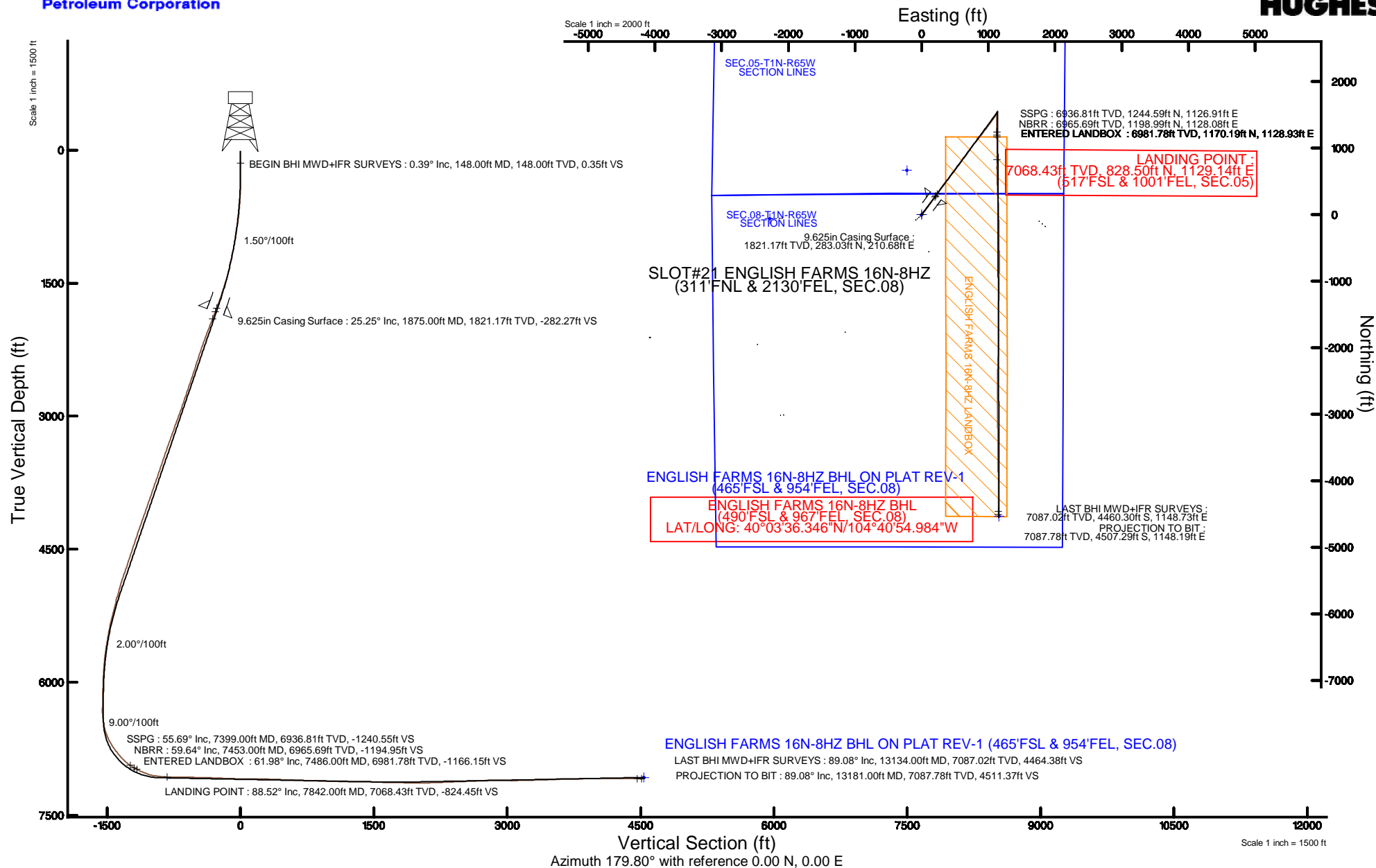


Location:	COLORADO	Slot:	SLOT#21 ENGLISH FARMS 16N-8HZ (311'FNL & 2130'FEL, SEC.08)
Field:	WELD COUNTY (UTM/TRUE NORTH)	Well:	ENGLISH FARMS 16N-8HZ
Facility:	SEC.08-T1N-R65W	Wellbore:	ENGLISH FARMS 16N-8HZ PWB

