



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

February 24, 2006

**Mark E. Fesmire, P.E.**

Director

Oil Conservation Division

Patina San Juan, Inc.

c/o J. Scott Hall

Miller & Stratvert, P. A.

P. O. Box 1986

Santa Fe, New Mexico 87401

Case 13683

**Re:** Administrative application (Division reference No. **pTDS0-602638001**) filed with the New Mexico Oil Conservation Division ("Division") in Santa Fe, New Mexico on January 24, 2005, for exceptions to the special well location provisions governing both the Basin-Fruitland Coal (Gas) Pool (**71629**) and the Basin-Dakota Pool (**71599**) for Patina San Juan, Inc.'s ("Patina") proposed Valance "33" Well No. 2 (**API No. 30-045-32689**) to be drilled at an unorthodox gas well location 320 feet from the North line and 2145 feet from the East line (Unit B) of Section 33, Township 31 North, Range 13 West, NMPM, San Juan County, New Mexico, within the E/2 of Section, being a standard 320-acre stand-up gas spacing unit for both pools.

Dear Mr. Hall:

On Wednesday, February 22, 2006 the Division received a protest to the drilling of Patina's well, see copy attached. Even though the 20-day objection period for your application [see Division Rule 104.F (4)] has lapsed and the protesting party was not noticed under Division Rule 1210.A (2) (a), I will not precede in the processing of this application under the Division's administrative procedures (see Division Rule 104.F). Therefore, pursuant to Division Rule 104.F (5) this application will be set for hearing before a duly appointed Division Hearing Examiner on the next available docket scheduled for March 30, 2006. In order to expatiate this matter for all parties concerned I have prepared the following advertisement:

**"Application of Patina San Juan, Inc. for an unorthodox gas well location, San Juan County, New Mexico.** Applicant seeks exceptions to the well location requirements provided within both the: (i) *"Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool,"* set forth in Division Order No. R-8768, as amended; and (ii) *"Special Rules for the Basin-Dakota Pool,"* as promulgated by Division Order No. R-10987-B, issued in Case No. 12290 and dated June 30, 2000, as amended by Division Orders No. R-10987-B (1), dated August 10, 2000, and R-10987-B (2), dated January 29, 2002. Applicant proposes to drill its Valance "33" Well No. 2 (**API No. 30-045-32689**) at an unorthodox gas well location in both the Basin-Fruitland Coal (Gas) Pool (**71629**) and Basin-Dakota (**71599**) Pool 320 feet from the North line and 2145 feet from the East line (Unit B) of Section 33, Township 31 North, Range 13 West, which is located approximately nine miles north of Farmington, New Mexico. Gas production from the deeper Basin-Dakota Pool is to be included within an existing standard 320-acre stand-up gas spacing and proration unit comprising the E/2 of Section 33, which is currently dedicated to Applicant's: (i) Kaufman Well No. 1 (**API No. 30-045-10174**), located at a standard gas well location 1450 feet from the North line and 790 feet from the East line (Unit H) of Section 33; and (ii) Kaufman Well No. 1-E (**API No. 30-045-25972**), located at a standard infill gas well location 857 feet from the South line and 1827 feet from the East line (Unit O) of Section 33. The proposed Valance "33" Well No. 2 will be the initial Fruitland coal gas well within this same 320-acre stand-up gas spacing unit".

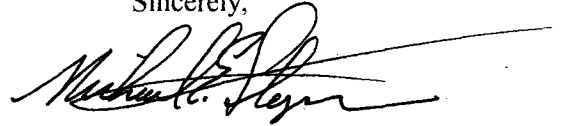
**Patina San Juan, Inc.**  
**Administrative Application Reference No. pTDS0-602638001**

**February 24, 2005**

**Page 2**

Should you have any questions concerning this matter, please contact me in Santa Fe at (505) 476-3465. Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael E. Stogner", with a long horizontal flourish extending to the right.

Michael E. Stogner  
Engineering Assistant to the Director

cc: New Mexico Oil Conservation Division - Aztec  
Patrick J. Cunningham, Attorney In Fact for Richard J. and Darla L. Bramwell - Aztec, NM

State of New Mexico  
Oil and Gas Conservation Div  
PO Box 2088

Santa Fe, New Mexico 87504 2006 FEB 22 PM 1 20

February 20, 2006

SENT VIA CERTIFIED MAIL, RETURN RECEIPT REQUESTED

To whom it may concern;

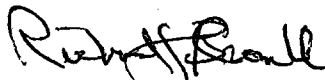
We are the owners of record of a 14.73 parcel of land located in the NW/4 of the NE/4 of Sec 33, T31N, R13W in San Juan County New Mexico.

We have been contacted by Patina San Juan, Inc., and advised that they intend to drill a well proposed to be known as Valance 33-2, API#30-045-32689.

We have checked with the OCD office in Aztec and found an application and approval for a drilling permit showing the proposed drilling site to be outside of the authorized drilling area and inside the setback/buffer zone, see enclosed map.

We protest the drilling of the proposed well at this site as it is in our alfalfa field and we have entered into a real estate sales contract to sell the subject property. We believe any drilling activity will cause the sale to fail and we will suffer financial loss.

There are numerous drilling sites in the authorized zone and we request that the OCD rescind the drilling application API#30-045-32689.

  
Richard J Bramwell

  
Darla L Bramwell

By   
Patrick J Cunningham, their attorney in fact.  
10 CR 3136, Aztec, New Mexico 87410 Tel 505-320-8136

Cc: Patina San Juan, Inc.

Cc: OCD-Aztec

SENT VIA CERTIFIED MAIL, RETURN RECEIPT REQUESTED



ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION  
- Engineering Bureau -  
1220 South St. Francis Drive, Santa Fe, NM 87505



Case 13683

**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]  
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]  
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]  
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]  
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]  
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication  
☒ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement  
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify \_\_\_\_\_

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or ☐ Does Not Apply

- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners
- [B] ☐ Offset Operators, Leaseholders or Surface Owner
- [C] ☐ Application is One Which Requires Published Legal Notice
- [D] ☐ Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] ☐ Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is accurate and complete to the best of my knowledge. I also understand that no action will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Print or Type Name

Signature

Title

Date

e-mail Address

**MILLER STRATVERT**  
LAW OFFICES

Ranne B. Miller  
Alice T. Lorenz  
Stephen M. Williams  
Stephan M. Vidmar  
Seth V. Bingham  
Timothy R. Briggs  
Rudolph Lucero  
Deborah A. Solove  
Gary L. Gordon  
Lawrence R. White  
Virginia Anderman  
Marte D. Lightstone  
J. Scott Hall\*  
Thomas R. Mack  
Thomas M. Domme  
Ruth O. Pregenzer

Jeffrey E. Jones  
James J. Widland  
Bradley D. Tepper\*\*  
Robin A. Goble  
James R. Wood  
Dana M. Kyle  
Kirk R. Allen  
Ruth Fuess  
H. Brook Laskey  
Paula G. Maynes  
Gary Risley  
M. Dylan O'Reilly  
Jennifer D. Hall  
Todd A. Schwarz  
Nell Graham Sale

Scott P. Hatcher  
Ann M. Conway  
Kelsey D. Green  
Marcy Baysinger  
Caroline Blankenship  
Matthew S. Rappaport  
Karen E. Wootton  
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Deron B. Knorr  
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Amy P. Hauser

Counsel

James B. Collins  
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Robert D. Taichert  
Douglas A. Echols  
Randall J. McDonald

Of Counsel

William K. Stratvert  
Sharon P. Gross

Reply to Santa Fe

150 Washington Ave., Suite 300  
Santa Fe, NM 87501

Mailing Address:  
P.O. Box 1986  
Santa Fe, NM 87504-1986

Telephone: (505) 989-9614  
Facsimile: (505) 989-9857

Writer's Direct E-Mail:  
shall@mstlaw.com

\* Board Certified Specialist: Natural Resources - Oil & Gas Law  
\*\* Board Certified Specialist: Real Estate Law

January 24, 2006

**HAND-DELIVERED**

Mr. Michael Stogner  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87504

*Case 13683*

2006 JUN 24 PM 5 14

Re: Request for Administrative Approval of Unorthodox Well Location  
Valence 33 #02 Well  
Fruitland Coal and Dakota Formations  
320' FNL and 2145' FEL  
Section 33, T31N, R13W, NMPM, San Juan County, New Mexico

Dear Mr. Stogner:

On behalf of Noble Energy Production Inc./Patina San Juan, Inc. and pursuant to Division Rule 104.F and the applicable rules governing the Basin-Fruitland Coal Gas Pool and the Basin-Dakota Pool, we request administrative approval for an unorthodox well location for the Patina San Juan Valence 33 #02 Well at the surface and bottom-hole locations reflected above.

The straight-hole well will be drilled to a depth sufficient to test the Fruitland formation, Blanco Mesaverde pool (72319; Order No. R-10987-A, as amended) and the Basin-Fruitland Coal Gas Pool (71629; Order No. R-8768-F, as amended.) The conformed pool rules for the pools currently provide that wells shall be drilled no closer than 660' to the outer boundary of the 320-acre GPU and no closer than 10 feet to any quarter-quarter section line or subdivision inner boundary.

