

KERR-MCGEE OIL & GAS ONSHORE LP



Location: COLORADO Slot: SLOT#10 SICKLER 27C-34HZ (381°FSL & 1473°FEL, SEC.34)
 Field: WELD COUNTY (KERR MCGEE) Well: SICKLER 27C-34HZ
 Facility: SEC.34-T2N-R67W Wellbore: SICKLER 27C-34HZ PWB

Plot reference wellpath is SICKLER 27C-34HZ (PERMIT REV-3) PWP

| | |
|--|--|
| True vertical depths are referenced to PERMIT(17KB) (RKB) | Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet |
| Measured depths are referenced to PERMIT(17KB) (RKB) | North Reference: True north |
| PERMIT(17KB) (RKB) to Mean Sea Level: 4966 feet | Scale: True distance |
| Mean Sea Level to Mud line (At Slot: SLOT#10 SICKLER 27C-34HZ (381°FSL & 1473°FEL, SEC.34): 0 feet | Depths are in feet |
| Coordinates are in feet referenced to Slot | Created by: precin on 19/Mar/2014 |

Location Information

| | | | | | | |
|--|-------------------|--------------------|-------------------|--------------------|----------------|-----------------|
| Facility Name | Grid East (US ft) | Grid North (US ft) | Latitude | Longitude | | |
| SEC.34-T2N-R67W | 3172818.756 | 1280239.992 | 40°08'03.593"N | 104°52'55.952"W | | |
| Slot | Local N (ft) | Local E (ft) | Grid East (US ft) | Grid North (US ft) | Latitude | Longitude |
| SLOT#10 SICKLER 27C-34HZ (381°FSL & 1473°FEL, SEC.34) | -4532.78 | 2594.46 | 3175444.622 | 1275725.585 | 40°08'18.798"N | 104°52'22.570"W |
| PERMIT(17KB) (RKB) to Mud line (At Slot: SLOT#10 SICKLER 27C-34HZ (381°FSL & 1473°FEL, SEC.34) | | | | | 4966ft | |
| Mean Sea Level to Mud line (At Slot: SLOT#10 SICKLER 27C-34HZ (381°FSL & 1473°FEL, SEC.34) | | | | | 0ft | |
| PERMIT(17KB) (RKB) to Mean Sea Level | | | | | 4966ft | |

Survey Program

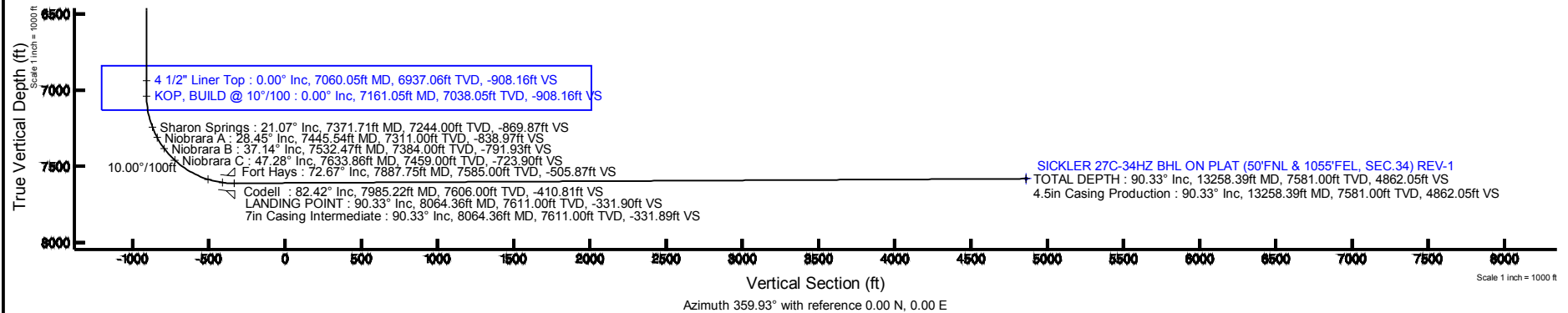
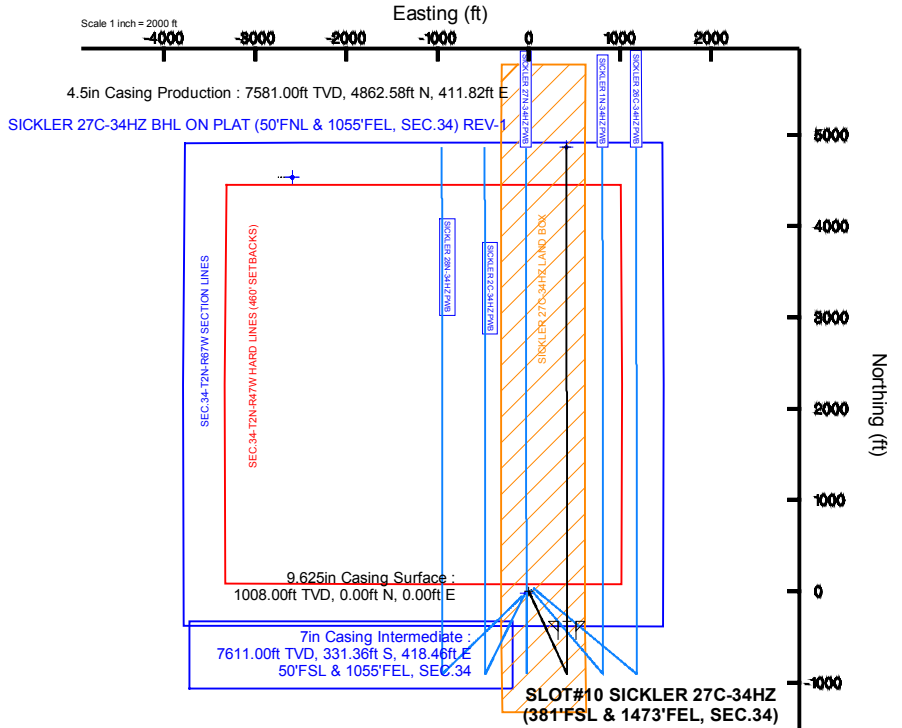
| Start MD (ft) | End MD (ft) | Tool | Model | Log Name/Comment | Wellbore |
|---------------|-------------|----------|------------------------|------------------|----------------------|
| 17.00 | 13258.39 | NaviTrak | NaviTrak (MAGCORR,IFR) | | SICKLER 27C-34HZ PWB |

