

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 Property Code 43396 25612		³ API Number 30-025-34999
⁵ Property Name State "KL" 36		⁶ Well No. 29

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
C	36	20S	37E		330	North	2310	West	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 Hardy-Strawn North					¹⁰ Proposed Pool 2				

¹¹ Work Type Code N	¹² Well Type Code O	¹³ Cable/Rotary R	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3504'
¹⁶ Multiple No	¹⁷ Well Depth 8220'	¹⁸ Formation Strawn	¹⁹ Contractor	²⁰ Spud Date 4/15/00

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'	723	Surface
7-7/8"	J-55, 5-1/2"	17#	7920'	1183	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.

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

Permit valid for 1 Year From Approval
and 1 Year From 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: 4/5/00

Phone: 915/686-5515

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date:

Expiration Date:

Conditions of Approval:

Attached ☐

DISTRICT I
1825 N. French Dr., Hobbs, NM 88240

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DISTRICT III
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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, 1999

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 30-025-34999	Pool Code 96893	Pool Name North Hardy Strawn
Property Code 13396	Property Name STATE "KL" 36	Well Number 29
OGRID No. 005073	Operator Name CONOCO INC.	Elevation 3504'

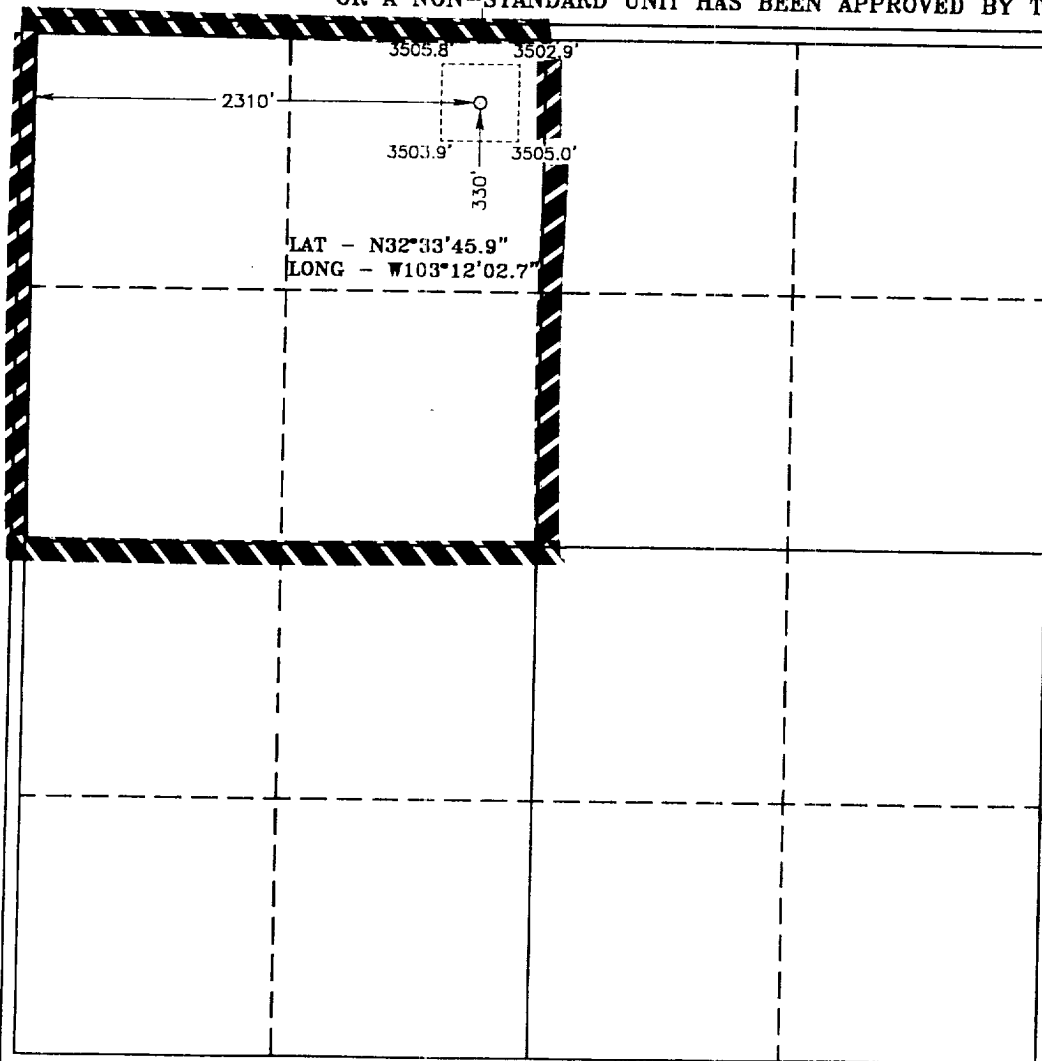
Surface Location

UL or lot No. C	Section 36	Township 20 S	Range 37 E	Lot Idn	Feet from the 330	North/South line NORTH	Feet from the 2310	East/West line WEST	County LEA
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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. NSL applied for						

