

NORTH VACUUM ABO #136

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-101

Revised February 10, 1994

Instructions on back

Submit to Appropriate District Office

State Lease - 6 Copies

Fee Lease - 5 Copies

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

District I
PO Box 1988, Hobbs, NM 88241-1988
District II
Lower DD, Artesia, NM 88211-0719
District III
Rio Bravo Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

☐ 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
		³ API Number 30-025-23462
⁴ Property Code 8055	⁵ Property Name NORTH VACUUM ABO <i>Unit</i>	⁶ Well Number 136

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
D	26	17-S	34-E		660	NORTH	860	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
N	23	17-S	34-E		82	SOUTH	1690	WEST	LEA

⁹ Proposed Pool 1 <i>N/Vacuum Abo</i>	¹⁰ Proposed Pool 2
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¹¹ Work Type Code P ¹⁶ Multiple NO	¹² Well Type Code I ¹⁷ Proposed Depth 8551	¹³ Cable/Rotary ROTARY ¹⁸ Formations Abo	¹⁴ Lease Type Code S ¹⁹ Contractor	¹⁵ Ground Level Elevation 4034' ²⁰ Spud Date 06-30-97
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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"	20#	1650'	CIRCULATED	SURFACE
7 7/8"	4 1/2"	9.5 & 11.6#	8700'	CIRCULATED	SURFACE
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 Drilling Underway

Plugback

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. Signature: <i>Shirley Houchins</i> Printed name: SHIRLEY HOUCHINS Title: ENVIRONMENTAL & REGULATORY TECHNICIAN Date: 8-18-1997 Phone: (915) 688-2585		OIL CONSERVATION DIVISION Approved by: ORIGINAL SIGNED BY CHRIS WILLIAMS DISTRICT I SUPERVISOR Title: AUG 25 1997 Approval Date: AUG 25 1997 Expiration Date: Conditions of Approval: Attached ☐	
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State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102

Revised February 10, 1994

Instructions on back

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

District I
PO Box 1988, Hobbs, NM 88241-1988
District II
Lower DD, Artesia, NM 88211-4719
District III
1000 Rio Bruma Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-23462	Pool Code 61760	Pool Name NORTH VACUUM Abo
Property Code 8055	Property Name NORTH VACUUM Abo	Well Number 136
OGRID No. 15144	Operator Name MOBIL PRODUCING TX & NM INC. *MOBIL EXPLORATION & PRODUCING US INC. AS AGENT FOR MPTM	Elevation

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
D	26	17-S	34-E		660	NORTH	860	WEST	LEA

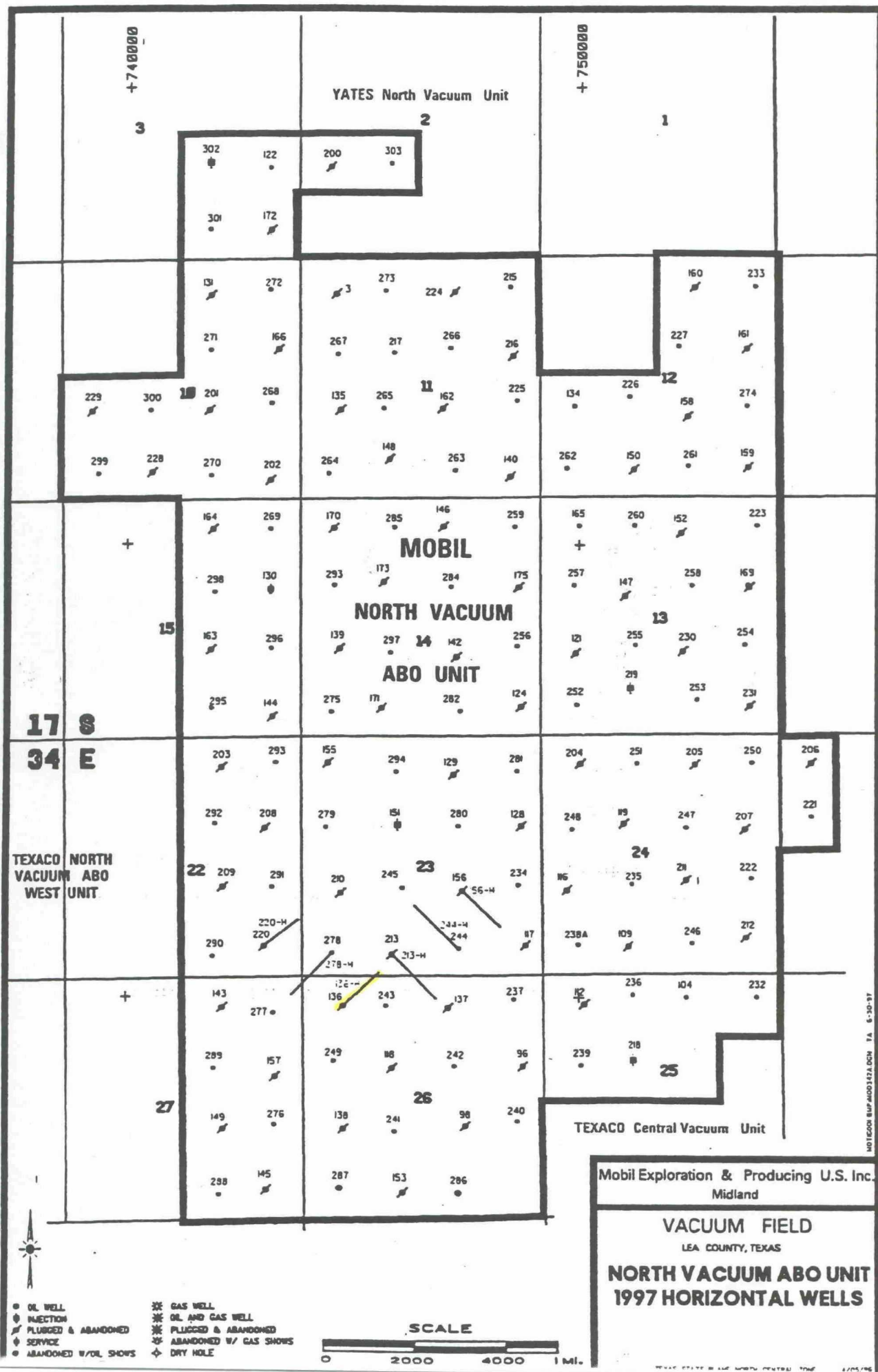
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
N	23	17-S	34-E		82	SOUTH	1690	WEST	LEA

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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

Sec. 23 82' FSL 1690' FWL 860' 136'	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. <u>Shirley Houchins</u> Signature SHIRLEY HOUCHINS Printed Name ENV. & REG. TECHNICIAN Title 8-18-1997 Date
Sec. 26	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 Surveyor: _____ Certificate Number



NVAU NO. 136W
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 8414'-8423' and drill an open hole lateral in the Abo formation with a vertical section of 1000 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 @ 8429' and mill window from 8414'-8423'.
4. Drill curve and lateral to a vertical section of 1000 ft. along an azimuth of 55 degrees. Drilling operations completed.