Well Profile Data

| Design Comment | MD (ft) | Inc (°) | Az (°) | TVD (ft) | Local N (ft) | Local E (ft) | DLS (°/100ft) | VS (ft) |
|----------------------|----------|---------|---------|----------|--------------|--------------|---------------|---------|
| TIE-ON | 17.00 | 0.000 | 155.210 | 17.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| BEGIN NUDGE | 1320.00 | 0.000 | 155.210 | 1320.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| END NUDGE | 2070.00 | 15.000 | 155.210 | 2061.46 | -88.62 | 40.93 | 2.00 | -88.67 |
| BEGIN DROP | 5178.46 | 15.000 | 155.210 | 5064.00 | -819.01 | 378.26 | 0.00 | -819.49 |
| END DROP | 5928.46 | 0.000 | 359.927 | 5805.46 | -907.63 | 419.19 | 2.00 | -908.16 |
| KOP, BUILD @ 10°/100 | 7161.05 | 0.000 | 359.927 | 7038.05 | -907.63 | 419.19 | 0.00 | -908.16 |
| LANDING POINT | 8064.36 | 90.331 | 359.927 | 7611.00 | -331.36 | 418.46 | 10.00 | -331.90 |
| TOTAL DEPTH | 13258.39 | 90.331 | 359.927 | 7581.00 | 4862.58 | 411.82 | 0.00 | 4862.05 |

Targets

| Name | MD (ft) | TVD (ft) | Local N (ft) | Local E (ft) | Grid East (US ft) | Grid North (US ft) | Latitude | Longitude |
|--|----------|----------|--------------|--------------|-------------------|--------------------|-----------------|-----------|
| SEC.34-T2N-R47W HARD LINES (460' SETBACKS) | 4966.00 | 4533.05 | -2594.06 | 3172818.66 | 1280239.99 | 40°08'03.593"N | 104°52'55.952"W | |
| SEC.34-T2N-R67W SECTION LINES | 4966.00 | 4533.05 | -2594.06 | 3172818.66 | 1280239.99 | 40°08'03.593"N | 104°52'55.952"W | |
| SICKLER 27C-34HZ LAND BOX | 7380.00 | -17.81 | -34.02 | 3175420.73 | 1275707.61 | 40°08'18.622"N | 104°52'22.879"W | |
| SICKLER 27C-34HZ BHL ON PLAT (50°FNL & 1055°FEL, SEC.34) REV-1 | 13258.39 | 7581.00 | 4862.58 | 411.82 | 3175822.03 | 40°08'06.851"N | 104°52'17.270"W | |



| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|---------------------------------|----------|---|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP | Slot | SLOT#10 SICKLER 27C-34HZ (381'FSL & 1473'FEL, SEC.34) |
| Area | COLORADO | Well | SICKLER 27C-34HZ |
| Field | WELD COUNTY (KERR MCGEE) | Wellbore | SICKLER 27C-34HZ PWB |
| Facility | SEC.34-T2N-R67W | | |

| REPORT SETUP INFORMATION | | | |
|--------------------------|---|----------------------|--|
| Projection System | NAD83 / Lambert Colorado SP, Northern Zone (501), US feet | Software System | WellArchitect® 4.0.0 |
| North Reference | True | User | Precain |
| Scale | 0.999961 | Report Generated | 19/Mar/2014 at 09:41 |
| Convergence at slot | n/a | Database/Source file | WellArchitectDB/SICKLER_27C-34HZ_PWB.xml |

| WELLPATH LOCATION | | | | | | |
|-----------------------|-------------------|----------|-------------------|-------------------|------------------------|-----------------|
| | Local coordinates | | Grid coordinates | | Geographic coordinates | |
| | North[ft] | East[ft] | Easting[US ft] | Northing[US ft] | Latitude | Longitude |
| Slot Location | -4532.78 | 2594.46 | 3175444.62 | 1275725.59 | 40°05'18.798"N | 104°52'22.570"W |
| Facility Reference Pt | | | 3172818.76 | 1280239.99 | 40°06'03.593"N | 104°52'55.951"W |
| Field Reference Pt | | | 3197771.84 | 1268891.29 | 40°04'09.600"N | 104°47'36.000"W |

| WELLPATH DATUM | | | |
|--------------------------|---------------------|---|-------------------|
| Calculation method | Minimum curvature | PERMIT(17'KB) (RKB) to Facility Vertical Datum | 4966.00ft |
| Horizontal Reference Pt | Slot | PERMIT(17'KB) (RKB) to Mean Sea Level | 4966.00ft |
| Vertical Reference Pt | PERMIT(17'KB) (RKB) | PERMIT(17'KB) (RKB) to Mud Line at Slot (SLOT#10 SICKLER 27C-34HZ (381'FSL & 1473'FEL, SEC.34)) | 4966.00ft |
| MD Reference Pt | PERMIT(17'KB) (RKB) | Section Origin | N 0.00, E 0.00 ft |
| Field Vertical Reference | Mean Sea Level | Section Azimuth | 359.93° |

| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|---------------------------------|----------|---|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP | Slot | SLOT#10 SICKLER 27C-34HZ (381'FSL & 1473'FEL, SEC.34) |
| Area | COLORADO | Well | SICKLER 27C-34HZ |
| Field | WELD COUNTY (KERR MCGEE) | Wellbore | SICKLER 27C-34HZ PWB |
| Facility | SEC.34-T2N-R67W | | |