Plot reference wellpath is ENGLISH FARMS 16N-8HZ (REV-A.0) PWP	
True vertical depths are referenced to XTREME 24 (16'KB) (RKB)	Grid System: NAD83 / UTM Zone 13 North, US feet
Measured depths are referenced to XTREME 24 (16'KB) (RKB)	North Reference: True north
XTREME 24 (16'KB) (RKB) to Mean Sea Level: 4964 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#21 ENGLISH FARMS 16N-8HZ (311'FNL & 2130'FEL, SEC.0)): 0 feet	Depths are in feet
Coordinates are in feet referenced to SLO	Created by: amarcar on 08/Jul/2015





Actual Wellpath Report

ENGLISH FARMS 16N-8HZ AWP
Page 1 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#21 ENGLISH FARMS 16N-8HZ (311'FNL & 2130'FEL, SEC.08)
Area	COLORADO	Well	ENGLISH FARMS 16N-8HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	ENGLISH FARMS 16N-8HZ AWB <13181>
Facility	SEC.08-T1N-R65W		

REPORT SETUP INFORMATION

Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 4.0.0
North Reference	True	User	Amarcar
Scale	0.999609	Report Generated	08/Jul/2015 at 15:43
Convergence at slot	0.20° East	Database/Source file	KERR MCGEE UTM/ENGLISH_FARMS_16N-8HZ_AWB__13181_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	444.07	-1472.65	1728247.98	14553277.41	40°04'20.888"N	104°41'09.751"W
Facility Reference Pt			1729721.63	14552838.79	40°04'16.500"N	104°40'50.808"W
Field Reference Pt			1698235.31	14552047.82	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM

Calculation method	Minimum curvature	XTREME 24 (16'KB) (RKB) to Facility Vertical Datum	4964.00ft
Horizontal Reference Pt	Slot	XTREME 24 (16'KB) (RKB) to Mean Sea Level	4964.00ft
Vertical Reference Pt	XTREME 24 (16'KB) (RKB)	XTREME 24 (16'KB) (RKB) to Mud Line at Slot (SLOT#21 ENGLISH FARMS 16N-8HZ (311'FNL & 2130'FEL, SEC.08))	4964.00ft
MD Reference Pt	XTREME 24 (16'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	179.80°

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#21 ENGLISH FARMS 16N-8HZ (311'FNL & 2130'FEL, SEC.08)
Area	COLORADO	Well	ENGLISH FARMS 16N-8HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	ENGLISH FARMS 16N-8HZ AWB <13181>
Facility	SEC.08-T1N-R65W		

