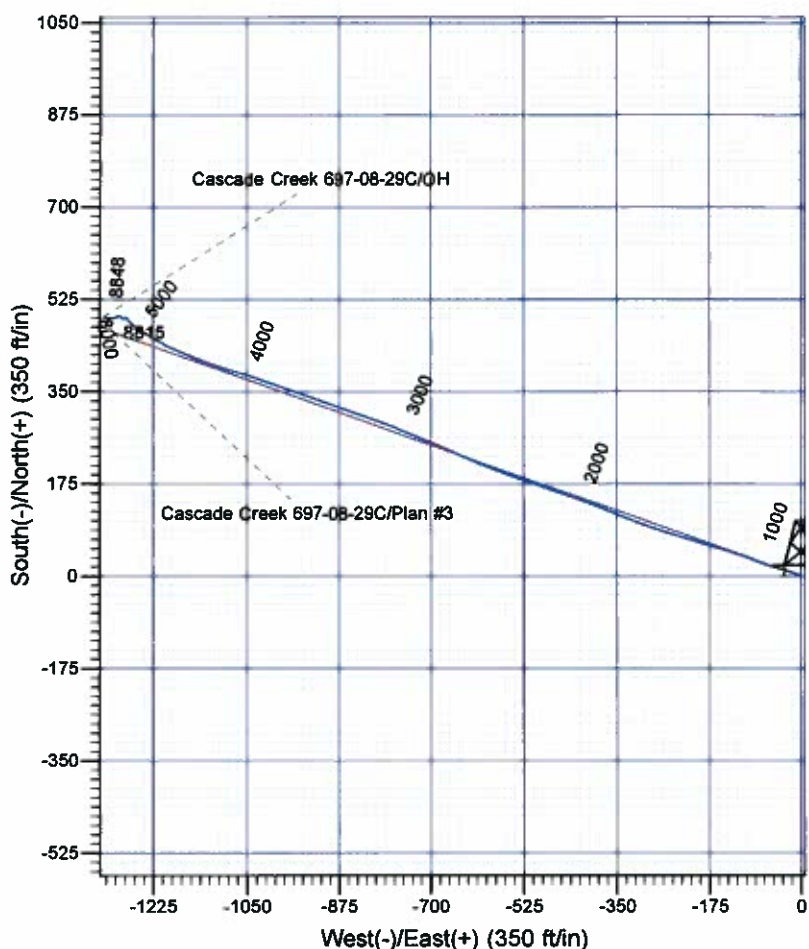
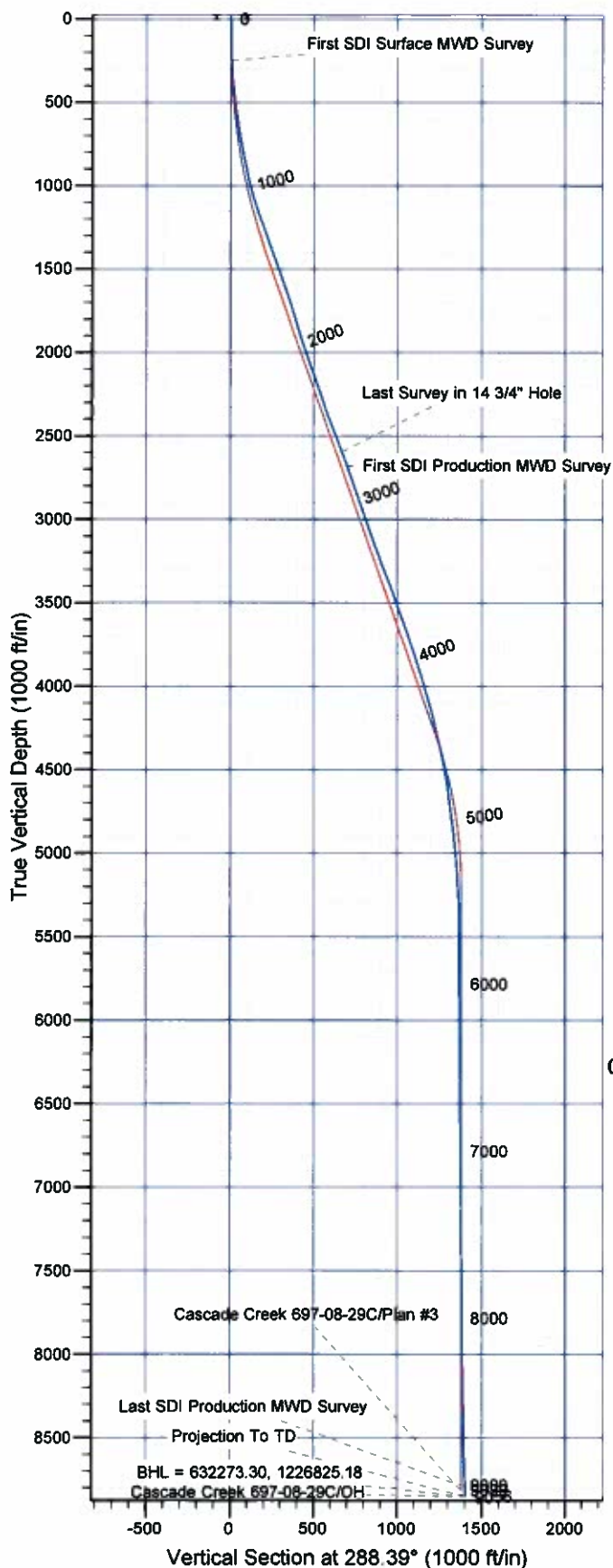




