

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

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 24078		⁴ API Number 30-045-32632
⁵ Property Name TAFOYA 35		⁶ Well No. #12
⁷ Proposed Pool 1 BLANCO MESAVERDE		⁸ Proposed Pool 2

⁷ Surface Location									
UL or lot no. L	Sec. 35	Township 32N	Range 13W	Lot Idn	Feet from the 1843	North/South line SOUTH	Feet from the 785	East/West line WEST	County SAN JUAN

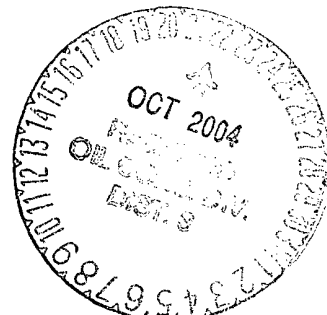
⁸ Proposed Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

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 5843
¹⁶ Multiple N	¹⁷ Proposed Depth 4800' +/-	¹⁸ Formation MV	¹⁹ Contractor N/A	²⁰ Spud Date JUNE 2005
Depth to Groundwater <100'		Distance from nearest fresh water well <1000'		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 <input checked="" type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oilbased <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 1/2"	8 5/8"	26#	250'	165 cv	SURFACE
7 7/8"	4 1/2"	11.6#	1800' +/-	325 cv	SURFACE

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. IV	
E-mail Address: raseale@patinasanjuan.com		Approval Date: OCT 22 2004 Expiration Date: OCT 22 2005	
Date: 10-22-04	Phone: 505-632-8056	Conditions of Approval Attached <input type="checkbox"/>	

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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 30-045-32632		² Pool Code 72319	³ Pool Name BLANCO MESA VERDE
⁴ Property Code 24078	⁵ Property Name TAFOYA		⁶ Well Number 12
⁷ OGRID No. 173252	⁸ Operator Name PATINA OIL & GAS CORPORATION		⁹ Elevation 5843'

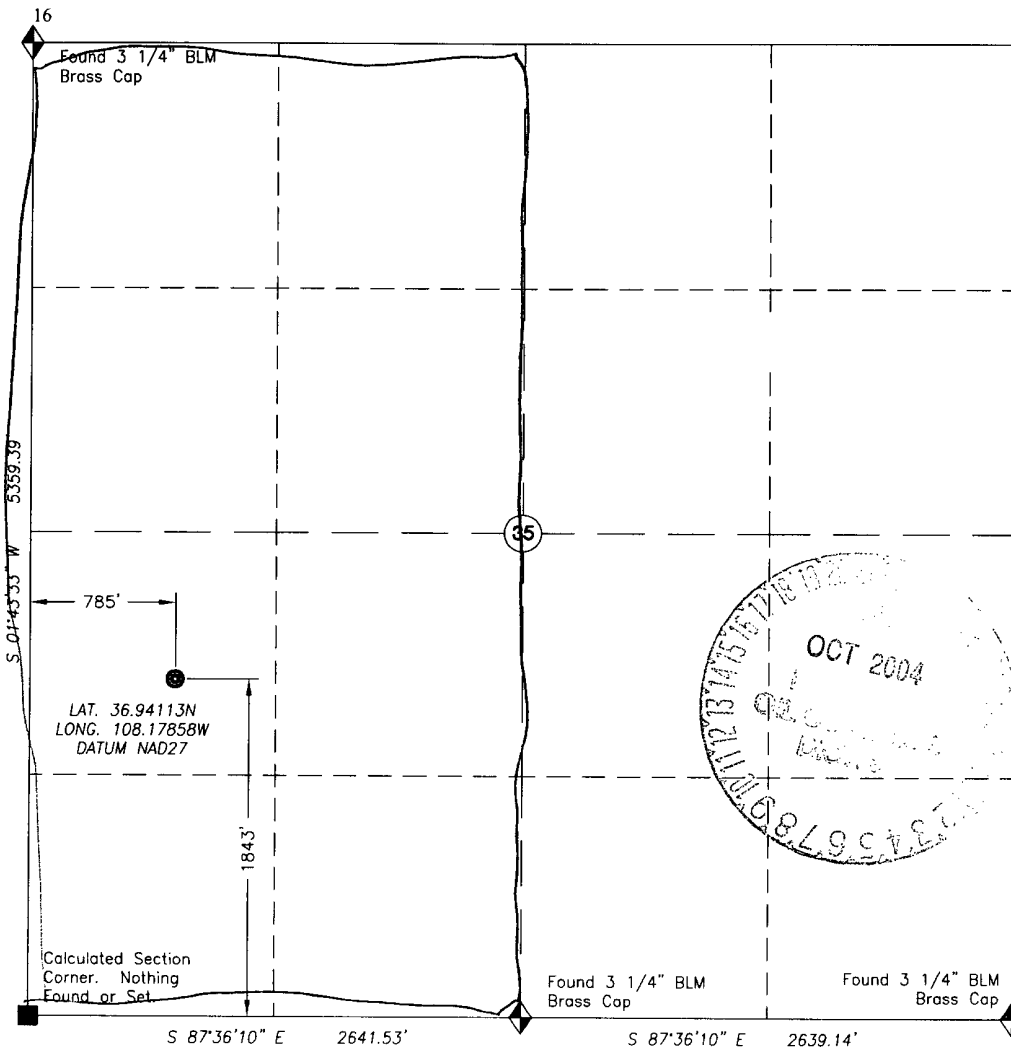
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
	35	32N	13W		1843	SOUTH	785	WEST	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 ACRES W 1/2					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