Patina San Juan seeks an exception from the applicable well location rules for topographic reasons. Patina San Juan has evaluated all other available standard well locations in the NE/4 of Section 33. The surface of the lands at an otherwise orthodox well location to the south and the east of the proposed location is predominated by wetlands. Further, Patina's engineering staff has determined that directional drilling from the unorthodox surface location to a standard bottom-hole location would significantly increase drilling costs and would compromise well economics.

A PROFESSIONAL ASSOCIATION

ALBUQUERQUE  
(505) 842-1950

FARMINGTON  
(505) 326-4521

LAS CRUCES  
(505) 523-2481

SANTA FE  
(505) 989-9614

Mr. Michael Stogner  
January 24, 2006  
Page 2

The E/2 of Section 33, T-31-N, R-13-W will be dedicated to the well and is the second optional Dakota infill well and will be the first Fruitland Coal well within the GPU. The proposed location is consistent with further logical Dakota infill development for the E/2 unit. A plat showing the E/2 spacing unit, the proposed unorthodox surface and bottom hole locations, and adjoining spacing units and wells is attached as Exhibit "A". Fuller Production, Inc. of Midland, Texas is the operator of all formations from the surface to the base of the Dakota formation in the adjoining units in the W/2 of Sections 33 and S/2 of Section 28, T31N, R13W. A notice and waiver request is being sent to Fuller Production, Inc. Patina San Juan is the operator of the cornering S/2 unit in Section 27.

Thank you for your consideration of this request. Should more information be required, please do not hesitate to contact me.

Very truly yours,

MILLER STRATVERT P.A.

A handwritten signature in black ink, appearing to read "J. Scott Hall", written in a cursive style.

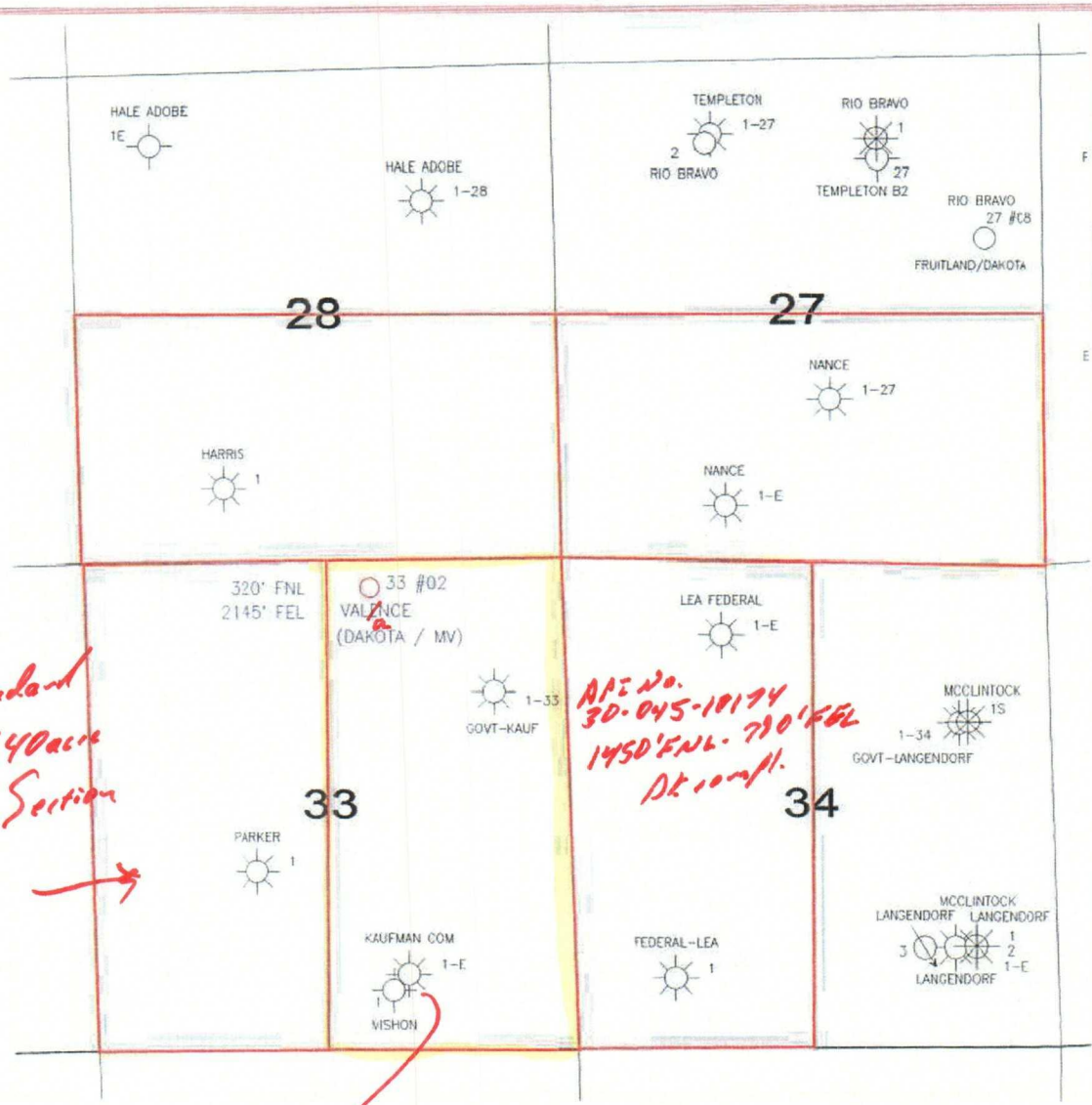
J. Scott Hall  
Attorneys for Patina San Juan, Inc.

JSH/glb  
Enclosures

# EXHIBIT "A"

**T  
31  
N**

*Standard  
640-acre  
Section*



**R 13 W**



**SPACING UNITS**

- LEGEND**
- \* FRUITLAND FORMATION
  - WELL LOCATION
  - ⊕ P & A WELL
  - ☆ GAS WELL DAKOTA FORMATION

NOBLE ENERGY PRODUCTION INC.		
SECS. 27, 28, 33 & 34 OF T31N - R13W VALENCE 33 #02 UNORTHODOX LOCATION		
MAP PREPARED BY:	1" = 2000 FEET	1/19/2006
MARK CURTIS	Scale 1:24000.	31-13W-2.GPF

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-101  
May 27, 2004

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

Submit to appropriate District Office

☐ AMENDED REPORT

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONEXX**

<sup>1</sup> Operator Name and Address Patina San Juan, Inc. 5802 U. S. Highway 64 Farmington, NM 87401 (505) 632-8056		<sup>2</sup> OGRID Number 173252
		<sup>3</sup> API Number 30-045-32689
<sup>4</sup> Property Code 24045	<sup>5</sup> Property Name KAUFMAN	<sup>6</sup> Well No. #02
<sup>9</sup> Proposed Pool 1 BASIN DAKOTA		<sup>10</sup> Proposed Pool 2 BLANCO MESA VERDE

<sup>7</sup> Surface Location

UL or lot no.	Sec.	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
B	33	31N	13W	B	660	NORTH	1845	EAST	SAN JUAN

<sup>8</sup> Proposed Bottom Hole Location If Different From Surface

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

Additional Well Information

<sup>11</sup> Work Type Code N	<sup>12</sup> Well Type Code G	<sup>13</sup> Cable/Rotary R	<sup>14</sup> Lease Type Code P	<sup>15</sup> Ground Level Elevation 5550'
<sup>16</sup> Multiple N	<sup>17</sup> Proposed Depth 7300'	<sup>18</sup> Formation Basin Dakota	<sup>19</sup> Contractor N/A	<sup>20</sup> Spud Date JUNE 1, 2005
Depth to Groundwater >100'		Distance from nearest fresh water well >200'		Distance from nearest surface water >1000'
Pit: Liner: Synthetic <input type="checkbox"/> 12 mils thick Clay <input type="checkbox"/> Pit Volume: _____ bbls Drilling Method: _____				
Closed-Loop System <input type="checkbox"/> Fresh Water <input type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input checked="" type="checkbox"/>				

<sup>21</sup> Proposed Casing and Cement Program

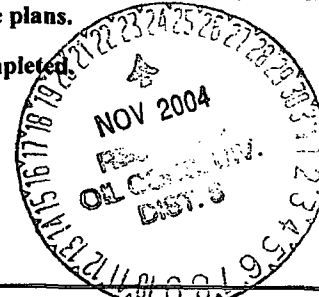
Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12 1/4"	9 5/8"	36#	250'	165 sx	SURFACE
8 3/4"	7"	23#	4100' +/-	465 sx	SURFACE
6 1/4"	4 1/2"	11.6#	7300'	220 sx	+/- 3800'

<sup>22</sup> Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

Patina San Juan, Inc. proposes to drill a vertical well at the above described location and test the Basin Dakota and Blanco Mesa Verde formations as referenced in the attached drilling plan and multi-point surface use plans.

The Basin Dakota/Blanco Mesa Verde formations will be selectively perforated and completed.

The well will be connected to Williams Field Services gathering system.



<sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines <input checked="" type="checkbox"/> , a general permit <input type="checkbox"/> , or an (attached) alternative OCD-approved plan <input type="checkbox"/> .		OIL CONSERVATION DIVISION	
Printed name: JEAN M. MUSE		Approved by:	
Title: REGULATORY/ENGINEERING TECHNICIAN		Title: DEPUTY OIL & GAS INSPECTOR, DIST. 3	
E-mail Address: jmuse@patinasanjuan.com		Approval Date: NOV 23 2004	
Date: 11/22/04		Expiration Date: NOV 23 2005	
Phone: 505-632-8056		Conditions of Approval Attached <input type="checkbox"/>	

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 <b>30-045-32689</b>	*Pool Code <b>72319/71599</b>	*Pool Name <b>Blanco Mesa Verde BASIN DAKOTA</b>
*Property Code <b>24045</b>	*Property Name <b>KAUFMAN</b>	*Well Number <b>02</b>
*GRID No. <b>173252</b>	*Operator Name <b>PATINA SAN JUAN, INC.</b>	*Elevation <b>5550'</b>

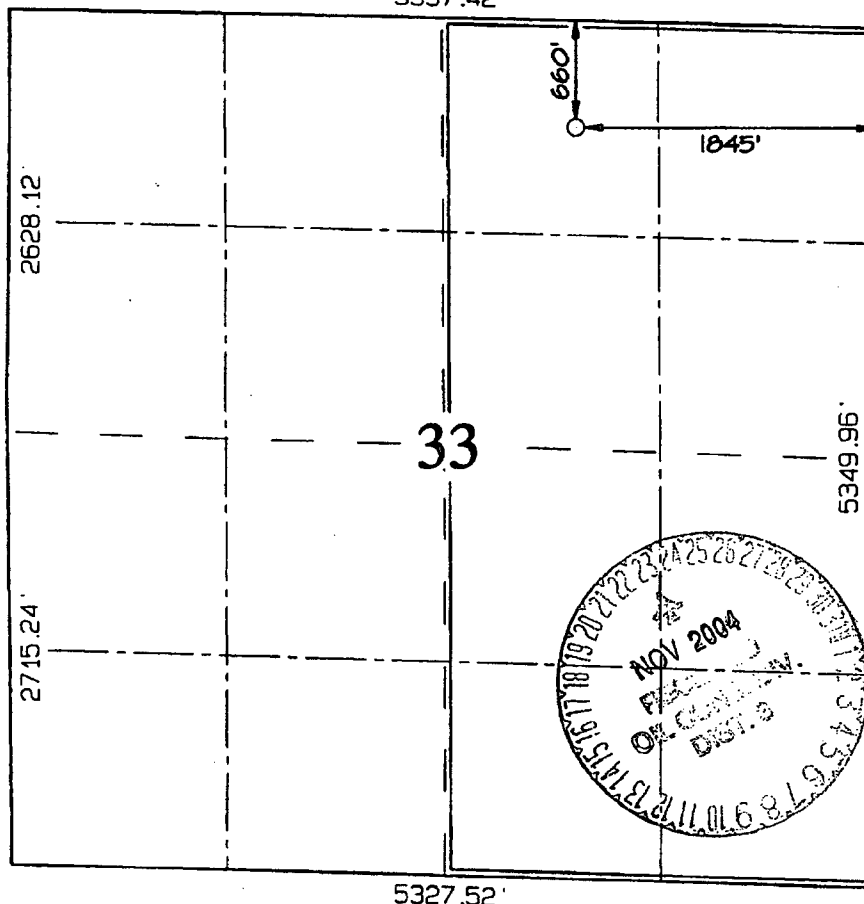
<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	33	31N	13W		660	NORTH	1845	EAST	SAN JUAN

<sup>11</sup> 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
<sup>12</sup> Dedicated Acres <b>320.0 Acres - (E/2)</b>					<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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  
5337.42'



<sup>17</sup> OPERATOR CERTIFICATION

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

Signature

**JEAN M. MUSE**  
Printed Name

**Reg/Engr'g Tech**  
Title

Date **11/22/04**

<sup>18</sup> 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.

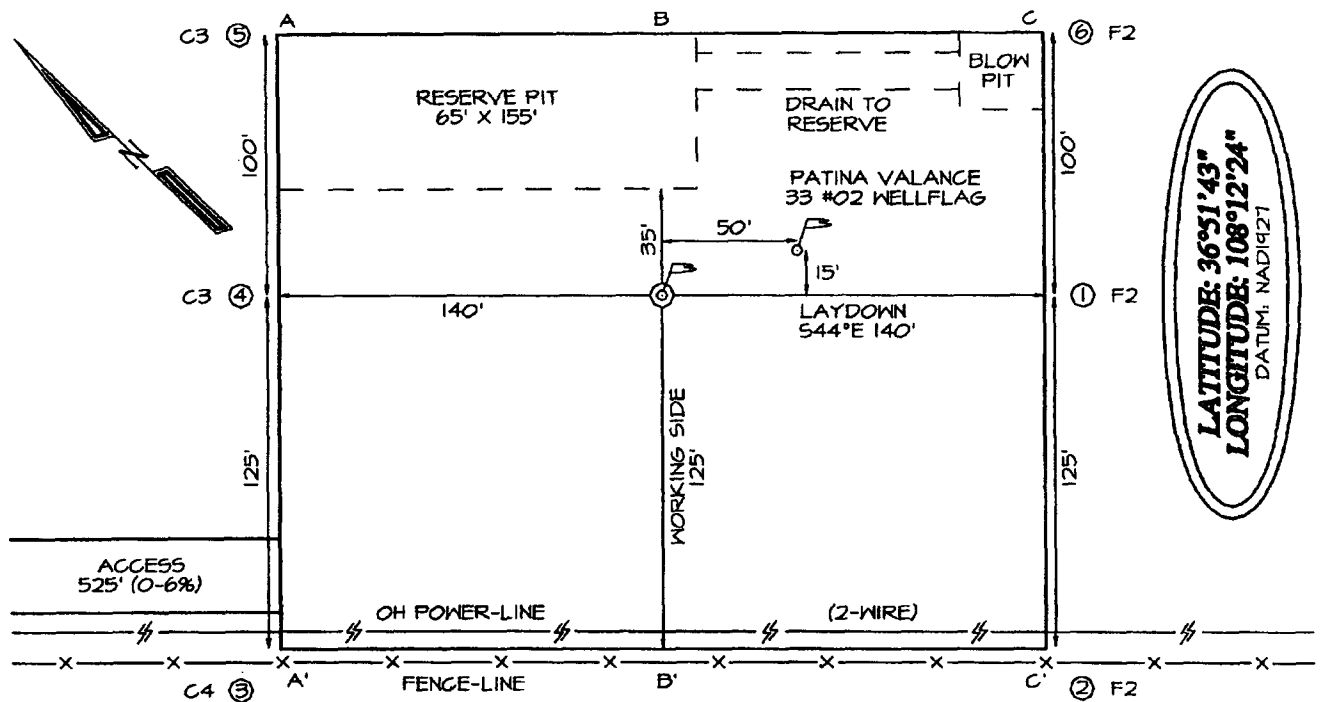
Date of Survey: **OCTOBER 1, 2004**

Signature and Seal of Professional Surveyor

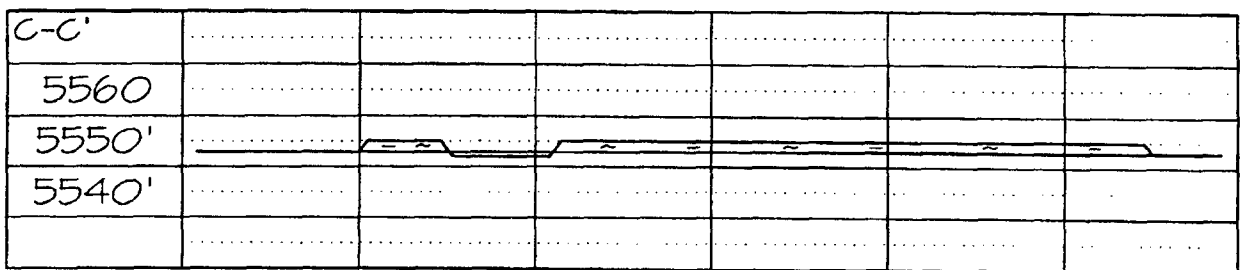
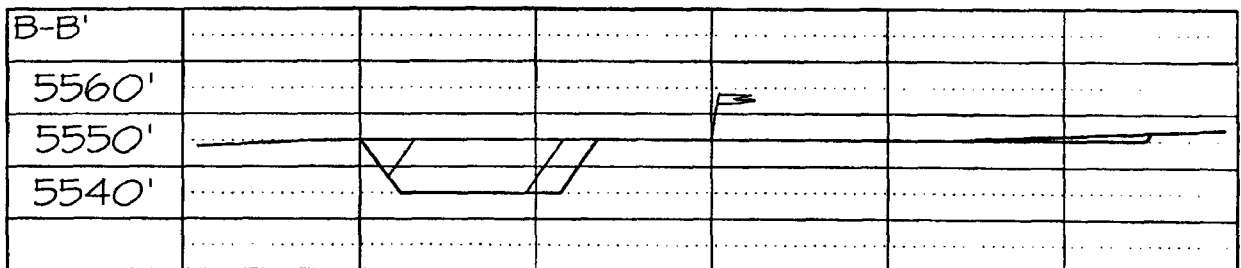
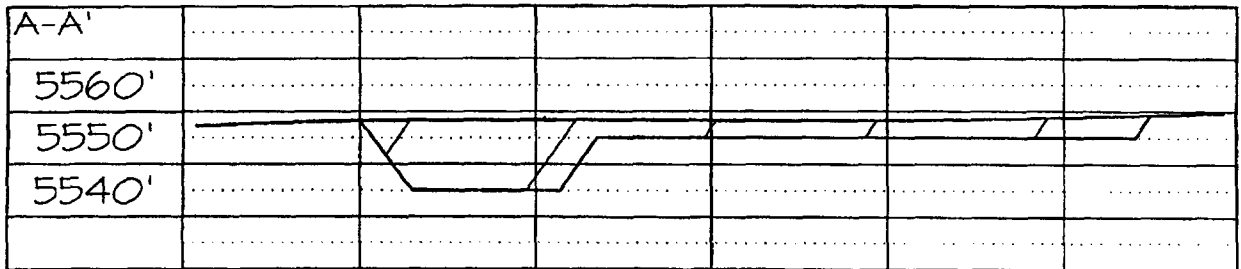