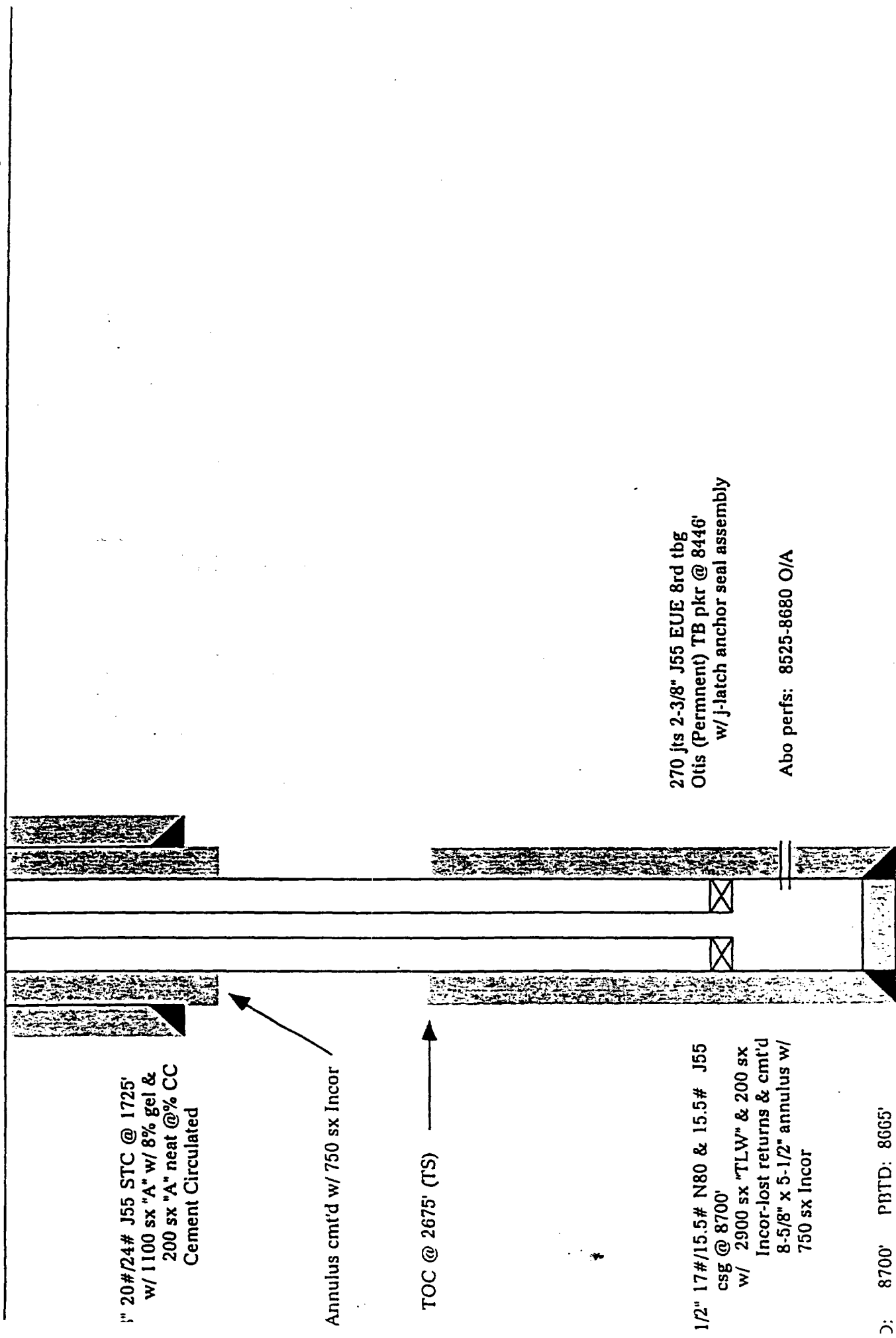
Note: Whipstock and CIBP MAY be removed following stimulation.

INVAU 131111
Vacuum F.
Lea County, New Mexico

MEE: 08/05/97
Spud: 04/20/70

FNL
FWL
6
TS
IE
4048'
4033'

Current Configuration



D: 8700' PBTD: 8665'

FNL
FWL
6
'S
'E

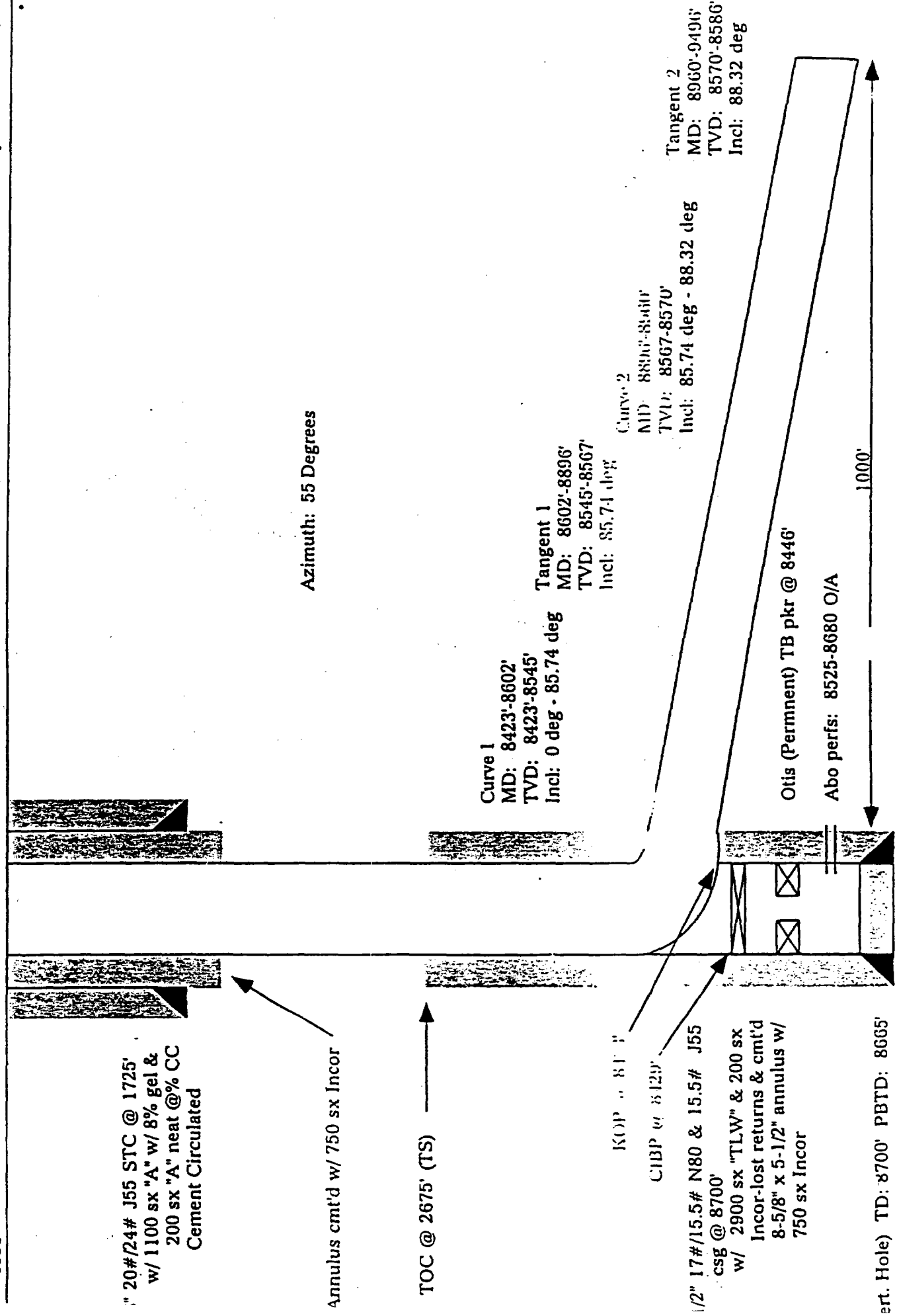
INVAU 130
Vacuum F.
Lea County, New Mexico

MEE: 08/11/97

4048'
4033'

Spud: 04/20/70

Proposed Configuration



ert. Hole) TD: 8700' PBTD: 8665'

**WELL PLANNING
REPORT**

MOBIL E&P SERVICES, INC.

