

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-101
Revised March 17, 1999

Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Submit to appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

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

¹ Operator Name and Address Conoco Inc., 10 Desta Drive, Suite 649W, Midland, TX 79705		² OGRID Number 005073
		³ API Number 30 - 025-35156
⁴ Property Code 25385	⁵ Property Name State "25" A	⁶ Well No. 5

⁷ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	25	20S	37E		660'	South	760'	East	Lea

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

⁹ Proposed Pool 1 North Hardy Strawn	¹⁰ Proposed Pool 2
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¹¹ Work Type Code N	¹² Well Type Code O	¹³ Cable/Rotary R	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3507'
¹⁶ Multiple No	¹⁷ Proposed Depth 7920'	¹⁸ Formation Strawn	¹⁹ Contractor	²⁰ Spud Date 9/25/00

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12-1/4"	J-55, 8-5/8"	24#	1500'	657	Surface
7-7/8"	J-55, 5-1/2"	17#	7920'	985	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.

1. Well Location and Acreage Dedication Plat (C-102)
2. Proposed Well Plan Outline
3. Cementing Program
4. BOP/Choke Diagram

Permit Expires 1 Year From Approval
Date Unless Drilling Underway

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature:

Jo Ann Johnson

Printed name: Jo Ann Johnson

Title: Sr. Property Analyst

Date: 9/7/00

Phone: 915/686-5515

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date: SEP 18 2000

Expiration Date:

Conditions of Approval:

Attached ☐

DISTRICT I
1826 N. French St., Hobbs, NM 88240

DISTRICT II
511 South First, Artesia, NM 88210

DISTRICT III
1000 Rio Grande Rd., Artesia, NM 87410

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised March 17, 1989

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, New Mexico 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-35156	Pool Code 96893	Pool Name North Hardy Strawn
Property Code 25385	Property Name STATE "25"	Well Number 5
OWNER No. 005073	Operator Name CONOCO INC.	Elevation 3505'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	25	20 S	37 E		760	EAST	660	SOUTH	LEA

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

Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No.
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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>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Jo Ann Johnson</i> Signature</p> <p>Jo Ann Johnson Printed Name</p> <p>Sr. Property Analyst Title</p> <p>9/7/00 Date</p>
	<p>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>August 28, 2000 Date Surveyed</p> <p><i>L. JONES</i> Signature</p> <p>Professional Seal of L. JONES Professional Seal of</p> <p>W.S. No. 048176 Certificate No. 7977</p> <p>BASIN SURVEYS</p>
	<p>LAT - N32°32'18.2" LONG - W103°11'55.2"</p>
	<p>3508.4' 3507.2' 3505.3' 3503.4' 780' 660'</p>

See Amended

PROPOSED WELL PLAN OUTLINE

WELL NAME
LOCATION

State 25 'A' #5
660' FSL & 760' FEL, Sec 25, T20S & R37E (prior to staking)

Ground Level : 3,507' (est)
Kelly Bushing: 11' AGL

Depth MD	FORMATION TOPS (from GL)	DRILLING PROBLEMS	TYPE OF FORMATION EVALUATION	HOLE SIZE	CASING PROGRAM	FRAC GRAD	FORM. PRES. GRAD.	Mud Weight & Type	Days
0		Possible Hole Enlargement & Sloughing		12-1/4"			Less than 8.3	8.4 - 9.5 Fresh	
1000									
	Top Salt @ 1,400'				8-5/8", 24#, J-55 ST&C @ 1,500'				3
		Washouts in Salt Section		7-7/8"	Circulate Cement			10 Brine	
2000							Less than 8.4		
	Base Salt @ 2,550'		Mud Loggers @ 2,600'						
	Yates 2,690'		H2S monitor equipment on @ 2,600'						
3000	7 Rivers 2,940'								
	Queen 3,510'								
	Penrose 3,640'								
	Grayburg 3,790'								
4000	San Andres 4,020'								
		Mud loss in San Andres is possible. None experienced on offset well.							
5000									
	Glorietta 5,270'	Possible differential sticking thru Glorietta							7
	Blinberry 5,840'								
6000									
	Tubb 6,340'								
	Drinkard 6,690'								10
7000	Abo 6,950'		First Log Run: GR-CAL-DLL-MLL-SGR-SONIC FDC-CNL-PE : TD to 2000' Pull GR-CNL-Cal to Surf SGR interval to be chosen					10 ppg Starch Gel	
	Strawn @ 7,590'	Starch up prior to drilling into Strawn.	Second Log Run: 30 rotary sidewall cores		5-1/2", 17#, J-55 LT&C set @ 7,920'				
8000	TD @ 7,920'	Offset data from: State 25 'A' #3	Possible Third Run: FMI imaging log		Circulate cement either single or 2 stage				17

