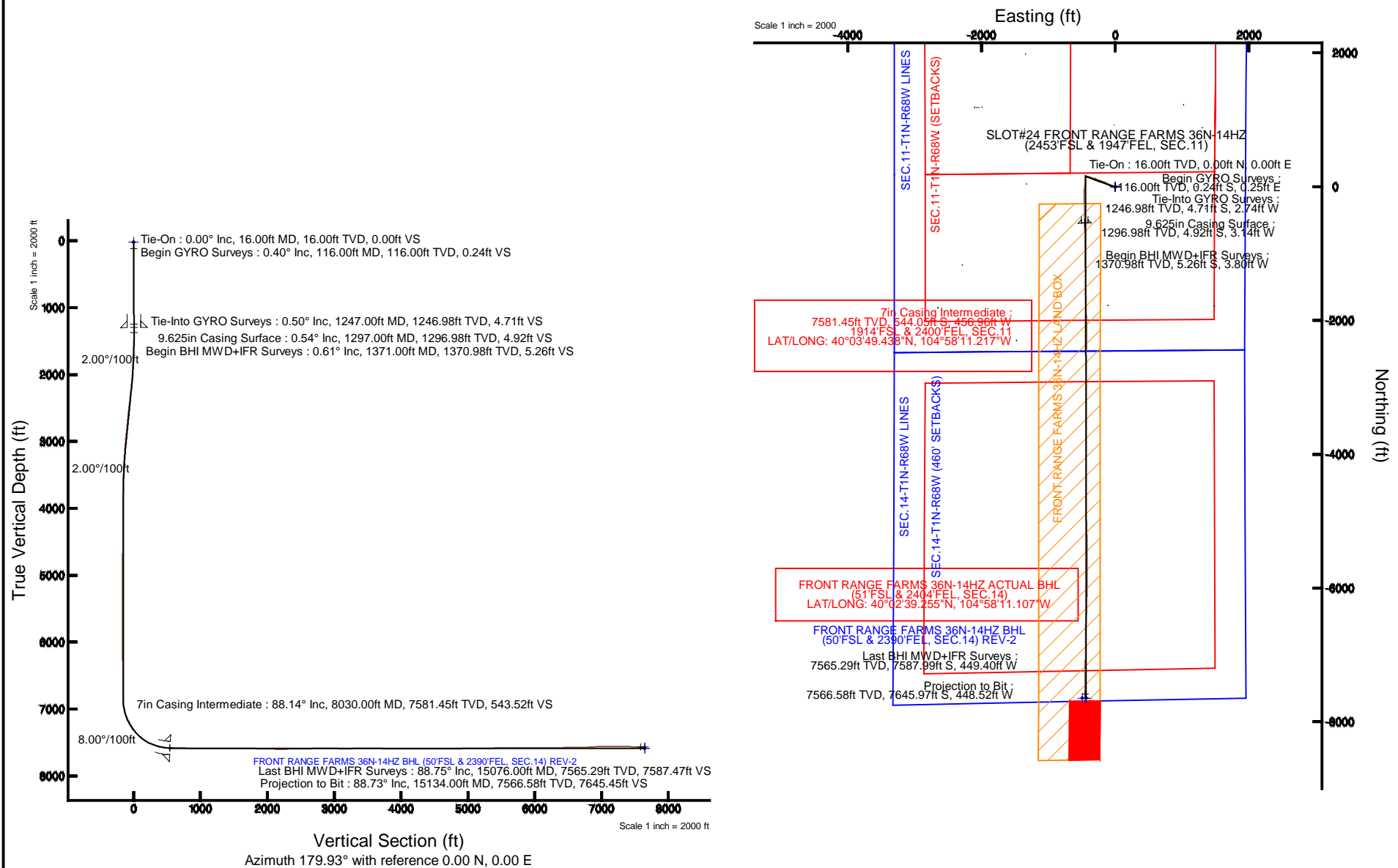


KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#24 FRONT RANGE FARMS 36N-14HZ (2453/FSL & 1947/FEL, SEC.11)
 Field: WELD COUNTY (KERR MCGEE) Well: FRONT RANGE FARMS 36N-14HZ
 Facility: SEC.11-T1N-R68W Wellbore: FRONT RANGE FARMS 36N-14HZ PWB

Plot reference wellpath is FRONT RANGE FARMS 36N-14HZ (REV-B.0) PWB

| | |
|---|--|
| True vertical depths are referenced to XTREME 20 (16KB) (RKB) | Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet |
| Measured depths are referenced to XTREME 20 (16KB) (RKB) | North Reference: True north |
| XTREME 20 (16KB) (RKB) to Mean Sea Level: 5066 feet | Scale: True distance |
| Mean Sea Level to Mud line (At Slot: SLOT#24 FRONT RANGE FARMS 36N-14HZ (2453/FSL & 1947/FEL, SEC.11): 0 feet | Depths are in feet |
| Coordinates are in feet referenced to Slot | Created by: preccain on 1/15/2015 |



REFERENCE WELLPATH IDENTIFICATION

| | | | |
|----------|---------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP | Slot | SLOT#24 FRONT RANGE FARMS 36N-14HZ (2453'FSL & 1947'FEL, SEC.11) |
| Area | COLORADO | Well | FRONT RANGE FARMS 36N-14HZ |
| Field | WELD COUNTY (KERR MCGEE) | Wellbore | FRONT RANGE FARMS 36N-14HZ AWB <116-15134> |
| Facility | SEC.11-T1N-R68W | | |

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 | 0.999962 | Report Generated | 1/15/2015 at 9:08:03 AM |
| Convergence at slot | n/a | Database/Source file | WellArchitectDB/FRONT_RANGE_FARMS_36N-14HZ_AWB_116-15134_.xml |

WELLPATH LOCATION

| | Local coordinates | | Grid coordinates | | Geographic coordinates | |
|-----------------------|-------------------|----------|-------------------|-------------------|------------------------|-----------------|
| | North[ft] | East[ft] | Easting[US ft] | Northing[US ft] | Latitude | Longitude |
| Slot Location | -2334.17 | 2519.38 | 3148856.29 | 1267053.48 | 40°03'54.814"N | 104°58'05.340"W |
| Facility Reference Pt | | | 3146323.29 | 1269372.66 | 40°04'17.882"N | 104°58'37.744"W |
| Field Reference Pt | | | 3197771.84 | 1268891.29 | 40°04'09.600"N | 104°47'36.000"W |

