

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

RECEIVED
BLM

04 AUG 20 AM 9:11
010 ALBUQUERQUE, N.M.

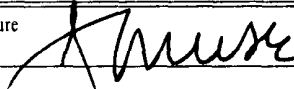
FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

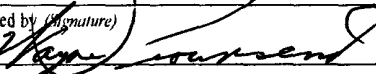
1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. Jicarilla Contract #97
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name Jicarilla Apache Tribe
2. Name of Operator PATINA OIL AND GAS		7. If Unit or CA Agreement, Name and No. 3003929327
3a. Address 5802 US HIGHWAY 64 FARMINGTON, NEW MEXICO 87401		8. Lease Name and Well No. Jicarilla C 11-25
3b. Phone No. (include area code) 505-632-8056		9. API Well No.
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 2120' FSL, 1120' FEL At proposed prod. zone SAME		10. Field and Pool, or Exploratory BASIN FRUITLAND COAL
14. Distance in miles and direction from nearest town or post office* 21 MILES SOUTH OF DULCE, NEW MEXICO		11. Sec., T. R. M. or Blk. and Survey or Area 1" SEC. 11-T26N-R4W
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1120'	16. No. of acres in lease 320+	17. Spacing Unit dedicated to this well E/2 320 ACRES
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 50'	19. Proposed Depth 3750'	20. BLM/BIA Bond No. on file LPM4138289 Fidelity & Deposit Co. of Maryla
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6885' GR	22. Approximate date work will start* 09/15/2004	23. Estimated duration 8 days

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. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 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). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature 	Name (Printed/Typed) JEAN M. MUSE	Date 08/19/2004
Title REGULATORY/ENGINEERING TECHNICIAN		

Approved by (Signature) 	Name (Printed/Typed) Wayne Townsend	Date 7/25/05
Title Acting 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 page 2)

NMOC

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

District II
PO Drawer DD, 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 30-039-29327		*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Property Code 34985	*Property Name JICARILLA C 11		*Well Number 25
*OGRID No. 173252	*Operator Name PATINA SAN JUAN, INC.		*Elevation 6885'

¹⁰ Surface Location

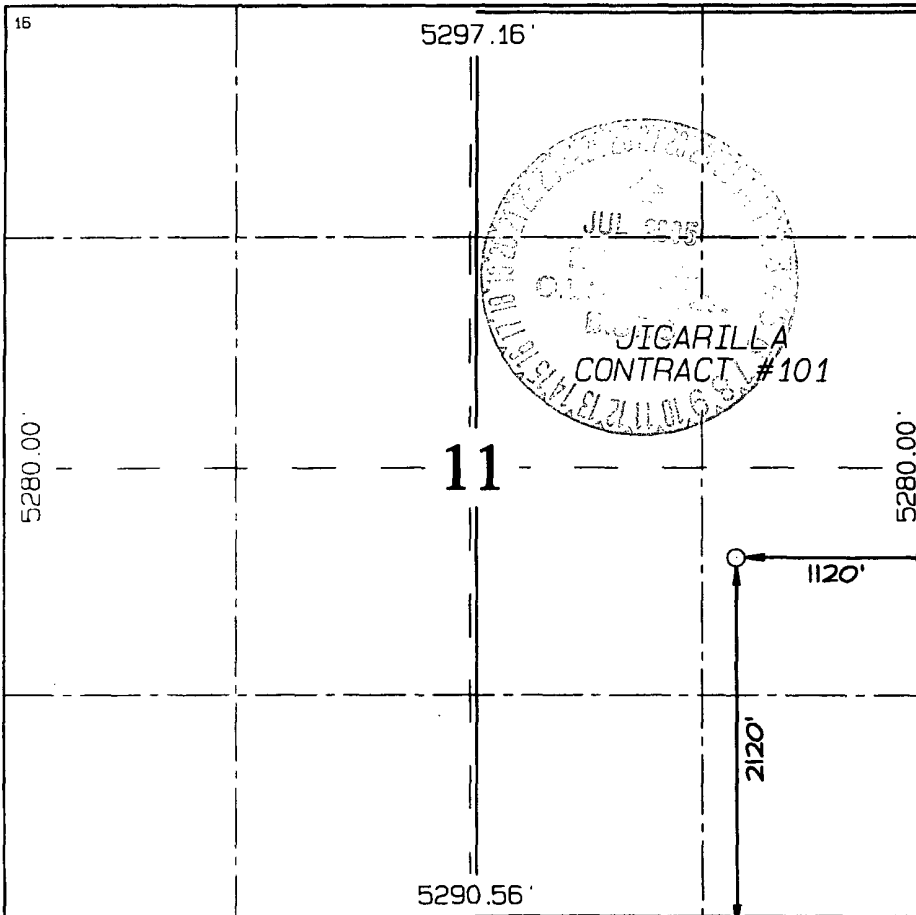
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	11	26N	4W		2120	SOUTH	1120	EAST	RIO ARriba