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



OPERATOR CERTIFICATION

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

Jo Ann Johnson
Signature

Jo Ann Johnson

Printed Name

Sr. Property Analyst

Title

April 5, 2000

Date

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.

March 30, 2000

Date Surveyed
Signature & Seal of
Professional Surveyor

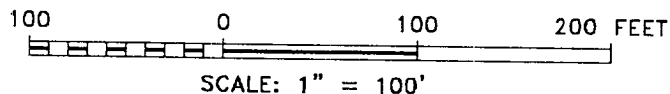
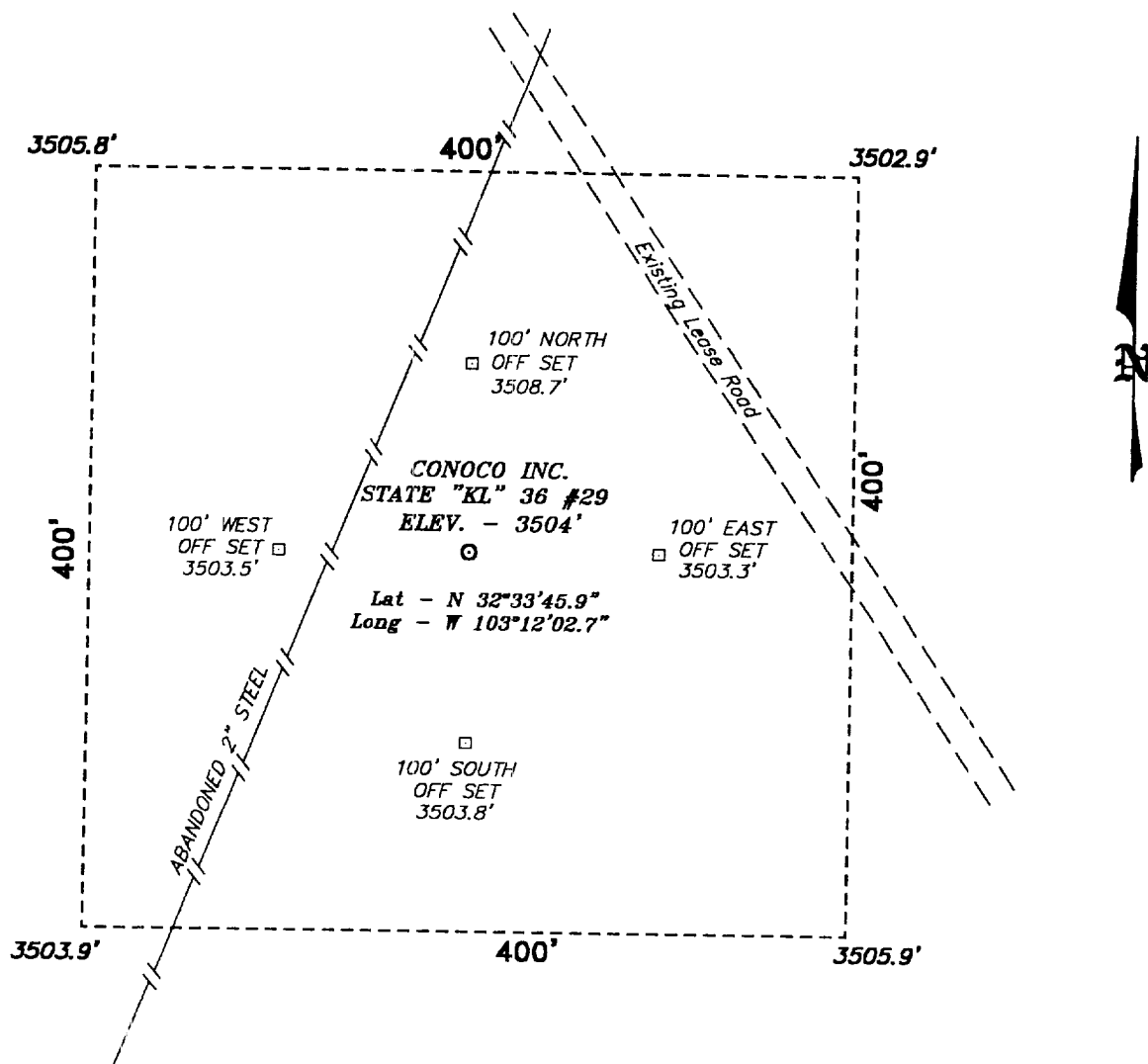
W. Q. Jones
7977