WELLPATH DATUM

| | | | |
|--------------------------|-------------------------|--|--------------------------|
| Calculation method | Minimum curvature | XTREME 20 (16'KB) (RKB) to Facility Vertical Datum | 5066.00ft |
| Horizontal Reference Pt | Slot | XTREME 20 (16'KB) (RKB) to Mean Sea Level | 5066.00ft |
| Vertical Reference Pt | XTREME 20 (16'KB) (RKB) | XTREME 20 (16'KB) (RKB) to Mud Line at Slot (SLOT#24 FRONT RANGE FARMS 36N-14HZ (2453'FSL & 1947'FEL, SEC.11)) | 5066.00ft |
| MD Reference Pt | XTREME 20 (16'KB) (RKB) | Section Origin | N 0.00, E 0.00 ft |
| Field Vertical Reference | Mean Sea Level | Section Azimuth | 179.93° |

REFERENCE WELLPATH IDENTIFICATION

| | | | |
|----------|---------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP | Slot | SLOT#24 FRONT RANGE FARMS 36N-14HZ (2453'FSL & 1947'FEL, SEC.11) |
| Area | COLORADO | Well | FRONT RANGE FARMS 36N-14HZ |
| Field | WELD COUNTY (KERR MCGEE) | Wellbore | FRONT RANGE FARMS 36N-14HZ AWB <116-15134> |
| Facility | SEC.11-T1N-R68W | | |

WELLPATH DATA (181 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 | 134.059 | 0.00 | 0.00 | 0.00 | 0.00 | 40°03'54.814"N | 104°58'05.340"W | 0.00 | |
| 16.00 | 0.000 | 134.059 | 16.00 | 0.00 | 0.00 | 0.00 | 40°03'54.814"N | 104°58'05.340"W | 0.00 | Tie-On |
| 116.00 | 0.403 | 134.059 | 116.00 | 0.24 | -0.24 | 0.25 | 40°03'54.812"N | 104°58'05.337"W | 0.40 | Begin GYRO Surveys |
| 216.00 | 0.302 | 147.505 | 216.00 | 0.71 | -0.71 | 0.65 | 40°03'54.807"N | 104°58'05.332"W | 0.13 | |
| 316.00 | 0.156 | 178.312 | 316.00 | 1.07 | -1.07 | 0.79 | 40°03'54.803"N | 104°58'05.330"W | 0.19 | |
| 416.00 | 0.332 | 233.138 | 416.00 | 1.38 | -1.38 | 0.56 | 40°03'54.800"N | 104°58'05.333"W | 0.27 | |
| 516.00 | 0.470 | 221.932 | 515.99 | 1.86 | -1.86 | 0.06 | 40°03'54.796"N | 104°58'05.339"W | 0.16 | |
| 616.00 | 0.140 | 251.488 | 615.99 | 2.20 | -2.20 | -0.33 | 40°03'54.792"N | 104°58'05.344"W | 0.35 | |
| 716.00 | 0.366 | 228.260 | 715.99 | 2.45 | -2.45 | -0.69 | 40°03'54.790"N | 104°58'05.349"W | 0.24 | |
| 816.00 | 0.302 | 242.352 | 815.99 | 2.79 | -2.79 | -1.16 | 40°03'54.786"N | 104°58'05.355"W | 0.10 | |
| 916.00 | 0.273 | 203.807 | 915.99 | 3.13 | -3.13 | -1.49 | 40°03'54.783"N | 104°58'05.359"W | 0.19 | |
| 1016.00 | 0.425 | 207.702 | 1015.99 | 3.67 | -3.68 | -1.76 | 40°03'54.778"N | 104°58'05.363"W | 0.15 | |
| 1116.00 | 0.260 | 223.371 | 1115.98 | 4.17 | -4.17 | -2.08 | 40°03'54.773"N | 104°58'05.367"W | 0.19 | |
| 1216.00 | 0.432 | 230.637 | 1215.98 | 4.57 | -4.57 | -2.53 | 40°03'54.769"N | 104°58'05.373"W | 0.18 | |
| 1247.00 | 0.498 | 241.533 | 1246.98 | 4.71 | -4.71 | -2.74 | 40°03'54.767"N | 104°58'05.375"W | 0.36 | Tie-Into GYRO Surveys |
| 1371.00 | 0.610 | 243.440 | 1370.98 | 5.26 | -5.26 | -3.80 | 40°03'54.762"N | 104°58'05.389"W | 0.09 | Begin BHI MWD+IFR Surveys |
| 1465.00 | 2.510 | 292.640 | 1464.94 | 4.69 | -4.69 | -6.15 | 40°03'54.768"N | 104°58'05.419"W | 2.30 | |
| 1559.00 | 4.220 | 300.040 | 1558.77 | 2.16 | -2.17 | -11.05 | 40°03'54.793"N | 104°58'05.482"W | 1.87 | |