**JASON C. EDWARDS**  
Certificate Number 15269

**PATINA SAN JUAN, INC. KAUFMAN 33 #02**  
**660' FNL & 1845' FEL, SECTION 33, T31N, R13W, NMPM**  
**SAN JUAN COUNTY, NEW MEXICO ELEVATION: 5550'**



**LATITUDE: 36°51'43"**  
**LONGITUDE: 108°12'24"**  
 DATUM: NAD1927



### **3. PRESSURE CONTROL EQUIPMENT:**

BOP equipment will be tested to the lesser of its rated working pressure, 70-percent of the internal yield of the surface casing or 1,000 psi. 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:	1,000 psi (High)	250 psi (low)
b) Choke manifold and lines:	1,000 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:

##### Casing Program:

Hole Size	Depth	Casing Size
12 1/4"	250'	9 5/8"
8 3/4"	4100' +/- / 150' below Menefee top	7"
6 1/4"	7300' / through Dakota	4 1/2"

Casing Size	Casing Type	Top (MD)	Bottom (MD)	Wt. (lb./ft)	Grade	Thread	Condition
9-5/8"	Surface	0'	250'	36.0	J55	STC	New
7"	Intermediate	0'	4100' +/-	23.0	N80	LTC	New
4 1/2"	Production	3900'	7300'	11.6	N80	LTC	New

Casing Data				Collapse (psi)	Burst (psi)	Min. Tensile (Lbs.)
OD	Wt/Ft	Grade	Thread			
9-5/8"	36.0 lbs.	J55	STC	2,020	3,520	394,000
7"	23.0 lbs.	N80	LTC	3,830	6,340	442,000
4 1/2"	11.6 lbs.	N80	LTC	6,350	7,780	223,000

#### MINIMUM CASING DESIGN FACTORS:

COLLAPSE: 1.125

BURST: 1.00

TENSION: 1.80

Area Fracture Gradient Range: 0.7 – 0.8 psi/foot

Maximum anticipated reservoir pressure: 2,500 psi

Maximum anticipated mud weight: 9.0 ppg

Maximum surface treating pressure: 3,500 - 3,750 psi

## Float Equipment:

**Surface Casing:** Guide shoe on bottom and 3 centralizers on the bottom 3 joints.

**Intermediate Casing:** Float shoe on bottom joint and a float collar one joint up from float shoe. One centralizer 10 ft above float shoe and nine centralizers spaced every joint above the float collar. Stage tool above the Cliffhouse formation. One centralizer below stage tool and one centralizer above stage tool.

**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:

### 9-5/8" Surface casing:

165 sxs Type III cement with 2%  $\text{CaCl}_2$ , 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 ft<sup>3</sup>/sack

Volume basis:	40' of 9-5/8" shoe joint	17 cu ft
	300' of 12-1/4" x 9-5/8" annulus	94 cu ft
	<u>100% excess (annulus)</u>	<u>94 cu ft</u>
	Total	205 cu ft

#### Note:

1. Design top of cement is the surface.
2. Have available 100 sx Type III cement with 2%  $\text{CaCl}_2$  for top out purposes.

### 7" Intermediate Casing:

1st Stage: 100 sacks of Type III cement

Slurry weight: 14.5 ppg  
Slurry yield: 1.4 ft<sup>3</sup>/sack

2<sup>nd</sup> Stage: (Stage tool at 3300' +/-): 365 sacks of Premium Lite FM

Slurry weight: 12.4 ppg  
Slurry yield: 1.92 ft<sup>3</sup>/sack

Volume Basis:	40' of 7" shoe joint	9 cu ft
	3800' of 7" x 8 3/4" annulus	586 cu ft
	300' of 7" x 9 5/8" hole	50 cu ft
	<u>30% excess (annulus)</u>	<u>176 cu ft</u>
	Total	821 cu ft

Note:

1. Design top of cement is surface.
2. Actual cement volumes to be based on caliper log plus 30%.

#### **4 1/2" Production casing:**

Stage 1: 220 sacks of Premium Lite High Strength FM out guide shoe.

Slurry weight: 12.3 ppg  
Slurry yield: 2.13 ft<sup>3</sup>/sack

Volume basis:	40' of 4 1/2" shoe joint	5 cu ft
	4 1/2 " x 6 1/4" hole	318 cu ft
	4 1/2" x 7" casing	33 cu ft
	<u>30% excess (annulus)</u>	<u>107 cu ft</u>
	Total	463 cu ft

Note:

1. Design top of cement is 3800 +/- ft. or 300 ft. into 7" intermediate casing.
2. Actual cement volumes to be based on caliper log plus 30%.

#### **5. MUD PROGRAM:**

The surface hole will be drilled with spud mud. Gel and polymer sweeps will be used from surface to 300 feet as necessary to keep hole clean.

The intermediate hole will be drilled with water until mud up at about 3000 ft. From 3000' to 4100', intermediate casing depth, will be drilled with LSND mud. Anticipated mud weight ranges from 8.5 – 9.0 ppg. Mud weight will be increased as required to maintain hole stability and control gas influx.

The production hole will be drilled with air or air/mist.

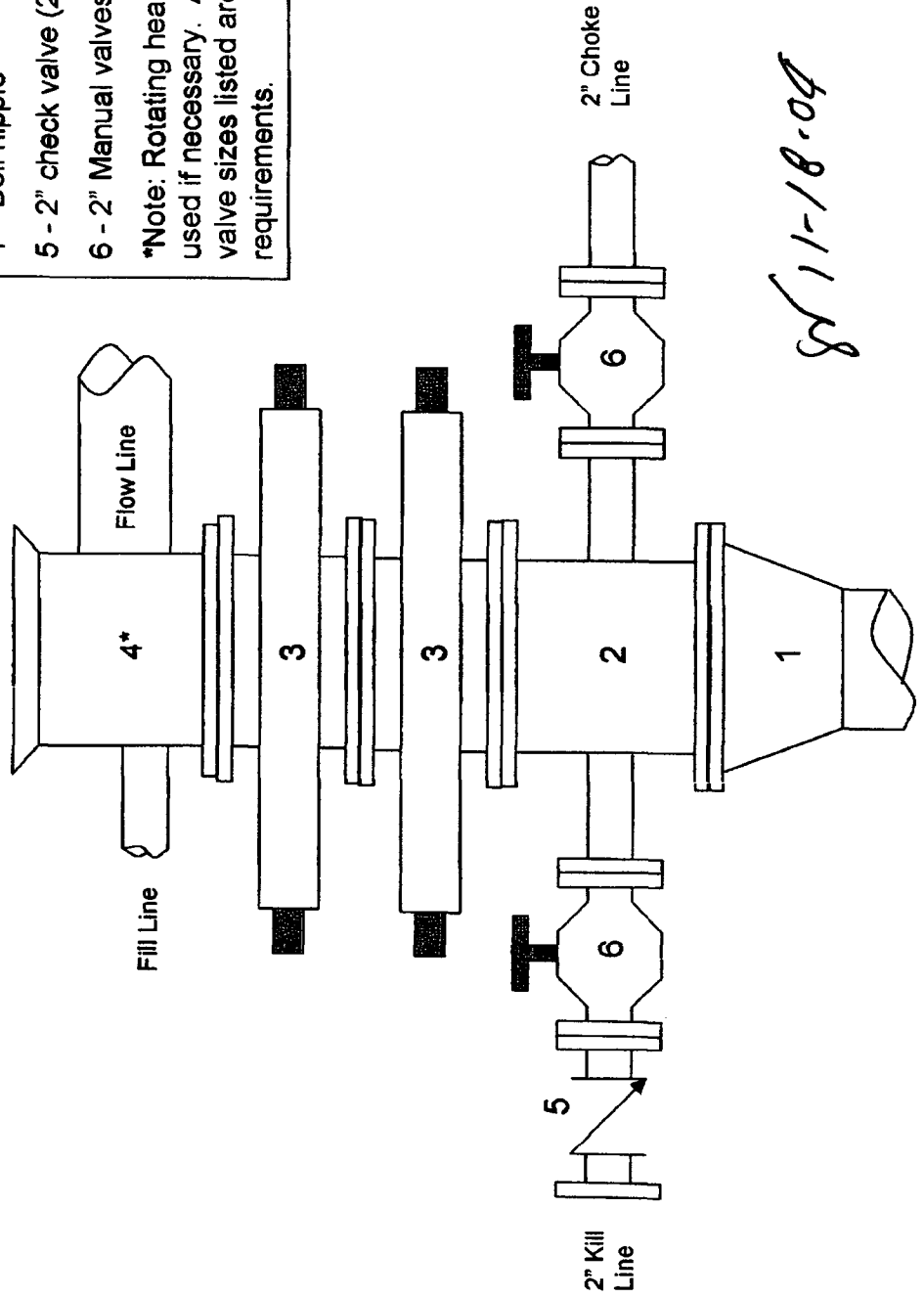
Sufficient mud materials to maintain stable wellbore conditions (for either well control or lost circulation scenarios) will be maintained at the well site.

