

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-101
Revised February 10, 1994

Instructions on back
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

Operator Name and Address Conoco Inc 10 Desta Dr. Ste. 100W Midland, Tx. 79705-4500		GRID No. 005073
		API Number 30 - 0 25- 33924
Property Code 013396	Property Name Hardy 36 State	Well No. 15

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	36	20S	37E		990	South	1980	West	Lea

s 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

Proposed Pool 1 Hardy Simpson-Ellenburger	Proposed Pool 2
--	-----------------

" Work Type Code	" Well Type Code	" Cable/Rotary	" Lease type Code	14 Ground Level Elevation
N	O	R	S	3489'
16 Multiple No	17 Proposed Depth 10,340'	18 Formation McKee	19 Contractor NA	20 Spud Date 4/21/97

21 Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17-1/2"	13-3/8"	48#	400'	450	surface
12-1/4"	8-5/8"	32#	3820'	1750	surface
7-7/8"	5-1/2"	17#	10,340'	1500	surface

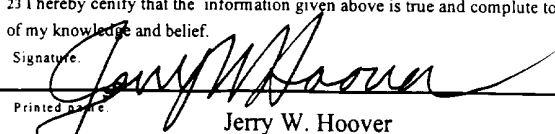
Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

It is proposed to drill a vertical wellbore through the McKee formation. The well will be drilled and equipped according to the following additional attachments:

1. Well Location & 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 	Approved by: GARY WINK
Printed name Jerry W. Hoover	Title: FIELD REP II
Title Sr. Conservation Coordinator	Approval Date: 4/16/97
Date: 4/16/97	Expiration Date: 4/16/98
Phone (915) 686-6548	Conditions of Approval: Attached

OIL CONSERVATION DIVISION

Approved by:

GARY WINK

Title:

FIELD REP II

Approval Date:

Expiration Date:

Conditions of Approval:

Attached

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

¹ API Number 30-025-33924		² Pool Code 96227	³ Pool Name Hardy Simpson-Ellenburger
⁴ Property Code 013395	⁵ Property Name HARDY 36 STATE		⁶ Well Number 15
⁷ GRID No. 005073	⁸ Operator Name CONOCO INC.		⁹ Elevation 3489

¹⁰Surface Location

UL or lot no. N	Section 36	Township 20-S	Range 37-E	Lot Idn	Feet from the 990	North/South line SOUTH	Feet from the 1980	East/West line WEST	County LEA
--------------------	---------------	------------------	---------------	---------	----------------------	---------------------------	-----------------------	------------------------	---------------

¹¹Bottom 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 40	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

16					<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>Jerry W. Hoover</i> Signature JERRY W. HOOVER Printed Name SR. CONSERVATION COORDINATOR Title 4/16/97 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 best of my belief.</p> <p>MAY 11 1995 Date of Survey Signature and Seal of Professional Surveyor <i>Eul</i> Certificate Number 8278</p>

1980'

990'

NEW MEXICO
REGISTERED PROFESSIONAL LAND SURVEYOR
8278

PROPOSED WELL PLAN OUTLINE

WELL NAME **HARDY 36 STATE NO. 15**
 LOCATION **990' FSL 1980' FWL SECT. 36 T-20S R-37E LEA CO.**

Est GL = 3489'
 Est KB = 3502'