| 1652.00 | 5.340 | 296.080 | 1651.45 | -1.47 | 1.45 | -17.89 | 40°03'54.828"N | 104°58'05.570"W | 1.25 | |
| 1746.00 | 6.850 | 290.920 | 1744.92 | -5.40 | 5.37 | -27.06 | 40°03'54.867"N | 104°58'05.688"W | 1.71 | |
| 1840.00 | 8.060 | 288.980 | 1838.12 | -9.56 | 9.51 | -38.53 | 40°03'54.908"N | 104°58'05.836"W | 1.31 | |
| 1934.00 | 9.760 | 287.340 | 1930.98 | -14.09 | 14.03 | -52.37 | 40°03'54.953"N | 104°58'06.014"W | 1.83 | |
| 2029.00 | 11.020 | 292.110 | 2024.42 | -19.93 | 19.85 | -68.47 | 40°03'55.010"N | 104°58'06.221"W | 1.60 | |
| 2121.00 | 12.820 | 296.420 | 2114.44 | -27.80 | 27.70 | -85.75 | 40°03'55.088"N | 104°58'06.443"W | 2.18 | |
| 2215.00 | 13.380 | 295.580 | 2205.99 | -37.16 | 37.04 | -104.90 | 40°03'55.180"N | 104°58'06.689"W | 0.63 | |
| 2309.00 | 14.410 | 295.990 | 2297.24 | -47.01 | 46.86 | -125.23 | 40°03'55.277"N | 104°58'06.951"W | 1.10 | |
| 2403.00 | 16.210 | 293.550 | 2387.90 | -57.40 | 57.23 | -147.77 | 40°03'55.380"N | 104°58'07.241"W | 2.03 | |
| 2497.00 | 16.640 | 293.220 | 2478.06 | -67.98 | 67.78 | -172.17 | 40°03'55.484"N | 104°58'07.554"W | 0.47 | |
| 2589.00 | 16.510 | 289.420 | 2566.24 | -77.54 | 77.32 | -196.60 | 40°03'55.578"N | 104°58'07.869"W | 1.19 | |
| 2683.00 | 16.550 | 288.800 | 2656.36 | -86.33 | 86.07 | -221.87 | 40°03'55.665"N | 104°58'08.194"W | 0.19 | |
| 2778.00 | 16.220 | 289.550 | 2747.50 | -95.16 | 94.87 | -247.19 | 40°03'55.752"N | 104°58'08.519"W | 0.41 | |
| 2872.00 | 16.240 | 289.670 | 2837.76 | -104.00 | 103.69 | -271.93 | 40°03'55.839"N | 104°58'08.838"W | 0.04 | |
| 2959.00 | 17.130 | 291.570 | 2921.09 | -112.84 | 112.50 | -295.31 | 40°03'55.926"N | 104°58'09.138"W | 1.20 | |
| 3044.00 | 15.950 | 287.450 | 3002.58 | -120.97 | 120.60 | -318.09 | 40°03'56.006"N | 104°58'09.431"W | 1.96 | |
| 3129.00 | 13.500 | 287.950 | 3084.78 | -127.55 | 127.16 | -338.67 | 40°03'56.071"N | 104°58'09.696"W | 2.89 | |
| 3214.00 | 12.220 | 289.640 | 3167.65 | -133.65 | 133.24 | -356.58 | 40°03'56.131"N | 104°58'09.926"W | 1.57 | |
| 3299.00 | 12.500 | 287.170 | 3250.68 | -139.41 | 138.98 | -373.85 | 40°03'56.187"N | 104°58'10.148"W | 0.70 | |
| 3384.00 | 9.560 | 284.290 | 3334.10 | -143.89 | 143.44 | -389.48 | 40°03'56.231"N | 104°58'10.349"W | 3.52 | |
| 3469.00 | 9.490 | 288.670 | 3417.93 | -147.89 | 147.43 | -402.96 | 40°03'56.271"N | 104°58'10.523"W | 0.86 | |
| 3554.00 | 7.940 | 280.630 | 3501.95 | -151.23 | 150.75 | -415.37 | 40°03'56.304"N | 104°58'10.682"W | 2.32 | |
| 3639.00 | 7.050 | 279.270 | 3586.22 | -153.17 | 152.68 | -426.28 | 40°03'56.323"N | 104°58'10.823"W | 1.07 | |
| 3725.00 | 5.820 | 277.080 | 3671.68 | -154.57 | 154.06 | -435.82 | 40°03'56.336"N | 104°58'10.946"W | 1.46 | |
| 3810.00 | 4.940 | 293.760 | 3756.30 | -156.58 | 156.07 | -443.45 | 40°03'56.356"N | 104°58'11.044"W | 2.10 | |
| 3895.00 | 3.220 | 289.380 | 3841.09 | -158.85 | 158.34 | -449.05 | 40°03'56.379"N | 104°58'11.116"W | 2.06 | |
| 3980.00 | 1.530 | 285.600 | 3926.01 | -159.96 | 159.44 | -452.40 | 40°03'56.390"N | 104°58'11.159"W | 2.00 | |