WELLPATH DATA (142 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	217.740	0.00	0.00	0.00	0.00	40°04'20.888"N	104°41'09.751"W	0.00	
16.00	0.000	217.740	16.00	0.00	0.00	0.00	40°04'20.888"N	104°41'09.751"W	0.00	
148.00	0.390	217.740	148.00	0.35	-0.36	-0.27	40°04'20.884"N	104°41'09.755"W	0.30	BEGIN BHI MWD+IFR SURVEYS
239.00	0.260	205.920	239.00	0.78	-0.79	-0.55	40°04'20.880"N	104°41'09.758"W	0.16	
337.00	0.860	6.570	336.99	0.25	-0.26	-0.57	40°04'20.885"N	104°41'09.758"W	1.13	
432.00	1.290	33.750	431.98	-1.34	1.34	0.11	40°04'20.901"N	104°41'09.750"W	0.69	
527.00	3.460	36.480	526.89	-4.53	4.54	2.41	40°04'20.933"N	104°41'09.720"W	2.29	
622.00	5.490	40.420	621.60	-10.28	10.30	7.06	40°04'20.990"N	104°41'09.660"W	2.16	
716.00	7.960	41.380	714.94	-18.56	18.61	14.28	40°04'21.072"N	104°41'09.567"W	2.63	
811.00	10.030	38.370	808.77	-29.95	30.03	23.76	40°04'21.185"N	104°41'09.445"W	2.23	
906.00	10.700	38.530	902.22	-43.30	43.42	34.39	40°04'21.317"N	104°41'09.309"W	0.71	
1000.00	12.460	37.630	994.30	-58.11	58.28	46.02	40°04'21.464"N	104°41'09.159"W	1.88	
1095.00	12.680	36.000	1087.03	-74.62	74.83	58.40	40°04'21.627"N	104°41'09.000"W	0.44	
1190.00	14.020	34.930	1179.46	-92.44	92.70	71.12	40°04'21.804"N	104°41'08.836"W	1.43	
1285.00	15.790	37.380	1271.26	-112.10	112.41	85.56	40°04'21.999"N	104°41'08.650"W	1.98	
1380.00	17.440	36.630	1362.29	-133.74	134.10	101.90	40°04'22.213"N	104°41'08.440"W	1.75	
1474.00	19.050	36.230	1451.56	-157.36	157.78	119.37	40°04'22.447"N	104°41'08.215"W	1.72	
1569.00	21.210	35.300	1540.75	-183.82	184.32	138.47	40°04'22.709"N	104°41'07.970"W	2.30	
1664.00	22.940	35.730	1628.78	-212.80	213.37	159.21	40°04'22.997"N	104°41'07.703"W	1.83	
1759.00	24.120	36.860	1715.88	-243.28	243.94	181.67	40°04'23.299"N	104°41'07.414"W	1.33	
1832.00	25.090	36.600	1782.25	-267.58	268.30	199.85	40°04'23.539"N	104°41'07.180"W	1.34	
1963.00	25.570	35.010	1900.66	-312.92	313.75	232.63	40°04'23.989"N	104°41'06.759"W	0.64	
2058.00	25.190	34.530	1986.49	-346.28	347.20	255.85	40°04'24.319"N	104°41'06.460"W	0.45	
2153.00	24.580	33.760	2072.67	-379.28	380.28	278.29	40°04'24.646"N	104°41'06.171"W	0.73	
2248.00	23.930	33.850	2159.28	-411.63	412.71	300.00	40°04'24.966"N	104°41'05.892"W	0.69	
2343.00	22.020	36.010	2246.75	-441.97	443.12	321.21	40°04'25.267"N	104°41'05.619"W	2.20	
2438.00	22.920	38.890	2334.54	-470.69	471.92	343.29	40°04'25.552"N	104°41'05.335"W	1.50	
2533.00	22.860	41.350	2422.06	-498.86	500.18	367.10	40°04'25.831"N	104°41'05.029"W	1.01	
2628.00	23.820	38.490	2509.28	-527.64	529.05	391.23	40°04'26.116"N	104°41'04.718"W	1.56	
2722.00	22.780	37.570	2595.62	-556.84	558.33	414.14	40°04'26.405"N	104°41'04.424"W	1.17	
2817.00	22.610	35.300	2683.26	-586.25	587.81	435.91	40°04'26.697"N	104°41'04.144"W	0.94	
2912.00	22.720	37.150	2770.93	-615.70	617.34	457.54	40°04'26.989"N	104°41'03.865"W	0.76	
3006.00	23.850	38.560	2857.27	-644.94	646.67	480.35	40°04'27.278"N	104°41'03.572"W	1.34	
3101.00	24.040	38.890	2944.09	-674.94	676.75	504.47	40°04'27.576"N	104°41'03.262"W	0.24	
3196.00	25.310	36.700	3030.42	-706.20	708.09	528.75	40°04'27.885"N	104°41'02.949"W	1.65	
3291.00	23.570	36.350	3116.90	-737.69	739.67	552.15	40°04'28.198"N	104°41'02.648"W	1.84	
3386.00	24.150	34.570	3203.79	-768.91	770.97	574.43	40°04'28.507"N	104°41'02.362"W	0.97	
3480.00	23.750	34.700	3289.69	-800.23	802.37	596.12	40°04'28.817"N	104°41'02.083"W	0.43	
3575.00	22.800	35.950	3376.96	-830.78	833.00	617.82	40°04'29.120"N	104°41'01.804"W	1.13	
3670.00	22.720	37.840	3464.57	-860.10	862.39	639.88	40°04'29.410"N	104°41'01.520"W	0.77	
3765.00	23.510	39.730	3551.94	-889.07	891.45	663.25	40°04'29.697"N	104°41'01.219"W	1.14	
3860.00	23.210	34.330	3639.16	-919.03	921.49	685.92	40°04'29.994"N	104°41'00.928"W	2.28	
3955.00	22.440	31.850	3726.72	-949.82	952.35	706.04	40°04'30.299"N	104°41'00.669"W	1.30	
4050.00	22.160	33.480	3814.62	-980.09	982.69	725.50	40°04'30.599"N	104°41'00.418"W	0.71	
4145.00	22.690	34.920	3902.44	-1009.99	1012.66	745.87	40°04'30.895"N	104°41'00.156"W	0.80	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#21 ENGLISH FARMS 16N-8HZ (311'FNL & 2130'FEL, SEC.08)
Area	COLORADO	Well	ENGLISH FARMS 16N-8HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	ENGLISH FARMS 16N-8HZ AWB <13181>
Facility	SEC.08-T1N-R65W		

