

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  
Geology, 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

|                                                                                                                                                                        |                                                     |                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|------------------------------------------|
| <sup>1</sup> Operator name and Address<br>MOBIL PRODUCING TX & NM INC.*<br>*MOBIL EXPLORATION & PRODUCING US INC. AS AGENT FOR MPTM<br>P.O. BOX 633, MIDLAND, TX 79702 |                                                     | <sup>2</sup> OGRID Number<br>15144       |
| <sup>4</sup> Property Code<br>8055                                                                                                                                     | <sup>5</sup> Property Name<br>NORTH VACUUM ABO Unit | <sup>3</sup> API Number<br>30-0 25-23982 |
|                                                                                                                                                                        |                                                     | <sup>6</sup> Well Number<br>213          |

| <sup>7</sup> Surface Location |                 |                  |               |          |                      |                           |                        |                        |               |
|-------------------------------|-----------------|------------------|---------------|----------|----------------------|---------------------------|------------------------|------------------------|---------------|
| UL or lot no.<br>N            | Section<br>2623 | Township<br>17-S | Range<br>34-E | Lot. Idn | Feet from the<br>460 | North/South Line<br>SOUTH | Feet from the<br>1980' | East/West line<br>WEST | County<br>LEA |

| <sup>8</sup> Proposed Bottom Hole Location If Different From Surface |               |                  |               |          |                       |                           |                        |                        |               |
|----------------------------------------------------------------------|---------------|------------------|---------------|----------|-----------------------|---------------------------|------------------------|------------------------|---------------|
| UL or lot no.<br>B                                                   | Section<br>26 | Township<br>17-S | Range<br>34-E | Lot. Idn | Feet from the<br>414' | North/South Line<br>NORTH | Feet from the<br>2547' | East/West line<br>EAST | County<br>LEA |

|                                              |  |  |  |  |                               |  |  |  |  |
|----------------------------------------------|--|--|--|--|-------------------------------|--|--|--|--|
| <sup>9</sup> Proposed Pool 1<br>N Vacuum Abo |  |  |  |  | <sup>10</sup> Proposed Pool 2 |  |  |  |  |
|----------------------------------------------|--|--|--|--|-------------------------------|--|--|--|--|

|                                   |                                       |                                      |                                    |                                               |
|-----------------------------------|---------------------------------------|--------------------------------------|------------------------------------|-----------------------------------------------|
| <sup>11</sup> Work Type Code<br>P | <sup>12</sup> Well Type Code<br>O     | <sup>13</sup> Cable/Rotary<br>ROTARY | <sup>14</sup> Lease Type Code<br>S | <sup>15</sup> Ground Level Elevation<br>4028' |
| <sup>16</sup> Multiple<br>NO      | <sup>17</sup> Proposed Depth<br>8510' | <sup>18</sup> Formations<br>Abo      | <sup>19</sup> Contractor           | <sup>20</sup> Spud Date<br>06-30-97           |

| <sup>21</sup> Proposed Casing and Cement Program |             |                    |               |                 |               |
|--------------------------------------------------|-------------|--------------------|---------------|-----------------|---------------|
| Hole Size                                        | Casing Size | Casing weight/foot | Setting Depth | Sacks of Cement | Estimated TOC |
| 15"                                              | 12 3/4      | 34#                | 250'          | CIRCULATED      | SURFACE       |
| 11"                                              | 8 5/8"      | 28#                | 3035'         | CIRCULATED      | SURFACE       |
| 7 7/8"                                           | 5 1/2"      | 17#                | 8700'         | CIRCULATED      | SURFACE       |
|                                                  |             |                    |               |                 |               |
|                                                  |             |                    |               |                 |               |

<sup>22</sup> 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

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

Signature:  
Shirley Houchins

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:

Approval Date: NOV 4 1997

Expiration Date:

Conditions of Approval:

Attached ☐

District I  
PO Box 1980, Hobbs, NM 88241-1980  
District II  
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1000 Rio Brazos Rd., Aztec, NM 87410  
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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<br><b>30-025-23982</b> |                                                                                                                                  | Pool Code<br><b>6176D</b> | Pool Name<br><b>NORTH VACUUM Abo</b> |
| Property Code<br><b>8055</b>      | Property Name<br><b>NORTH VACUUM Abo Unit</b>                                                                                    |                           | Well Number<br><b>213</b>            |
| OGRID No.<br><b>15144</b>         | Operator Name<br><b>MOBIL PRODUCING TX &amp; NM INC.*</b><br><b>*MOBIL EXPLORATION &amp; PRODUCING US INC. AS AGENT FOR MPTM</b> |                           | Elevation<br><b>4028'</b>            |

<sup>10</sup> Surface Location

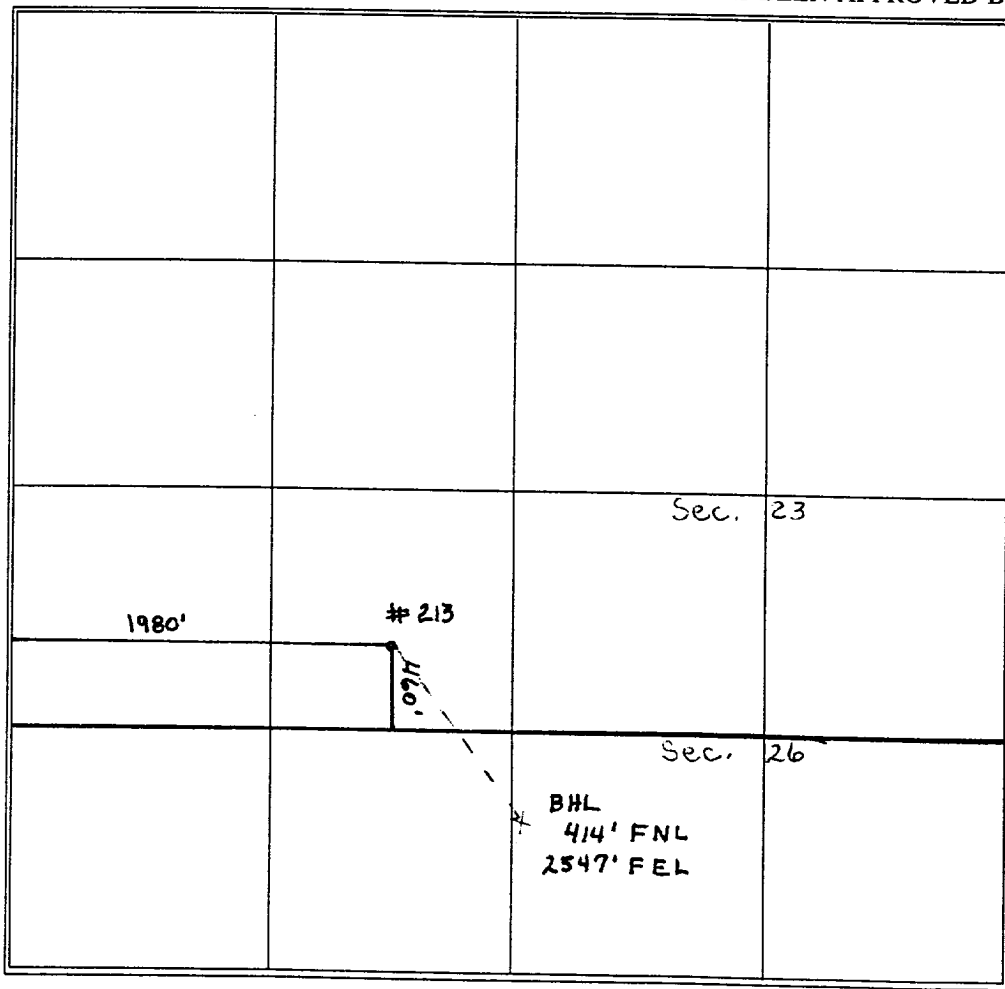
|                           |                      |                         |                      |          |                             |                                  |                               |                               |                      |
|---------------------------|----------------------|-------------------------|----------------------|----------|-----------------------------|----------------------------------|-------------------------------|-------------------------------|----------------------|
| UI or lot no.<br><b>N</b> | Section<br><b>23</b> | Township<br><b>17-S</b> | Range<br><b>34-E</b> | Lot. Idn | Feet from the<br><b>460</b> | North/South Line<br><b>SOUTH</b> | Feet from the<br><b>1980'</b> | East/West line<br><b>WEST</b> | County<br><b>LEA</b> |
|---------------------------|----------------------|-------------------------|----------------------|----------|-----------------------------|----------------------------------|-------------------------------|-------------------------------|----------------------|

