



**HOBBS OCD**

**APR 25 2016**

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## **Yates Petroleum Corp.**

**Lea County, NM (NAD-83 2015)**

**Resolute BTO Federal Com #2H**

**Resolute BTO Federal Com #2H**

**30-025-41452**

**Lateral #1**

**Design: Lateral #1**

## **Survey Report - Geographic**

**16 November, 2015**



**MAY 09 2016**



TDS  
Survey Report - Geographic



|           |                              |                              |                                   |
|-----------|------------------------------|------------------------------|-----------------------------------|
| Company:  | Yates Petroleum Corp.        | Local Co-ordinate Reference: | Well Resolute BTO Federal Com #2H |
| Project:  | Lea County, NM (NAD-83 2015) | TVD Reference:               | KB @ 3479.50usft (Nomac 22)       |
| Site:     | Resolute BTO Federal Com #2H | MD Reference:                | KB @ 3479.50usft (Nomac 22)       |
| Well:     | Resolute BTO Federal Com #2H | North Reference:             | Grid                              |
| Wellbore: | Lateral #1                   | Survey Calculation Method:   | Minimum Curvature                 |
| Design:   | Lateral #1                   | Database:                    | EDM 5000.1 Single User Db         |

|             |                              |               |                |
|-------------|------------------------------|---------------|----------------|
| Project     | Lea County, NM (NAD-83 2015) |               |                |
| Map System: | US State Plane 1983          | System Datum: | Mean Sea Level |
| Geo Datum:  | North American Datum 1983    |               |                |
| Map Zone:   | New Mexico Eastern Zone      |               |                |

|                       |                              |                   |                   |
|-----------------------|------------------------------|-------------------|-------------------|
| Site                  | Resolute BTO Federal Com #2H |                   |                   |
| Site Position:        |                              | Northing:         | 406,726.10 usft   |
| From:                 | Map                          | Easting:          | 760,014.79 usft   |
| Position Uncertainty: | 0.00 usft                    | Slot Radius:      | 13.20 in          |
|                       |                              | Latitude:         | 32° 6' 58.317 N   |
|                       |                              | Longitude:        | 103° 37' 37.240 W |
|                       |                              | Grid Convergence: | 0.38 °            |

|                      |                              |                     |                   |
|----------------------|------------------------------|---------------------|-------------------|
| Well                 | Resolute BTO Federal Com #2H |                     |                   |
| Well Position        | +N/-S                        | 0.00 usft           | Northing:         |
|                      | +E/-W                        | 0.00 usft           | Easting:          |
| Position Uncertainty | 0.00 usft                    | Wellhead Elevation: | 0.00 usft         |
|                      |                              | Latitude:           | 32° 6' 58.317 N   |
|                      |                              | Longitude:          | 103° 37' 37.240 W |
|                      |                              | Ground Level:       | 3,458.00 usft     |

|           |            |             |                |
|-----------|------------|-------------|----------------|
| Wellbore  | Lateral #1 |             |                |
| Magnetics | Model Name | Sample Date | Declination    |
|           | IGRF2015   | 9/28/2015   | 7.16           |
|           |            |             | Dip Angle      |
|           |            |             | 59.98          |
|           |            |             | Field Strength |
|           |            |             | 48,044         |

|                   |                  |               |           |
|-------------------|------------------|---------------|-----------|
| Design            | Lateral #1       |               |           |
| Audit Notes:      |                  |               |           |
| Version:          | 1.0              | Phase:        | ACTUAL    |
|                   |                  | Tie On Depth: | 0.00      |
| Vertical Section: | Depth From (TVD) | +N/-S         | +E/-W     |
|                   | (usft)           | (usft)        | (usft)    |
|                   | 0.00             | 0.00          | 0.00      |
|                   |                  |               | Direction |
|                   |                  |               | (°)       |
|                   |                  |               | 359.66    |

|                |                 |                         |                         |
|----------------|-----------------|-------------------------|-------------------------|
| Survey Program | Date 11/16/2015 |                         |                         |
| From           | To              | Survey (Wellbore)       | Tool Name               |
| (usft)         | (usft)          |                         |                         |
| 100.00         | 1,000.00        | MS Gyro #1 (Lateral #1) | ISCWSA-GYRO-3           |
| 1,027.00       | 16,639.00       | TDS MWD #2 (Lateral #1) | MWD                     |
|                |                 |                         | Description             |
|                |                 |                         | Biaxial Semi-Cont. Gyro |
|                |                 |                         | MWD - Standard          |

|          |             |         |          |        |        |            |            |                 |                   |
|----------|-------------|---------|----------|--------|--------|------------|------------|-----------------|-------------------|
| Survey   |             |         |          |        |        |            |            |                 |                   |
| Measured | Inclination | Azimuth | Vertical | +N/-S  | +E/-W  | Map        | Map        | Latitude        | Longitude         |
| Depth    | (°)         | (°)     | Depth    | (usft) | (usft) | Northing   | Easting    |                 |                   |
| (usft)   |             |         | (usft)   |        |        | (usft)     | (usft)     |                 |                   |
| 0.00     | 0.00        | 0.00    | 0.00     | 0.00   | 0.00   | 406,726.10 | 760,014.79 | 32° 6' 58.317 N | 103° 37' 37.240 W |
| 100.00   | 0.52        | 171.38  | 100.00   | -0.45  | 0.07   | 406,725.65 | 760,014.86 | 32° 6' 58.313 N | 103° 37' 37.239 W |
| 200.00   | 0.48        | 181.56  | 199.99   | -1.32  | 0.12   | 406,724.78 | 760,014.92 | 32° 6' 58.304 N | 103° 37' 37.239 W |
| 300.00   | 0.47        | 178.14  | 299.99   | -2.14  | 0.13   | 406,723.96 | 760,014.92 | 32° 6' 58.296 N | 103° 37' 37.239 W |
| 400.00   | 0.47        | 189.27  | 399.99   | -2.96  | 0.07   | 406,723.14 | 760,014.86 | 32° 6' 58.288 N | 103° 37' 37.239 W |
| 500.00   | 0.49        | 196.73  | 499.98   | -3.77  | -0.12  | 406,722.33 | 760,014.68 | 32° 6' 58.280 N | 103° 37' 37.242 W |
| 600.00   | 0.63        | 209.20  | 599.98   | -4.66  | -0.51  | 406,721.44 | 760,014.28 | 32° 6' 58.271 N | 103° 37' 37.246 W |
| 700.00   | 0.66        | 211.07  | 699.97   | -5.64  | -1.07  | 406,720.48 | 760,013.72 | 32° 6' 58.262 N | 103° 37' 37.253 W |
| 800.00   | 0.57        | 227.88  | 799.97   | -6.46  | -1.74  | 406,719.64 | 760,013.05 | 32° 6' 58.253 N | 103° 37' 37.261 W |
| 900.00   | 0.64        | 220.43  | 899.96   | -7.22  | -2.47  | 406,718.88 | 760,012.32 | 32° 6' 58.246 N | 103° 37' 37.269 W |



