



Job Number: \_\_\_\_\_ State/Country: New Mexico  
 Company: Yates Petroleum Declination: \_\_\_\_\_  
 Lease/Well: Preston Federal #25 Grid: \_\_\_\_\_  
 Location: Eddy County File name: C:\WINSERVE\PRESTON.SVY  
 Rig Name: Norton #17 Date/Time: 27-Oct-88 / 16:37  
 RKB: \_\_\_\_\_ Curve Name: \_\_\_\_\_  
 G.L. or M.S.L.: \_\_\_\_\_

## DAILEY INTERNATIONAL INC.

WINSERVE SURVEY CALCULATIONS  
 Minimum Curvature Method  
 Vertical Section Plane 74.80  
 Vertical Section Referenced to Wellhead  
 Rectangular Coordinates Referenced to Wellhead

| Measured<br>Depth<br>FT                | Incl<br>Angle<br>Deg | Drift<br>Direction<br>Deg | True<br>Vertical<br>Depth | N-S<br>FT | E-W<br>FT | Vertical<br>Section<br>FT | CLOSURE<br>Distance<br>FT | Direction<br>Deg | Dogleg<br>Severity<br>Deg/100 |
|----------------------------------------|----------------------|---------------------------|---------------------------|-----------|-----------|---------------------------|---------------------------|------------------|-------------------------------|
| <b>KOP → Build &amp; Turn 10°/100'</b> |                      |                           |                           |           |           |                           |                           |                  |                               |
| 8600.00                                | .71                  | 14.89                     | 8589.85                   | 150.99    | -129.64   | -85.52                    | 199.01                    | 319.35           | .00                           |
| 8700.00                                | 10.21                | 86.06                     | 8689.31                   | 152.20    | -120.62   | -76.49                    | 194.20                    | 321.80           | 10.00                         |
| 8800.00                                | 20.20                | 88.01                     | 8785.89                   | 153.41    | -94.46    | -50.93                    | 180.16                    | 328.38           | 10.00                         |
| 8900.00                                | 30.19                | 88.69                     | 8878.08                   | 154.59    | -51.97    | -9.62                     | 163.09                    | 341.42           | 10.00                         |
| 9000.00                                | 40.19                | 89.06                     | 8957.68                   | 155.70    | 5.58      | 46.20                     | 155.79                    | 2.05             | 10.00                         |
| <b>Begin Hold @ 44.98°, 89.19° Azm</b> |                      |                           |                           |           |           |                           |                           |                  |                               |
| 9047.96                                | 44.98                | 89.19                     | 8992.98                   | 156.19    | 38.02     | 77.64                     | 160.75                    | 13.68            | 10.00                         |
| <b>Target 1</b>                        |                      |                           |                           |           |           |                           |                           |                  |                               |
| 9128.57                                | 44.98                | 89.19                     | 9050.00                   | 157.00    | 95.00     | 132.84                    | 183.50                    | 31.18            | .00                           |
| 9228.57                                | 44.98                | 89.19                     | 9120.73                   | 158.00    | 185.88    | 201.31                    | 228.95                    | 46.36            | .00                           |
| <b>Target 2</b>                        |                      |                           |                           |           |           |                           |                           |                  |                               |
| 9269.95                                | 44.98                | 89.19                     | 9150.00                   | 158.42    | 194.93    | 229.65                    | 251.19                    | 50.90            | .00                           |
| 9369.95                                | 44.98                | 89.19                     | 9220.73                   | 159.43    | 265.82    | 298.13                    | 309.79                    | 59.03            | .00                           |
| 9469.95                                | 44.98                | 89.19                     | 9291.46                   | 160.43    | 336.30    | 366.80                    | 372.61                    | 64.50            | .00                           |
| 9569.95                                | 44.98                | 89.19                     | 9362.19                   | 161.43    | 406.99    | 435.07                    | 437.83                    | 68.36            | .00                           |
| 9669.95                                | 44.98                | 89.19                     | 9432.92                   | 162.44    | 477.67    | 503.65                    | 504.53                    | 71.22            | .00                           |
| 9769.95                                | 44.98                | 89.19                     | 9503.65                   | 163.44    | 548.35    | 572.02                    | 572.19                    | 73.40            | .00                           |
| <b>PBHL @ 9850 Ft MD</b>               |                      |                           |                           |           |           |                           |                           |                  |                               |
| 9849.62                                | 44.98                | 89.19                     | 9580.00                   | 164.24    | 604.66    | 626.57                    | 626.57                    | 74.80            | .00                           |