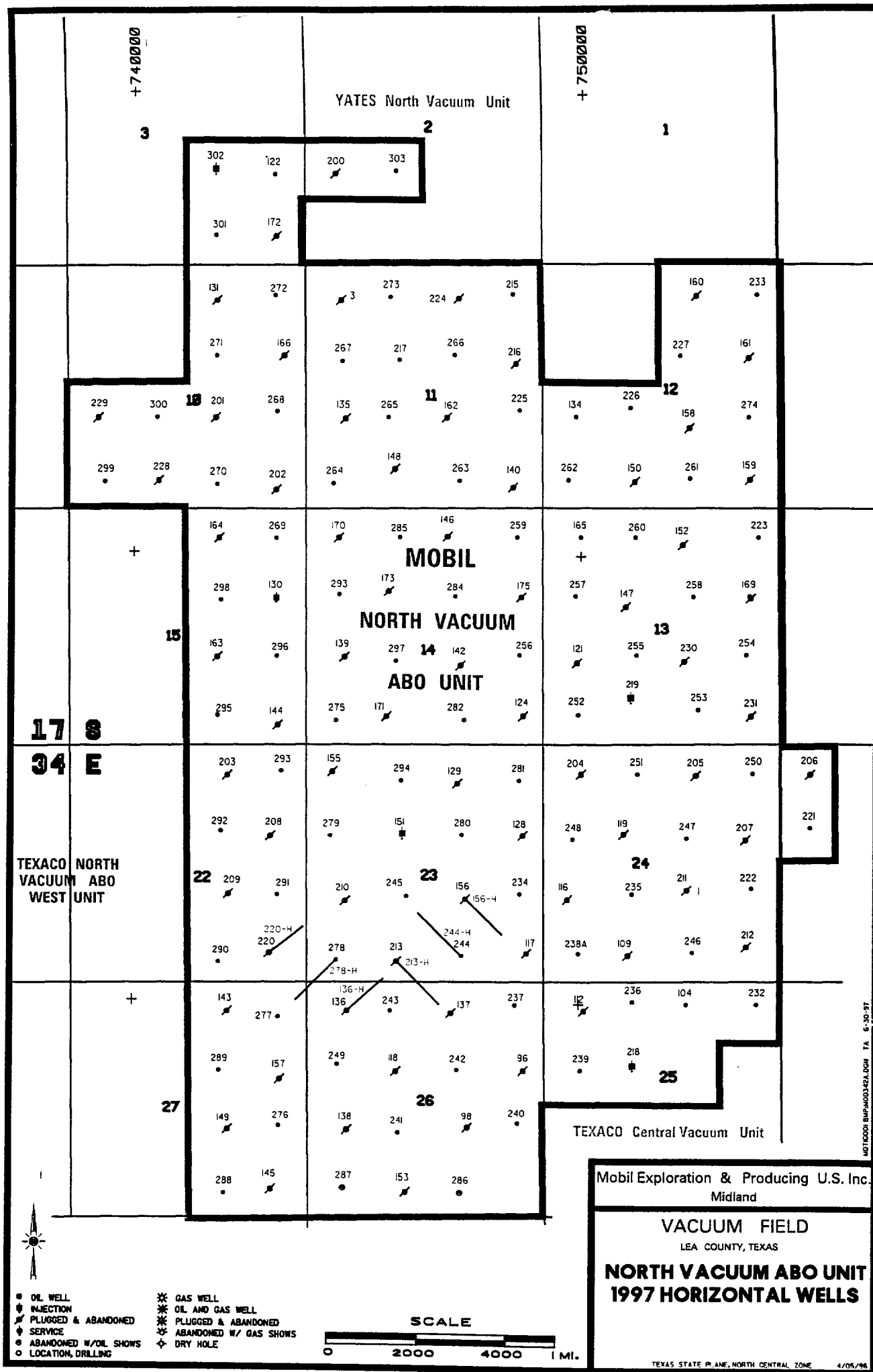
<sup>11</sup> Bottom Hole Location If Different From Surface

|                           |                      |                         |                      |          |                              |                                  |                               |                               |                      |
|---------------------------|----------------------|-------------------------|----------------------|----------|------------------------------|----------------------------------|-------------------------------|-------------------------------|----------------------|
| UL or lot no.<br><b>8</b> | Section<br><b>26</b> | Township<br><b>17-S</b> | Range<br><b>34-E</b> | Lot. Idn | Feet from the<br><b>414'</b> | North/South Line<br><b>NORTH</b> | Feet from the<br><b>2547'</b> | East/West line<br><b>EAST</b> | County<br><b>LEA</b> |
|---------------------------|----------------------|-------------------------|----------------------|----------|------------------------------|----------------------------------|-------------------------------|-------------------------------|----------------------|

|                               |                               |                                  |                         |
|-------------------------------|-------------------------------|----------------------------------|-------------------------|
| <sup>12</sup> Dedicated Acres | <sup>13</sup> Joint or Infill | <sup>14</sup> Consolidation Code | <sup>15</sup> 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

|                                                                                     |  |  |  |                                                                                                                                                                                                                                                                                                                                                       |  |
|-------------------------------------------------------------------------------------|--|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  |  |  |  | <b>17 OPERATOR CERTIFICATION</b><br>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.<br><br><u>Shirley Houchins</u><br>Signature<br><b>SHIRLEY HOCHINS</b><br>Printed Name<br><b>ENV. &amp; REG. TECHNICIAN</b><br>Title<br><b>8-18-1997</b><br>Date                               |  |
|                                                                                     |  |  |  | <b>18 SURVEYOR CERTIFICATION</b><br>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.<br><br>Date of Survey<br><br>Signature and Seal of Professional Surveyer:<br><br>Certificate Number |  |
|                                                                                     |  |  |  |                                                                                                                                                                                                                                                                                                                                                       |  |
|                                                                                     |  |  |  |                                                                                                                                                                                                                                                                                                                                                       |  |