W.Q. No. 01884

Certificate No. 6075 Jones 7977

BASIN SURVEYS

SECTION 36, TOWNHIP 20 SOUTH, RANGE 37 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.



DIRECTIONS TO WELL LOCATION:

FROM JUNCTION NORTH LOOP 18 AND STATE HWY. 18,
GO GO SOUTHWEST ON LOOP 18 APPROX. 3.5 MILES TO
COUNTY ROAD C-34; THENCE NORTHWEST ON C-34
APPROX. 4 MILES TO A POINT WHICH LIES APPROX. 1
MILE SOUTH OF THE PROPOSED WELL LOCATION.

BASIN SURVEYS P.O. BOX 1786 - HOBBS, NEW MEXICO

W.O. Number: 0198

Drawn By: **K. GOAD**

Date: 04-03-2000

Disk: KJG #122 - 0198A.DWG

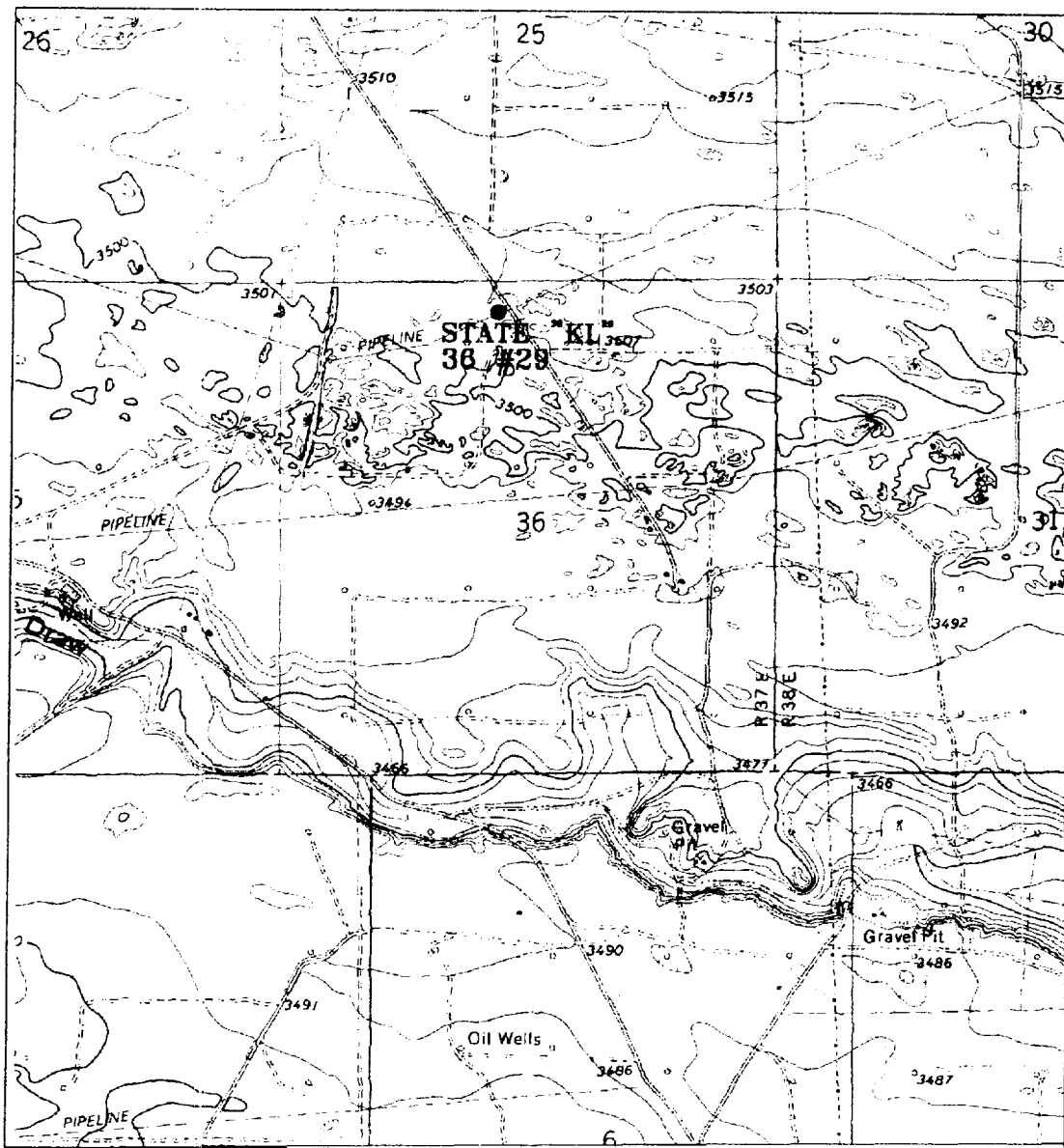
Conoco Inc.