DATE 30-Aug-00

Joe Huck, Geologist

APPROVED

David Delao, Drilling Engineer

Joe Miller, Reservoir Engineer



Proposal No: 180254609A

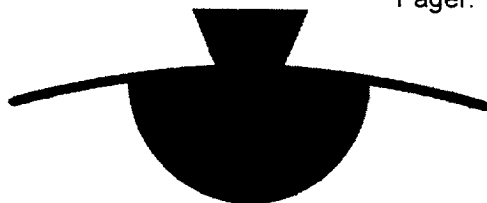
Conoco
State 25 'A' No. 5

Lea County, New Mexico
August 28, 2000

Well Recommendation

Prepared for:
Mr. David Delao
Drilling Engineer

Prepared by:
Rocky Chambers
Region Engineer
Midland, Texas
Bus Phone: 915/683-2781
Mobile: 915/557-1239
Pager: 915/498-1605



P O W E R V I S I O N™

Service Point:

Hobbs
Bus Phone: (505) 392-5556
Fax: (505) 392-7307

Service Representatives:

Wayne Davis
Account Manager
Bus Phone: (915) 683-2781
Fax: (915) 683-1443

Operator Name: Conoco
 Well Name: State 25 'A' No. 5
 Job Description: 8-5/8" Surface
 Date: August 28, 2000



Proposal No: 180254609A

WELL DATA

ANNULAR GEOMETRY

ANNULAR I.D. (in)	DEPTH(ft)	
	MEASURED	TRUE VERTICAL
12.250 HOLE	1,500	1,500

SUSPENDED PIPES

DIAMETER (in)		WEIGHT (lbs/ft)	DEPTH(ft)	
O.D.	I.D.		MEASURED	TRUE VERTICAL
8.625	8.097	24	1,500	1,500

Float Collar set @ 1,460 ft
 Mud Density 8.40 ppg
 Est. Static Temp. 89 ° F
 Est. Circ. Temp. 85 ° F

VOLUME CALCULATIONS

1,200 ft	x	0.4127 cf/ft	with	100 % excess	=	990.4 cf
300 ft	x	0.4127 cf/ft	with	100 % excess	=	247.9 cf
40 ft	x	0.3576 cf/ft	with	0 % excess	=	14.3 cf (inside pipe)
TOTAL SLURRY VOLUME					=	1252.6 cf
					=	223 bbls

Operator Name: Conoco
Well Name: State 25 'A' No.
Job Description: 8-5/8" Surface
Date: August 28, 2000



Proposal No: 180254609A

FLUID SPECIFICATIONS

<u>FLUID</u>	<u>VOLUME CU-FT</u>	<u>VOLUME FACTOR</u>	<u>AMOUNT AND TYPE OF CEMENT</u>
Lead Slurry	990	/ 2.15	= 462 sacks Class C Cement + 0.25 lbs/sack Cello Flake + 0.005 gps FP-6L + 2% bwoc Sodium Metasilicate + 109.4% Fresh Water
Tail Slurry	262	/ 1.34	= 195 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.005 gps FP-6L + 56.3% Fresh Water
Displacement			93.0 bbls Water @ 8.4 ppg

CEMENT PROPERTIES

	SLURRY NO. 1	SLURRY NO. 2
Slurry Weight (ppg)	12.40	14.80
Slurry Yield (cf/sack)	2.15	1.34
Amount of Mix Water (gps)	12.33	6.35
Amount of Mix Fluid (gps)	12.33	6.35
Estimated Pumping Time - 70 BC (HH:MM)	6:25	2:20
Free Water (mls) @ 80 ° F @ 90 ° angle	0.0	0.0
COMPRESSIVE STRENGTH		
12 hrs @ 89 ° F (psi)	124	1200
24 hrs @ 89 ° F (psi)	250	2000