NVAU NO. 213W  
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 8419'-8428' and drill an open hole lateral in the Abo formation with a vertical section of 1320 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. Remove permanent pkr @ 8329. Set CIBP and whipstock @ 8434' and mill window from 8419'-8428'.
4. Drill curve and lateral to a vertical section of 1320 ft. along an azimuth of 132.5 degrees. Drilling operations completed.

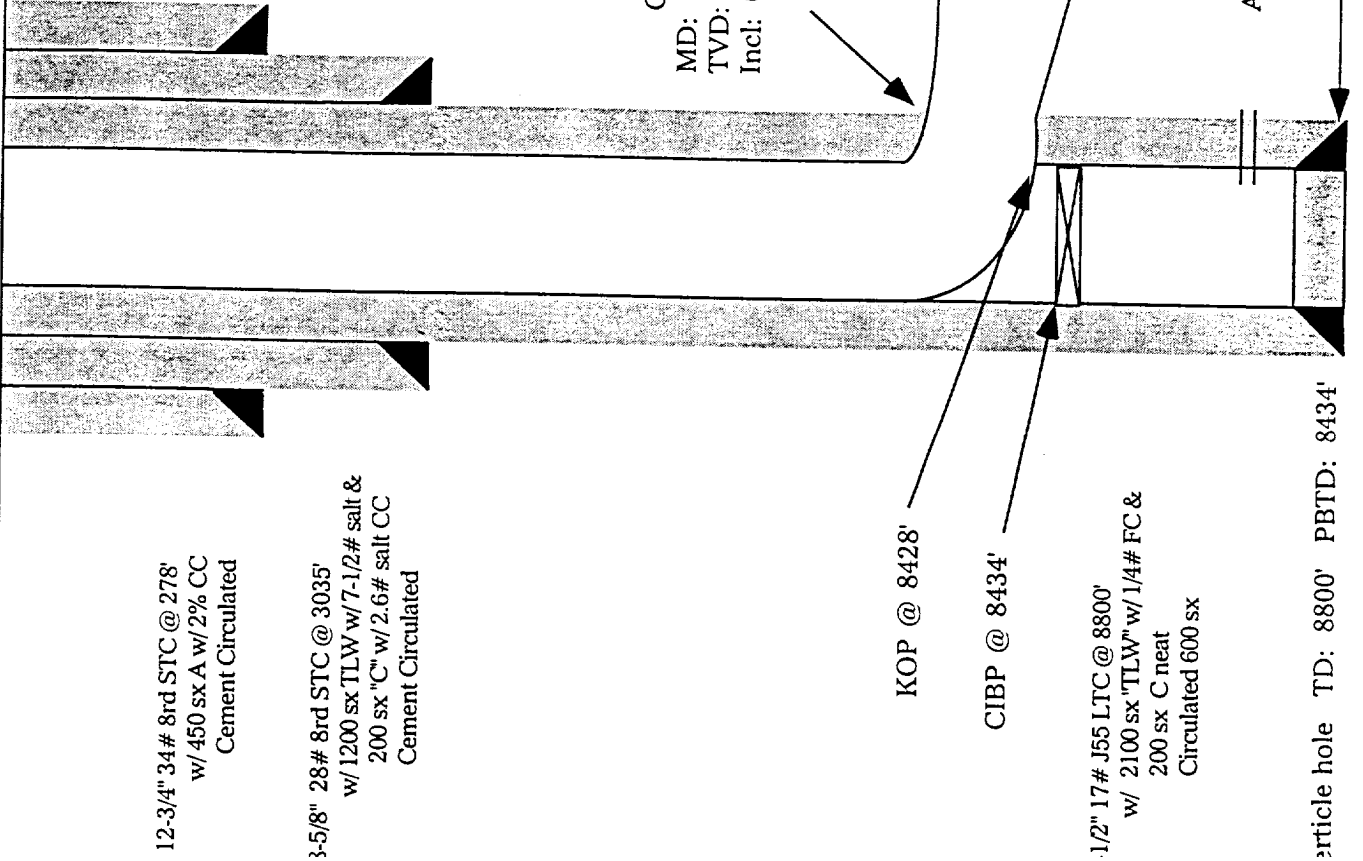
Note: Whipstock and CIBP MAY be removed following stimulation.



NVAU 213W  
 Vacuum Field  
 Lea County, New Mexico  
 Proposed Configuration

MEE: 08/12/97  
 Spud: 12/19/71

1980' FWL  
 S-23  
 T17S  
 R34E  
 KB: 4044'  
 GL: 4028'



