

PETROLEUM DEVELOPMENT CORPORATION  
STRANGE FEDERAL #2,#2  
TOM TOM, CHAVES COUNTY, NEW MEXICO

SURVEY LISTING Page 4  
Your ref :  
Last revised : 23-Nov-93

| Measured<br>Depth | Inclin.<br>Degrees | Azimuth<br>Degrees | True Vert.<br>Depth | R E C T A N G U L A R<br>C O O R D I N A T E S |          | Dogleg<br>Deg/100Ft | Vert<br>Sect |
|-------------------|--------------------|--------------------|---------------------|------------------------------------------------|----------|---------------------|--------------|
| 4910.00           | 87.60              | 58.60              | 4086.55             | 574.36 N                                       | 612.28 E | 17.45               | 839.08       |
| 4920.00           | 87.90              | 56.20              | 4086.95             | 579.74 N                                       | 620.69 E | 24.17               | 848.84       |
| 4930.00           | 89.50              | 53.80              | 4087.17             | 585.48 N                                       | 628.88 E | 28.84               | 858.68       |
| 4940.00           | 90.50              | 52.20              | 4087.17             | 591.50 N                                       | 636.87 E | 18.87               | 868.58       |
| 4950.00           | 91.20              | 50.60              | 4087.02             | 597.73 N                                       | 644.68 E | 17.46               | 878.52       |
| 4960.00           | 91.80              | 49.00              | 4086.76             | 604.19 N                                       | 652.32 E | 17.08               | 888.48       |
| 4970.00           | 92.20              | 46.60              | 4086.41             | 610.90 N                                       | 659.72 E | 24.32               | 898.46       |
| 4980.00           | 91.30              | 45.00              | 4086.11             | 617.87 N                                       | 666.89 E | 18.35               | 908.46       |
| 4990.00           | 90.00              | 42.60              | 4086.00             | 625.08 N                                       | 673.81 E | 27.29               | 918.45       |
| 5000.00           | 87.30              | 40.20              | 4086.23             | 632.58 N                                       | 680.42 E | 36.12               | 928.43       |
| 5010.00           | 85.60              | 38.60              | 4086.85             | 640.29 N                                       | 686.75 E | 23.32               | 938.36       |
| 5020.00           | 84.90              | 37.00              | 4087.68             | 648.17 N                                       | 692.86 E | 17.41               | 948.25       |
| 5030.00           | 83.80              | 35.40              | 4088.66             | 656.20 N                                       | 698.74 E | 19.35               | 958.08       |
| 5040.00           | 82.70              | 33.00              | 4089.84             | 664.41 N                                       | 704.32 E | 26.25               | 967.84       |
| 5050.00           | 82.40              | 31.40              | 4091.14             | 672.80 N                                       | 709.60 E | 16.15               | 977.51       |
| 5060.00           | 83.40              | 29.80              | 4092.37             | 681.34 N                                       | 714.65 E | 18.76               | 987.12       |
| 5070.00           | 85.40              | 29.00              | 4093.35             | 690.01 N                                       | 719.54 E | 21.53               | 996.70       |
| 5080.00           | 87.70              | 29.00              | 4093.95             | 698.74 N                                       | 724.38 E | 23.00               | 1006.30      |
| 5090.00           | 88.30              | 28.00              | 4094.30             | 707.52 N                                       | 729.15 E | 11.66               | 1015.88      |
| 5100.00           | 88.10              | 27.40              | 4094.61             | 716.37 N                                       | 733.79 E | 6.32                | 1025.42      |
| 5110.00           | 88.80              | 28.20              | 4094.88             | 725.22 N                                       | 738.45 E | 10.63               | 1034.97      |
| 5120.00           | 89.40              | 29.00              | 4095.04             | 733.99 N                                       | 743.24 E | 10.00               | 1044.56      |
| 5130.00           | 89.30              | 29.00              | 4095.15             | 742.74 N                                       | 748.09 E | 1.00                | 1054.18      |
| 5140.00           | 89.20              | 29.00              | 4095.28             | 751.48 N                                       | 752.94 E | 1.00                | 1063.79      |
| 5150.00           | 89.30              | 29.00              | 4095.42             | 760.23 N                                       | 757.78 E | 1.00                | 1073.40      |
| 5160.00           | 89.40              | 29.00              | 4095.53             | 768.98 N                                       | 762.63 E | 1.00                | 1083.01      |
| 5170.00           | 89.20              | 29.00              | 4095.65             | 777.72 N                                       | 767.48 E | 2.00                | 1092.62      |
| 5180.00           | 89.00              | 29.00              | 4095.81             | 786.47 N                                       | 772.33 E | 2.00                | 1102.23      |
| 5204.00           | 88.77              | 29.00              | 4096.27             | 807.45 N                                       | 783.96 E | 0.96                | 1125.30      |

PROJECTED F/ PREVIOUS SURVEY

All data is in feet unless otherwise stated  
Coordinates from structure and TVD from wellhead.  
Vertical section is from wellhead on azimuth 45.00 degrees.  
Declination is 0.00 degrees, Convergence is 0.00 degrees.  
Calculation uses the minimum curvature method.  
Presented by Baker Hughes INTEQ