

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Aztec, 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 ZONE

¹ Operator Name and Address Patina San Juan, Inc. 5802 U. S. Highway 64 Farmington, NM 87401 (505) 632-8056		² OGRID Number 173252
³ Property Code 34351		⁴ API Number 30-045-32612
⁵ Property Name JACQUEZ 02		⁶ Well No. #13
⁹ Proposed Pool 1 BASIN DAKOTA		¹⁰ Proposed Pool 2 BLANCO MESAVERDE

7 Surface Location

UL or lot no.	Sec.	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	2	31N	13W	M	660	SOUTH	660	WEST	SAN JUAN

8 Proposed 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

Additional Well Information

¹¹ Work Type Code N	¹² Well Type Code G	¹³ Cable/Rotary R	¹⁴ Lease Type Code P	¹⁵ Ground Level Elevation 5737
¹⁶ Multiple N	¹⁷ Proposed Depth 7100	¹⁸ Formation DK/MV	¹⁹ Contractor N/A	²⁰ Spud Date NOVEMBER 2004
Depth to Groundwater <100'		Distance from nearest fresh water well >200'		Distance from nearest surface water >1000'
Pit: Liner: Synthetic X 12_mils thick Clay <input type="checkbox"/> Pit Volume: _____ bbls Drilling Method: _____				
Closed-Loop System <input type="checkbox"/> Fresh Water X Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				

21 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#	4200' +/-	100 sx + 365 sx	SURFACE
6 1/4"	4 1/2"	11.6#	7100'	220 sx	3900' +/- 300' into 7"

²² 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.

SEE ATTACHED WELL PLAN



²³ 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: RUNELL A. SEALE <i>Runell A. Seale</i>		Approved by: <i>[Signature]</i>	
Title: AGENT		Title: DEPUTY OIL & GAS INSPECTOR, DIST. #9	
E-mail Address: raseale@patinasanjuan.com		Approval Date: OCT - 8 2004 Expiration Date: OCT - 8 2005	
Date: 10/8/04	Phone: 505-632-8056	Conditions of Approval Attached <input type="checkbox"/>	

District I
1625 N. French Pk., 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