REFERENCE WELLPATH IDENTIFICATION

| | | | |
|----------|---------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP | Slot | SLOT#24 FRONT RANGE FARMS 36N-14HZ (2453'FSL & 1947'FEL, SEC.11) |
| Area | COLORADO | Well | FRONT RANGE FARMS 36N-14HZ |
| Field | WELD COUNTY (KERR MCGEE) | Wellbore | FRONT RANGE FARMS 36N-14HZ AWB <116-15134> |
| Facility | SEC.11-T1N-R68W | | |

WELLPATH DATA (181 stations)

| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | Latitude | Longitude | DLS [°/100ft] | Comments |
|------------|--------------------|----------------|-------------|-------------------|---------------|--------------|----------------|-----------------|------------------|----------|
| 4066.00 | 0.520 | 354.830 | 4012.00 | -160.65 | 160.13 | -453.54 | 40°03'56.396"N | 104°58'11.173"W | 1.66 | |
| 4151.00 | 1.040 | 1.450 | 4096.99 | -161.81 | 161.29 | -453.55 | 40°03'56.408"N | 104°58'11.174"W | 0.62 | |
| 4236.00 | 0.960 | 116.410 | 4181.98 | -162.26 | 161.74 | -452.89 | 40°03'56.412"N | 104°58'11.165"W | 1.98 | |
| 4321.00 | 0.770 | 92.140 | 4266.97 | -161.92 | 161.40 | -451.69 | 40°03'56.409"N | 104°58'11.150"W | 0.48 | |
| 4406.00 | 0.890 | 106.670 | 4351.96 | -161.71 | 161.19 | -450.48 | 40°03'56.407"N | 104°58'11.134"W | 0.28 | |
| 4491.00 | 0.770 | 106.710 | 4436.96 | -161.36 | 160.84 | -449.30 | 40°03'56.403"N | 104°58'11.119"W | 0.14 | |
| 4576.00 | 1.090 | 42.270 | 4521.95 | -161.79 | 161.27 | -448.21 | 40°03'56.408"N | 104°58'11.105"W | 1.21 | |
| 4661.00 | 1.210 | 26.840 | 4606.93 | -163.19 | 162.67 | -447.26 | 40°03'56.422"N | 104°58'11.093"W | 0.39 | |
| 4746.00 | 1.180 | 23.860 | 4691.91 | -164.79 | 164.27 | -446.50 | 40°03'56.437"N | 104°58'11.083"W | 0.08 | |
| 4831.00 | 0.960 | 351.300 | 4776.90 | -166.29 | 165.78 | -446.26 | 40°03'56.452"N | 104°58'11.080"W | 0.75 | |
| 4916.00 | 0.740 | 170.750 | 4861.89 | -166.45 | 165.94 | -446.28 | 40°03'56.454"N | 104°58'11.080"W | 2.00 | |
| 5001.00 | 0.820 | 205.840 | 4946.89 | -165.37 | 164.85 | -446.45 | 40°03'56.443"N | 104°58'11.082"W | 0.56 | |
| 5086.00 | 0.320 | 233.830 | 5031.88 | -164.68 | 164.16 | -446.91 | 40°03'56.436"N | 104°58'11.088"W | 0.66 | |
| 5171.00 | 0.440 | 271.420 | 5116.88 | -164.55 | 164.03 | -447.43 | 40°03'56.435"N | 104°58'11.095"W | 0.32 | |
| 5256.00 | 0.550 | 263.240 | 5201.88 | -164.51 | 163.99 | -448.16 | 40°03'56.435"N | 104°58'11.104"W | 0.15 | |
| 5341.00 | 0.500 | 261.100 | 5286.87 | -164.40 | 163.89 | -448.93 | 40°03'56.434"N | 104°58'11.114"W | 0.06 | |
| 5426.00 | 0.740 | 272.100 | 5371.87 | -164.37 | 163.85 | -449.85 | 40°03'56.433"N | 104°58'11.126"W | 0.31 | |
| 5512.00 | 0.530 | 279.920 | 5457.86 | -164.46 | 163.94 | -450.79 | 40°03'56.434"N | 104°58'11.138"W | 0.26 | |
| 5597.00 | 0.610 | 291.110 | 5542.86 | -164.69 | 164.17 | -451.60 | 40°03'56.436"N | 104°58'11.149"W | 0.16 | |
| 5681.00 | 0.700 | 64.940 | 5626.86 | -165.07 | 164.55 | -451.56 | 40°03'56.440"N | 104°58'11.148"W | 1.44 | |
| 5766.00 | 0.720 | 56.280 | 5711.85 | -165.58 | 165.06 | -450.64 | 40°03'56.445"N | 104°58'11.136"W | 0.13 | |
| 5852.00 | 0.680 | 331.760 | 5797.85 | -166.33 | 165.81 | -450.43 | 40°03'56.453"N | 104°58'11.133"W | 1.10 | |
| 5937.00 | 0.890 | 323.040 | 5882.84 | -167.30 | 166.79 | -451.07 | 40°03'56.462"N | 104°58'11.142"W | 0.28 | |
| 6020.00 | 0.260 | 123.230 | 5965.83 | -167.72 | 167.20 | -451.30 | 40°03'56.466"N | 104°58'11.145"W | 1.37 | |
| 6104.00 | 0.240 | 196.480 | 6049.83 | -167.44 | 166.92 | -451.19 | 40°03'56.464"N | 104°58'11.143"W | 0.36 | |
| 6191.00 | 0.930 | 160.510 | 6136.83 | -166.60 | 166.08 | -451.00 | 40°03'56.455"N | 104°58'11.141"W | 0.86 | |
| 6276.00 | 0.920 | 166.040 | 6221.82 | -165.29 | 164.77 | -450.61 | 40°03'56.442"N | 104°58'11.136"W | 0.11 | |
| 6361.00 | 1.760 | 151.660 | 6306.79 | -163.48 | 162.96 | -449.83 | 40°03'56.424"N | 104°58'11.126"W | 1.06 | |
| 6447.00 | 1.000 | 109.930 | 6392.77 | -162.06 | 161.54 | -448.49 | 40°03'56.410"N | 104°58'11.109"W | 1.41 | |
| 6531.00 | 0.600 | 193.760 | 6476.76 | -161.38 | 160.86 | -447.91 | 40°03'56.404"N | 104°58'11.101"W | 1.32 | |
| 6617.00 | 0.310 | 251.770 | 6562.76 | -160.87 | 160.35 | -448.24 | 40°03'56.399"N | 104°58'11.105"W | 0.59 | |
| 6701.00 | 0.650 | 270.110 | 6646.76 | -160.80 | 160.28 | -448.93 | 40°03'56.398"N | 104°58'11.114"W | 0.44 | |
| 6786.00 | 0.060 | 30.330 | 6731.76 | -160.84 | 160.32 | -449.39 | 40°03'56.398"N | 104°58'11.120"W | 0.80 | |
| 6871.00 | 0.730 | 62.430 | 6816.76 | -161.13 | 160.61 | -448.89 | 40°03'56.401"N | 104°58'11.114"W | 0.80 | |
| 6956.00 | 3.820 | 177.380 | 6901.69 | -158.55 | 158.03 | -448.28 | 40°03'56.376"N | 104°58'11.106"W | 4.92 | |
| 6999.00 | 8.390 | 181.830 | 6944.44 | -153.98 | 153.46 | -448.31 | 40°03'56.331"N | 104°58'11.106"W | 10.68 | |
| 7042.00 | 12.560 | 184.550 | 6986.71 | -146.18 | 145.67 | -448.78 | 40°03'56.253"N | 104°58'11.112"W | 9.76 | |
| 7085.00 | 16.590 | 180.830 | 7028.32 | -135.38 | 134.86 | -449.24 | 40°03'56.147"N | 104°58'11.118"W | 9.62 | |
| 7127.00 | 19.900 | 181.150 | 7068.21 | -122.23 | 121.72 | -449.47 | 40°03'56.017"N | 104°58'11.121"W | 7.88 | |
| 7170.00 | 21.270 | 180.390 | 7108.46 | -107.12 | 106.60 | -449.67 | 40°03'55.867"N | 104°58'11.124"W | 3.25 | |
| 7212.00 | 24.140 | 179.520 | 7147.20 | -90.91 | 90.39 | -449.65 | 40°03'55.707"N | 104°58'11.123"W | 6.88 | |
| 7255.00 | 27.090 | 181.960 | 7185.97 | -72.33 | 71.81 | -449.91 | 40°03'55.524"N | 104°58'11.127"W | 7.28 | |
| 7297.00 | 28.330 | 185.910 | 7223.16 | -52.86 | 52.34 | -451.27 | 40°03'55.331"N | 104°58'11.144"W | 5.28 | |
| 7340.00 | 31.080 | 184.910 | 7260.50 | -31.65 | 31.12 | -453.27 | 40°03'55.122"N | 104°58'11.170"W | 6.50 | |
| 7382.00 | 34.150 | 186.960 | 7295.88 | -9.14 | 8.62 | -455.63 | 40°03'54.899"N | 104°58'11.200"W | 7.77 | |

REFERENCE WELLPATH IDENTIFICATION

| | | | |
|----------|---------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP | Slot | SLOT#24 FRONT RANGE FARMS 36N-14HZ (2453'FSL & 1947'FEL, SEC.11) |
| Area | COLORADO | Well | FRONT RANGE FARMS 36N-14HZ |
| Field | WELD COUNTY (KERR MCGEE) | Wellbore | FRONT RANGE FARMS 36N-14HZ AWB <116-15134> |
| Facility | SEC.11-T1N-R68W | | |