WELLPATH DATA (142 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4240.00	22.950	37.680	3990.00	-1039.59	1042.35	767.68	40°04'31.189"N	104°40'59.876"W	1.16	
4334.00	24.620	38.710	4076.02	-1069.29	1072.13	791.13	40°04'31.483"N	104°40'59.574"W	1.83	
4429.00	24.770	39.460	4162.33	-1100.01	1102.94	816.15	40°04'31.787"N	104°40'59.252"W	0.37	
4524.00	24.250	38.190	4248.77	-1130.62	1133.64	840.86	40°04'32.091"N	104°40'58.934"W	0.78	
4619.00	22.600	37.460	4335.94	-1160.36	1163.46	864.03	40°04'32.385"N	104°40'58.636"W	1.76	
4714.00	23.170	38.830	4423.46	-1189.33	1192.51	886.85	40°04'32.672"N	104°40'58.343"W	0.82	
4809.00	22.470	37.800	4511.02	-1218.15	1221.42	909.69	40°04'32.958"N	104°40'58.049"W	0.85	
4904.00	22.900	37.710	4598.67	-1247.04	1250.38	932.13	40°04'33.244"N	104°40'57.760"W	0.45	
4998.00	22.340	34.840	4685.44	-1276.10	1279.52	953.52	40°04'33.532"N	104°40'57.485"W	1.32	
5093.00	24.050	38.300	4772.77	-1306.03	1309.53	975.83	40°04'33.829"N	104°40'57.198"W	2.30	
5188.00	22.070	37.650	4860.17	-1335.27	1338.86	998.74	40°04'34.119"N	104°40'56.903"W	2.10	
5283.00	19.280	35.600	4949.05	-1362.09	1365.74	1018.77	40°04'34.384"N	104°40'56.646"W	3.03	
5377.00	18.910	37.350	5037.87	-1386.75	1390.47	1037.05	40°04'34.629"N	104°40'56.410"W	0.73	
5472.00	16.840	34.580	5128.28	-1410.26	1414.04	1054.20	40°04'34.862"N	104°40'56.190"W	2.36	
5567.00	16.930	34.170	5219.19	-1432.98	1436.82	1069.78	40°04'35.087"N	104°40'55.989"W	0.16	
5662.00	15.260	31.160	5310.46	-1455.07	1458.96	1084.02	40°04'35.305"N	104°40'55.806"W	1.96	
5757.00	13.640	34.920	5402.46	-1474.91	1478.84	1096.90	40°04'35.502"N	104°40'55.640"W	1.97	
5851.00	11.140	27.320	5494.27	-1492.03	1496.00	1107.41	40°04'35.672"N	104°40'55.505"W	3.17	
5946.00	9.880	30.810	5587.67	-1507.16	1511.16	1115.80	40°04'35.821"N	104°40'55.397"W	1.49	
6041.00	8.020	22.760	5681.52	-1520.25	1524.27	1122.54	40°04'35.951"N	104°40'55.311"W	2.36	
6135.00	6.570	33.420	5774.76	-1530.76	1534.81	1128.04	40°04'36.055"N	104°40'55.240"W	2.10	
6230.00	4.240	36.400	5869.33	-1538.11	1542.17	1133.12	40°04'36.128"N	104°40'55.175"W	2.47	
6325.00	3.530	51.690	5964.11	-1542.73	1546.81	1137.50	40°04'36.174"N	104°40'55.118"W	1.32	
6420.00	2.210	4.670	6059.00	-1546.36	1550.45	1139.94	40°04'36.210"N	104°40'55.087"W	2.73	
