

# **Bass**

**Sec 2 T1S R98W**

**Yellow Creek Federal XOM 2-22 Pad**

**YCF 2-22-0265**

**Wellbore #1**

**Plan: Plan #1**

## **Survey Report - Geographic**

**23 May, 2008**

# New Tech

## Survey Report - Geographic

|                  |                                   |                                     |                                      |
|------------------|-----------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>  | Bass                              | <b>Local Co-ordinate Reference:</b> | Well YCF 2-22-0265                   |
| <b>Project:</b>  | Sec 2 T1S R98W                    | <b>TVD Reference:</b>               | WELL @ 6335.0ft (Original Well Elev) |
| <b>Site:</b>     | Yellow Creek Federal XOM 2-22 Pad | <b>MD Reference:</b>                | WELL @ 6335.0ft (Original Well Elev) |
| <b>Well:</b>     | YCF 2-22-0265                     | <b>North Reference:</b>             | True                                 |
| <b>Wellbore:</b> | Wellbore #1                       | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Design:</b>   | Plan #1                           | <b>Database:</b>                    | EDM 2003.16 Single User Db           |

|                    |                                       |                      |                             |
|--------------------|---------------------------------------|----------------------|-----------------------------|
| <b>Project</b>     | Sec 2 T1S R98W, Rio Blanco County, CO |                      |                             |
| <b>Map System:</b> | US State Plane 1983                   | <b>System Datum:</b> | Mean Sea Level              |
| <b>Geo Datum:</b>  | North American Datum 1983             |                      |                             |
| <b>Map Zone:</b>   | Colorado Northern Zone                |                      | Using geodetic scale factor |

|                       |                                   |              |                 |                   |                   |
|-----------------------|-----------------------------------|--------------|-----------------|-------------------|-------------------|
| Site                  | Yellow Creek Federal XOM 2-22 Pad |              |                 |                   |                   |
| Site Position:        |                                   | Northing:    | 1,256,189.47 ft | Latitude:         | 40° 0' 4.130 N    |
| From:                 | Lat/Long                          | Easting:     | 2,198,757.56 ft | Longitude:        | 108° 21' 38.000 W |
| Position Uncertainty: | 0.0 ft                            | Slot Radius: | "               | Grid Convergence: | -1.85 °           |

|                      |               |        |                     |                 |               |                   |
|----------------------|---------------|--------|---------------------|-----------------|---------------|-------------------|
| Well                 | YCF 2-22-0265 |        |                     |                 |               |                   |
| Well Position        | +N-S          | 0.0 ft | Northing:           | 1,256,181.48 ft | Latitude:     | 40° 0' 4.065 N    |
|                      | +E-W          | 0.0 ft | Easting:            | 2,198,801.72 ft | Longitude:    | 108° 21' 37.429 W |
| Position Uncertainty |               | 0.0 ft | Wellhead Elevation: | ft              | Ground Level: | 6,310.0 ft        |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | Wellbore #1       |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF200510        | 9/24/2007          | 11.05                  | 66.19                | 52,869                     |

|                          |                              |                   |                      |                      |
|--------------------------|------------------------------|-------------------|----------------------|----------------------|
| <b>Design</b>            | Plan #1                      |                   |                      |                      |
| <b>Audit Notes:</b>      |                              |                   |                      |                      |
| <b>Version:</b>          | <b>Phase:</b>                | PROTOTYPE         | <b>Tie On Depth:</b> | 0.0                  |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (ft)</b> | <b>+N/-S (ft)</b> | <b>+E/-W (ft)</b>    | <b>Direction (°)</b> |
|                          | 0.0                          | 0.0               | 0.0                  | 128.86               |