WELLPATH DATA (181 stations) † = interpolated/extrapolated station

| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | Latitude | Longitude | DLS [°/100ft] | Comments |
|----------|-----------------|-------------|----------|----------------|------------|-----------|----------------|-----------------|---------------|-----------------|
| 7425.00 | 37.510 | 188.490 | 7330.74 | 15.79 | -16.32 | -459.02 | 40°03'54.653"N | 104°58'11.244"W | 8.09 | |
| 7467.00 | 41.980 | 186.660 | 7363.02 | 42.40 | -42.93 | -462.54 | 40°03'54.390"N | 104°58'11.289"W | 11.00 | |
| 7510.00 | 45.660 | 185.820 | 7394.04 | 71.99 | -72.52 | -465.77 | 40°03'54.097"N | 104°58'11.331"W | 8.66 | |
| 7552.00 | 47.990 | 181.270 | 7422.79 | 102.54 | -103.08 | -467.64 | 40°03'53.795"N | 104°58'11.355"W | 9.65 | |
| 7595.00 | 52.480 | 178.650 | 7450.29 | 135.58 | -136.12 | -467.59 | 40°03'53.469"N | 104°58'11.354"W | 11.44 | |
| 7638.00 | 57.410 | 176.610 | 7474.98 | 170.74 | -171.27 | -466.12 | 40°03'53.121"N | 104°58'11.335"W | 12.10 | |
| 7681.00 | 62.500 | 176.520 | 7496.50 | 207.88 | -208.42 | -463.89 | 40°03'52.754"N | 104°58'11.306"W | 11.84 | |
| 7723.00 | 67.190 | 178.030 | 7514.35 | 245.85 | -246.38 | -462.09 | 40°03'52.379"N | 104°58'11.283"W | 11.63 | |
| 7766.00 | 69.210 | 178.460 | 7530.32 | 285.75 | -286.28 | -460.87 | 40°03'51.985"N | 104°58'11.268"W | 4.79 | |
| 7808.00 | 72.960 | 178.830 | 7543.93 | 325.47 | -326.00 | -459.93 | 40°03'51.592"N | 104°58'11.255"W | 8.97 | |
| 7851.00 | 76.030 | 179.050 | 7555.42 | 366.89 | -367.42 | -459.16 | 40°03'51.183"N | 104°58'11.246"W | 7.16 | |
| 7893.00 | 77.390 | 179.150 | 7565.08 | 407.76 | -408.29 | -458.52 | 40°03'50.779"N | 104°58'11.237"W | 3.25 | |
| 7936.00 | 80.500 | 179.720 | 7573.32 | 449.96 | -450.48 | -458.11 | 40°03'50.362"N | 104°58'11.232"W | 7.35 | |
| 7994.00 | 86.640 | 179.110 | 7579.81 | 507.56 | -508.09 | -457.52 | 40°03'49.793"N | 104°58'11.224"W | 10.64 | |
| 8030.00† | 88.138 | 179.121 | 7581.45 | 543.52 | -544.05 | -456.96 | 40°03'49.438"N | 104°58'11.217"W | 4.16 | 7" Casing Point |
| 8093.00 | 90.760 | 179.140 | 7582.06 | 606.50 | -607.03 | -456.01 | 40°03'48.815"N | 104°58'11.205"W | 4.16 | |
| 8185.00 | 88.760 | 179.000 | 7582.44 | 698.49 | -699.01 | -454.51 | 40°03'47.906"N | 104°58'11.186"W | 2.18 | |
| 8276.00 | 88.610 | 178.640 | 7584.53 | 789.45 | -789.97 | -452.64 | 40°03'47.007"N | 104°58'11.162"W | 0.43 | |
| 8368.00 | 89.160 | 179.810 | 7586.32 | 881.42 | -881.94 | -451.40 | 40°03'46.098"N | 104°58'11.146"W | 1.41 | |
| 8551.00 | 89.620 | 179.350 | 7588.27 | 1064.41 | -1064.92 | -450.05 | 40°03'44.290"N | 104°58'11.128"W | 0.36 | |
| 8734.00 | 90.770 | 178.590 | 7587.65 | 1247.37 | -1247.89 | -446.76 | 40°03'42.482"N | 104°58'11.086"W | 0.75 | |
| 8826.00 | 89.190 | 179.610 | 7587.68 | 1339.36 | -1339.87 | -445.32 | 40°03'41.573"N | 104°58'11.067"W | 2.04 | |
| 8996.00 | 89.470 | 178.970 | 7589.67 | 1509.34 | -1509.85 | -443.21 | 40°03'39.893"N | 104°58'11.040"W | 0.41 | |
| 9166.00 | 90.460 | 179.110 | 7589.77 | 1679.31 | -1679.82 | -440.36 | 40°03'38.214"N | 104°58'11.004"W | 0.59 | |
| 9251.00 | 89.260 | 178.510 | 7589.98 | 1764.30 | -1764.80 | -438.60 | 40°03'37.374"N | 104°58'10.981"W | 1.58 | |
| 9422.00 | 88.240 | 178.030 | 7593.71 | 1935.18 | -1935.68 | -433.44 | 40°03'35.685"N | 104°58'10.914"W | 0.66 | |
| 9507.00 | 88.390 | 178.910 | 7596.21 | 2020.11 | -2020.61 | -431.17 | 40°03'34.846"N | 104°58'10.885"W | 1.05 | |
| 9592.00 | 89.040 | 180.070 | 7598.12 | 2105.09 | -2105.59 | -430.41 | 40°03'34.006"N | 104°58'10.875"W | 1.56 | |
| 9677.00 | 89.560 | 180.340 | 7599.16 | 2190.08 | -2190.58 | -430.72 | 40°03'33.166"N | 104°58'10.879"W | 0.69 | |
| 9762.00 | 91.170 | 180.850 | 7598.61 | 2275.07 | -2275.57 | -431.60 | 40°03'32.326"N | 104°58'10.891"W | 1.99 | |
| 9932.00 | 91.350 | 180.730 | 7594.88 | 2445.01 | -2445.51 | -433.94 | 40°03'30.647"N | 104°58'10.921"W | 0.13 | |
| 10017.00 | 89.840 | 180.640 | 7593.99 | 2530.00 | -2530.50 | -434.96 | 40°03'29.807"N | 104°58'10.934"W | 1.78 | |
| 10102.00 | 91.840 | 180.760 | 7592.75 | 2614.97 | -2615.48 | -436.00 | 40°03'28.967"N | 104°58'10.947"W | 2.36 | |
| 10187.00 | 90.370 | 180.230 | 7591.11 | 2699.95 | -2700.46 | -436.73 | 40°03'28.127"N | 104°58'10.957"W | 1.84 | |
| 10271.00 | 90.120 | 180.380 | 7590.75 | 2783.95 | -2784.45 | -437.18 | 40°03'27.297"N | 104°58'10.962"W | 0.35 | |
| 10357.00 | 90.360 | 180.490 | 7590.39 | 2869.95 | -2870.45 | -437.83 | 40°03'26.448"N | 104°58'10.971"W | 0.31 | |
| 10442.00 | 89.840 | 180.360 | 7590.24 | 2954.94 | -2955.45 | -438.46 | 40°03'25.608"N | 104°58'10.979"W | 0.63 | |
| 10527.00 | 89.190 | 180.180 | 7590.96 | 3039.94 | -3040.44 | -438.86 | 40°03'24.768"N | 104°58'10.984"W | 0.79 | |
| 10612.00 | 90.240 | 180.180 | 7591.38 | 3124.93 | -3125.44 | -439.13 | 40°03'23.928"N | 104°58'10.987"W | 1.24 | |
| 10697.00 | 89.810 | 179.760 | 7591.34 | 3209.93 | -3210.44 | -439.09 | 40°03'23.088"N | 104°58'10.987"W | 0.71 | |
| 10782.00 | 90.400 | 179.840 | 7591.19 | 3294.93 | -3295.44 | -438.79 | 40°03'22.248"N | 104°58'10.983"W | 0.70 | |
| 10867.00 | 90.030 | 179.770 | 7590.87 | 3379.93 | -3380.44 | -438.50 | 40°03'21.408"N | 104°58'10.979"W | 0.44 | |
| 10952.00 | 90.800 | 180.390 | 7590.25 | 3464.93 | -3465.44 | -438.62 | 40°03'20.568"N | 104°58'10.981"W | 1.16 | |
| 11037.00 | 89.840 | 179.520 | 7589.78 | 3549.92 | -3550.43 | -438.55 | 40°03'19.728"N | 104°58'10.980"W | 1.52 | |
| 11122.00 | 89.290 | 179.240 | 7590.43 | 3634.92 | -3635.42 | -437.63 | 40°03'18.888"N | 104°58'10.968"W | 0.73 | |