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

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

[Signature]
Signature

JEAN M. MUSE
Printed Name

Regulatory/Engr Tech
Title

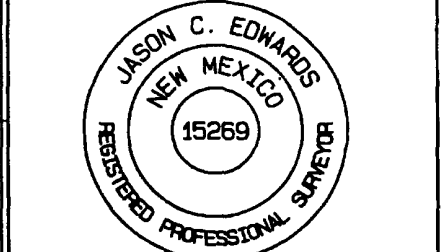
8/29/04
Date

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: **AUGUST 5, 2004**

Signature and Seal of Professional Surveyor

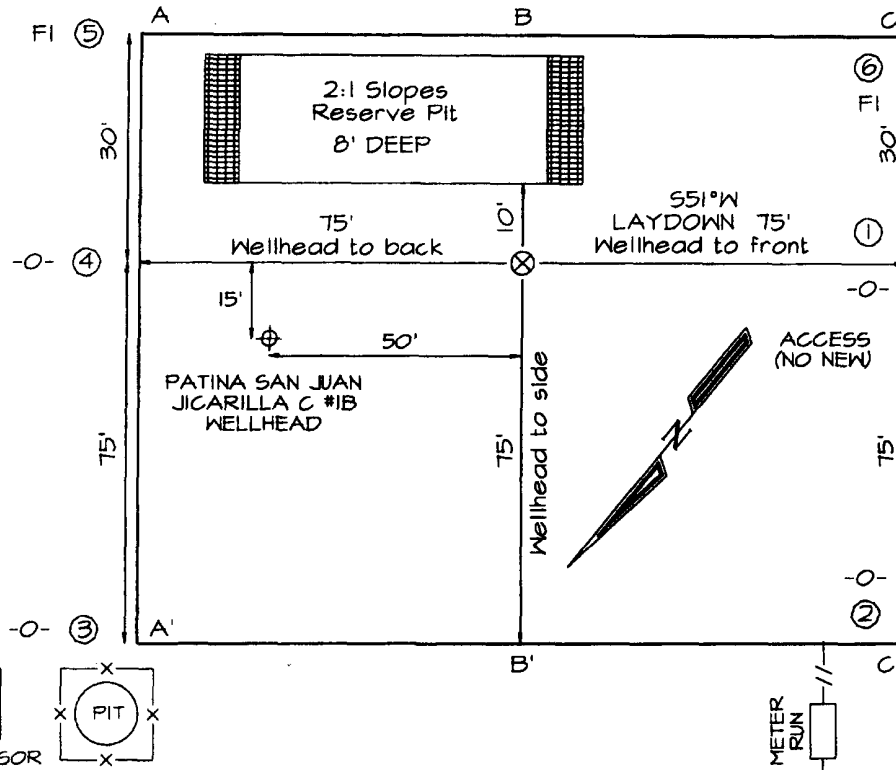
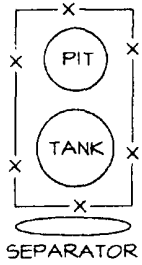


JASON C. EDWARDS
Certificate Number 15269

PATINA SAN JUAN, INC. JICARILLA C 11 #25
2120' FSL & 1120' FEL, SECTION 11, T26N, R4W, NMPM
RIO ARriba COUNTY, NEW MEXICO ELEVATION: 6885'

