

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
P.O. 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

¹ Operator name and Address MOBIL PRODUCING TX & NM INC.* *MOBIL EXPLORATION & PRODUCING US INC. AS AGENT FOR MPTM P.O. BOX 633, MIDLAND, TX 79702		² OGRID Number 15144
⁴ Property Code 8055	⁵ Property Name NORTH VACUUM ABO Unit	³ API Number 30-025-23696
		⁶ Well Number 156

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
8J	23	17-S	34-E		1893'	SOUTH	1800	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
8I	23	17-S	34-E		1383	SOUTH	1217	EAST	LEA
⁹ Proposed Pool 1 N. Vacuum Abo					¹⁰ Proposed Pool 2				

¹¹ Work Type Code P	¹² Well Type Code I	¹³ Cable/Rotary ROTARY	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 4025'
¹⁶ Multiple NO	¹⁷ Proposed Depth 8492'	¹⁸ Formations Abo	¹⁹ Contractor	²⁰ Spud Date 06-30-97

²¹ Proposed Casing and Cement Program					
Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12 1/4"	8 5/8"	23#	1750'	CIRCULATED	SURFACE
7 7/8"	5 1/2"	15.5, 14, & 17#	1043-8800' TD	CIRCULATED	APPX 2900'
EXISTING	WELLBORE				

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 ATTACHMENT

Permit Expires 1 Year From Approval
Date Unless Airing Otherwise
Directional Drilling

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.		OIL CONSERVATION DIVISION	
Signature: Shirley Houchins		Approved by: ORIGINAL SIGNED BY CHRIS WILLIAMS DISTRICT I SUPERVISOR	
Printed name: SHIRLEY HOUCHINS		Title: NOV 4 1997	
Title: ENVIRONMENTAL & REGULATORY TECHNICIAN		Approval Date: NOV 4 1997 Expiration Date:	
Date: 8-18-1997	Phone: (915) 688-2585	Conditions of Approval: Attached ☐	

3
2
3

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State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-102
Revised February 10, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