# Scientific Drilling

Rocky Mountain Operations

Company: OXY USA R/MAT  
Project: Garfield County, CO NAD27  
Site: Cascade Creek 608-43-31 Pad  
Well: Cascade Creek 697-08-29C  
Wellbore: OH  
Design: OH



## Well Details: Cascade Creek 697-08-29C

| +N/-S | +E/-W | North     | East       | Latitude        | Longitude         | Slot |
|-------|-------|-----------|------------|-----------------|-------------------|------|
| 0.00  | 0.00  | 631742.46 | 1228127.25 | 39° 32' 9.697 N | 108° 14' 13.533 W | F    |

## REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Cascade Creek 697-08-29C - Slot F, True North  
Vertical (TVD) Reference: GL 8479' & RKB 30' @ 8509.00ft (H&P)  
Section (VS) Reference: Slot - F(0.00N, 0.00E)  
Measured Depth Reference: GL 8479' & RKB 30' @ 8509.00ft (H&P)  
Calculation Method: Minimum Curvature

## PROJECT DETAILS: Garfield County, CO NAD27

Geodetic System: US State Plane 1927 (Exact solution)  
Datum: NAD 1927 (NADCON CONUS)  
Ellipsoid: Clarke 1866  
Zone: Colorado Central 502

System Datum: Mean Sea Level

Plan: OH

7:14, December 09 2010  
Created By: Rex Hall

# **OXY USA RMAT**

**Garfield County, CO NAD27**

**Cascade Creek 608-43-31 Pad**

**Cascade Creek 697-08-29C - Slot F**

**OH**

**Design: OH**

## **Standard Survey Report**

**09 December, 2010**

# Scientific Drilling International

## Survey Report

|                  |                             |                                     |                                        |
|------------------|-----------------------------|-------------------------------------|----------------------------------------|
| <b>Company:</b>  | OXY USA RMAT                | <b>Local Co-ordinate Reference:</b> | Well Cascade Creek 697-08-29C - Slot F |
| <b>Project:</b>  | Garfield County, CO NAD27   | <b>TVD Reference:</b>               | GL 8479' & RKB 30' @ 8509.00ft (H&P)   |
| <b>Site:</b>     | Cascade Creek 608-43-31 Pad | <b>MD Reference:</b>                | GL 8479' & RKB 30' @ 8509.00ft (H&P)   |
| <b>Well:</b>     | Cascade Creek 697-08-29C    | <b>North Reference:</b>             | True                                   |
| <b>Wellbore:</b> | OH                          | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Design:</b>   | OH                          | <b>Database:</b>                    | Rockies-R5000.1                        |

|                    |                                      |                      |                |
|--------------------|--------------------------------------|----------------------|----------------|
| <b>Project</b>     | Garfield County, CO NAD27            |                      |                |
| <b>Map System:</b> | US State Plane 1927 (Exact solution) | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | NAD 1927 (NADCON CONUS)              |                      |                |
| <b>Map Zone:</b>   | Colorado Central 502                 |                      |                |