NVAU #136

**N/A
11-Aug-97**

SPERRY-SUN DRILLING SERVICES WELL PROFILE DATA

MOBIL E&P SERVICES, INC.
NVAU #136

N/A
11-Aug-97

MEASURED DEPTH	ANGLE DEG	DIRECTION DEG	VERTICAL DEPTH	LATITUDE (FL)	DEPARTURE (FL)	VERTICAL SECTION	DOG LEG	TOOL FACE
8420.00	0.000	0.000	8420.00	0.00	0.00	0.00		
8423.00	0.000	0.000	8423.00	0.00	0.00	0.00	0.000	0.000
8430.00	2.625	55.000	8430.00	0.09 N	0.13 E	0.16		
8431.00	3.000	55.000	8431.00	0.12 N	0.17 E	0.21	37.500	55.000
8440.00	6.600	55.000	8439.96	0.55 N	0.79 E	0.96		
8450.00	10.600	55.000	8449.85	1.41 N	2.01 E	2.46		
8460.00	14.600	55.000	8459.61	2.66 N	3.80 E	4.64		
8461.00	15.000	55.000	8460.57	2.81 N	4.01 E	4.89	40.000	0.000
8470.00	19.500	55.000	8469.17	4.34 N	6.19 E	7.56		
8480.00	24.500	55.000	8478.43	6.49 N	9.26 E	11.31		
8490.00	29.500	55.000	8487.34	9.09 N	12.98 E	15.85		
8500.00	34.500	55.000	8495.82	12.13 N	17.32 E	21.14		
8510.00	39.500	55.000	8503.80	15.58 N	22.25 E	27.16		
8520.00	44.500	55.000	8511.23	19.41 N	27.73 E	33.85		
8530.00	49.500	55.000	8518.05	23.61 N	33.72 E	41.16		
8540.00	54.500	55.000	8524.21	28.13 N	40.17 E	49.04		
8550.00	59.500	55.000	8529.65	32.94 N	47.04 E	57.42		
8560.00	64.500	55.000	8534.34	38.00 N	54.27 E	66.25		
8570.00	69.500	55.000	8538.25	43.28 N	61.81 E	75.45		
8580.00	74.500	55.000	8541.34	48.73 N	69.59 E	84.96		
8590.00	79.500	55.000	8543.59	54.32 N	77.57 E	94.70		
8600.00	84.500	55.000	8544.98	59.99 N	85.68 E	104.60		
8602.48	85.742	55.000	8545.19	61.41 N	87.71 E	107.07	50.000	0.000
8610.00	85.742	55.000	8545.75	65.71 N	93.85 E	114.57		
8620.00	85.742	55.000	8546.49	71.43 N	102.02 E	124.54		
8630.00	85.742	55.000	8547.23	77.15 N	110.19 E	134.51		
8640.00	85.742	55.000	8547.98	82.87 N	118.36 E	144.49		
8650.00	85.742	55.000	8548.72	88.59 N	126.52 E	154.46		
8660.00	85.742	55.000	8549.46	94.31 N	134.69 E	164.43		
8670.00	85.742	55.000	8550.20	100.03 N	142.86 E	174.40		
8680.00	85.742	55.000	8550.95	105.75 N	151.03 E	184.37		
8690.00	85.742	55.000	8551.69	111.47 N	159.20 E	194.35		
8700.00	85.742	55.000	8552.43	117.19 N	167.37 E	204.32		
8710.00	85.742	55.000	8553.17	122.91 N	175.54 E	214.29		
8720.00	85.742	55.000	8553.92	128.63 N	183.71 E	224.26		
8730.00	85.742	55.000	8554.66	134.35 N	191.88 E	234.24		
8740.00	85.742	55.000	8555.40	140.07 N	200.04 E	244.21		
8750.00	85.742	55.000	8556.14	145.79 N	208.21 E	254.18		
8760.00	85.742	55.000	8556.89	151.51 N	216.38 E	264.15		
8770.00	85.742	55.000	8557.63	157.23 N	224.55 E	274.13		
8780.00	85.742	55.000	8558.37	162.95 N	232.72 E	284.10		
8790.00	85.742	55.000	8559.11	168.67 N	240.89 E	294.07		
8800.00	85.742	55.000	8559.86	174.39 N	249.06 E	304.04		
8810.00	85.742	55.000	8560.60	180.11 N	257.23 E	314.02		
8820.00	85.742	55.000	8561.34	185.83 N	265.40 E	323.99		

SPERRY-SUN DRILLING SERVICES WELL PROFILE DATA

MOBIL E&P SERVICES, INC.
NVAU #136

N/A
11-Aug-97

MEASURED DEPTH	ANGLE DEG	DIRECTION DEG	VERTICAL DEPTH	LATITUDE (FL)	DEPARTURE (FL)	VERTICAL SECTION	DOG LEG	TOOL FACE
8830.00	85.742	55.000	8562.08	191.55 N	273.56 E	333.96		
8840.00	85.742	55.000	8562.83	197.27 N	281.73 E	343.93		
8850.00	85.742	55.000	8563.57	202.99 N	289.90 E	353.91		
8860.00	85.742	55.000	8564.31	208.71 N	298.07 E	363.88		
8870.00	85.742	55.000	8565.05	214.43 N	306.24 E	373.85		
8880.00	85.742	55.000	8565.80	220.15 N	314.41 E	383.82		
8890.00	85.742	55.000	8566.54	225.87 N	322.58 E	393.80		
8896.22	85.742	55.000	8567.00	229.43 N	327.66 E	400.00	0.000	0.000
8900.00	85.893	55.000	8567.28	231.59 N	330.75 E	403.77		
8910.00	86.293	55.000	8567.96	237.31 N	338.92 E	413.74		
8920.00	86.693	55.000	8568.57	243.04 N	347.10 E	423.73		
8930.00	87.093	55.000	8569.11	248.77 N	355.28 E	433.71		
8940.00	87.493	55.000	8569.58	254.50 N	363.46 E	443.70		
8950.00	87.893	55.000	8569.99	260.23 N	371.64 E	453.69		
8960.00	88.293	55.000	8570.32	265.96 N	379.83 E	463.69		
8960.80	88.325	55.000	8570.34	266.42 N	380.49 E	464.49	4.000	0.000
8970.00	88.325	55.000	8570.61	271.69 N	388.02 E	473.68		
8980.00	88.325	55.000	8570.90	277.43 N	396.21 E	483.68		
8990.00	88.325	55.000	8571.20	283.16 N	404.39 E	493.67		
9000.00	88.325	55.000	8571.49	288.89 N	412.58 E	503.67		
9010.00	88.325	55.000	8571.78	294.63 N	420.77 E	513.67		
9020.00	88.325	55.000	8572.07	300.36 N	428.96 E	523.66		
9030.00	88.325	55.000	8572.36	306.09 N	437.15 E	533.66		
9040.00	88.325	55.000	8572.66	311.83 N	445.33 E	543.65		
9050.00	88.325	55.000	8572.95	317.56 N	453.52 E	553.65		
9060.00	88.325	55.000	8573.24	323.29 N	461.71 E	563.64		
9070.00	88.325	55.000	8573.53	329.03 N	469.90 E	573.64		
9080.00	88.325	55.000	8573.83	334.76 N	478.09 E	583.64		
9090.00	88.325	55.000	8574.12	340.49 N	486.27 E	593.63		
9100.00	88.325	55.000	8574.41	346.23 N	494.46 E	603.63		
9110.00	88.325	55.000	8574.70	351.96 N	502.65 E	613.62		
9120.00	88.325	55.000	8574.99	357.69 N	510.84 E	623.62		
9130.00	88.325	55.000	8575.29	363.43 N	519.03 E	633.61		
9140.00	88.325	55.000	8575.58	369.16 N	527.21 E	643.61		
9150.00	88.325	55.000	8575.87	374.89 N	535.40 E	653.61		
9160.00	88.325	55.000	8576.16	380.63 N	543.59 E	663.60		
9170.00	88.325	55.000	8576.46	386.36 N	551.78 E	673.60		
9180.00	88.325	55.000	8576.75	392.09 N	559.97 E	683.59		
9190.00	88.325	55.000	8577.04	397.83 N	568.15 E	693.59		
9200.00	88.325	55.000	8577.33	403.56 N	576.34 E	703.58		
9210.00	88.325	55.000	8577.63	409.29 N	584.53 E	713.58		
9220.00	88.325	55.000	8577.92	415.03 N	592.72 E	723.58		
9230.00	88.325	55.000	8578.21	420.76 N	600.91 E	733.57		
9240.00	88.325	55.000	8578.50	426.49 N	609.09 E	743.57		
9250.00	88.325	55.000	8578.79	432.23 N	617.28 E	753.56		

SPERRY-SUN DRILLING SERVICES WELL PROFILE DATA

MOBIL E&P SERVICES, INC.
NVAU #136

N/A
11-Aug-97

MEASURED DEPTH	ANGLE DEG	DIRECTION DEG	VERTICAL DEPTH	LATITUDE (FL)	DEPARTURE (FL)	VERTICAL SECTION	DOG LEG	TOOL FACE
9260.00	88.325	55.000	8579.09	437.96 N	625.47 E	763.56		
9270.00	88.325	55.000	8579.38	443.69 N	633.66 E	773.55		
9280.00	88.325	55.000	8579.67	449.43 N	641.85 E	783.55		
9290.00	88.325	55.000	8579.96	455.16 N	650.03 E	793.55		
9300.00	88.325	55.000	8580.26	460.89 N	658.22 E	803.54		
9310.00	88.325	55.000	8580.55	466.63 N	666.41 E	813.54		
9320.00	88.325	55.000	8580.84	472.36 N	674.60 E	823.53		
9330.00	88.325	55.000	8581.13	478.09 N	682.79 E	833.53		
9340.00	88.325	55.000	8581.42	483.83 N	690.97 E	843.52		
9350.00	88.325	55.000	8581.72	489.56 N	699.16 E	853.52		
9360.00	88.325	55.000	8582.01	495.29 N	707.35 E	863.52		
9370.00	88.325	55.000	8582.30	501.03 N	715.54 E	873.51		
9380.00	88.325	55.000	8582.59	506.76 N	723.72 E	883.51		
9390.00	88.325	55.000	8582.89	512.50 N	731.91 E	893.50		
9400.00	88.325	55.000	8583.18	518.23 N	740.10 E	903.50		
9410.00	88.325	55.000	8583.47	523.96 N	748.29 E	913.49		
9420.00	88.325	55.000	8583.76	529.70 N	756.48 E	923.49		
9430.00	88.325	55.000	8584.06	535.43 N	764.66 E	933.49		
9440.00	88.325	55.000	8584.35	541.16 N	772.85 E	943.48		
9450.00	88.325	55.000	8584.64	546.90 N	781.04 E	953.48		
9460.00	88.325	55.000	8584.93	552.63 N	789.23 E	963.47		
9470.00	88.325	55.000	8585.22	558.36 N	797.42 E	973.47		
9480.00	88.325	55.000	8585.52	564.10 N	805.60 E	983.46		
9490.00	88.325	55.000	8585.81	569.83 N	813.79 E	993.46		
9496.54	88.325	55.000	8586.00	573.58 N	819.15 E	1000.00	0.000	0.000

