

EXTRACTION OIL & GAS

WELD COUNTY

SEC 20-T7N-R67W

VIC EAST 21E-20-09N

OWB

Plan: PROPOSAL 1

Standard Planning Report

17 August, 2021



Project: WELD COUNTY
Site: SEC 20-T7N-R67W
Well: VIC EAST 21E-20-09N
Wellbore: OWB
Design: PROPOSAL 1



Azimuths to True North
Magnetic North: 8.24°
Magnetic Field
Strength: 52357.1nT
Dip Angle: 66.88°
Date: 5/21/2018
Model: IGRF2020

WELL DETAILS: VIC EAST 21E-20-09N

| +N/-S | +E/-W | Northing | Easting | 5011.00 | Latitude | Longitude | Slot |
|-------|-------|------------|------------|---------|-------------|--------------|------|
| 0.00 | 0.00 | 1447843.59 | 3164265.29 | | 40.561227°N | 104.908790°W | |

SECTION DETAILS

| Sec | MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSec | Target |
|-----|----------|-------|--------|---------|----------|----------|-------|--------|----------|-----------------------|
| 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2 | 700.00 | 0.00 | 0.00 | 700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 3 | 1850.91 | 23.02 | 175.88 | 1820.20 | -227.50 | 16.40 | 2.00 | 175.88 | 68.11 | |
| 4 | 6853.05 | 23.02 | 175.88 | 6424.06 | -2178.40 | 157.01 | 0.00 | 0.00 | 652.17 | |
| 5 | 7736.06 | 90.00 | 90.22 | 6936.00 | -2397.51 | 728.87 | 10.00 | -86.00 | 1259.02 | VIC EAST 21E-09N-LP |
| 6 | 17347.57 | 90.00 | 90.22 | 6936.00 | -2435.06 | 10340.30 | 0.00 | 0.00 | 10623.15 | VIC EAST 21E-09N-PBHL |

ANNOTATIONS

| MD | Inc | Azi | TVD | +N/-S | +E/-W | VSec | Departure | Annotation |
|----------|-------|--------|---------|----------|----------|----------|-----------|----------------------------------|
| 700.00 | 0.00 | 0.00 | 700.00 | 0.00 | 0.00 | 0.00 | 0.00 | Start Build 2.00 |
| 1850.91 | 23.02 | 175.88 | 1820.20 | -227.50 | 16.40 | 68.11 | 228.09 | Start 5002.13 hold at 1850.91 MD |
| 6853.05 | 23.02 | 175.88 | 6424.06 | -2178.40 | 157.01 | 652.17 | 2184.06 | Start DLS 10.00 TFO -86.00 |
| 7736.06 | 90.00 | 90.22 | 6936.00 | -2397.51 | 728.87 | 1259.02 | 2833.70 | Start 9611.51 hold at 7736.06 MD |
| 17347.57 | 90.00 | 90.22 | 6936.00 | -2435.06 | 10340.30 | 10623.15 | 12445.21 | TD at 17347.57 |

DESIGN TARGET DETAILS

| Name | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude | Shape |
|---------------------------|---------|----------|----------|------------|------------|-------------|--------------|-------|
| VIC EAST 21E-09N-LP | 6936.00 | -2397.51 | 728.87 | 1445450.99 | 3165010.13 | 40.554646°N | 104.906167°W | Point |
| - plan hits target center | | | | | | | | |
| VIC EAST 21E-09N-PBHL | 6936.00 | -2435.06 | 10340.30 | 1445477.52 | 3174621.60 | 40.554537°N | 104.871578°W | Point |
| - plan hits target center | | | | | | | | |

FORMATION TOP DETAILS

| TVDPath | MDPath | Formation |
|---------|---------|----------------------------------|
| 804.00 | 804.02 | Fox Hills Base: |
| 3499.00 | 3674.94 | Parkman: |
| 4034.00 | 4256.22 | Sussex: |
| 4604.00 | 4875.53 | Shannon: |
| 6906.00 | 7541.91 | Sharon Springs (Confining Zone): |
| 6926.00 | 7624.33 | Niobrara: |

