

# KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#05 CAMP 3N-31HZ (460'FSL & 1357'FWL, SEC.31)  
Field: WELD COUNTY (KERR MCGEE) Well: CAMP 3N-31HZ  
Facility: SEC.31-T3N-R65W Wellbore: CAMP 3N-31HZ PWB

Plot reference wellpath is CAMP 3N-31HZ (REV-G.0) PWP

True vertical depths are referenced to XTREME 20 (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to XTREME 20 (RKB)	North Reference: True north
XTREME 20 (RKB) to Mean Sea Level: 4985 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#05 CAMP 3N-31HZ (460'FSL & 1357'FWL, SEC.31)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: wilsje02 on 5/30/2012

## Location Information

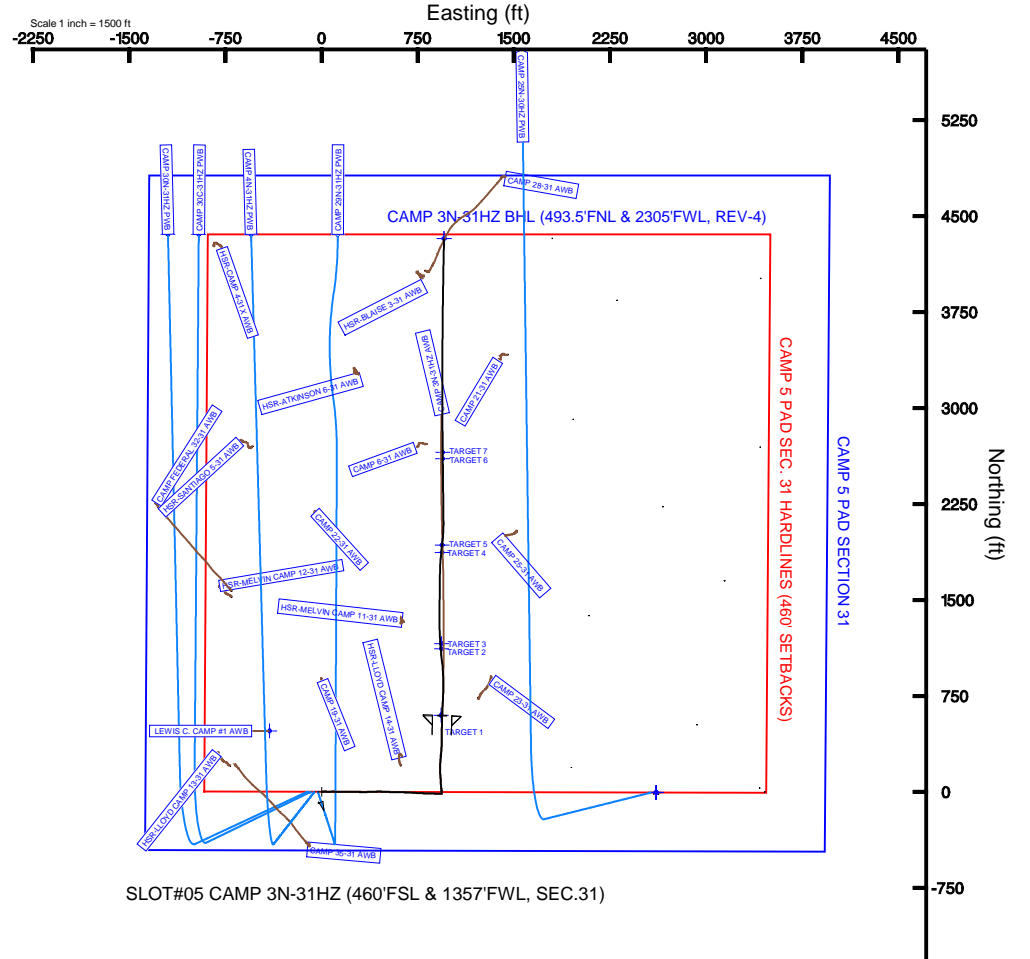
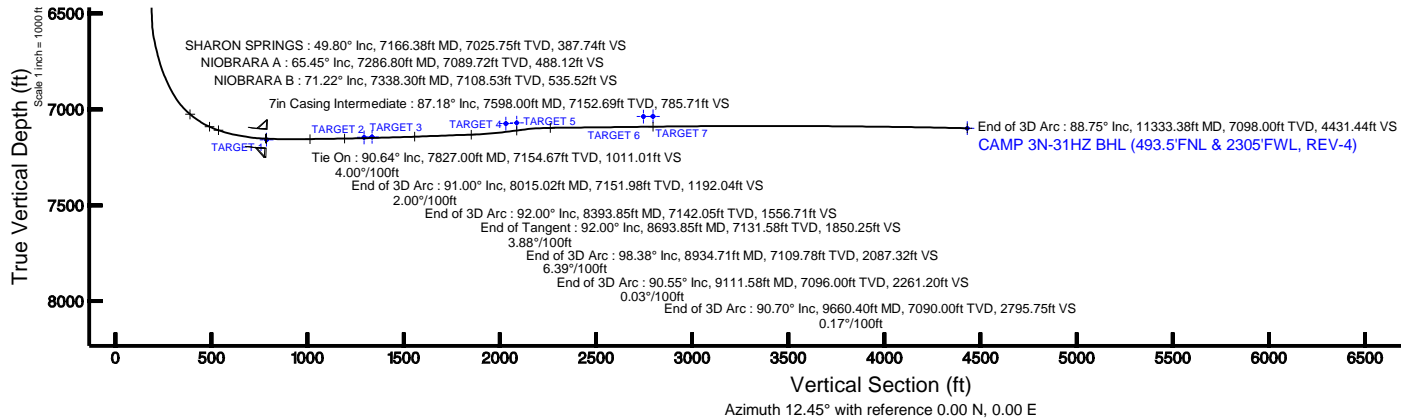
Facility Name				Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.31-T3N-R65W				3220379.928	1307925.563	40°10'33.460"N	104°42'40.734"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
SLOT#05 CAMP 3N-31HZ (460'FSL & 1357'FWL, SEC.31)	-0.04	112.06	3220491.975	1307926.519	40°10'33.460"N	104°42'39.290"W	
XTREME 20 (RKB) to Mud line (At Slot: SLOT#05 CAMP 3N-31HZ (460'FSL & 1357'FWL, SEC.31))						4985ft	
Mean Sea Level to Mud line (At Slot: SLOT#05 CAMP 3N-31HZ (460'FSL & 1357'FWL, SEC.31))						0ft	
XTREME 20 (RKB) to Mean Sea Level						4985ft	

## Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	7827.00	90.640	0.710	7154.67	825.70	949.53	0.00	1011.01
End of 3D Arc	8015.02	91.000	353.197	7151.98	1013.30	939.54	4.00	1192.04
End of 3D Arc	8393.85	92.000	0.710	7142.05	1391.19	919.43	2.00	1556.71
End of Tangent	8693.85	92.000	0.710	7131.58	1690.99	923.14	0.00	1850.25
End of 3D Arc	8934.71	98.379	7.562	7109.78	1929.97	940.35	3.88	2087.32
End of 3D Arc	9111.58	90.550	359.372	7096.00	2105.70	950.93	6.39	2261.20
End of 3D Arc	9660.40	90.703	359.372	7090.00	2654.45	944.91	0.03	2795.75
End of 3D Arc	11333.38	88.749	1.350	7098.00	4327.22	955.44	0.17	4431.44

## Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
IMAGINARY SURVEYS WITH 2" CONE <7995>	0.00	475.76	-406.32		3220081.46	1308398.62	40°10'38.161"N	104°42'44.529"W
CAMP 5 PAD SECTION 31	11.00		-6.10	2610.57	3223102.38	1307943.65	40°10'33.398"N	104°42'05.659"W
CAMP 3N-31HZ BHL (493.5'FNL & 2305'FWL, REV-3)	7028.57	4327.22	955.44		3221408.83	1312261.88	40°11'16.221"N	104°42'26.980"W
TARGET 7	7035.93	2854.45	944.91		3221413.19	1310589.15	40°10'59.691"N	104°42'27.116"W
TARGET 6	7037.25	2804.27	944.59		3221413.31	1310538.98	40°10'59.196"N	104°42'27.120"W
TARGET 5	7069.78	1929.97	940.35		3221415.07	1309864.69	40°10'52.531"N	104°42'27.175"W
TARGET 4	7073.91	1872.53	939.98		3221415.21	1309807.26	40°10'51.964"N	104°42'27.180"W
CAMP 3N-31HZ BHL (493.5'FNL & 2305'FWL, REV-4)	11333.38	7098.00	4327.22	955.44	3221408.83	1312261.88	40°11'16.221"N	104°42'26.980"W
TARGET 3		7143.28	1159.44	935.50	3221417.08	1309084.19	40°10'44.517"N	104°42'27.238"W
TARGET 2		7145.81	1117.54	935.23	3221417.18	1309052.29	40°10'44.503"N	104°42'27.242"W
TARGET 1		7158.10	598.82	931.97	3221418.54	1308533.58	40°10'39.377"N	104°42'27.294"W
CAMP 3N-31HZ BHL (485'FNL & 2226'FWL, REV-2)		7163.00	4335.70	876.42	3221329.74	1312269.65	40°11'16.305"N	104°42'27.998"W
CAMP 3N-31HZ BHL ON PLAT (460'FNL & 2176'FWL, REV-1)		7163.00	4360.70	826.42	3221279.52	1312294.21	40°11'16.552"N	104°42'28.642"W
CAMP 5 PAD SEC. 31 HARDLINES (460' SETBACKS)		7411.00	-6.10	2610.57	3223102.38	1307943.65	40°10'33.398"N	104°42'05.659"W



BGGM (1945.0 to 2013.0) Dip: 66.83° Field: 52913.5 nT  
Magnetic North is 8.69 degrees East of True North (at 5/8/2012)