**WELL PLANNING  
REPORT**

**MOBIL E&P SERVICES, INC.**

**NVAU #213**

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

# PERRY-SUN DRILLING SERVICE WELL PROFILE DATA

MOBIL E&P SERVICES, INC.  
NVAU #213

N/A  
12-Aug-97

| MEASURED<br>DEPTH | ANGLE<br>DEG  | DIRECTION<br>DEG | VERTICAL<br>DEPTH | LATITUDE<br>(Ft.) | DEPARTURE<br>(Ft.) | VERTICAL<br>SECTION | DOG<br>LEG    | TOOL<br>FACE   |
|-------------------|---------------|------------------|-------------------|-------------------|--------------------|---------------------|---------------|----------------|
| 8425.00           | 0.000         | 0.000            | 8425.00           | 0.00              | 0.00               | 0.00                |               |                |
| <b>8428.00</b>    | <b>0.000</b>  | <b>0.000</b>     | <b>8428.00</b>    | <b>0.00</b>       | <b>0.00</b>        | <b>0.00</b>         | <b>0.000</b>  | <b>0.000</b>   |
| 8430.00           | 0.750         | 132.500          | 8430.00           | 0.01 S            | 0.01 E             | 0.01                |               |                |
| <b>8436.00</b>    | <b>3.000</b>  | <b>132.500</b>   | <b>8436.00</b>    | <b>0.14 S</b>     | <b>0.15 E</b>      | <b>0.21</b>         | <b>37.500</b> | <b>132.500</b> |
| 8440.00           | 4.600         | 132.500          | 8439.99           | 0.32 S            | 0.35 E             | 0.47                |               |                |
| 8450.00           | 8.600         | 132.500          | 8449.92           | 1.10 S            | 1.20 E             | 1.62                |               |                |
| 8460.00           | 12.600        | 132.500          | 8459.75           | 2.34 S            | 2.55 E             | 3.46                |               |                |
| <b>8466.00</b>    | <b>15.000</b> | <b>132.500</b>   | <b>8465.57</b>    | <b>3.31 S</b>     | <b>3.61 E</b>      | <b>4.89</b>         | <b>40.000</b> | <b>0.000</b>   |
| 8470.00           | 17.400        | 132.500          | 8469.41           | 4.06 S            | 4.43 E             | 6.01                |               |                |
| 8480.00           | 23.400        | 132.500          | 8478.78           | 6.41 S            | 7.00 E             | 9.49                |               |                |
| 8490.00           | 29.400        | 132.500          | 8487.74           | 9.42 S            | 10.28 E            | 13.94               |               |                |
| 8500.00           | 35.400        | 132.500          | 8496.17           | 13.03 S           | 14.23 E            | 19.29               |               |                |
| 8510.00           | 41.400        | 132.500          | 8504.01           | 17.23 S           | 18.80 E            | 25.50               |               |                |
| 8520.00           | 47.400        | 132.500          | 8511.15           | 21.95 S           | 23.96 E            | 32.50               |               |                |
| 8530.00           | 53.400        | 132.500          | 8517.52           | 27.16 S           | 29.64 E            | 40.20               |               |                |
| 8540.00           | 59.400        | 132.500          | 8523.05           | 32.78 S           | 35.78 E            | 48.52               |               |                |
| 8550.00           | 65.400        | 132.500          | 8527.68           | 38.77 S           | 42.31 E            | 57.38               |               |                |
| 8560.00           | 71.400        | 132.500          | 8531.36           | 45.04 S           | 49.16 E            | 66.67               |               |                |
| 8570.00           | 77.400        | 132.500          | 8534.05           | 51.55 S           | 56.26 E            | 76.30               |               |                |
| 8580.00           | 83.400        | 132.500          | 8535.72           | 58.21 S           | 63.52 E            | 86.16               |               |                |
| 8590.00           | 89.400        | 132.500          | 8536.35           | 64.95 S           | 70.88 E            | 96.13               |               |                |
| <b>8590.48</b>    | <b>89.688</b> | <b>132.500</b>   | <b>8536.35</b>    | <b>65.27 S</b>    | <b>71.23 E</b>     | <b>96.61</b>        | <b>60.000</b> | <b>0.000</b>   |
| 8600.00           | 89.688        | 132.500          | 8536.40           | 71.70 S           | 78.25 E            | 106.13              |               |                |
| 8610.00           | 89.688        | 132.500          | 8536.46           | 78.46 S           | 85.62 E            | 116.13              |               |                |
| 8620.00           | 89.688        | 132.500          | 8536.51           | 85.21 S           | 92.99 E            | 126.13              |               |                |
| 8630.00           | 89.688        | 132.500          | 8536.56           | 91.97 S           | 100.37 E           | 136.13              |               |                |
| 8640.00           | 89.688        | 132.500          | 8536.62           | 98.73 S           | 107.74 E           | 146.13              |               |                |
| 8650.00           | 89.688        | 132.500          | 8536.67           | 105.48 S          | 115.11 E           | 156.13              |               |                |
| 8660.00           | 89.688        | 132.500          | 8536.73           | 112.24 S          | 122.49 E           | 166.13              |               |                |
| 8670.00           | 89.688        | 132.500          | 8536.78           | 118.99 S          | 129.86 E           | 176.13              |               |                |
| 8680.00           | 89.688        | 132.500          | 8536.84           | 125.75 S          | 137.23 E           | 186.13              |               |                |
| 8690.00           | 89.688        | 132.500          | 8536.89           | 132.50 S          | 144.60 E           | 196.13              |               |                |
| 8700.00           | 89.688        | 132.500          | 8536.95           | 139.26 S          | 151.98 E           | 206.13              |               |                |
| 8710.00           | 89.688        | 132.500          | 8537.00           | 146.02 S          | 159.35 E           | 216.13              |               |                |
| 8720.00           | 89.688        | 132.500          | 8537.05           | 152.77 S          | 166.72 E           | 226.13              |               |                |
| 8730.00           | 89.688        | 132.500          | 8537.11           | 159.53 S          | 174.09 E           | 236.13              |               |                |
| 8740.00           | 89.688        | 132.500          | 8537.16           | 166.28 S          | 181.47 E           | 246.13              |               |                |
| 8750.00           | 89.688        | 132.500          | 8537.22           | 173.04 S          | 188.84 E           | 256.13              |               |                |
| 8760.00           | 89.688        | 132.500          | 8537.27           | 179.80 S          | 196.21 E           | 266.13              |               |                |
| 8770.00           | 89.688        | 132.500          | 8537.33           | 186.55 S          | 203.58 E           | 276.13              |               |                |
| 8780.00           | 89.688        | 132.500          | 8537.38           | 193.31 S          | 210.96 E           | 286.13              |               |                |
| 8790.00           | 89.688        | 132.500          | 8537.44           | 200.06 S          | 218.33 E           | 296.13              |               |                |
| 8800.00           | 89.688        | 132.500          | 8537.49           | 206.82 S          | 225.70 E           | 306.13              |               |                |
| 8810.00           | 89.688        | 132.500          | 8537.54           | 213.57 S          | 233.08 E           | 316.13              |               |                |
| 8820.00           | 89.688        | 132.500          | 8537.60           | 220.33 S          | 240.45 E           | 326.13              |               |                |