EDGE OF EXISTING WELLPAD

LATITUDE: 36°29'59"
LONGITUDE: 107°12'55"
 DATUM: NAD1927



A-A'					
6895'					
6885'					
6875'					

B-B'					
6895'					
6885'					
6875'					

C-C'					
6895'					
6885'					
6875'					

Note: Contractor should call One-Call for location of any marked or unmarked buried pipelines or cables on well pad and/or access road at least two (2) working days prior to construction

Operations Plan
Patina San Juan, Inc.
Jicarilla C #11-25
Rio Arriba County, New Mexico

1. LOCATION:

2120' FSL 1120' FEL (NE SE)
Section 11, T26N, R4W
Rio Arriba County, New Mexico

Field: Basin Fruitland Coal
Surface: Jicarilla Apache Tribe
Minerals: Jicarilla Contract #97

2. SURFACE FORMATION, ESTIMATED TOPS AND WATER, OIL, GAS OR MINERAL BEARING FORMATIONS (TVD):

Surface formation – San Jose

<i>Formation</i>	<i>Depth</i>
Fruitland**	3250'
Pictured Cliffs ***	3536'
TD	3750'

Legend: * Freshwater bearing formation
 ** Possible hydrocarbon bearing formation
 *** Probable hydrocarbon bearing formation
 # Possible H2S bearing formation

All fresh water and prospectively valuable minerals encountered during drilling will be recorded by depth and adequately protected.

3. PRESSURE CONTROL EQUIPMENT:

BOP equipment will be tested to its rated working pressure or 70-percent of the internal yield of the surface casing. The annular preventer will be tested at 50-percent of its rated working pressure. See attachments for BOP and choke manifold diagrams.

Production Hole BOP Requirements and Test Plan

11" – 2,000 psi single ram (blind)

11" – 2,000 psi single ram (pipe)

Test as follows:

- | | | |
|------------------------------|------------------|---------------|
| a) Pipe rams: | 2,000 psi (High) | 250 psi (low) |
| b) Choke manifold and lines: | 2,000 psi (High) | 250 psi (low) |

All ram type preventers and related equipment will be hydraulically tested at nipple-up. They will also be retested in either of the following events:

- A pressure seal is broken.
- 30 days have elapsed since the last successful test of the equipment.

Furthermore, BOP's will be checked daily as to mechanical operating condition. All ram type preventers will have hand wheels, which will be operative and accessible at the time the preventers are installed. See attached Exhibit for details on the BOP equipment.

AUXILIARY EQUIPMENT:

- a) Manually operated kelly cock (upper and lower)
- b) Full opening manually operated safety valves in the full open position, capable of fitting all drill stem connections.

4. CASING DESIGN:

Hole Size	Casing Type	Top (MD)	Bottom (MD)	Wt. (lb./ft)	Grade	Thread	Condition
8-5/8"	Surface	0'	250'	24.0	J55	STC	New
4-1/2"	Production	0'	3736'	11.6	J55	LTC	New

Casing Data				Collapse (psi)	Burst (psi)	Min. Tensile (Lbs.)
OD	Wt/Ft	Grade	Thread			
8-5/8"	24.0 lbs.	J55	STC	1,370	2,950	244,000
4-1/2"	11.6 lbs.	J55	LTC	4,960	5,350	162,000

MINIMUM CASING DESIGN FACTORS:

COLLAPSE: 1.125

BURST: 1.00

TENSION: 1.80

Area Fracture Gradient Range: 0.50 to 0.76 psi/foot

Maximum anticipated reservoir pressure: 1,250 psi

Maximum anticipated mud weight: 9.5 ppg

Maximum surface treating pressure: 2,600 psi

Float Equipment:

Surface Casing: Notched collar on bottom and 3 centralizers on the bottom 3 joints.

Production Casing: 4 1/2" whirler type cement nosed guide shoe and a float collar on top of bottom joint with centralizers over potential hydrocarbon bearing zones.

CEMENTING PROGRAMS:

8-5/8" Surface casing:

175 sxs Type III cement with 2% CaCl₂, 1/4#/sx cellofakes. 100% excess to circulate cement to surface. WOC 12 hrs. Pressure test surface casing to 1000 psi for 30 minutes.