|                       |                                             |              |              |                   |                   |
|-----------------------|---------------------------------------------|--------------|--------------|-------------------|-------------------|
| Site                  | Cascade Creek 608-43-31 Pad, Sec 8 T6S R97W |              |              |                   |                   |
| Site Position:        |                                             | Northing:    | 39.54 usft   | Latitude:         | 37° 37' 28.115 N  |
| From:                 | Map                                         | Easting:     | -108.24 usft | Longitude:        | 112° 24' 37.715 W |
| Position Uncertainty: | 0.00 ft                                     | Slot Radius: | 13.200 in    | Grid Convergence: | -4.36 °           |

|                      |                                   |         |                     |                   |               |                   |
|----------------------|-----------------------------------|---------|---------------------|-------------------|---------------|-------------------|
| Well                 | Cascade Creek 697-08-29C - Slot F |         |                     |                   |               |                   |
| Well Position        | +N/-S                             | 0.00 ft | Northing:           | 631,742.46 usft   | Latitude:     | 39° 32' 9.697 N   |
|                      | +E/-W                             | 0.00 ft | Easting:            | 1,228,127.24 usft | Longitude:    | 108° 14' 13.533 W |
| Position Uncertainty |                                   | 0.00 ft | Wellhead Elevation: | ft                | Ground Level: | 8,479.00 ft       |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | OH                |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF2005-10       | 11/10/2010         | 10.52                  | 65.75                | 52,311                     |

|                          |                              |                   |                   |                      |      |
|--------------------------|------------------------------|-------------------|-------------------|----------------------|------|
| <b>Design</b>            | OH                           |                   |                   |                      |      |
| <b>Audit Notes:</b>      |                              |                   |                   |                      |      |
| <b>Version:</b>          | 1.0                          | <b>Phase:</b>     | ACTUAL            | <b>Tie On Depth:</b> | 0.00 |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (ft)</b> | <b>+N/-S (ft)</b> | <b>+E/-W (ft)</b> | <b>Direction (°)</b> |      |
|                          | 0.00                         | 0.00              | 0.00              | 288.39               |      |

|                       |                |                                 |                  |                       |  |
|-----------------------|----------------|---------------------------------|------------------|-----------------------|--|
| <b>Survey Program</b> | <b>Date</b>    | 12/9/2010                       |                  |                       |  |
| <b>From (ft)</b>      | <b>To (ft)</b> | <b>Survey (Wellbore)</b>        | <b>Tool Name</b> | <b>Description</b>    |  |
| 250.00                | 2,700.00       | Survey #1 - Surface MWD (OH)    | MWD-SDI          | MWD - Standard ISCWSA |  |
| 2,788.00              | 9,056.00       | Survey #2 - Production MWD (OH) | MWD-SDI          | MWD - Standard ISCWSA |  |

|                                     |                        |                    |                            |                   |                   |                              |                              |                             |                            |  |
|-------------------------------------|------------------------|--------------------|----------------------------|-------------------|-------------------|------------------------------|------------------------------|-----------------------------|----------------------------|--|
| <b>Survey</b>                       |                        |                    |                            |                   |                   |                              |                              |                             |                            |  |
| <b>Measured Depth (ft)</b>          | <b>Inclination (°)</b> | <b>Azimuth (°)</b> | <b>Vertical Depth (ft)</b> | <b>+N/-S (ft)</b> | <b>+E/-W (ft)</b> | <b>Vertical Section (ft)</b> | <b>Dogleg Rate (°/100ft)</b> | <b>Build Rate (°/100ft)</b> | <b>Turn Rate (°/100ft)</b> |  |
| 0.00                                | 0.00                   | 0.00               | 0.00                       | 0.00              | 0.00              | 0.00                         | 0.00                         | 0.00                        | 0.00                       |  |
| 250.00                              | 2.00                   | 294.66             | 249.95                     | 1.82              | -3.96             | 4.34                         | 0.80                         | 0.80                        | 0.00                       |  |
| <b>First SDI Surface MWD Survey</b> |                        |                    |                            |                   |                   |                              |                              |                             |                            |  |
| 343.00                              | 3.62                   | 294.10             | 342.83                     | 3.70              | -8.12             | 8.87                         | 1.74                         | 1.74                        | -0.60                      |  |
| 435.00                              | 6.80                   | 290.98             | 434.46                     | 6.78              | -15.71            | 17.05                        | 3.25                         | 3.24                        | -3.39                      |  |
| 527.00                              | 8.97                   | 286.94             | 525.60                     | 10.76             | -27.51            | 29.50                        | 2.64                         | 2.58                        | -4.39                      |  |
| 619.00                              | 8.82                   | 283.88             | 616.52                     | 14.48             | -41.07            | 43.54                        | 0.66                         | -0.38                       | -3.54                      |  |
| 712.00                              | 9.50                   | 285.18             | 708.36                     | 18.14             | -55.25            | 58.15                        | 0.98                         | 0.95                        | 1.61                       |  |
| 804.00                              | 10.11                  | 289.05             | 799.02                     | 22.76             | -70.21            | 73.80                        | 0.98                         | 0.66                        | 4.21                       |  |
| 897.00                              | 11.96                  | 291.15             | 890.30                     | 28.90             | -86.91            | 91.59                        | 2.04                         | 1.99                        | 2.26                       |  |