| WELLPATH DATA (151 stations) † = interpolated/extrapolated station | | | | | | | | | | |
|--|-----------------|-------------|----------|----------------|------------|-----------|----------------|-----------------|---------------|------------------|
| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | Latitude | Longitude | DLS [°/100ft] | Comments |
| 0.00† | 0.000 | 155.210 | 0.00 | 0.00 | 0.00 | 0.00 | 40°05'18.798"N | 104°52'22.570"W | 0.00 | |
| 17.00 | 0.000 | 155.210 | 17.00 | 0.00 | 0.00 | 0.00 | 40°05'18.798"N | 104°52'22.570"W | 0.00 | TIE-ON |
| 117.00† | 0.000 | 155.210 | 117.00 | 0.00 | 0.00 | 0.00 | 40°05'18.798"N | 104°52'22.570"W | 0.00 | |
| 217.00† | 0.000 | 155.210 | 217.00 | 0.00 | 0.00 | 0.00 | 40°05'18.798"N | 104°52'22.570"W | 0.00 | |
| 317.00† | 0.000 | 155.210 | 317.00 | 0.00 | 0.00 | 0.00 | 40°05'18.798"N | 104°52'22.570"W | 0.00 | |
| 417.00† | 0.000 | 155.210 | 417.00 | 0.00 | 0.00 | 0.00 | 40°05'18.798"N | 104°52'22.570"W | 0.00 | |
| 517.00† | 0.000 | 155.210 | 517.00 | 0.00 | 0.00 | 0.00 | 40°05'18.798"N | 104°52'22.570"W | 0.00 | |
| 617.00† | 0.000 | 155.210 | 617.00 | 0.00 | 0.00 | 0.00 | 40°05'18.798"N | 104°52'22.570"W | 0.00 | |
| 717.00† | 0.000 | 155.210 | 717.00 | 0.00 | 0.00 | 0.00 | 40°05'18.798"N | 104°52'22.570"W | 0.00 | |
| 817.00† | 0.000 | 155.210 | 817.00 | 0.00 | 0.00 | 0.00 | 40°05'18.798"N | 104°52'22.570"W | 0.00 | |
| 917.00† | 0.000 | 155.210 | 917.00 | 0.00 | 0.00 | 0.00 | 40°05'18.798"N | 104°52'22.570"W | 0.00 | |
| 1017.00† | 0.000 | 155.210 | 1017.00 | 0.00 | 0.00 | 0.00 | 40°05'18.798"N | 104°52'22.570"W | 0.00 | |
| 1117.00† | 0.000 | 155.210 | 1117.00 | 0.00 | 0.00 | 0.00 | 40°05'18.798"N | 104°52'22.570"W | 0.00 | |
| 1158.00† | 0.000 | 155.210 | 1158.00 | 0.00 | 0.00 | 0.00 | 40°05'18.798"N | 104°52'22.570"W | 0.00 | Fox Hills Marker |
| 1217.00† | 0.000 | 155.210 | 1217.00 | 0.00 | 0.00 | 0.00 | 40°05'18.798"N | 104°52'22.570"W | 0.00 | |
| 1317.00† | 0.000 | 155.210 | 1317.00 | 0.00 | 0.00 | 0.00 | 40°05'18.798"N | 104°52'22.570"W | 0.00 | |
| 1320.00 | 0.000 | 155.210 | 1320.00 | 0.00 | 0.00 | 0.00 | 40°05'18.798"N | 104°52'22.570"W | 0.00 | BEGIN NUDGE |
| 1417.00† | 1.940 | 155.210 | 1416.98 | -1.49 | -1.49 | 0.69 | 40°05'18.783"N | 104°52'22.561"W | 2.00 | |
| 1517.00† | 3.940 | 155.210 | 1516.84 | -6.15 | -6.15 | 2.84 | 40°05'18.737"N | 104°52'22.533"W | 2.00 | |
| 1617.00† | 5.940 | 155.210 | 1616.47 | -13.97 | -13.96 | 6.45 | 40°05'18.660"N | 104°52'22.487"W | 2.00 | |
| 1717.00† | 7.940 | 155.210 | 1715.73 | -24.95 | -24.93 | 11.52 | 40°05'18.552"N | 104°52'22.422"W | 2.00 | |
| 1817.00† | 9.940 | 155.210 | 1814.51 | -39.06 | -39.04 | 18.03 | 40°05'18.412"N | 104°52'22.338"W | 2.00 | |
| 1917.00† | 11.940 | 155.210 | 1912.69 | -56.30 | -56.27 | 25.99 | 40°05'18.242"N | 104°52'22.236"W | 2.00 | |
| 2017.00† | 13.940 | 155.210 | 2010.14 | -76.64 | -76.60 | 35.38 | 40°05'18.041"N | 104°52'22.115"W | 2.00 | |
| 2070.00 | 15.000 | 155.210 | 2061.46 | -88.67 | -88.62 | 40.93 | 40°05'17.922"N | 104°52'22.043"W | 2.00 | END NUDGE |
| 2117.00† | 15.000 | 155.210 | 2106.86 | -99.72 | -99.66 | 46.03 | 40°05'17.813"N | 104°52'21.978"W | 0.00 | |
| 2217.00† | 15.000 | 155.210 | 2203.45 | -123.23 | -123.16 | 56.88 | 40°05'17.581"N | 104°52'21.838"W | 0.00 | |
| 2317.00† | 15.000 | 155.210 | 2300.05 | -146.74 | -146.66 | 67.73 | 40°05'17.349"N | 104°52'21.699"W | 0.00 | |
| 2417.00† | 15.000 | 155.210 | 2396.64 | -170.25 | -170.15 | 78.59 | 40°05'17.117"N | 104°52'21.559"W | 0.00 | |
| 2517.00† | 15.000 | 155.210 | 2493.23 | -193.77 | -193.65 | 89.44 | 40°05'16.884"N | 104°52'21.419"W | 0.00 | |
| 2617.00† | 15.000 | 155.210 | 2589.82 | -217.28 | -217.15 | 100.29 | 40°05'16.652"N | 104°52'21.280"W | 0.00 | |
| 2717.00† | 15.000 | 155.210 | 2686.42 | -240.79 | -240.65 | 111.14 | 40°05'16.420"N | 104°52'21.140"W | 0.00 | |
| 2817.00† | 15.000 | 155.210 | 2783.01 | -264.30 | -264.14 | 121.99 | 40°05'16.188"N | 104°52'21.000"W | 0.00 | |
| 2917.00† | 15.000 | 155.210 | 2879.60 | -287.81 | -287.64 | 132.85 | 40°05'15.955"N | 104°52'20.861"W | 0.00 | |
| 3017.00† | 15.000 | 155.210 | 2976.19 | -311.32 | -311.14 | 143.70 | 40°05'15.723"N | 104°52'20.721"W | 0.00 | |
| 3117.00† | 15.000 | 155.210 | 3072.79 | -334.83 | -334.63 | 154.55 | 40°05'15.491"N | 104°52'20.582"W | 0.00 | |
| 3217.00† | 15.000 | 155.210 | 3169.38 | -358.34 | -358.13 | 165.40 | 40°05'15.259"N | 104°52'20.442"W | 0.00 | |
| 3317.00† | 15.000 | 155.210 | 3265.97 | -381.85 | -381.63 | 176.26 | 40°05'15.027"N | 104°52'20.302"W | 0.00 | |
| 3417.00† | 15.000 | 155.210 | 3362.56 | -405.36 | -405.12 | 187.11 | 40°05'14.794"N | 104°52'20.163"W | 0.00 | |
| 3517.00† | 15.000 | 155.210 | 3459.16 | -428.87 | -428.62 | 197.96 | 40°05'14.562"N | 104°52'20.023"W | 0.00 | |
| 3617.00† | 15.000 | 155.210 | 3555.75 | -452.38 | -452.12 | 208.81 | 40°05'14.330"N | 104°52'19.883"W | 0.00 | |
| 3717.00† | 15.000 | 155.210 | 3652.34 | -475.89 | -475.61 | 219.66 | 40°05'14.098"N | 104°52'19.744"W | 0.00 | |
| 3817.00† | 15.000 | 155.210 | 3748.93 | -499.40 | -499.11 | 230.52 | 40°05'13.866"N | 104°52'19.604"W | 0.00 | |
| 3917.00† | 15.000 | 155.210 | 3845.53 | -522.92 | -522.61 | 241.37 | 40°05'13.633"N | 104°52'19.465"W | 0.00 | |
| 3990.99† | 15.000 | 155.210 | 3917.00 | -540.31 | -539.99 | 249.40 | 40°05'13.462"N | 104°52'19.361"W | 0.00 | Parkman |

| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|--|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP | Slot | SLOT#10 SICKLER 27C-34HZ (381'FSL & 1473'FEL, SEC.34) |
| Area | COLORADO | Well | SICKLER 27C-34HZ |
| Field | WELD COUNTY (KERR MCGEE) | Wellbore | SICKLER 27C-34HZ PWB |
| Facility | SEC.34-T2N-R67W | | |

| WELLPATH DATA (151 stations) † = interpolated/extrapolated station | | | | | | | | | | |
|--|-----------------|-------------|----------|----------------|------------|-----------|----------------|-----------------|---------------|----------------------|
| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | Latitude | Longitude | DLS [°/100ft] | Comments |
| 4017.00† | 15.000 | 155.210 | 3942.12 | -546.43 | -546.10 | 252.22 | 40°05'13.401"N | 104°52'19.325"W | 0.00 | |
| 4117.00† | 15.000 | 155.210 | 4038.71 | -569.94 | -569.60 | 263.07 | 40°05'13.169"N | 104°52'19.185"W | 0.00 | |
| 4217.00† | 15.000 | 155.210 | 4135.30 | -593.45 | -593.10 | 273.92 | 40°05'12.937"N | 104°52'19.046"W | 0.00 | |
| 4317.00† | 15.000 | 155.210 | 4231.90 | -616.96 | -616.60 | 284.78 | 40°05'12.705"N | 104°52'18.906"W | 0.00 | |
| 4417.00† | 15.000 | 155.210 | 4328.49 | -640.47 | -640.09 | 295.63 | 40°05'12.472"N | 104°52'18.766"W | 0.00 | |
| 4517.00† | 15.000 | 155.210 | 4425.08 | -663.98 | -663.59 | 306.48 | 40°05'12.240"N | 104°52'18.627"W | 0.00 | |
| 4569.71† | 15.000 | 155.210 | 4476.00 | -676.37 | -675.98 | 312.20 | 40°05'12.118"N | 104°52'18.553"W | 0.00 | Sussex |
| 4617.00† | 15.000 | 155.210 | 4521.68 | -687.49 | -687.09 | 317.33 | 40°05'12.008"N | 104°52'18.487"W | 0.00 | |
| 4717.00† | 15.000 | 155.210 | 4618.27 | -711.00 | -710.58 | 328.19 | 40°05'11.776"N | 104°52'18.348"W | 0.00 | |
| 4817.00† | 15.000 | 155.210 | 4714.86 | -734.51 | -734.08 | 339.04 | 40°05'11.544"N | 104°52'18.208"W | 0.00 | |
| 4917.00† | 15.000 | 155.210 | 4811.45 | -758.02 | -757.58 | 349.89 | 40°05'11.311"N | 104°52'18.068"W | 0.00 | |
| 5017.00† | 15.000 | 155.210 | 4908.05 | -781.53 | -781.07 | 360.74 | 40°05'11.079"N | 104°52'17.929"W | 0.00 | |
| 5117.00† | 15.000 | 155.210 | 5004.64 | -805.04 | -804.57 | 371.59 | 40°05'10.847"N | 104°52'17.789"W | 0.00 | |
| 5178.46 | 15.000 | 155.210 | 5064.00 | -819.49 | -819.01 | 378.26 | 40°05'10.704"N | 104°52'17.703"W | 0.00 | BEGIN DROP |
| 5217.00† | 14.229 | 155.210 | 5101.30 | -828.33 | -827.84 | 382.34 | 40°05'10.617"N | 104°52'17.651"W | 2.00 | |
| 5317.00† | 12.229 | 155.210 | 5198.64 | -849.11 | -848.61 | 391.94 | 40°05'10.412"N | 104°52'17.527"W | 2.00 | |
| 5417.00† | 10.229 | 155.210 | 5296.72 | -866.80 | -866.29 | 400.10 | 40°05'10.237"N | 104°52'17.422"W | 2.00 | |
| 5517.00† | 8.229 | 155.210 | 5395.42 | -881.37 | -880.85 | 406.82 | 40°05'10.093"N | 104°52'17.336"W | 2.00 | |
| 5617.00† | 6.229 | 155.210 | 5494.62 | -892.80 | -892.28 | 412.10 | 40°05'09.980"N | 104°52'17.268"W | 2.00 | |
| 5717.00† | 4.229 | 155.210 | 5594.20 | -901.08 | -900.55 | 415.92 | 40°05'09.899"N | 104°52'17.219"W | 2.00 | |
| 5817.00† | 2.229 | 155.210 | 5694.03 | -906.20 | -905.66 | 418.28 | 40°05'09.848"N | 104°52'17.188"W | 2.00 | |