The Dogleg Severity is in Degrees per 100.00 Feet
Vertical Section was calculated along an Azimuth of 55.000° (True)

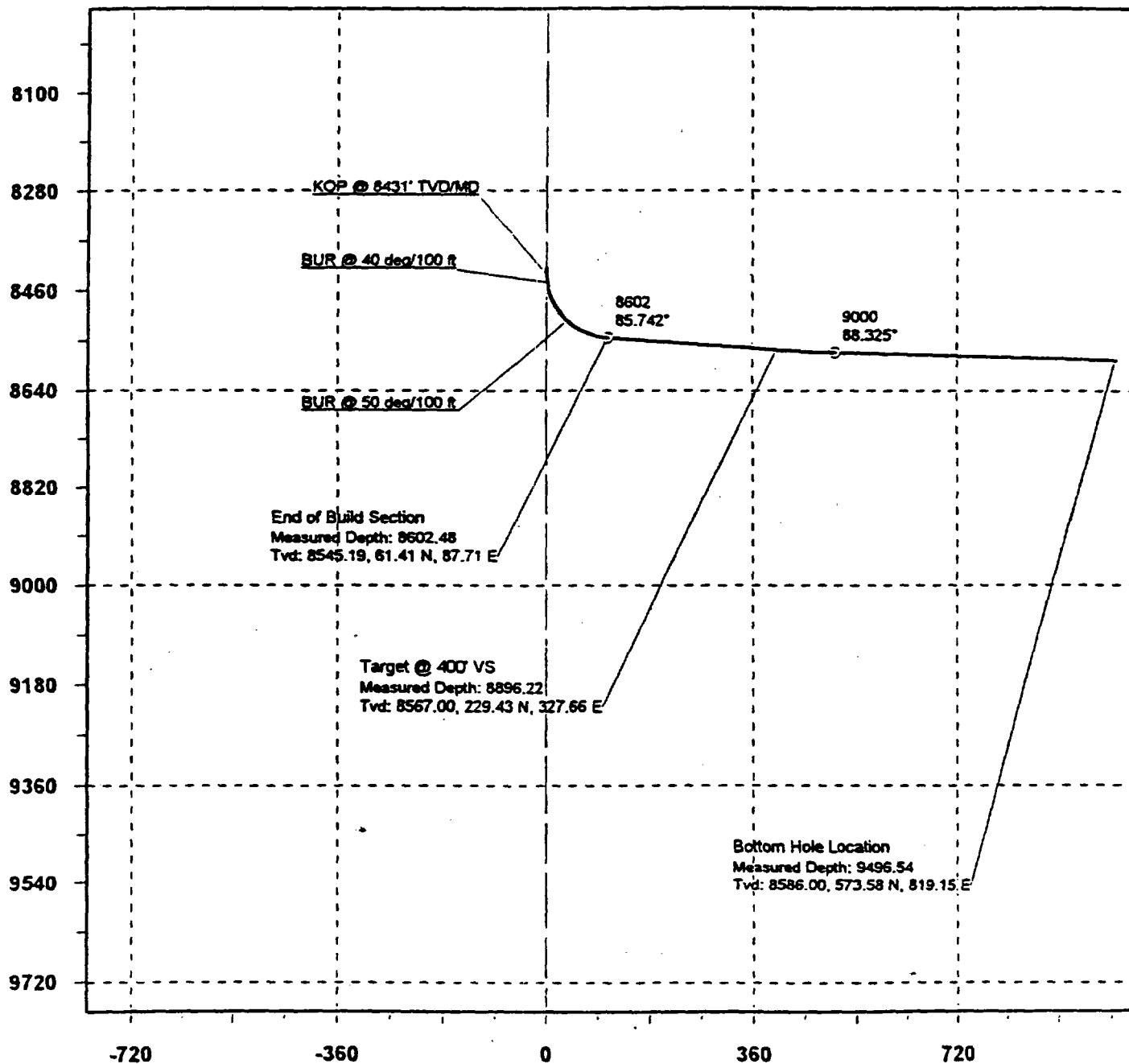
Based upon Minimum Curvature type calculations. At a Measured Depth of 9496.54 Feet,
the Bottom Hole Displacement is 1000.00 Feet, in the Direction of 55.000° (True)

SPERRY-SUN DRILLING SERVICES VERTICAL SECTION

MOBIL E&P SERVICES, INC.
NVAU #136

N/A
11-Aug-97

VERTICAL
DEPTH



VERTICAL SECTION - Direction: 55.000° (True)

Depths shown on plot are Measured Depths.

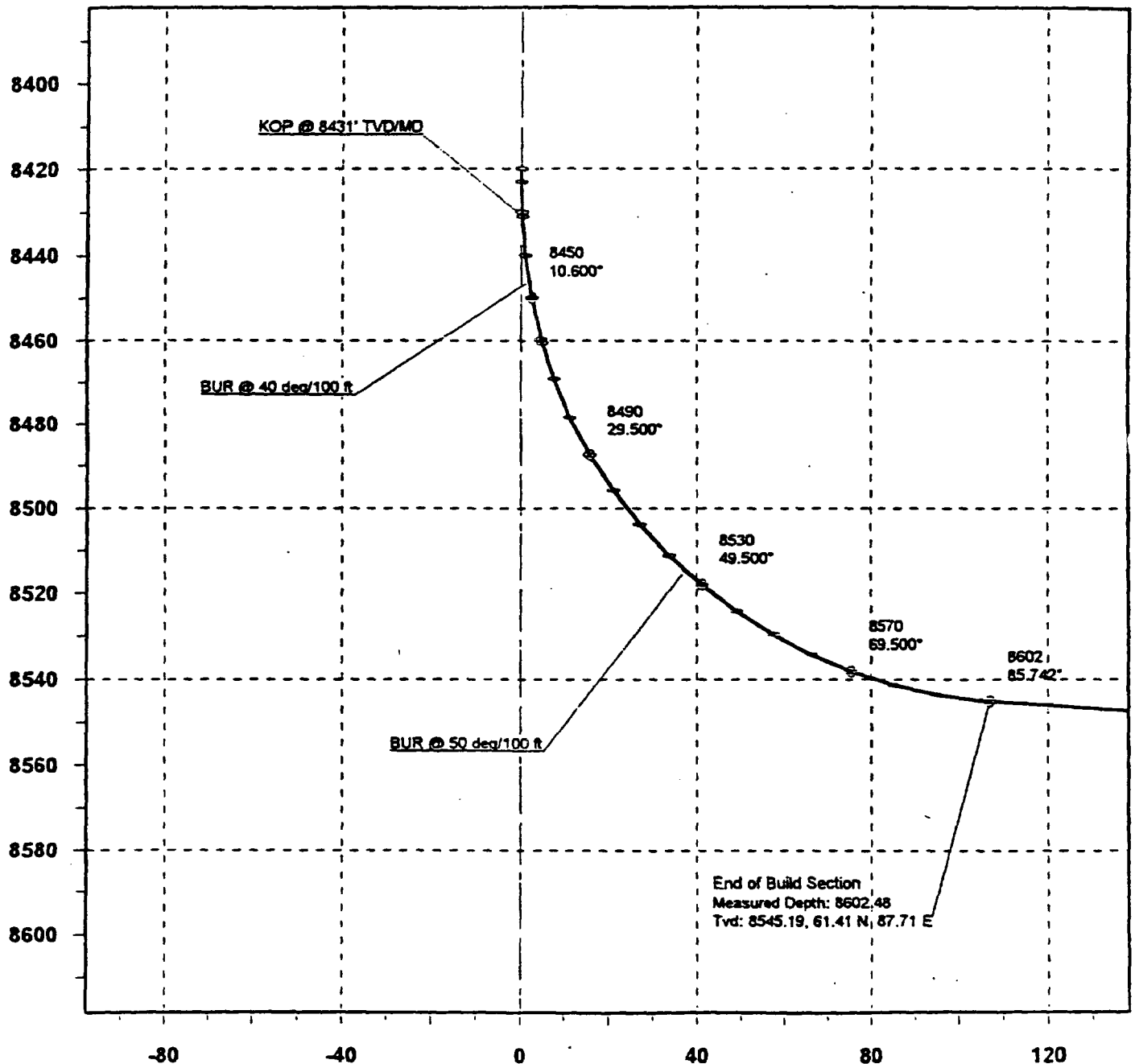
All measurements are in Feet.