|                            |                |                          |                  |                    |
|----------------------------|----------------|--------------------------|------------------|--------------------|
| <b>Survey Tool Program</b> | <b>Date</b>    | 5/8/2008                 |                  |                    |
| <b>From (ft)</b>           | <b>To (ft)</b> | <b>Survey (Wellbore)</b> | <b>Tool Name</b> | <b>Description</b> |
| 0.0                        | 12,535.5       | Plan #1 (Wellbore #1)    | MWD              | MWD - Standard     |

|                            |                        |                    |                            |                   |                   |                          |                         |                  |                   |  |
|----------------------------|------------------------|--------------------|----------------------------|-------------------|-------------------|--------------------------|-------------------------|------------------|-------------------|--|
| <b>Planned 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>Map Northing (ft)</b> | <b>Map Easting (ft)</b> | <b>Latitude</b>  | <b>Longitude</b>  |  |
| 0.0                        | 0.00                   | 0.00               | 0.0                        | 0.0               | 0.0               | 1,256,181.48             | 2,198,801.72            | 40° 0' 4.065 N   | 108° 21' 37.429 W |  |
| 120.0                      | 0.00                   | 0.00               | 120.0                      | 0.0               | 0.0               | 1,256,181.48             | 2,198,801.72            | 40° 0' 4.065 N   | 108° 21' 37.429 W |  |
| 796.4                      | 13.53                  | 128.86             | 790.1                      | -49.9             | 61.9              | 1,256,129.66             | 2,198,861.96            | 40° 0' 3.572 N   | 108° 21' 36.634 W |  |
| 6,812.7                    | 13.53                  | 128.86             | 6,639.5                    | -932.7            | 1,157.8           | 1,255,211.95             | 2,199,928.77            | 39° 59' 54.848 N | 108° 21' 22.553 W |  |
| 7,714.5                    | 0.00                   | 0.00               | 7,533.0                    | -999.2            | 1,240.3           | 1,255,142.85             | 2,200,009.09            | 39° 59' 54.191 N | 108° 21' 21.493 W |  |
| 12,535.5                   | 0.00                   | 0.00               | 12,354.0                   | -999.2            | 1,240.3           | 1,255,142.85             | 2,200,009.09            | 39° 59' 54.191 N | 108° 21' 21.493 W |  |

# New Tech

## Survey Report - Geographic

|                  |                                   |                                     |                                      |
|------------------|-----------------------------------|-------------------------------------|--------------------------------------|
| <b>Company:</b>  | Bass                              | <b>Local Co-ordinate Reference:</b> | Well YCF 2-22-0265                   |
| <b>Project:</b>  | Sec 2 T1S R98W                    | <b>TVD Reference:</b>               | WELL @ 6335.0ft (Original Well Elev) |
| <b>Site:</b>     | Yellow Creek Federal XOM 2-22 Pad | <b>MD Reference:</b>                | WELL @ 6335.0ft (Original Well Elev) |
| <b>Well:</b>     | YCF 2-22-0265                     | <b>North Reference:</b>             | True                                 |
| <b>Wellbore:</b> | Wellbore #1                       | <b>Survey Calculation Method:</b>   | Minimum Curvature                    |
| <b>Design:</b>   | Plan #1                           | <b>Database:</b>                    | EDM 2003.16 Single User Db           |