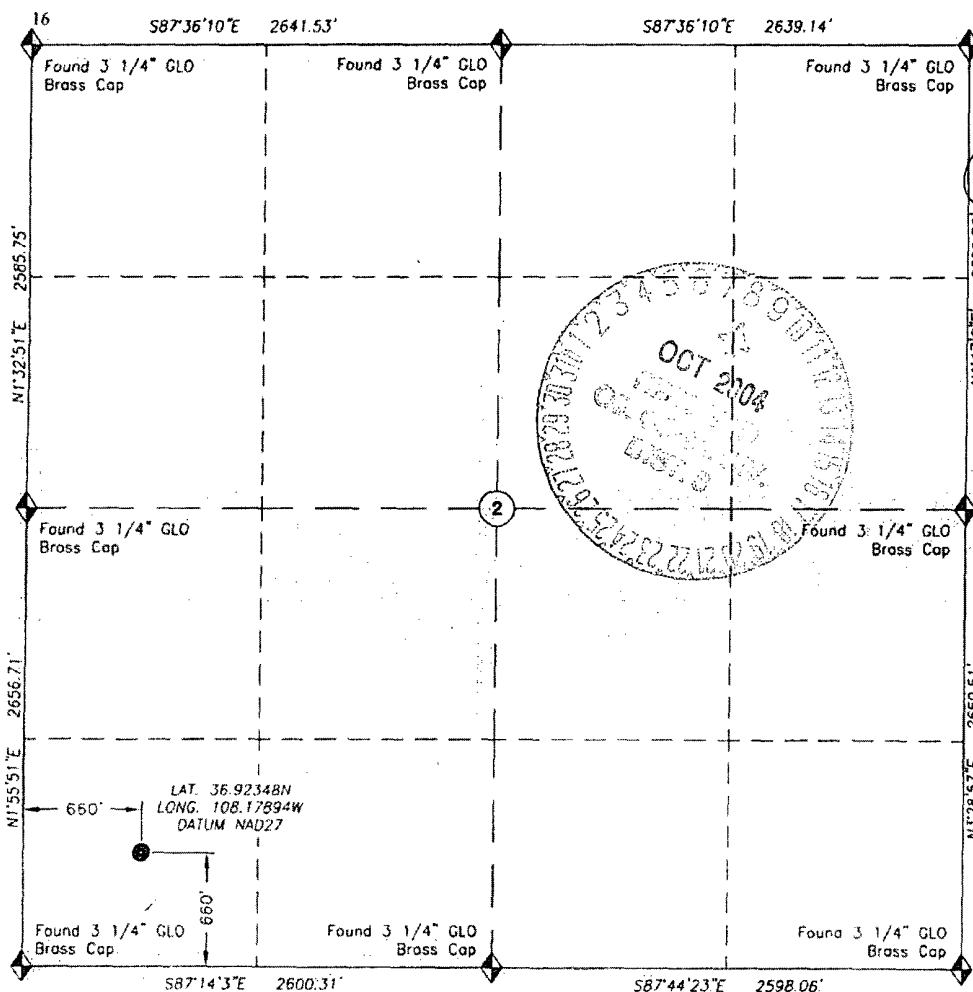
Form C-102
Revised June 10, 2003
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-055-32612		2 Pool Code 72319 71599		3 Pool Name Blanco Mesaville Basin Dakota	
4 Property Code 34351		5 Property Name JACQUEZ 02		6 Well Number 13	
7 OGRID No. 173252		8 Operator Name PATINA OIL & GAS CORPORATION/Patina San Juan Inc.		9 Elevation 5737'	
10 Surface Location					
UL or lot no. M	Section 2	Township 31N	Range 13W	Lot Idn M	Feet from the 660
		North/South line SOUTH		Feet from the 660	
		East/West line WEST		County 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 3/4.8 320 AC W/2		13 Joint or In fill		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: <i>[Signature]</i>	
Printed Name: DALE E. BELL	
Title and E-mail Address: Reg. Engr. Tech. muse@patinasanjuan.com	
Date: 10.01.04	
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: September 24, 2004	
Dale E. Bell New Mexico Reg. PS No. 14400 For and on behalf of Trigon Epc 126 Rock Point Dr., Suite B Durango CO 81301 (970) 385-9100	

**Jacquez 02 No. 13
General Drilling Plan
Patina San Juan, Inc.
San Juan County, New Mexico**

CASING DESIGN:

Casing Program:

Hole Size	Depth	Casing Size
12 1/4"	250'	9 5/8"
8 3/4"	4200' +/-	7"
6 1/4"	7100'	4 1/2"

Hole 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'	4200' +/-	23.0	N80	LTC	New
4 1/2"	Production	0	7100'	11.6	N80	LTC	New

OD	Casing Data			Collapse (psi)	Burst (psi)	Min. Tensile (Lbs.)
	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% 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 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% CaCl₂ for top out purposes.

7" Intermediate Casing:

1st Stage: 100 sacks of Type III cement

Slurry weight: 14.5 ppg
Slurry yield: 1.4 ft³/sack

2nd Stage: (Stage tool at 3600' +/-): 365 sacks of Premium Lite FM

Slurry weight: 12.4 ppg
Slurry yield: 1.92 ft³/sack

Volume Basis:	40' of 7" shoe joint	9 cu ft
	3900' 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 ft³/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 3900 +/- ft. or 300 ft. into 7" intermediate casing.
2. Actual cement volumes to be based on caliper log plus 30%.

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 till mud up at about 3100 ft. From 3100' to 4200', 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.

EVALUATION PROGRAM:

Mud logger: None Planned.
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) DIL-GR-SP: TD to base of intermediate casing
- 2) LDT-CNL-GR-CAL-PE: TD to base of intermediate casing

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.

