST	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				
<table border="1"> <tr> <td>Dedicated Acres 320 W/2</td> <td>Joint or Infill</td> <td>Consolidation Code</td> <td>Order No.</td> </tr> </table>										Dedicated Acres 320 W/2	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

16 5284.56 820' 2065' SECTION 22 5272.16 5271.54	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature: <i>Larry Higgins</i> Printed Name: LARRY HIGGINS Title and E-mail Address: DRILLING COM Date: 1-17-07	
	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. Date of Survey: MARCH 26, 2006 Signature and Seal of Surveyor: <i>Cecil B. Tuley</i> Registered Professional Surveyor State of New Mexico Certificate No. 5672	



WILLIAMS PRODUCTION COMPANY

Operations Plan

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

DATE: 10/25/2006 **FIELD:** Blanco MV
WELL NAME: Indian H #4A **SURFACE:** BIOA
BH LOCATION: NWSW Sec 22-28N-3W **MINERALS:** Jicarilla #60
Rio Arriba, NM
ELEVATION: 6,956' GR **LEASE #** Jicarilla #60
MEASURED DEPTH: 6,330'

I. GEOLOGY: Surface formation - San Jose

A. FORMATION TOPS: (KB)

Name	MD	Name	MD
Nacimiento	2,040	Cliff House	5,555
Ojo Alamo	3,185	Menefee	5,610
Kirtland	3,340	Point Lookout	5,880
Fruitland	3,340	Mancos	6,195
Picture Cliffs	3,520	TD	6,330
Lewis	3,820		
Huerfano Bentonite	4,370		

- B. MUD LOGGING PROGRAM:** Mud log from 300' above Ojo Alamo SS to TD. Mud logger to pick TD.
- C. LOGGING PROGRAM:** High Resolution Induction log from surface casing to TD. SDL/DSN/DSN over zones of interest. Onsite geologist will pick Density/ Neutron log interval.
- 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	12 1/4	300	9 5/8	36	K-55
Intermediate	8 3/4	4,015	7	20	K-55
Liner	6 1/4	3,915 6,330	4 1/2	10.5	J-55

B. FLOAT EQUIPMENT:

1. SURFACE CASING: 9-5/8" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (3) joints of Surface Casing.
2. INTERMEDIATE CASING: 7" 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**).
3. PRODUCTION CASING: 4-1/2" 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)

1. SURFACE: Slurry: 150sx (205 cu.ft.) of "Type III" + 2% CaCl₂ + 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.
2. INTERMEDIATE: Lead - 510 sx (1067 cu.ft.) of "Premium Light" with 8% gel, 1% CaCl and 1/4# cello-flake/sk (Yield = 2.09 cu.ft./sk, Weight = 12.1 #/gal.). Tail - 50 sx (70cu.ft.) of "Type III" with 1/4# cello-flake/sk (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 = 1,137 cu.ft. Bump Plug to 1,500 psi. Notify engineering if cement is not circulated to surface.
3. PRODUCTION LINER: 10 bbl Gelled Water spacer. Cement: 145 sx (310 ft³) 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 ft³/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 310 ft³. 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 7" & 4-1/2" casing to 3300# for 15 minutes.

C. STIMULATION

1. Perforate the Point Lookout as determined from the open hole logs.
2. Stimulate with approximately 9,300# of 14/30 LiteProp™ sand in slick water.
3. Isolate Point Lookout with a CIBP.
4. Perforate the Menefee/Cliff House as determined from the open hole logs.
5. Stimulate with approximately 9,300# of 14/30 LiteProp™ sand in slick water.
6. Test each zone before removing bridge plugs.

D. RUNNING TUBING

1. Mesa Verde: Run 2-3/8", 4.7#, J-55, EUE tubing with a SN (1.91" ID) on top of bottom joint. Land tubing approximately 25' above the bottom Point Lookout perforation.


15012 Gary Sizemore
Sr. Drilling Engineer

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)