To correct azimuth from Magnetic to True add 8.69 degrees  
For example: if the Magnetic North Azimuth = 90 degrees, then the True North Azimuth = 90 + 8.69 = 98.69



# Planned Wellpath Report

CAMP 3N-31HZ (REV-G.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 CAMP 3N-31HZ (460'FSL & 1357'FWL, SEC.31)
Area	COLORADO	Well	CAMP 3N-31HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	CAMP 3N-31HZ PWB
Facility	SEC.31-T3N-R65W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 3.0.2
North Reference	True	User	Wilsjef02
Scale	0.999958	Report Generated	5/30/2012 at 23:16:29
Convergence at slot	0.51° East	Database/Source file	WellArchitectDB/CAMP_3N-31HZ_PWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-0.04	112.06	3220491.98	1307926.52	40°10'33.460"N	104°42'39.290"W
Facility Reference Pt			3220379.93	1307925.56	40°10'33.460"N	104°42'40.734"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 (RKB) to Facility Vertical Datum	4985.00ft
Horizontal Reference Pt	Slot	XTREME 20 (RKB) to Mean Sea Level	4985.00ft
Vertical Reference Pt	XTREME 20 (RKB)	XTREME 20 (RKB) to Mud Line at Slot (SLOT#05 CAMP 3N-31HZ (460'FSL & 1357'FWL, SEC.31))	4985.00ft
MD Reference Pt	XTREME 20 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	12.45°



# Planned Wellpath Report

CAMP 3N-31HZ (REV-G.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 CAMP 3N-31HZ (460'FSL & 1357'FWL, SEC.31)
Area	COLORADO	Well	CAMP 3N-31HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	CAMP 3N-31HZ PWB
Facility	SEC.31-T3N-R65W		

## WELLPATH DATA (150 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	312.110	0.00	0.00	0.00	0.00	40°10'33.460"N	104°42'39.290"W	0.00	
16.00	0.000	312.110	16.00	0.00	0.00	0.00	40°10'33.460"N	104°42'39.290"W	0.00	Tie-On
116.00	0.180	312.110	116.00	0.08	0.11	-0.12	40°10'33.461"N	104°42'39.292"W	0.18	Begin GYRO Surveys
216.00	0.190	149.010	216.00	0.04	0.07	-0.15	40°10'33.460"N	104°42'39.292"W	0.37	
316.00	0.050	153.500	316.00	-0.12	-0.11	-0.04	40°10'33.458"N	104°42'39.291"W	0.14	
416.00	0.230	129.600	416.00	-0.24	-0.28	0.13	40°10'33.457"N	104°42'39.289"W	0.19	
516.00	0.140	62.050	516.00	-0.26	-0.35	0.39	40°10'33.456"N	104°42'39.285"W	0.22	
616.00	0.200	9.940	616.00	0.00	-0.12	0.53	40°10'33.458"N	104°42'39.284"W	0.16	
716.00	0.290	254.080	716.00	0.05	-0.02	0.32	40°10'33.459"N	104°42'39.286"W	0.42	
813.00	0.100	147.360	813.00	-0.13	-0.16	0.13	40°10'33.458"N	104°42'39.289"W	0.34	Tie-Into GYRO Surveys
974.00	0.350	44.780	974.00	0.19	0.07	0.55	40°10'33.460"N	104°42'39.283"W	0.24	Begin BHI MWD Surveys
1066.00	2.340	93.260	1065.97	0.73	0.17	2.62	40°10'33.461"N	104°42'39.257"W	2.31	
1158.00	3.620	83.800	1157.84	1.96	0.37	7.39	40°10'33.463"N	104°42'39.195"W	1.49	