PROJECT DETAILS: WELD COUNTY

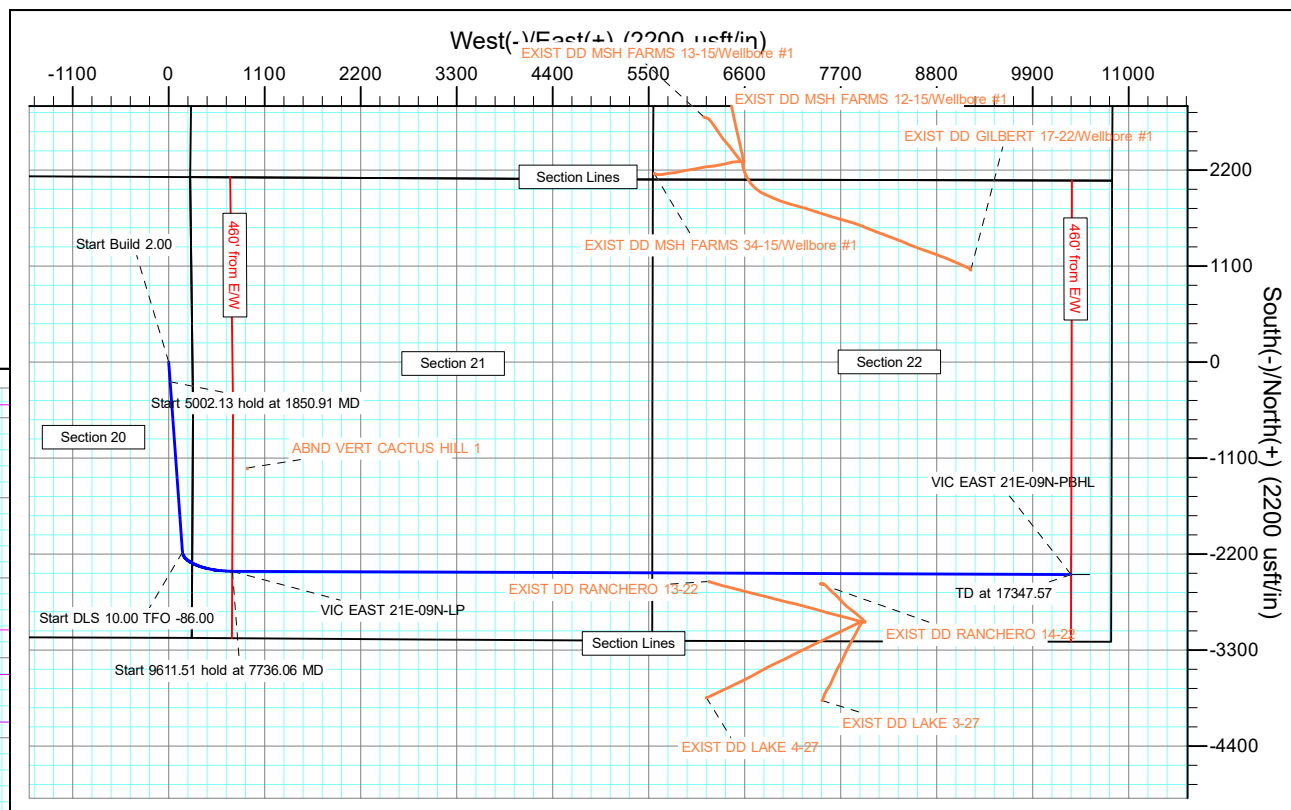
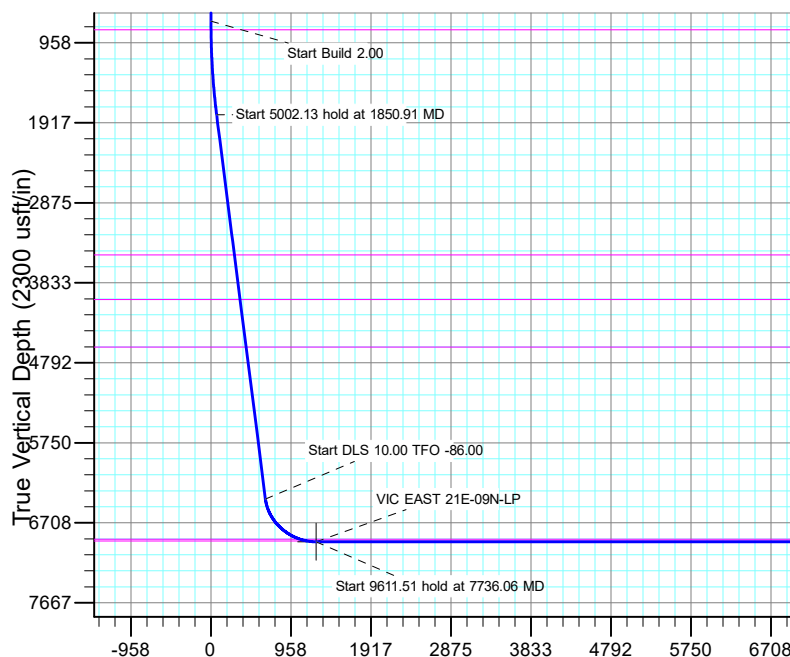
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone

System Datum: Mean Sea Level

SHL:
2120' FNL, 272' FEL
Sec 20-T7N-R67W

LP:
767' FSL, 460' FWL
Sec 21-T7N-R67W

BHL:
770' FSL, 460' FEL
Sec 22-T7N-R67W



Vertical Section at 103.25° (2300 usft/in)

Planning Report

| | | | |
|------------------|----------------------------|-------------------------------------|--------------------------|
| Database: | EDM 5000.16 Single User Db | Local Co-ordinate Reference: | Well VIC EAST 21E-20-09N |
| Company: | EXTRACTION OIL & GAS | TVD Reference: | KB 29' @ 5040.00usft |
| Project: | WELD COUNTY | MD Reference: | KB 29' @ 5040.00usft |
| Site: | SEC 20-T7N-R67W | North Reference: | True |
| Well: | VIC EAST 21E-20-09N | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | OWB | | |
| Design: | PROPOSAL 1 | | |

| | | | |
|--------------------|---------------------------|----------------------|----------------|
| Project | WELD COUNTY | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | Colorado Northern Zone | | |

| | | | | | | |
|-----------------------|----------|-----------------|--------------|--------------|------------|--------------|
| Site | | SEC 20-T7N-R67W | | | | |
| Site Position: | | Northing: | 1,449,964.02 | usft | Latitude: | 40.567043°N |
| From: | Lat/Long | Easting: | 3,164,495.92 | usft | Longitude: | 104.907909°W |
| Position Uncertainty: | | 0.00 | usft | Slot Radius: | 13.200 | in |

| Well | | VIC EAST 21E-20-09N | | | | |
|----------------------|-------|---------------------|---------------------|-------------------|---------------|---------------|
| Well Position | +N/-S | 0.00 usft | Northing: | 1,447,843.59 usft | Latitude: | 40.561227°N |
| | +E/-W | 0.00 usft | Easting: | 3,164,265.29 usft | Longitude: | 104.908790°W |
| Position Uncertainty | | 0.00 usft | Wellhead Elevation: | usft | Ground Level: | 5,011.00 usft |
| Grid Convergence: | | 0.38 ° | | | | |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | OWB | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2020 | 5/21/2018 | 8.24 | 66.88 | 52,357.08343310 |

| | | | | | |
|--------------------------|--------------------------------|---------------------|----------------------|----------------------|--|
| Design | PROPOSAL 1 | | | | |
| Audit Notes: | | | | | |
| Version: | Phase: | PROTOTYPE | Tie On Depth: | 0.00 | |
| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) | |
| | 0.00 | 0.00 | 0.00 | 103.25 | |

| | | | | | |
|---------------------------------|------------------------|----------------------------|---------------------|----------------|--|
| Plan Survey Tool Program | Date | 8/16/2021 | | | |
| Depth From (usft) | Depth To (usft) | Survey (Wellbore) | Tool Name | Remarks | |
| 1 | 0.00 | 17,347.57 PROPOSAL 1 (OWB) | MWD OWSG | | |
| | | | OWSG MWD - Standard | | |

| | | | | | | | | | | |
|------------------------------|------------------------|--------------------|------------------------------|---------------------|---------------------|------------------------------|-----------------------------|----------------------------|----------------|--------------------|
| Plan Sections | | | | | | | | | | |
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 700.00 | 0.00 | 0.00 | 700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,850.91 | 23.02 | 175.88 | 1,820.20 | -227.50 | 16.40 | 2.00 | 2.00 | 0.00 | 175.88 | |
| 6,853.05 | 23.02 | 175.88 | 6,424.06 | -2,178.40 | 157.01 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 7,736.06 | 90.00 | 90.22 | 6,936.00 | -2,397.51 | 728.87 | 10.00 | 7.59 | -9.70 | -86.00 | VIC EAST 21E-09N-L |
| 17,347.57 | 90.00 | 90.22 | 6,936.00 | -2,435.06 | 10,340.30 | 0.00 | 0.00 | 0.00 | 0.00 | VIC EAST 21E-09N-F |