SPERRY-SUN DRILLING SERVICES VERTICAL SECTION

MOBIL E&P SERVICES, INC.
NVAU #136

N/A
11-Aug-97

VERTICAL
DEPTH



VERTICAL SECTION - Direction: 55.000° (True)

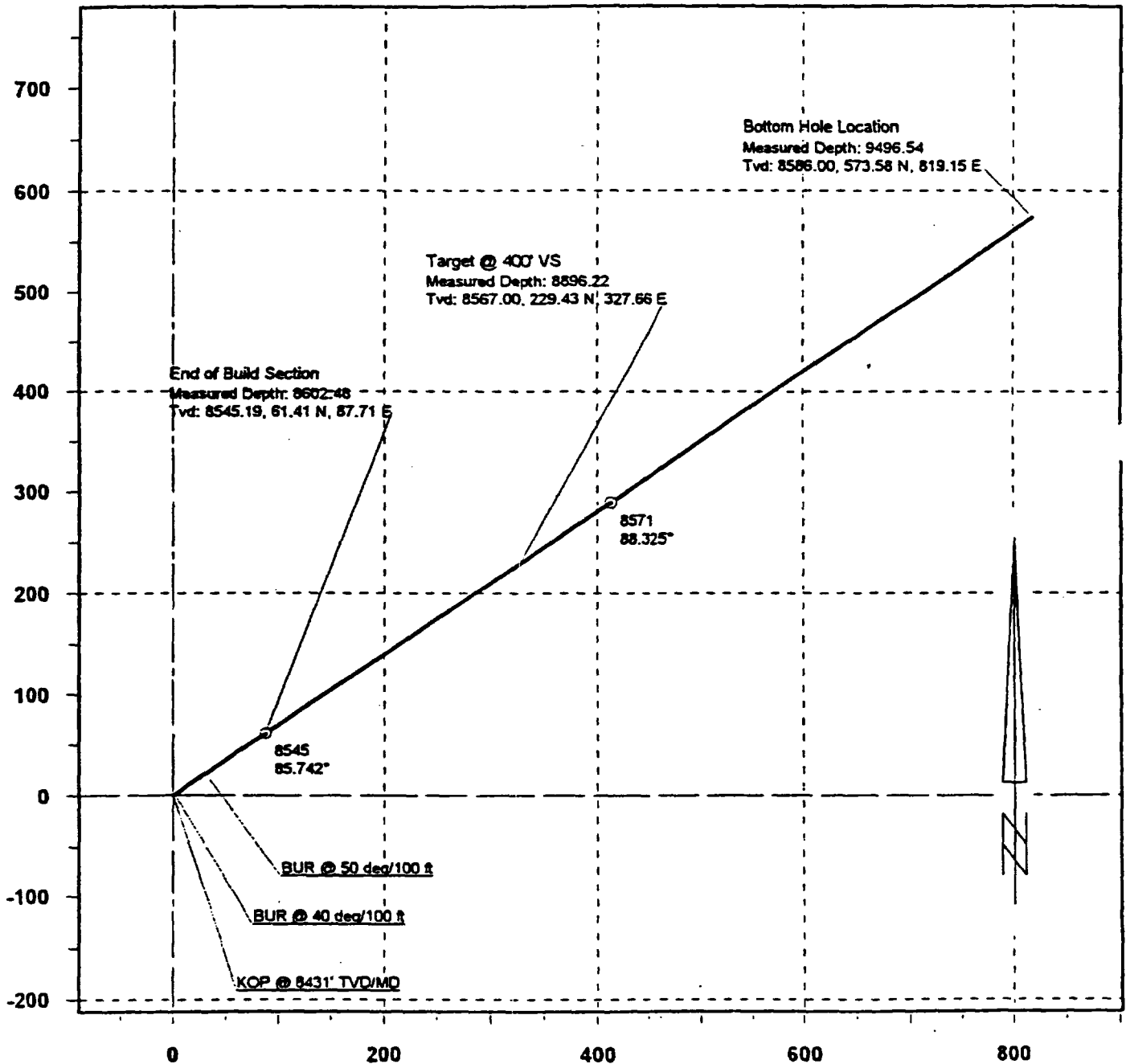
Depths shown on plot are Measured Depths.
All measurements are in Feet.

SPERRY-SUN DRILLING SERVICES HORIZONTAL SECTION

MOBIL E&P SERVICES, INC.
NVAU #136

N/A
11-Aug-97

LATITUDE
VALUES



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

Submit to Appropriate
District Office
Lease - 6 copies
Lease - 5 copies

DISTRICT I

Box 1980, Hobbs, NM 88240

DISTRICT II

P.O. Drawer DD, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-105
Revised 1-1-89

OIL CONSERVATION DIVISION

2040 Pacheco St.
Santa Fe, NM 87505

WELL API NO.

30-025-23462

5. Indicate Type Of Lease

STATE ☒

FEE ☐

6. State Oil & Gas Lease No.

B-1520-1

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well:
OIL WELL ☒ GAS WELL ☐ DRY ☐ OTHER INJECTOR

b. Type of Completion:

NEW WELL ☐ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF RESVR ☐ OTHER SIDETRACK

2. Name of Operator MOBIL PRODUCING TX & NM INC.*
*MOBIL EXPLORATION & PRODUCING US INC. AS AGENT FOR MPTM

8. Well No.

136W

3. Address of Operator

P.O. Box 633 Midland, TX 79702

9. Pool name or Wildcat

NORTH VACUUM ABO

4. Well Location

Unit Letter D : 660 Feet From The NORTH Line and 860 Feet From The WEST Line

*BHL: UL/LOT NO. C, SEC. 26, T-17-S, R-34-E; 443' NORTH & 758' EAST, LEA COUNTY, NM

Section 26 Township 17S Range 34E NMPM LEA County

10. Date Spudded 11-12-97 11. Date T.D. Reached 11-24-97 12. Date Compl.(Ready to Prod.) 12-12-97 13. Elevations(DF & RKB, RT, GR, etc.) 4034' GR 14. Elev. Casinghead

15. Total Depth 9376' TMD 16. Plug Back T.D. 9376' TMD 17. If Multiple Compl. How Many Zones? 1 18. Intervals Drilled By X Rotary Tools Cable Tools

19. Producing Interval(s), of this completion - Top, Bottom, Name 102-9376' TMD OHZ / ABO 20. Was Directional Survey Made YES

Type Electric and Other Logs Run

22. Was Well Cored

NA

NO

23. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8 5/8"	20#	1650'	12 1/4"	CIRCULATED/SURFACE	
4 1/2"	9.5 & 11.6#	8700'	7 7/8"	CIRCULATED/SURFACE	
EXISTING	WELLBORE				

24. LINER RECORD					25. TUBING RECORD		
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					2 7/8"	8349'	8355'

26. Perforation record (interval, size, and number) <u>LATERAL #1 8402-9376' TMD OHZ</u>	27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.	
	DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
	<u>8661-9376'TMD</u>	<u>LATERAL #1 ACIDIZE W/665 GALS 15% HCL & 11600 GALS 20 % ACID</u>

28. PRODUCTION							
Date First Production <u>12-17-97</u>		Production Method (Flowing, gas lift, pumping - Size and type pump)				Well Status (Prod. or Shut-in) <u>INJECTOR</u>	
Date of Test <u>1-27-98</u>	Hours Tested <u>24</u>	Choke Size	Prod'n For Test Period	Oil - Bbl.	Gas - MCF	Water - Bbl. <u>258</u>	Gas - Oil Ratio
Flow Tubing Press. <u>4050</u>	Casing Pressure <u>0</u>	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API (Corr.)	

Disposition of Gas (Sold, used for fuel, vented, etc.)