1251.00	5.470	88.880	1250.55	3.94	0.78	14.74	40°10'33.467"N	104°42'39.101"W	2.03	
1341.00	7.220	90.770	1339.99	6.09	0.78	24.68	40°10'33.467"N	104°42'38.972"W	1.96	
1433.00	8.830	90.560	1431.09	8.71	0.64	37.52	40°10'33.466"N	104°42'38.807"W	1.75	
1521.00	11.150	90.790	1517.75	11.83	0.45	52.79	40°10'33.464"N	104°42'38.610"W	2.64	
1607.00	11.460	88.700	1602.08	15.54	0.53	69.64	40°10'33.465"N	104°42'38.393"W	0.60	
1692.00	12.100	90.240	1685.29	19.43	0.69	87.00	40°10'33.466"N	104°42'38.170"W	0.84	
1777.00	12.230	91.110	1768.38	23.08	0.48	104.91	40°10'33.464"N	104°42'37.939"W	0.26	
1862.00	12.150	90.410	1851.46	26.72	0.24	122.85	40°10'33.462"N	104°42'37.708"W	0.20	
1948.00	12.050	89.560	1935.55	30.61	0.24	140.88	40°10'33.462"N	104°42'37.476"W	0.24	
2033.00	12.360	88.730	2018.63	34.75	0.51	158.85	40°10'33.465"N	104°42'37.244"W	0.42	
2118.00	11.550	92.960	2101.79	38.31	0.27	176.44	40°10'33.462"N	104°42'37.017"W	1.40	
2204.00	11.680	89.350	2186.03	41.70	-0.07	193.74	40°10'33.459"N	104°42'36.794"W	0.86	
2289.00	10.940	91.010	2269.38	45.25	-0.12	210.41	40°10'33.458"N	104°42'36.580"W	0.95	
2374.00	10.420	89.860	2352.90	48.53	-0.24	226.16	40°10'33.457"N	104°42'36.377"W	0.66	
2460.00	9.700	87.490	2437.58	52.09	0.10	241.18	40°10'33.461"N	104°42'36.183"W	0.97	
2545.00	9.560	90.170	2521.39	55.44	0.39	255.39	40°10'33.463"N	104°42'36.000"W	0.55	
2630.00	9.800	91.490	2605.18	58.32	0.18	269.68	40°10'33.461"N	104°42'35.816"W	0.38	
2715.00	10.690	93.830	2688.82	60.88	-0.53	284.78	40°10'33.454"N	104°42'35.622"W	1.16	
2801.00	10.810	96.240	2773.31	62.95	-1.94	300.75	40°10'33.440"N	104°42'35.416"W	0.54	
2886.00	11.290	93.250	2856.74	65.14	-3.28	316.98	40°10'33.427"N	104°42'35.207"W	0.88	
2971.00	12.480	86.990	2939.91	68.92	-3.27	334.46	40°10'33.427"N	104°42'34.982"W	2.06	
3057.00	11.950	85.130	3023.97	74.05	-2.03	352.61	40°10'33.440"N	104°42'34.748"W	0.77	
3142.00	12.270	87.810	3107.08	78.95	-0.94	370.41	40°10'33.450"N	104°42'34.519"W	0.76	
3227.00	11.130	86.200	3190.31	83.53	-0.05	387.62	40°10'33.459"N	104°42'34.297"W	1.39	
3312.00	10.640	92.010	3273.78	87.25	0.22	403.65	40°10'33.462"N	104°42'34.090"W	1.41	
3397.00	10.120	87.340	3357.39	90.61	0.29	418.95	40°10'33.462"N	104°42'33.893"W	1.16	
3483.00	9.610	89.660	3442.12	94.17	0.69	433.68	40°10'33.466"N	104°42'33.703"W	0.75	
3568.00	9.160	86.730	3525.98	97.58	1.11	447.53	40°10'33.471"N	104°42'33.525"W	0.77	
3654.00	8.830	93.850	3610.93	100.42	1.06	460.95	40°10'33.470"N	104°42'33.352"W	1.35	
3739.00	9.560	93.700	3694.84	102.47	0.17	474.50	40°10'33.461"N	104°42'33.178"W	0.86	
3824.00	10.030	91.110	3778.60	105.00	-0.43	488.94	40°10'33.455"N	104°42'32.991"W	0.76	
3909.00	10.380	91.490	3862.25	107.91	-0.77	504.00	40°10'33.452"N	104°42'32.797"W	0.42	