Planning Report

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|------------------|----------------------------|-------------------------------------|--------------------------|
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| Company: | EXTRACTION OIL & GAS | TVD Reference: | KB 29' @ 5040.00usft |
| Project: | WELD COUNTY | MD Reference: | KB 29' @ 5040.00usft |
| Site: | SEC 20-T7N-R67W | North Reference: | True |
| Well: | VIC EAST 21E-20-09N | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | OWB | | |
| Design: | PROPOSAL 1 | | |

| Planned Survey | | | | | | | | | |
|---|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-----------------------|----------------------|---------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 700.00 | 0.00 | 0.00 | 700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Start Build 2.00 | | | | | | | | | |
| 800.00 | 2.00 | 175.88 | 799.98 | -1.74 | 0.13 | 0.52 | 2.00 | 2.00 | 0.00 |
| 804.02 | 2.08 | 175.88 | 804.00 | -1.88 | 0.14 | 0.56 | 2.00 | 2.00 | 0.00 |
| Fox Hills Base: | | | | | | | | | |
| 900.00 | 4.00 | 175.88 | 899.84 | -6.96 | 0.50 | 2.08 | 2.00 | 2.00 | 0.00 |
| 1,000.00 | 6.00 | 175.88 | 999.45 | -15.65 | 1.13 | 4.69 | 2.00 | 2.00 | 0.00 |
| 1,100.00 | 8.00 | 175.88 | 1,098.70 | -27.81 | 2.00 | 8.33 | 2.00 | 2.00 | 0.00 |
| 1,200.00 | 10.00 | 175.88 | 1,197.47 | -43.41 | 3.13 | 13.00 | 2.00 | 2.00 | 0.00 |
| 1,300.00 | 12.00 | 175.88 | 1,295.62 | -62.44 | 4.50 | 18.69 | 2.00 | 2.00 | 0.00 |
| 1,400.00 | 14.00 | 175.88 | 1,393.06 | -84.88 | 6.12 | 25.41 | 2.00 | 2.00 | 0.00 |
| 1,500.00 | 16.00 | 175.88 | 1,489.64 | -110.69 | 7.98 | 33.14 | 2.00 | 2.00 | 0.00 |
| 1,600.00 | 18.00 | 175.88 | 1,585.27 | -139.85 | 10.08 | 41.87 | 2.00 | 2.00 | 0.00 |
| 1,700.00 | 20.00 | 175.88 | 1,679.82 | -172.32 | 12.42 | 51.59 | 2.00 | 2.00 | 0.00 |
| 1,800.00 | 22.00 | 175.88 | 1,773.17 | -208.06 | 15.00 | 62.29 | 2.00 | 2.00 | 0.00 |
| 1,850.91 | 23.02 | 175.88 | 1,820.20 | -227.50 | 16.40 | 68.11 | 2.00 | 2.00 | 0.00 |
| Start 5002.13 hold at 1850.91 MD | | | | | | | | | |
| 1,900.00 | 23.02 | 175.88 | 1,865.38 | -246.65 | 17.78 | 73.84 | 0.00 | 0.00 | 0.00 |
| 2,000.00 | 23.02 | 175.88 | 1,957.42 | -285.65 | 20.59 | 85.52 | 0.00 | 0.00 | 0.00 |
| 2,100.00 | 23.02 | 175.88 | 2,049.46 | -324.65 | 23.40 | 97.19 | 0.00 | 0.00 | 0.00 |
| 2,200.00 | 23.02 | 175.88 | 2,141.50 | -363.65 | 26.21 | 108.87 | 0.00 | 0.00 | 0.00 |
| 2,300.00 | 23.02 | 175.88 | 2,233.53 | -402.65 | 29.02 | 120.55 | 0.00 | 0.00 | 0.00 |
| 2,400.00 | 23.02 | 175.88 | 2,325.57 | -441.66 | 31.83 | 132.22 | 0.00 | 0.00 | 0.00 |
| 2,500.00 | 23.02 | 175.88 | 2,417.61 | -480.66 | 34.64 | 143.90 | 0.00 | 0.00 | 0.00 |
| 2,600.00 | 23.02 | 175.88 | 2,509.65 | -519.66 | 37.46 | 155.58 | 0.00 | 0.00 | 0.00 |
| 2,700.00 | 23.02 | 175.88 | 2,601.69 | -558.66 | 40.27 | 167.25 | 0.00 | 0.00 | 0.00 |
| 2,800.00 | 23.02 | 175.88 | 2,693.72 | -597.66 | 43.08 | 178.93 | 0.00 | 0.00 | 0.00 |
| 2,900.00 | 23.02 | 175.88 | 2,785.76 | -636.66 | 45.89 | 190.60 | 0.00 | 0.00 | 0.00 |
| 3,000.00 | 23.02 | 175.88 | 2,877.80 | -675.66 | 48.70 | 202.28 | 0.00 | 0.00 | 0.00 |
| 3,100.00 | 23.02 | 175.88 | 2,969.84 | -714.66 | 51.51 | 213.96 | 0.00 | 0.00 | 0.00 |
| 3,200.00 | 23.02 | 175.88 | 3,061.88 | -753.67 | 54.32 | 225.63 | 0.00 | 0.00 | 0.00 |
| 3,300.00 | 23.02 | 175.88 | 3,153.91 | -792.67 | 57.13 | 237.31 | 0.00 | 0.00 | 0.00 |
| 3,400.00 | 23.02 | 175.88 | 3,245.95 | -831.67 | 59.94 | 248.99 | 0.00 | 0.00 | 0.00 |
| 3,500.00 | 23.02 | 175.88 | 3,337.99 | -870.67 | 62.76 | 260.66 | 0.00 | 0.00 | 0.00 |
| 3,600.00 | 23.02 | 175.88 | 3,430.03 | -909.67 | 65.57 | 272.34 | 0.00 | 0.00 | 0.00 |
| 3,674.94 | 23.02 | 175.88 | 3,499.00 | -938.90 | 67.67 | 281.09 | 0.00 | 0.00 | 0.00 |
| Parkman: | | | | | | | | | |
| 3,700.00 | 23.02 | 175.88 | 3,522.07 | -948.67 | 68.38 | 284.01 | 0.00 | 0.00 | 0.00 |
| 3,800.00 | 23.02 | 175.88 | 3,614.10 | -987.67 | 71.19 | 295.69 | 0.00 | 0.00 | 0.00 |
| 3,900.00 | 23.02 | 175.88 | 3,706.14 | -1,026.68 | 74.00 | 307.37 | 0.00 | 0.00 | 0.00 |
| 4,000.00 | 23.02 | 175.88 | 3,798.18 | -1,065.68 | 76.81 | 319.04 | 0.00 | 0.00 | 0.00 |
| 4,100.00 | 23.02 | 175.88 | 3,890.22 | -1,104.68 | 79.62 | 330.72 | 0.00 | 0.00 | 0.00 |
| 4,200.00 | 23.02 | 175.88 | 3,982.25 | -1,143.68 | 82.43 | 342.39 | 0.00 | 0.00 | 0.00 |
| 4,256.22 | 23.02 | 175.88 | 4,034.00 | -1,165.61 | 84.01 | 348.96 | 0.00 | 0.00 | 0.00 |
| Sussex: | | | | | | | | | |
| 4,300.00 | 23.02 | 175.88 | 4,074.29 | -1,182.68 | 85.24 | 354.07 | 0.00 | 0.00 | 0.00 |
| 4,400.00 | 23.02 | 175.88 | 4,166.33 | -1,221.68 | 88.06 | 365.75 | 0.00 | 0.00 | 0.00 |
| 4,500.00 | 23.02 | 175.88 | 4,258.37 | -1,260.68 | 90.87 | 377.42 | 0.00 | 0.00 | 0.00 |
| 4,600.00 | 23.02 | 175.88 | 4,350.41 | -1,299.69 | 93.68 | 389.10 | 0.00 | 0.00 | 0.00 |
| 4,700.00 | 23.02 | 175.88 | 4,442.44 | -1,338.69 | 96.49 | 400.78 | 0.00 | 0.00 | 0.00 |
| 4,800.00 | 23.02 | 175.88 | 4,534.48 | -1,377.69 | 99.30 | 412.45 | 0.00 | 0.00 | 0.00 |
| 4,875.53 | 23.02 | 175.88 | 4,604.00 | -1,407.15 | 101.42 | 421.27 | 0.00 | 0.00 | 0.00 |