6515.00	0.740	314.910	6153.97	-1548.62	1552.71	1139.66	40°04'36.232"N	104°40'55.090"W	1.92	
6609.00	2.230	326.540	6247.94	-1550.58	1554.66	1138.22	40°04'36.251"N	104°40'55.109"W	1.61	
6704.00	1.450	231.090	6342.90	-1551.38	1555.45	1136.26	40°04'36.259"N	104°40'55.134"W	2.92	
6799.00	9.370	187.690	6437.42	-1542.95	1547.02	1134.29	40°04'36.176"N	104°40'55.159"W	8.82	
6894.00	14.340	187.190	6530.37	-1523.61	1527.67	1131.78	40°04'35.984"N	104°40'55.192"W	5.23	
6989.00	24.210	192.530	6619.94	-1492.87	1496.90	1126.07	40°04'35.680"N	104°40'55.265"W	10.54	
7084.00	31.100	180.240	6704.10	-1449.24	1453.27	1121.73	40°04'35.249"N	104°40'55.321"W	9.38	
7178.00	37.340	177.690	6781.80	-1396.42	1400.45	1122.78	40°04'34.727"N	104°40'55.308"W	6.81	
7273.00	41.890	178.350	6854.96	-1335.89	1339.93	1124.85	40°04'34.129"N	104°40'55.281"W	4.81	
7368.00	53.430	179.020	6918.84	-1265.81	1269.84	1126.42	40°04'33.437"N	104°40'55.261"W	12.16	
7399.00†	55.694	178.758	6936.81	-1240.55	1244.59	1126.91	40°04'33.187"N	104°40'55.254"W	7.34	SSPG
7453.00†	59.639	178.335	6965.69	-1194.95	1198.99	1128.08	40°04'32.736"N	104°40'55.240"W	7.34	NBRR
7463.00	60.370	178.260	6970.69	-1186.29	1190.33	1128.33	40°04'32.651"N	104°40'55.236"W	7.34	
7486.00†	61.975	178.314	6981.78	-1166.15	1170.19	1128.93	40°04'32.452"N	104°40'55.229"W	6.98	ENTERED LANDBOX
7557.00	66.930	178.470	7012.39	-1102.13	1106.18	1130.73	40°04'31.819"N	104°40'55.205"W	6.98	
7652.00	75.380	180.840	7043.05	-1012.31	1016.36	1131.22	40°04'30.932"N	104°40'55.199"W	9.20	
7747.00	82.660	180.510	7061.13	-919.12	923.17	1130.13	40°04'30.011"N	104°40'55.213"W	7.67	
7842.00	88.520	180.690	7068.43	-824.45	828.50	1129.14	40°04'29.075"N	104°40'55.226"W	6.17	LANDING POINT
7936.00	90.550	180.380	7069.19	-730.47	734.51	1128.26	40°04'28.146"N	104°40'55.237"W	2.18	
8031.00	89.110	178.980	7069.48	-635.48	639.52	1128.79	40°04'27.208"N	104°40'55.231"W	2.11	
8125.00	88.030	177.970	7071.82	-541.53	545.58	1131.29	40°04'26.279"N	104°40'55.199"W	1.57	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#21 ENGLISH FARMS 16N-8HZ (311'FNL & 2130'FEL, SEC.08)
Area	COLORADO	Well	ENGLISH FARMS 16N-8HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	ENGLISH FARMS 16N-8HZ AWP <13181>
Facility	SEC.08-T1N-R65W		