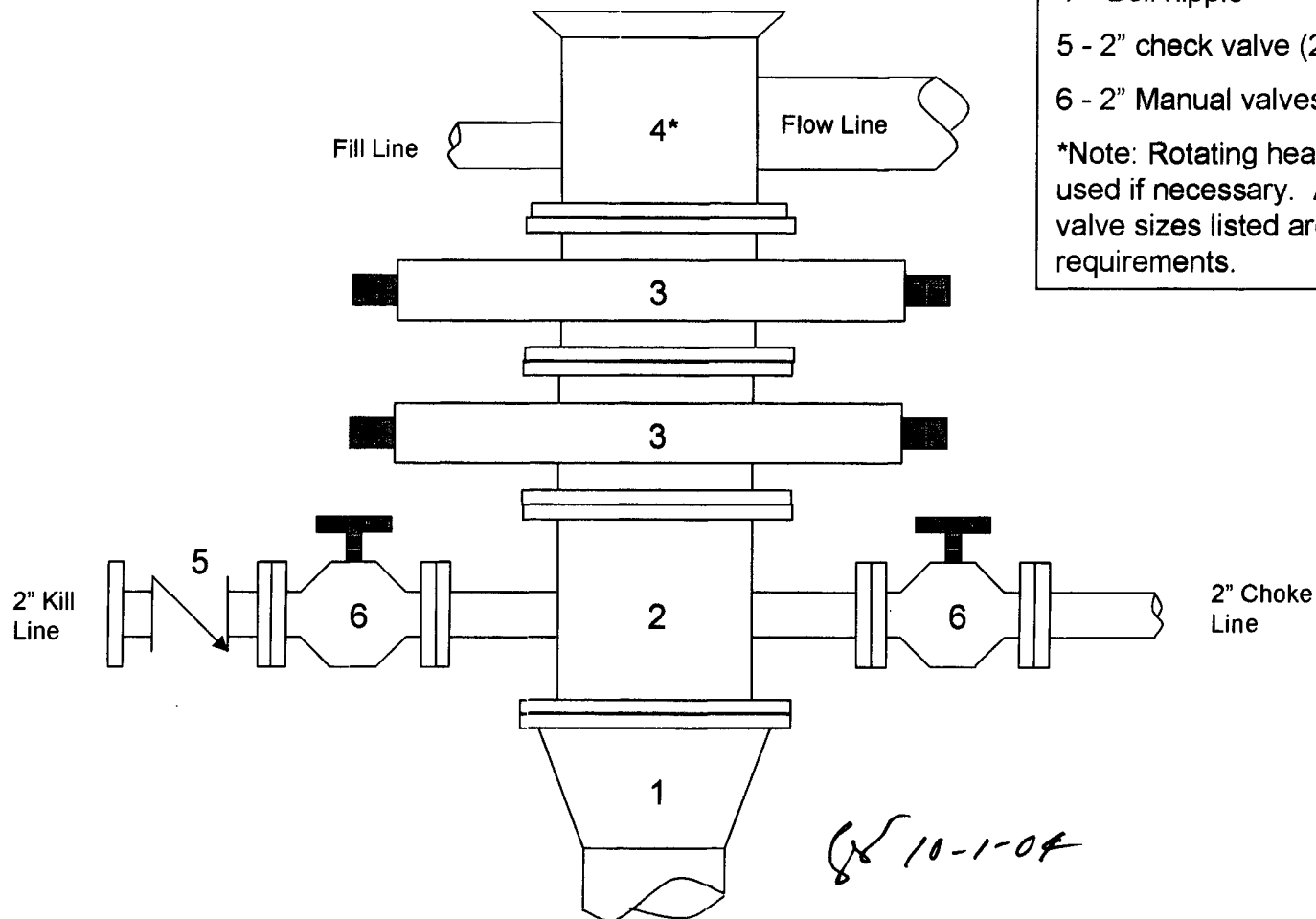
AUXILIARY EQUIPMENT:

- 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.