# Planned Wellpath Report

CAMP 3N-31HZ (REV-G.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 CAMP 3N-31HZ (460'FSL & 1357'FWL, SEC.31)
Area	COLORADO	Well	CAMP 3N-31HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	CAMP 3N-31HZ PWB
Facility	SEC.31-T3N-R65W		

## WELLPATH DATA (150 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3995.00	10.430	92.940	3946.84	110.67	-1.37	519.52	40°10'33.446"N	104°42'32.598"W	0.31	
4032.81†	10.870	92.833	3984.00	111.83	-1.73	526.50	40°10'33.442"N	104°42'32.508"W	1.17	PARKMAN
4080.00	11.420	92.710	4030.30	113.36	-2.17	535.61	40°10'33.438"N	104°42'32.390"W	1.17	
4165.00	11.380	93.290	4113.62	116.12	-3.05	552.39	40°10'33.429"N	104°42'32.174"W	0.14	
4251.00	10.680	92.040	4198.03	118.91	-3.82	568.82	40°10'33.422"N	104°42'31.962"W	0.86	
4336.00	11.000	89.720	4281.51	122.12	-4.06	584.80	40°10'33.419"N	104°42'31.757"W	0.64	
4421.00	10.340	89.080	4365.04	125.68	-3.89	600.54	40°10'33.421"N	104°42'31.554"W	0.79	
4456.58†	11.103	90.326	4400.00	127.13	-3.86	607.16	40°10'33.421"N	104°42'31.469"W	2.24	SUSSEX
4506.00	12.170	91.800	4448.41	129.10	-4.05	617.12	40°10'33.419"N	104°42'31.340"W	2.24	
4591.00	11.620	90.020	4531.58	132.59	-4.34	634.64	40°10'33.417"N	104°42'31.115"W	0.78	
4677.00	10.910	90.180	4615.92	136.19	-4.37	651.44	40°10'33.416"N	104°42'30.898"W	0.83	
4762.00	10.280	92.030	4699.47	139.27	-4.66	667.06	40°10'33.413"N	104°42'30.697"W	0.84	
4847.00	11.090	92.680	4783.00	142.03	-5.31	682.81	40°10'33.407"N	104°42'30.494"W	0.96	
4932.00	10.380	94.300	4866.51	144.50	-6.27	698.61	40°10'33.398"N	104°42'30.290"W	0.91	
5018.00	10.900	95.990	4951.03	146.52	-7.70	714.42	40°10'33.383"N	104°42'30.087"W	0.71	
5103.00	11.620	92.950	5034.40	148.83	-8.98	730.96	40°10'33.371"N	104°42'29.874"W	1.10	
5188.00	10.980	90.600	5117.75	151.91	-9.50	747.61	40°10'33.366"N	104°42'29.659"W	0.93	
5273.00	11.660	92.540	5201.10	155.05	-9.97	764.28	40°10'33.361"N	104°42'29.444"W	0.92	
5359.00	10.990	94.410	5285.42	157.69	-10.98	781.14	40°10'33.351"N	104°42'29.227"W	0.89	
5444.00	11.020	94.630	5368.86	159.93	-12.26	797.31	40°10'33.338"N	104°42'29.019"W	0.06	
5529.00	10.910	89.340	5452.31	162.86	-12.82	813.46	40°10'33.333"N	104°42'28.811"W	1.19	
5615.00	10.940	88.600	5536.75	166.66	-12.53	829.75	40°10'33.336"N	104°42'28.601"W	0.17	
5700.00	10.880	92.210	5620.21	170.02	-12.64	845.83	40°10'33.335"N	104°42'28.394"W	0.81	
5785.00	10.170	92.260	5703.78	172.77	-13.25	861.35	40°10'33.329"N	104°42'28.194"W	0.84	
5870.00	8.480	94.180	5787.66	175.00	-14.00	875.10	40°10'33.321"N	104°42'28.017"W	2.02	
5955.00	8.260	91.010	5871.75	177.11	-14.57	887.45	40°10'33.315"N	104°42'27.858"W	0.60	
6040.00	6.840	87.970	5956.01	179.59	-14.49	898.62	40°10'33.316"N	104°42'27.714"W	1.73	
6125.00	6.210	93.360	6040.46	181.58	-14.58	908.26	40°10'33.315"N	104°42'27.589"W	1.03	
6211.00	5.530	90.650	6126.01	183.17	-14.90	917.05	40°10'33.312"N	104°42'27.476"W	0.85	
6296.00	4.940	91.910	6210.66	184.67	-15.07	924.80	40°10'33.310"N	104°42'27.376"W	0.71	
6381.00	3.720	91.000	6295.41	185.89	-15.24	931.22	40°10'33.309"N	104°42'27.294"W	1.44	
6466.00	1.770	76.170	6380.31	187.02	-14.98	935.25	40°10'33.311"N	104°42'27.242"W	2.42	
6551.00	0.450	54.730	6465.30	187.85	-14.47	936.80	40°10'33.316"N	104°42'27.222"W	1.60	
6636.00	2.650	12.670	6550.26	190.06	-12.36	937.50	40°10'33.337"N	104°42'27.213"W	2.75	
6679.00	7.360	0.180	6593.09	193.75	-8.63	937.73	40°10'33.374"N	104°42'27.210"W	11.18	
6721.00	11.590	352.490	6634.50	200.34	-1.76	937.19	40°10'33.442"N	104°42'27.217"W	10.49	
6764.00	13.660	350.430	6676.46	209.11	7.53	935.78	40°10'33.534"N	104°42'27.235"W	4.93	
6807.00	15.350	354.160	6718.09	219.22	18.20	934.35	40°10'33.639"N	104°42'27.253"W	4.49	
6849.00	17.960	352.760	6758.33	230.60	30.16	932.97	40°10'33.757"N	104°42'27.271"W	6.29	
6892.00	21.040	356.050	6798.86	244.25	44.44	931.60	40°10'33.899"N	104°42'27.289"W	7.60	
6934.00	24.120	358.030	6837.63	259.80	60.54	930.79	40°10'34.058"N	104°42'27.299"W	7.55	
6977.00	25.600	356.690	6876.65	277.25	78.60	929.95	40°10'34.236"N	104°42'27.310"W	3.68	
7020.00	30.570	356.040	6914.57	296.69	98.79	928.66	40°10'34.436"N	104°42'27.327"W	11.58	
7062.00	36.040	355.910	6949.66	318.80	121.79	927.04	40°10'34.663"N	104°42'27.348"W	13.02	
7105.00	42.080	357.070	6983.03	344.84	148.82	925.40	40°10'34.930"N	104°42'27.369"W	14.15	



# Planned Wellpath Report

CAMP 3N-31HZ (REV-G.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 CAMP 3N-31HZ (460'FSL & 1357'FWL, SEC.31)
Area	COLORADO	Well	CAMP 3N-31HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	CAMP 3N-31HZ PWB
Facility	SEC.31-T3N-R65W		