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

**MOBIL E&P SERVICES, INC.  
NVAU #213**

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

| MEASURED<br>DEPTH | ANGLE<br>DEG  | DIRECTION<br>DEG | VERTICAL<br>DEPTH | LATITUDE<br>(Ft) | DEPARTURE<br>(Ft) | VERTICAL<br>SECTION | DOG<br>LEG   | TOOL<br>FACE   |
|-------------------|---------------|------------------|-------------------|------------------|-------------------|---------------------|--------------|----------------|
| 8830.00           | 89.688        | 132.500          | 8537.65           | 227.09 S         | 247.82 E          | 336.13              |              |                |
| 8840.00           | 89.688        | 132.500          | 8537.71           | 233.84 S         | 255.19 E          | 346.13              |              |                |
| 8850.00           | 89.688        | 132.500          | 8537.76           | 240.60 S         | 262.57 E          | 356.13              |              |                |
| 8860.00           | 89.688        | 132.500          | 8537.82           | 247.35 S         | 269.94 E          | 366.13              |              |                |
| 8870.00           | 89.688        | 132.500          | 8537.87           | 254.11 S         | 277.31 E          | 376.13              |              |                |
| 8880.00           | 89.688        | 132.500          | 8537.93           | 260.87 S         | 284.68 E          | 386.13              |              |                |
| 8890.00           | 89.688        | 132.500          | 8537.98           | 267.62 S         | 292.06 E          | 396.13              |              |                |
| <b>8893.87</b>    | <b>89.688</b> | <b>132.500</b>   | <b>8538.00</b>    | <b>270.24 S</b>  | <b>294.91 E</b>   | <b>400.00</b>       | <b>0.000</b> | <b>0.000</b>   |
| 8900.00           | 89.443        | 132.500          | 8538.05           | 274.38 S         | 299.43 E          | 406.13              |              |                |
| 8910.00           | 89.043        | 132.500          | 8538.18           | 281.13 S         | 306.80 E          | 416.13              |              |                |
| <b>8915.91</b>    | <b>88.806</b> | <b>132.500</b>   | <b>8538.29</b>    | <b>285.12 S</b>  | <b>311.16 E</b>   | <b>422.04</b>       | <b>4.000</b> | <b>180.000</b> |
| 8920.00           | 88.806        | 132.500          | 8538.38           | 287.89 S         | 314.17 E          | 426.13              |              |                |
| 8930.00           | 88.806        | 132.500          | 8538.58           | 294.64 S         | 321.54 E          | 436.12              |              |                |
| 8940.00           | 88.806        | 132.500          | 8538.79           | 301.40 S         | 328.92 E          | 446.12              |              |                |
| 8950.00           | 88.806        | 132.500          | 8539.00           | 308.15 S         | 336.29 E          | 456.12              |              |                |
| 8960.00           | 88.806        | 132.500          | 8539.21           | 314.90 S         | 343.66 E          | 466.12              |              |                |
| 8970.00           | 88.806        | 132.500          | 8539.42           | 321.66 S         | 351.03 E          | 476.11              |              |                |
| 8980.00           | 88.806        | 132.500          | 8539.63           | 328.41 S         | 358.40 E          | 486.11              |              |                |
| 8990.00           | 88.806        | 132.500          | 8539.83           | 335.17 S         | 365.77 E          | 496.11              |              |                |
| 9000.00           | 88.806        | 132.500          | 8540.04           | 341.92 S         | 373.14 E          | 506.11              |              |                |
| 9010.00           | 88.806        | 132.500          | 8540.25           | 348.68 S         | 380.51 E          | 516.11              |              |                |
| 9020.00           | 88.806        | 132.500          | 8540.46           | 355.43 S         | 387.88 E          | 526.10              |              |                |
| 9030.00           | 88.806        | 132.500          | 8540.67           | 362.18 S         | 395.26 E          | 536.10              |              |                |
| 9040.00           | 88.806        | 132.500          | 8540.88           | 368.94 S         | 402.63 E          | 546.10              |              |                |
| 9050.00           | 88.806        | 132.500          | 8541.08           | 375.69 S         | 410.00 E          | 556.10              |              |                |
| 9060.00           | 88.806        | 132.500          | 8541.29           | 382.45 S         | 417.37 E          | 566.10              |              |                |
| 9070.00           | 88.806        | 132.500          | 8541.50           | 389.20 S         | 424.74 E          | 576.09              |              |                |
| 9080.00           | 88.806        | 132.500          | 8541.71           | 395.96 S         | 432.11 E          | 586.09              |              |                |
| 9090.00           | 88.806        | 132.500          | 8541.92           | 402.71 S         | 439.48 E          | 596.09              |              |                |
| 9100.00           | 88.806        | 132.500          | 8542.13           | 409.47 S         | 446.85 E          | 606.09              |              |                |
| 9110.00           | 88.806        | 132.500          | 8542.33           | 416.22 S         | 454.23 E          | 616.08              |              |                |
| 9120.00           | 88.806        | 132.500          | 8542.54           | 422.97 S         | 461.60 E          | 626.08              |              |                |
| 9130.00           | 88.806        | 132.500          | 8542.75           | 429.73 S         | 468.97 E          | 636.08              |              |                |
| 9140.00           | 88.806        | 132.500          | 8542.96           | 436.48 S         | 476.34 E          | 646.08              |              |                |
| 9150.00           | 88.806        | 132.500          | 8543.17           | 443.24 S         | 483.71 E          | 656.08              |              |                |
| 9160.00           | 88.806        | 132.500          | 8543.38           | 449.99 S         | 491.08 E          | 666.07              |              |                |
| 9170.00           | 88.806        | 132.500          | 8543.58           | 456.75 S         | 498.45 E          | 676.07              |              |                |
| 9180.00           | 88.806        | 132.500          | 8543.79           | 463.50 S         | 505.82 E          | 686.07              |              |                |
| 9190.00           | 88.806        | 132.500          | 8544.00           | 470.26 S         | 513.20 E          | 696.07              |              |                |
| 9200.00           | 88.806        | 132.500          | 8544.21           | 477.01 S         | 520.57 E          | 706.07              |              |                |
| 9210.00           | 88.806        | 132.500          | 8544.42           | 483.76 S         | 527.94 E          | 716.06              |              |                |
| 9220.00           | 88.806        | 132.500          | 8544.63           | 490.52 S         | 535.31 E          | 726.06              |              |                |
| 9230.00           | 88.806        | 132.500          | 8544.83           | 497.27 S         | 542.68 E          | 736.06              |              |                |
| 9240.00           | 88.806        | 132.500          | 8545.04           | 504.03 S         | 550.05 E          | 746.06              |              |                |
| 9250.00           | 88.806        | 132.500          | 8545.25           | 510.78 S         | 557.42 E          | 756.05              |              |                |