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| Project:  | Lea County, NM (NAD-83 2015) | TVD Reference:               | KB @ 3479.50usft (Nomac 22)       |
| Site:     | Resolute BTO Federal Com #2H | MD Reference:                | KB @ 3479.50usft (Nomac 22)       |
| Well:     | Resolute BTO Federal Com #2H | North Reference:             | Grid                              |
| Wellbore: | Lateral #1                   | Survey Calculation Method:   | Minimum Curvature                 |
| Design:   | Lateral #1                   | Database:                    | EDM 5000.1 Single User Db         |

| Survey                |                 |             |                       |              |              |                     |                    |                 |                   |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|---------------------|--------------------|-----------------|-------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Map Northing (usft) | Map Easting (usft) | Latitude        | Longitude         |
| 1,000.00              | 0.45            | 209.86      | 999.96                | -7.99        | -3.03        | 406,718.11          | 760,011.76         | 32° 6' 58.238 N | 103° 37' 37.276 W |
| Tie-In to MS Gyro     |                 |             |                       |              |              |                     |                    |                 |                   |
| 1,027.00              | 0.50            | 208.20      | 1,026.96              | -8.18        | -3.14        | 406,717.92          | 760,011.66         | 32° 6' 58.236 N | 103° 37' 37.277 W |
| 1,214.00              | 0.30            | 170.30      | 1,213.95              | -9.39        | -3.44        | 406,716.71          | 760,011.35         | 32° 6' 58.225 N | 103° 37' 37.281 W |
| 1,401.00              | 0.30            | 175.30      | 1,400.95              | -10.36       | -3.32        | 406,715.74          | 760,011.47         | 32° 6' 58.215 N | 103° 37' 37.279 W |
| 1,588.00              | 0.10            | 133.20      | 1,587.95              | -10.96       | -3.16        | 406,715.14          | 760,011.63         | 32° 6' 58.209 N | 103° 37' 37.278 W |
| 1,775.00              | 0.00            | 84.50       | 1,774.95              | -11.07       | -3.04        | 406,715.03          | 760,011.75         | 32° 6' 58.208 N | 103° 37' 37.276 W |
| 1,962.00              | 0.10            | 54.10       | 1,961.95              | -10.97       | -2.91        | 406,715.13          | 760,011.89         | 32° 6' 58.209 N | 103° 37' 37.275 W |
| 2,147.00              | 0.20            | 32.00       | 2,146.95              | -10.60       | -2.60        | 406,715.50          | 760,012.19         | 32° 6' 58.212 N | 103° 37' 37.271 W |
| 2,335.00              | 0.30            | 12.40       | 2,334.95              | -9.84        | -2.32        | 406,716.26          | 760,012.47         | 32° 6' 58.220 N | 103° 37' 37.268 W |
| 2,522.00              | 0.20            | 11.00       | 2,521.94              | -9.05        | -2.16        | 406,717.05          | 760,012.63         | 32° 6' 58.228 N | 103° 37' 37.266 W |
| 2,709.00              | 0.30            | 13.70       | 2,708.94              | -8.25        | -1.98        | 406,717.85          | 760,012.81         | 32° 6' 58.236 N | 103° 37' 37.264 W |
| 2,896.00              | 0.40            | 26.30       | 2,895.94              | -7.19        | -1.57        | 406,718.91          | 760,013.22         | 32° 6' 58.246 N | 103° 37' 37.259 W |
| 3,083.00              | 0.30            | 21.40       | 3,082.94              | -6.15        | -1.11        | 406,719.95          | 760,013.69         | 32° 6' 58.256 N | 103° 37' 37.253 W |
| 3,270.00              | 0.20            | 351.30      | 3,269.93              | -5.37        | -0.98        | 406,720.73          | 760,013.81         | 32° 6' 58.264 N | 103° 37' 37.252 W |
| 3,457.00              | 0.20            | 5.90        | 3,456.93              | -4.72        | -0.99        | 406,721.38          | 760,013.80         | 32° 6' 58.271 N | 103° 37' 37.252 W |
| 3,645.00              | 0.30            | 29.30       | 3,644.93              | -3.97        | -0.72        | 406,722.13          | 760,014.07         | 32° 6' 58.278 N | 103° 37' 37.249 W |
| 3,831.00              | 0.40            | 55.80       | 3,830.93              | -3.18        | 0.06         | 406,722.92          | 760,014.85         | 32° 6' 58.286 N | 103° 37' 37.240 W |
| 4,018.00              | 0.10            | 3.40        | 4,017.93              | -2.65        | 0.61         | 406,723.45          | 760,015.40         | 32° 6' 58.291 N | 103° 37' 37.233 W |
| 4,206.00              | 0.30            | 101.30      | 4,205.92              | -2.58        | 1.10         | 406,723.52          | 760,015.89         | 32° 6' 58.292 N | 103° 37' 37.228 W |
| 4,392.00              | 0.70            | 127.10      | 4,391.92              | -3.36        | 2.48         | 406,722.74          | 760,017.27         | 32° 6' 58.284 N | 103° 37' 37.211 W |
| 4,579.00              | 0.50            | 172.10      | 4,578.91              | -4.86        | 3.51         | 406,721.24          | 760,018.30         | 32° 6' 58.269 N | 103° 37' 37.200 W |
| 4,767.00              | 0.60            | 113.40      | 4,766.90              | -6.06        | 4.52         | 406,720.04          | 760,019.31         | 32° 6' 58.257 N | 103° 37' 37.188 W |
| 4,804.00              | 0.50            | 117.00      | 4,803.90              | -6.21        | 4.84         | 406,719.89          | 760,019.64         | 32° 6' 58.255 N | 103° 37' 37.184 W |
| 4,985.00              | 0.50            | 108.80      | 4,984.89              | -6.82        | 6.30         | 406,719.28          | 760,021.09         | 32° 6' 58.249 N | 103° 37' 37.167 W |
