

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

b. TYPE OF WELL

OIL
WELL ☐

GAS
WELL ☒

OTHER

SINGLE
ZONE ☒

MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

Williams Production Company

3. ADDRESS AND TELEPHONE NO.

P.O. Box 316—Ignacio, Colorado 81137-0316

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*

At surface

1,970' FSL, 660' FEL

NE/4 SE/4

At proposed prod. zone

1,970' FSL, 660' FEL

NE/4 SE/4

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

15. DISTANCE FROM PROPOSED*
LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drig. unit line, if any)

660'

16. NO. OF ACRES IN LEASE

320

17. NO. OF ACRES ASSIGNED
TO THIS WELL

320 acres E/2

18. DISTANCE FROM PROPOSED
LOCATION TO NEAREST WELL,
DRILLING, COMPLETED, OR
APPLIED FOR, ON THIS LEASE, FT.

N/A

19. PROPOSED DEPTH

+/- 8,092'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

6,638' GR

22. APPROX. DATE WORK WILL START*

December 1, 2004

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
14-3/4"	10-3/4" H-40	32.75#	+/- 300'	255 sacks Type III cement + 2% CaCl ₂ + 1/4 #/sk. Cello-Flakes
9-7/8"	7-5/8" K-55	26.4#	+/- 2,757'	450 sacks Lead and 100 sacks Tail (see Drilling Plan)
6-3/4"	5-1/2" N-80	17#	+/- 7,732'	50 sacks Lead and 235 sacks Tail (see Drilling Plan)

Bond Information:

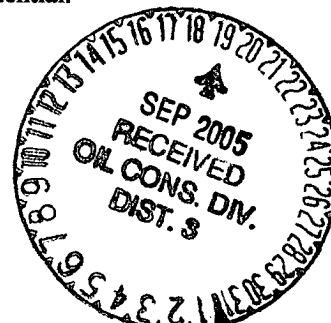
Other Information:

Drilling Plan and Surface Use Plan are attached.

Williams requests that this complete application for permit to drill be held confidential.

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



IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED Don Hamilton Don Hamilton TITLE Agent for Williams

DATE October 28, 2004

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

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:

APPROVED BY Wayne Courssand

TITLE Acting AFM

DATE 9-1-05

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency or the

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
PO Drawer 00, Artesia, NM 88211-0719

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

District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
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 72319 \ 71599	*Pool Name BLANCO MESAVERDE \ BASIN DAKOTA
*Property Code 35110	*Property Name NM 32-11 COM	*Well Number 2B
*GRID No. 120782	*Operator Name WILLIAMS PRODUCTION COMPANY	*Elevation 6638'

