Form 3160-3
(September 2001)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

2008 AUG 17 AM 9 28

RECEIVED
070 FARMINGTON NM

1a Type of Work ☒ DRILL ☐ REENTER	5 Lease Serial No. Jicarilla Apache Contract #60
	6 If Indian, Allottee or Tribe Name Jicarilla Apache Nation
1b Type of Well ☐ Oil Well ☒ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone	7 If Unit or CA Agreement, Name and No
	8 Lease Name and Well No Indian H #1A
2 Name of Operator Williams Production Company, LLC	9. API Well No 30-039-30033
3a Address P.O. Box 640 Aztec, NM 87410 / 3b Phone No (include area code) (505) 634-4208	10 Field and Pool, or Exploratory Blanco MV
4 Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 990' FNL & 2000' FWL; At proposed prod zone same	11. Sec T, R, M., or Blk. and Survey or Area C Section 15, T28N R3W
14 Distance in miles and direction from nearest town or post office* 16 miles from Lindrith,NM	12 County or Parish Rio Arriba / 13 State NM
15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig unit line, if any) 635' / 16 No of Acres in lease 320 / 17 Spacing Unit dedicated to this well 320 (W/2)	RCVD NOV 4 '08 OIL CONS. DIV.
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft 2640' / 19 Proposed Depth 6,478' / 20 BLM/BIA Bond No on file B001576	DIST. 3
21 Elevations (Show whether DF, KDB, RT, GL, etc) 7,074' 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 8-16-06
Title Drilling COM		
Approved by (Signature) /s/ Jim Lovato	Name (Printed/Typed)	Date 10/31/08
Title AFM	Office FFO	

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.

4419 7 foot pipeline tie would be required for this location and it is also located on Jicarilla Apache Nation Lands

4000' new access road will be needed to access this well.

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

NOV 07 2008

HOLD C104 FOR NSL

NMOCD

NOTIFY AZTEC OCD 24 HRS. PRIOR TO CASING & CEMENT

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

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	Pool Code	Pool Name
30-039-30033	72319	BLANCO MESA VERDE