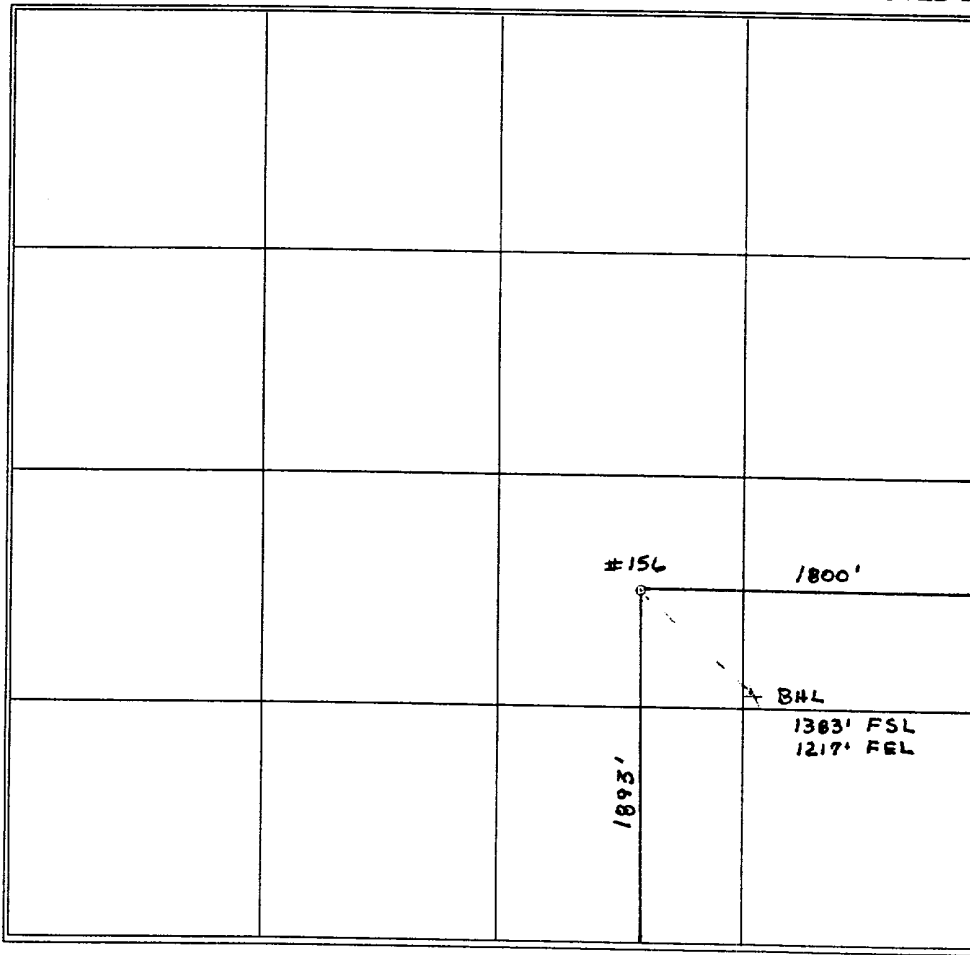
WELL LOCATION AND ACREAGE DEDICATION PLAT

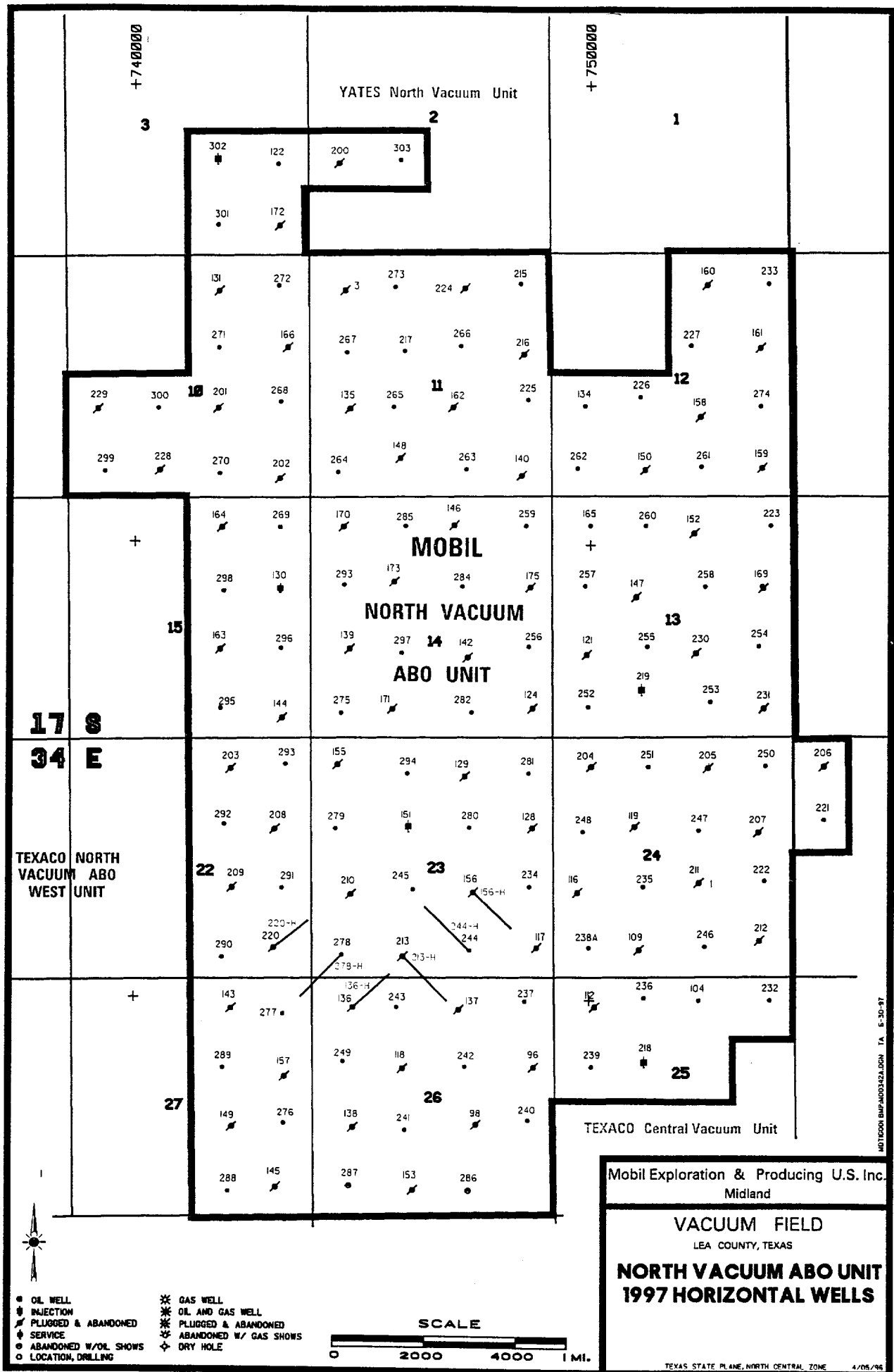
API Number 30-025-23696		Pool Code 61760	Pool Name NORTH VACUUM Abo	
Property Code 8055	Property Name NORTH VACUUM Abo		Well Number 156	
OGRID No. 15144	Operator Name MOBIL PRODUCING TX & NM INC.* *MOBIL EXPLORATION & PRODUCING US INC. AS AGENT FOR MPTM		Elevation 4025'	

¹⁰ Surface Location									
UI or lot no. J	Section 23	Township 17-S	Range 34-E	Lot. Idn	Feet from the 1893'	North/South Line SOUTH	Feet from the 1800'	East/West line EAST	County LEA

¹¹ Bottom Hole Location If Different From Surface									
UL or lot no. 02	Section 23	Township 17-S	Range 34-E	Lot. Idn	Feet from the 1383	North/South Line SOUTH	Feet from the 1217	East/West line EAST	County LEA
¹² Dedicated Acres		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

				¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Shirley Houchins Signature SHIRLEY HOUCHINS Printed Name ENV. & REG. TECHNICIAN Title 8-18-1997 Date	
				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 Signature and Seal of Professional Surveyer:	
				Certificate Number	



NVAU NO. 156W
Lea County, New Mexico

I. GENERAL DRILLING SUMMARY

A. Objective

The objective of this project is to set a whipstock and cut a window in the 5-1/2" casing from 8369'-8378' and drill an open hole lateral in the Abo formation with a vertical section of 950 ft.

B. Procedure

1. Prepare location and dig workover pit.
2. Bleed well down. MIRU pulling unit and required H2S equipment.
3. ND wellhead. NU BOP (double ram with annular and stripper head). POH w/ injection equipment. Set CIBP and whipstock @ 8384' and mill window from 8369'-8378'.
4. Drill curve and lateral to a vertical section of 950 ft. along an azimuth of 132 degrees. Drilling operations completed.