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

# Kaufman 33 No. 02

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



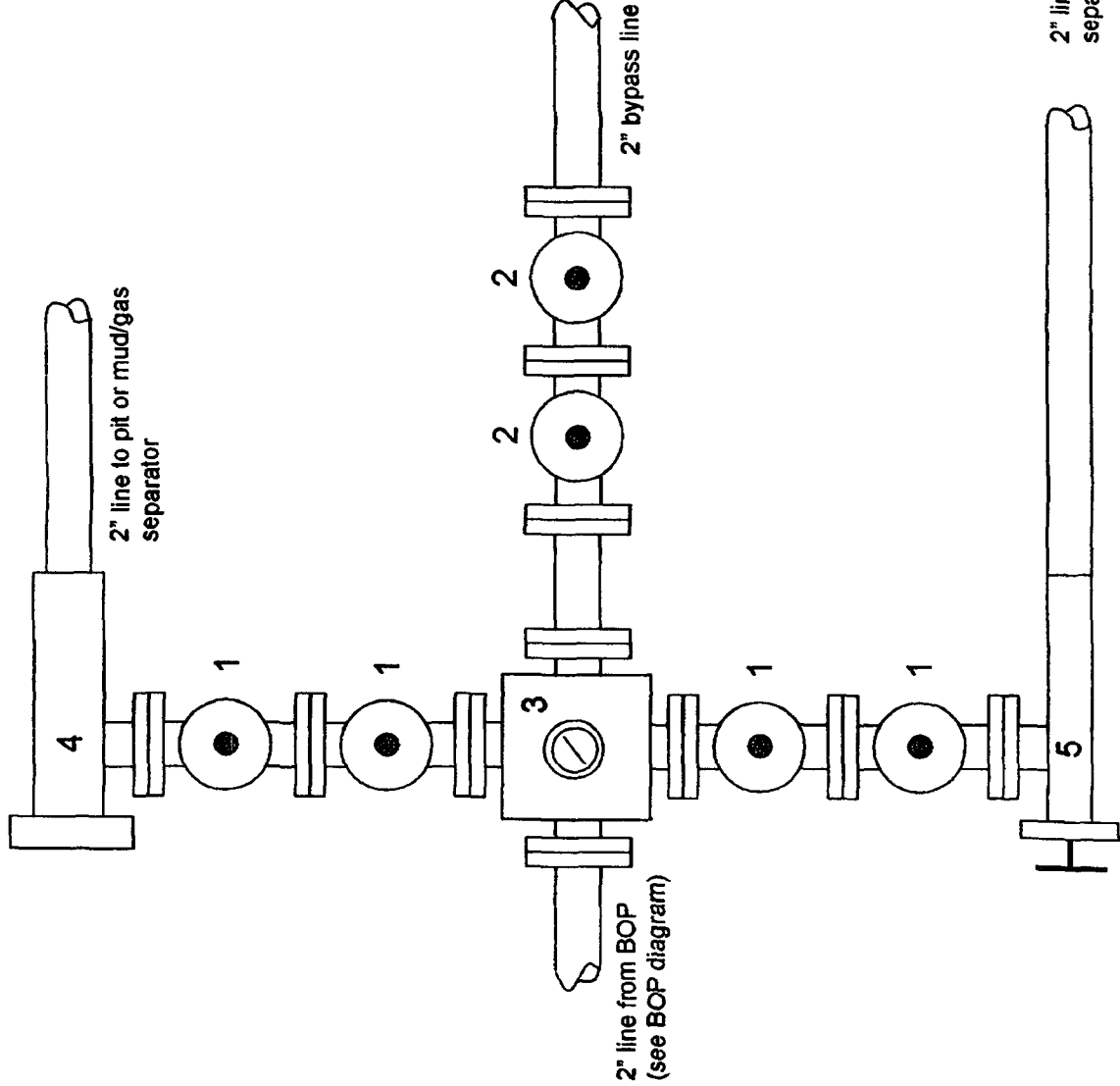
8/11-18-04

# **Kaufman 33 No. 02** **2000 psi Choke Manifold** **Minimum requirements**

## Components

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

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



2" line to pit or mud/gas separator

8/11-18-04

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

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

Form C-103

May 27, 2004

WELL API NO. 30-045-32689
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name VALANCE 33
8. Well Number #02
9. OGRID Number
10. Pool name or Wildcat BASIN DAKOTA/FRUITLAND COAL

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.)

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

2. Name of Operator  
PATINA SAN JUAN, INC.

3. Address of Operator  
5802 U.S. HIGHWAY 64 FARMINGTON, NM 87401

4. Well Location

Unit Letter B : 320 feet from the NORTH line and 2145' feet from the EAST line  
Section 33 Township 31N Range 13W NMPM County SAN JUAN

11. Elevation (Show whether DR, RKB, RT, GR, etc.)

Pit or Below-grade Tank Application ☒ or Closure ☐

Pit type Drilling Depth to Groundwater >100' Distance from nearest fresh water well >200' Distance from nearest surface water >1000'

Pit Liner Thickness: 14 mil Below-Grade Tank: Volume 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: NAME CHANGE ☒

OTHER: PERMIT EXTENSION ☒

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.

PATINA SAN JUAN, INC. REQUESTS AN EXTENSION TO THE APPROVED PERMIT TO DRILL EXPIRING NOVEMBER 23, 2005.

CHANGE OF WELL NAME FROM: KAUFMAN #02  
TO: VALANCE 33 #02 35 345

MOVE THE WELL BORE FROM: 660' FNL, 1845' FEL  
TO: 320' FNL, 2145' FEL

ADD THE FRUITLAND COAL FORMATION PER ATTACHED DRILLING PLAN AND PLAT

*extended to Nov. 23 2006*

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 Muse TITLE REGULATORY/ENGINEERING TECH. DATE 11/30/2005

Type or print name  
For State Use Only

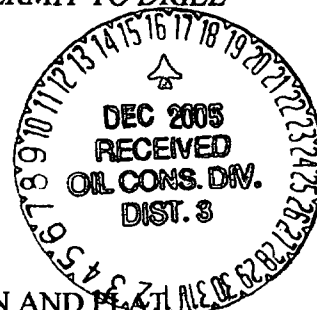
E-mail address:

Telephone No.

APPROVED BY: [Signature]  
Conditions of Approval (if any):

TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 3

DATE



DEC 16 2005

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 30-045-32689		*Pool Code 71629 / 71599	*Pool Name BASIN FRUITLAND COAL / BASIN DAKOTA
*Property Code	*Property Name VALANCE 33		*Well Number 02
*GRID No. 173252	*Operator Name PATINA SAN JUAN, INC.		*Elevation 5543'