<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Runeil A. Seale</i></p> <p>Signature</p> <p>Runeil A. Seale</p> <p>Printed Name</p> <p>raseale @ patinasanjuan.com</p> <p>Agent</p> <p>10.22-04</p> <p>Date</p>	<p>18 SURVEYOR CERTIFICATION</p> <p>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.</p> <p>October 4, 2004</p> <p>Date of Survey</p> <p><i>Dale E. Bell</i></p> <p>14400</p> <p>REGISTERED PROFESSIONAL SURVEYOR</p> <p>10/11/04</p> <p>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</p>
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**Tafoya 35 No. 12
General Drilling Plan
Patina San Juan, Inc.
San Juan County, New Mexico**

CASING DESIGN:

Casing Program:

Hole Size	Depth / Formation	Casing Size
12 1/4"	250'	9 5/8"
7 7/8"	4800' through Point Lookout	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	K55/J55	STC	New
4 1/2"	Production	0	4800'	11.6	N80, L80, I80	LTC	New

Casing Data				Collapse (psi)	Burst (psi)	Min. Tensile (Lbs.)
OD	Wt/Ft	Grade	Thread			
9-5/8"	36.0 lbs.	K55/J55	STC	2,020	3,520	394,000
4 1/2"	11.6 lbs.	N80, L80, I80	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.

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.

Oct 12, 2004 - 10:54am by amynew - Path = K:\JOBS\2014--02 Patina Huerfano 2005 PUD\Tafoya 35-12\TAFOYAJ351202.dwg

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.

4 1/2" Production casing:

Stage 1: 325 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	462 cu ft
	4 1/2" x 9 5/8" casing	92 cu ft
	<u>30% excess (annulus)</u>	<u>139 cu ft</u>
	Total	698 cu ft

Note:

1. Design top of cement is to circulate to surface.
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 production hole will be drilled with water until mud up at about 3100 ft. From 3100' to 4800', production 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.

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.