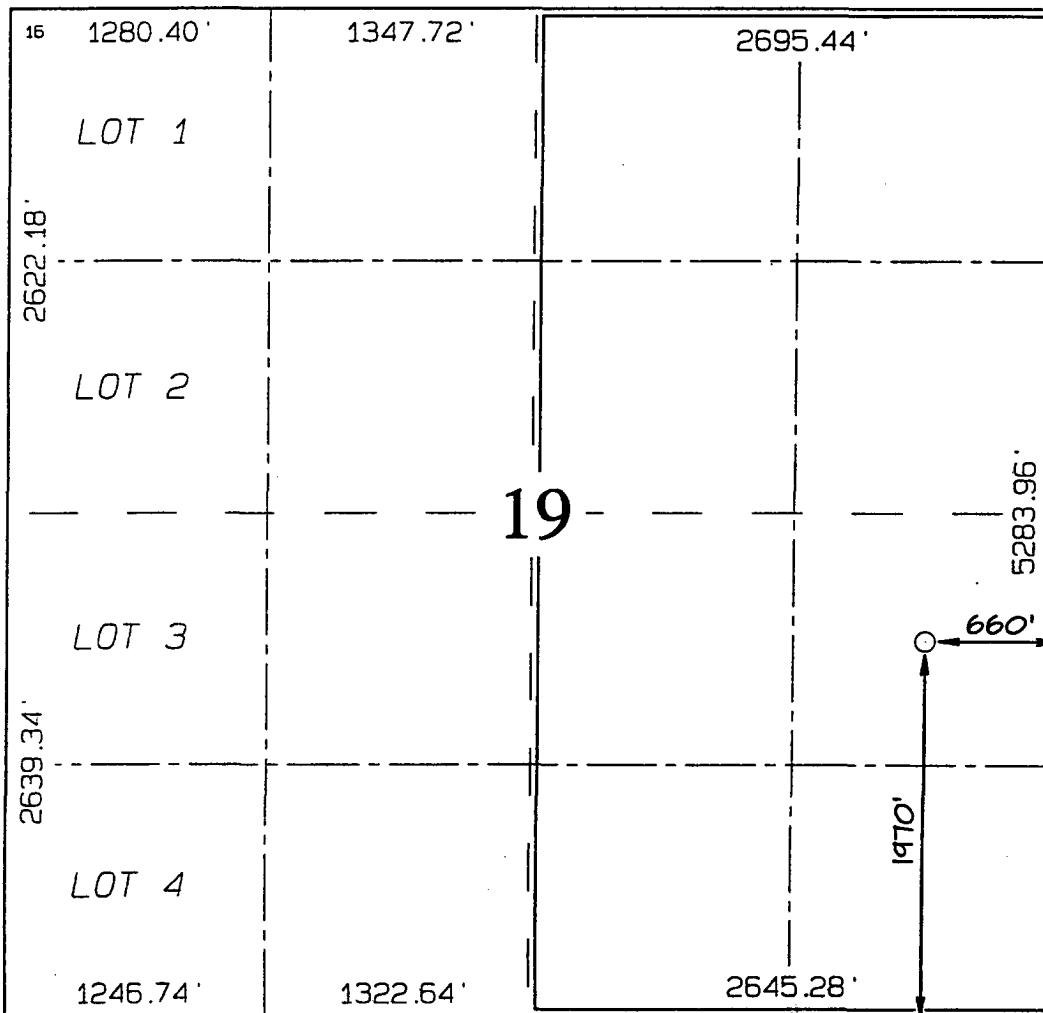
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	19	32N	11W		1970	SOUTH	660	EAST	SAN JUAN

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

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



¹⁷ OPERATOR CERTIFICATION

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

Don Hamilton
Signature

Don Hamilton
Printed Name

Agent for Williams
Title

10-28-04
Date

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: MAY 13, 2004

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

Submit 3 Copies To Appropriate District
Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., 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 and Natural Resources

Form C-103
May 27, 2004

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

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO.
1. Type of Well: Oil Well Gas Well <input checked="" type="checkbox"/> Other		5. Indicate Type of Lease Federal NM 031910
2. Name of Operator Williams Production Company		6. State Oil & Gas Lease No.
3. Address of Operator P.O. Box 316, Ignacio, CO 81137		7. Lease Name or Unit Agreement Name New Mexico 32-11 Com
4. Well Location Unit Letter <u>L</u> <u>1970</u> feet from the <u>South</u> line and <u>660</u> feet from the <u>East</u> line Section <u>19</u> Township <u>32N</u> Range <u>11W</u> NMPM County <u>San Juan</u>		8. Well Number <u>#2B</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) <u>6638' GR</u>		9. OGRID Number <u>120782</u>
Pit or Below-grade Tank Application <input checked="" type="checkbox"/> or Closure		10. Pool name or Wildcat Blanco MV
Pit type <u>Drilling</u> Depth to Groundwater <u>>50'</u> Distance from nearest fresh water well <u>>1000'</u> Distance from nearest surface water <u>>1000'</u>		
Pit Liner Thickness <u>12</u> mil Below-Grade Tank: Volume <u>10,971</u> bbls; Construction Material		

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:
PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐

SUBSEQUENT REPORT OF:
REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

OTHER: ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒ a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Don Hamilton TITLE Agent DATE October 28, 2004

Type or print name Don Hamilton E-mail address: starpoin@etv.net Telephone No. (970) 739-0513

For State Use Only

APPROVED BY: [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 4 DATE SEP 19 2005

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

Form C-144
June 1, 2004

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☒ No ☐

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: Williams Production Company Telephone: (970)563-3308 e-mail address: larry.higgins@williams.com