| 5917.00† | 0.229 | 155.210 | 5794.01 | -908.14 | -907.61 | 419.18 | 40°05'09.829"N | 104°52'17.177"W | 2.00 | |
| 5928.46 | 0.000 | 359.927 | 5805.46 | -908.16 | -907.63 | 419.19 | 40°05'09.829"N | 104°52'17.177"W | 2.00 | END DROP |
| 6017.00† | 0.000 | 359.927 | 5894.01 | -908.16 | -907.63 | 419.19 | 40°05'09.829"N | 104°52'17.177"W | 0.00 | |
| 6117.00† | 0.000 | 359.927 | 5994.01 | -908.16 | -907.63 | 419.19 | 40°05'09.829"N | 104°52'17.177"W | 0.00 | |
| 6217.00† | 0.000 | 359.927 | 6094.01 | -908.16 | -907.63 | 419.19 | 40°05'09.829"N | 104°52'17.177"W | 0.00 | |
| 6317.00† | 0.000 | 359.927 | 6194.01 | -908.16 | -907.63 | 419.19 | 40°05'09.829"N | 104°52'17.177"W | 0.00 | |
| 6417.00† | 0.000 | 359.927 | 6294.01 | -908.16 | -907.63 | 419.19 | 40°05'09.829"N | 104°52'17.177"W | 0.00 | |
| 6517.00† | 0.000 | 359.927 | 6394.01 | -908.16 | -907.63 | 419.19 | 40°05'09.829"N | 104°52'17.177"W | 0.00 | |
| 6617.00† | 0.000 | 359.927 | 6494.01 | -908.16 | -907.63 | 419.19 | 40°05'09.829"N | 104°52'17.177"W | 0.00 | |
| 6717.00† | 0.000 | 359.927 | 6594.01 | -908.16 | -907.63 | 419.19 | 40°05'09.829"N | 104°52'17.177"W | 0.00 | |
| 6817.00† | 0.000 | 359.927 | 6694.01 | -908.16 | -907.63 | 419.19 | 40°05'09.829"N | 104°52'17.177"W | 0.00 | |
| 6917.00† | 0.000 | 359.927 | 6794.01 | -908.16 | -907.63 | 419.19 | 40°05'09.829"N | 104°52'17.177"W | 0.00 | |
| 7017.00† | 0.000 | 359.927 | 6894.01 | -908.16 | -907.63 | 419.19 | 40°05'09.829"N | 104°52'17.177"W | 0.00 | |
| 7060.05† | 0.000 | 359.927 | 6937.06 | -908.16 | -907.63 | 419.19 | 40°05'09.829"N | 104°52'17.177"W | 0.00 | 4 1/2" Liner Top |
| 7117.00† | 0.000 | 359.927 | 6994.01 | -908.16 | -907.63 | 419.19 | 40°05'09.829"N | 104°52'17.177"W | 0.00 | |
| 7161.05 | 0.000 | 359.927 | 7038.05 | -908.16 | -907.63 | 419.19 | 40°05'09.829"N | 104°52'17.177"W | 0.00 | KOP, BUILD @ 10°/100 |
| 7217.00† | 5.595 | 359.927 | 7093.92 | -905.43 | -904.90 | 419.19 | 40°05'09.856"N | 104°52'17.177"W | 10.00 | |
| 7317.00† | 15.595 | 359.927 | 7192.09 | -887.07 | -886.54 | 419.17 | 40°05'10.037"N | 104°52'17.177"W | 10.00 | |
| 7371.71† | 21.066 | 359.927 | 7244.00 | -869.87 | -869.34 | 419.14 | 40°05'10.207"N | 104°52'17.177"W | 10.00 | Sharon Springs |
| 7417.00† | 25.595 | 359.927 | 7285.58 | -851.94 | -851.41 | 419.12 | 40°05'10.384"N | 104°52'17.178"W | 10.00 | |
| 7445.54† | 28.450 | 359.927 | 7311.00 | -838.97 | -838.44 | 419.10 | 40°05'10.512"N | 104°52'17.178"W | 10.00 | Niobrara A |
| 7517.00† | 35.595 | 359.927 | 7371.55 | -801.11 | -800.57 | 419.06 | 40°05'10.887"N | 104°52'17.178"W | 10.00 | |
| 7532.47† | 37.142 | 359.927 | 7384.00 | -791.93 | -791.40 | 419.04 | 40°05'10.977"N | 104°52'17.179"W | 10.00 | Niobrara B |
| 7617.00† | 45.595 | 359.927 | 7447.38 | -736.12 | -735.58 | 418.97 | 40°05'11.529"N | 104°52'17.180"W | 10.00 | |

| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|---------------------------------|----------|---|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP | Slot | SLOT#10 SICKLER 27C-34HZ (381'FSL & 1473'FEL, SEC.34) |
| Area | COLORADO | Well | SICKLER 27C-34HZ |
| Field | WELD COUNTY (KERR MCGEE) | Wellbore | SICKLER 27C-34HZ PWB |
| Facility | SEC.34-T2N-R67W | | |