WELLPATH DATA (142 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8220.00	89.320	177.740	7074.02	-446.61	450.68	1134.85	40°04'25.341"N	104°40'55.153"W	1.38	
8315.00	87.720	176.460	7076.47	-351.76	355.84	1139.65	40°04'24.404"N	104°40'55.091"W	2.16	
8410.00	87.440	177.390	7080.48	-256.96	261.06	1144.74	40°04'23.468"N	104°40'55.026"W	1.02	
8505.00	88.120	177.100	7084.16	-162.13	166.24	1149.30	40°04'22.531"N	104°40'54.967"W	0.78	
8599.00	88.000	178.960	7087.35	-68.23	72.35	1152.53	40°04'21.603"N	104°40'54.926"W	1.98	
8694.00	88.400	179.120	7090.33	26.72	-22.59	1154.12	40°04'20.665"N	104°40'54.905"W	0.45	
8789.00	89.320	178.710	7092.22	121.68	-117.55	1155.92	40°04'19.726"N	104°40'54.882"W	1.06	
8884.00	90.710	178.330	7092.20	216.66	-212.51	1158.38	40°04'18.788"N	104°40'54.851"W	1.52	
8979.00	88.950	179.580	7092.48	311.64	-307.49	1160.11	40°04'17.849"N	104°40'54.828"W	2.27	
9074.00	87.630	179.760	7095.31	406.60	-402.45	1160.66	40°04'16.911"N	104°40'54.821"W	1.40	
9168.00	87.970	179.760	7098.92	500.53	-496.38	1161.05	40°04'15.982"N	104°40'54.816"W	0.36	
9263.00	87.780	177.900	7102.44	595.44	-591.29	1162.99	40°04'15.045"N	104°40'54.792"W	1.97	
9358.00	87.290	180.940	7106.53	690.34	-686.18	1163.95	40°04'14.107"N	104°40'54.779"W	3.24	
9452.00	88.330	180.130	7110.12	784.26	-780.11	1163.07	40°04'13.179"N	104°40'54.791"W	1.40	
9547.00	88.430	181.710	7112.81	879.21	-875.05	1161.55	40°04'12.240"N	104°40'54.810"W	1.67	
9642.00	88.550	180.870	7115.31	974.14	-970.00	1159.41	40°04'11.302"N	104°40'54.838"W	0.89	
9736.00	89.080	180.830	7117.26	1068.10	-1063.97	1158.02	40°04'10.373"N	104°40'54.856"W	0.57	
9831.00	90.030	180.060	7117.99	1163.09	-1158.96	1157.28	40°04'09.435"N	104°40'54.865"W	1.29	
9926.00	88.980	181.750	7118.81	1258.07	-1253.94	1155.78	40°04'08.496"N	104°40'54.885"W	2.09	
10021.00	89.690	180.930	7119.92	1353.02	-1348.90	1153.56	40°04'07.558"N	104°40'54.913"W	1.14	
10116.00	88.270	181.060	7121.61	1447.99	-1443.87	1151.91	40°04'06.619"N	104°40'54.935"W	1.50	
10210.00	87.590	180.110	7125.00	1541.91	-1537.81	1150.95	40°04'05.691"N	104°40'54.947"W	1.24	
10305.00	87.570	180.110	7129.01	1636.83	-1632.72	1150.77	40°04'04.753"N	104°40'54.949"W	0.02	
10399.00	89.230	179.180	7131.64	1730.79	-1726.68	1151.35	40°04'03.824"N	104°40'54.942"W	2.02	
10494.00	89.660	178.870	7132.56	1825.77	-1821.66	1152.96	40°04'02.886"N	104°40'54.921"W	0.56	
10589.00	89.010	180.450	7133.66	1920.76	-1916.65	1153.53	40°04'01.947"N	104°40'54.914"W	1.80	
10778.00	91.170	182.140	7133.37	2109.68	-2105.58	1149.26	40°04'00.080"N	104°40'54.969"W	1.45	
10968.00	92.770	182.100	7126.83	2299.40	-2295.33	1142.23	40°03'58.205"N	104°40'55.060"W	0.84	
11063.00	92.030	180.340	7122.86	2394.29	-2390.22	1140.21	40°03'57.267"N	104°40'55.086"W	2.01	
11157.00	92.100	180.320	7119.47	2488.22	-2484.16	1139.67	40°03'56.339"N	104°40'55.093"W	0.08	
11252.00	92.310	180.640	7115.81	2583.14	-2579.09	1138.88	40°03'55.401"N	104°40'55.103"W	0.40	
11347.00	92.920	181.480	7111.48	2678.02	-2673.97	1137.12	40°03'54.463"N	104°40'55.126"W	1.09	
11442.00	93.240	179.650	7106.37	2772.87	-2768.82	1136.19	40°03'53.526"N	104°40'55.138"W	1.95	
11536.00	89.200	179.850	7104.37	2866.83	-2862.78	1136.59	40°03'52.597"N	104°40'55.132"W	4.30	
11631.00	88.490	180.320	7106.29	2961.81	-2957.76	1136.45	40°03'51.659"N	104°40'55.134"W	0.90	
11726.00	89.780	178.390	7107.72	3056.79	-3052.74	1137.52	40°03'50.720"N	104°40'55.121"W	2.44	
11821.00	91.290	178.740	7106.84	3151.76	-3147.70	1139.90	40°03'49.782"N	104°40'55.090"W	1.63	
11916.00	91.660	178.480	7104.39	3246.71	-3242.64	1142.21	40°03'48.843"N	104°40'55.060"W	0.48	
12011.00	92.000	178.700	7101.36	3341.64	-3337.56	1144.54	40°03'47.905"N	104°40'55.030"W	0.43	
12105.00	92.010	179.560	7098.07	3435.57	-3431.50	1145.97	40°03'46.977"N	104°40'55.012"W	0.91	
12200.00	92.280	179.650	7094.51	3530.51	-3526.43	1146.62	40°03'46.039"N	104°40'55.004"W	0.30	
12295.00	91.110	179.780	7091.70	3625.46	-3621.38	1147.10	40°03'45.101"N	104°40'54.998"W	1.24	
12390.00	90.770	179.900	7090.14	3720.45	-3716.37	1147.36	40°03'44.162"N	104°40'54.994"W	0.38	
12485.00	91.170	179.600	7088.53	3815.44	-3811.35	1147.78	40°03'43.223"N	104°40'54.989"W	0.53	
12580.00	91.080	179.390	7086.67	3910.42	-3906.33	1148.61	40°03'42.285"N	104°40'54.978"W	0.24	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#21 ENGLISH FARMS 16N-8HZ (311'FNL & 2130'FEL, SEC.08)
Area	COLORADO	Well	ENGLISH FARMS 16N-8HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	ENGLISH FARMS 16N-8HZ AWP <13181>
Facility	SEC.08-T1N-R65W		