Planning Report

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|------------------|----------------------------|-------------------------------------|--------------------------|
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| Company: | EXTRACTION OIL & GAS | TVD Reference: | KB 29' @ 5040.00usft |
| Project: | WELD COUNTY | MD Reference: | KB 29' @ 5040.00usft |
| Site: | SEC 20-T7N-R67W | North Reference: | True |
| Well: | VIC EAST 21E-20-09N | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | OWB | | |
| Design: | PROPOSAL 1 | | |

| Planned Survey | | | | | | | | | |
|---|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-----------------------|----------------------|---------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| Shannon: | | | | | | | | | |
| 4,900.00 | 23.02 | 175.88 | 4,626.52 | -1,416.69 | 102.11 | 424.13 | 0.00 | 0.00 | 0.00 |
| 5,000.00 | 23.02 | 175.88 | 4,718.56 | -1,455.69 | 104.92 | 435.80 | 0.00 | 0.00 | 0.00 |
| 5,100.00 | 23.02 | 175.88 | 4,810.60 | -1,494.69 | 107.73 | 447.48 | 0.00 | 0.00 | 0.00 |
| 5,200.00 | 23.02 | 175.88 | 4,902.63 | -1,533.69 | 110.54 | 459.16 | 0.00 | 0.00 | 0.00 |
| 5,300.00 | 23.02 | 175.88 | 4,994.67 | -1,572.69 | 113.36 | 470.83 | 0.00 | 0.00 | 0.00 |
| 5,400.00 | 23.02 | 175.88 | 5,086.71 | -1,611.70 | 116.17 | 482.51 | 0.00 | 0.00 | 0.00 |
| 5,500.00 | 23.02 | 175.88 | 5,178.75 | -1,650.70 | 118.98 | 494.19 | 0.00 | 0.00 | 0.00 |
| 5,600.00 | 23.02 | 175.88 | 5,270.79 | -1,689.70 | 121.79 | 505.86 | 0.00 | 0.00 | 0.00 |
| 5,700.00 | 23.02 | 175.88 | 5,362.82 | -1,728.70 | 124.60 | 517.54 | 0.00 | 0.00 | 0.00 |
| 5,800.00 | 23.02 | 175.88 | 5,454.86 | -1,767.70 | 127.41 | 529.21 | 0.00 | 0.00 | 0.00 |
| 5,900.00 | 23.02 | 175.88 | 5,546.90 | -1,806.70 | 130.22 | 540.89 | 0.00 | 0.00 | 0.00 |
| 6,000.00 | 23.02 | 175.88 | 5,638.94 | -1,845.70 | 133.03 | 552.57 | 0.00 | 0.00 | 0.00 |
| 6,100.00 | 23.02 | 175.88 | 5,730.98 | -1,884.71 | 135.84 | 564.24 | 0.00 | 0.00 | 0.00 |
| 6,200.00 | 23.02 | 175.88 | 5,823.01 | -1,923.71 | 138.66 | 575.92 | 0.00 | 0.00 | 0.00 |
| 6,300.00 | 23.02 | 175.88 | 5,915.05 | -1,962.71 | 141.47 | 587.60 | 0.00 | 0.00 | 0.00 |
| 6,400.00 | 23.02 | 175.88 | 6,007.09 | -2,001.71 | 144.28 | 599.27 | 0.00 | 0.00 | 0.00 |
| 6,500.00 | 23.02 | 175.88 | 6,099.13 | -2,040.71 | 147.09 | 610.95 | 0.00 | 0.00 | 0.00 |
| 6,600.00 | 23.02 | 175.88 | 6,191.17 | -2,079.71 | 149.90 | 622.62 | 0.00 | 0.00 | 0.00 |
| 6,700.00 | 23.02 | 175.88 | 6,283.20 | -2,118.71 | 152.71 | 634.30 | 0.00 | 0.00 | 0.00 |
| 6,800.00 | 23.02 | 175.88 | 6,375.24 | -2,157.72 | 155.52 | 645.98 | 0.00 | 0.00 | 0.00 |
| 6,853.05 | 23.02 | 175.88 | 6,424.06 | -2,178.40 | 157.01 | 652.17 | 0.00 | 0.00 | 0.00 |
| Start DLS 10.00 TFO -86.00 | | | | | | | | | |
| 6,900.00 | 23.79 | 164.20 | 6,467.18 | -2,196.68 | 160.25 | 659.51 | 10.00 | 1.64 | -24.88 |
| 6,950.00 | 25.49 | 152.90 | 6,512.65 | -2,215.97 | 167.91 | 671.39 | 10.00 | 3.41 | -22.59 |
| 7,000.00 | 27.95 | 143.20 | 6,557.33 | -2,234.95 | 179.83 | 687.35 | 10.00 | 4.92 | -19.40 |
| 7,050.00 | 30.98 | 135.10 | 6,600.87 | -2,253.46 | 195.95 | 707.27 | 10.00 | 6.06 | -16.20 |
| 7,100.00 | 34.43 | 128.39 | 6,642.95 | -2,271.36 | 216.12 | 731.02 | 10.00 | 6.90 | -13.42 |
| 7,150.00 | 38.19 | 122.81 | 6,683.25 | -2,288.53 | 240.21 | 758.39 | 10.00 | 7.51 | -11.16 |
| 7,200.00 | 42.17 | 118.11 | 6,721.45 | -2,304.82 | 268.02 | 789.20 | 10.00 | 7.96 | -9.40 |
| 7,250.00 | 46.31 | 114.10 | 6,757.28 | -2,320.12 | 299.34 | 823.19 | 10.00 | 8.29 | -8.03 |
| 7,300.00 | 50.58 | 110.61 | 6,790.44 | -2,334.30 | 333.94 | 860.13 | 10.00 | 8.53 | -6.98 |
| 7,350.00 | 54.93 | 107.52 | 6,820.70 | -2,347.27 | 371.55 | 899.71 | 10.00 | 8.71 | -6.16 |
| 7,400.00 | 59.36 | 104.76 | 6,847.82 | -2,358.92 | 411.89 | 941.64 | 10.00 | 8.86 | -5.53 |
| 7,450.00 | 63.84 | 102.23 | 6,871.60 | -2,369.16 | 454.65 | 985.61 | 10.00 | 8.96 | -5.05 |
| 7,500.00 | 68.36 | 99.90 | 6,891.85 | -2,377.91 | 499.50 | 1,031.27 | 10.00 | 9.04 | -4.67 |
| 7,541.91 | 72.18 | 98.05 | 6,906.00 | -2,384.06 | 538.46 | 1,070.60 | 10.00 | 9.10 | -4.40 |
| Sharon Springs (Confining Zone): | | | | | | | | | |
| 7,550.00 | 72.92 | 97.71 | 6,908.43 | -2,385.12 | 546.10 | 1,078.29 | 10.00 | 9.13 | -4.29 |
| 7,600.00 | 77.49 | 95.62 | 6,921.19 | -2,390.71 | 594.10 | 1,126.29 | 10.00 | 9.15 | -4.18 |
| 7,624.33 | 79.72 | 94.63 | 6,926.00 | -2,392.84 | 617.86 | 1,149.90 | 10.00 | 9.17 | -4.06 |
| Niobrara: | | | | | | | | | |
| 7,650.00 | 82.08 | 93.60 | 6,930.06 | -2,394.66 | 643.14 | 1,174.92 | 10.00 | 9.19 | -4.00 |
| 7,700.00 | 86.68 | 91.63 | 6,934.96 | -2,396.93 | 692.83 | 1,223.81 | 10.00 | 9.20 | -3.94 |
| 7,736.06 | 90.00 | 90.22 | 6,936.00 | -2,397.51 | 728.87 | 1,259.02 | 10.00 | 9.21 | -3.91 |
| Start 9611.51 hold at 7736.06 MD | | | | | | | | | |
| 7,800.00 | 90.00 | 90.22 | 6,936.00 | -2,397.76 | 792.80 | 1,321.31 | 0.00 | 0.00 | 0.00 |
| 7,900.00 | 90.00 | 90.22 | 6,936.00 | -2,398.15 | 892.80 | 1,418.74 | 0.00 | 0.00 | 0.00 |
| 8,000.00 | 90.00 | 90.22 | 6,936.00 | -2,398.54 | 992.80 | 1,516.17 | 0.00 | 0.00 | 0.00 |
| 8,100.00 | 90.00 | 90.22 | 6,936.00 | -2,398.93 | 1,092.80 | 1,613.59 | 0.00 | 0.00 | 0.00 |
| 8,200.00 | 90.00 | 90.22 | 6,936.00 | -2,399.32 | 1,192.80 | 1,711.02 | 0.00 | 0.00 | 0.00 |
| 8,300.00 | 90.00 | 90.22 | 6,936.00 | -2,399.71 | 1,292.80 | 1,808.45 | 0.00 | 0.00 | 0.00 |
| 8,400.00 | 90.00 | 90.22 | 6,936.00 | -2,400.10 | 1,392.80 | 1,905.87 | 0.00 | 0.00 | 0.00 |

Planning Report

| | | | |
|------------------|----------------------------|-------------------------------------|--------------------------|
| Database: | EDM 5000.16 Single User Db | Local Co-ordinate Reference: | Well VIC EAST 21E-20-09N |
| Company: | EXTRACTION OIL & GAS | TVD Reference: | KB 29' @ 5040.00usft |
| Project: | WELD COUNTY | MD Reference: | KB 29' @ 5040.00usft |
| Site: | SEC 20-T7N-R67W | North Reference: | True |
| Well: | VIC EAST 21E-20-09N | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | OWB | | |
| Design: | PROPOSAL 1 | | |