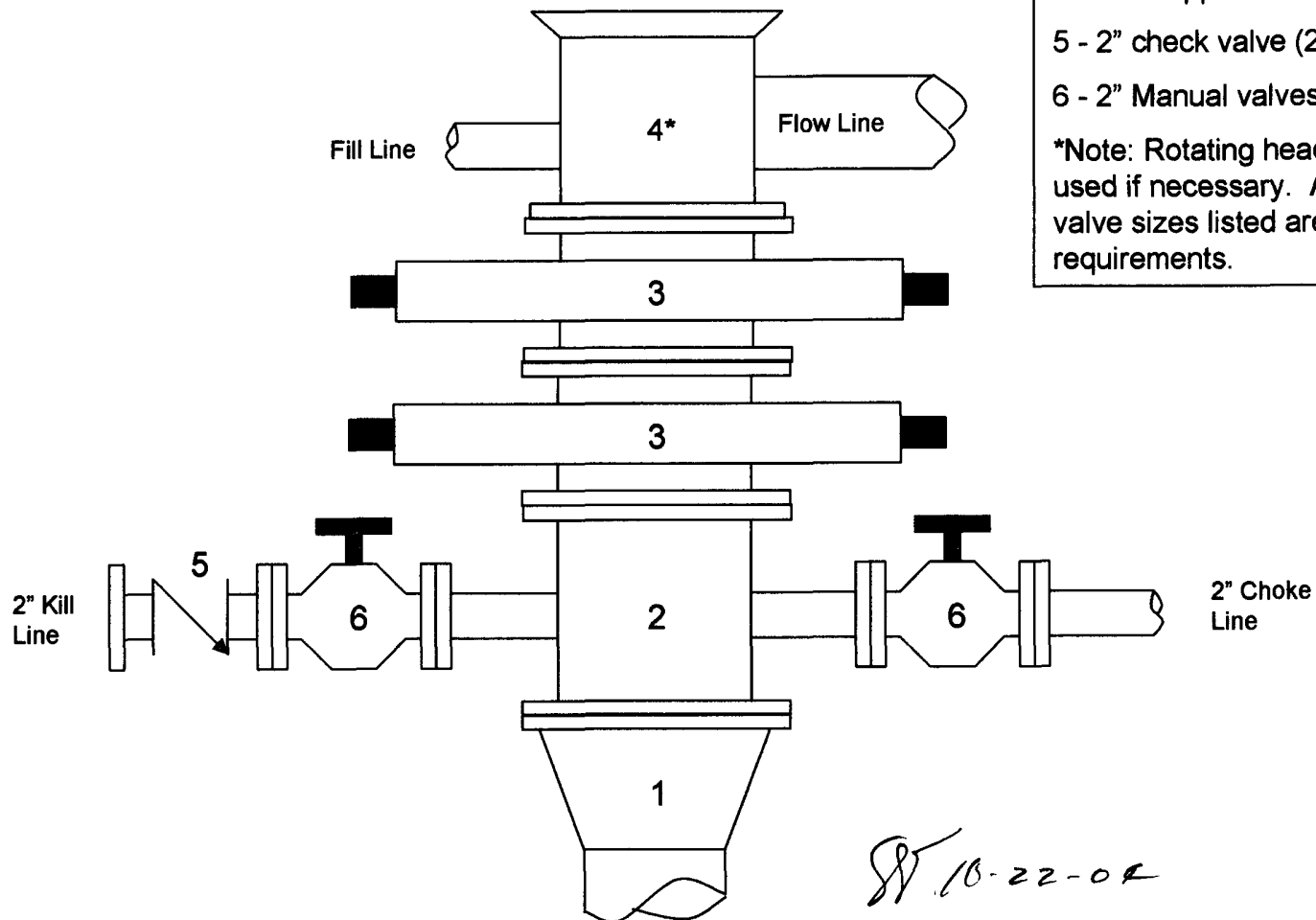
AUXILIARY EQUIPMENT:

- 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.