WELLPATH DATA (142 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12675.00	90.550	179.950	7085.32	4005.41	-4001.32	1149.16	40°03'41.346"N	104°40'54.971"W	0.81	
12769.00	89.750	179.360	7085.07	4099.40	-4095.32	1149.73	40°03'40.417"N	104°40'54.964"W	1.06	
12864.00	89.850	179.820	7085.40	4194.40	-4190.31	1150.41	40°03'39.478"N	104°40'54.956"W	0.50	
12959.00	89.910	180.140	7085.60	4289.40	-4285.31	1150.44	40°03'38.539"N	104°40'54.955"W	0.34	
13054.00	89.540	180.740	7086.06	4384.39	-4380.31	1149.71	40°03'37.601"N	104°40'54.965"W	0.74	
13134.00	89.080	180.660	7087.02	4464.38	-4460.30	1148.73	40°03'36.810"N	104°40'54.977"W	0.58	LAST BHI MWD+IFR SURVEYS
13181.00	89.080	180.660	7087.78	4511.37	-4507.29	1148.19	40°03'36.346"N	104°40'54.984"W	0.00	PROJECTION TO BIT

HOLE & CASING SECTIONS - Ref Wellbore: ENGLISH FARMS 16N-8HZ AWP <13181> Ref Wellpath: ENGLISH FARMS 16N-8HZ 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	1885.00	1869.00	16.00	1830.22	0.00	0.00	286.48	213.19
9.625in Casing Surface	16.00	1875.00	1859.00	16.00	1821.17	0.00	0.00	283.03	210.68
7.875in Open Hole	1885.00	13181.00	11296.00	1830.22	7087.78	286.48	213.19	-4507.29	1148.19