REF: STATE "KL" 36 No. 29 / Well Pad Topo

THE STATE "KL" 36 No. 29 LOCATED 330' FROM THE
NORTH LINE AND 2310' FROM THE WEST LINE OF
SECTION 36, TOWNSHIP 20 SOUTH, RANGE 37 EAST,
N.M.P.M., LEA COUNTY, NEW MEXICO.

Survey Date: 03-30-2000

Sheet 1 of 1 Sheets



STATE "KL" 36 #29

Located at 330' FNL and 2310' FWL

Section 36, Township 20 South, Range 37 East,
N.M.P.M., Lea County, New Mexico.

basin
surveys
focused on excellence
in the oilfield

P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(505) 393-7316 - Office
(505) 392-3074 - Fax
basinsurveys.com

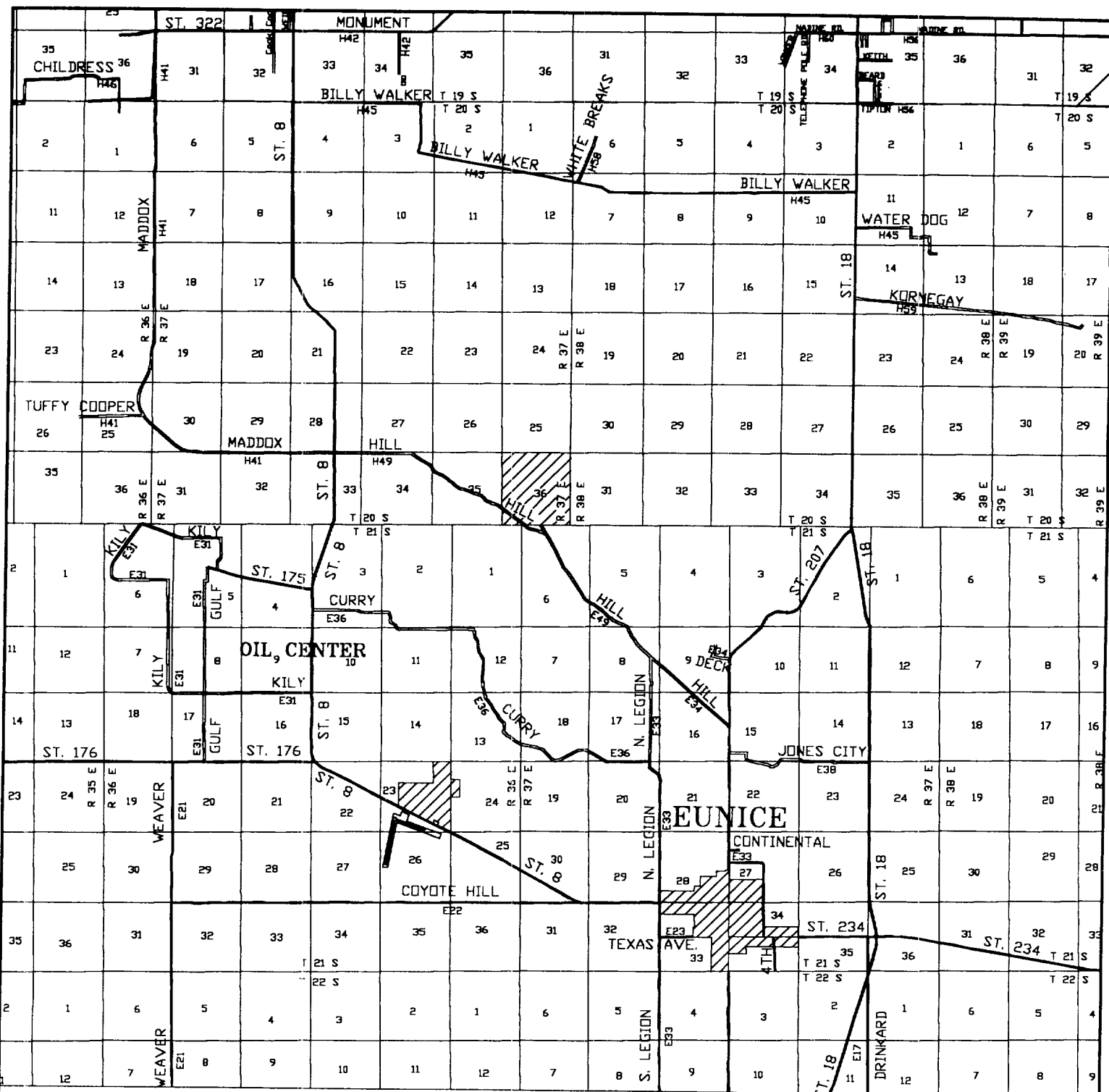
W.O. Number: 0198AA - KJG #122

Survey Date: 03-30-2000

Scale: 1" = 2000'

Date: 04-03-2000

CONOCO INC.



STATE "KL" 36 #29

Located at 330' FNL and 2310' FWL

Section 36, Township 20 South, Range 37 East,
N.M.P.M., Lea County, New Mexico.

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(505) 392-3074 - Fax
basinsurveys.com

W.O. Number: 0198AA - KJG #122

Survey Date: 03-30-2000

Scale: 1" = 2 MILES

Date: 04-03-2000

CONOCO INC.

PROPOSED WELL PLAN OUTLINE

WELL NAME
LOCATION

State "KL" 36 No.29
330' FNL & 2310' FWL Sec 36, T40S, R37E

ound Level : 3516 est.
Kelly Bushing: 11' AGL

Depth MD	FORMATION TOPS	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 @ 1,300'				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'								
	Yates 2,680'								
	7 Rivers 2,960'		H2S Monitor on at 2,650'						
3000									
	Queen 3,535'	Shallow gas flows in SEMU # 125 & 126 not expected at this location							