Operator Name: Conoco
 Well Name: State 25 'A' No. 3
 Job Description: 5-1/2" Production String
 Date: August 28, 2000



Proposal No: 180254609A

WELL DATA

ANNULAR GEOMETRY

ANNULAR I.D. (in)	DEPTH(ft)	
	MEASURED	TRUE VERTICAL
8.097 CASING	1,500	1,500
7.875 HOLE	8,000	8,000

SUSPENDED PIPES

DIAMETER (in)		WEIGHT (lbs/ft)	DEPTH(ft)	
O.D.	I.D.		MEASURED	TRUE VERTICAL
5.500	4.892	17	8,000	8,000

Float Collar set @ 7,960 ft
 Mud Density 9.20 ppg
 Est. Static Temp. 128 ° F
 Est. Circ. Temp. 122 ° F

VOLUME CALCULATIONS

1,500 ft	x	0.1926 cf/ft	with	0 % excess	=	288.9 cf
4,100 ft	x	0.1733 cf/ft	with	50 % excess	=	1065.5 cf
2,400 ft	x	0.1733 cf/ft	with	50 % excess	=	623.7 cf
40 ft	x	0.1305 cf/ft	with	0 % excess	=	5.2 cf (inside pipe)
TOTAL SLURRY VOLUME					=	1983.3 cf
					=	354 bbls

Operator Name: Conoco
 Well Name: State 25 'A' No.
 Job Description: 5-1/2" Production String
 Date: August 28, 2000



Proposal No: 180254609A

FLUID SPECIFICATIONS

Pre-flush

1,500.0 gals Mud Clean I @ 8.4 ppg

FLUID	VOLUME CU-FT	VOLUME FACTOR	AMOUNT AND TYPE OF CEMENT
Lead Slurry	1354	/ 2.41	= 563 sacks (50:50) Poz (Fly Ash):Class C Cement + 5% bwow Sodium Chloride + 0.25 lbs/sack Cello Flake + 0.005 gps FP-6L + 10% bwoc Bentonite + 136.9% Fresh Water
Tail Slurry	629	/ 1.49	= 422 sacks (15:61:11) Poz (Fly Ash):Class C Cement:CSE + 5% bwow Sodium Chloride + 1% bwoc FL-62 + 0.005 gps FP-6L + 70% Fresh Water