# Scientific Drilling International

## Survey Report

|                  |                             |                                     |                                        |
|------------------|-----------------------------|-------------------------------------|----------------------------------------|
| <b>Company:</b>  | OXY USA RMAT                | <b>Local Co-ordinate Reference:</b> | Well Cascade Creek 697-08-29C - Slot F |
| <b>Project:</b>  | Garfield County, CO NAD27   | <b>TVD Reference:</b>               | GL 8479' & RKB 30' @ 8509.00ft (H&P)   |
| <b>Site:</b>     | Cascade Creek 608-43-31 Pad | <b>MD Reference:</b>                | GL 8479' & RKB 30' @ 8509.00ft (H&P)   |
| <b>Well:</b>     | Cascade Creek 697-08-29C    | <b>North Reference:</b>             | True                                   |
| <b>Wellbore:</b> | OH                          | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Design:</b>   | OH                          | <b>Database:</b>                    | Rockies-R5000.1                        |

### Survey

| Measured Depth (ft)                    | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|----------------------------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 989.00                                 | 14.42           | 291.07      | 979.86              | 36.46      | -106.50    | 112.56                | 2.67                  | 2.67                 | -0.09               |
| 1,084.00                               | 16.53           | 287.29      | 1,071.42            | 44.73      | -130.44    | 137.89                | 2.46                  | 2.22                 | -3.98               |
| 1,178.00                               | 19.52           | 285.97      | 1,160.79            | 53.03      | -158.31    | 166.96                | 3.21                  | 3.18                 | -1.40               |
| 1,273.00                               | 20.49           | 287.55      | 1,250.06            | 62.41      | -189.43    | 199.44                | 1.17                  | 1.02                 | 1.66                |
| 1,368.00                               | 18.82           | 287.29      | 1,339.52            | 71.98      | -219.91    | 231.39                | 1.76                  | -1.76                | -0.27               |
| 1,463.00                               | 20.49           | 286.41      | 1,428.98            | 81.23      | -250.50    | 263.33                | 1.79                  | 1.76                 | -0.93               |
| 1,558.00                               | 19.52           | 289.13      | 1,518.25            | 91.13      | -281.44    | 295.82                | 1.41                  | -1.02                | 2.86                |
| 1,652.00                               | 19.08           | 290.63      | 1,606.97            | 101.69     | -310.66    | 326.87                | 0.71                  | -0.47                | 1.60                |
| 1,747.00                               | 18.20           | 292.21      | 1,696.99            | 112.77     | -338.92    | 357.19                | 1.07                  | -0.93                | 1.66                |
| 1,842.00                               | 16.09           | 292.03      | 1,787.76            | 123.32     | -364.87    | 385.14                | 2.22                  | -2.22                | -0.19               |
| 1,936.00                               | 17.23           | 291.77      | 1,877.81            | 133.37     | -389.87    | 412.04                | 1.22                  | 1.21                 | -0.28               |
| 2,031.00                               | 18.55           | 290.28      | 1,968.22            | 143.82     | -417.11    | 441.19                | 1.47                  | 1.39                 | -1.57               |
| 2,126.00                               | 19.26           | 289.22      | 2,058.09            | 154.22     | -446.08    | 471.96                | 0.83                  | 0.75                 | -1.12               |
| 2,221.00                               | 20.84           | 289.84      | 2,147.33            | 165.11     | -476.78    | 504.52                | 1.68                  | 1.66                 | 0.65                |
| 2,315.00                               | 17.59           | 288.96      | 2,236.08            | 175.40     | -505.94    | 535.44                | 3.47                  | -3.46                | -0.94               |
| 2,410.00                               | 18.99           | 289.22      | 2,326.28            | 185.16     | -534.12    | 565.25                | 1.48                  | 1.47                 | 0.27                |
| 2,505.00                               | 21.19           | 290.80      | 2,415.50            | 196.34     | -564.77    | 597.87                | 2.39                  | 2.32                 | 1.66                |
| 2,600.00                               | 21.63           | 292.12      | 2,503.94            | 209.03     | -597.04    | 632.49                | 0.69                  | 0.46                 | 1.39                |
| 2,700.00                               | 20.66           | 293.53      | 2,597.21            | 223.02     | -630.29    | 668.46                | 1.10                  | -0.97                | 1.41                |