	Penrose 3,655'								
	Grayburg 3,790'		Mud Log 3,776' to TD						
4000	San Andres 4,030'	Lost Returns in San Andres							7
5000									
	Glorietta 5,260'	Possible differential sticking thru Glorietta & Paddock							
	Blinberry Mkr 5,811'								
6000									
	Tubb 6,335'								
	Drinkard 6,640'								
	Abo 6,930'		First Log Run: SGR-CAL-DLL-MLL-BHC FDC-CNL-PE : TD to 2650' Pull GR-CNL-Cal to Surf SGR from TD to 6400'						
7000			Second Log Run: 30 rotary sidewall cores						
	Strawn 7,570'		Third Run: FMI imaging log						
	TD @ 7,920'	STOP DRILLING WHEN WOODFORD SHALE IS CUT Severe losses in Devonian			5-1/2", 17.0#, J-55 LT&C 1/0'-7,920' Circulate Cement			10 ppg Starch Gel	20
8000	Devonian 8,050'								

Note: The Devonian formation is associated with severe lost circulation problems. This well will be TD'd very close to the top of the Devonian. The mud loggers will pick the Woodford shale which is about 40' thick and sits on top of the Devonian. Stop drilling once the Woodford is entered.

DATE 05-Apr-00

Joe Huck, Geophysical Advisor

APPROVED

Yong Cho, Drilling Engineer

Joe Miller, Reservoir Engineer



Proposal No: 180253437B

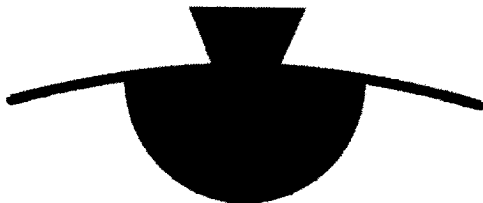
Conoco
State 'KL' 36 No. 29

Sec. 36-T20S-R37E
Lea County, New Mexico
April 5, 2000

Well Recommendation

Prepared for:
Yong Cho
Drilling Engineer

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



POWERVISION™

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 'KL' 36 No. 2
 Job Description: 8-5/8" Surface
 Date: April 5, 2000