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

**MOBIL E&P SERVICES, INC.  
NVAU #213**

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

| MEASURED<br>DEPTH | ANGLE<br>DEG | DIRECTION<br>DEG | VERTICAL<br>DEPTH | LATITUDE<br>(Ft.) | DEPARTURE<br>(Ft.) | VERTICAL<br>SECTION | DOG<br>LEG | TOOL<br>FACE |
|-------------------|--------------|------------------|-------------------|-------------------|--------------------|---------------------|------------|--------------|
| 9260.00           | 88.806       | 132.500          | 8545.46           | 517.54 S          | 564.79 E           | 766.05              |            |              |
| 9270.00           | 88.806       | 132.500          | 8545.67           | 524.29 S          | 572.16 E           | 776.05              |            |              |
| 9280.00           | 88.806       | 132.500          | 8545.87           | 531.05 S          | 579.54 E           | 786.05              |            |              |
| 9290.00           | 88.806       | 132.500          | 8546.08           | 537.80 S          | 586.91 E           | 796.05              |            |              |
| 9300.00           | 88.806       | 132.500          | 8546.29           | 544.55 S          | 594.28 E           | 806.04              |            |              |
| 9310.00           | 88.806       | 132.500          | 8546.50           | 551.31 S          | 601.65 E           | 816.04              |            |              |
| 9320.00           | 88.806       | 132.500          | 8546.71           | 558.06 S          | 609.02 E           | 826.04              |            |              |
| 9330.00           | 88.806       | 132.500          | 8546.92           | 564.82 S          | 616.39 E           | 836.04              |            |              |
| 9340.00           | 88.806       | 132.500          | 8547.12           | 571.57 S          | 623.76 E           | 846.03              |            |              |
| 9350.00           | 88.806       | 132.500          | 8547.33           | 578.33 S          | 631.13 E           | 856.03              |            |              |
| 9360.00           | 88.806       | 132.500          | 8547.54           | 585.08 S          | 638.51 E           | 866.03              |            |              |
| 9370.00           | 88.806       | 132.500          | 8547.75           | 591.84 S          | 645.88 E           | 876.03              |            |              |
| 9380.00           | 88.806       | 132.500          | 8547.96           | 598.59 S          | 653.25 E           | 886.03              |            |              |
| 9390.00           | 88.806       | 132.500          | 8548.17           | 605.34 S          | 660.62 E           | 896.02              |            |              |
| 9400.00           | 88.806       | 132.500          | 8548.37           | 612.10 S          | 667.99 E           | 906.02              |            |              |
| 9410.00           | 88.806       | 132.500          | 8548.58           | 618.85 S          | 675.36 E           | 916.02              |            |              |
| 9420.00           | 88.806       | 132.500          | 8548.79           | 625.61 S          | 682.73 E           | 926.02              |            |              |
| 9430.00           | 88.806       | 132.500          | 8549.00           | 632.36 S          | 690.10 E           | 936.02              |            |              |
| 9440.00           | 88.806       | 132.500          | 8549.21           | 639.12 S          | 697.47 E           | 946.01              |            |              |
| 9450.00           | 88.806       | 132.500          | 8549.42           | 645.87 S          | 704.85 E           | 956.01              |            |              |
| 9460.00           | 88.806       | 132.500          | 8549.62           | 652.63 S          | 712.22 E           | 966.01              |            |              |
| 9470.00           | 88.806       | 132.500          | 8549.83           | 659.38 S          | 719.59 E           | 976.01              |            |              |
| 9480.00           | 88.806       | 132.500          | 8550.04           | 666.13 S          | 726.96 E           | 986.00              |            |              |
| 9490.00           | 88.806       | 132.500          | 8550.25           | 672.89 S          | 734.33 E           | 996.00              |            |              |
| 9500.00           | 88.806       | 132.500          | 8550.46           | 679.64 S          | 741.70 E           | 1006.00             |            |              |
| 9510.00           | 88.806       | 132.500          | 8550.67           | 686.40 S          | 749.07 E           | 1016.00             |            |              |
| 9520.00           | 88.806       | 132.500          | 8550.87           | 693.15 S          | 756.44 E           | 1026.00             |            |              |
| 9530.00           | 88.806       | 132.500          | 8551.08           | 699.91 S          | 763.82 E           | 1035.99             |            |              |
| 9540.00           | 88.806       | 132.500          | 8551.29           | 706.66 S          | 771.19 E           | 1045.99             |            |              |
| 9550.00           | 88.806       | 132.500          | 8551.50           | 713.42 S          | 778.56 E           | 1055.99             |            |              |
| 9560.00           | 88.806       | 132.500          | 8551.71           | 720.17 S          | 785.93 E           | 1065.99             |            |              |
| 9570.00           | 88.806       | 132.500          | 8551.92           | 726.92 S          | 793.30 E           | 1075.99             |            |              |
| 9580.00           | 88.806       | 132.500          | 8552.12           | 733.68 S          | 800.67 E           | 1085.98             |            |              |
| 9590.00           | 88.806       | 132.500          | 8552.33           | 740.43 S          | 808.04 E           | 1095.98             |            |              |
| 9600.00           | 88.806       | 132.500          | 8552.54           | 747.19 S          | 815.41 E           | 1105.98             |            |              |
| 9610.00           | 88.806       | 132.500          | 8552.75           | 753.94 S          | 822.79 E           | 1115.98             |            |              |
| 9620.00           | 88.806       | 132.500          | 8552.96           | 760.70 S          | 830.16 E           | 1125.97             |            |              |
| 9630.00           | 88.806       | 132.500          | 8553.17           | 767.45 S          | 837.53 E           | 1135.97             |            |              |
| 9640.00           | 88.806       | 132.500          | 8553.37           | 774.21 S          | 844.90 E           | 1145.97             |            |              |
| 9650.00           | 88.806       | 132.500          | 8553.58           | 780.96 S          | 852.27 E           | 1155.97             |            |              |
| 9660.00           | 88.806       | 132.500          | 8553.79           | 787.71 S          | 859.64 E           | 1165.97             |            |              |
| 9670.00           | 88.806       | 132.500          | 8554.00           | 794.47 S          | 867.01 E           | 1175.96             |            |              |
| 9680.00           | 88.806       | 132.500          | 8554.21           | 801.22 S          | 874.38 E           | 1185.96             |            |              |
| 9690.00           | 88.806       | 132.500          | 8554.42           | 807.98 S          | 881.75 E           | 1195.96             |            |              |
| 9700.00           | 88.806       | 132.500          | 8554.62           | 814.73 S          | 889.13 E           | 1205.96             |            |              |

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

**MOBIL E&P SERVICES, INC.  
NVAU #213**

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

| MEASURED<br>DEPTH | ANGLE<br>DEG  | DIRECTION<br>DEG | VERTICAL<br>DEPTH | LATITUDE<br>(Ft) | DEPARTURE<br>(Ft) | VERTICAL<br>SECTION | DOG<br>LEG   | TOOL<br>FACE |
|-------------------|---------------|------------------|-------------------|------------------|-------------------|---------------------|--------------|--------------|
| 9710.00           | 88.806        | 132.500          | 8554.83           | 821.49 S         | 896.50 E          | 1215.96             |              |              |
| 9720.00           | 88.806        | 132.500          | 8555.04           | 828.24 S         | 903.87 E          | 1225.95             |              |              |
| 9730.00           | 88.806        | 132.500          | 8555.25           | 834.99 S         | 911.24 E          | 1235.95             |              |              |
| 9740.00           | 88.806        | 132.500          | 8555.46           | 841.75 S         | 918.61 E          | 1245.95             |              |              |
| 9750.00           | 88.806        | 132.500          | 8555.67           | 848.50 S         | 925.98 E          | 1255.95             |              |              |
| 9760.00           | 88.806        | 132.500          | 8555.87           | 855.26 S         | 933.35 E          | 1265.94             |              |              |
| 9770.00           | 88.806        | 132.500          | 8556.08           | 862.01 S         | 940.72 E          | 1275.94             |              |              |
| 9780.00           | 88.806        | 132.500          | 8556.29           | 868.77 S         | 948.10 E          | 1285.94             |              |              |
| 9790.00           | 88.806        | 132.500          | 8556.50           | 875.52 S         | 955.47 E          | 1295.94             |              |              |
| 9800.00           | 88.806        | 132.500          | 8556.71           | 882.28 S         | 962.84 E          | 1305.94             |              |              |
| 9810.00           | 88.806        | 132.500          | 8556.92           | 889.03 S         | 970.21 E          | 1315.93             |              |              |
| <b>9814.07</b>    | <b>88.806</b> | <b>132.500</b>   | <b>8557.00</b>    | <b>891.78 S</b>  | <b>973.21 E</b>   | <b>1320.00</b>      | <b>0.000</b> | <b>0.000</b> |