| Planned Survey | | | | | | | | | | |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-----------------------|----------------------|---------------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | |
| 8,500.00 | 90.00 | 90.22 | 6,936.00 | -2,400.50 | 1,492.80 | 2,003.30 | 0.00 | 0.00 | 0.00 | |
| 8,600.00 | 90.00 | 90.22 | 6,936.00 | -2,400.89 | 1,592.80 | 2,100.72 | 0.00 | 0.00 | 0.00 | |
| 8,700.00 | 90.00 | 90.22 | 6,936.00 | -2,401.28 | 1,692.80 | 2,198.15 | 0.00 | 0.00 | 0.00 | |
| 8,800.00 | 90.00 | 90.22 | 6,936.00 | -2,401.67 | 1,792.80 | 2,295.58 | 0.00 | 0.00 | 0.00 | |
| 8,900.00 | 90.00 | 90.22 | 6,936.00 | -2,402.06 | 1,892.80 | 2,393.00 | 0.00 | 0.00 | 0.00 | |
| 9,000.00 | 90.00 | 90.22 | 6,936.00 | -2,402.45 | 1,992.79 | 2,490.43 | 0.00 | 0.00 | 0.00 | |
| 9,100.00 | 90.00 | 90.22 | 6,936.00 | -2,402.84 | 2,092.79 | 2,587.86 | 0.00 | 0.00 | 0.00 | |
| 9,200.00 | 90.00 | 90.22 | 6,936.00 | -2,403.23 | 2,192.79 | 2,685.28 | 0.00 | 0.00 | 0.00 | |
| 9,300.00 | 90.00 | 90.22 | 6,936.00 | -2,403.62 | 2,292.79 | 2,782.71 | 0.00 | 0.00 | 0.00 | |
| 9,400.00 | 90.00 | 90.22 | 6,936.00 | -2,404.01 | 2,392.79 | 2,880.13 | 0.00 | 0.00 | 0.00 | |
| 9,500.00 | 90.00 | 90.22 | 6,936.00 | -2,404.40 | 2,492.79 | 2,977.56 | 0.00 | 0.00 | 0.00 | |
| 9,600.00 | 90.00 | 90.22 | 6,936.00 | -2,404.79 | 2,592.79 | 3,074.99 | 0.00 | 0.00 | 0.00 | |
| 9,700.00 | 90.00 | 90.22 | 6,936.00 | -2,405.18 | 2,692.79 | 3,172.41 | 0.00 | 0.00 | 0.00 | |
| 9,800.00 | 90.00 | 90.22 | 6,936.00 | -2,405.57 | 2,792.79 | 3,269.84 | 0.00 | 0.00 | 0.00 | |
| 9,900.00 | 90.00 | 90.22 | 6,936.00 | -2,405.97 | 2,892.79 | 3,367.27 | 0.00 | 0.00 | 0.00 | |
| 10,000.00 | 90.00 | 90.22 | 6,936.00 | -2,406.36 | 2,992.79 | 3,464.69 | 0.00 | 0.00 | 0.00 | |
| 10,100.00 | 90.00 | 90.22 | 6,936.00 | -2,406.75 | 3,092.79 | 3,562.12 | 0.00 | 0.00 | 0.00 | |
| 10,200.00 | 90.00 | 90.22 | 6,936.00 | -2,407.14 | 3,192.79 | 3,659.54 | 0.00 | 0.00 | 0.00 | |
| 10,300.00 | 90.00 | 90.22 | 6,936.00 | -2,407.53 | 3,292.78 | 3,756.97 | 0.00 | 0.00 | 0.00 | |
| 10,400.00 | 90.00 | 90.22 | 6,936.00 | -2,407.92 | 3,392.78 | 3,854.40 | 0.00 | 0.00 | 0.00 | |
| 10,500.00 | 90.00 | 90.22 | 6,936.00 | -2,408.31 | 3,492.78 | 3,951.82 | 0.00 | 0.00 | 0.00 | |
| 10,600.00 | 90.00 | 90.22 | 6,936.00 | -2,408.70 | 3,592.78 | 4,049.25 | 0.00 | 0.00 | 0.00 | |
| 10,700.00 | 90.00 | 90.22 | 6,936.00 | -2,409.09 | 3,692.78 | 4,146.68 | 0.00 | 0.00 | 0.00 | |
| 10,800.00 | 90.00 | 90.22 | 6,936.00 | -2,409.48 | 3,792.78 | 4,244.10 | 0.00 | 0.00 | 0.00 | |
| 10,900.00 | 90.00 | 90.22 | 6,936.00 | -2,409.87 | 3,892.78 | 4,341.53 | 0.00 | 0.00 | 0.00 | |
| 11,000.00 | 90.00 | 90.22 | 6,936.00 | -2,410.26 | 3,992.78 | 4,438.95 | 0.00 | 0.00 | 0.00 | |