Test Witnessed By

30. List Attachments

DIRECTIONAL SURVEY

31. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief

Signature Shirley Houchins Printed Name SHIRLEY HOUCHINS Title ENV & REG TECH Date 1-26-98

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
S. 1st Street, Artesia, NM 88210-2834
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form
Revised October 18
Instructions
Submit to Appropriate District
State Lease - 4
Fee Lease - 3

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-23696		² Pool Code 61760		³ Pool Name NORTH VACUUM ABO	
⁴ Property Code 8055		⁵ Property Name NORTH VACUUM ABO UNIT			⁶ Well Number 136W
⁷ OGRID No. 15144		⁸ Operator Name MOBIL PRODUCING TX & NM INC. *MOBIL EXPLORATION & PRODUCING US INC. AS AGENT FOR MPTH			⁹ Elevation 4034' GR

¹⁰ Surface Location									
UL or lot no. D	Section 26	Township 17S	Range 34E	Lot. Idn	Feet from the 660	North/South Line NORTH	Feet from the 860	East/West line WEST	County LEA

¹¹ Bottom Hole Location If Different From Surface									
UL or lot no. C	Section 26	Township 17S	Range 34E	Lot. Idn	Feet from the 443'	North/South Line NORTH	Feet from the 758'	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.			
	<u>Shirley Houchins</u> Signature SHIRLEY HOUCHINS Printed Name ENV & REG TECHNICIAN Title 1-29-98 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			



*Mobil Exploration
Vacuum Field (PA/WC)
Lea County
Sec. 26-T17S-R34E
NV ABO # 136 - MWD Sidetrack*

SURVEY REPORT

30 November, 1997

Sperry-Sun Drilling Services

Survey Report for NV ABO # 136



Mobil Exploration
Vacuum Field (PA/WC)

Lea County
Sec. 26-T17S-R34E

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
Org Hole							
0.00	0.000	0.000	0.00	0.00 N	0.00 E	0.00	
200.00	0.380	258.600	200.00	0.13 S	0.65 W	-0.61	0.190
400.00	0.340	269.570	399.99	0.27 S	1.89 W	-1.70	0.040
600.00	0.440	227.180	599.99	0.79 S	3.05 W	-2.95	0.149
800.00	0.460	215.730	799.98	2.00 S	4.10 W	-4.51	0.050
1000.00	0.770	205.430	999.97	3.89 S	5.17 W	-6.46	0.155
1200.00	0.750	194.540	1199.95	6.37 S	6.07 W	-8.63	0.073
1400.00	1.230	207.260	1399.92	9.54 S	7.39 W	-11.53	0.263
1600.00	1.870	207.270	1599.85	14.35 S	9.87 W	-16.31	0.320
1800.00	1.550	202.330	1799.76	19.76 S	12.39 W	-21.48	0.176
2000.00	1.470	203.830	1999.69	24.60 S	14.45 W	-25.95	0.045
2200.00	1.250	198.670	2199.63	29.02 S	16.19 W	-29.90	0.126
2400.00	0.820	222.910	2399.60	32.13 S	17.86 W	-33.06	0.302
2600.00	0.450	248.620	2599.59	33.47 S	19.57 W	-35.22	0.229
2800.00	0.020	283.530	2799.59	33.75 S	20.33 W	-36.01	0.217
3000.00	0.080	356.380	2999.59	33.60 S	20.37 W	-35.96	0.038
3200.00	0.200	313.850	3199.59	33.22 S	20.63 W	-35.95	0.076
3400.00	0.220	294.150	3399.59	32.82 S	21.24 W	-36.22	0.037
3600.00	0.160	226.140	3599.59	32.85 S	21.79 W	-36.69	0.109
3800.00	0.280	118.320	3799.58	33.28 S	21.56 W	-36.75	0.181
4000.00	0.450	117.500	3999.58	33.87 S	20.43 W	-36.17	0.085
4200.00	0.410	111.650	4199.57	34.50 S	19.07 W	-35.41	0.030
4400.00	0.380	108.990	4399.57	34.98 S	17.78 W	-34.63	0.018
4600.00	0.890	115.260	4599.56	35.86 S	15.75 W	-33.47	0.257
4800.00	1.180	115.450	4799.52	37.41 S	12.48 W	-31.68	0.145
5000.00	0.910	112.860	4999.49	38.91 S	9.16 W	-29.82	0.137
5200.00	0.820	127.630	5199.47	40.40 S	6.56 W	-28.55	0.120
5400.00	0.620	160.340	5399.45	42.29 S	5.06 W	-28.41	0.224
5600.00	0.440	160.060	5599.44	44.03 S	4.44 W	-28.89	0.090
5800.00	0.660	158.030	5799.44	45.82 S	3.75 W	-29.35	0.110
6000.00	0.450	163.090	5999.43	47.64 S	3.09 W	-29.86	0.108
6200.00	0.610	149.490	6199.42	49.31 S	2.32 W	-30.18	0.101
6400.00	0.710	147.970	6399.40	51.28 S	1.12 W	-30.33	0.051
6600.00	1.040	146.350	6599.38	53.84 S	0.54 E	-30.44	0.165
6800.00	0.750	133.500	6799.36	56.25 S	2.50 E	-30.22	0.175
7000.00	0.870	139.980	6999.34	58.32 S	4.42 E	-29.83	0.075
7200.00	0.800	126.510	7199.31	60.31 S	6.52 E	-29.25	0.104
7400.00	1.040	100.750	7399.29	61.48 S	9.43 E	-27.54	0.236
7600.00	0.880	104.910	7599.26	62.21 S	12.70 E	-25.28	0.087
7800.00	0.870	108.920	7799.24	63.10 S	15.62 E	-23.40	0.031

Continued...

Sperry-Sun Drilling Services

Survey Report for NV ABO # 136



Mobil Exploration
Vacuum Field (PA/WC)

Lea County
Sec. 26-T17S-R34E

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
8000.00	0.750	121.540	7999.22	64.28 S	18.17 E	-21.99	0.107
8200.00	1.610	124.610	8199.17	66.56 S	21.60 E	-20.49	0.431
8390.00	1.880	124.080	8389.09	69.82 S	26.37 E	-18.44	0.142

MWD Sidetrack

8395.00	1.880	124.080	8394.08	69.91 S	26.51 E	-18.38	0.000
8402.00	5.700	55.000	8401.07	69.78 S	26.89 E	-18.00	76.079
8410.00	9.000	58.050	8409.00	69.22 S	27.75 E	-16.97	41.523
8420.00	13.500	59.870	8418.81	68.22 S	29.42 E	-15.03	45.134
8430.00	17.800	60.880	8428.43	66.89 S	31.77 E	-12.34	43.085
8440.00	22.400	61.520	8437.82	65.23 S	34.78 E	-8.93	46.052
8450.00	25.500	61.960	8446.96	63.31 S	38.35 E	-4.90	31.051
8460.00	27.600	62.290	8455.91	61.22 S	42.31 E	-0.46	21.052
8470.00	30.300	62.550	8464.66	58.98 S	46.60 E	4.34	27.029
8480.00	34.100	62.750	8473.12	56.54 S	51.33 E	9.62	38.015
8490.00	38.100	62.930	8481.19	53.85 S	56.57 E	15.45	40.014
8500.00	40.700	63.070	8488.92	50.97 S	62.22 E	21.74	26.015
8510.00	43.900	63.200	8496.32	47.93 S	68.23 E	28.40	32.012
8520.00	46.500	59.600	8503.36	44.53 S	74.45 E	35.45	36.441
8530.00	48.400	55.300	8510.13	40.56 S	80.66 E	42.81	36.931
8540.00	50.500	51.200	8516.63	36.01 S	86.74 E	50.40	37.563
8550.00	53.900	50.300	8522.76	31.01 S	92.86 E	58.27	34.735
8560.00	57.600	50.900	8528.38	25.77 S	99.24 E	66.51	37.331
8570.00	61.300	52.400	8533.47	20.43 S	106.00 E	75.11	39.189
8580.00	63.500	52.400	8538.10	15.02 S	113.02 E	83.96	22.000
8590.00	65.900	50.500	8542.37	9.39 S	120.09 E	92.98	29.513
8600.00	67.500	52.800	8546.33	3.69 S	127.29 E	102.15	26.499
8610.00	69.600	51.300	8549.99	2.03 N	134.63 E	111.45	25.217
8620.00	71.400	52.900	8553.32	7.82 N	142.07 E	120.86	23.483
8630.00	74.600	54.900	8556.25	13.46 N	149.79 E	130.42	37.278
8640.00	78.500	55.200	8558.57	19.03 N	157.76 E	140.14	39.109
8650.00	82.200	55.900	8560.25	24.60 N	165.89 E	150.00	37.638
8660.00	85.900	53.500	8563.36	41.84 N	190.24 E	179.83	14.677
8710.00	86.700	52.000	8565.29	59.96 N	214.06 E	209.74	5.657
8740.00	87.300	53.000	8566.86	78.20 N	237.83 E	239.67	3.883
8771.00	87.900	54.300	8568.16	96.56 N	262.78 E	270.64	4.615
8802.00	90.600	53.900	8568.57	114.73 N	287.88 E	301.63	8.805
8833.00	90.000	55.200	8568.41	132.71 N	313.14 E	332.63	4.619
8864.00	91.200	57.300	8568.08	149.93 N	338.91 E	363.61	7.802
8896.00	89.200	57.800	8567.97	167.10 N	365.91 E	395.58	6.442
8927.00	90.100	57.400	8568.16	183.71 N	392.08 E	426.55	3.177
8957.00	88.700	57.300	8568.47	199.89 N	417.34 E	456.52	4.679
8988.00	89.600	57.600	8568.93	216.57 N	443.47 E	487.49	3.060
9019.00	90.000	57.400	8569.04	233.23 N	469.61 E	518.46	1.443
9050.00	90.100	56.400	8569.01	250.16 N	495.58 E	549.44	3.242