| 5,141.00              | 0.40            | 99.20       | 5,140.89              | -7.13        | 7.48         | 406,718.97          | 760,022.27         | 32° 6' 58.246 N | 103° 37' 37.154 W |
| 5,328.00              | 0.40            | 109.90      | 5,327.88              | -7.46        | 8.74         | 406,718.64          | 760,023.53         | 32° 6' 58.243 N | 103° 37' 37.139 W |
| 5,515.00              | 0.50            | 91.50       | 5,514.88              | -7.70        | 10.16        | 406,718.40          | 760,024.96         | 32° 6' 58.240 N | 103° 37' 37.123 W |
| 5,701.00              | 0.40            | 89.00       | 5,700.87              | -7.71        | 11.63        | 406,718.39          | 760,026.42         | 32° 6' 58.240 N | 103° 37' 37.106 W |
| 5,889.00              | 0.40            | 71.20       | 5,888.87              | -7.49        | 12.90        | 406,718.61          | 760,027.69         | 32° 6' 58.242 N | 103° 37' 37.091 W |
| 6,076.00              | 0.10            | 259.00      | 6,075.87              | -7.31        | 13.36        | 406,718.79          | 760,028.15         | 32° 6' 58.244 N | 103° 37' 37.085 W |
| 6,264.00              | 0.50            | 279.50      | 6,263.86              | -7.20        | 12.39        | 406,718.90          | 760,027.18         | 32° 6' 58.245 N | 103° 37' 37.097 W |
| 6,451.00              | 0.40            | 279.40      | 6,450.86              | -6.96        | 10.94        | 406,719.14          | 760,025.73         | 32° 6' 58.248 N | 103° 37' 37.113 W |
| 6,637.00              | 0.30            | 289.30      | 6,636.85              | -6.70        | 9.84         | 406,719.40          | 760,024.63         | 32° 6' 58.250 N | 103° 37' 37.126 W |
| 6,824.00              | 0.60            | 280.70      | 6,823.85              | -6.35        | 8.42         | 406,719.75          | 760,023.21         | 32° 6' 58.254 N | 103° 37' 37.143 W |
| 7,010.00              | 0.60            | 272.60      | 7,009.84              | -6.13        | 6.49         | 406,719.97          | 760,021.28         | 32° 6' 58.256 N | 103° 37' 37.165 W |
| 7,198.00              | 0.50            | 312.10      | 7,197.83              | -5.53        | 4.90         | 406,720.57          | 760,019.69         | 32° 6' 58.262 N | 103° 37' 37.184 W |
| 7,384.00              | 0.70            | 269.60      | 7,383.82              | -5.00        | 3.16         | 406,721.10          | 760,017.95         | 32° 6' 58.268 N | 103° 37' 37.204 W |
| 7,573.00              | 0.70            | 270.00      | 7,572.81              | -5.00        | 0.85         | 406,721.10          | 760,015.64         | 32° 6' 58.268 N | 103° 37' 37.231 W |
| 7,760.00              | 0.60            | 265.90      | 7,759.79              | -5.07        | -1.27        | 406,721.03          | 760,013.52         | 32° 6' 58.267 N | 103° 37' 37.255 W |
| 7,947.00              | 0.50            | 259.20      | 7,946.79              | -5.30        | -3.05        | 406,720.80          | 760,011.74         | 32° 6' 58.265 N | 103° 37' 37.276 W |
| 8,133.00              | 0.70            | 255.90      | 8,132.77              | -5.73        | -4.95        | 406,720.37          | 760,009.84         | 32° 6' 58.261 N | 103° 37' 37.298 W |
| 8,320.00              | 0.60            | 231.80      | 8,319.76              | -6.61        | -6.83        | 406,719.49          | 760,007.97         | 32° 6' 58.252 N | 103° 37' 37.320 W |
| 8,414.00              | 0.70            | 228.10      | 8,413.76              | -7.30        | -7.64        | 406,718.80          | 760,007.15         | 32° 6' 58.246 N | 103° 37' 37.329 W |
| 8,508.00              | 0.70            | 226.70      | 8,507.75              | -8.08        | -8.48        | 406,718.02          | 760,006.31         | 32° 6' 58.238 N | 103° 37' 37.339 W |
| 8,602.00              | 0.80            | 224.70      | 8,601.74              | -8.94        | -9.36        | 406,717.16          | 760,005.43         | 32° 6' 58.229 N | 103° 37' 37.350 W |
| 8,695.00              | 0.70            | 229.30      | 8,694.73              | -9.77        | -10.25       | 406,716.33          | 760,004.54         | 32° 6' 58.221 N | 103° 37' 37.360 W |
| 8,710.00              | 0.80            | 221.80      | 8,709.73              | -9.91        | -10.39       | 406,716.19          | 760,004.40         | 32° 6' 58.220 N | 103° 37' 37.362 W |
| 8,767.00              | 0.60            | 287.90      | 8,766.73              | -10.11       | -10.94       | 406,715.99          | 760,003.85         | 32° 6' 58.218 N | 103° 37' 37.368 W |
| As-Drilled KOP        |                 |             |                       |              |              |                     |                    |                 |                   |
| 8,814.00              | 4.10            | 346.30      | 8,813.69              | -8.40        | -11.57       | 406,717.70          | 760,003.22         | 32° 6' 58.235 N | 103° 37' 37.375 W |
| 8,861.00              | 7.50            | 355.40      | 8,860.44              | -3.71        | -12.22       | 406,722.39          | 760,002.57         | 32° 6' 58.281 N | 103° 37' 37.382 W |
| 8,907.00              | 11.60           | 355.40      | 8,905.79              | 3.90         | -12.83       | 406,730.00          | 760,001.96         | 32° 6' 58.357 N | 103° 37' 37.389 W |
| 8,954.00              | 16.10           | 356.50      | 8,951.41              | 15.12        | -13.61       | 406,741.22          | 760,001.19         | 32° 6' 58.468 N | 103° 37' 37.397 W |
| 9,002.00              | 19.80           | 356.30      | 8,997.07              | 29.88        | -14.54       | 406,755.98          | 760,000.25         | 32° 6' 58.614 N | 103° 37' 37.407 W |