| 11,100.00 | 90.00 | 90.22 | 6,936.00 | -2,410.65 | 4,092.78 | 4,536.38 | 0.00 | 0.00 | 0.00 | |
| 11,200.00 | 90.00 | 90.22 | 6,936.00 | -2,411.04 | 4,192.78 | 4,633.81 | 0.00 | 0.00 | 0.00 | |
| 11,300.00 | 90.00 | 90.22 | 6,936.00 | -2,411.43 | 4,292.78 | 4,731.23 | 0.00 | 0.00 | 0.00 | |
| 11,400.00 | 90.00 | 90.22 | 6,936.00 | -2,411.83 | 4,392.78 | 4,828.66 | 0.00 | 0.00 | 0.00 | |
| 11,500.00 | 90.00 | 90.22 | 6,936.00 | -2,412.22 | 4,492.78 | 4,926.08 | 0.00 | 0.00 | 0.00 | |
| 11,600.00 | 90.00 | 90.22 | 6,936.00 | -2,412.61 | 4,592.77 | 5,023.51 | 0.00 | 0.00 | 0.00 | |
| 11,700.00 | 90.00 | 90.22 | 6,936.00 | -2,413.00 | 4,692.77 | 5,120.94 | 0.00 | 0.00 | 0.00 | |
| 11,800.00 | 90.00 | 90.22 | 6,936.00 | -2,413.39 | 4,792.77 | 5,218.36 | 0.00 | 0.00 | 0.00 | |
| 11,900.00 | 90.00 | 90.22 | 6,936.00 | -2,413.78 | 4,892.77 | 5,315.79 | 0.00 | 0.00 | 0.00 | |
| 12,000.00 | 90.00 | 90.22 | 6,936.00 | -2,414.17 | 4,992.77 | 5,413.22 | 0.00 | 0.00 | 0.00 | |
| 12,100.00 | 90.00 | 90.22 | 6,936.00 | -2,414.56 | 5,092.77 | 5,510.64 | 0.00 | 0.00 | 0.00 | |
| 12,200.00 | 90.00 | 90.22 | 6,936.00 | -2,414.95 | 5,192.77 | 5,608.07 | 0.00 | 0.00 | 0.00 | |
| 12,300.00 | 90.00 | 90.22 | 6,936.00 | -2,415.34 | 5,292.77 | 5,705.49 | 0.00 | 0.00 | 0.00 | |
| 12,400.00 | 90.00 | 90.22 | 6,936.00 | -2,415.73 | 5,392.77 | 5,802.92 | 0.00 | 0.00 | 0.00 | |
| 12,500.00 | 90.00 | 90.22 | 6,936.00 | -2,416.12 | 5,492.77 | 5,900.35 | 0.00 | 0.00 | 0.00 | |
| 12,600.00 | 90.00 | 90.22 | 6,936.00 | -2,416.51 | 5,592.77 | 5,997.77 | 0.00 | 0.00 | 0.00 | |
| 12,700.00 | 90.00 | 90.22 | 6,936.00 | -2,416.90 | 5,692.77 | 6,095.20 | 0.00 | 0.00 | 0.00 | |
| 12,800.00 | 90.00 | 90.22 | 6,936.00 | -2,417.30 | 5,792.77 | 6,192.63 | 0.00 | 0.00 | 0.00 | |
| 12,900.00 | 90.00 | 90.22 | 6,936.00 | -2,417.69 | 5,892.76 | 6,290.05 | 0.00 | 0.00 | 0.00 | |
| 13,000.00 | 90.00 | 90.22 | 6,936.00 | -2,418.08 | 5,992.76 | 6,387.48 | 0.00 | 0.00 | 0.00 | |
| 13,100.00 | 90.00 | 90.22 | 6,936.00 | -2,418.47 | 6,092.76 | 6,484.90 | 0.00 | 0.00 | 0.00 | |
| 13,200.00 | 90.00 | 90.22 | 6,936.00 | -2,418.86 | 6,192.76 | 6,582.33 | 0.00 | 0.00 | 0.00 | |
| 13,300.00 | 90.00 | 90.22 | 6,936.00 | -2,419.25 | 6,292.76 | 6,679.76 | 0.00 | 0.00 | 0.00 | |
| 13,400.00 | 90.00 | 90.22 | 6,936.00 | -2,419.64 | 6,392.76 | 6,777.18 | 0.00 | 0.00 | 0.00 | |
| 13,500.00 | 90.00 | 90.22 | 6,936.00 | -2,420.03 | 6,492.76 | 6,874.61 | 0.00 | 0.00 | 0.00 | |
| 13,600.00 | 90.00 | 90.22 | 6,936.00 | -2,420.42 | 6,592.76 | 6,972.04 | 0.00 | 0.00 | 0.00 | |
| 13,700.00 | 90.00 | 90.22 | 6,936.00 | -2,420.81 | 6,692.76 | 7,069.46 | 0.00 | 0.00 | 0.00 | |
| 13,800.00 | 90.00 | 90.22 | 6,936.00 | -2,421.20 | 6,792.76 | 7,166.89 | 0.00 | 0.00 | 0.00 | |