Address: P.O. Box 316 - Ignacio, CO 81137-0316

Locality or well name: New Mexico 32-11 Com #2B API #: _____ U/L or Qtr/Qtr L Sec 19 T32N R11W

County: San Juan Latitude _____ Longitude _____ NAD: 1927 ☐ 1983 ☐ Surface Owner Federal ☐ State ☐ Private ☒ Indian ☐

Pit type: Drilling ☐ Production ☒ Disposal ☐
Workover ☐ Emergency ☐
Lined ☒ Unlined ☐
Liner type: Synthetic ☒ Thickness 20 mil Clay ☐
Initial Volume _____ bbl

Below-grade tank

Volume: 120 bbl Type of fluid: Produced water
Construction material: Fiberglass
Double-walled, with leak detection? Yes ☒ If not, explain why not.

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet	(20 points)
	50 feet or more, but less than 100 feet <input checked="" type="checkbox"/>	(10 points)
	100 feet or more	(0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes	(20 points)
	No <input checked="" type="checkbox"/>	(0 points)
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet	(20 points)
	200 feet or more, but less than 1000 feet	(10 points)
	1000 feet or more <input checked="" type="checkbox"/>	(0 points)
Ranking Score (Total Points)		10

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite ☐ offsite ☐ If offsite, name of facility _____. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface _____ ft. and attach sample results. (5)

Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:

Below-grade tank to be located approximately 50 ft from the wellhead

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒ a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: 10-28-04