REFERENCE WELLPATH IDENTIFICATION

| | | | |
|----------|---------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP | Slot | SLOT#24 FRONT RANGE FARMS 36N-14HZ (2453'FSL & 1947'FEL, SEC.11) |
| Area | COLORADO | Well | FRONT RANGE FARMS 36N-14HZ |
| Field | WELD COUNTY (KERR MCGEE) | Wellbore | FRONT RANGE FARMS 36N-14HZ AWB <116-15134> |
| Facility | SEC.11-T1N-R68W | | |

WELLPATH DATA (181 stations) † = interpolated/extrapolated station

| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | Latitude | Longitude | DLS [°/100ft] | Comments |
|------------|--------------------|----------------|-------------|-------------------|---------------|--------------|----------------|-----------------|------------------|--------------------------|
| 11207.00 | 89.630 | 180.860 | 7591.23 | 3719.91 | -3720.42 | -437.71 | 40°03'18.048"N | 104°58'10.969"W | 1.95 | |
| 11292.00 | 89.410 | 180.510 | 7591.94 | 3804.90 | -3805.41 | -438.72 | 40°03'17.208"N | 104°58'10.982"W | 0.49 | |
| 11377.00 | 88.120 | 179.810 | 7593.77 | 3889.88 | -3890.39 | -438.96 | 40°03'16.368"N | 104°58'10.985"W | 1.73 | |
| 11463.00 | 89.380 | 179.840 | 7595.65 | 3975.86 | -3976.36 | -438.70 | 40°03'15.519"N | 104°58'10.982"W | 1.47 | |
| 11548.00 | 88.950 | 179.760 | 7596.89 | 4060.85 | -4061.35 | -438.40 | 40°03'14.679"N | 104°58'10.978"W | 0.51 | |
| 11633.00 | 90.640 | 180.260 | 7597.19 | 4145.84 | -4146.35 | -438.42 | 40°03'13.839"N | 104°58'10.978"W | 2.07 | |
| 11718.00 | 90.640 | 180.060 | 7596.24 | 4230.84 | -4231.34 | -438.65 | 40°03'12.999"N | 104°58'10.981"W | 0.24 | |
| 11888.00 | 89.660 | 179.730 | 7595.79 | 4400.83 | -4401.34 | -438.34 | 40°03'11.319"N | 104°58'10.977"W | 0.61 | |
| 11973.00 | 90.360 | 180.170 | 7595.78 | 4485.83 | -4486.34 | -438.27 | 40°03'10.479"N | 104°58'10.976"W | 0.97 | |
| 12058.00 | 89.840 | 180.390 | 7595.63 | 4570.83 | -4571.34 | -438.68 | 40°03'09.639"N | 104°58'10.981"W | 0.66 | |
| 12143.00 | 91.260 | 180.110 | 7594.82 | 4655.82 | -4656.33 | -439.05 | 40°03'08.799"N | 104°58'10.986"W | 1.70 | |
| 12313.00 | 90.030 | 179.320 | 7592.90 | 4825.81 | -4826.31 | -438.21 | 40°03'07.119"N | 104°58'10.975"W | 0.86 | |
| 12398.00 | 91.660 | 178.480 | 7591.65 | 4910.78 | -4911.29 | -436.58 | 40°03'06.280"N | 104°58'10.954"W | 2.16 | |
| 12483.00 | 91.230 | 177.790 | 7589.50 | 4995.71 | -4996.21 | -433.81 | 40°03'05.440"N | 104°58'10.919"W | 0.96 | |
| 12568.00 | 90.270 | 177.790 | 7588.39 | 5080.64 | -5081.14 | -430.53 | 40°03'04.601"N | 104°58'10.876"W | 1.13 | |
| 12654.00 | 90.240 | 178.390 | 7588.01 | 5166.60 | -5167.09 | -427.67 | 40°03'03.752"N | 104°58'10.839"W | 0.70 | |
| 12739.00 | 91.170 | 180.280 | 7586.96 | 5251.58 | -5252.08 | -426.68 | 40°03'02.912"N | 104°58'10.827"W | 2.48 | |
| 12824.00 | 91.170 | 179.690 | 7585.23 | 5336.56 | -5337.06 | -426.66 | 40°03'02.072"N | 104°58'10.826"W | 0.69 | |
| 12909.00 | 90.580 | 179.000 | 7583.93 | 5421.55 | -5422.04 | -425.69 | 40°03'01.232"N | 104°58'10.814"W | 1.07 | |
| 12994.00 | 89.870 | 178.610 | 7583.60 | 5506.53 | -5507.02 | -423.91 | 40°03'00.392"N | 104°58'10.791"W | 0.95 | |
| 13079.00 | 89.560 | 179.670 | 7584.02 | 5591.52 | -5592.01 | -422.64 | 40°02'59.553"N | 104°58'10.775"W | 1.30 | |
| 13163.00 | 90.920 | 180.140 | 7583.67 | 5675.52 | -5676.01 | -422.50 | 40°02'58.722"N | 104°58'10.773"W | 1.71 | |
| 13247.00 | 90.120 | 179.910 | 7582.90 | 5759.51 | -5760.00 | -422.54 | 40°02'57.892"N | 104°58'10.773"W | 0.99 | |