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| Project:  | Lea County, NM (NAD-83 2015) | TVD Reference:               | KB @ 3479.50usft (Nomac 22)       |
| Site:     | Resolute BTO Federal Com #2H | MD Reference:                | KB @ 3479.50usft (Nomac 22)       |
| Well:     | Resolute BTO Federal Com #2H | North Reference:             | Grid                              |
| Wellbore: | Lateral #1                   | Survey Calculation Method:   | Minimum Curvature                 |
| Design:   | Lateral #1                   | Database:                    | EDM 5000.1 Single User Db         |

| Survey                            |                    |                |                             |                 |                 |                           |                          |                 |                   |
|-----------------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|---------------------------|--------------------------|-----------------|-------------------|
| Measured<br>Depth<br>(usft)       | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Map<br>Northing<br>(usft) | Map<br>Easting<br>(usft) | Latitude        | Longitude         |
| 9,033.00                          | 22.70              | 358.00         | 9,025.96                    | 41.10           | -15.08          | 406,767.20                | 759,999.71               | 32° 6' 58.725 N | 103° 37' 37.412 W |
| 9,064.00                          | 25.10              | 0.50           | 9,054.30                    | 53.65           | -15.24          | 406,779.75                | 759,999.56               | 32° 6' 58.849 N | 103° 37' 37.413 W |
| 9,095.00                          | 28.00              | 2.30           | 9,082.03                    | 67.50           | -14.89          | 406,793.60                | 759,999.90               | 32° 6' 58.986 N | 103° 37' 37.408 W |
| 9,126.00                          | 33.80              | 1.90           | 9,108.62                    | 83.40           | -14.31          | 406,809.50                | 760,000.48               | 32° 6' 59.143 N | 103° 37' 37.400 W |
| 9,157.00                          | 38.90              | 0.10           | 9,133.58                    | 101.77          | -14.00          | 406,827.87                | 760,000.79               | 32° 6' 59.325 N | 103° 37' 37.395 W |
| 9,188.00                          | 44.70              | 358.70         | 9,156.68                    | 122.42          | -14.24          | 406,848.52                | 760,000.56               | 32° 6' 59.530 N | 103° 37' 37.396 W |
| 9,219.00                          | 50.50              | 358.70         | 9,177.57                    | 145.29          | -14.75          | 406,871.39                | 760,000.04               | 32° 6' 59.756 N | 103° 37' 37.401 W |
| 9,251.00                          | 55.00              | 359.90         | 9,196.94                    | 170.76          | -15.06          | 406,896.86                | 759,999.73               | 32° 7' 0.008 N  | 103° 37' 37.402 W |
| 9,282.00                          | 59.10              | 1.20           | 9,213.79                    | 196.76          | -14.80          | 406,922.86                | 759,999.99               | 32° 7' 0.265 N  | 103° 37' 37.397 W |
| 9,313.00                          | 63.50              | 2.30           | 9,228.68                    | 223.93          | -13.97          | 406,950.03                | 760,000.83               | 32° 7' 0.534 N  | 103° 37' 37.385 W |
| 9,344.00                          | 69.10              | 1.80           | 9,241.13                    | 252.29          | -12.95          | 406,978.39                | 760,001.84               | 32° 7' 0.815 N  | 103° 37' 37.371 W |
| 9,370.50                          | 74.57              | 0.25           | 9,249.39                    | 277.46          | -12.51          | 407,003.56                | 760,002.28               | 32° 7' 1.064 N  | 103° 37' 37.364 W |
| As-Drilled Crosses 330' Hard Line |                    |                |                             |                 |                 |                           |                          |                 |                   |
| 9,375.00                          | 75.50              | 0.00           | 9,250.55                    | 281.80          | -12.50          | 407,007.90                | 760,002.29               | 32° 7' 1.107 N  | 103° 37' 37.364 W |
| 9,407.00                          | 81.70              | 358.50         | 9,256.88                    | 313.15          | -12.91          | 407,039.25                | 760,001.88               | 32° 7' 1.417 N  | 103° 37' 37.366 W |
| 9,438.00                          | 85.30              | 357.60         | 9,260.39                    | 343.93          | -13.96          | 407,070.03                | 760,000.83               | 32° 7' 1.722 N  | 103° 37' 37.376 W |
| 9,469.00                          | 86.60              | 358.30         | 9,262.57                    | 374.83          | -15.07          | 407,100.93                | 759,999.72               | 32° 7' 2.027 N  | 103° 37' 37.387 W |
| 9,500.00                          | 87.80              | 359.50         | 9,264.09                    | 405.79          | -15.66          | 407,131.89                | 759,999.13               | 32° 7' 2.334 N  | 103° 37' 37.391 W |
| 9,526.94                          | 90.32              | 359.07         | 9,264.53                    | 432.72          | -16.00          | 407,158.82                | 759,998.79               | 32° 7' 2.600 N  | 103° 37' 37.393 W |
| As-Drilled EOC                    |                    |                |                             |                 |                 |                           |                          |                 |                   |
| 9,531.00                          | 90.70              | 359.00         | 9,264.49                    | 436.78          | -16.07          | 407,162.88                | 759,998.72               | 32° 7' 2.640 N  | 103° 37' 37.394 W |
| 9,594.00                          | 92.00              | 359.00         | 9,263.01                    | 499.75          | -17.17          | 407,225.85                | 759,997.62               | 32° 7' 3.264 N  | 103° 37' 37.402 W |
| 9,688.00                          | 90.40              | 4.00           | 9,261.04                    | 593.67          | -14.71          | 407,319.77                | 760,000.08               | 32° 7' 4.193 N  | 103° 37' 37.366 W |
| 9,782.00                          | 90.40              | 3.30           | 9,260.38                    | 687.47          | -8.72           | 407,413.57                | 760,006.07               | 32° 7' 5.121 N  | 103° 37' 37.289 W |
| 9,875.00                          | 89.10              | 1.80           | 9,260.79                    | 780.37          | -4.58           | 407,506.47                | 760,010.21               | 32° 7' 6.040 N  | 103° 37' 37.234 W |