Printed Name/Title Don Hamilton, Agent

Signature Don Hamilton

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Printed Name/Title

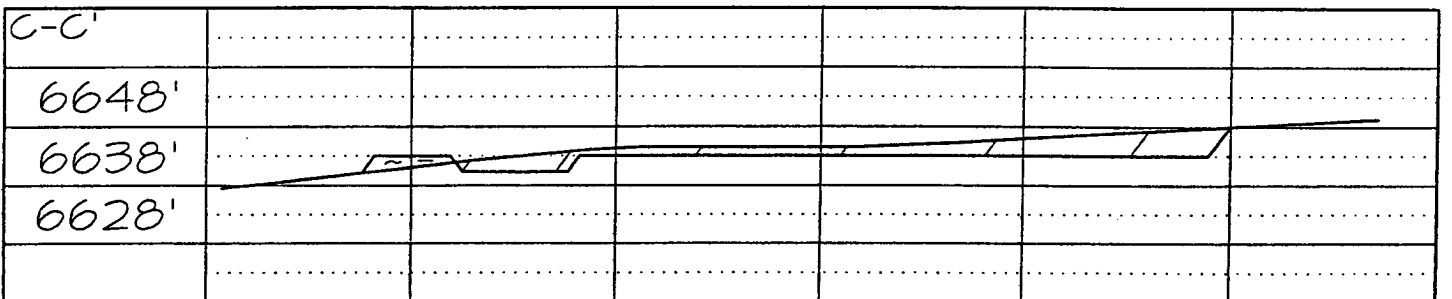
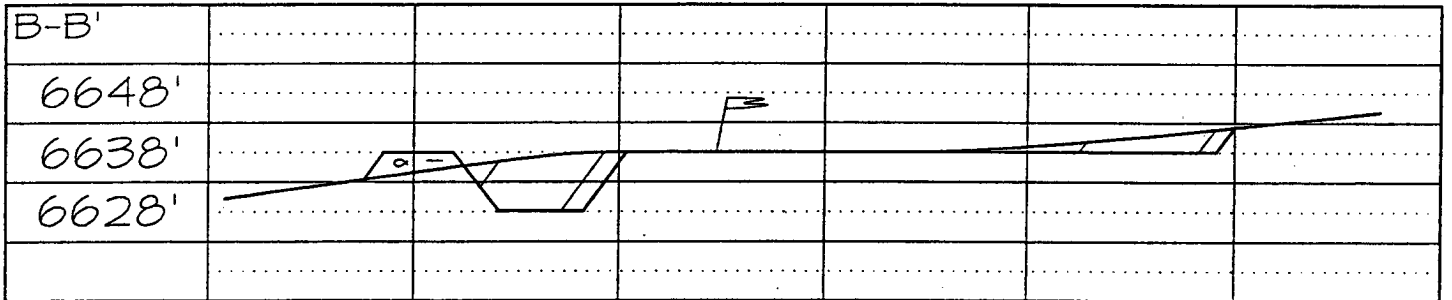
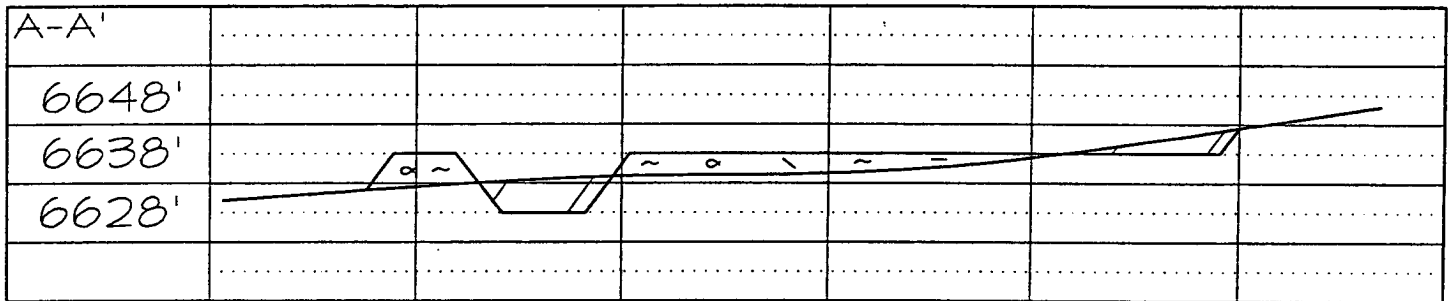
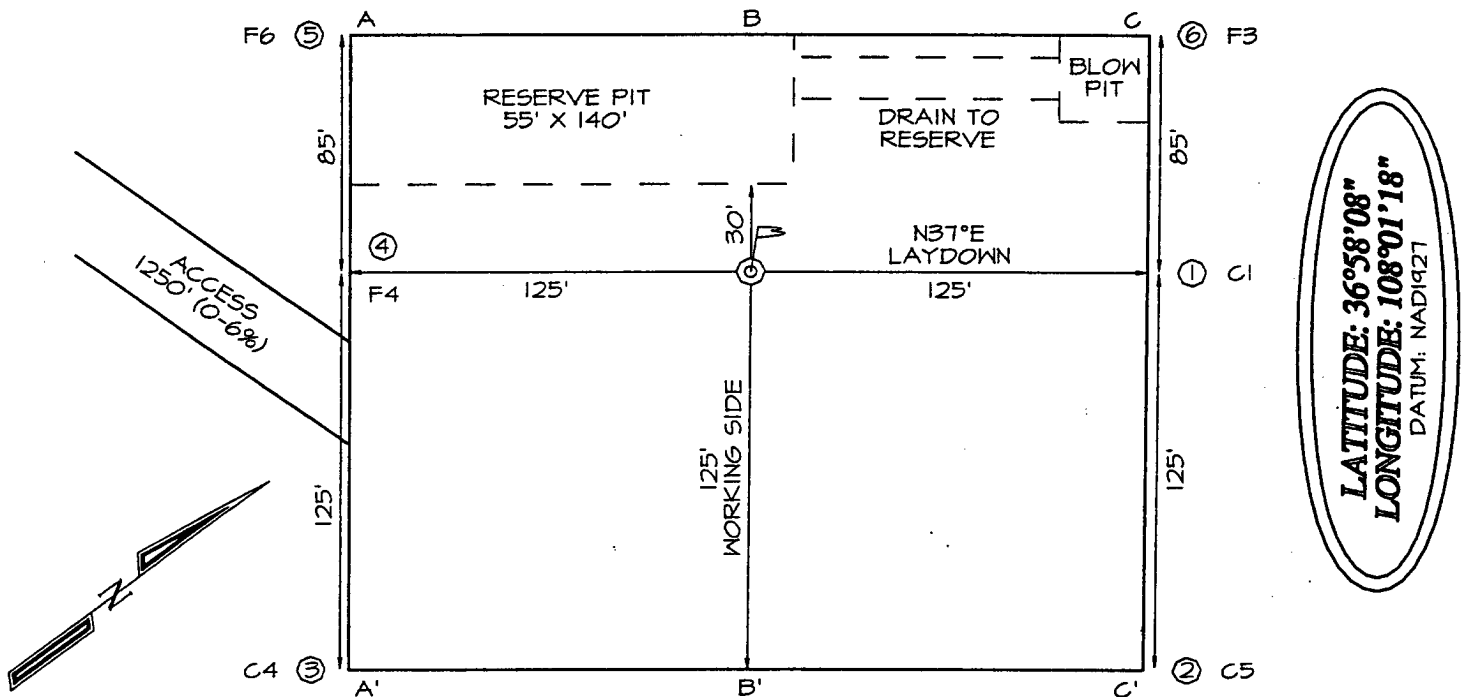
Signature