**The Dogleg Severity is in Degrees per 100.00 Feet  
Vertical Section was calculated along an Azimuth of 132.500° (True)**

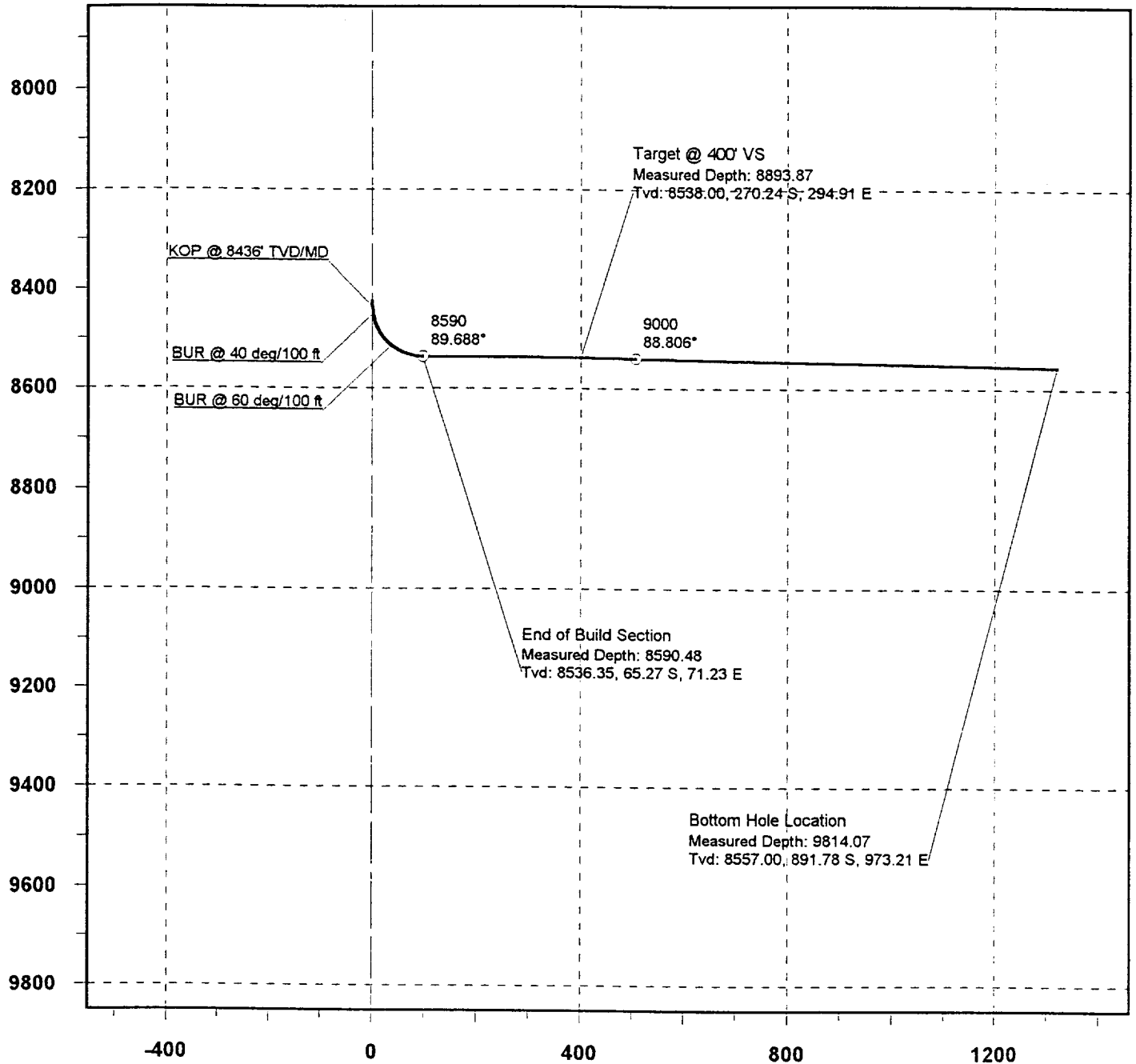
**Based upon Minimum Curvature type calculations. At a Measured Depth of 9814.07 Feet,  
the Bottom Hole Displacement is 1320.00 Feet, in the Direction of 132.500° (True)**