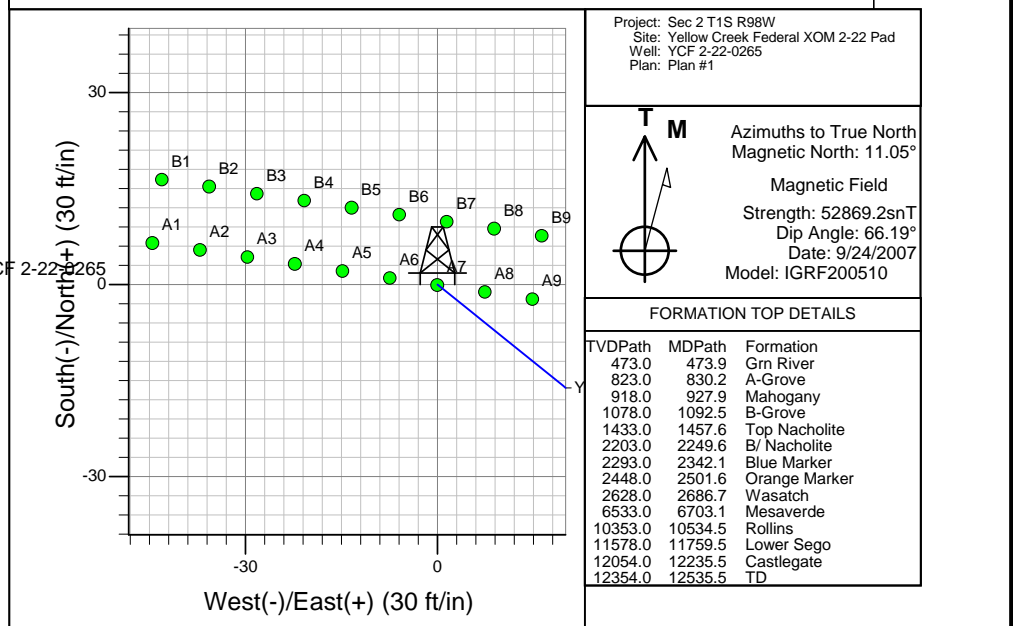
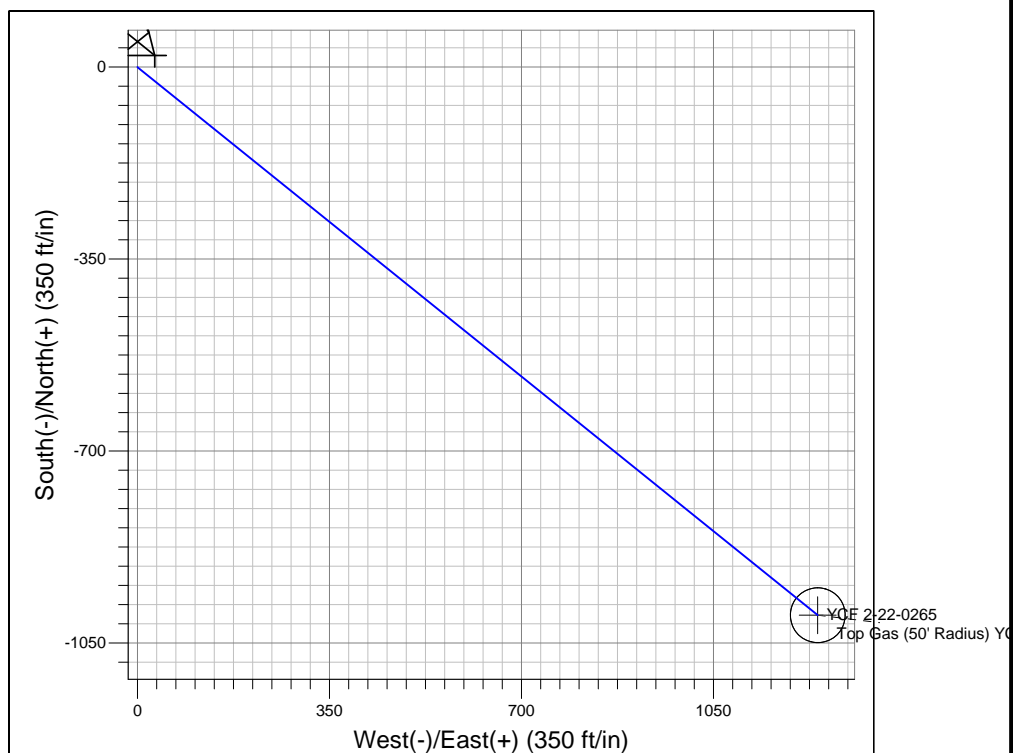
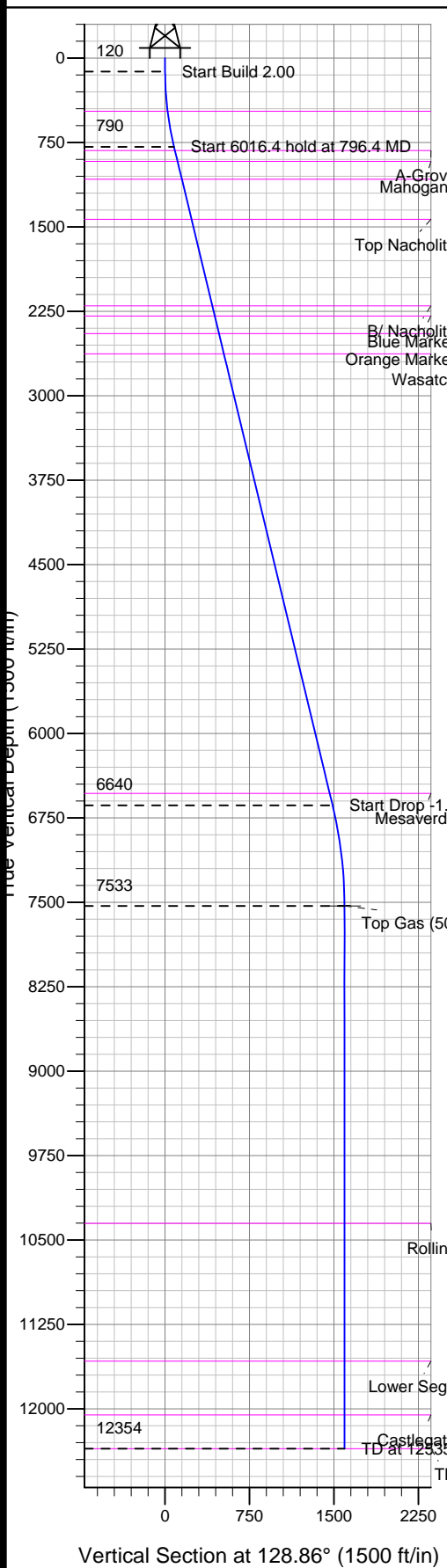
| Targets                |           |          |         |        |         |              |              |                  |                   |
|------------------------|-----------|----------|---------|--------|---------|--------------|--------------|------------------|-------------------|
| Target Name            | Dip Angle | Dip Dir. | TVD     | +N/-S  | +E/-W   | Northing     | Easting      | Latitude         | Longitude         |
| - hit/miss target      | (°)       | (°)      | (ft)    | (ft)   | (ft)    | (ft)         | (ft)         |                  |                   |
| - Shape                |           |          |         |        |         |              |              |                  |                   |
| Top Gas (50' Radius)   | 0.00      | 0.00     | 7,533.0 | -999.2 | 1,240.3 | 1,255,142.85 | 2,200,009.09 | 39° 59' 54.191 N | 108° 21' 21.493 W |
| - plan hits target     |           |          |         |        |         |              |              |                  |                   |
| - Circle (radius 50.0) |           |          |         |        |         |              |              |                  |                   |