#### 10 Surface Location

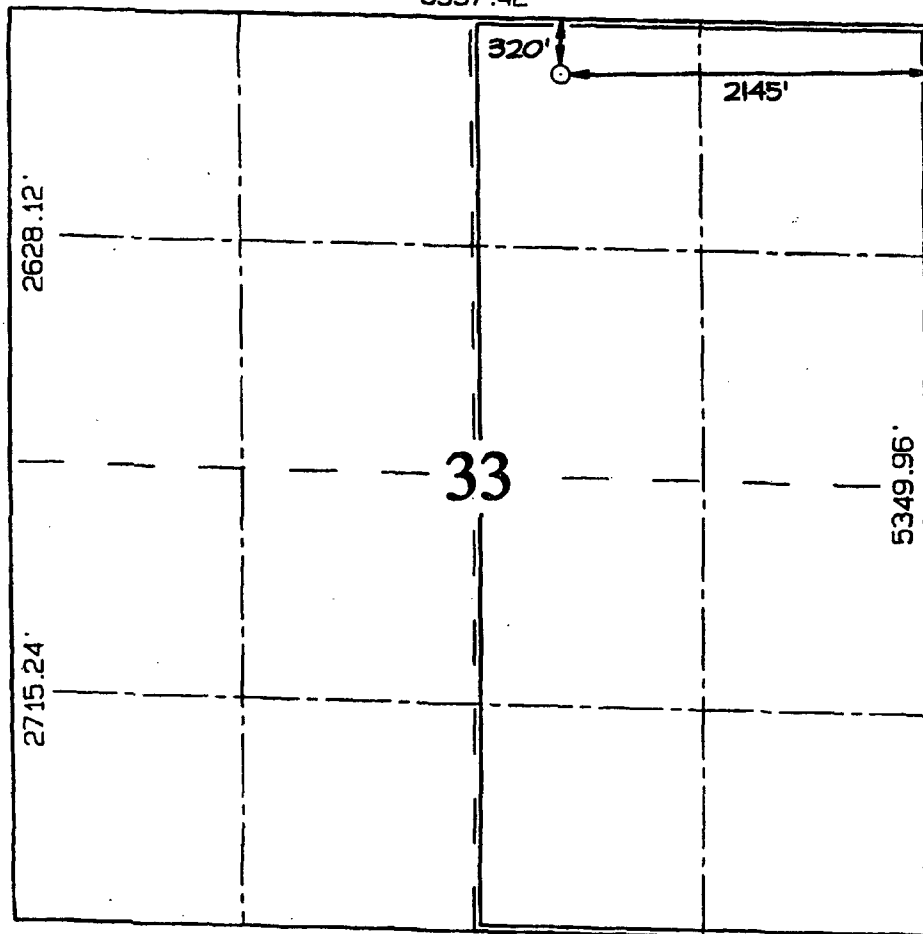
UL or lot no. B	Section 33	Township 31N	Range 13W	Lot Idn	Feet from the 320	North/South line NORTH	Feet from the 2145	East/West line EAST	County SAN JUAN
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#### 11 Bottom Hole Location If Different From Surface

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

5337.42'



#### 17 OPERATOR CERTIFICATION

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

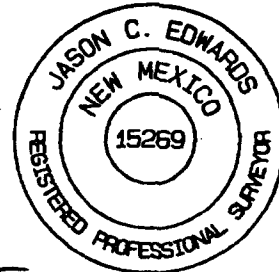
Signature: *Jason Muse*  
Printed Name: JASON MUSE  
Title: Reg/Engineering Tech  
Date: 12/1/05

#### 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.

Survey Date: SEPTEMBER 2, 2005

Signature and Seal of Professional Surveyor



JASON C. EDWARDS  
Certificate Number 15269

[illegible]

LATITUDE: 36°51'47"  
LONGITUDE: 108°12'28"  
DATUM: NAD1927

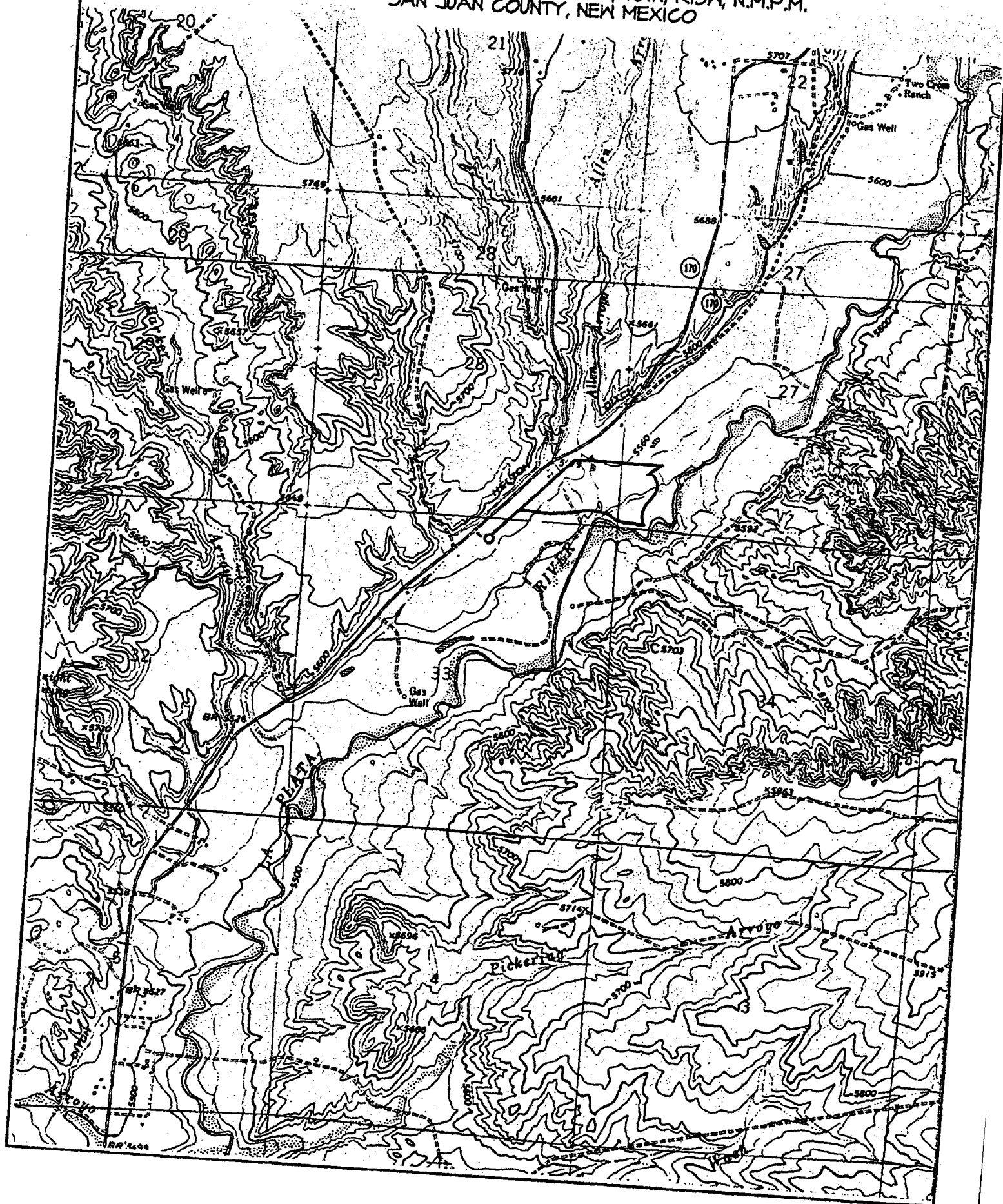
HIGHWAY RIGHT-OF-WAY FENCE

A-A'						
5554'						
5544'						
5534'						

B-B'							
5554'							
5544'							
5534'							

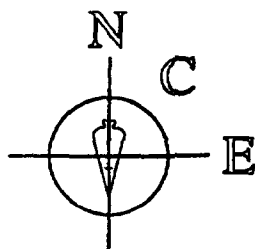
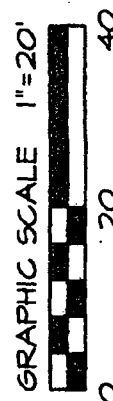
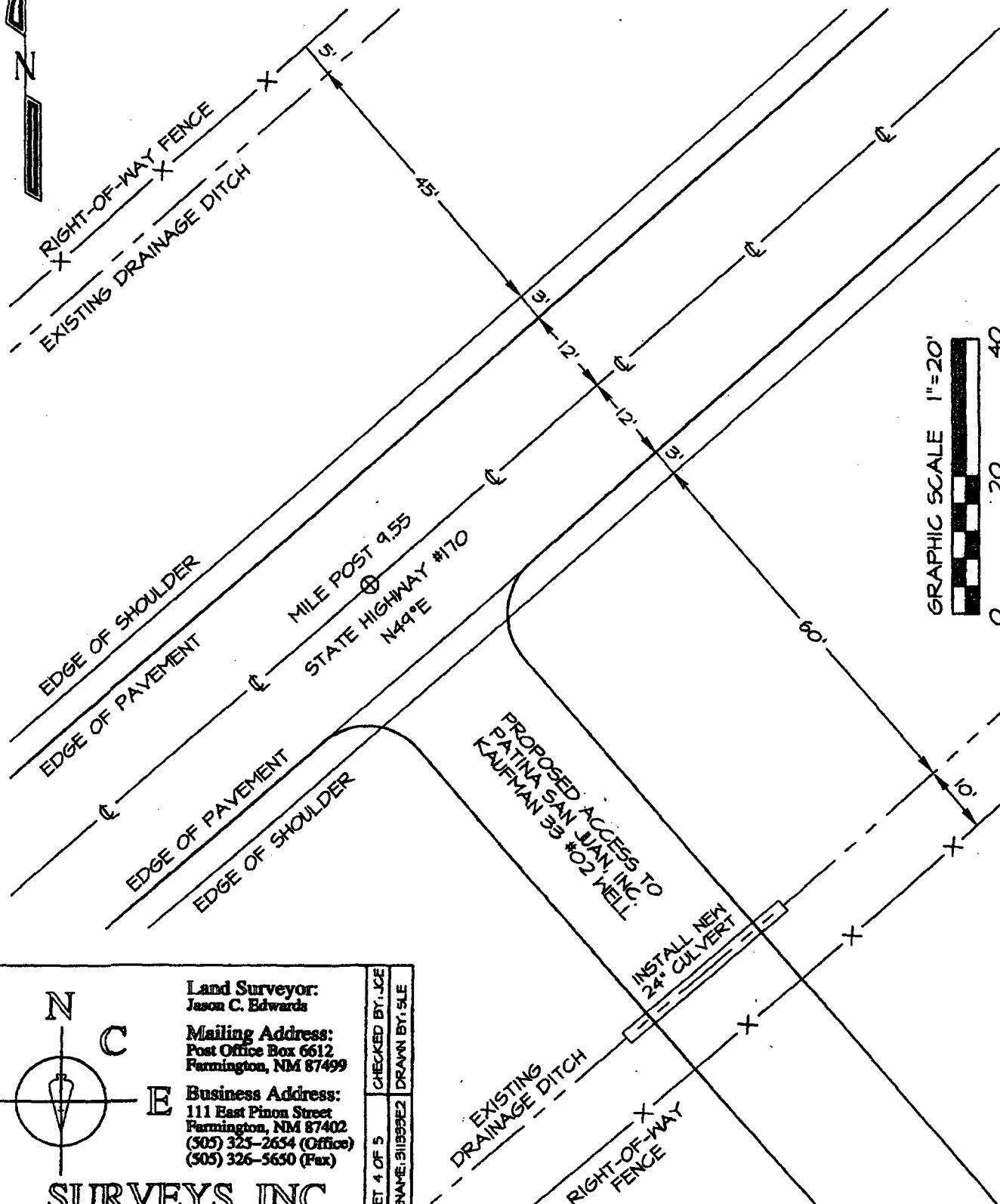
C-C'						
5554'						
5544'						
5534'						