## WELLPATH DATA (150 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7147.00	47.210	0.560	7012.91	373.51	178.31	924.83	40°10'35.222"N	104°42'27.376"W	13.53	
7166.38†	49.804	1.244	7025.75	387.74	192.82	925.06	40°10'35.365"N	104°42'27.373"W	13.64	SHARON SPRINGS
7190.00	52.970	2.010	7040.49	405.86	211.27	925.59	40°10'35.547"N	104°42'27.366"W	13.64	
7232.00	58.730	4.470	7064.06	440.16	245.95	927.57	40°10'35.890"N	104°42'27.341"W	14.54	
7275.00	63.950	5.230	7084.67	477.54	283.54	930.77	40°10'36.261"N	104°42'27.299"W	12.24	
7286.80†	65.452	4.851	7089.72	488.12	294.16	931.71	40°10'36.366"N	104°42'27.287"W	13.06	NIOBRARA A
7317.00	69.300	3.920	7101.33	515.72	321.95	933.83	40°10'36.641"N	104°42'27.260"W	13.06	
7338.30†	71.215	3.053	7108.53	535.52	341.96	935.05	40°10'36.839"N	104°42'27.244"W	9.77	NIOBRARA B
7360.00	73.170	2.190	7115.16	555.88	362.60	936.00	40°10'37.043"N	104°42'27.232"W	9.77	
7403.00	76.010	0.680	7126.59	596.56	404.03	937.03	40°10'37.452"N	104°42'27.219"W	7.42	
7445.00	79.690	0.520	7135.43	636.74	445.08	937.46	40°10'37.858"N	104°42'27.213"W	8.77	
7488.00	81.070	1.170	7142.61	678.26	487.47	938.09	40°10'38.277"N	104°42'27.205"W	3.54	
7530.00	84.430	1.350	7147.91	719.13	529.12	939.00	40°10'38.688"N	104°42'27.193"W	8.01	
7547.00	85.460	1.070	7149.41	735.74	546.05	939.36	40°10'38.856"N	104°42'27.189"W	6.28	
7598.00†	87.177	2.026	7152.69	785.71	596.92	940.74	40°10'39.358"N	104°42'27.171"W	3.85	7" Casing Point
7656.00	89.130	3.110	7154.55	842.82	654.83	943.33	40°10'39.930"N	104°42'27.137"W	3.85	
7741.00	90.030	2.250	7155.18	926.58	739.74	947.31	40°10'40.770"N	104°42'27.086"W	1.46	
7827.00	90.640	0.710	7154.67	1011.01	825.70	949.53	40°10'41.619"N	104°42'27.057"W	0.00	Tie On
7927.00†	90.833	356.714	7153.39	1108.12	925.65	947.28	40°10'42.607"N	104°42'27.086"W	4.00	
8015.02	91.000	353.197	7151.98	1192.04	1013.30	939.54	40°10'43.473"N	104°42'27.186"W	4.00	End of 3D Arc
8027.00†	91.032	353.434	7151.77	1203.36	1025.20	938.15	40°10'43.590"N	104°42'27.204"W	2.00	
8127.00†	91.298	355.417	7149.73	1298.42	1124.70	928.44	40°10'44.574"N	104°42'27.329"W	2.00	
8227.00†	91.563	357.400	7147.24	1394.50	1224.47	922.18	40°10'45.560"N	104°42'27.410"W	2.00	
8327.00†	91.826	359.384	7144.28	1491.45	1324.38	919.37	40°10'46.547"N	104°42'27.446"W	2.00	
8393.85	92.000	0.710	7142.05	1556.71	1391.19	919.43	40°10'47.207"N	104°42'27.445"W	2.00	End of 3D Arc
8427.00†	92.000	0.710	7140.89	1589.14	1424.32	919.84	40°10'47.535"N	104°42'27.440"W	0.00	
8527.00†	92.000	0.710	7137.40	1686.99	1524.25	921.08	40°10'48.522"N	104°42'27.424"W	0.00	
8627.00†	92.000	0.710	7133.91	1784.84	1624.18	922.31	40°10'49.510"N	104°42'27.408"W	0.00	
8693.85	92.000	0.710	7131.58	1850.25	1690.99	923.14	40°10'50.170"N	104°42'27.397"W	0.00	End of Tangent
8727.00†	92.882	1.646	7130.17	1882.73	1724.10	923.82	40°10'50.497"N	104°42'27.388"W	3.88	
8827.00†	95.536	4.480	7122.83	1981.10	1823.67	929.15	40°10'51.481"N	104°42'27.320"W	3.88	
8927.00†	98.176	7.340	7110.89	2079.72	1922.41	939.36	40°10'52.457"N	104°42'27.188"W	3.88	
8934.71	98.379	7.562	7109.78 <sup>1</sup>	2087.32	1929.97	940.35	40°10'52.531"N	104°42'27.175"W	3.88	End of 3D Arc
9027.00†	94.305	3.267	7099.58	2178.31	2021.25	948.99	40°10'53.433"N	104°42'27.064"W	6.39	
9111.58	90.550	359.372	7096.00	2261.20	2105.70	950.93	40°10'54.268"N	104°42'27.039"W	6.39	End of 3D Arc
9127.00†	90.554	359.372	7095.85	2276.22	2121.12	950.76	40°10'54.420"N	104°42'27.041"W	0.03	
9227.00†	90.582	359.372	7094.86	2373.62	2221.10	949.66	40°10'55.408"N	104°42'27.055"W	0.03	
9327.00†	90.610	359.372	7093.82	2471.02	2321.09	948.57	40°10'56.397"N	104°42'27.069"W	0.03	
9427.00†	90.638	359.372	7092.73	2568.42	2421.08	947.47	40°10'57.385"N	104°42'27.083"W	0.03	
9527.00†	90.666	359.372	7091.59	2665.82	2521.07	946.37	40°10'58.373"N	104°42'27.097"W	0.03	
9627.00†	90.694	359.372	7090.41	2763.22	2621.06	945.28	40°10'59.361"N	104°42'27.111"W	0.03	
9660.40	90.703	359.372	7090.00 <sup>2</sup>	2795.75	2654.45	944.91	40°10'59.691"N	104°42'27.116"W	0.03	End of 3D Arc
9727.00†	90.625	359.450	7089.23	2860.63	2721.04	944.23	40°11'00.349"N	104°42'27.125"W	0.17	
9827.00†	90.508	359.569	7088.24	2958.08	2821.03	943.37	40°11'01.337"N	104°42'27.136"W	0.17	
9927.00†	90.391	359.687	7087.45	3055.58	2921.03	942.72	40°11'02.325"N	104°42'27.144"W	0.17	