Displacement

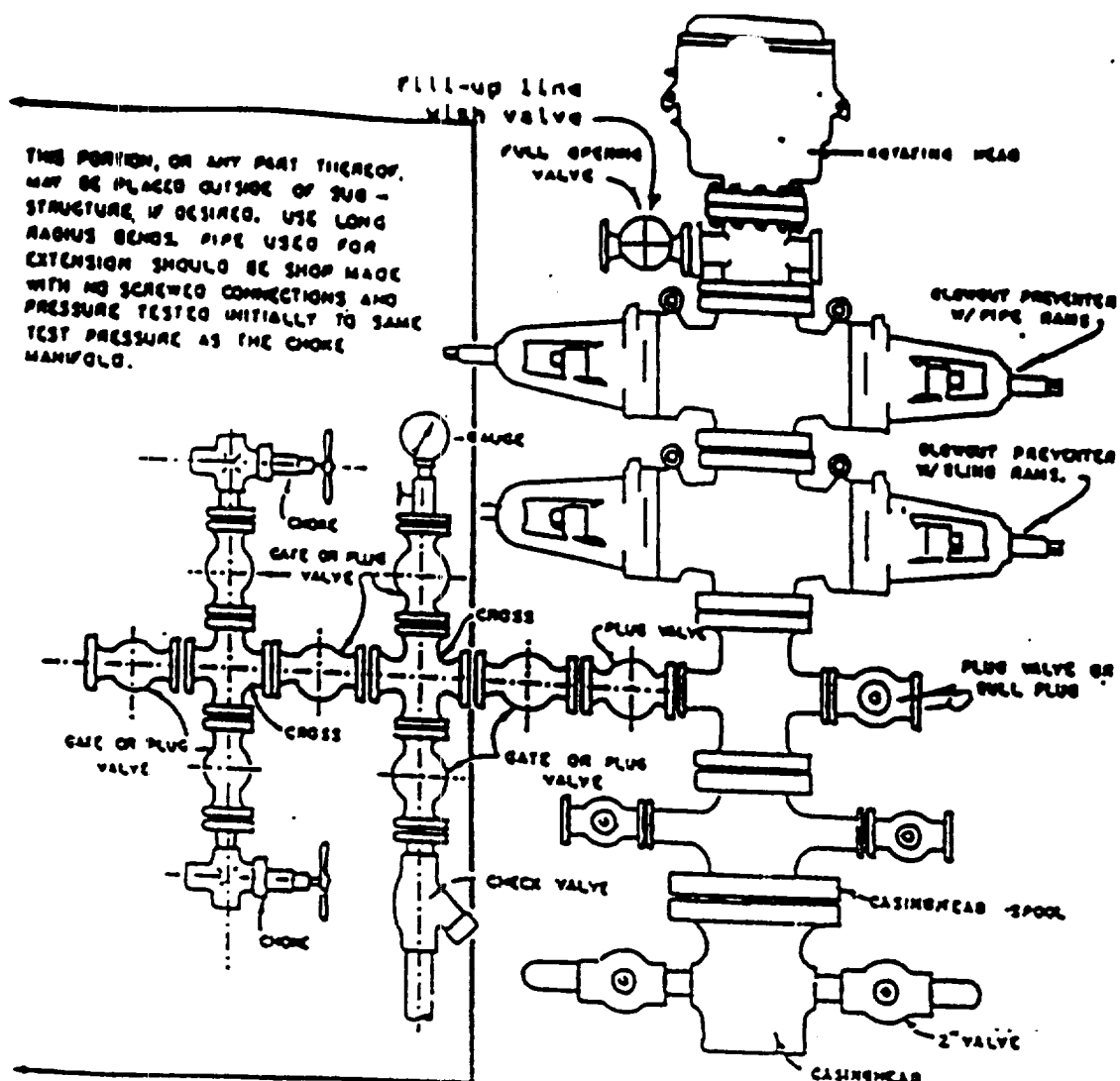
185.1 bbls Water @ 8.4 ppg

CEMENT PROPERTIES

	SLURRY NO. 1	SLURRY NO. 2
Slurry Weight (ppg)	11.85	13.60
Slurry Yield (cf/sack)	2.41	1.49
Amount of Mix Water (gps)	13.79	7.31
Amount of Mix Fluid (gps)	13.79	7.31
Estimated Pumping Time - 70 BC (HH:MM)	2:58	2:31
Free Water (mls) @ 80 ° F @ 90 ° angle	1.0	0.0
Fluid Loss (cc/30min) at 1000 psi and 80 ° F	792.0	62.0
COMPRESSIVE STRENGTH		
12 hrs @ 128 ° F (psi)	175	1013
24 hrs @ 128 ° F (psi)	350	1877

RHEOLOGIES

FLUID	TEMP	600	300	200	100	6	3
Lead Slurry	@ 80 ° F	104	101	96	81	39	31
Tail Slurry	@ 80 ° F	210	150	110	60	7	4