DEPUTY OIL & GAS INSPECTOR, DIST. 4

Date:

SEP 19 2005

WILLIAMS PRODUCTION COMPANY NO. 32-11 COM #2B
1970' FS & 660' FEL, SECTION 19, T32N, R11W, NMPM
SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6638'





WILLIAMS PRODUCTION COMPANY

Operations Plan

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

<u>DATE:</u>	10/28/2004	<u>FIELD:</u>	BasinDK/BlancoMV
<u>WELL NAME:</u>	New Mexico 32-11 COM #2B	<u>SURFACE:</u>	Kennon A. Decker
<u>BH LOCATION:</u>	NESE Sec 19-32N-11W San Juan, NM	<u>MINERALS:</u>	FED
<u>ELEVATION:</u>	6,638' GR	<u>LEASE #</u>	NM-010910
<u>MEASURED DEPTH:</u>	8,092'		

I. GEOLOGY: Surface formation - San Jose

A. FORMATION TOPS: (KB)

Name	MD	Name	MD
Ojo Alamo	1,437	Cliff House	5,042
Kirtland	1,497	Menefee	5,192
Fruitland	2,852	Point Lookout	5,582
Picture Cliffs	3,272	Mancos	5,912
Lewis	3,452	Gallup	6,947
Huerfanito	3,957	Greenhorn	7,652
		Graneros	7,712
		Dakota	7,777
		Morrison	8,042
		TD	8,092

- B. MUD LOGGING PROGRAM:** Mud logger on location from approximately 3,000' to intermediate casing point.
- C. LOGGING PROGRAM:** High Resolution Induction/ GR and Density/ Neutron log from surface to intermediate casing point and High Resolution Induction/ GR and Density/ Neutron log over zones of interest. Cased hole logs over Dakota/ Morrison Onsite geologist will pick Density/ Neutron log intervals 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 rams will be tested to 1500 psi. The surface and intermediate casing strings will be pressure tested to 1500 psi in conjunction with the BOP test before drilling out cement. The drum brakes will be inspected and tested each tour. All tests, inspections and SPR's will be recorded in the tour book as to time and results.

III. MATERIALS

A. **CASING PROGRAM:**

<u>CASING TYPE</u>	<u>HOLE SIZE</u>	<u>DEPTH (MD)</u>	<u>CASING SIZE</u>	<u>WT. & GRADE</u>
Surface	14-3/4"	+/- 300'	10-3/4"	32.75# H-40
Intermediate	9-7/8"	+/-2,757'	7-5/8"	26.4# K-55
Prod. Casing	6-3/4"	+/- 7,732'	5-1/2"	17.0# N-80
Production Liner	4-3/4"	+/-8,092'	3-1/2"	9.3#

B. **FLOAT EQUIPMENT:**

1. **SURFACE CASING:** 9-5/8" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (4) 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 LINER / CASING:** 3-1/2" & 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.