Property Code	Property Name	Well Number
17030	INDIAN H	1A

OGRID No.	Operator Name	Elevation
120782	WILLIAMS PRODUCTION COMPANY	7074

Surface Location

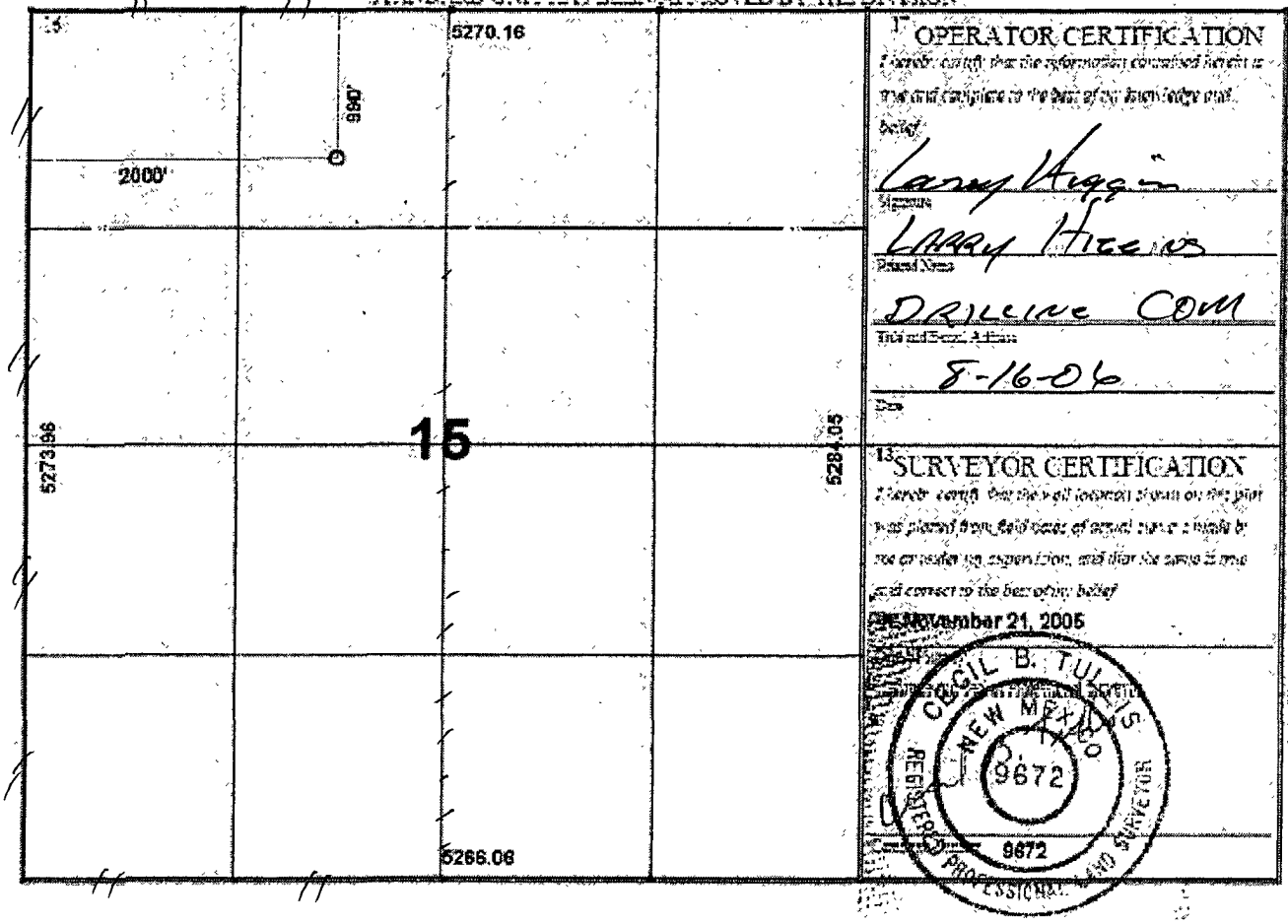
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	15	28N	3W		990	NORTH	2000	WEST	RIO ARRIBA

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

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320 Ac. (W2)			

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

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature: Larry Higgins

Printed Name: LARRY HIGGINS

Title and E-mail Address: DRILLING COM

Date: 8-16-06

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 Surveyed: November 21, 2005

Signature & Seal of Professional Surveyor: CECIL B. TULL, NEW MEXICO, 9672, REGISTERED PROFESSIONAL LAND SURVEYOR

Certificate Number: 9672

WILLIAMS PRODUCTION COMPANY

Operations Plan

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

DATE:	6/12/2006	**FIELD:**	Blanco MV
WELL NAME:	Indian H #1A	**SURFACE:**	BOIA
BH LOCATION:	NENW Sec 15-28N-3W Rio Arriba, NM	**MINERALS:**	Jicarilla #60
ELEVATION:	7,074' GR	**LEASE #**	Jicarilla #60
MEASURED DEPTH:	**6,478'**		

I. GEOLOGY: Surface formation - San Jose

A. FORMATION TOPS: (KB)

Name		MD		Name		MD
Ojo Alamo		3,373		Cliff House		5,708
Kirtland		3,513		Menefee		5,768
Fruitland		3,513		Point Lookout		6,028
Picture Cliffs		3,678		Mancos		6,363
Lewis		3,953		**TD**		**6,478**

B. MUD LOGGING PROGRAM: Mudlogger on location at 3,200' to intermediate casing TD and intermediate casing to TD.

C. LOGGING PROGRAM: High Resolution Induction/ GR and Density/ Neutron log from surface casing to intermediate casing and intermediate shoe to TD. Onsite geologist will pick Density/ Neutron log intervals on both logging runs.