| 9,969.00                          | 90.60              | 1.90           | 9,261.04                    | 874.32          | -1.55           | 407,600.42                | 760,013.24               | 32° 7' 6.969 N  | 103° 37' 37.192 W |
| 10,062.00                         | 91.90              | 0.50           | 9,259.01                    | 967.28          | 0.40            | 407,693.38                | 760,015.19               | 32° 7' 7.889 N  | 103° 37' 37.162 W |
| 10,156.00                         | 90.90              | 0.60           | 9,256.71                    | 1,061.24        | 1.30            | 407,787.34                | 760,016.09               | 32° 7' 8.819 N  | 103° 37' 37.144 W |
| 10,249.00                         | 90.70              | 0.50           | 9,255.41                    | 1,154.23        | 2.19            | 407,880.33                | 760,016.98               | 32° 7' 9.739 N  | 103° 37' 37.127 W |
| 10,343.00                         | 89.80              | 359.70         | 9,255.00                    | 1,248.23        | 2.36            | 407,974.33                | 760,017.15               | 32° 7' 10.669 N | 103° 37' 37.118 W |
| 10,437.00                         | 90.40              | 0.20           | 9,254.84                    | 1,342.22        | 2.27            | 408,068.32                | 760,017.06               | 32° 7' 11.599 N | 103° 37' 37.111 W |
| 10,531.00                         | 90.00              | 0.60           | 9,254.51                    | 1,436.22        | 2.93            | 408,162.32                | 760,017.72               | 32° 7' 12.529 N | 103° 37' 37.097 W |
| 10,624.00                         | 89.20              | 358.90         | 9,255.16                    | 1,529.21        | 2.52            | 408,255.31                | 760,017.32               | 32° 7' 13.449 N | 103° 37' 37.094 W |
| 10,717.00                         | 90.50              | 1.10           | 9,255.40                    | 1,622.21        | 2.52            | 408,348.31                | 760,017.32               | 32° 7' 14.370 N | 103° 37' 37.087 W |
| 10,811.00                         | 89.50              | 358.30         | 9,255.40                    | 1,716.19        | 2.03            | 408,442.29                | 760,016.82               | 32° 7' 15.300 N | 103° 37' 37.086 W |
| 10,905.00                         | 89.50              | 357.90         | 9,256.22                    | 1,810.14        | -1.08           | 408,536.24                | 760,013.71               | 32° 7' 16.229 N | 103° 37' 37.115 W |
| 10,998.00                         | 90.10              | 357.60         | 9,256.55                    | 1,903.07        | -4.74           | 408,629.17                | 760,010.06               | 32° 7' 17.149 N | 103° 37' 37.150 W |
| 11,092.00                         | 90.90              | 358.30         | 9,255.73                    | 1,997.00        | -8.10           | 408,723.10                | 760,006.69               | 32° 7' 18.079 N | 103° 37' 37.182 W |
| 11,185.00                         | 89.80              | 357.90         | 9,255.16                    | 2,089.95        | -11.18          | 408,816.05                | 760,003.61               | 32° 7' 18.999 N | 103° 37' 37.211 W |
| 11,278.00                         | 89.60              | 357.40         | 9,255.65                    | 2,182.87        | -14.99          | 408,908.97                | 759,999.80               | 32° 7' 19.919 N | 103° 37' 37.248 W |
| 11,372.00                         | 90.50              | 357.70         | 9,255.56                    | 2,276.78        | -19.01          | 409,002.88                | 759,995.78               | 32° 7' 20.848 N | 103° 37' 37.288 W |
| 11,465.00                         | 90.90              | 359.10         | 9,254.43                    | 2,369.73        | -21.61          | 409,095.83                | 759,993.18               | 32° 7' 21.768 N | 103° 37' 37.311 W |
| 11,559.00                         | 90.50              | 359.40         | 9,253.28                    | 2,463.72        | -22.84          | 409,189.82                | 759,991.95               | 32° 7' 22.698 N | 103° 37' 37.318 W |
| 11,652.00                         | 89.50              | 358.90         | 9,253.28                    | 2,556.71        | -24.22          | 409,282.81                | 759,990.57               | 32° 7' 23.619 N | 103° 37' 37.327 W |
| 11,746.00                         | 89.60              | 359.30         | 9,254.02                    | 2,650.69        | -25.70          | 409,376.79                | 759,989.10               | 32° 7' 24.549 N | 103° 37' 37.337 W |
| 11,840.00                         | 90.50              | 359.20         | 9,253.94                    | 2,744.68        | -26.93          | 409,470.78                | 759,987.87               | 32° 7' 25.479 N | 103° 37' 37.344 W |
| 11,933.00                         | 91.20              | 359.70         | 9,252.56                    | 2,837.67        | -27.82          | 409,563.77                | 759,986.97               | 32° 7' 26.399 N | 103° 37' 37.347 W |
| 12,026.00                         | 90.90              | 0.60           | 9,250.85                    | 2,930.65        | -27.58          | 409,656.75                | 759,987.22               | 32° 7' 27.319 N | 103° 37' 37.337 W |
| 12,120.00                         | 91.80              | 0.50           | 9,248.64                    | 3,024.62        | -26.87          | 409,750.72                | 759,988.12               | 32° 7' 28.249 N | 103° 37' 37.320 W |
| 12,213.00                         | 91.40              | 1.90           | 9,246.04                    | 3,117.56        | -24.73          | 409,843.66                | 759,990.06               | 32° 7' 29.169 N | 103° 37' 37.290 W |
| 12,306.00                         | 90.80              | 1.60           | 9,244.26                    | 3,210.50        | -21.89          | 409,936.60                | 759,992.90               | 32° 7' 30.088 N | 103° 37' 37.250 W |
| 12,399.00                         | 89.10              | 359.70         | 9,244.34                    | 3,303.49        | -20.83          | 410,029.59                | 759,993.98               | 32° 7' 31.008 N | 103° 37' 37.231 W |
| 12,493.00                         | 89.40              | 359.20         | 9,245.57                    | 3,397.47        | -21.73          | 410,123.57                | 759,993.06               | 32° 7' 31.938 N | 103° 37' 37.234 W |
| 12,587.00                         | 90.30              | 358.90         | 9,245.81                    | 3,491.46        | -23.29          | 410,217.56                | 759,991.50               | 32° 7' 32.868 N | 103° 37' 37.245 W |
| 12,681.00                         | 90.00              | 357.30         | 9,245.57                    | 3,585.40        | -26.41          | 410,311.50                | 759,988.38               | 32° 7' 33.798 N | 103° 37' 37.274 W |