C. CEMENTING:

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

1. SURFACE: Slurry: 255sx (356 cu.ft.) of "Type III" + 2% CaCl_2 + $\frac{1}{4}$ # 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 - 450 sx (906) cu.ft.) of "Type III" 65/35 poz with 8% gel, 1% CaCl_2 and $\frac{1}{4}$ # cello-flake/sk (Yield = 2.09 cu.ft./sk, Weight = 12.1 #/gal.). Tail - 100 sx (139cu.ft.) of "Type III" with $\frac{1}{4}$ # cello-flake/sk, and 1% CaCl_2 (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 = 1,045 cu.ft. Bump Plug to 1,500 psi. Notify engineering if cement is not circulated to surface.
3. PRODUCTION CASING: 10 bbl Gelled Water space. Scavenger: 50sx (130ft³) of Premium Light HS + 1% FL-52 + .2% CD-32, 0.1% R-3, 3 #/sk CSE, $\frac{1}{4}$ #/sk cello flake and 4% Phenoseal. (Yield = 2.59 cu.ft./sk, Weight = 11.6 #/gal.). Cement: 235 sx (508 ft³) of Premium Light HS + 1% FL-52 + .2% CD-32, 0.1% R-3, 3 #/sk CSE, $\frac{1}{4}$ #/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 508ft³. WOC 12 hours
4. PRODUCTION LINER: 10 bbl Gelled Water space. Cement: 50 sx (100 ft³) of Premium Light HS + 1% FL-52 + .2% CD-32, 0.1% R-3, 3 #/sk CSE, $\frac{1}{4}$ #/sk cello flake. (Yield = 2.15 ft³/sk, Weight = 12.3 #/gal.). Displace cement at a minimum of 8 BPM. The 20% excess should cover 100 ft above liner top. Total volume 100ft³. WOC 12 hours

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 not circulated to surface..