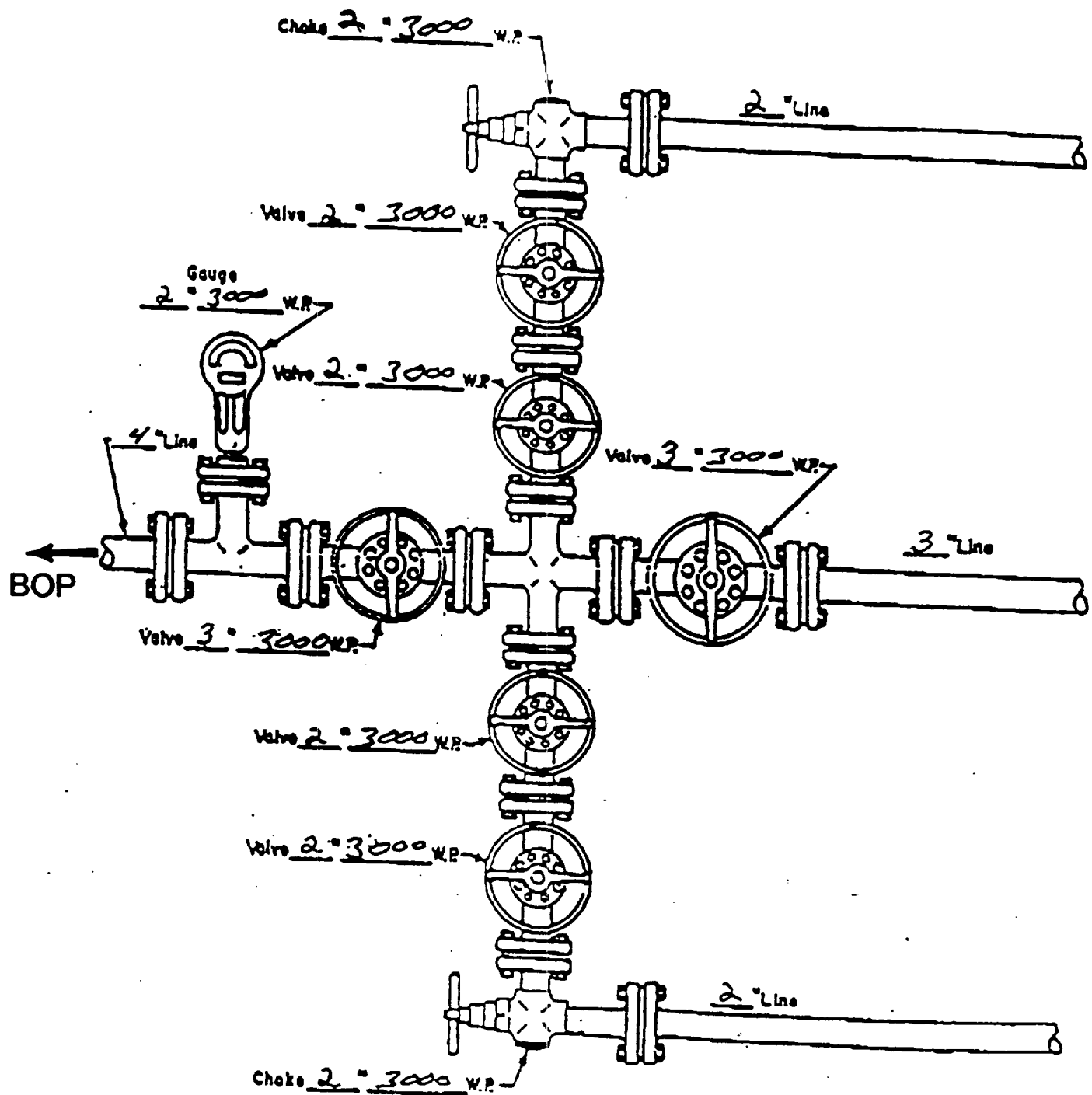


BLOWOUT PREVENTER HOOKUP

Drilling contractors used in the San Juan Basing supply 3000 psi equipment, but cannot provide annular preventors because of sub-structure limitations. Maximum anticipated surface pressures for this well will not exceed the working pressure of the proposed BOP system. Please see the attached BOP diagram details 2000 psi equipment according to Onshore Order No. 2 even though the equipment will test to 3000 psi. The 2000 psi system allows the deletion of the annular preventor and fulfills your requirements (note diagram No. 1). In addition, the following equipment will comprise the 2000 psi system:

1. Two rams with one blind and one pipe ram.
2. Kill line (2 inch maximum).
3. One kill line valve.
4. One choke line valve.
5. Two chokes (reference diagram No. 1).
6. Upper kelly cock valve with handle.
7. Safety valve and subs to fit all drill strings in use.
8. Two-inch minimum choke line.
9. Pressure gauge on choke manifold.
10. Fill-up line above the upper most preventor.
11. Rotating head.

CHOKE MANIFOLD DIAGRAM



MANIFOLD
3000 #W.P.

- ☒ Manual
- ☐ Hydraulic

ELF
ABOVE DATE DOES NOT
INDICATE WHEN
CONFIDENTIAL LOSS
WILL BE INCURRED

CONFIDENTIAL
2000
2001