| 13334.00 | 90.090 | 180.620 | 7582.75 | 5846.51 | -5847.00 | -422.94 | 40°02'57.033"N | 104°58'10.778"W | 0.82 | |
| 13419.00 | 89.530 | 179.590 | 7583.03 | 5931.51 | -5932.00 | -423.09 | 40°02'56.193"N | 104°58'10.780"W | 1.38 | |
| 13505.00 | 90.640 | 180.960 | 7582.90 | 6017.50 | -6017.99 | -423.51 | 40°02'55.343"N | 104°58'10.786"W | 2.05 | |
| 13590.00 | 90.700 | 182.120 | 7581.91 | 6102.46 | -6102.96 | -425.79 | 40°02'54.503"N | 104°58'10.815"W | 1.37 | |
| 13675.00 | 89.810 | 180.960 | 7581.53 | 6187.42 | -6187.92 | -428.07 | 40°02'53.664"N | 104°58'10.844"W | 1.72 | |
| 13760.00 | 90.400 | 180.940 | 7581.37 | 6272.41 | -6272.91 | -429.48 | 40°02'52.824"N | 104°58'10.863"W | 0.69 | |
| 13845.00 | 92.010 | 182.550 | 7579.58 | 6357.34 | -6357.85 | -432.07 | 40°02'51.984"N | 104°58'10.896"W | 2.68 | |
| 13930.00 | 91.500 | 182.880 | 7576.98 | 6442.20 | -6442.71 | -436.10 | 40°02'51.146"N | 104°58'10.948"W | 0.71 | |
| 14016.00 | 89.810 | 182.450 | 7576.00 | 6528.10 | -6528.61 | -440.09 | 40°02'50.297"N | 104°58'10.999"W | 2.03 | |
| 14101.00 | 90.030 | 181.150 | 7576.12 | 6613.05 | -6613.56 | -442.76 | 40°02'49.457"N | 104°58'11.033"W | 1.55 | |
| 14186.00 | 91.820 | 180.170 | 7574.74 | 6698.03 | -6698.54 | -443.74 | 40°02'48.617"N | 104°58'11.046"W | 2.40 | |
| 14271.00 | 93.510 | 180.590 | 7570.79 | 6782.93 | -6783.45 | -444.31 | 40°02'47.778"N | 104°58'11.053"W | 2.05 | |
| 14356.00 | 93.570 | 180.620 | 7565.54 | 6867.76 | -6868.28 | -445.20 | 40°02'46.940"N | 104°58'11.065"W | 0.08 | |
| 14441.00 | 91.880 | 180.720 | 7561.50 | 6952.66 | -6953.17 | -446.19 | 40°02'46.101"N | 104°58'11.077"W | 1.99 | |
| 14527.00 | 92.150 | 180.950 | 7558.48 | 7038.59 | -7039.11 | -447.45 | 40°02'45.252"N | 104°58'11.093"W | 0.41 | |
| 14612.00 | 89.630 | 180.590 | 7557.16 | 7123.57 | -7124.09 | -448.59 | 40°02'44.412"N | 104°58'11.108"W | 2.99 | |
| 14697.00 | 89.170 | 180.420 | 7558.05 | 7208.56 | -7209.08 | -449.34 | 40°02'43.572"N | 104°58'11.118"W | 0.58 | |
| 14782.00 | 88.880 | 180.450 | 7559.50 | 7293.54 | -7294.06 | -449.98 | 40°02'42.732"N | 104°58'11.126"W | 0.34 | |
| 14867.00 | 88.180 | 180.400 | 7561.68 | 7378.51 | -7379.03 | -450.61 | 40°02'41.893"N | 104°58'11.134"W | 0.83 | |
| 14952.00 | 89.500 | 179.680 | 7563.40 | 7463.49 | -7464.01 | -450.67 | 40°02'41.053"N | 104°58'11.135"W | 1.77 | |
| 15076.00† | 88.748 | 179.143 | 7565.29 | 7587.47 | -7587.99 | -449.40 | 40°02'39.828"N | 104°58'11.118"W | 0.75 | Last BHI MWD+IFR Surveys |
| 15079.00 | 88.730 | 179.130 | 7565.36 | 7590.47 | -7590.99 | -449.35 | 40°02'39.798"N | 104°58'11.118"W | 0.75 | |

REFERENCE WELLPATH IDENTIFICATION

| | | | |
|----------|---------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP | Slot | SLOT#24 FRONT RANGE FARMS 36N-14HZ (2453'FSL & 1947'FEL, SEC.11) |
| Area | COLORADO | Well | FRONT RANGE FARMS 36N-14HZ |
| Field | WELD COUNTY (KERR MCGEE) | Wellbore | FRONT RANGE FARMS 36N-14HZ AWB <116-15134> |
| Facility | SEC.11-T1N-R68W | | |

WELLPATH DATA (181 stations)

| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | Latitude | Longitude | DLS [°/100ft] | Comments |
|----------|-----------------|-------------|----------|----------------|------------|-----------|----------------|-----------------|---------------|-------------------|
| 15134.00 | 88.730 | 179.130 | 7566.58 | 7645.45 | -7645.97 | -448.52 | 40°02'39.255"N | 104°58'11.107"W | 0.00 | Projection to Bit |