Proposal No: 180253437B

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 9.00 ppg
 Est. Static Temp. 86 ° F
 Est. Circ. Temp. 85 ° F

VOLUME CALCULATIONS

1,200 ft	x	0.4127 cf/ft	with	100 % excess	=	988.9 cf
300 ft	x	0.4127 cf/ft	with	100 % excess	=	247.6 cf
40 ft	x	0.3576 cf/ft	with	0 % excess	=	14.3 cf (inside pipe)
TOTAL SLURRY VOLUME					=	1250.9 cf
					=	223 bbls

Operator Name: Conoco
Well Name: State 'KL' 36 No. 2
Job Description: 8-5/8" Surface
Date: April 5, 2000



Proposal No: 180253437B

FLUID SPECIFICATIONS

Spacer 1,000.0 gals Mud Clean I @ 8.4 ppg

<u>FLUID</u>	<u>VOLUME CU-FT</u>	<u>VOLUME FACTOR</u>	<u>AMOUNT AND TYPE OF CEMENT</u>
Lead Slurry	989	/ 1.88	= 528 sacks (35:65) Poz (Fly Ash): Class C Cement + 2% bwoc Calcium Chloride + 0.25 lbs/sack Cello Flake + 0.005 gps FP-6L + 6% bwoc Bentonite + 96.5% 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 FRESH WATER

CEMENT PROPERTIES

	SLURRY NO. 1	SLURRY NO. 2
Slurry Weight (ppg)	12.70	14.80
Slurry Yield (cf/sack)	1.88	1.34
Amount of Mix Water (gps)	10.07	6.35
Amount of Mix Fluid (gps)	10.07	6.35

Operator Name: Conoco
Well Name: State 'KL' 36 No. 2
Job Description: 5-1/2" Long String
Date: April 5, 2000



Proposal No: 180253437B

WELL DATA

ANNULAR GEOMETRY

ANNULAR I.D. (in)	DEPTH(ft)	
	MEASURED	TRUE VERTICAL
8.097 CASING	1,500	1,500
7.875 HOLE	7,920	7,920

SUSPENDED PIPES

DIAMETER (in)		WEIGHT (lbs/ft)	DEPTH(ft)	
O.D.	I.D.		MEASURED	TRUE VERTICAL
5.500	4.892	17	7,920	7,920

Float Collar set @ 7,880 ft
 Mud Density 8.70 ppg
 Est. Static Temp. 128 ° F
 Est. Circ. Temp. 121 ° F

VOLUME CALCULATIONS

1,500 ft	x	0.1926 cf/ft	with	0 % excess	=	288.9 cf
4,000 ft	x	0.1733 cf/ft	with	50 % excess	=	1039.5 cf
2,420 ft	x	0.1733 cf/ft	with	50 % excess	=	628.9 cf
40 ft	x	0.1305 cf/ft	with	0 % excess	=	5.2 cf (inside pipe)
TOTAL SLURRY VOLUME					=	1962.6 cf
					=	350 bbls

Operator Name: Conoco
Well Name: State 'KL' 36 No. 2
Job Description: 5-1/2" Long String
Date: April 5, 2000



Proposal No: 180253437B

FLUID SPECIFICATIONS

Spacer 1,500.0 gals Mud Clean I @ 8.4 ppg

<u>FLUID</u>	<u>VOLUME CU-FT</u>	<u>VOLUME FACTOR</u>	<u>AMOUNT AND TYPE OF CEMENT</u>
Lead Slurry	1328	/ 1.85	= 718 sacks (35:65) Poz (Fly Ash):Class C Cement + 0.25 lbs/sack Cello Flake + 0.005 gps FP-6L + 6% bwoc Bentonite + 95.7% Fresh Water
Tail Slurry	634	/ 1.36	= 465 sacks Class C Cement + 1% bwoc BA-53 + 2 lbs/sack Potassium Chloride + 0.4% bwoc CD- 32 + 0.7% bwoc FL-52 + 0.005 gps FP-6L + 0.2% bwoc Sodium Metasilicate + 56.2% Fresh Water