| WELLPATH DATA (151 stations) † = interpolated/extrapolated station | | | | | | | | | | | |
|--|-----------------|-------------|----------|----------------|------------|-----------|----------------|-----------------|---------------|---------------|--|
| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | Latitude | Longitude | DLS [°/100ft] | Comments | |
| 7633.86† | 47.281 | 359.927 | 7459.00 | -723.90 | -723.37 | 418.96 | 40°05'11.650"N | 104°52'17.180"W | 10.00 | Niobrara C | |
| 7717.00† | 55.595 | 359.927 | 7510.78 | -658.95 | -658.41 | 418.87 | 40°05'12.291"N | 104°52'17.181"W | 10.00 | | |
| 7817.00† | 65.595 | 359.927 | 7559.82 | -571.94 | -571.41 | 418.76 | 40°05'13.151"N | 104°52'17.182"W | 10.00 | | |
| 7887.75† | 72.670 | 359.927 | 7585.00 | -505.87 | -505.34 | 418.68 | 40°05'13.804"N | 104°52'17.183"W | 10.00 | Fort Hays | |
| 7917.00† | 75.595 | 359.927 | 7593.00 | -477.74 | -477.21 | 418.64 | 40°05'14.082"N | 104°52'17.184"W | 10.00 | | |
| 7985.22† | 82.417 | 359.927 | 7606.00 | -410.81 | -410.28 | 418.56 | 40°05'14.744"N | 104°52'17.185"W | 10.00 | Codell | |
| 8017.00† | 85.595 | 359.927 | 7609.32 | -379.21 | -378.68 | 418.52 | 40°05'15.056"N | 104°52'17.185"W | 10.00 | | |
| 8064.36 | 90.331 | 359.927 | 7611.00 | -331.90 | -331.36 | 418.46 | 40°05'15.523"N | 104°52'17.186"W | 10.00 | LANDING POINT | |
| 8117.00† | 90.331 | 359.927 | 7610.70 | -279.25 | -278.72 | 418.39 | 40°05'16.044"N | 104°52'17.187"W | 0.00 | | |
| 8217.00† | 90.331 | 359.927 | 7610.12 | -179.26 | -178.72 | 418.26 | 40°05'17.032"N | 104°52'17.189"W | 0.00 | | |
| 8317.00† | 90.331 | 359.927 | 7609.54 | -79.26 | -78.72 | 418.13 | 40°05'18.020"N | 104°52'17.190"W | 0.00 | | |
| 8417.00† | 90.331 | 359.927 | 7608.96 | 20.74 | 21.27 | 418.01 | 40°05'19.008"N | 104°52'17.192"W | 0.00 | | |
| 8517.00† | 90.331 | 359.927 | 7608.39 | 120.74 | 121.27 | 417.88 | 40°05'19.996"N | 104°52'17.193"W | 0.00 | | |
| 8617.00† | 90.331 | 359.927 | 7607.81 | 220.74 | 221.27 | 417.75 | 40°05'20.985"N | 104°52'17.195"W | 0.00 | | |
| 8717.00† | 90.331 | 359.927 | 7607.23 | 320.74 | 321.27 | 417.62 | 40°05'21.973"N | 104°52'17.197"W | 0.00 | | |
| 8817.00† | 90.331 | 359.927 | 7606.65 | 420.73 | 421.27 | 417.49 | 40°05'22.961"N | 104°52'17.198"W | 0.00 | | |
| 8917.00† | 90.331 | 359.927 | 7606.08 | 520.73 | 521.27 | 417.37 | 40°05'23.949"N | 104°52'17.200"W | 0.00 | | |
| 9017.00† | 90.331 | 359.927 | 7605.50 | 620.73 | 621.26 | 417.24 | 40°05'24.937"N | 104°52'17.202"W | 0.00 | | |
| 9117.00† | 90.331 | 359.927 | 7604.92 | 720.73 | 721.26 | 417.11 | 40°05'25.926"N | 104°52'17.203"W | 0.00 | | |
| 9217.00† | 90.331 | 359.927 | 7604.34 | 820.73 | 821.26 | 416.98 | 40°05'26.914"N | 104°52'17.205"W | 0.00 | | |
| 9317.00† | 90.331 | 359.927 | 7603.77 | 920.73 | 921.26 | 416.85 | 40°05'27.902"N | 104°52'17.206"W | 0.00 | | |
| 9417.00† | 90.331 | 359.927 | 7603.19 | 1020.72 | 1021.26 | 416.73 | 40°05'28.890"N | 104°52'17.208"W | 0.00 | | |
| 9517.00† | 90.331 | 359.927 | 7602.61 | 1120.72 | 1121.25 | 416.60 | 40°05'29.878"N | 104°52'17.210"W | 0.00 | | |
| 9617.00† | 90.331 | 359.927 | 7602.03 | 1220.72 | 1221.25 | 416.47 | 40°05'30.867"N | 104°52'17.211"W | 0.00 | | |
| 9717.00† | 90.331 | 359.927 | 7601.45 | 1320.72 | 1321.25 | 416.34 | 40°05'31.855"N | 104°52'17.213"W | 0.00 | | |
| 9817.00† | 90.331 | 359.927 | 7600.88 | 1420.72 | 1421.25 | 416.22 | 40°05'32.843"N | 104°52'17.215"W | 0.00 | | |
| 9917.00† | 90.331 | 359.927 | 7600.30 | 1520.72 | 1521.25 | 416.09 | 40°05'33.831"N | 104°52'17.216"W | 0.00 | | |
| 10017.00† | 90.331 | 359.927 | 7599.72 | 1620.71 | 1621.25 | 415.96 | 40°05'34.819"N | 104°52'17.218"W | 0.00 | | |
| 10117.00† | 90.331 | 359.927 | 7599.14 | 1720.71 | 1721.24 | 415.83 | 40°05'35.808"N | 104°52'17.219"W | 0.00 | | |
| 10217.00† | 90.331 | 359.927 | 7598.57 | 1820.71 | 1821.24 | 415.70 | 40°05'36.796"N | 104°52'17.221"W | 0.00 | | |
| 10317.00† | 90.331 | 359.927 | 7597.99 | 1920.71 | 1921.24 | 415.58 | 40°05'37.784"N | 104°52'17.223"W | 0.00 | | |
| 10417.00† | 90.331 | 359.927 | 7597.41 | 2020.71 | 2021.24 | 415.45 | 40°05'38.772"N | 104°52'17.224"W | 0.00 | | |
| 10517.00† | 90.331 | 359.927 | 7596.83 | 2120.71 | 2121.24 | 415.32 | 40°05'39.760"N | 104°52'17.226"W | 0.00 | | |
| 10617.00† | 90.331 | 359.927 | 7596.26 | 2220.70 | 2221.24 | 415.19 | 40°05'40.749"N | 104°52'17.228"W | 0.00 | | |
| 10717.00† | 90.331 | 359.927 | 7595.68 | 2320.70 | 2321.23 | 415.07 | 40°05'41.737"N | 104°52'17.229"W | 0.00 | | |
| 10817.00† | 90.331 | 359.927 | 7595.10 | 2420.70 | 2421.23 | 414.94 | 40°05'42.725"N | 104°52'17.231"W | 0.00 | | |
| 10917.00† | 90.331 | 359.927 | 7594.52 | 2520.70 | 2521.23 | 414.81 | 40°05'43.713"N | 104°52'17.232"W | 0.00 | | |
| 11017.00† | 90.331 | 359.927 | 7593.95 | 2620.70 | 2621.23 | 414.68 | 40°05'44.701"N | 104°52'17.234"W | 0.00 | | |
| 11117.00† | 90.331 | 359.927 | 7593.37 | 2720.70 | 2721.23 | 414.55 | 40°05'45.690"N | 104°52'17.236"W | 0.00 | | |
| 11217.00† | 90.331 | 359.927 | 7592.79 | 2820.69 | 2821.22 | 414.43 | 40°05'46.678"N | 104°52'17.237"W | 0.00 | | |
| 11317.00† | 90.331 | 359.927 | 7592.21 | 2920.69 | 2921.22 | 414.30 | 40°05'47.666"N | 104°52'17.239"W | 0.00 | | |
| 11417.00† | 90.331 | 359.927 | 7591.64 | 3020.69 | 3021.22 | 414.17 | 40°05'48.654"N | 104°52'17.241"W | 0.00 | | |
| 11517.00† | 90.331 | 359.927 | 7591.06 | 3120.69 | 3121.22 | 414.04 | 40°05'49.642"N | 104°52'17.242"W | 0.00 | | |
| 11617.00† | 90.331 | 359.927 | 7590.48 | 3220.69 | 3221.22 | 413.92 | 40°05'50.631"N | 104°52'17.244"W | 0.00 | | |
| 11717.00† | 90.331 | 359.927 | 7589.90 | 3320.69 | 3321.22 | 413.79 | 40°05'51.619"N | 104°52'17.245"W | 0.00 | | |

| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|---------------------------------|----------|---|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP | Slot | SLOT#10 SICKLER 27C-34HZ (381'FSL & 1473'FEL, SEC.34) |
| Area | COLORADO | Well | SICKLER 27C-34HZ |
| Field | WELD COUNTY (KERR MCGEE) | Wellbore | SICKLER 27C-34HZ PWB |
| Facility | SEC.34-T2N-R67W | | |

| WELLPATH DATA (151 stations) † = interpolated/extrapolated station | | | | | | | | | | |
|--|-----------------|-------------|----------------------|----------------|------------|-----------|----------------|-----------------|---------------|-------------|
| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | Latitude | Longitude | DLS [°/100ft] | Comments |
| 11817.00† | 90.331 | 359.927 | 7589.33 | 3420.68 | 3421.21 | 413.66 | 40°05'52.607"N | 104°52'17.247"W | 0.00 | |
| 11917.00† | 90.331 | 359.927 | 7588.75 | 3520.68 | 3521.21 | 413.53 | 40°05'53.595"N | 104°52'17.249"W | 0.00 | |
| 12017.00† | 90.331 | 359.927 | 7588.17 | 3620.68 | 3621.21 | 413.40 | 40°05'54.583"N | 104°52'17.250"W | 0.00 | |
| 12117.00† | 90.331 | 359.927 | 7587.59 | 3720.68 | 3721.21 | 413.28 | 40°05'55.572"N | 104°52'17.252"W | 0.00 | |
| 12217.00† | 90.331 | 359.927 | 7587.01 | 3820.68 | 3821.21 | 413.15 | 40°05'56.560"N | 104°52'17.253"W | 0.00 | |
| 12317.00† | 90.331 | 359.927 | 7586.44 | 3920.68 | 3921.21 | 413.02 | 40°05'57.548"N | 104°52'17.255"W | 0.00 | |
| 12417.00† | 90.331 | 359.927 | 7585.86 | 4020.67 | 4021.20 | 412.89 | 40°05'58.536"N | 104°52'17.257"W | 0.00 | |
| 12517.00† | 90.331 | 359.927 | 7585.28 | 4120.67 | 4121.20 | 412.77 | 40°05'59.524"N | 104°52'17.258"W | 0.00 | |
| 12617.00† | 90.331 | 359.927 | 7584.70 | 4220.67 | 4221.20 | 412.64 | 40°06'00.513"N | 104°52'17.260"W | 0.00 | |
| 12717.00† | 90.331 | 359.927 | 7584.13 | 4320.67 | 4321.20 | 412.51 | 40°06'01.501"N | 104°52'17.262"W | 0.00 | |
| 12817.00† | 90.331 | 359.927 | 7583.55 | 4420.67 | 4421.20 | 412.38 | 40°06'02.489"N | 104°52'17.263"W | 0.00 | |
| 12917.00† | 90.331 | 359.927 | 7582.97 | 4520.67 | 4521.20 | 412.25 | 40°06'03.477"N | 104°52'17.265"W | 0.00 | |
| 13017.00† | 90.331 | 359.927 | 7582.39 | 4620.66 | 4621.19 | 412.13 | 40°06'04.465"N | 104°52'17.266"W | 0.00 | |
| 13117.00† | 90.331 | 359.927 | 7581.82 | 4720.66 | 4721.19 | 412.00 | 40°06'05.454"N | 104°52'17.268"W | 0.00 | |
| 13217.00† | 90.331 | 359.927 | 7581.24 | 4820.66 | 4821.19 | 411.87 | 40°06'06.442"N | 104°52'17.270"W | 0.00 | |
| 13258.39 | 90.331 | 359.927 | 7581.00 ¹ | 4862.05 | 4862.58 | 411.82 | 40°06'06.851"N | 104°52'17.270"W | 0.00 | TOTAL DEPTH |