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	4,173		7	20	K-55
Liner	6 1/4	4,073	6,478	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" & 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)

1. SURFACE: Slurry: 150sx (205 cu.ft.) of "Type III" + 2% $CaCl_2$ + ¼ # 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 - 535 sx (1,114 cu.ft.) of "Premium Light" with 8% gel, 1% $CaCl_2$ 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 = 1,184 cu.ft. Bump Plug to 1,500 psi. Notify engineering if cement is not circulated to surface.

3. PRODUCTION LINER: 10 bbl Gelled Water space. Lead: 50sx (130ft^3) of Premium Light HS + 1% FL-52 + .2% CD-32, 0.1% R-3, 3 #/sk CSE. (Yield = 2.59 cu.ft./sk, Weight = 11.6 #/gal.). Tail: 100 sx (215 ft^3) of Premium Light HS + 1% FL-52 + .2% CD-32, 0.1% R-3, 3 #/sk CSE, ¼ #/sk cello flake and 4% Phenoseal. (Yield = 2.15 ft^3/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 ~~326~~ 345 ft^3. 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.

Gary Sizemore
FOR Sr. Drilling Engineer

Well Control Equipment Schematic for 2M Service

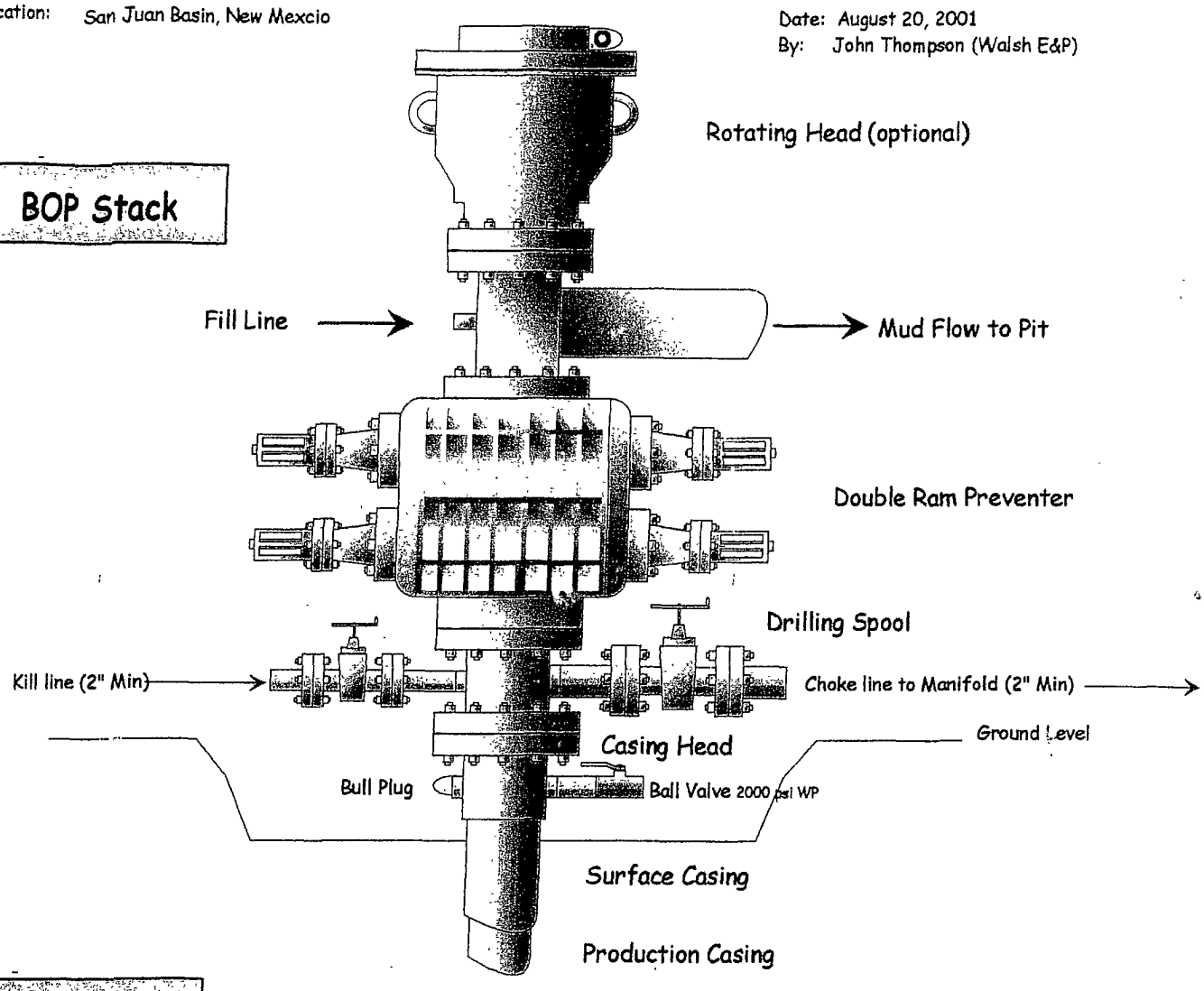
Attachment to Drilling Technical Program