# Planned Wellpath Report

CAMP 3N-31HZ (REV-G.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 CAMP 3N-31HZ (460'FSL & 1357'FWL, SEC.31)
Area	COLORADO	Well	CAMP 3N-31HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	CAMP 3N-31HZ PWB
Facility	SEC.31-T3N-R65W		

## WELLPATH DATA (150 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10027.00†	90.275	359.805	7086.87	3153.13	3021.03	942.28	40°11'03.313"N	104°42'27.150"W	0.17	
10127.00†	90.158	359.923	7086.50	3250.73	3121.03	942.04	40°11'04.301"N	104°42'27.153"W	0.17	
10227.00†	90.041	0.042	7086.32	3348.37	3221.03	942.01	40°11'05.290"N	104°42'27.153"W	0.17	
10327.00†	89.924	0.160	7086.35	3446.06	3321.03	942.18	40°11'06.278"N	104°42'27.151"W	0.17	
10427.00†	89.808	0.278	7086.59	3543.79	3421.02	942.57	40°11'07.266"N	104°42'27.146"W	0.17	
10527.00†	89.691	0.396	7087.02	3641.56	3521.02	943.16	40°11'08.254"N	104°42'27.138"W	0.17	
10627.00†	89.574	0.514	7087.66	3739.37	3621.02	943.95	40°11'09.242"N	104°42'27.128"W	0.17	
10727.00†	89.457	0.633	7088.51	3837.23	3721.01	944.95	40°11'10.230"N	104°42'27.115"W	0.17	
10827.00†	89.341	0.751	7089.56	3935.12	3821.00	946.16	40°11'11.219"N	104°42'27.099"W	0.17	
10927.00†	89.224	0.869	7090.81	4033.06	3920.98	947.57	40°11'12.207"N	104°42'27.081"W	0.17	
11027.00†	89.107	0.987	7092.27	4131.03	4020.95	949.19	40°11'13.195"N	104°42'27.060"W	0.17	
11127.00†	88.990	1.106	7093.93	4229.05	4120.92	951.02	40°11'14.182"N	104°42'27.037"W	0.17	
11227.00†	88.873	1.224	7095.79	4327.10	4220.88	953.05	40°11'15.170"N	104°42'27.010"W	0.17	
11327.00†	88.757	1.342	7097.86	4425.18	4320.84	955.29	40°11'16.158"N	104°42'26.981"W	0.17	
11333.38	88.749	1.350	7098.00 <sup>3</sup>	4431.44	4327.22	955.44	40°11'16.221"N	104°42'26.980"W	0.17	End of 3D Arc