PATINA SAN JUAN, INC. VALANCE 33' #02  
320' FNL & 2145' FEL, SECTION 33, T31N, R13W, N.M.P.M.  
SAN JUAN COUNTY, NEW MEXICO



# PATINA SAN JUAN, INC.

VALANCE 33 #02 HIGHWAY ACCESS PERMIT SKETCH  
320' FNL & 2145' FEL, SECTION 33, T31N, R13W, NMPM  
SAN JUAN COUNTY, NEW MEXICO



**SURVEYS, INC.**

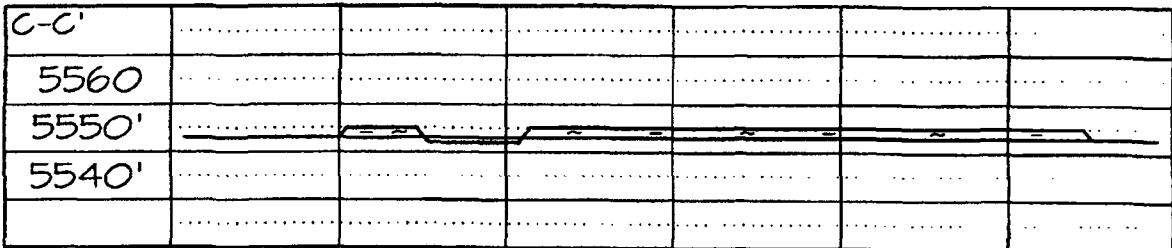
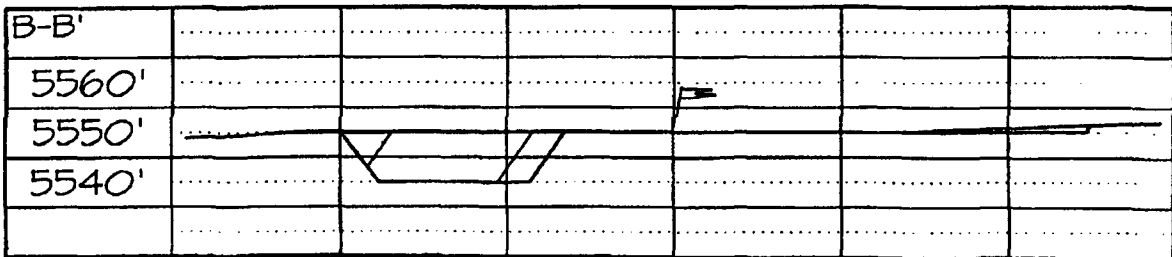
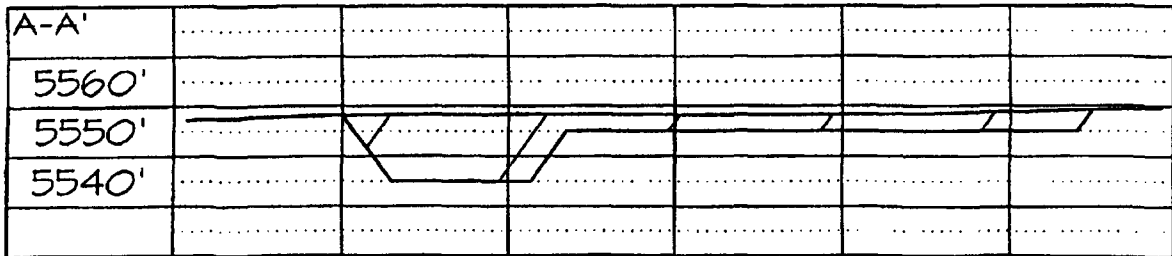
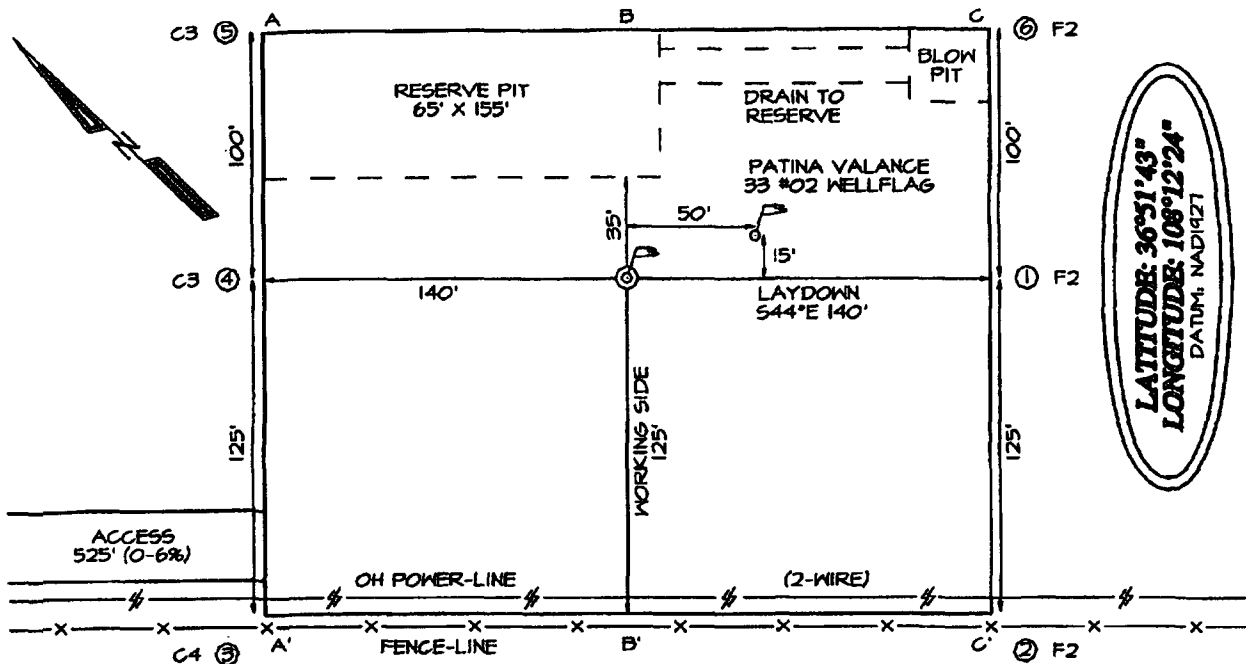
Land Surveyor:  
Jason C. Edwards

Mailing Address:  
Post Office Box 6612  
Farmington, NM 87499

Business Address:  
111 East Pinon Street  
Farmington, NM 87402  
(505) 325-2654 (Office)  
(505) 326-5650 (Fax)

CHECKED BY: JCE  
DRAWN BY: SLE  
SHEET 4 OF 5  
FILENAME: 311339E2

**PATINA SAN JUAN, INC. KAUFMAN 33 #02**  
**660' FNL & 1845' FHL, SECTION 33, T31N, R13W, NMPM**  
**SAN JUAN COUNTY, NEW MEXICO ELEVATION: 5550'**



**Valance 33 #02**  
**General Drilling Plan**  
**Patina San Juan, Inc.**  
**San Juan County, New Mexico**

**1. LOCATION:**

Est. elevation: 5550'  
NWNE of Section 33, T31N, R13W  
San Juan, New Mexico

Field: Blanco Mesa Verde & Basin DK  
Surface: Fee  
Minerals: Fee

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

Surface formation – Nacimiento

<b><u>Formation</u></b>	<b><u>Estimated Formation Top (Ft)</u></b>
Ojo Alamo	421
Kirtland	596
Fruitland**	1185
Pictured Cliffs**	1569
Lewis	1753
Cliff House**	3186
Menefee**	3326
Point Lookout***	3981
Mancos	4312
Gallup	5520
Greenhorn	6050
Graneros	6109
Dakota ***	6162
TD	6350

