

**SURVEY CERTIFICATION**

State of Texas

County of MIDLAND

I, WILLIAM T. KILPATRICK <sup>WEATHERFORD US, LP.</sup> certify that; I am employed by ~~Dailey International Inc.~~;

that I did on the day(s) of 9/11/00 through 10/3/00 conduct or supervise the

taking of a directional survey from a depth of 7687 feet to a depth of

8885 feet; the data is true, correct, complete, and within the limitations of

the tool as set forth by ~~Dailey International Inc.~~ <sup>WEATHERFORD US, LP.</sup> that I am authorized and qualified

to make this report; that this survey was conducted at the request of \_\_\_\_\_

Yates Petroleum Corp. for the Rodke AOL #1-H Well API

No. \_\_\_\_\_ in Eddy <sup>New Mexico</sup> County, ~~Texas~~; and that I

have reviewed this report and find that it conforms to the principles and

procedures as set forth by ~~Dailey International Inc.~~ <sup>WEATHERFORD US, LP.</sup>

William T. Kilpatrick  
WILLIAM T. KILPATRICK

Job Number: WTX0900D254

State/Country: New Mexico

Company: Yates Petroleum

Declination: 9.6 East

Lease/Well: Rodke AOL #1-H

Grid:

Location: Eddy County

File name: C:\WINSERVE\RODKEHOR.SVY

Rig Name: UTI 188

Date/Time: 03-Oct-00 / 22:41

RKB:

Curve Name: Work

G.L. or M.S.L.:

## WINSERVE SURVEY CALCULATIONS

*Minimum Curvature Method**Vertical Section Plane 181.53**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        |                  | Dogleg<br>Severity<br>Deg/100 |
|-------------------------|----------------------|---------------------------|---------------------------|-----------|-----------|---------------------------|----------------|------------------|-------------------------------|
|                         |                      |                           |                           |           |           |                           | Distance<br>FT | Direction<br>Deg |                               |
| KOP                     |                      |                           |                           |           |           |                           |                |                  | .00                           |
| 7687.00                 | 28.40                | 184.40                    | 7657.68                   | -140.22   | -66.36    | 141.94                    | 155.13         | 205.33           | 6.67                          |
| 7696.00                 | 29.00                | 184.40                    | 7665.57                   | -144.53   | -66.69    | 146.26                    | 159.17         | 204.77           | 24.00                         |
| 7706.00                 | 31.40                | 184.40                    | 7674.22                   | -149.54   | -67.08    | 151.28                    | 163.90         | 204.16           | 37.00                         |
| 7716.00                 | 35.10                | 184.40                    | 7682.58                   | -155.01   | -67.50    | 156.76                    | 169.07         | 203.53           | 54.00                         |
| 7726.00                 | 40.50                | 184.40                    | 7690.48                   | -161.12   | -67.97    | 162.88                    | 174.87         | 202.87           |                               |
|                         |                      |                           |                           |           |           |                           |                |                  |                               |
| 7736.00                 | 46.20                | 184.40                    | 7697.75                   | -167.96   | -68.49    | 169.73                    | 181.39         | 202.19           | 57.00                         |
| 7746.00                 | 52.10                | 184.40                    | 7704.28                   | -175.50   | -69.07    | 177.28                    | 188.60         | 201.48           | 59.00                         |
| 7756.00                 | 57.50                | 183.90                    | 7710.05                   | -183.65   | -69.66    | 185.44                    | 196.42         | 200.77           | 54.15                         |
| 7766.00                 | 63.30                | 182.50                    | 7714.98                   | -192.32   | -70.15    | 194.13                    | 204.72         | 200.04           | 59.26                         |
| 7776.00                 | 67.30                | 183.60                    | 7719.16                   | -201.39   | -70.63    | 203.21                    | 213.42         | 199.33           | 41.23                         |
|                         |                      |                           |                           |           |           |                           |                |                  |                               |
| 7786.00                 | 73.70                | 182.70                    | 7722.50                   | -210.80   | -71.15    | 212.63                    | 222.48         | 198.65           | 64.56                         |
| 7830.00                 | 91.30                | 182.40                    | 7728.22                   | -254.21   | -73.08    | 256.07                    | 264.51         | 196.04           | 40.01                         |
| 7864.00                 | 90.50                | 182.90                    | 7727.68                   | -288.17   | -74.65    | 290.06                    | 297.68         | 194.52           | 2.77                          |
| 7896.00                 | 89.60                | 183.70                    | 7727.66                   | -320.12   | -76.49    | 322.04                    | 329.13         | 193.44           | 3.76                          |
| 7927.00                 | 89.80                | 183.70                    | 7727.82                   | -351.05   | -78.49    | 353.02                    | 359.72         | 192.60           | .65                           |
|                         |                      |                           |                           |           |           |                           |                |                  |                               |
| 7955.00                 | 89.50                | 183.80                    | 7727.99                   | -378.99   | -80.32    | 381.00                    | 387.41         | 191.97           | 1.13                          |
| 7991.00                 | 89.40                | 183.30                    | 7728.33                   | -414.92   | -82.55    | 416.98                    | 423.05         | 191.25           | 1.42                          |
| 8022.00                 | 89.60                | 182.70                    | 7728.61                   | -445.88   | -84.18    | 447.96                    | 453.75         | 190.69           | 2.04                          |
| 8053.00                 | 90.20                | 181.60                    | 7728.66                   | -476.85   | -85.34    | 478.96                    | 484.43         | 190.15           | 4.04                          |
| 8084.00                 | 90.40                | 181.60                    | 7728.50                   | -507.84   | -86.20    | 509.96                    | 515.10         | 189.63           | .65                           |