| <b>Last Survey in 14 3/4" Hole</b>     |                 |             |                     |            |            |                       |                       |                      |                     |
| 2,788.00                               | 19.96           | 294.93      | 2,679.74            | 235.55     | -658.14    | 698.84                | 0.97                  | -0.80                | 1.59                |
| <b>First SDI Production MWD Survey</b> |                 |             |                     |            |            |                       |                       |                      |                     |
| 2,883.00                               | 19.96           | 293.18      | 2,769.03            | 248.76     | -687.75    | 731.11                | 0.63                  | 0.00                 | -1.84               |
| 2,978.00                               | 19.08           | 291.86      | 2,858.57            | 260.93     | -717.07    | 762.77                | 1.04                  | -0.93                | -1.39               |
| 3,072.00                               | 18.38           | 292.74      | 2,947.59            | 272.38     | -745.00    | 792.88                | 0.80                  | -0.74                | 0.94                |
| 3,167.00                               | 18.73           | 292.03      | 3,037.65            | 283.89     | -772.95    | 823.04                | 0.44                  | 0.37                 | -0.75               |
| 3,262.00                               | 20.05           | 289.13      | 3,127.27            | 294.95     | -802.47    | 854.55                | 1.72                  | 1.39                 | -3.05               |
| 3,357.00                               | 21.19           | 289.48      | 3,216.18            | 306.01     | -834.05    | 888.00                | 1.21                  | 1.20                 | 0.37                |
| 3,451.00                               | 20.58           | 288.87      | 3,304.00            | 317.02     | -865.70    | 921.50                | 0.69                  | -0.65                | -0.65               |
| 3,546.00                               | 20.22           | 289.13      | 3,393.04            | 327.80     | -897.01    | 954.62                | 0.39                  | -0.38                | 0.27                |
| 3,641.00                               | 19.87           | 289.66      | 3,482.29            | 338.61     | -927.72    | 987.17                | 0.42                  | -0.37                | 0.56                |
| 3,735.00                               | 18.82           | 289.84      | 3,570.98            | 349.13     | -957.03    | 1,018.30              | 1.12                  | -1.12                | 0.19                |
| 3,830.00                               | 19.26           | 289.31      | 3,660.78            | 359.51     | -986.23    | 1,049.29              | 0.50                  | 0.46                 | -0.56               |
| 3,925.00                               | 19.35           | 288.52      | 3,750.44            | 369.69     | -1,015.94  | 1,080.89              | 0.29                  | 0.09                 | -0.83               |
| 4,020.00                               | 18.03           | 288.34      | 3,840.43            | 379.32     | -1,044.82  | 1,111.13              | 1.39                  | -1.39                | -0.19               |
| 4,114.00                               | 17.23           | 286.50      | 3,930.01            | 387.85     | -1,071.98  | 1,139.59              | 1.04                  | -0.85                | -1.96               |
| 4,209.00                               | 16.27           | 287.99      | 4,020.98            | 395.96     | -1,098.13  | 1,166.96              | 1.11                  | -1.01                | 1.57                |
| 4,304.00                               | 14.86           | 291.24      | 4,112.50            | 404.48     | -1,122.14  | 1,192.44              | 1.74                  | -1.48                | 3.42                |
| 4,398.00                               | 14.51           | 290.72      | 4,203.43            | 413.01     | -1,144.39  | 1,216.25              | 0.40                  | -0.37                | -0.55               |
| 4,493.00                               | 13.37           | 292.56      | 4,295.63            | 421.44     | -1,165.66  | 1,239.09              | 1.29                  | -1.20                | 1.94                |
| 4,588.00                               | 11.87           | 295.02      | 4,388.33            | 429.78     | -1,184.66  | 1,259.75              | 1.68                  | -1.58                | 2.59                |
| 4,683.00                               | 10.02           | 297.04      | 4,481.60            | 437.67     | -1,200.88  | 1,277.83              | 1.99                  | -1.95                | 2.13                |
| 4,778.00                               | 9.32            | 302.14      | 4,575.25            | 445.52     | -1,214.75  | 1,293.27              | 1.16                  | -0.74                | 5.37                |