TDS  
Survey Report - Geographic



|           |                              |                              |                                   |
|-----------|------------------------------|------------------------------|-----------------------------------|
| Company:  | Yates Petroleum Corp.        | Local Co-ordinate Reference: | Well Resolute BTO Federal Com #2H |
| Project:  | Lea County, NM (NAD-83 2015) | TVD Reference:               | KB @ 3479.50usft (Nomac 22)       |
| Site:     | Resolute BTO Federal Com #2H | MD Reference:                | KB @ 3479.50usft (Nomac 22)       |
| Well:     | Resolute BTO Federal Com #2H | North Reference:             | Grid                              |
| Wellbore: | Lateral #1                   | Survey Calculation Method:   | Minimum Curvature                 |
| Design:   | Lateral #1                   | Database:                    | EDM 5000.1 Single User Db         |

| Survey                |                 |             |                       |             |             |                     |                    |                 |                   |
|-----------------------|-----------------|-------------|-----------------------|-------------|-------------|---------------------|--------------------|-----------------|-------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N-S (usft) | +E-W (usft) | Map Northing (usft) | Map Easting (usft) | Latitude        | Longitude         |
| 12,775.00             | 89.70           | 358.00      | 9,245.81              | 3,679.32    | -30.26      | 410,405.42          | 759,984.53         | 32° 7' 34.728 N | 103° 37' 37.312 W |
| 12,867.00             | 93.10           | 358.80      | 9,243.57              | 3,771.25    | -32.83      | 410,497.35          | 759,981.96         | 32° 7' 35.638 N | 103° 37' 37.334 W |
| 12,981.00             | 93.20           | 359.10      | 9,238.40              | 3,865.09    | -34.55      | 410,591.19          | 759,980.24         | 32° 7' 36.566 N | 103° 37' 37.347 W |
| 13,054.00             | 92.00           | 359.70      | 9,234.18              | 3,957.98    | -35.52      | 410,684.08          | 759,979.27         | 32° 7' 37.486 N | 103° 37' 37.351 W |
| 13,147.00             | 91.60           | 0.90        | 9,231.26              | 4,050.94    | -35.04      | 410,777.04          | 759,979.75         | 32° 7' 38.405 N | 103° 37' 37.339 W |
| 13,241.00             | 90.30           | 2.70        | 9,229.70              | 4,144.87    | -32.06      | 410,870.97          | 759,982.71         | 32° 7' 39.335 N | 103° 37' 37.297 W |
| 13,334.00             | 88.70           | 3.00        | 9,230.51              | 4,237.75    | -27.46      | 410,963.85          | 759,987.33         | 32° 7' 40.254 N | 103° 37' 37.236 W |
| 13,427.00             | 90.40           | 3.00        | 9,231.24              | 4,330.62    | -22.59      | 411,056.72          | 759,992.20         | 32° 7' 41.172 N | 103° 37' 37.173 W |
| 13,521.00             | 90.10           | 2.90        | 9,230.83              | 4,424.49    | -17.76      | 411,150.59          | 759,997.03         | 32° 7' 42.101 N | 103° 37' 37.109 W |
| 13,614.00             | 90.20           | 2.80        | 9,230.59              | 4,517.37    | -13.13      | 411,243.47          | 760,001.66         | 32° 7' 43.020 N | 103° 37' 37.048 W |
| 13,708.00             | 89.80           | 2.70        | 9,230.59              | 4,611.27    | -8.62       | 411,337.37          | 760,006.17         | 32° 7' 43.948 N | 103° 37' 36.989 W |
| 13,801.00             | 90.60           | 1.40        | 9,230.27              | 4,704.20    | -5.30       | 411,430.30          | 760,009.50         | 32° 7' 44.868 N | 103° 37' 36.943 W |
| 13,894.00             | 89.70           | 359.90      | 9,230.02              | 4,797.19    | -4.24       | 411,523.29          | 760,010.55         | 32° 7' 45.788 N | 103° 37' 36.924 W |
| 13,987.00             | 90.80           | 0.00        | 9,229.62              | 4,890.19    | -4.32       | 411,616.29          | 760,010.47         | 32° 7' 46.708 N | 103° 37' 36.918 W |
| 14,080.00             | 90.80           | 358.60      | 9,228.32              | 4,983.17    | -5.46       | 411,709.27          | 760,009.33         | 32° 7' 47.628 N | 103° 37' 36.924 W |
| 14,173.00             | 90.20           | 358.50      | 9,227.51              | 5,076.14    | -7.81       | 411,802.24          | 760,006.98         | 32° 7' 48.549 N | 103° 37' 36.944 W |
| 14,266.00             | 88.70           | 359.00      | 9,228.40              | 5,169.11    | -9.84       | 411,895.21          | 760,004.95         | 32° 7' 49.469 N | 103° 37' 36.960 W |
| 14,360.00             | 89.70           | 358.80      | 9,229.71              | 5,263.08    | -11.64      | 411,989.18          | 760,003.15         | 32° 7' 50.399 N | 103° 37' 36.974 W |
| 14,453.00             | 89.50           | 358.30      | 9,230.36              | 5,356.05    | -14.00      | 412,082.15          | 760,000.79         | 32° 7' 51.319 N | 103° 37' 36.995 W |
| 14,546.00             | 90.90           | 358.50      | 9,230.04              | 5,449.01    | -16.59      | 412,175.11          | 759,998.20         | 32° 7' 52.239 N | 103° 37' 37.018 W |
| 14,640.00             | 90.70           | 359.00      | 9,228.72              | 5,542.98    | -18.64      | 412,269.08          | 759,996.15         | 32° 7' 53.169 N | 103° 37' 37.034 W |
| 14,734.00             | 91.20           | 359.10      | 9,227.16              | 5,636.95    | -20.20      | 412,363.05          | 759,994.59         | 32° 7' 54.099 N | 103° 37' 37.045 W |
| 14,827.00             | 91.40           | 358.70      | 9,225.05              | 5,729.91    | -21.99      | 412,456.01          | 759,992.80         | 32° 7' 55.019 N | 103° 37' 37.059 W |
| 14,921.00             | 89.80           | 358.10      | 9,224.07              | 5,823.87    | -24.61      | 412,549.97          | 759,990.18         | 32° 7' 55.949 N | 103° 37' 37.082 W |
| 15,014.00             | 90.60           | 359.00      | 9,223.75              | 5,916.83    | -26.97      | 412,642.93          | 759,987.83         | 32° 7' 56.869 N | 103° 37' 37.103 W |
| 15,108.00             | 89.80           | 0.10        | 9,223.42              | 6,010.83    | -27.70      | 412,736.93          | 759,987.09         | 32° 7' 57.799 N | 103° 37' 37.104 W |
| 15,202.00             | 88.00           | 0.80        | 9,225.22              | 6,104.80    | -26.97      | 412,830.90          | 759,987.83         | 32° 7' 58.729 N | 103° 37' 37.088 W |
| 15,295.00             | 88.60           | 0.50        | 9,227.98              | 6,197.76    | -25.91      | 412,923.86          | 759,988.88         | 32° 7' 59.649 N | 103° 37' 37.069 W |
| 15,389.00             | 90.00           | 0.60        | 9,229.13              | 6,291.74    | -25.01      | 413,017.84          | 759,989.78         | 32° 8' 0.579 N  | 103° 37' 37.051 W |
| 15,485.00             | 89.60           | 0.80        | 9,229.46              | 6,387.73    | -23.84      | 413,113.83          | 759,990.95         | 32° 8' 1.528 N  | 103° 37' 37.030 W |
| 15,580.00             | 88.90           | 0.50        | 9,230.71              | 6,482.72    | -22.76      | 413,208.82          | 759,992.03         | 32° 8' 2.468 N  | 103° 37' 37.011 W |
| 15,675.00             | 90.00           | 0.30        | 9,231.62              | 6,577.71    | -22.10      | 413,303.81          | 759,992.70         | 32° 8' 3.408 N  | 103° 37' 36.996 W |
| 15,769.00             | 91.20           | 359.90      | 9,230.64              | 6,671.70    | -21.93      | 413,397.80          | 759,992.86         | 32° 8' 4.338 N  | 103° 37' 36.987 W |
| 15,865.00             | 90.50           | 359.30      | 9,229.21              | 6,767.69    | -22.80      | 413,493.79          | 759,992.19         | 32° 8' 5.288 N  | 103° 37' 36.987 W |
| 15,960.00             | 90.20           | 358.40      | 9,228.63              | 6,862.67    | -24.51      | 413,588.77          | 759,990.28         | 32° 8' 6.228 N  | 103° 37' 37.002 W |
| 16,055.00             | 92.20           | 358.60      | 9,226.64              | 6,957.61    | -26.99      | 413,683.71          | 759,987.80         | 32° 8' 7.168 N  | 103° 37' 37.024 W |
| 16,150.00             | 92.20           | 358.30      | 9,222.99              | 7,052.50    | -29.56      | 413,778.60          | 759,985.23         | 32° 8' 8.107 N  | 103° 37' 37.046 W |
| 16,244.00             | 92.30           | 359.10      | 9,219.30              | 7,146.41    | -31.69      | 413,872.51          | 759,983.10         | 32° 8' 9.036 N  | 103° 37' 37.064 W |
| 16,339.00             | 91.50           | 359.70      | 9,216.15              | 7,241.35    | -32.69      | 413,967.45          | 759,982.10         | 32° 8' 9.976 N  | 103° 37' 37.068 W |
| 16,485.00             | 91.40           | 0.00        | 9,212.97              | 7,367.31    | -33.02      | 414,063.41          | 759,981.77         | 32° 8' 11.222 N | 103° 37' 37.062 W |
| Final MWD Survey      |                 |             |                       |             |             |                     |                    |                 |                   |
| 16,639.00             | 91.40           | 0.00        | 9,208.72              | 7,541.26    | -33.02      | 414,267.36          | 759,981.77         | 32° 8' 12.944 N | 103° 37' 37.049 W |
| Projection to BHTD    |                 |             |                       |             |             |                     |                    |                 |                   |