| 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 | C L O S U R E  |                  | Dogleg<br>Severity<br>Deg/100 |
|-------------------------|----------------------|---------------------------|---------------------------|-----------|-----------|---------------------------|----------------|------------------|-------------------------------|
|                         |                      |                           |                           |           |           |                           | Distance<br>FT | Direction<br>Deg |                               |
| 8115.00                 | 90.70                | 181.70                    | 7728.20                   | -538.83   | -87.10    | 540.96                    | 545.82         | 189.18           | 1.02                          |
| 8147.00                 | 91.50                | 181.00                    | 7727.59                   | -570.81   | -87.85    | 572.95                    | 577.53         | 188.75           | 3.32                          |
| 8210.00                 | 90.60                | 181.30                    | 7726.43                   | -633.79   | -89.11    | 635.94                    | 640.02         | 188.00           | 1.51                          |
| 8274.00                 | 90.40                | 180.90                    | 7725.87                   | -697.77   | -90.34    | 699.94                    | 703.60         | 187.38           | .70                           |
| 8336.00                 | 91.10                | 180.90                    | 7725.06                   | -759.76   | -91.32    | 761.93                    | 765.23         | 186.85           | 1.13                          |
|                         |                      |                           |                           |           |           |                           |                |                  |                               |
| 8399.00                 | 89.00                | 179.90                    | 7725.01                   | -822.75   | -91.76    | 824.91                    | 827.85         | 186.36           | 3.69                          |
| 8463.00                 | 89.30                | 179.90                    | 7725.96                   | -886.75   | -91.64    | 888.88                    | 891.47         | 185.90           | .47                           |
| 8526.00                 | 89.70                | 177.30                    | 7726.50                   | -949.72   | -90.11    | 951.79                    | 953.98         | 185.42           | 4.18                          |
| 8589.00                 | 90.30                | 176.80                    | 7726.50                   | -1012.64  | -86.86    | 1014.59                   | 1016.35        | 184.90           | 1.24                          |
| 8652.00                 | 89.30                | 179.10                    | 7726.72                   | -1075.59  | -84.61    | 1077.47                   | 1078.91        | 184.50           | 3.98                          |
|                         |                      |                           |                           |           |           |                           |                |                  |                               |
| 8716.00                 | 89.30                | 182.50                    | 7727.51                   | -1139.57  | -85.50    | 1141.45                   | 1142.77        | 184.29           | 5.31                          |
| 8779.00                 | 90.30                | 185.30                    | 7727.73                   | -1202.42  | -89.79    | 1204.38                   | 1205.76        | 184.27           | 4.72                          |
| 8853.00                 | 91.60                | 185.00                    | 7726.50                   | -1276.11  | -96.43    | 1278.22                   | 1279.74        | 184.32           | 1.80                          |
| -Projection to Bit-     |                      |                           |                           |           |           |                           |                |                  |                               |
| 8885.00                 | 91.60                | 185.00                    | 7725.61                   | -1307.97  | -99.22    | 1310.15                   | 1311.73        | 184.34           | .00                           |