Slurry weight: 15.2 ppg

Slurry yield: 1.27 ft³/sack

Volume basis:	40' of 8-5/8" shoe joint	14 cu ft
	250' of 12-1/4" x 8-5/8" annulus	100 cu ft
	<u>100% excess (annulus)</u>	<u>100 cu ft</u>
	Total	214 cu ft

Note:

1. Design top of cement is the surface.
2. Have available 100 sx Type III cement with 2% CaCl₂ for top out purposes.

4-1/2" Production casing:

525 sacks of Premium lite high strength 65/35 pozmix cement.

Slurry weight: 12.4 ppg

Slurry yield: 1.91 ft³/sack

Volume basis:	40' of 4-1/2" shoe joint	3 cu ft
	4 1/2 " x 7 7/8" hole	794 cu ft
	250' of 8 5/8" x 4-1/2" casing overlap	62 cu ft
	<u>15% excess (annulus)</u>	<u>129 cu ft</u>
	Total	988 cu ft

Note:

1. Design top of cement is the surface.
2. Actual cement volumes to be based on caliper log plus 15%.

5. MUD PROGRAM:

The surface hole will be drilled with fresh water mud. Gel and polymer sweeps will be used from surface to 250 feet as necessary to keep hole clean.

The production hole will be drilled with clear water or LSND mud from base of surface casing to TD as necessary. Anticipated mud weight ranges from 8.5 – 9.5 ppg. Mud weight will be increased as required to maintain hole stability and control gas influx.

Sufficient mud materials to maintain stable wellbore conditions (for either well control or lost circulation scenarios) will be maintained at the well site.

No chrome-based additives will be used in the mud system.

6. EVALUATION PROGRAM:

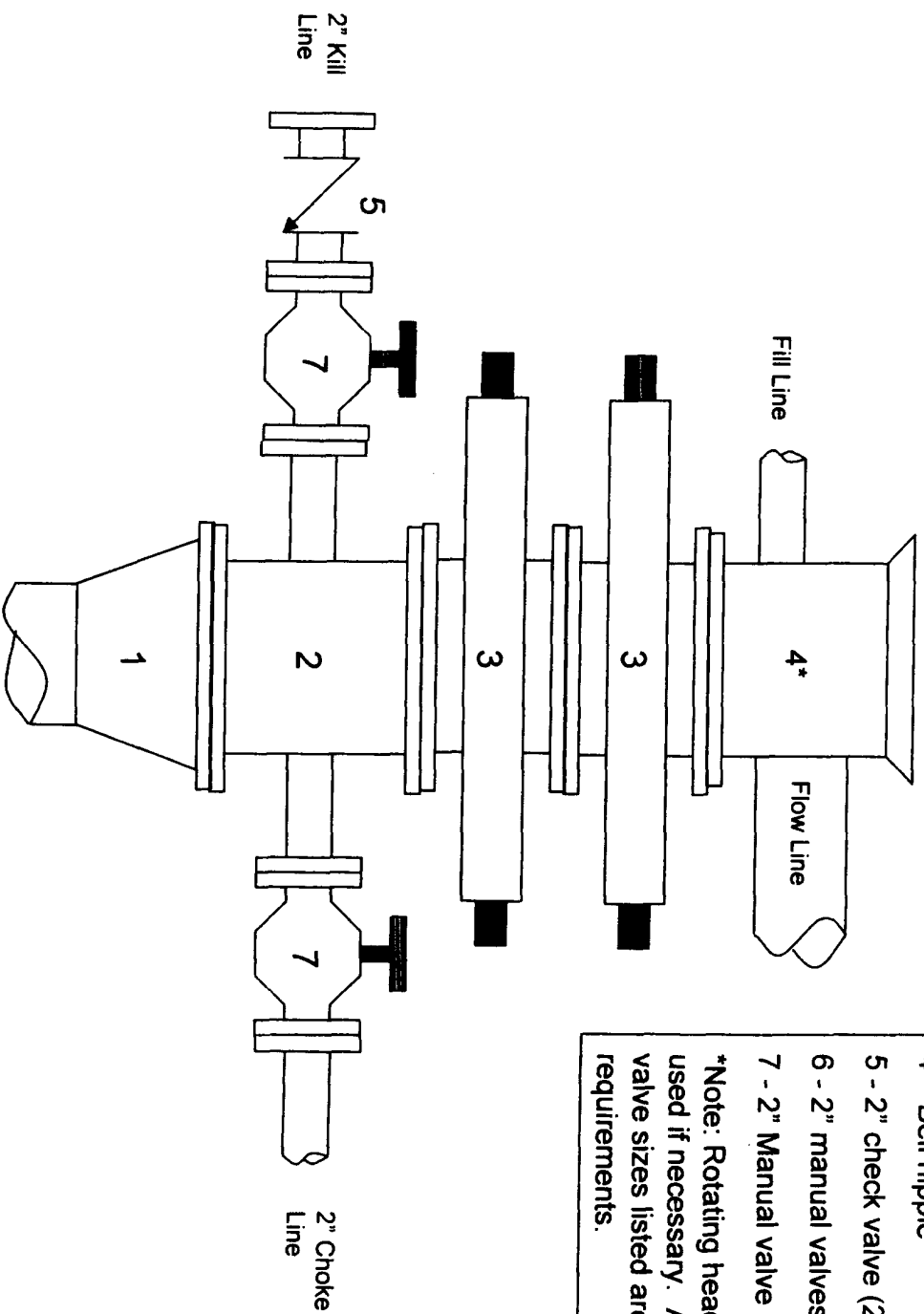
Mud logger: From base of surface casing to TD.