TDS  
Survey Report - Geographic



|           |                              |                              |                                   |
|-----------|------------------------------|------------------------------|-----------------------------------|
| Company:  | Yates Petroleum Corp.        | Local Co-ordinate Reference: | Well Resolute BTO Federal Com #2H |
| Project:  | Lea County, NM (NAD-83 2015) | TVD Reference:               | KB @ 3479.50usft (Nomac 22)       |
| Site:     | Resolute BTO Federal Com #2H | MD Reference:                | KB @ 3479.50usft (Nomac 22)       |
| Well:     | Resolute BTO Federal Com #2H | North Reference:             | Grid                              |
| Wellbore: | Lateral #1                   | Survey Calculation Method:   | Minimum Curvature                 |
| Design:   | Lateral #1                   | Database:                    | EDM 5000.1 Single User Db         |

Design Annotations

| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |                 | Comment                           |
|-----------------------------|-----------------------------|-------------------|-----------------|-----------------------------------|
|                             |                             | +N/-S<br>(usft)   | +E/-W<br>(usft) |                                   |
| 1,000.00                    | 999.96                      | -7.99             | -3.03           | Tie-In to MS Gyro                 |
| 8,767.00                    | 8,766.73                    | -10.11            | -10.94          | As-Drilled KOP                    |
| 9,370.50                    | 9,249.39                    | 277.46            | -12.51          | As-Drilled Crosses 330' Hard Line |
| 9,526.94                    | 9,264.53                    | 432.72            | -16.00          | As-Drilled EOC                    |
| 16,465.00                   | 9,212.97                    | 7,367.31          | -33.02          | Final MWD Survey                  |
| 16,639.00                   | 9,208.72                    | 7,541.26          | -33.02          | Projection to BI/VD               |

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

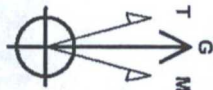


ATES  
Petroleum Services  
Project: Lea County, NM (NAD-83 2015)  
Site: Resolute BTO Federal Com #2H  
Well: Resolute BTO Federal Com #2H  
Wellbore: Lateral #1  
Plan: Design #1

| Section Details |          |       |         |         |         |        |       |        |                    |
|-----------------|----------|-------|---------|---------|---------|--------|-------|--------|--------------------|
| Sec             | MD       | Inc   | Azi     | TVD     | +N/-S   | +E/-W  | Dleg  | TFace  | Vsect Target       |
| 1               | 0.00     | 0.00  | 0.00    | 0.00    | 0.00    | 0.00   | 0.00  | 0.00   | 0.00               |
| 2               | 8782.54  | 0.00  | 8782.54 | 0.00    | 0.00    | 0.00   | 0.00  | 0.00   | 0.00               |
| 3               | 9535.24  | 90.32 | 359.66  | 9260.00 | 480.16  | -2.82  | 12.00 | 359.66 | 480.17             |
| 4               | 16598.17 | 90.32 | 359.66  | 9220.00 | 7542.85 | -44.23 | 0.00  | 0.00   | 7542.98            |
|                 |          |       |         |         |         |        |       |        | PSHL (RBFC #2H/L1) |

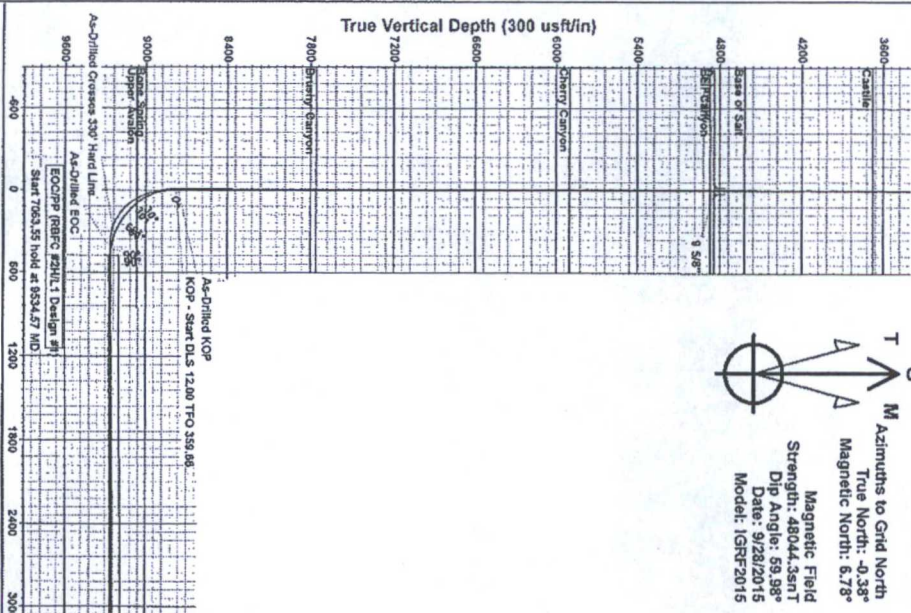
WELL DETAILS: Resolute BTO Federal Com #2H  
Ground Elevation: 3458.00  
RKB Elevation: KB @ 3479.50usft (Norma 22)  
Rig Name: Norma 22

Northing 406726.10 Easting 760014.79 Latitude 32° 6' 58.317 N Longitude 103° 37' 37.240 W