# Scientific Drilling International

## Survey Report

|                  |                             |                                     |                                        |
|------------------|-----------------------------|-------------------------------------|----------------------------------------|
| <b>Company:</b>  | OXY USA RMAT                | <b>Local Co-ordinate Reference:</b> | Well Cascade Creek 697-08-29C - Slot F |
| <b>Project:</b>  | Garfield County, CO NAD27   | <b>TVD Reference:</b>               | GL 8479' & RKB 30' @ 8509.00ft (H&P)   |
| <b>Site:</b>     | Cascade Creek 608-43-31 Pad | <b>MD Reference:</b>                | GL 8479' & RKB 30' @ 8509.00ft (H&P)   |
| <b>Well:</b>     | Cascade Creek 697-08-29C    | <b>North Reference:</b>             | True                                   |
| <b>Wellbore:</b> | OH                          | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Design:</b>   | OH                          | <b>Database:</b>                    | Rockies-R5000.1                        |

| Survey              |                 |             |                     |            |            |                       |                       |                      |                     |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 4,872.00            | 8.00            | 300.56      | 4,668.18            | 452.90     | -1,226.83  | 1,307.06              | 1.43                  | -1.40                | -1.68               |
| 4,967.00            | 7.56            | 302.05      | 4,762.30            | 459.58     | -1,237.82  | 1,319.80              | 0.51                  | -0.46                | 1.57                |
| 5,061.00            | 6.42            | 302.05      | 4,855.60            | 465.65     | -1,247.52  | 1,330.71              | 1.21                  | -1.21                | 0.00                |
| 5,156.00            | 5.38            | 300.56      | 4,950.10            | 470.72     | -1,255.84  | 1,340.21              | 1.13                  | -1.12                | -1.57               |
| 5,250.00            | 5.72            | 311.28      | 5,043.66            | 476.05     | -1,263.14  | 1,348.82              | 1.16                  | 0.38                 | 11.40               |
| 5,345.00            | 4.92            | 324.20      | 5,138.26            | 482.47     | -1,269.08  | 1,356.49              | 1.51                  | -0.84                | 13.60               |
| 5,440.00            | 3.17            | 319.98      | 5,233.02            | 487.79     | -1,273.15  | 1,362.03              | 1.87                  | -1.84                | -4.44               |
| 5,534.00            | 1.41            | 308.73      | 5,328.94            | 490.50     | -1,275.73  | 1,365.33              | 1.92                  | -1.87                | -11.97              |
| 5,629.00            | 0.18            | 273.58      | 5,421.93            | 491.24     | -1,276.79  | 1,366.57              | 1.33                  | -1.29                | -37.00              |
| 5,724.00            | 0.44            | 215.39      | 5,516.93            | 490.96     | -1,277.15  | 1,366.82              | 0.40                  | 0.27                 | -61.25              |
| 5,818.00            | 0.53            | 234.11      | 5,610.92            | 490.41     | -1,277.71  | 1,367.18              | 0.19                  | 0.10                 | 19.91               |
| 5,913.00            | 0.70            | 240.53      | 5,705.92            | 489.86     | -1,278.57  | 1,367.82              | 0.19                  | 0.18                 | 6.76                |
| 6,008.00            | 0.88            | 245.10      | 5,800.91            | 489.27     | -1,279.74  | 1,368.74              | 0.20                  | 0.19                 | 4.81                |
| 6,103.00            | 0.35            | 231.65      | 5,895.90            | 488.78     | -1,280.63  | 1,369.43              | 0.57                  | -0.56                | -14.16              |
| 6,198.00            | 0.53            | 293.53      | 5,990.90            | 488.78     | -1,281.26  | 1,370.03              | 0.50                  | 0.19                 | 65.14               |
| 6,292.00            | 1.32            | 285.71      | 6,084.89            | 489.25     | -1,282.70  | 1,371.54              | 0.85                  | 0.84                 | -8.32               |
| 6,387.00            | 0.88            | 295.11      | 6,179.87            | 489.85     | -1,284.41  | 1,373.36              | 0.50                  | -0.46                | 9.89                |
| 6,482.00            | 0.97            | 65.80       | 6,274.86            | 490.49     | -1,284.34  | 1,373.49              | 1.77                  | 0.09                 | 137.57              |
| 6,576.00            | 0.35            | 89.58       | 6,368.86            | 490.92     | -1,283.34  | 1,372.88              | 0.66                  | -0.66                | 4.02                |