Displacement 183.2 bbls FRESH WATER

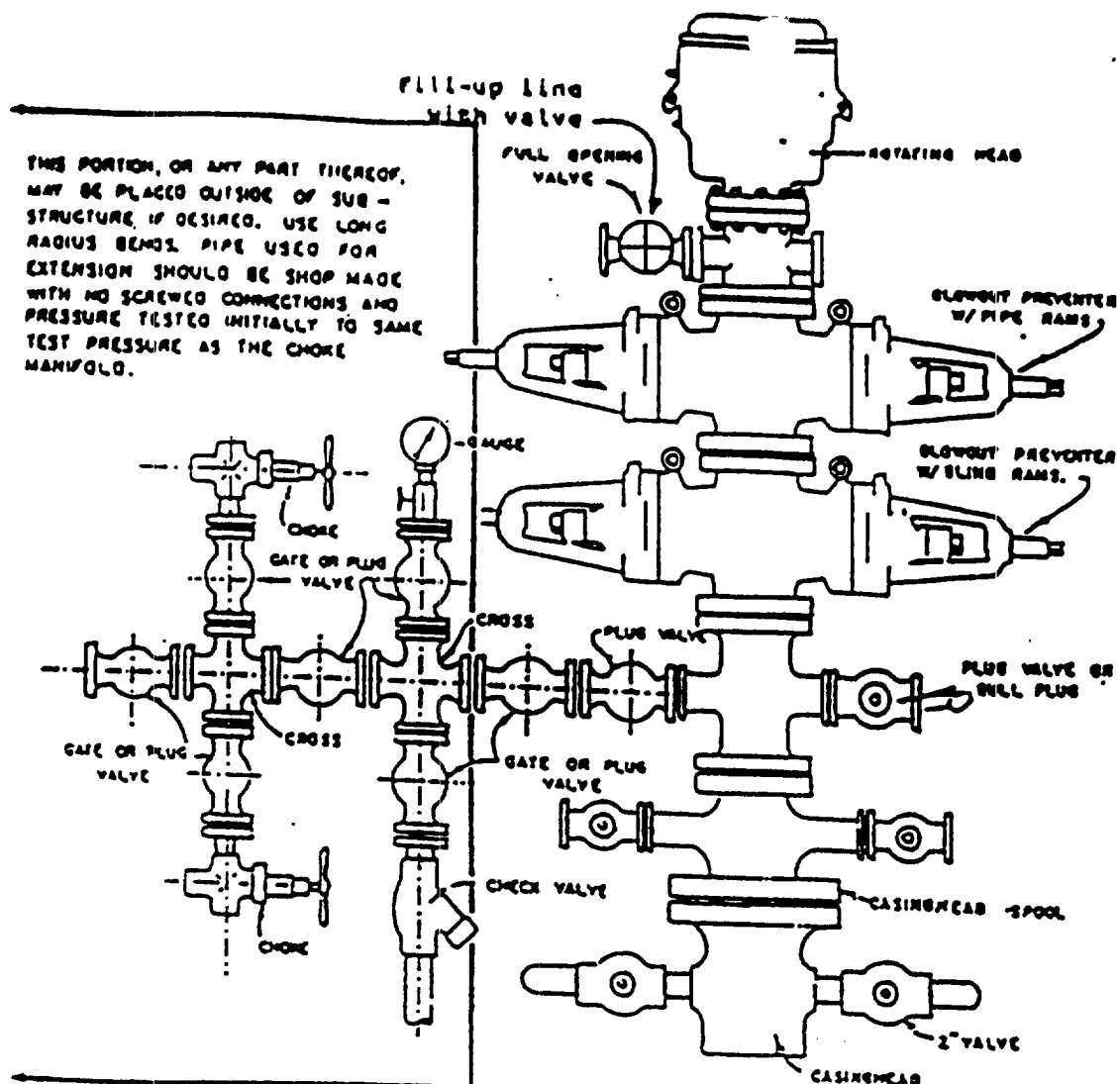
CEMENT PROPERTIES

	SLURRY NO. 1	SLURRY NO. 2
Slurry Weight (ppg)	12.70	14.80
Slurry Yield (cf/sack)	1.85	1.36
Amount of Mix Water (gps)	9.98	6.34
Amount of Mix Fluid (gps)	9.99	6.34
Estimated Pumping Time - 70 BC (HH:MM)	2:19	2:30
Free Water (mls) @ 80 ° F @ 90 ° angle	2.0	0.0
Fluid Loss (cc/30min) at 1000 psi and 80 ° F	722.0	98.0