Continued...

Sperry-Sun Drilling Services

Survey Report for NV ABO # 136



Mobil Exploration
Vacuum Field (PA/WC)

Lea County
Sec. 26-T17S-R34E

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
9081.00	87.700	53.900	8569.61	267.86 N	521.01 E	580.43	11.178
9112.00	87.800	53.700	8570.83	286.16 N	546.01 E	611.40	0.721
9143.00	87.000	53.700	8572.23	304.49 N	570.97 E	642.36	2.581
9174.00	86.200	52.700	8574.07	323.03 N	595.75 E	673.29	4.127
9205.00	85.500	52.900	8576.32	341.72 N	620.37 E	704.18	2.348
9236.00	86.800	52.700	8578.40	360.42 N	645.01 E	735.09	4.243
9265.00	88.900	53.600	8579.48	377.80 N	668.20 E	764.05	7.877
9295.00	89.900	54.800	8579.80	395.35 N	692.53 E	794.05	5.207
9326.00	89.500	53.900	8579.96	413.41 N	717.72 E	825.05	3.177
9341.00	89.400	54.000	8580.10	422.24 N	729.85 E	840.04	0.943
9376.00	90.000	54.000	8580.29	442.81 N	758.16 E	875.04	1.714

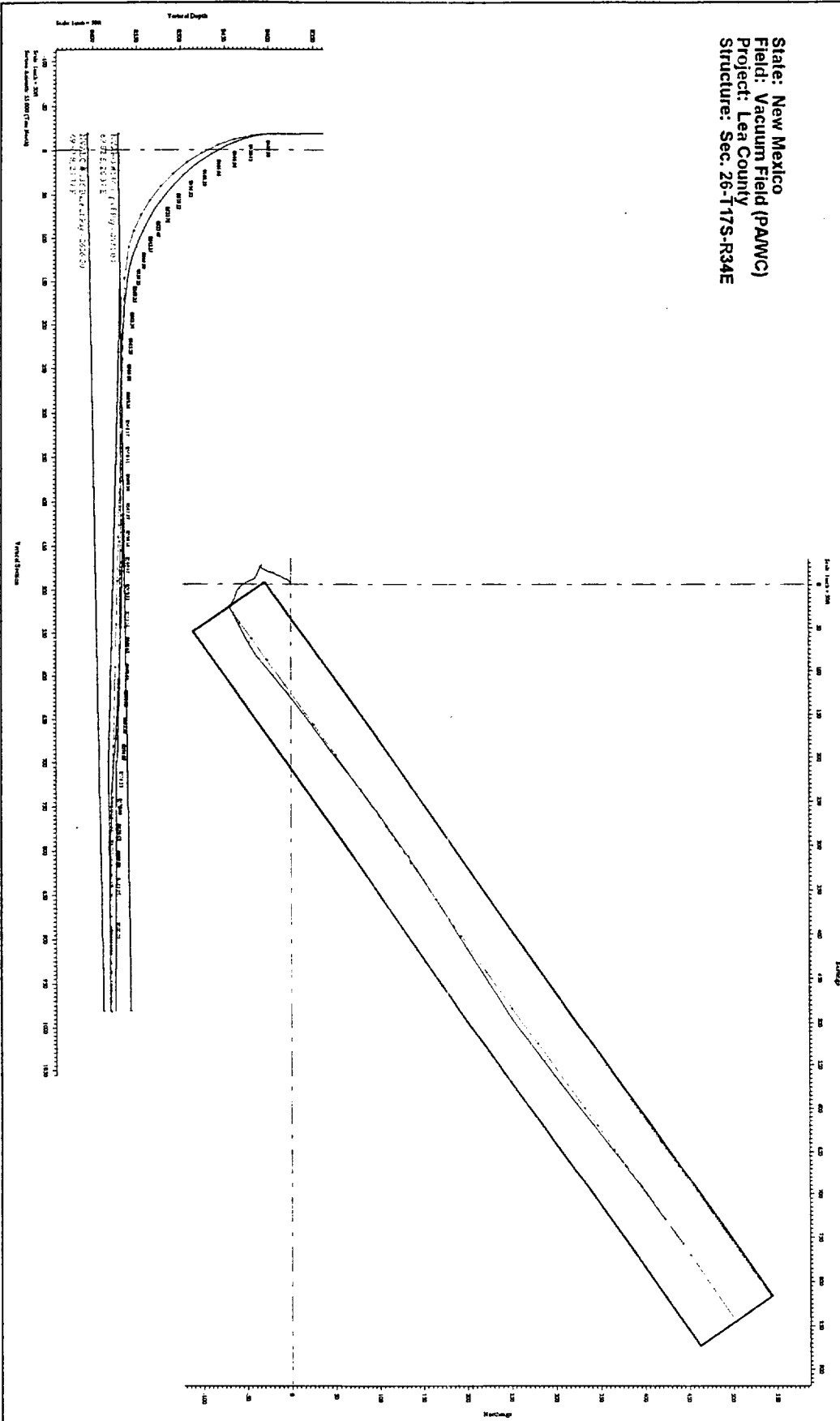
All data is in feet unless otherwise stated. Directions and coordinates are relative to True North.
Vertical depths are relative to RKB. Northings and Eastings are relative to Wellhead.

The Dogleg Severity is in Degrees per 100ft.

Vertical Section is from Wellhead and calculated along an Azimuth of 55.000° (True).

Based upon Minimum Curvature type calculations, at a Measured Depth of 9376.00ft.,
The Bottom Hole Displacement is 878.00ft., in the Direction of 59.712° (True).

State: New Mexico
Field: Vacuum Field (PAMC)
Project: Lea County
Structure: Sec. 26-T17S-R34E



Submit 3 Copies
to Appropriate
District Office

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

OIL CONSERVATION DIVISION

DISTRICT I
P.O. Box 1980, Hobbs NM 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

2040 Pacheco St.
Santa Fe, NM 87505

WELL API NO. 30-025-23462
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No. B-1520-1
7. Lease Name or Unit Agreement Name NORTH VACUUM ABO UNIT
8. Well No. 136W
9. Pool name or Wildcat NORTH VACUUM ABO
10. Elevation (Show whether DF, RKB, RT, GR, etc.) 4034'

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: OIL WELL ☒ GAS WELL ☐ OTHER HORIZONTAL ☐	
2. Name of Operator MOBIL PRODUCING TX & NM INC.* *MOBIL EXPLORATION & PRODUCING US INC. AS AGENT FOR MPTM	
3. Address of Operator P.O. Box 633 Midland, TX 79702	
4. Well Location Unit Letter D : 660 Feet From The NORTH Line and 860 Feet From The WEST Line Section 26 Township 17-S Range 34-E NMPM LEA County	
10. Elevation (Show whether DF, RKB, RT, GR, etc.) 4034'	

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐
OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☒ PLUG AND ABANDONMENT ☐
CASING TEST AND CEMENT JOB ☐
OTHER: ☐

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

BHL: NO C, SEC. 26, T-17-S, R-34-E, 443' FNL & 758' FEL, LEA COUNTY, NM

SEE ATTACHED

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

SIGNATURE Shirley Houchins for TITLE ENV & REG TECHNICIAN DATE 1-29-98
TYPE OR PRINT NAME SHIRLEY HOUCHINS TELEPHONE NO. 915 688-2585