TVD IN 1000'	MD	FORMATION TOPS & TYPE	DRILLING PROBLEMS	TYPE OF FORMATION EVALUATION	HOLE SIZE	CASING SIZE DEPTH	FRAC GRAD	FORMATION PRESSURE GRADIENT	MUD WEIGHT & TYPE	DAYS
0					17-1/2"	13-3/8", 48#, H-40 ST&C @ 400'			SPUD	
1						450 SX, CIRC CMT				
2		RUSTLER 1295' TOP OF SALT 1390'	WASHOUTS IN SALT SECTION		12-1/4"			Less than 8.3	10 PPG BRINE	
3		B/SALT 2560' YATES 2693'	LOST CIRCULATION TO 5000' SEEPAGE TO SEVERE							
4		7-RIVERS 2649' QUEEN 3504'	ACTIVE WATERFLOOD ZONE	2-MAN MUD LOGGERS ON AT 3500'		8-5/8", 32#, K-55 LTC @ 3820' (50' into GB)				
5		GRAYBURG 3770'				1750 sx, circ cmt				
6		SAN ANDRES 4004'	POSSIBLE DEVIATION TO TD	H2S MONITOR ON PRIOR TO DRILL OUT					FRESH WATER	
7		GLORIETA 5224' BLINEBRY MKR 5764'	PARTIAL LOSSES POSSIBLE					Less than 8.4		
8		TUBB MKR 6319' DRINKARD 6585' ABO 6865'	HARDY 36-1 HAD LOSSES @ 6357' OF 170 bph-MUDDER UP		7-7/8"				POLYMER @ 6300' WL 35 cc	
9		STRAWN 7525'								
10		DEVONIAN 8020'	POSSIBLE SEVERE LOSSES FROM DEVONIAN TO TD							
11		SIMPSON 9679' MCKEE SAND 9979'	DEVIATION POSSIBLE @ 9900' SURVEY EVERY 100' AS NECESSARY WASHOUTS IN MCKEE SAND					8.7-8.8	REDUCE WL @ 9400' TO 15 cc MW @ 8.7 - 9.0	
12		TD 10,340'		GR-CAL-IDL-MSFL and GR-CAL-FDC-CNL-PE- TD TO 3600', GR/CAL TO INTER. FMI from 7900' - 7400'		5 1/2", 17#, K-55 & L-80 @ 10,340'		BHP - 4700 psi		
13						1500 sx, circ cmt				
14										
15										
16										

DATE April 15, 1997

APPROVED Roger Williamson
 DRILLING ENGINEER

NOTE: From surface casing point to TD, run single shot surveys every 500' and at casing points.

Well Name : Hardy 36 State No. 21

Location : Sec 36, T 20S, R 37E, Lea Co.

Casing Program

Surface : 13-3/8" casing in 17-1/2" Hole at 400 ft.
Intermediate : 8-5/8" casing in 12-1/4" Hole at 3,820 ft.
Production : 5 1/2" casing in 7 7/8" Hole at 10,340 ft.

Cementing Program :

Surface

Lead 1 350 sacks Class C Mixed at 13.7 ppg
Additives 4.0% Gel + 2% CACL2 + 0.2 SMS

Lead 2 0 sacks Class C Mixed at 0 ppg
Additives

Tail 100 sacks Class C Mixed at 14.8 ppg
Additives 2% CACL2

Intermediate

Lead 1550 sacks Class C Mixed at 12.7 ppg
Additives 35:65:6 (Poz:Cem:Gel) + 10.0 pps salt + 0.25 pps Cello Flake

Tail 200 sacks Class C Mixed at 18.5 ppg
Additives 2% CACL2

1st Stage Production

Lead 250 sacks Class C Mixed at 12.5 ppg
Additives 50:50:2 (Poz:Cem:Gel) + 0.8% FL-52 + 5% Salt
+ 0.2% SMS