| 6,671.00            | 0.28            | 285.27      | 6,463.86            | 491.08     | -1,283.28  | 1,372.87              | 0.61                  | -0.09                | -151.91             |
| 6,765.00            | 0.62            | 314.01      | 6,557.85            | 491.49     | -1,283.85  | 1,373.35              | 0.44                  | 0.38                 | 30.57               |
| 6,860.00            | 0.88            | 309.61      | 6,652.85            | 492.31     | -1,284.78  | 1,374.49              | 0.28                  | 0.27                 | -4.63               |
| 6,955.00            | 0.53            | 286.14      | 6,747.84            | 492.89     | -1,285.77  | 1,375.61              | 0.47                  | -0.37                | -24.71              |
| 7,050.00            | 0.62            | 284.83      | 6,842.83            | 493.15     | -1,286.69  | 1,376.56              | 0.10                  | 0.09                 | -1.38               |
| 7,144.00            | 1.32            | 268.92      | 6,936.82            | 493.26     | -1,288.26  | 1,378.09              | 0.79                  | 0.74                 | -16.93              |
| 7,239.00            | 0.70            | 294.41      | 7,031.81            | 493.48     | -1,289.88  | 1,379.70              | 0.79                  | -0.65                | 26.83               |
| 7,333.00            | 0.88            | 93.23       | 7,125.80            | 493.67     | -1,289.69  | 1,379.57              | 1.65                  | 0.19                 | 168.96              |
| 7,428.00            | 0.35            | 145.08      | 7,220.80            | 493.39     | -1,288.79  | 1,378.64              | 0.76                  | -0.56                | 54.58               |
| 7,523.00            | 0.44            | 250.20      | 7,315.80            | 493.03     | -1,288.97  | 1,378.69              | 0.66                  | 0.09                 | 110.65              |
| 7,618.00            | 0.97            | 257.32      | 7,410.79            | 492.73     | -1,290.10  | 1,379.66              | 0.56                  | 0.56                 | 7.49                |
| 7,712.00            | 1.67            | 256.26      | 7,504.76            | 492.23     | -1,292.20  | 1,381.51              | 0.75                  | 0.74                 | -1.13               |
| 7,807.00            | 0.62            | 253.89      | 7,599.74            | 491.76     | -1,294.04  | 1,383.10              | 1.11                  | -1.11                | -2.49               |
| 7,901.00            | 0.26            | 110.01      | 7,693.74            | 491.55     | -1,294.33  | 1,383.31              | 0.90                  | -0.38                | -153.06             |
| 7,996.00            | 0.35            | 172.24      | 7,788.74            | 491.19     | -1,294.09  | 1,382.96              | 0.34                  | 0.09                 | 65.51               |
| 8,091.00            | 0.44            | 235.70      | 7,883.74            | 490.89     | -1,294.35  | 1,383.06              | 0.44                  | 0.09                 | 66.80               |
| 8,186.00            | 0.70            | 261.71      | 7,978.73            | 490.40     | -1,295.23  | 1,383.80              | 0.38                  | 0.27                 | 27.38               |
| 8,280.00            | 1.23            | 258.02      | 8,072.72            | 490.11     | -1,296.78  | 1,385.18              | 0.57                  | 0.56                 | -3.93               |
| 8,375.00            | 1.41            | 263.56      | 8,167.69            | 489.77     | -1,298.94  | 1,387.12              | 0.23                  | 0.19                 | 5.83                |
| 8,470.00            | 1.49            | 268.65      | 8,262.66            | 489.61     | -1,301.34  | 1,389.34              | 0.16                  | 0.08                 | 5.36                |
| 8,565.00            | 0.88            | 276.56      | 8,357.64            | 489.66     | -1,303.29  | 1,391.22              | 0.66                  | -0.64                | 8.33                |
| 8,659.00            | 0.79            | 291.07      | 8,451.63            | 489.98     | -1,304.62  | 1,392.57              | 0.24                  | -0.10                | 15.44               |
| 8,754.00            | 0.97            | 282.10      | 8,546.62            | 490.38     | -1,306.01  | 1,394.03              | 0.24                  | 0.19                 | -9.44               |
| 8,849.00            | 1.93            | 275.95      | 8,641.59            | 490.72     | -1,308.39  | 1,396.39              | 1.02                  | 1.01                 | -6.47               |
| 8,943.00            | 2.46            | 274.98      | 8,735.52            | 491.06     | -1,311.98  | 1,399.90              | 0.57                  | 0.56                 | -1.03               |