RHEOLOGIES

<u>FLUID</u>	<u>TEMP</u>	<u>600</u>	<u>300</u>	<u>200</u>	<u>100</u>	<u>6</u>	<u>3</u>
Lead Slurry	@ 80 ° F	102	92	88	84	40	25
Tail Slurry	@ 80 ° F	300	250	185	110	12	7

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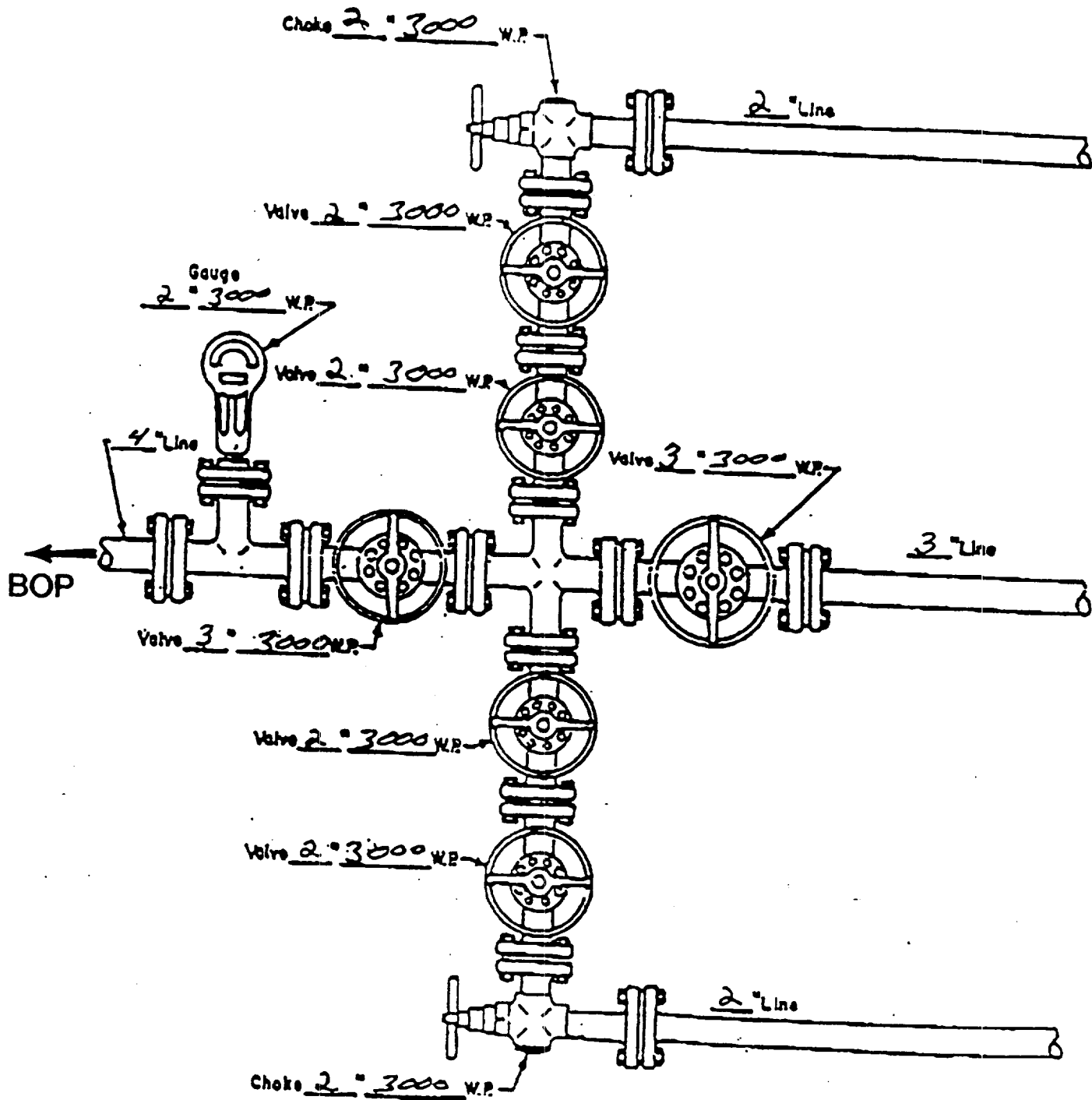


BLOWOUT PREVENTER HOOKUP

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

ABOVE DATE DOES NOT
INDICATE WHEN
CONFIDENTIAL LOGS
WILL BE RELEASED

ELF

4/22/62