Note: Whipstock and CIBP MAY be removed following stimulation.

1893' FSL
1800' FEL
S-23
T17S
R34E

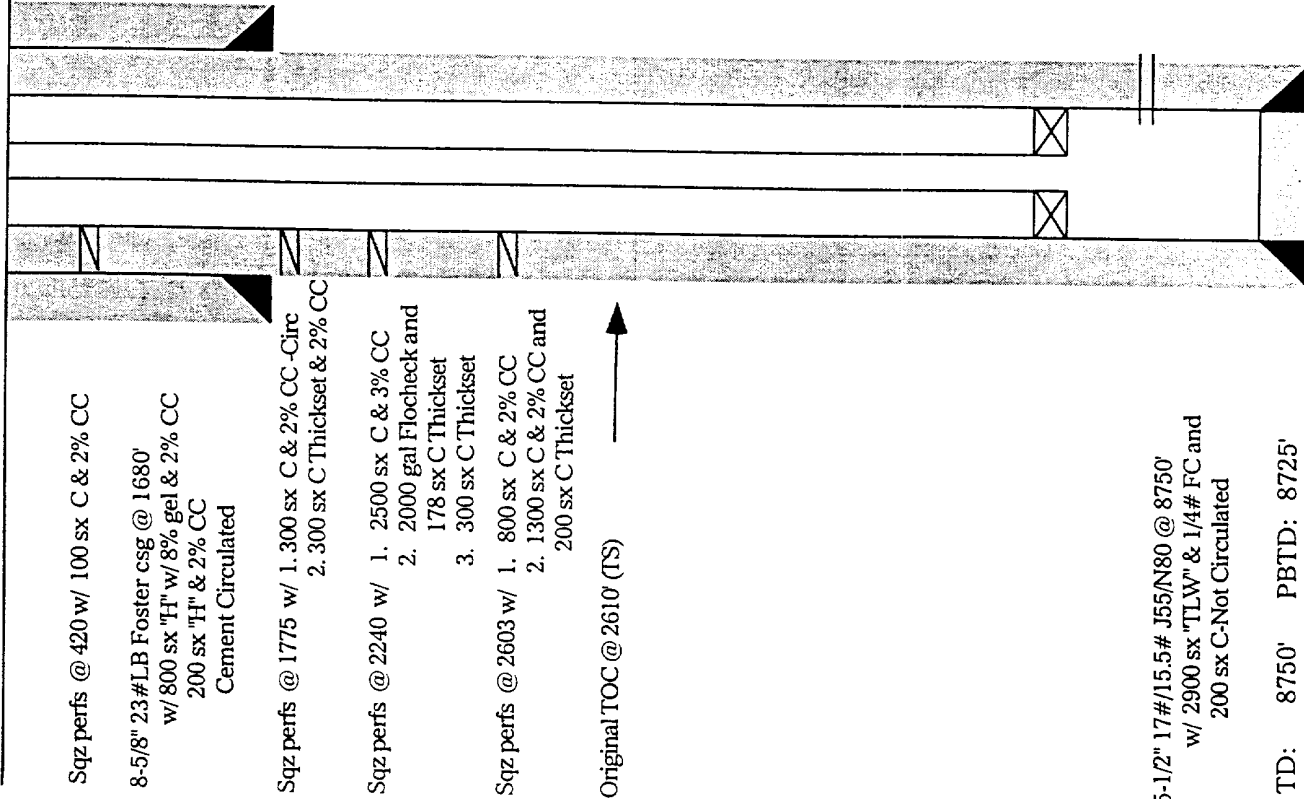
KB: 4037.5'
GL: 4025.0'

NVAU 156W
Vacuum Field
Lea County, New Mexico

MEE: 08/06/97

Spud: 04/03/71

Current Configuration



270 jts 2-7/8" 7.9# N80 LJ3S tbg
Otis (Permment) TB pkr @ 8401'
w/ j-latch anchor seal assembly