Jacquez 02 No. 13

2000 psi BOP stack

Minimum requirements

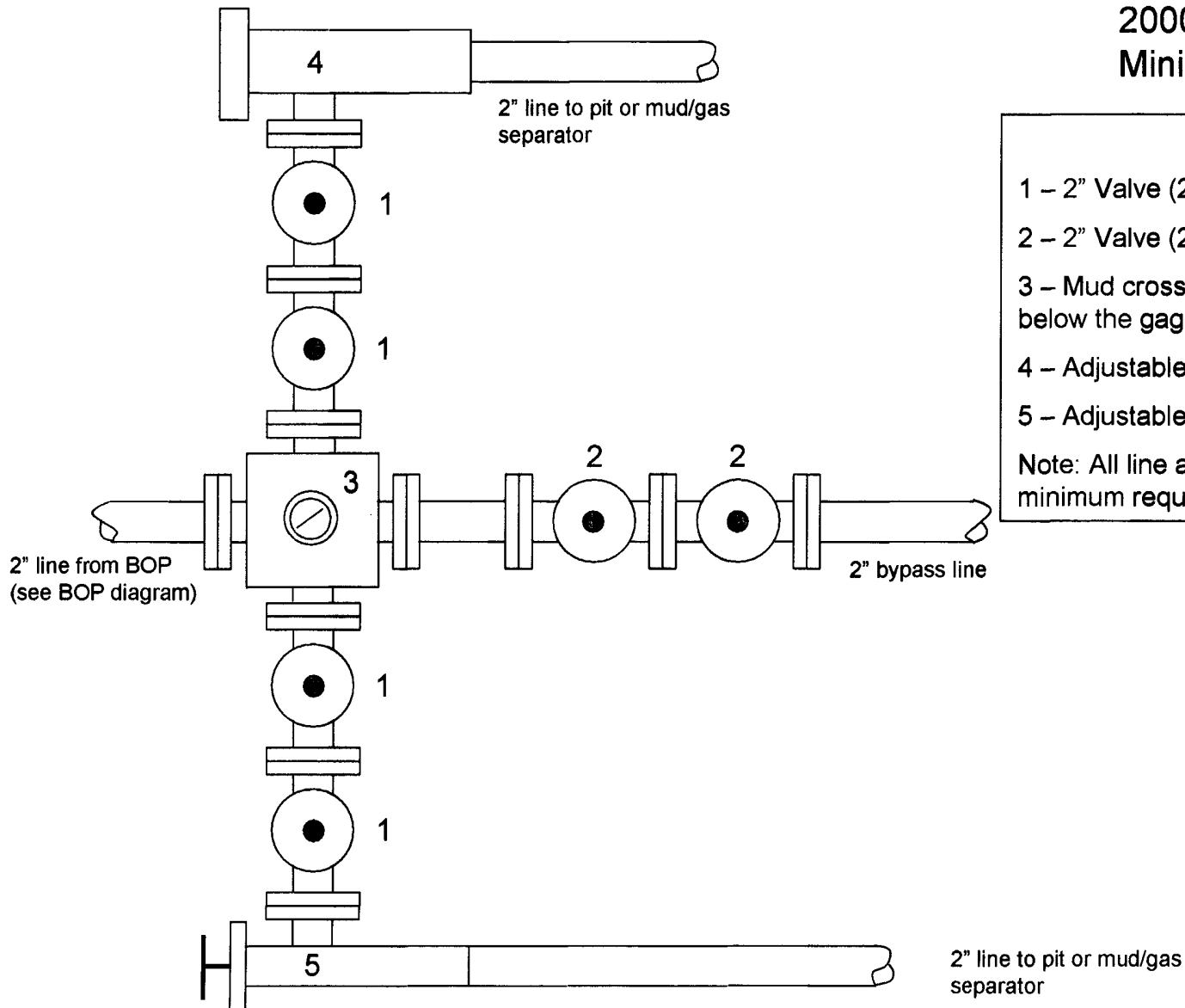


Components

- 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.

Jacquez 02 No. 13 **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.

SV 10.1-0A

PAD LAYOUT PLAN & PROFILE

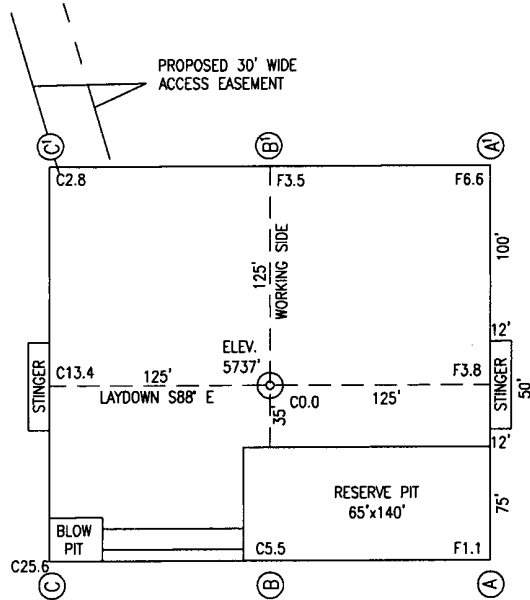
PATINA OIL & GAS CORPORATION

Jacquez 02 #13

660' F/SL 660' F/WL

Sec. 2, T31N, R13W, N.M.P.M.