B. PRESSURE TEST

1. Pressure test 7 5/8" & 5-1/2" casing to 3300# 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.



Well Control Equipment Schematic for 2M Service

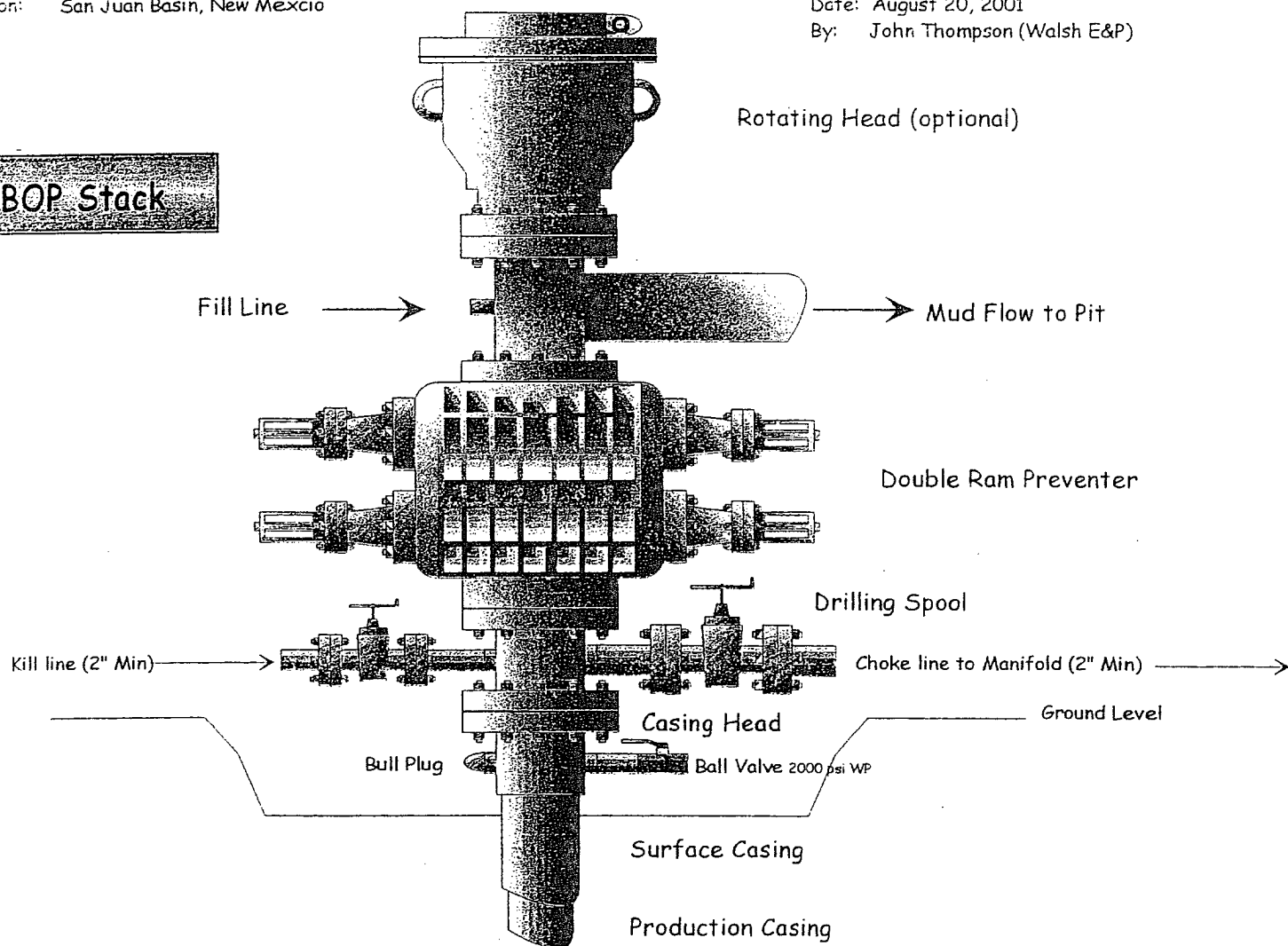
Typical BOP setup

Location: San Juan Basin, New Mexico

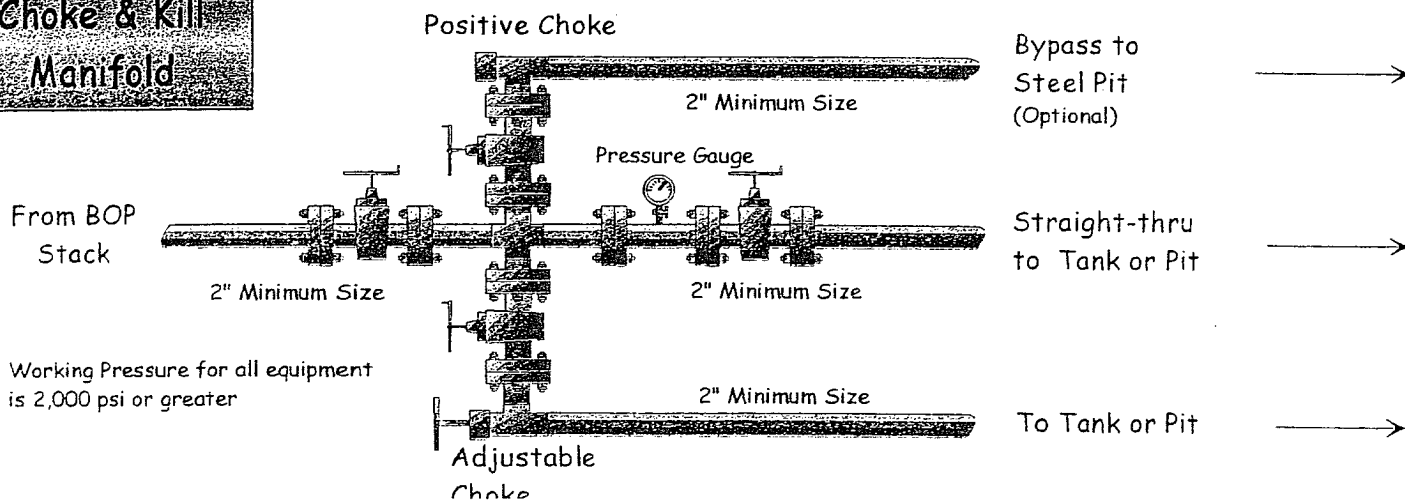
Date: August 20, 2001

By: John Thompson (Walsh E&P)

BOP Stack



Choke & Kill Manifold



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