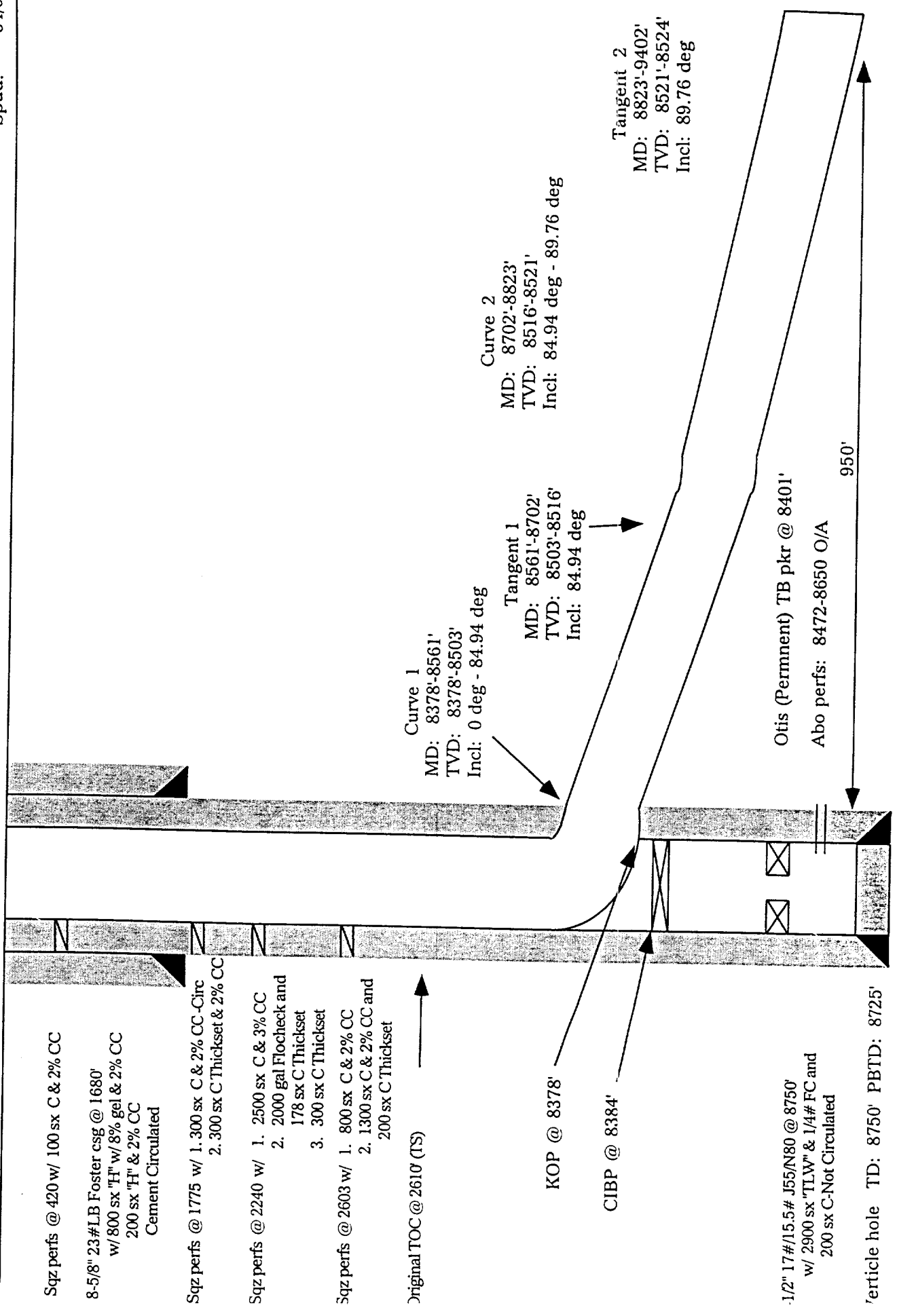
Abo perfs: 8472-8650 O/A

TD: 8750' PBTD: 8725'

1893 FSL
1800' FEL
S-23
T17S
R34E
KB: 4037.5'
GL: 4025.0'

INVAU 130W
Vacuum Field
Lea County, New Mexico
Proposed Configuration

MEE: 08/12/97
Spud: 04/03/71





**WELL PLANNING
REPORT**

MOBIL E&P SERVICES, INC.

NVAU #156

**N/A
12-Aug-97**

PERRY-SUN DRILLING SERVICE
WELL PROFILE DATA

MOBIL E&P SERVICES, INC.
NVAU #156

N/A
12-Aug-97

MEASURED DEPTH	ANGLE DEG	DIRECTION DEG	VERTICAL DEPTH	LATITUDE (Ft.)	DEPARTURE (Ft.)	VERTICAL SECTION	DOG LEG	TOOL FACE
8375.00	0.000	0.000	8375.00	0.00	0.00	0.00		
8378.00	0.000	0.000	8378.00	0.00	0.00	0.00	0.000	0.000
8380.00	0.750	132.000	8380.00	0.01 S	0.01 E	0.01		
8386.00	3.000	132.000	8386.00	0.14 S	0.16 E	0.21	37.500	132.000
8390.00	4.600	132.000	8389.99	0.32 S	0.35 E	0.47		
8400.00	8.600	132.000	8399.92	1.09 S	1.21 E	1.62		
8410.00	12.600	132.000	8409.75	2.32 S	2.57 E	3.46		
8416.00	15.000	132.000	8415.57	3.27 S	3.64 E	4.89	40.000	0.000
8420.00	16.920	132.000	8419.42	4.01 S	4.45 E	5.99		
8430.00	21.720	132.000	8428.85	6.22 S	6.91 E	9.30		
8440.00	26.520	132.000	8437.98	8.96 S	9.95 E	13.39		
8450.00	31.320	132.000	8446.73	12.19 S	13.54 E	18.22		
8460.00	36.120	132.000	8455.04	15.91 S	17.67 E	23.77		
8470.00	40.920	132.000	8462.86	20.07 S	22.29 E	30.00		
8480.00	45.720	132.000	8470.14	24.66 S	27.39 E	36.86		
8490.00	50.520	132.000	8476.81	29.64 S	32.92 E	44.30		
8500.00	55.320	132.000	8482.84	34.98 S	38.85 E	52.27		
8510.00	60.120	132.000	8488.18	40.63 S	45.13 E	60.73		
8520.00	64.920	132.000	8492.79	46.57 S	51.72 E	69.60		
8530.00	69.720	132.000	8496.65	52.74 S	58.57 E	78.82		
8540.00	74.520	132.000	8499.71	59.11 S	65.64 E	88.33		
8550.00	79.320	132.000	8501.98	65.62 S	72.88 E	98.07		
8560.00	84.120	132.000	8503.42	72.24 S	80.23 E	107.96		
8561.71	84.942	132.000	8503.58	73.38 S	81.50 E	109.67	48.000	0.000
8570.00	84.942	132.000	8504.31	78.91 S	87.63 E	117.92		
8580.00	84.942	132.000	8505.19	85.57 S	95.04 E	127.89		
8590.00	84.942	132.000	8506.07	92.24 S	102.44 E	137.85		
8600.00	84.942	132.000	8506.96	98.90 S	109.84 E	147.81		
8610.00	84.942	132.000	8507.84	105.57 S	117.24 E	157.77		
8620.00	84.942	132.000	8508.72	112.23 S	124.65 E	167.73		
8630.00	84.942	132.000	8509.60	118.90 S	132.05 E	177.69		
8640.00	84.942	132.000	8510.48	125.56 S	139.45 E	187.65		
8650.00	84.942	132.000	8511.36	132.23 S	146.85 E	197.61		
8660.00	84.942	132.000	8512.25	138.89 S	154.26 E	207.57		
8670.00	84.942	132.000	8513.13	145.56 S	161.66 E	217.53		
8680.00	84.942	132.000	8514.01	152.22 S	169.06 E	227.50		
8690.00	84.942	132.000	8514.89	158.89 S	176.47 E	237.46		
8700.00	84.942	132.000	8515.77	165.56 S	183.87 E	247.42		
8702.59	84.942	132.000	8516.00	167.28 S	185.78 E	250.00	0.000	0.000
8710.00	85.238	132.000	8516.63	172.22 S	191.27 E	257.38		
8720.00	85.638	132.000	8517.43	178.89 S	198.68 E	267.35		
8730.00	86.038	132.000	8518.16	185.57 S	206.09 E	277.32		
8740.00	86.438	132.000	8518.81	192.24 S	213.51 E	287.30		
8750.00	86.838	132.000	8519.40	198.92 S	220.93 E	297.28		
8760.00	87.238	132.000	8519.91	205.60 S	228.35 E	307.27		