| Formations     |                |               |           |      |               |  |
|----------------|----------------|---------------|-----------|------|---------------|--|
| Measured Depth | Vertical Depth | Name          | Lithology | Dip  | Dip Direction |  |
| (ft)           | (ft)           |               |           | (°)  | (°)           |  |
| 830.2          | 823.0          | A-Grove       |           |      |               |  |
| 6,703.1        | 6,533.0        | Mesaverde     |           |      |               |  |
| 2,501.6        | 2,448.0        | Orange Marker |           |      |               |  |
| 1,457.6        | 1,433.0        | Top Nacholite |           |      |               |  |
| 2,249.6        | 2,203.0        | B/ Nacholite  |           |      |               |  |
| 2,342.1        | 2,293.0        | Blue Marker   |           |      |               |  |
| 1,092.5        | 1,078.0        | B-Grove       |           |      |               |  |
| 2,686.7        | 2,628.0        | Wasatch       |           |      |               |  |
| 927.9          | 918.0          | Mahogany      |           |      |               |  |
| 10,534.5       | 10,353.0       | Rollins       |           |      |               |  |
| 11,759.5       | 11,578.0       | Lower Sego    |           |      |               |  |
| 473.9          | 473.0          | Grn River     |           |      |               |  |
| 12,535.5       | 12,354.0       | TD            |           | 0.00 |               |  |
| 12,235.5       | 12,054.0       | Castlegate    |           | 0.00 |               |  |