Tafoya 35 No. 12

2000 psi BOP stack

Minimum requirements



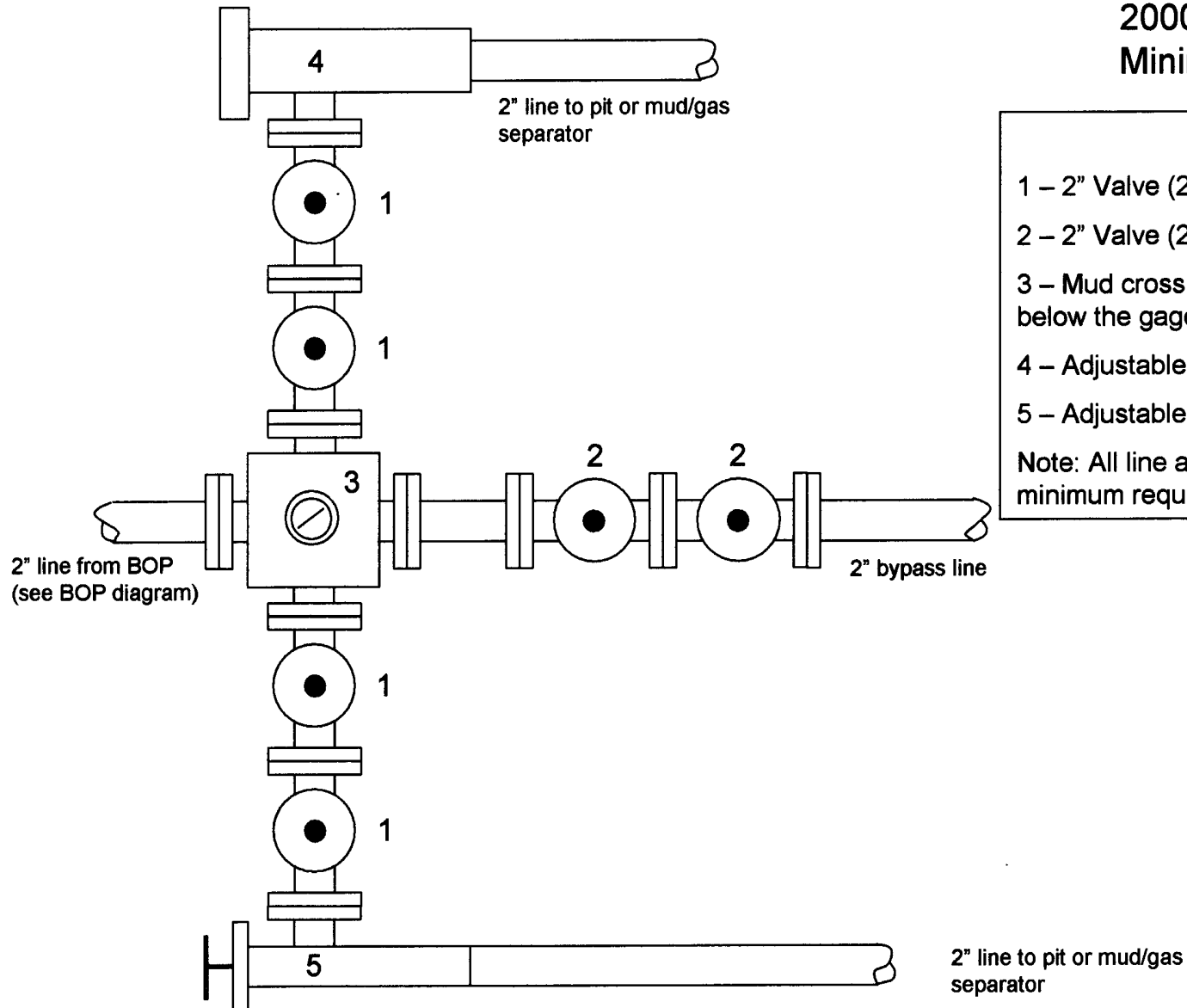
Components

- 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.

ST 10-22-02

Tafoya 35 No. 12 **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 10.22-04