Testing: None

Coring: None

Electric logs: 1) DIL-GR-SP: TD to base of surface casing.
2) LDT-CNL-GR-CAL: TD to base of surface casing
3) GR and Neutron: TD to surface.

Jicarilla C #11-25 2000 psi BOP stack Minimum requirements



Components

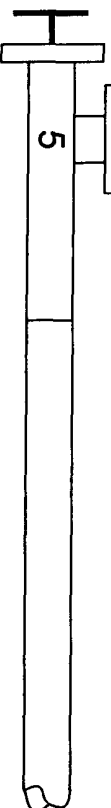
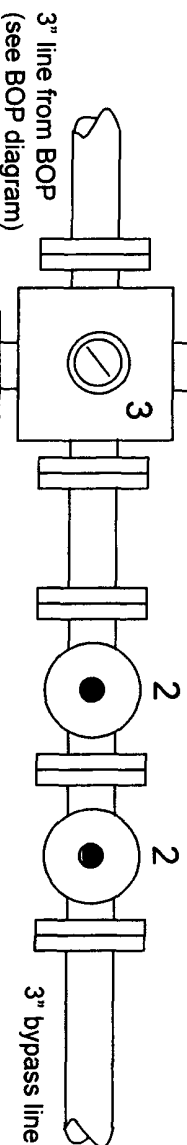
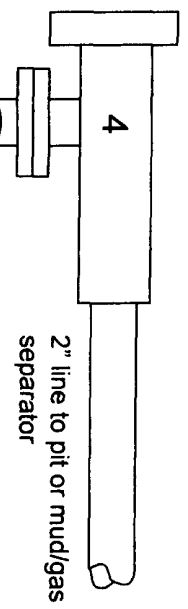
- 1 - Wellhead 9-5/8" (2M)
- 2 - Drilling spool 11" (2M)
- 3 - A double or two single rams with blinds on bottom 11" (2M)
- 4 - Bell nipple*
- 5 - 2" check valve (2M)
- 6 - 2" manual valves (2M)
- 7 - 2" Manual valve (2M)

*Note: Rotating head may also be used if necessary. Also, all line and valve sizes listed are minimum requirements.

Jicarilla C #11-25

2000 psi Choke Manifold

Minimum requirements



Components

- 1 – 2" Valve (2M)
- 2 – 3" Valve (2M)
- 3 – Mud cross with gauge (2M) flanged below the gage.
- 4 – Beam choke (2M)
- 5 – Adjustable choke (2M)

Note: All line and valve sizes listed are minimum requirements.

2" line to pit or mud/gas separator