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
ENGLISH FARMS 16N-8HZ BHL ON PLAT REV-1 (465'FSL & 954'FEL, SEC.08)	7073.00	-4533.17	1161.08	1729424.58	14548750.14	40°03'36.090"N	104°40'54.818"W	point
ENGLISH FARMS 16N-8HZ LANDBOX	7073.00	0.00	0.00	1728247.98	14553277.41	40°04'20.888"N	104°41'09.751"W	polygon
SEC.05-T1N-R65W SECTION LINES	7114.00	665.95	-222.49	1728023.23	14553942.30	40°04'27.469"N	104°41'12.613"W	polygon
SEC.08-T1N-R65W SECTION LINES	7114.00	-59.19	-2277.58	1725971.51	14553210.20	40°04'20.302"N	104°41'39.048"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: ENGLISH FARMS 16N-8HZ AWP <13181> Ref Wellpath: ENGLISH FARMS 16N-8HZ AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	1832.00	Custom APC_ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHI MWD+IFR SURVEYS 13.5" <148-1832>	ENGLISH FARMS 16N-8HZ AWP <13181>
1832.00	13134.00	Custom APC_ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHI MWD+IFR SURVEYS 7.875" <1963-13134>	ENGLISH FARMS 16N-8HZ AWP <13181>
13134.00	13181.00	Blind Drilling (std)	Projection to bit	ENGLISH FARMS 16N-8HZ AWP <13181>



Actual Wellpath Report

ENGLISH FARMS 16N-8HZ AWP
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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#21 ENGLISH FARMS 16N-8HZ (311'FNL & 2130'FEL, SEC.08)
Area	COLORADO	Well	ENGLISH FARMS 16N-8HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	ENGLISH FARMS 16N-8HZ AWB <13181>
Facility	SEC.08-T1N-R65W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
148.00	0.390	217.740	148.00	BEGIN BHI MWD+IFR SURVEYS
7399.00	55.694	178.758	6936.81	SSPG
7453.00	59.639	178.335	6965.69	NBRR
7486.00	61.975	178.314	6981.78	ENTERED LANDBOX
7842.00	88.520	180.690	7068.43	LANDING POINT
13134.00	89.080	180.660	7087.02	LAST BHI MWD+IFR SURVEYS
13181.00	89.080	180.660	7087.78	PROJECTION TO BIT