

|                      |                                  |                                    |                                          |
|----------------------|----------------------------------|------------------------------------|------------------------------------------|
| <b>Borehole:</b>     | <b>Well:</b>                     | <b>Field:</b>                      | <b>Structure:</b>                        |
| <b>Original Hole</b> | <b>Shull Fed-9-59-31-0508CDE</b> | <b>CO, Weld County (NAD 83 NZ)</b> | <b>31-09N-59W (Anderson-Shull Pad 1)</b> |

| Gravity & Magnetic Parameters |           |      |             |             | Surface Location          |      |               |           | NAD83 Colorado State Plane, Northern Zone, US Feet |             |            |       | Miscellaneous                            |          |                           |
|-------------------------------|-----------|------|-------------|-------------|---------------------------|------|---------------|-----------|----------------------------------------------------|-------------|------------|-------|------------------------------------------|----------|---------------------------|
| Model:                        | HDGM 2015 | Dip: | 67.142°     | Date:       | 13-Apr-2016               | Lat: | N 40 42 40.01 | Northing: | 1505316.84ftUS                                     | Grid Conv:  | 0.9549°    | Slot: | Shull Fed-9-59-31-0508CDE                | TVD Ref: | KB 18ft(4923ft above MSL) |
| MagDec:                       | 8.028°    | FS:  | 52770.445nT | Gravity FS: | 999.08mgn (9.80665 Based) | Lon: | W 104 1 19.81 | Eastng:   | 3409683.45ftUS                                     | Scale Fact: | 0.99998908 | Plan: | Shull Fed-9-59-31-0508CDE R0 mdv 13Apr16 |          |                           |

| Northing: 1505316.837                       |               | Easting: 3409683.447 |            | Surface Location |         | Longitude: W 104 1 19.81 |           | VSec Azimuth: 85.746 |     |
|---------------------------------------------|---------------|----------------------|------------|------------------|---------|--------------------------|-----------|----------------------|-----|
| Target Description                          |               | Grid Coord           |            | Local Coord      |         |                          |           |                      |     |
| Target Name                                 | Latitude      | Longitude            | Northing   | Easting          | TVD     | VSec                     | N(+)/S(-) | E(+)/W(-)            | DLS |
| Pad 1                                       | N 40 42 41.43 | W 104 1 22.06        | 1505457.62 | 3409507.95       | 4923.00 | -164.58                  | 140.78    | -175.50              |     |
| Anderson-Shull Pad Sec 31-32 - 460' Setback | N 40 42 41.43 | W 104 1 22.06        | 1505457.62 | 3409507.95       | 4923.00 | -164.58                  | 140.78    | -175.50              |     |
| Anderson-Shull Pad Sec 31-9N-59W            | N 40 42 41.43 | W 104 1 22.06        | 1505457.62 | 3409507.95       | 4923.00 | -164.58                  | 140.78    | -175.50              |     |
| Anderson-Shull Pad Sec 32-9N-59W            | N 40 42 41.43 | W 104 1 22.06        | 1505457.62 | 3409507.95       | 4923.00 | -164.58                  | 140.78    | -175.50              |     |
| Shull Fed-9-59-31-0508CDE BHL               | N 40 42 44.42 | W 103 59 39.04       | 1505893.37 | 3417434.67       | 6313.00 | 7772.73                  | 576.54    | 7751.32              |     |
| Shull Fed-9-59-31-0508CDE LP                | N 40 42 44.18 | W 104 1 8.60         | 1505752.45 | 3410539.21       | 6343.00 | 885.72                   | 435.62    | 855.77               |     |

  

| Critical Point                |          | Critical Point |       | Critical Point |           | Critical Point |         | Critical Point |  |
|-------------------------------|----------|----------------|-------|----------------|-----------|----------------|---------|----------------|--|
| MD                            | INCL     | AZIM           | TVD   | VSEC           | N(+)/S(-) | E(+)/W(-)      | DLS     |                |  |
| Surface                       | 0.00     | 0.00           | 0.00  | 0.00           | 0.00      | 0.00           | 0.00    |                |  |
| KOP, Build 1.5 DLS            | 1500.00  | 0.00           | 15.54 | 1500.00        | 0.00      | 0.00           | 0.00    |                |  |
| Hold                          | 1855.93  | 5.34           | 15.54 | 1855.41        | 5.61      | 15.97          | 4.44    | 1.50           |  |
| KOP, Build/Turn 10 DLS        | 5720.38  | 5.34           | 15.54 | 5703.10        | 127.36    | 362.40         | 100.76  | 0.00           |  |
| Hold 200' @ 65° INC           | 6353.95  | 65.00          | 86.40 | 6204.56        | 458.92    | 414.24         | 429.38  | 10.00          |  |
| KOP, Build 10 DLS to Landing  | 6553.95  | 65.00          | 86.40 | 6289.08        | 640.17    | 425.64         | 610.28  | 0.00           |  |
| Landing Point, Hold to TD     | 6807.55  | 90.25          | 88.83 | 6343.00        | 885.72    | 435.62         | 855.77  | 10.00          |  |
| 7" Casing Point               | 6808.00  | 90.25          | 88.83 | 6343.00        | 886.17    | 435.63         | 856.22  | 0.00           |  |
| Shull Fed-9-59-31-0508CDE BHL | 13704.61 | 90.25          | 88.83 | 6313.00        | 7772.73   | 576.54         | 7751.32 | 0.00           |  |

**Proposal**  
**Rev 0**



Grid  
True  
Mag

Grid North  
Tot Corr (M->G 7.073°)  
Mag Dec (8.028°)  
Grid Conv (0.955°)

EW (ft) Scale = 1:2000.00(ft)