PERRY-SUN DRILLING SERVICE WELL PROFILE DATA

MOBIL E&P SERVICES, INC.
NVAU #156

N/A
12-Aug-97

MEASURED DEPTH	ANGLE DEG	DIRECTION DEG	VERTICAL DEPTH	LATITUDE (Ft)	DEPARTURE (Ft)	VERTICAL SECTION	DOG LEG	TOOL FACE
8770.00	87.638	132.000	8520.36	212.29 S	235.77 E	317.26		
8780.00	88.038	132.000	8520.74	218.98 S	243.20 E	327.25		
8790.00	88.438	132.000	8521.05	225.66 S	250.62 E	337.25		
8800.00	88.838	132.000	8521.28	232.35 S	258.05 E	347.25		
8810.00	89.238	132.000	8521.45	239.04 S	265.48 E	357.24		
8820.00	89.638	132.000	8521.55	245.73 S	272.92 E	367.24		
8823.03	89.759	132.000	8521.57	247.76 S	275.16 E	370.27	4.000	0.000
8830.00	89.759	132.000	8521.59	252.43 S	280.35 E	377.24		
8840.00	89.759	132.000	8521.64	259.12 S	287.78 E	387.24		
8850.00	89.759	132.000	8521.68	265.81 S	295.21 E	397.24		
8860.00	89.759	132.000	8521.72	272.50 S	302.64 E	407.24		
8870.00	89.759	132.000	8521.76	279.19 S	310.07 E	417.24		
8880.00	89.759	132.000	8521.80	285.88 S	317.50 E	427.24		
8890.00	89.759	132.000	8521.85	292.57 S	324.93 E	437.24		
8900.00	89.759	132.000	8521.89	299.26 S	332.37 E	447.24		
8910.00	89.759	132.000	8521.93	305.96 S	339.80 E	457.24		
8920.00	89.759	132.000	8521.97	312.65 S	347.23 E	467.24		
8930.00	89.759	132.000	8522.01	319.34 S	354.66 E	477.24		
8940.00	89.759	132.000	8522.06	326.03 S	362.09 E	487.24		
8950.00	89.759	132.000	8522.10	332.72 S	369.52 E	497.24		
8960.00	89.759	132.000	8522.14	339.41 S	376.95 E	507.24		
8970.00	89.759	132.000	8522.18	346.10 S	384.39 E	517.24		
8980.00	89.759	132.000	8522.22	352.79 S	391.82 E	527.24		
8990.00	89.759	132.000	8522.27	359.49 S	399.25 E	537.24		
9000.00	89.759	132.000	8522.31	366.18 S	406.68 E	547.24		
9010.00	89.759	132.000	8522.35	372.87 S	414.11 E	557.24		
9020.00	89.759	132.000	8522.39	379.56 S	421.54 E	567.24		
9030.00	89.759	132.000	8522.43	386.25 S	428.97 E	577.24		
9040.00	89.759	132.000	8522.48	392.94 S	436.41 E	587.24		
9050.00	89.759	132.000	8522.52	399.63 S	443.84 E	597.24		
9060.00	89.759	132.000	8522.56	406.33 S	451.27 E	607.24		
9070.00	89.759	132.000	8522.60	413.02 S	458.70 E	617.24		
9080.00	89.759	132.000	8522.64	419.71 S	466.13 E	627.24		
9090.00	89.759	132.000	8522.69	426.40 S	473.56 E	637.24		
9100.00	89.759	132.000	8522.73	433.09 S	480.99 E	647.24		
9110.00	89.759	132.000	8522.77	439.78 S	488.42 E	657.24		
9120.00	89.759	132.000	8522.81	446.47 S	495.86 E	667.24		
9130.00	89.759	132.000	8522.85	453.16 S	503.29 E	677.24		
9140.00	89.759	132.000	8522.90	459.86 S	510.72 E	687.24		
9150.00	89.759	132.000	8522.94	466.55 S	518.15 E	697.24		
9160.00	89.759	132.000	8522.98	473.24 S	525.58 E	707.24		
9170.00	89.759	132.000	8523.02	479.93 S	533.01 E	717.24		
9180.00	89.759	132.000	8523.06	486.62 S	540.44 E	727.24		
9190.00	89.759	132.000	8523.11	493.31 S	547.88 E	737.24		
9200.00	89.759	132.000	8523.15	500.00 S	555.31 E	747.24		