Planning Report

| | | | |
|------------------|----------------------------|-------------------------------------|--------------------------|
| Database: | EDM 5000.16 Single User Db | Local Co-ordinate Reference: | Well VIC EAST 21E-20-09N |
| Company: | EXTRACTION OIL & GAS | TVD Reference: | KB 29' @ 5040.00usft |
| Project: | WELD COUNTY | MD Reference: | KB 29' @ 5040.00usft |
| Site: | SEC 20-T7N-R67W | North Reference: | True |
| Well: | VIC EAST 21E-20-09N | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | OWB | | |
| Design: | PROPOSAL 1 | | |

| Planned Survey | | | | | | | | | | |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-----------------------------|----------------------------|---------------------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | |
| 13,900.00 | 90.00 | 90.22 | 6,936.00 | -2,421.59 | 6,892.76 | 7,264.31 | 0.00 | 0.00 | 0.00 | |
| 14,000.00 | 90.00 | 90.22 | 6,936.00 | -2,421.98 | 6,992.76 | 7,361.74 | 0.00 | 0.00 | 0.00 | |
| 14,100.00 | 90.00 | 90.22 | 6,936.00 | -2,422.37 | 7,092.76 | 7,459.17 | 0.00 | 0.00 | 0.00 | |
| 14,200.00 | 90.00 | 90.22 | 6,936.00 | -2,422.76 | 7,192.75 | 7,556.59 | 0.00 | 0.00 | 0.00 | |
| 14,300.00 | 90.00 | 90.22 | 6,936.00 | -2,423.16 | 7,292.75 | 7,654.02 | 0.00 | 0.00 | 0.00 | |
| 14,400.00 | 90.00 | 90.22 | 6,936.00 | -2,423.55 | 7,392.75 | 7,751.45 | 0.00 | 0.00 | 0.00 | |
| 14,500.00 | 90.00 | 90.22 | 6,936.00 | -2,423.94 | 7,492.75 | 7,848.87 | 0.00 | 0.00 | 0.00 | |
| 14,600.00 | 90.00 | 90.22 | 6,936.00 | -2,424.33 | 7,592.75 | 7,946.30 | 0.00 | 0.00 | 0.00 | |
| 14,700.00 | 90.00 | 90.22 | 6,936.00 | -2,424.72 | 7,692.75 | 8,043.72 | 0.00 | 0.00 | 0.00 | |
| 14,800.00 | 90.00 | 90.22 | 6,936.00 | -2,425.11 | 7,792.75 | 8,141.15 | 0.00 | 0.00 | 0.00 | |
| 14,900.00 | 90.00 | 90.22 | 6,936.00 | -2,425.50 | 7,892.75 | 8,238.58 | 0.00 | 0.00 | 0.00 | |
| 15,000.00 | 90.00 | 90.22 | 6,936.00 | -2,425.89 | 7,992.75 | 8,336.00 | 0.00 | 0.00 | 0.00 | |
| 15,100.00 | 90.00 | 90.22 | 6,936.00 | -2,426.28 | 8,092.75 | 8,433.43 | 0.00 | 0.00 | 0.00 | |
| 15,200.00 | 90.00 | 90.22 | 6,936.00 | -2,426.67 | 8,192.75 | 8,530.86 | 0.00 | 0.00 | 0.00 | |
| 15,300.00 | 90.00 | 90.22 | 6,936.00 | -2,427.06 | 8,292.75 | 8,628.28 | 0.00 | 0.00 | 0.00 | |
| 15,400.00 | 90.00 | 90.22 | 6,936.00 | -2,427.45 | 8,392.75 | 8,725.71 | 0.00 | 0.00 | 0.00 | |
| 15,500.00 | 90.00 | 90.22 | 6,936.00 | -2,427.84 | 8,492.75 | 8,823.13 | 0.00 | 0.00 | 0.00 | |
| 15,600.00 | 90.00 | 90.22 | 6,936.00 | -2,428.23 | 8,592.74 | 8,920.56 | 0.00 | 0.00 | 0.00 | |
| 15,700.00 | 90.00 | 90.22 | 6,936.00 | -2,428.63 | 8,692.74 | 9,017.99 | 0.00 | 0.00 | 0.00 | |
| 15,800.00 | 90.00 | 90.22 | 6,936.00 | -2,429.02 | 8,792.74 | 9,115.41 | 0.00 | 0.00 | 0.00 | |
| 15,900.00 | 90.00 | 90.22 | 6,936.00 | -2,429.41 | 8,892.74 | 9,212.84 | 0.00 | 0.00 | 0.00 | |
| 16,000.00 | 90.00 | 90.22 | 6,936.00 | -2,429.80 | 8,992.74 | 9,310.27 | 0.00 | 0.00 | 0.00 | |
| 16,100.00 | 90.00 | 90.22 | 6,936.00 | -2,430.19 | 9,092.74 | 9,407.69 | 0.00 | 0.00 | 0.00 | |
| 16,200.00 | 90.00 | 90.22 | 6,936.00 | -2,430.58 | 9,192.74 | 9,505.12 | 0.00 | 0.00 | 0.00 | |
| 16,300.00 | 90.00 | 90.22 | 6,936.00 | -2,430.97 | 9,292.74 | 9,602.54 | 0.00 | 0.00 | 0.00 | |
| 16,400.00 | 90.00 | 90.22 | 6,936.00 | -2,431.36 | 9,392.74 | 9,699.97 | 0.00 | 0.00 | 0.00 | |
| 16,500.00 | 90.00 | 90.22 | 6,936.00 | -2,431.75 | 9,492.74 | 9,797.40 | 0.00 | 0.00 | 0.00 | |