| HOLE & CASING SECTIONS - Ref Wellbore: SICKLER 27C-34HZ PWB Ref Wellpath: SICKLER 27C-34HZ (PERMIT REV-3) PWP | | | | | | | | | |
|---|---------------|-------------|---------------|----------------|--------------|----------------|----------------|--------------|--------------|
| String/Diameter | Start MD [ft] | End MD [ft] | Interval [ft] | Start TVD [ft] | End TVD [ft] | Start N/S [ft] | Start E/W [ft] | End N/S [ft] | End E/W [ft] |
| 13.5in Open Hole | 17.00 | 1008.00 | 991.00 | 17.00 | 1008.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9.625in Casing Surface | 17.00 | 1008.00 | 991.00 | 17.00 | 1008.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8.75in Open Hole | 1008.00 | 8064.36 | 7056.36 | 1008.00 | 7611.00 | 0.00 | 0.00 | -331.36 | 418.46 |
| 7in Casing Intermediate | 17.00 | 8064.36 | 8047.36 | 17.00 | 7611.00 | 0.00 | 0.00 | -331.36 | 418.46 |
| 6.125in Open Hole | 8064.36 | 13258.39 | 5194.03 | 7611.00 | 7581.00 | -331.36 | 418.46 | 4862.58 | 411.82 |
| 4.5in Casing Production | 17.00 | 13258.39 | 13241.39 | 17.00 | 7581.00 | 0.00 | 0.00 | 4862.58 | 411.82 |

| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|---------------------------------|----------|---|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP | Slot | SLOT#10 SICKLER 27C-34HZ (381'FSL & 1473'FEL, SEC.34) |
| Area | COLORADO | Well | SICKLER 27C-34HZ |
| Field | WELD COUNTY (KERR MCGEE) | Wellbore | SICKLER 27C-34HZ PWB |
| Facility | SEC.34-T2N-R67W | | |

| TARGETS | | | | | | | | | |
|---|----------|----------|------------|-----------|-------------------|--------------------|----------------|-----------------|---------|
| Name | MD [ft] | TVD [ft] | North [ft] | East [ft] | Grid East [US ft] | Grid North [US ft] | Latitude | Longitude | Shape |
| SEC.34-T2N-R47W HARD LINES (460' SETBACKS) | | 4966.00 | 4533.05 | -2594.06 | 3172818.68 | 1280239.99 | 40°06'03.593"N | 104°52'55.952"W | polygon |
| SEC.34-T2N-R67W SECTION LINES | | 4966.00 | 4533.05 | -2594.06 | 3172818.68 | 1280239.99 | 40°06'03.593"N | 104°52'55.952"W | polygon |
| SICKLER 27C-34HZ LAND BOX | | 7380.00 | -17.81 | -24.02 | 3175420.73 | 1275707.61 | 40°05'18.622"N | 104°52'22.879"W | polygon |
| 1) SICKLER 27C-34HZ BHL ON PLAT (50'FNL & 1055'FEL, SEC.34) REV-1 | 13258.39 | 7581.00 | 4862.58 | 411.82 | 3175822.03 | 1280590.76 | 40°06'06.851"N | 104°52'17.270"W | point |

| SURVEY PROGRAM - Ref Wellbore: SICKLER 27C-34HZ PWB Ref Wellpath: SICKLER 27C-34HZ (PERMIT REV-3) PWP | | | | |
|---|-------------|------------------------------|------------------|----------------------|
| Start MD [ft] | End MD [ft] | Positional Uncertainty Model | Log Name/Comment | Wellbore |
| 17.00 | 13258.39 | NaviTrak (MAGCORR,IFR) | | SICKLER 27C-34HZ PWB |

| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|---------------------------------|----------|---|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP | Slot | SLOT#10 SICKLER 27C-34HZ (381'FSL & 1473'FEL, SEC.34) |
| Area | COLORADO | Well | SICKLER 27C-34HZ |
| Field | WELD COUNTY (KERR MCGEE) | Wellbore | SICKLER 27C-34HZ PWB |
| Facility | SEC.34-T2N-R67W | | |

| WELLPATH COMMENTS | | | | |
|-------------------|-----------------|-------------|----------|------------------|
| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Comment |
| 1158.00 | 0.000 | 155.210 | 1158.00 | Fox Hills Marker |
| 3990.99 | 15.000 | 155.210 | 3917.00 | Parkman |
| 4569.71 | 15.000 | 155.210 | 4476.00 | Sussex |
| 7060.05 | 0.000 | 359.927 | 6937.06 | 4 1/2" Liner Top |
| 7371.71 | 21.066 | 359.927 | 7244.00 | Sharon Springs |
| 7445.54 | 28.450 | 359.927 | 7311.00 | Niobrara A |
| 7532.47 | 37.142 | 359.927 | 7384.00 | Niobrara B |
| 7633.86 | 47.281 | 359.927 | 7459.00 | Niobrara C |
| 7887.75 | 72.670 | 359.927 | 7585.00 | Fort Hays |
| 7985.22 | 82.417 | 359.927 | 7606.00 | Codell |

| DESIGN COMMENTS | | | | |
|-----------------|-----------------|-------------|----------|----------------------|
| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Comment |
| 17.00 | 0.000 | 155.210 | 17.00 | TIE-ON |
| 1320.00 | 0.000 | 155.210 | 1320.00 | BEGIN NUDGE |
| 2070.00 | 15.000 | 155.210 | 2061.46 | END NUDGE |
| 5178.46 | 15.000 | 155.210 | 5064.00 | BEGIN DROP |
| 5928.46 | 0.000 | 359.927 | 5805.46 | END DROP |
| 7161.05 | 0.000 | 359.927 | 7038.05 | KOP, BUILD @ 10°/100 |
| 8064.36 | 90.331 | 359.927 | 7611.00 | LANDING POINT |
| 13258.39 | 90.331 | 359.927 | 7581.00 | TOTAL DEPTH |