San Juan County, New Mexico



LATITUDE: 36.92348° N
LONGITUDE: 108.17894° W
DATUM: NAD1927

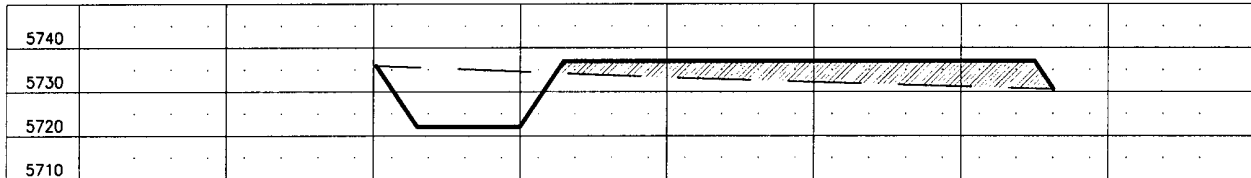
PLAT NOTE

SURFACE OWNER

TRUBY, ELMER R.

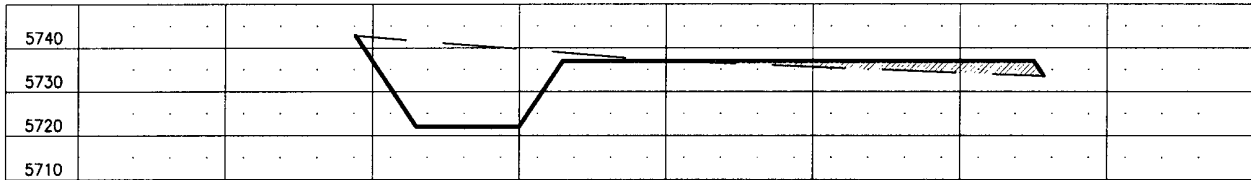
A-A'

CL



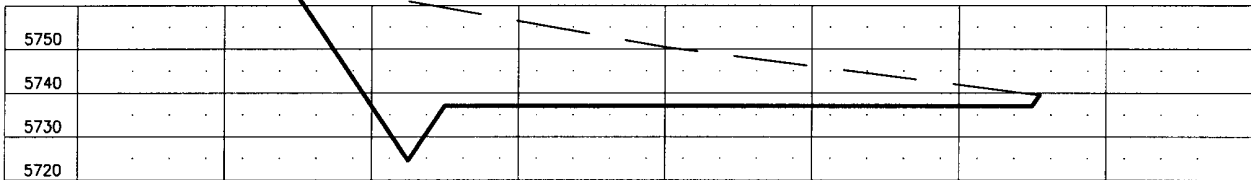
B-B'

CL



C-C'

CL



HORIZONTAL SCALE: 1" = 60'

VERTICAL SCALE: 1" = 40'

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CALL ONE-CALL FOR LOCATION OF ALL BURIED FACILITIES ON WELL PAD AND/OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.
2. CUTS AND FILLS SHOWN ARE APPROXIMATE - FINAL FINISHED ELEVATION IS TO BE ADJUSTED SO EARTHWORK WILL BALANCE. CORNER STAKES ARE APPROXIMATE AND DO NOT INCLUDE ADDITIONAL AREAS NEEDED FOR SIDESLOPES AND DRAINAGES. FINAL PAD DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR.

DATE SURVEYED: 09/24/04

DRAWN BY: AEM

DATE DRAWN: 09/29/04

REVISION DATE:

FILE NAME: JACQUEZ021302

CLIENT

PATINA OIL & GAS CORPORATION

PREPARED BY

TRIGON

ENGINEERING • PROCUREMENT • CONSTRUCTION