| 16,600.00 | 90.00 | 90.22 | 6,936.00 | -2,432.14 | 9,592.74 | 9,894.82 | 0.00 | 0.00 | 0.00 | |
| 16,700.00 | 90.00 | 90.22 | 6,936.00 | -2,432.53 | 9,692.74 | 9,992.25 | 0.00 | 0.00 | 0.00 | |
| 16,800.00 | 90.00 | 90.22 | 6,936.00 | -2,432.92 | 9,792.74 | 10,089.67 | 0.00 | 0.00 | 0.00 | |
| 16,900.00 | 90.00 | 90.22 | 6,936.00 | -2,433.31 | 9,892.73 | 10,187.10 | 0.00 | 0.00 | 0.00 | |
| 17,000.00 | 90.00 | 90.22 | 6,936.00 | -2,433.70 | 9,992.73 | 10,284.53 | 0.00 | 0.00 | 0.00 | |
| 17,100.00 | 90.00 | 90.22 | 6,936.00 | -2,434.09 | 10,092.73 | 10,381.95 | 0.00 | 0.00 | 0.00 | |
| 17,200.00 | 90.00 | 90.22 | 6,936.00 | -2,434.49 | 10,192.73 | 10,479.38 | 0.00 | 0.00 | 0.00 | |
| 17,300.00 | 90.00 | 90.22 | 6,936.00 | -2,434.88 | 10,292.73 | 10,576.81 | 0.00 | 0.00 | 0.00 | |
| 17,347.57 | 90.00 | 90.22 | 6,936.00 | -2,435.06 | 10,340.30 | 10,623.15 | 0.00 | 0.00 | 0.00 | |
| TD at 17347.57 | | | | | | | | | | |

| Design Targets | | | | | | | | | |
|---------------------------|---------------|--------------|------------|--------------|--------------|-----------------|----------------|-------------|--------------|
| Target Name | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude | Longitude |
| - hit/miss target | | | | | | | | | |
| - Shape | | | | | | | | | |
| VIC EAST 21E-09N-PBH | 0.00 | 0.00 | 6,936.00 | -2,435.06 | 10,340.30 | 1,445,477.52 | 3,174,621.60 | 40.554537°N | 104.871578°W |
| - plan hits target center | | | | | | | | | |
| - Point | | | | | | | | | |
| VIC EAST 21E-09N-LP | 0.00 | 0.00 | 6,936.00 | -2,397.51 | 728.87 | 1,445,450.99 | 3,165,010.13 | 40.554646°N | 104.906167°W |
| - plan hits target center | | | | | | | | | |
| - Point | | | | | | | | | |

Planning Report

| | | | |
|------------------|----------------------------|-------------------------------------|--------------------------|
| Database: | EDM 5000.16 Single User Db | Local Co-ordinate Reference: | Well VIC EAST 21E-20-09N |
| Company: | EXTRACTION OIL & GAS | TVD Reference: | KB 29' @ 5040.00usft |
| Project: | WELD COUNTY | MD Reference: | KB 29' @ 5040.00usft |
| Site: | SEC 20-T7N-R67W | North Reference: | True |
| Well: | VIC EAST 21E-20-09N | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | OWB | | |
| Design: | PROPOSAL 1 | | |

| Formations | | | | | | |
|-----------------------|-----------------------|----------------------------------|-----------|---------|-------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Name | Lithology | Dip (°) | Dip Direction (°) | |
| 804.02 | 804.00 | Fox Hills Base: | | | | |
| 3,674.94 | 3,499.00 | Parkman: | | | | |
| 4,256.22 | 4,034.00 | Sussex: | | | | |
| 4,875.53 | 4,604.00 | Shannon: | | | | |
| 7,541.91 | 6,906.00 | Sharon Springs (Confining Zone): | | | | |
| 7,624.33 | 6,926.00 | Niobrara: | | | | |

| Plan Annotations | | | | | |
|-----------------------|-----------------------|-------------------|--------------|----------------------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates | | Comment | |
| | | +N/-S (usft) | +E/-W (usft) | | |
| 700.00 | 700.00 | 0.00 | 0.00 | Start Build 2.00 | |
| 1,850.91 | 1,820.20 | -227.50 | 16.40 | Start 5002.13 hold at 1850.91 MD | |
| 6,853.05 | 6,424.06 | -2,178.40 | 157.01 | Start DLS 10.00 TFO -86.00 | |
| 7,736.06 | 6,936.00 | -2,397.51 | 728.87 | Start 9611.51 hold at 7736.06 MD | |
| 17,347.57 | 6,936.00 | -2,435.06 | 10,340.30 | TD at 17347.57 | |