# Scientific Drilling International

## Survey Report

|                  |                             |                                     |                                        |
|------------------|-----------------------------|-------------------------------------|----------------------------------------|
| <b>Company:</b>  | OXY USA RMAI                | <b>Local Co-ordinate Reference:</b> | Well Cascade Creek 697-08-29C - Slot F |
| <b>Project:</b>  | Garfield County, CO NAD27   | <b>TVD Reference:</b>               | GL 8479' & RKB 30' @ 8509.00ft (H&P)   |
| <b>Site:</b>     | Cascade Creek 608-43-31 Pad | <b>MD Reference:</b>                | GL 8479' & RKB 30' @ 8509.00ft (H&P)   |
| <b>Well:</b>     | Cascade Creek 697-08-29C    | <b>North Reference:</b>             | True                                   |
| <b>Wellbore:</b> | OH                          | <b>Survey Calculation Method:</b>   | Minimum Curvature                      |
| <b>Design:</b>   | OH                          | <b>Database:</b>                    | Rockies-R5000.1                        |

### Survey

| Measured Depth (ft)                            | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|------------------------------------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 8,998.00                                       | 2.90            | 272.87      | 8,790.46            | 491.23     | -1,314.54  | 1,402.39              | 0.82                  | 0.80                 | -3.84               |
| Last SDI Production MWD Survey                 |                 |             |                     |            |            |                       |                       |                      |                     |
| 9,056.00                                       | 2.90            | 272.87      | 8,848.39            | 491.38     | -1,317.47  | 1,405.21              | 0.00                  | 0.00                 | 0.00                |
| Projection To TD - BHL = 632273.30, 1226825.18 |                 |             |                     |            |            |                       |                       |                      |                     |

### Design Annotations

| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates |            | Comment                         |
|---------------------|---------------------|-------------------|------------|---------------------------------|
|                     |                     | +N/-S (ft)        | +E/-W (ft) |                                 |
| 250.00              | 249.95              | 1.82              | -3.98      | First SDI Surface MWD Survey    |
| 2,700.00            | 2,597.21            | 223.02            | -630.29    | Last Survey in 14 3/4" Hole     |
| 2,788.00            | 2,679.74            | 235.55            | -658.14    | First SDI Production MWD Survey |
| 8,998.00            | 8,790.46            | 491.23            | -1,314.54  | Last SDI Production MWD Survey  |
| 9,056.00            | 8,848.39            | 491.38            | -1,317.47  | Projection To TD                |
| 9,056.00            | 8,848.39            | 491.38            | -1,317.47  | BHL = 632273.30, 1226825.18     |

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