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, but not to exceed 1,000 psi. 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:	1,000 psi (High)	250 psi (low)
b) Choke manifold:	1,000 psi (High)	250 psi (low)
c) Choke lines:	1,000 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 Data				
Interval	Bit Size (Inches)	Casing Size (Inches)	Top (Ft)	Bottom (Ft)
Surface	13.50	9.625	0	300
Intermediate	8.75	7.0	0	4350
Production	6.25	4.5	4050	6350

Casing Data							
OD (Inches)	ID (Inches)	Weight (Lbs/Ft)	Grade	Thread	Collapse (psi)	Burst (psi)	Min. Tensile (Lbs)
9.625	8.921	36.0	J55	STC	2,020	3,520	394,000
7.000	6.366	23.0	L80	LTC	3,830	6,340	435,000
4.5	4.276	11.6	N80	LTC	6,350	7,780	223,000

#### MINIMUM CASING DESIGN FACTORS:

COLLAPSE: 1.125

BURST: 1.00

TENSION: 1.80

Area Fracture Gradient Range: 0.7 – 0.8 psi/foot

Maximum anticipated reservoir pressure: 2,500 psi

Maximum anticipated mud weight: 9.0 ppg

Maximum surface treating pressure: 3,750 psi

Float Equipment:

**Surface Casing:** Guide shoe on bottom and 3 centralizers on the bottom 3 joints.

**Intermediate Casing:** Float shoe on bottom joint and a float collar one joint up from float shoe. One centralizer 10 ft above float shoe and nine centralizers spaced every joint above the float collar. Stage tool above the Cliffhouse formation. One centralizer below stage tool and one centralizer above stage tool.

**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:

### 9-5/8" Surface casing:

225 sx Type III cement with 3%  $\text{CaCl}_2$ , 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: 14.5 ppg  
Slurry yield: 1.42 ft<sup>3</sup>/sack

Volume basis:	40' of 9-5/8" shoe joint	17 cu ft
	300' of 13-1/2" x 9-5/8" annulus	147 cu ft
	<u>100% excess (annulus)</u>	<u>147 cu ft</u>
	Total	311 cu ft

#### Note:

1. Design top of cement is the surface.
2. Have available 100 sx Type III cement with 2%  $\text{CaCl}_2$  for top out purposes.

### 7" Intermediate Casing:

#### 1<sup>st</sup> Stage:

125 sx of Type III cement plus additives

Slurry weight: 12.3 ppg  
Slurry yield: 2.22 ft<sup>3</sup>/sx

#### 2<sup>nd</sup> Stage: (Stage tool at $\pm 3000'$ )

Lead: 235 sx of Type III cement plus additives

Slurry weight: 12.3 ppg  
Slurry yield: 2.22 ft<sup>3</sup>/sx

Tail: 50 sx of Type III cement plus additives

Slurry weight: 14.5 ppg  
Slurry yield: 1.40 ft<sup>3</sup>/sx

Volume Basis:	40' of 7" shoe joint	9 cu ft
	4050' of 7" x 8 3/4" hole	609 cu ft
	300' of 7" x 9 5/8" casing	50 cu ft
	<u>30% excess (annulus)</u>	<u>198 cu ft</u>
	Total	866 cu ft

#### Note:

1. Design top of cement is surface.
2. Actual cement volumes to be based on caliper log plus 30%.

**4 1/2" Production casing:**

175 sx of Type III cement plus additives

Slurry weight: 12.5 ppg

Slurry yield: 2.06 ft<sup>3</sup>/sx

Volume basis:	40' of 4 1/2" shoe joint	5 cu ft
	2000' of 4 1/2" x 6 1/4" hole	205 cu ft
	300' of 4 1/2" x 7" casing overlap	33 cu ft
	200' above 4.5" liner (without drill pipe)	44 cu ft
	<u>30% excess (annulus)</u>	<u>71 cu ft</u>
	Total	358 cu ft

**Note:**

1. Design top of cement is  $\pm 4100'$  (200' above the top of the 4.5" liner w/out drill pipe).
2. Actual cement volumes to be based on caliper log plus 30%.

**5. MUD PROGRAM:**

The surface hole will be drilled with spud mud. Gel and polymer sweeps will be used from surface to 300 feet as necessary to keep hole clean.

The intermediate hole will be drilled with water until mud up at about 3100 ft. From mud up point to intermediate casing depth ( $\pm 4600'$ ), it will be drilled with a LSND mud. Anticipated mud weight ranges from 8.5 – 9.2 ppg. Mud weight will be increased as required to maintain hole stability and control gas influx.

The production hole will be drilled with air or air/mist to TD.

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: No DST is planned

Coring: None Planned

Electric logs: Intermediate Hole:

1) DIL-GR-SP: TD to base of surface casing.

2) LDT-CNL-GR-CAL-PE: TD to base of surface casing

Production Hole:

1) No open hole logs

2) Cased hole resistivity & porosity logs

**7. ABNORMAL PRESSURE AND TEMPERATURE:**

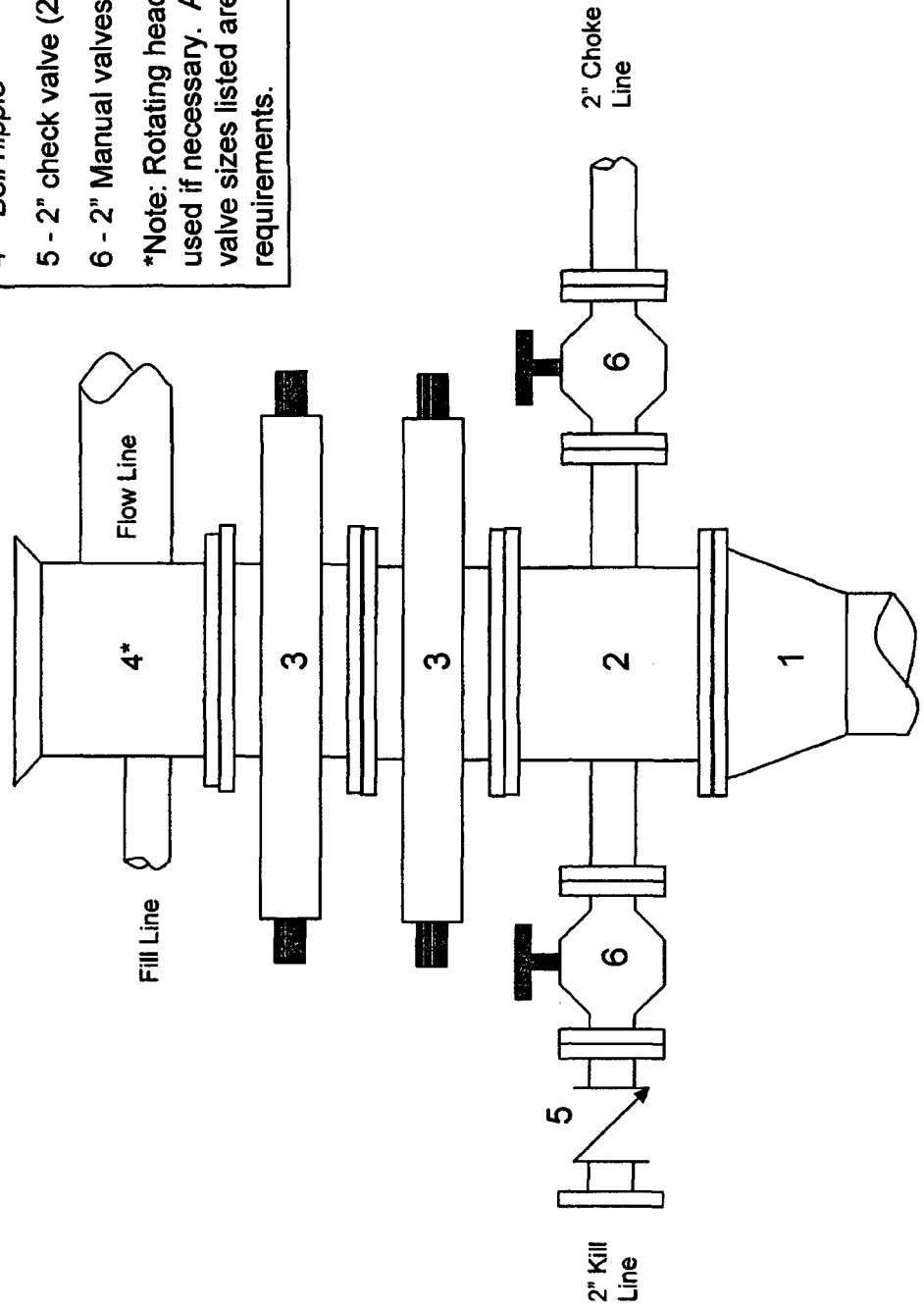
H <sub>2</sub> S	None
Coal	Fruitland
Minerals	None
Water	None
Static BHT	175° F
Lost Circulation	Possible
Hole Deviation	None
Abnormal Pressures	None
Unusual Drilling Problems	None

**8. ANTICIPATED STARTING DATE: Q1, 2006**

Anticipated duration: 16 days

## Valance 33 #02

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)

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

# Valance 33 #02 2000 psi Choke Manifold Minimum requirements

## Components

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

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