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

ATTACHMENT C-103
NORTH VACUUM ABO UNIT #136W
API # 30-025-23462

11-12-97 MIRU WELLCO RIG #89. ND WH, NU BOP, CURRENTLY 75% RIGGED UP.
11-13-97 NOTIFIED SYLVIA @ NMOC D @ 11:45 AM 11-13-97 OF INTENT TO DRILL
LATERAL FROM EXISTING WELLBORE. CONTINUE RU WELLCO #89.
FINISH RU, PU TONGS, PREP TO LD TBG, RELEASE ANCHOR SEAL ASSY
F/OTIS TB PERM PKR. WELL FLOWING. KILL TBG W/10# BRINE, FLOW OUT
BACKSIDE. POOH & LD TBG & ANCHOR SEAL ASSY., PREP TO LOG WELL.
11-14-97 MIRU WEDGE WL. RIH & TAG PERM OTIS PKR @ 8429'. CCL SHOW COLLAR
@ 8418'. POOH, PU GUIB TOP DRILL CIBP, RIH & CORRELATE GR. TAG TD,
PU TO 8415'. SET TOP OF CIBP @ 8415'. RDMO WL. PRESSURE TEST PLUG TO
500 PSI-GOOD. RU TO AOH DP. PU WINDOW MILL, WATERMELON MILL &
AOH DP. TAG CIBP @ 8412' TBG TALLY. POOH W/DP & STAND BK. LD
MILLS. PU WEATHERFORD BOTTOM TRIP WHIPSTOCK ON STARTING MILL
W/ORIENTATION SUB. RIH ON DP TO 3' ABOVE CIBP. OBSERVE FLOW
F/WELL. DISCUSS W/OFFICE PLAN OF ACTION. WAIT ON ORDERS. POOH
W/DP, LD WHIPSTOCK. MIRU LOGGERS.
11-15-97 RIH W/GUIBERSON TOP DRILL CIBP. TAG 1ST CIBP @ 8415' CORRELATE, SET
2ND CIBP (TOP) @ 8411', CK FOR FLOW-NONE. RDMO WEDGE WL.
PRESSURE TO 500 PSI-GOOD, PRESSURE TEST TO 1500 PSI-GOOD. PU
WHIPSTOCK ASSY, RIH TO CIBP @ 8411'. MIRU GYRODATA, RIH, STING INTO
ORIENTATION SUB, OBTAIN GOOD SEATS. ORIENT WHIPSTOCK & SET @ 57
DEGREES. SURVEY HOLE EVERY 200' AS POOH W/GYRO. RD GYRODATA. RU
POWER SWIVEL, MILL 18" W/STARTER MILL. RACK BK SWIVEL, RIG AIR
SYSTEM LEAK. REPAIR RIG. POOH W/DP & STARTER MILL. LD MILL. PU
WINDOW & WATERMELON MILL, MU ON DP. BEGIN RIH, WELDER SHOW UP
TO REPAIR SWIVEL. SWI & SD. CONTINUE RIH W/MILLS, SHUT DOWN TO
DE-ICE AIR SYSTEM, CONT RIH.
11-16-97 CONT. RIH W/MILLS, TAG TOP OF WHIPSTOCK @ 8395'. PU SWIVEL. MILL 6'
OF CSG OFF WHIPSTOCK FACE & 1.5' OF NEW FORMATION. TOP OF
WINDOW @ 8395'. BOTTOM OF WINDOW 8401' KOP 8402.5'. CIRC SWEEP @
TD. POOH & LD DP, STAND BACK STDS. LD WINDOW & WATERMELON
MILLS. END OF PREP WORK.
11-16-97 PU & MU DIRECTIONAL TOOLS, TAG UP @ 8402' (CORRECTED TO WL
DEPTH). RU STRIPPER RUBBER, SWIVEL & GYRODATA. BEGIN RIH W/GYRO.
11-17-97 CONT RIH W/GYRO. TIME DRILL CURVE F/8402-8430' MD. POOH W/GYRO.
11-18-97 PUMP ON MWD NOT WORKING, TRIP, C/O SCALE, TRIP IN, DRLG 6', MWD
QUIT, POOH W/TOOLS, RIH OPEN END, HES PICKEL DRLG STRING.
11-19-97 FINISHED PICKEL DRLG STRING W/ACID. POOH W/ DRLG STRING. P/U
DIRECTIONAL TOOL, CK ORIENTATION, TEST MWD/MOTOR OK, RIH, CIRC
SURVEY, SLIDE/ORIENT TF F/8410-8525'.
11-20-97 CONT. TO DRLG CURVE, SLIDE/REAM F/8525-8590', SURVEY EACH 10'.
11-21-97 DRLG CURVE SLIDE F/8590-8655', SURVEY, TD CURVE. POOH W/BHA. LD PU
BHA ORIENT TOOLS & TEST MDW-OK. RIH W/BHA, P/U SWIVEL CIRC. BEGIN
DRILL LATERAL 1A1, SLIDE/ROTATE SURVEY F/8655-8802'.
11-22-97 LATERAL 1A1, SLIDE/ROTATE SURVEY F/8802-9050'
11-23-97 LATERAL 1A1, SLIDE/ROTATE SURVEY F/9050-9376'. BIT QUIT, CIRC
WELLBORE, POOH LD AOH DP/DC'S/PH-6 TBG. DECISION TO QUIT HOLE.

ATTACHMENT C-103
NORTH VACUUM ABO UNIT #136W
API # 30-025-23462
PAGE 2

11-24-97 RIH W/BAKER "PIP" INFLATABLE PRK ON 2 7/8 TBG. SPACE OUT PKR @ 8627', END OF TBG @ 8661'. RIG DOWN SWIVEL, ND BOP & HYDRIL, MOVE OUT SUB, INSTALL "QD" TBG HANGER & NU WELLHEAD. RDMO RELEASE RIG @ 13:30 11-24-97. FINAL REPORT.

COMPLETION:

12-03-97 MIRU HES ACID, NITROGEN & COIL TBG EQUIPMENT. RIH WITH WEATHERFORD FISHING TOOL W/JARS, UNABLE TO WORK PASS 8604', ATTEMPT OT WASH DN NO SUCCESS, POOH W/BTM FISHING TOOL LEFT OUT CIRC SUB, RIH, CIRC ATTEMPT TO WORK DN STILL UNABLE, POOH W/TOOL, R/D CT UT OFF WELL HEAD, SWI & SDFN.

12-04-97 R/U CT EQUIP, RIH W/BAKER FISHING TOOL, POOH RECOVER EQUIP. STEM, MADE TWO RUNS, INSTALL HYDRABLAST TOOL ON END OF COIL TBG., RIH W/TOOL.

12-05-97 FIN RIH W/CT TO 9376', SPOTTED 665 GALS 15% HCL ACID BACK TO 8661'. LET ACID SET. HES HYDRO-JET ABO ZONE 8661-9376 W/5800 GALS 20% GOING DN & 5800 GALS PULLING UP TTP 4840-4741', FLOW JET WELL CLEAN, POOH W/COIL TBG. RDMO HES EQUIPMENT, FINAL REPORT, WO/COMPLETION RIG.

12-08-97 MIRU WELL-CO DDPU & TOOLS, FLOWED BACK, KILLED W/BRINE 50 BBLS, NIP DN/NIP UP, REL PKR WELL STARTED TO FLOW, FLOWED DN, POOH LAY DN SD, HIGH WINDS, LEFT OPEN TO TANK.

12-09-97 TBG DEAD, SLIGHT FLOW BACKSIDE, WAIT ON KILL TRUCK, HIGH WINDS, SDFN, LEAVE TBG FLOWING TO TANK OVERNIGHT.

12-10-97 W/O KILL TRUCK, KILL TBG W/10# BRINE. FIN POOH & LD WS & BKR PIP PKR, RU TO PU INJ TBG. A/O FORKLIFT. MI & RACK 2 3/8" TBG, PU GUIBERSON G-6 PKR W/OOT, RIH W/2 3/8" TBG. SWI & SDFN.

12-11-97 FIN RIH W/2 3/8" TBG & GUIBERSON G-6 PKR @ 8355, TBG @ 8349', ND BOP, NU TREE, TEST BACKSIDE/PKR TO 500 PSI FOR 30 MIN ON CHART-TEST, HELD GOOD. SDFN, READY TO RIG DOWN IN AM.

12-12-97 RDMO WELLCO RIG #91, BACKFILL PITS, CLEAN LOCATION, TOTP. END OF COMPLETION JOB.