HOLE & CASING SECTIONS -

Ref Wellbore: FRONT RANGE FARMS 36N-14HZ AWB <116-15134> Ref Wellpath: FRONT RANGE FARMS 36N-14HZ AWP

| 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 | 16.00 | 1307.00 | 1291.00 | 16.00 | 1306.98 | 0.00 | 0.00 | -4.97 | -3.23 |
| 9.625in Casing Surface | 16.00 | 1297.00 | 1281.00 | 16.00 | 1296.98 | 0.00 | 0.00 | -4.92 | -3.14 |
| 8.75in Open Hole | 1307.00 | 8040.00 | 6733.00 | 1306.98 | 7581.74 | -4.97 | -3.23 | -554.04 | -456.81 |
| 7in Casing Intermediate | 16.00 | 8030.00 | 8014.00 | 16.00 | 7581.45 | 0.00 | 0.00 | -544.05 | -456.90 |
| 6.125in Open Hole | 8040.00 | 15134.00 | 7094.00 | 7581.74 | 7566.58 | -554.04 | -456.81 | -7645.97 | -448.52 |

TARGETS

| Name | MD [ft] | TVD [ft] | North [ft] | East [ft] | Grid East [US ft] | Grid North [US ft] | Latitude | Longitude | Shape |
|--|---------|----------|------------|-----------|-------------------|--------------------|-----------------------|------------------------|---------|
| SEC.11-T1N-R68W (460' SETBACKS) | | 5.00 | 0.00 | 0.00 | 3148856.29 | 1267053.48 | 40°03'54.814"N | 104°58'05.340"W | polygon |
| SEC.14-T1N-R68W (460' SETBACKS) | | 5.00 | 0.00 | 0.00 | 3148856.29 | 1267053.48 | 40°03'54.814"N | 104°58'05.340"W | polygon |
| SEC.11-T1N-R68W LINES | | 21.00 | 0.00 | 0.00 | 3148856.29 | 1267053.48 | 40°03'54.814"N | 104°58'05.340"W | polygon |
| SEC.14-T1N-R68W LINES | | 21.00 | 0.00 | 0.00 | 3148856.29 | 1267053.48 | 40°03'54.814"N | 104°58'05.340"W | polygon |
| FRONT RANGE FARMS 36N-14HZ BHL (50'FSL & 2390'FEL, SEC.14) REV-2 | | 7586.00 | -7646.13 | -435.01 | 3148467.16 | 1259405.19 | 40°02'39.253"N | 104°58'10.933"W | point |
| FRONT RANGE FARMS 36N-14HZ BHL ON PLAT (50'FSL & 2450'FEL, SEC.14) REV-1 | | 7586.00 | -7646.13 | -495.01 | 3148407.16 | 1259404.83 | 40°02'39.253"N | 104°58'11.705"W | point |
| FRONT RANGE FARMS 36N-14HZ LAND BOX | | 7586.00 | 0.00 | 0.00 | 3148856.29 | 1267053.48 | 40°03'54.814"N | 104°58'05.340"W | polygon |
| FRONT RANGE FARMS 36N-14HZ INTERNAL HARDLINE | | 7856.00 | 0.00 | 0.00 | 3148856.29 | 1267053.48 | 40°03'54.814"N | 104°58'05.340"W | polygon |

REFERENCE WELLPATH IDENTIFICATION

| | | | |
|----------|---------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP | Slot | SLOT#24 FRONT RANGE FARMS 36N-14HZ (2453'FSL & 1947'FEL, SEC.11) |
| Area | COLORADO | Well | FRONT RANGE FARMS 36N-14HZ |
| Field | WELD COUNTY (KERR MCGEE) | Wellbore | FRONT RANGE FARMS 36N-14HZ AWB <116-15134> |
| Facility | SEC.11-T1N-R68W | | |

WELLPATH COMPOSITION -

Ref Wellbore: FRONT RANGE FARMS 36N-14HZ AWB <116-15134> Ref Wellpath: FRONT RANGE FARMS 36N-14HZ AWP

| Start MD [ft] | End MD [ft] | Positional Uncertainty Model | Log Name/Comment | Wellbore |
|---------------|-------------|--------------------------------------|--|--|
| 16.00 | 1247.00 | Generic gyro - continuous (Standard) | VES GYRO SURVEYS <116-1247> | FRONT RANGE FARMS 36N-14HZ AWB <116-15134> |
| 1247.00 | 7994.00 | OnTrak (MAGCORR,IFR) | BHI MWD+IFR SURVEYS 8 3/4" HOLE <1371-7994> | FRONT RANGE FARMS 36N-14HZ AWB <116-15134> |
| 7994.00 | 15079.00 | NaviTrak (MAGCORR,IFR) | BHI MWD+IFR SURVEYS 6 1/8" HOLE <8093-15079> | FRONT RANGE FARMS 36N-14HZ AWB <116-15134> |
| 15079.00 | 15134.00 | Blind Drilling (std) | Projection to bit | FRONT RANGE FARMS 36N-14HZ AWB <116-15134> |

REFERENCE WELLPATH IDENTIFICATION

| | | | |
|----------|---------------------------------|----------|---|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP | Slot | SLOT#24 FRONT RANGE FARMS 36N-14HZ (2453'FSL & 1947'FEL, SEC.11 |
| Area | COLORADO | Well | FRONT RANGE FARMS 36N-14HZ |
| Field | WELD COUNTY (KERR MCGEE) | Wellbore | FRONT RANGE FARMS 36N-14HZ AWB <116-15134> |
| Facility | SEC.11-T1N-R68W | | |

WELLPATH COMMENTS

| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Comment |
|----------|-----------------|-------------|----------|---------------------------|
| 16.00 | 0.000 | 134.059 | 16.00 | Tie-On |
| 116.00 | 0.403 | 134.059 | 116.00 | Begin GYRO Surveys |
| 1247.00 | 0.498 | 241.533 | 1246.98 | Tie-Into GYRO Surveys |
| 1371.00 | 0.610 | 243.440 | 1370.98 | Begin BHI MWD+IFR Surveys |
| 8030.00 | 88.138 | 179.121 | 7581.45 | 7" Casing Point |
| 15076.00 | 88.748 | 179.143 | 7565.29 | Last BHI MWD+IFR Surveys |
| 15134.00 | 88.730 | 179.130 | 7566.58 | Projection to Bit |