PERRY-SUN DRILLING SERVICE  
VERTICAL SECTION

MOBIL E&P SERVICES, INC.  
NVAU #213

N/A  
12-Aug-97

VERTICAL  
DEPTH



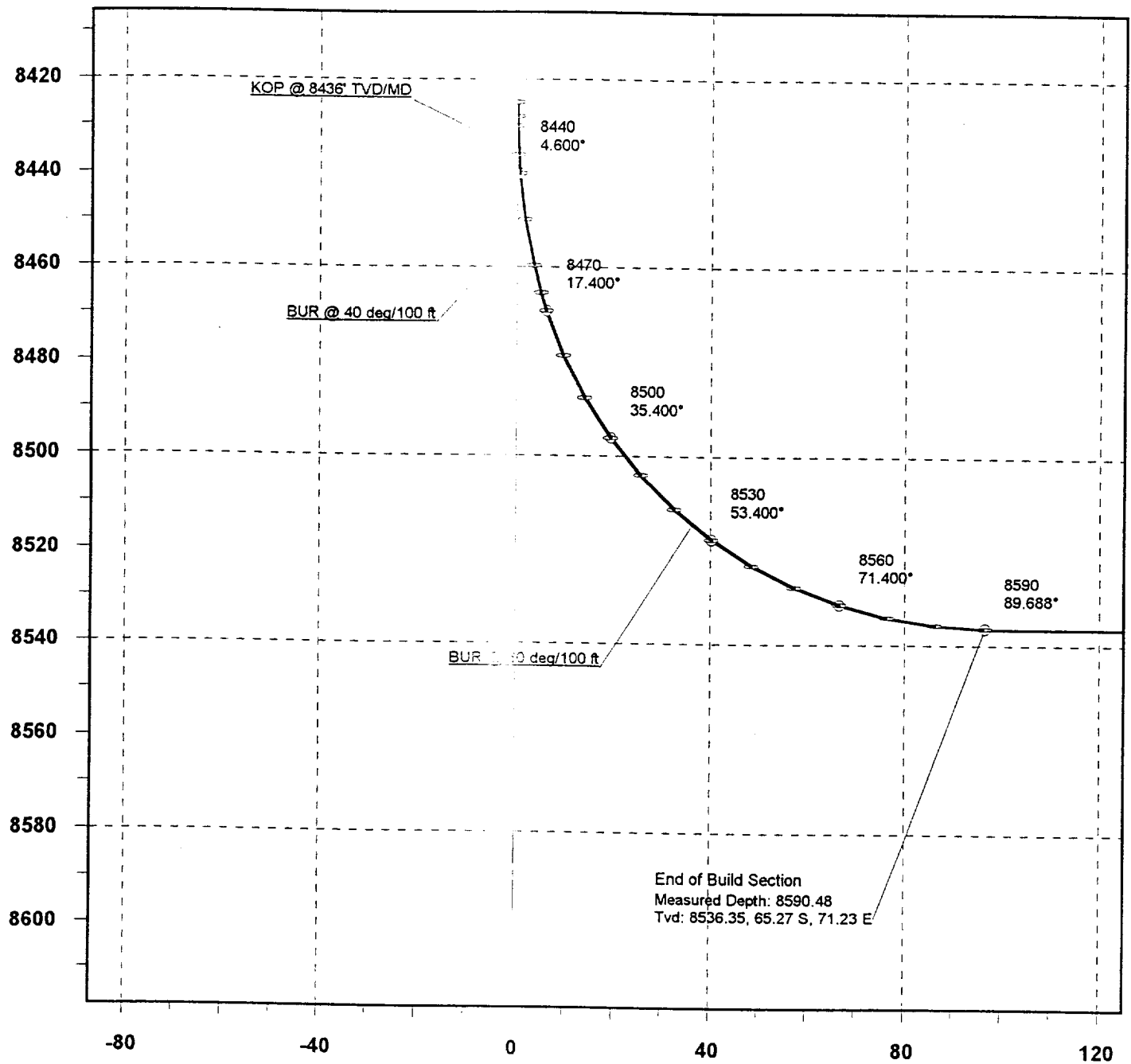
Depths shown on plot are Measured Depths.  
All measurements are in Feet.

# PERRY-SUN DRILLING SERVICE VERTICAL SECTION

MOBIL E&P SERVICES, INC.  
NVAU #213

N/A  
12-Aug-97

VERTICAL  
DEPTH



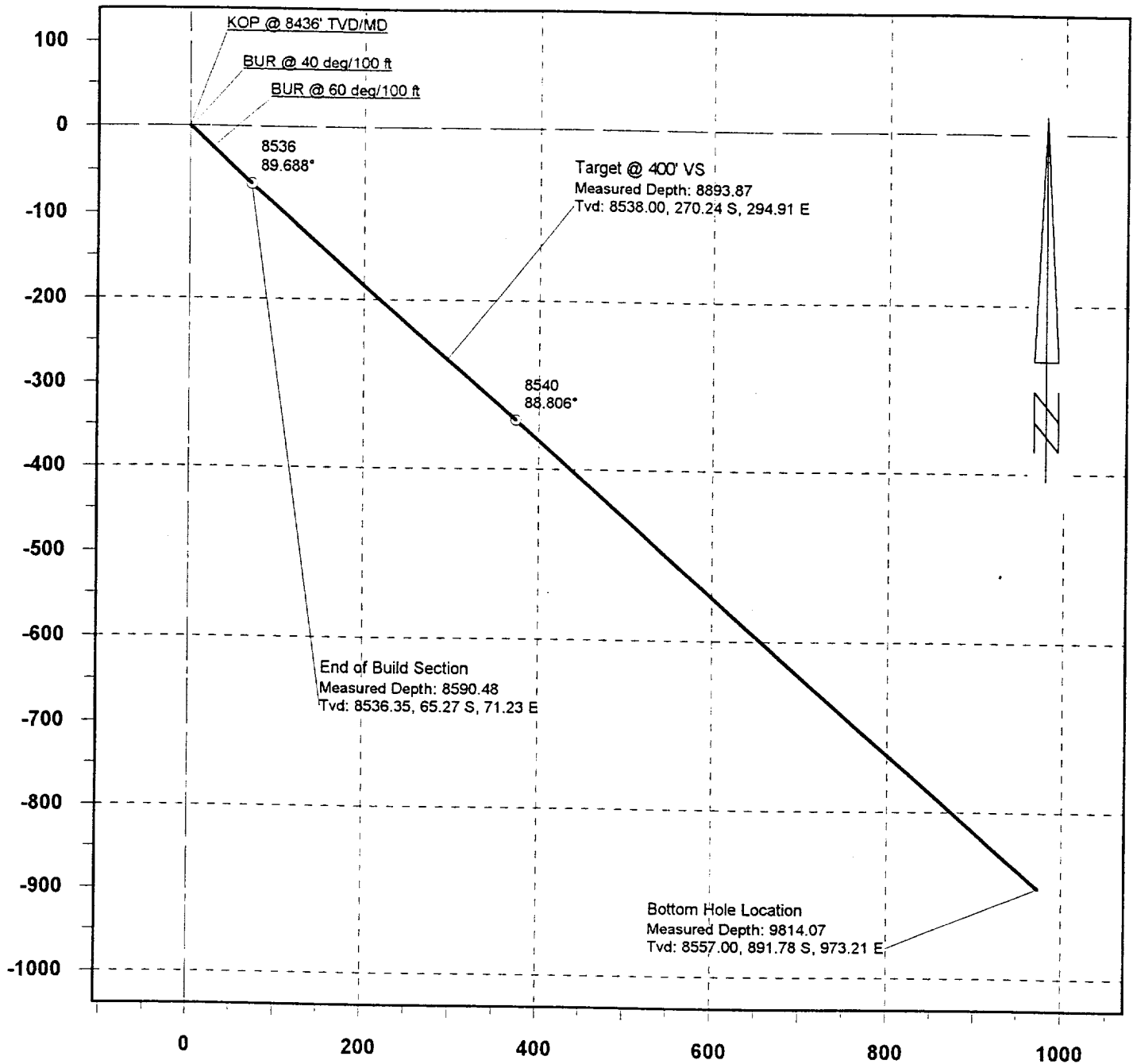
VERTICAL SECTION - Direction: 132.500° (True)  
Depths shown on plot are Measured Depths.  
All measurements are in Feet.

# PERRY-SUN DRILLING SERVICE HORIZONTAL SECTION

MOBIL E&P SERVICES, INC.  
NVAU #213

N/A  
12-Aug-97

LATITUDE  
VALUES



## DEPARTURE VALUES

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