**PERRY-SUN DRILLING SERVICE
WELL PROFILE DATA**

**MOBIL E&P SERVICES, INC.
NVAU #156**

**N/A
12-Aug-97**

MEASURED DEPTH	ANGLE DEG	DIRECTION DEG	VERTICAL DEPTH	LATITUDE (Ft)	DEPARTURE (Ft)	VERTICAL SECTION	DOG LEG	TOOL FACE
9210.00	89.759	132.000	8523.19	506.69 S	562.74 E	757.24		
9220.00	89.759	132.000	8523.23	513.39 S	570.17 E	767.24		
9230.00	89.759	132.000	8523.27	520.08 S	577.60 E	777.24		
9240.00	89.759	132.000	8523.32	526.77 S	585.03 E	787.24		
9250.00	89.759	132.000	8523.36	533.46 S	592.46 E	797.24		
9260.00	89.759	132.000	8523.40	540.15 S	599.90 E	807.24		
9270.00	89.759	132.000	8523.44	546.84 S	607.33 E	817.24		
9280.00	89.759	132.000	8523.48	553.53 S	614.76 E	827.24		
9290.00	89.759	132.000	8523.53	560.22 S	622.19 E	837.24		
9300.00	89.759	132.000	8523.57	566.92 S	629.62 E	847.24		
9310.00	89.759	132.000	8523.61	573.61 S	637.05 E	857.24		
9320.00	89.759	132.000	8523.65	580.30 S	644.48 E	867.24		
9330.00	89.759	132.000	8523.69	586.99 S	651.91 E	877.24		
9340.00	89.759	132.000	8523.74	593.68 S	659.35 E	887.24		
9350.00	89.759	132.000	8523.78	600.37 S	666.78 E	897.24		
9360.00	89.759	132.000	8523.82	607.06 S	674.21 E	907.24		
9370.00	89.759	132.000	8523.86	613.76 S	681.64 E	917.24		
9380.00	89.759	132.000	8523.90	620.45 S	689.07 E	927.24		
9390.00	89.759	132.000	8523.95	627.14 S	696.50 E	937.24		
9400.00	89.759	132.000	8523.99	633.83 S	703.93 E	947.24		
9402.76	89.759	132.000	8524.00	635.68 S	705.98 E	950.00	0.000	0.000

**The Dogleg Severity is in Degrees per 100.00 Feet
Vertical Section was calculated along an Azimuth of 132.000° (True)**

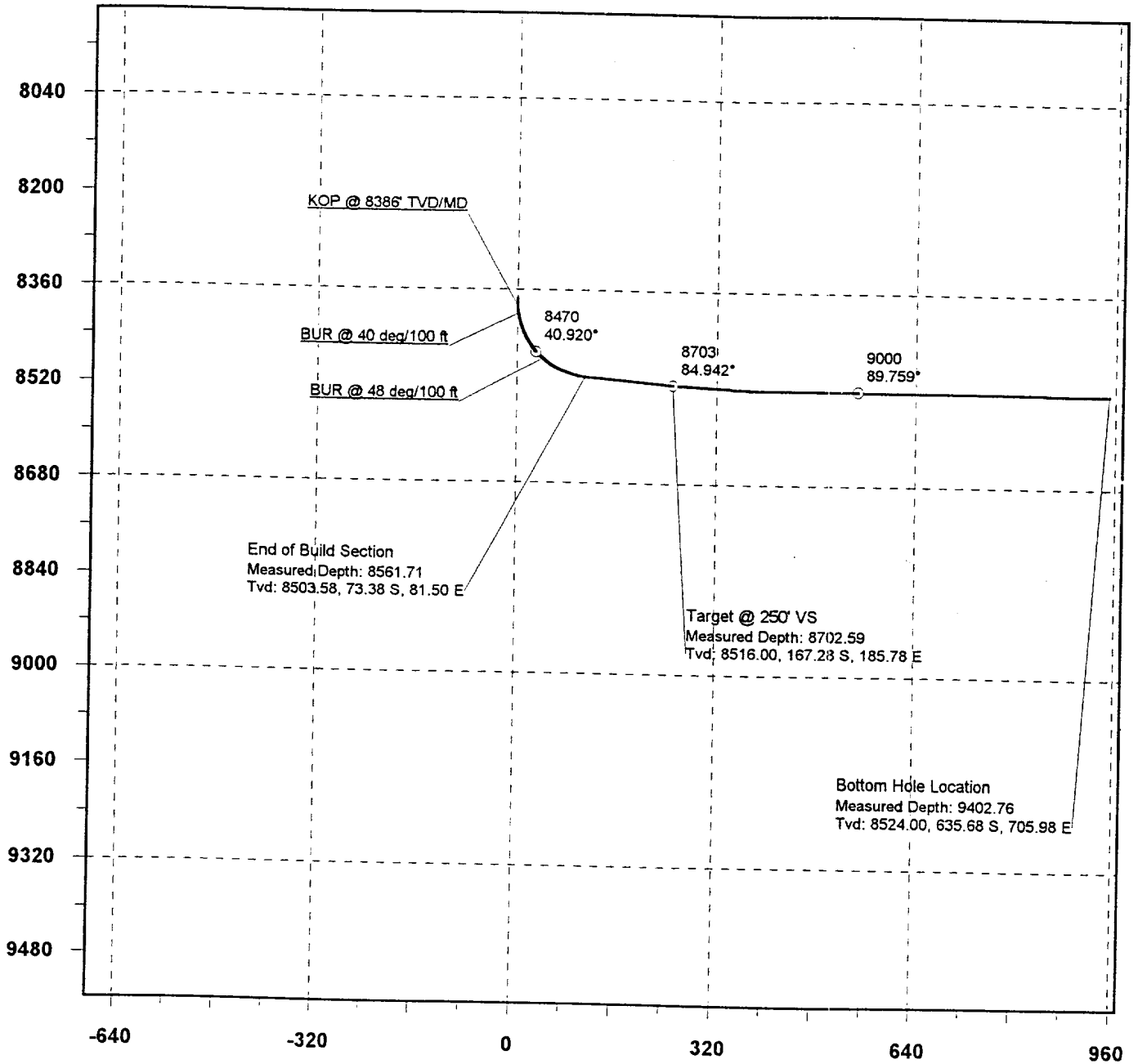
**Based upon Minimum Curvature type calculations. At a Measured Depth of 9402.76 Feet,
the Bottom Hole Displacement is 950.00 Feet, in the Direction of 132.000° (True)**