## HOLE & CASING SECTIONS - Ref Wellbore: CAMP 3N-31HZ PWB Ref Wellpath: CAMP 3N-31HZ (REV-G.0) 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	16.00	872.00	856.00	16.00	872.00	0.00	0.00	-0.18	0.22
9.625in Casing Surface	16.00	872.00	856.00	16.00	872.00	0.00	0.00	-0.18	0.22
8.75in Open Hole	872.00	7602.00	6730.00	872.00	7152.88	-0.18	0.22	600.92	940.88
7in Casing Intermediate	16.00	7598.00	7582.00	16.00	7152.69	0.00	0.00	596.92	940.74
6.125in Open Hole	7598.00	7827.00	229.00	7152.69	7154.67	596.92	940.74	825.70	949.53
8.75in Open Hole	813.00	7592.43	6779.43	813.00	7152.40	-0.16	0.13	591.37	940.54
7in Casing Intermediate	813.00	7592.43	6779.43	813.00	7152.40	-0.16	0.13	591.37	940.54
6.125in Open Hole	7592.43	11307.46	3715.03	7152.40	7097.44	591.37	940.54	4301.31	954.84
4.5in Casing Production	813.00	12889.03	12076.03	813.00	NA	-0.16	0.13	NA	NA



# Planned Wellpath Report

CAMP 3N-31HZ (REV-G.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 CAMP 3N-31HZ (460'FSL & 1357'FWL, SEC.31)
Area	COLORADO	Well	CAMP 3N-31HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	CAMP 3N-31HZ PWB
Facility	SEC.31-T3N-R65W		

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
IMAGINARY SURVEYS WITH 2° CONE <7995>		0.00	475.76	-406.32	3220081.46	1308398.62	40°10'38.161"N	104°42'44.525"W	point
CAMP 5 PAD SECTION 31		11.00	-6.10	2610.57	3223102.38	1307943.65	40°10'33.398"N	104°42'05.659"W	polygon
CAMP 3N-31HZ BHL (493.5'FNL & 2305'FWL, REV-3)		7028.57	4327.22	955.44	3221408.83	1312261.88	40°11'16.221"N	104°42'26.980"W	point
2) TARGET 7		7035.93	2654.45	944.91	3221413.19	1310589.15	40°10'59.691"N	104°42'27.116"W	point
TARGET 6		7037.25	2604.27	944.59	3221413.31	1310538.98	40°10'59.195"N	104°42'27.120"W	point
1) TARGET 5		7069.78	1929.97	940.35	3221415.07	1309864.69	40°10'52.531"N	104°42'27.175"W	point
TARGET 4		7073.91	1872.53	939.98	3221415.21	1309807.26	40°10'51.964"N	104°42'27.180"W	point
3) CAMP 3N-31HZ BHL (493.5'FNL & 2305'FWL, REV-4)	11333.38	7098.00	4327.22	955.44	3221408.83	1312261.88	40°11'16.221"N	104°42'26.980"W	point
TARGET 3		7143.28	1159.44	935.50	3221417.08	1309094.19	40°10'44.917"N	104°42'27.238"W	point
TARGET 2		7145.81	1117.54	935.23	3221417.18	1309052.29	40°10'44.503"N	104°42'27.242"W	point
TARGET 1		7158.10	598.82	931.97	3221418.54	1308533.58	40°10'39.377"N	104°42'27.284"W	point
CAMP 3N-31HZ BHL (485'FNL & 2226'FWL, REV-2)		7163.00	4335.70	876.42	3221329.74	1312269.65	40°11'16.305"N	104°42'27.998"W	point
CAMP 3N-31HZ BHL ON PLAT (460'FNL & 2176'FWL, REV-1)		7163.00	4360.70	826.42	3221279.52	1312294.21	40°11'16.552"N	104°42'28.642"W	point
CAMP 5 PAD SEC. 31 HARDLINES (460' SETBACKS)		7411.00	-6.10	2610.57	3223102.38	1307943.65	40°10'33.398"N	104°42'05.659"W	polygon

## SURVEY PROGRAM - Ref Wellbore: CAMP 3N-31HZ PWB Ref Wellpath: CAMP 3N-31HZ (REV-G.0) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	813.00	Generic gyro - continuous (Standard)		CAMP 3N-31HZ AWB
813.00	7547.00	NaviTrak (Standard)		CAMP 3N-31HZ AWB
7547.00	7827.00	NaviTrak (Standard)		CAMP 3N-31HZ AWB
7827.00	11334.92	NaviTrak (Standard)		CAMP 3N-31HZ PWB



# Planned Wellpath Report

CAMP 3N-31HZ (REV-G.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 CAMP 3N-31HZ (460'FSL & 1357'FWL, SEC.31)
Area	COLORADO	Well	CAMP 3N-31HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	CAMP 3N-31HZ PWB
Facility	SEC.31-T3N-R65W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
16.00	0.000	312.110	16.00	Tie-On
116.00	0.180	312.110	116.00	Begin GYRO Surveys
813.00	0.100	147.360	813.00	Tie-Into GYRO Surveys
974.00	0.350	44.780	974.00	Begin BHI MWD Surveys
4032.81	10.870	92.833	3984.00	PARKMAN
4456.58	11.103	90.326	4400.00	SUSSEX
7166.38	49.804	1.244	7025.75	SHARON SPRINGS
7286.80	65.452	4.851	7089.72	NIOBRARA A
7338.30	71.215	3.053	7108.53	NIOBRARA B
7598.00	87.177	2.026	7152.69	7" Casing Point