Exhibit #1
Typical BOP setup

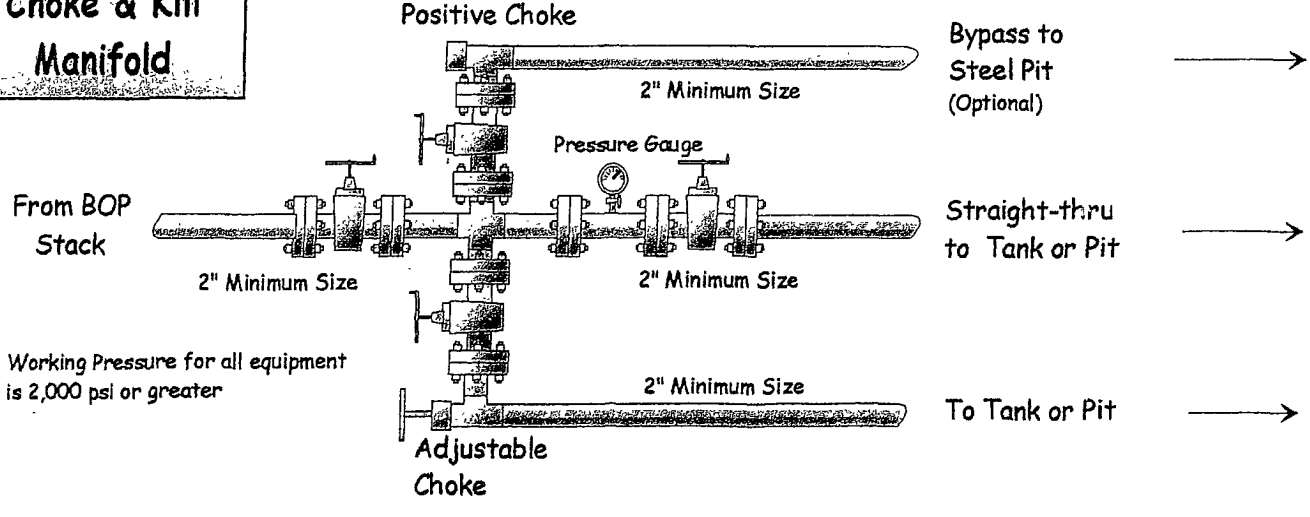
Location: San Juan Basin, New Mexcio

Date: August 20, 2001
By: John Thompson (Walsh E&P)

BOP Stack



Choke & Kill Manifold



Working Pressure for all equipment is 2,000 psi or greater