PERRY-SUN DRILLING SERVICE VERTICAL SECTION

MOBIL E&P SERVICES, INC.
NVAU #156

N/A
12-Aug-97

VERTICAL
DEPTH



VERTICAL SECTION - Direction: 132.000° (True)

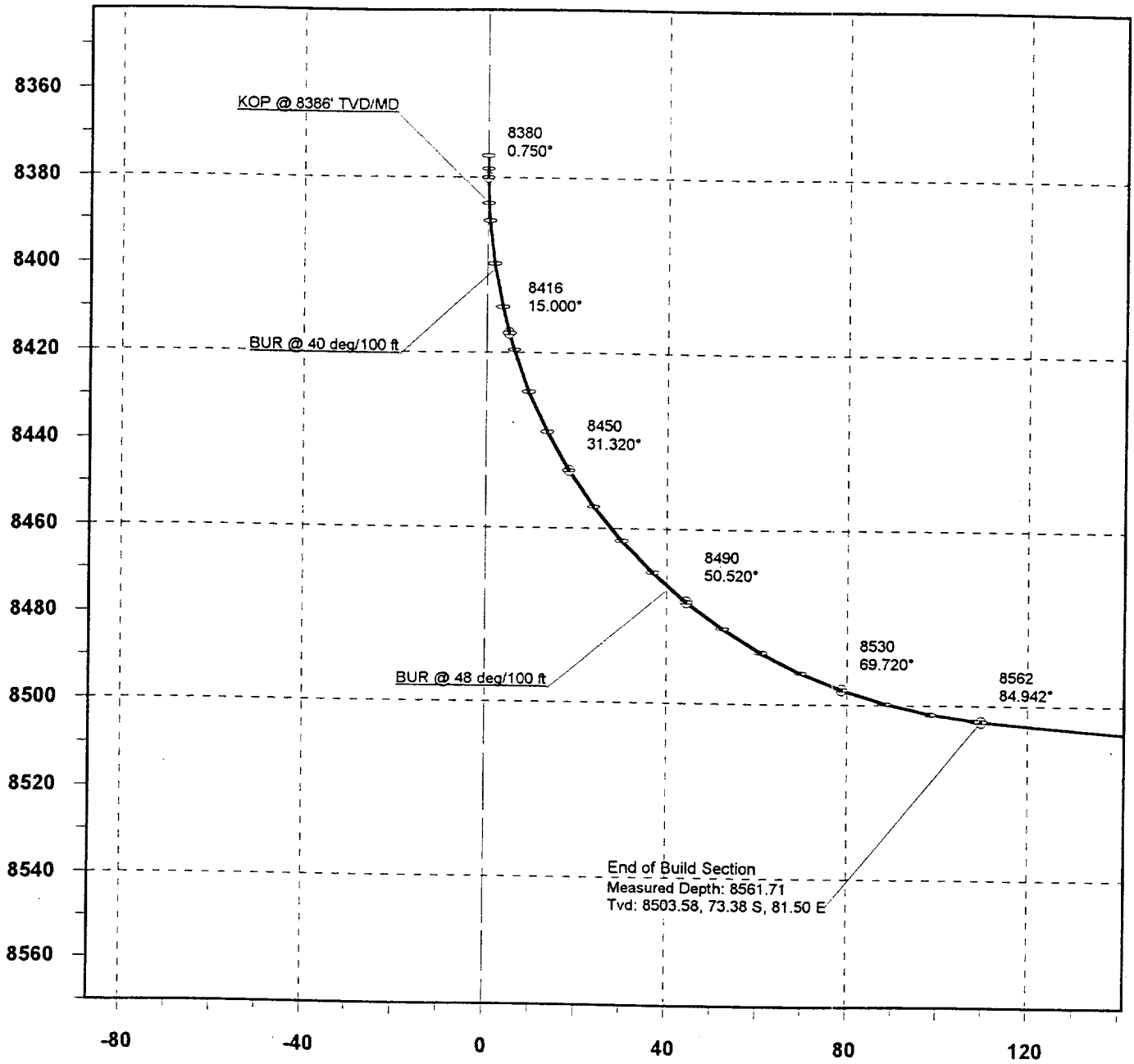
Depths shown on plot are Measured Depths.
All measurements are in Feet.