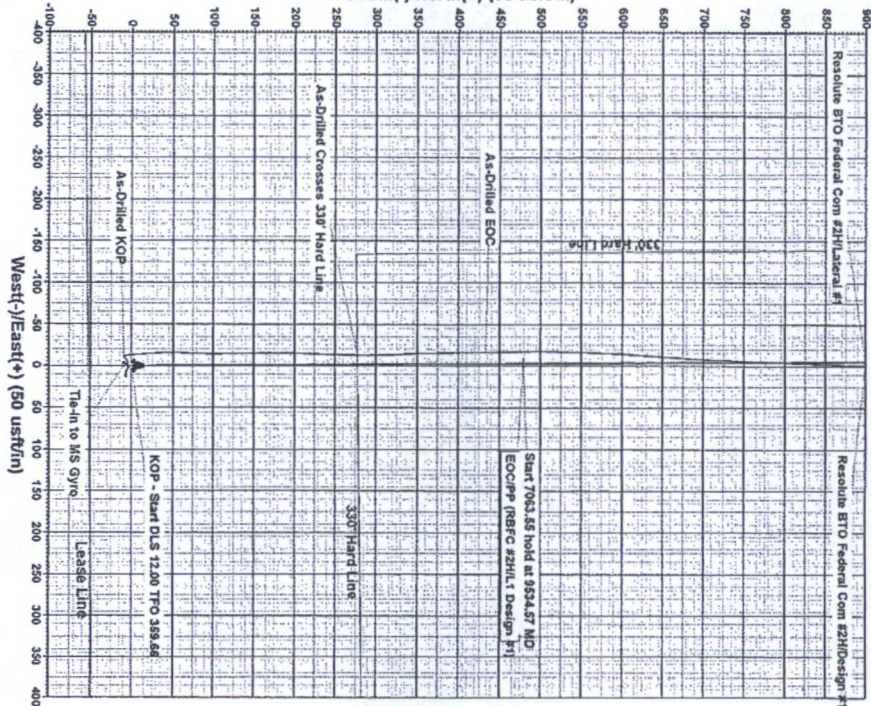


Magnetic Field  
Strength: 480.45mT  
Dip Angle: 65.98°  
Date: 9/28/2015  
Model: IGRF-2015

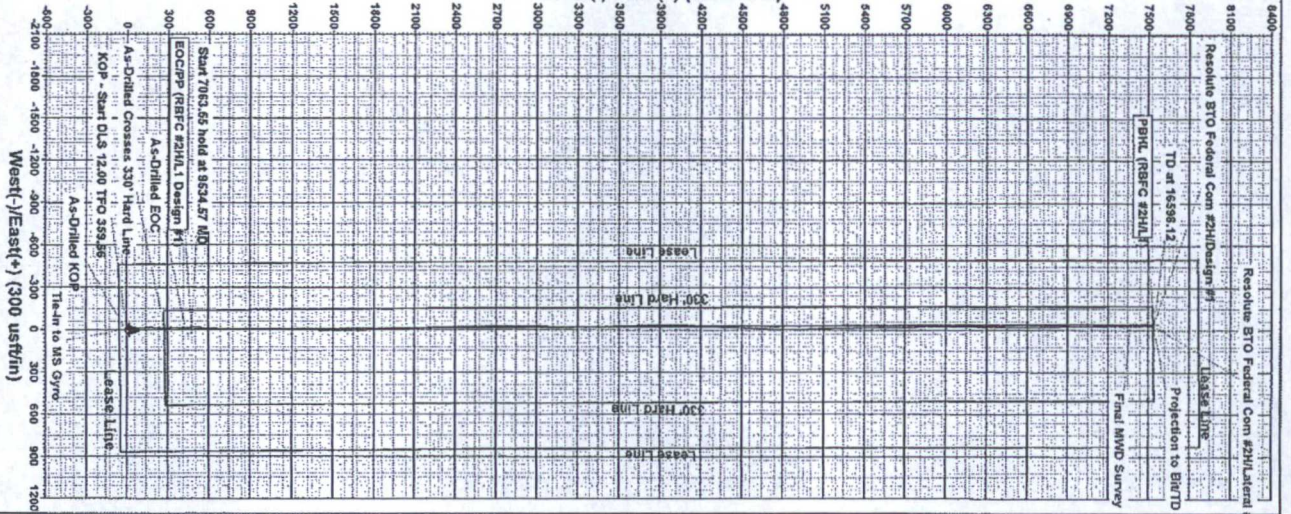
True Vertical Depth (300 usft/in)



South(-)/North(+) (50 usft/in)



South(-)/North(+) (300 usft/in)



Terra Directional Services LLC  
3705 S CR 1210, Midland, TX 79706  
Phone: (432) 618-1210

Vertical Section at 359.66° (300 usft/in)

PROJECT DETAILS: Lea County, NM (NAD-83 2015)

Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: New Mexico Eastern Zone  
System Datum: Mean Sea Level  
Local North:



Job Number: SVMO-150822  
 Company: Yates Petroleum Corporation  
 Lease/Well: Resolute BTO Federal Com 2H  
 Location: Lea County, NM  
 Rig Name: Nomac #22  
 RKB: 21.5'  
 G.L. or M.S.L.: GL

State/Country: New Mexico/USA  
 Declination: 6.78°  
 Grid: East To Grid North  
 File name: W:\WINSER-12015SU-1\YATESP-1\MO\RESOLU-22H.SVY  
 Date/Time: 02-Nov-15 / 14:49  
 Curve Name: Surface - 1000' M.D. (Rate Gyro)

### MS Survey

### WINSERVE SURVEY CALCULATIONS

Minimum Curvature Method  
 Vertical Section Plane .00  
 Vertical Section Referenced to Wellhead  
 Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from  
 Surface MD to 1000' MD is, to the best of  
 our knowledge a true and accurate account of  
 the well bore.  
 JmmsBenson 11/21/15  
 M/S Energy Services Date

| 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 |
|-----------------------------------|----------------------|---------------------------|---------------------------|-----------|-----------|---------------------------|---------------------------|------------------|-------------------------------|
| .00                               | .00                  | .00                       | .00                       | .00       | .00       | .00                       | .00                       | .00              | .00                           |
| 100.00                            | .52                  | 171.38                    | 100.00                    | -.45      | .07       | -.45                      | .45                       | 171.38           | .52                           |
| 200.00                            | .48                  | 181.56                    | 199.99                    | -1.32     | .12       | -1.32                     | 1.32                      | 174.59           | .10                           |
| 300.00                            | .47                  | 178.14                    | 299.99                    | -2.14     | .13       | -2.14                     | 2.15                      | 176.62           | .03                           |
| 400.00                            | .47                  | 189.27                    | 399.99                    | -2.96     | .07       | -2.96                     | 2.96                      | 178.57           | .09                           |
| 500.00                            | .49                  | 196.73                    | 499.98                    | -3.77     | -.12      | -3.77                     | 3.78                      | 181.75           | .07                           |
| 600.00                            | .63                  | 209.20                    | 599.98                    | -4.66     | -.51      | -4.66                     | 4.69                      | 186.20           | .18                           |
| 700.00                            | .66                  | 211.07                    | 699.97                    | -5.64     | -1.07     | -5.64                     | 5.74                      | 190.77           | .04                           |
| 800.00                            | .57                  | 227.88                    | 799.97                    | -6.46     | -1.74     | -6.46                     | 6.69                      | 195.05           | .20                           |
| 900.00                            | .64                  | 220.43                    | 899.96                    | -7.22     | -2.47     | -7.22                     | 7.63                      | 198.88           | .11                           |
| <b>Last Survey Depth Recorded</b> |                      |                           |                           |           |           |                           |                           |                  |                               |
| 1000.00                           | .45                  | 209.86                    | 999.96                    | -7.99     | -3.03     | -7.99                     | 8.54                      | 200.76           | .21                           |