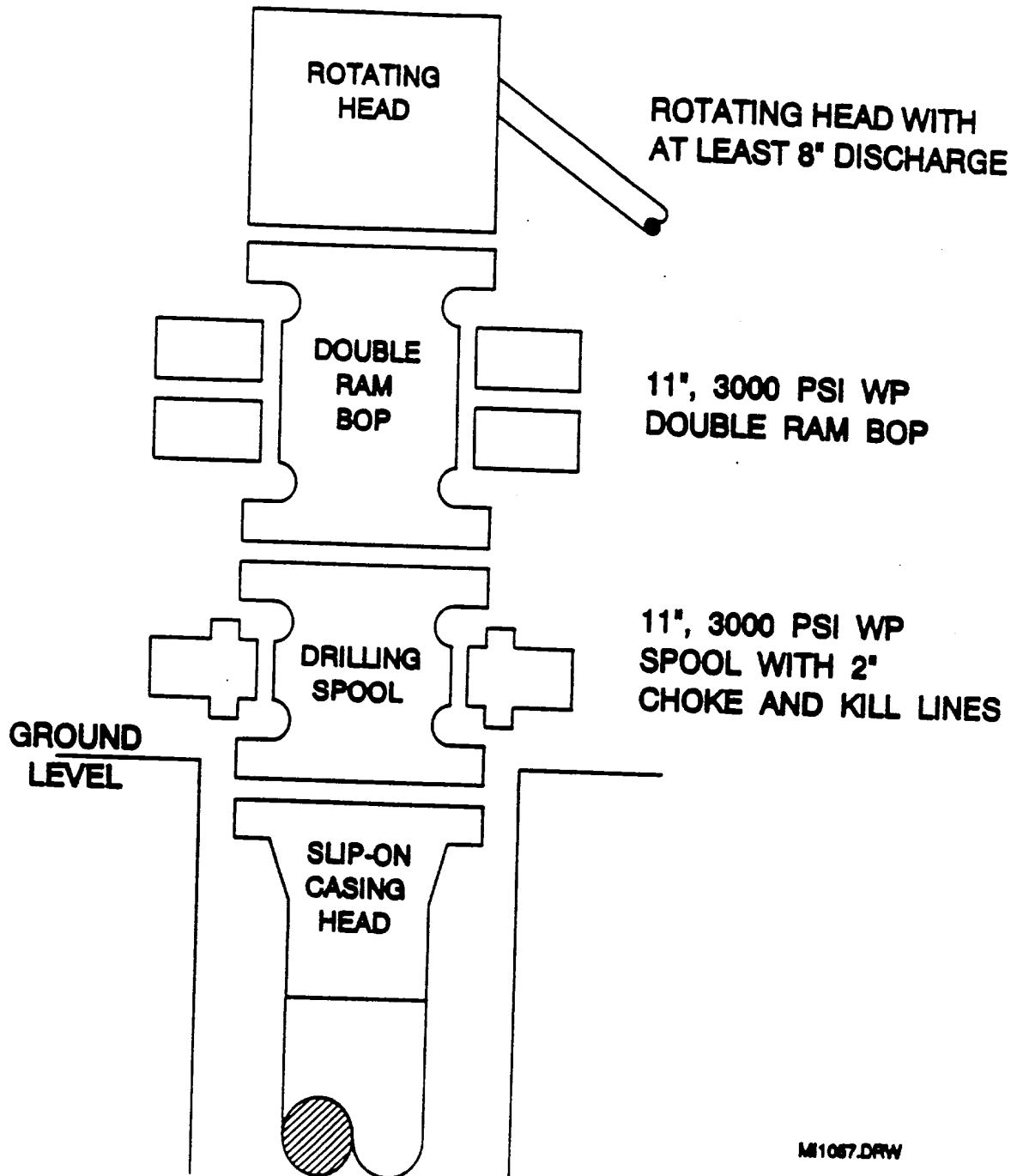
Tail 230 sacks Class C Mixed at 14.4 ppg
Additives 5.0 pps BA-90 + 2.0 pps Micoo seal + 1.0% FL-62 + 0.3% CD 32 + 0.2% SMS

2ndst Stage Production

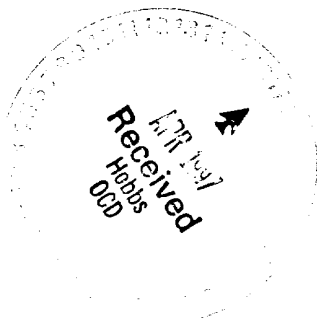
Lead 320 sacks Class C Mixed at 12 ppg
Additives 16.0% Gel + 3% Salt + 0.3% CD 32 + 0.3 SMS + 0.15% R3

Tail 700 sacks Class C Mixed at 14.8 ppg
Additives 1.1% FL-62 + 2% BA-90 + 3% Salt
+ 0.3% CD-32 + 0.2% SMS
Free Water 0 % Fluid Loss 64 cc/30 min.