PERRY-SUN DRILLING SERVICE
VERTICAL SECTION

MOBIL E&P SERVICES, INC.
NVAU #156

N/A
12-Aug-97

VERTICAL
DEPTH



VERTICAL SECTION - Direction: 132.000° (True)

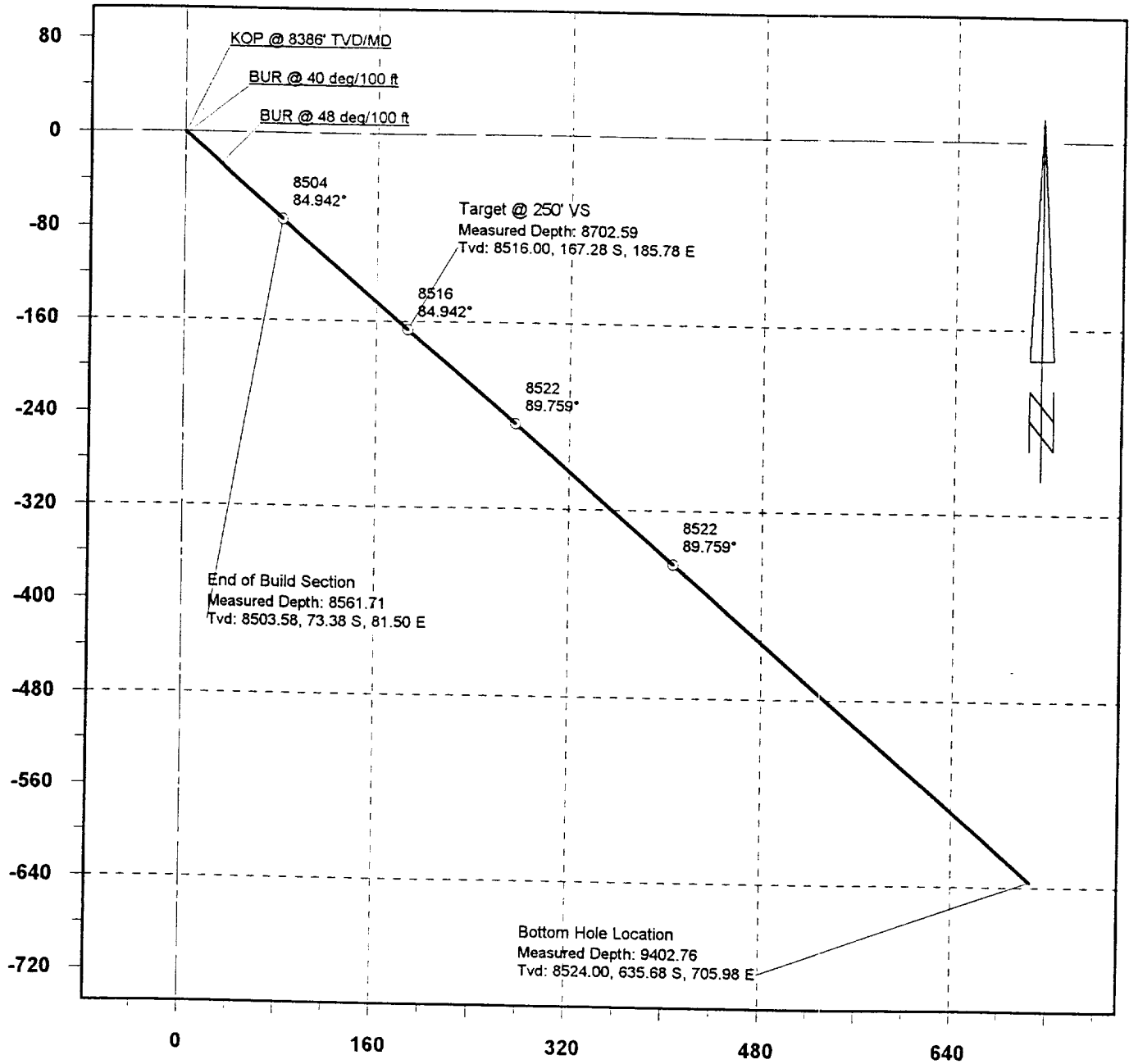
Depths shown on plot are Measured Depths.
All measurements are in Feet.

PERRY-SUN DRILLING SERVICE
HORIZONTAL SECTION

MOBIL E&P SERVICES, INC.
NVAU #156

N/A
12-Aug-97

LATITUDE
VALUES



DEPARTURE VALUES

Depths shown on plot are Vertical Depths.
All measurements are in Feet.