|                   |                    |             |
|-------------------|--------------------|-------------|
| Checked By: _____ | Approved By: _____ | Date: _____ |
|-------------------|--------------------|-------------|



Well Name: YCF 2-22-0265  
Surface Location: Yellow Creek Federal XOM 2-22 Pad  
North American Datum 1983 , US State Plane 1983 Colorado Northern Zone  
Ground Elevation: 6310.0  
+N/-S/E/-W Northing Easting Latitude Longitude Slot  
0.0 0.0256181.42198801.7240° 0' 4.06508° 21' 37.429 W



Project: Sec 2 T1S R98W  
Site: Yellow Creek Federal XOM 2-22 Pad  
Well: YCF 2-22-0265  
Plan: Plan #1

Azimuths to True North  
Magnetic North: 11.05°  
Magnetic Field  
Strength: 52869.2snT  
Dip Angle: 66.19°  
Date: 9/24/2007  
Model: IGRF200510

#### FORMATION TOP DETAILS

| TVDPath | MDPath  | Formation     |
|---------|---------|---------------|
| 473.0   | 473.9   | Gm River      |
| 823.0   | 830.2   | A-Grove       |
| 918.0   | 927.9   | Mahogany      |
| 1078.0  | 1092.5  | B-Grove       |
| 1433.0  | 1457.6  | Top Nacholite |
| 2203.0  | 2249.6  | B/ Nacholite  |
| 2293.0  | 2342.1  | Blue Marker   |
| 2448.0  | 2501.6  | Orange Marker |
| 2628.0  | 2686.7  | Wasatch       |
| 6533.0  | 6703.1  | Mesaverde     |
| 10353.0 | 10534.5 | Rollins       |
| 11578.0 | 11759.5 | Lower Sego    |
| 12054.0 | 12235.5 | Castlegate    |
| 12354.0 | 12535.5 | TD            |

#### SECTION DETAILS

| Sec | MD      | Inc   | Azi    | TVD     | +N/-S  | +E/-W  | DLeg | TFace  | VSec   | Target                             |
|-----|---------|-------|--------|---------|--------|--------|------|--------|--------|------------------------------------|
| 0   | 0.0     | 0.00  | 0.00   | 0.0     | 0.0    | 0.0    | 0.00 | 0.00   | 0.0    |                                    |
| 1   | 120.0   | 0.00  | 0.00   | 120.0   | 0.0    | 0.0    | 0.00 | 0.00   | 0.0    |                                    |
| 2   | 796.4   | 13.53 | 128.86 | 790.1   | -49.9  | 61.9   | 2.00 | 128.86 | 79.5   |                                    |
| 3   | 6812.7  | 13.53 | 128.86 | 6639.5  | -932.7 | 1157.8 | 0.00 | 0.00   | 1486.7 |                                    |
| 4   | 7714.5  | 0.00  | 0.00   | 7533.0  | -999.2 | 1240.3 | 1.50 | 180.00 | 1592.7 | Top Gas (50' Radius) YCF 2-22-0265 |
| 5   | 12535.5 | 0.00  | 0.00   | 12354.0 | -999.2 | 1240.3 | 0.00 | 0.00   | 1592.7 |                                    |

No annotation data is available.