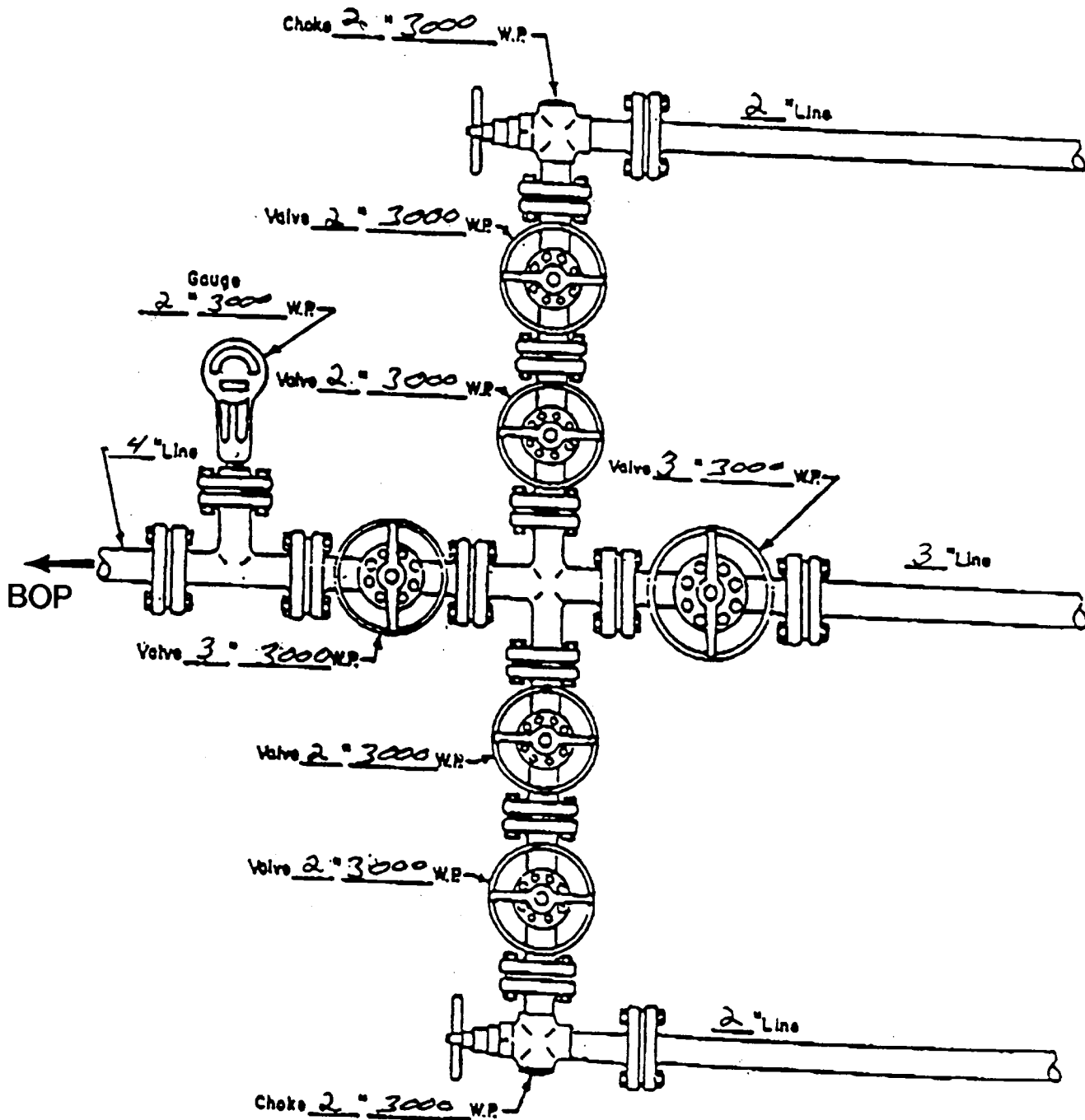
BOP SPECIFICATIONS



M1067.DRW

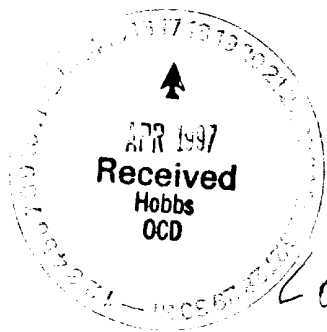


CHOKE MANIFOLD DIAGRAM



MANIFOLD
3000 #W.P

- ☒ Manual
- ☐ Hydraulic



26/50/2