

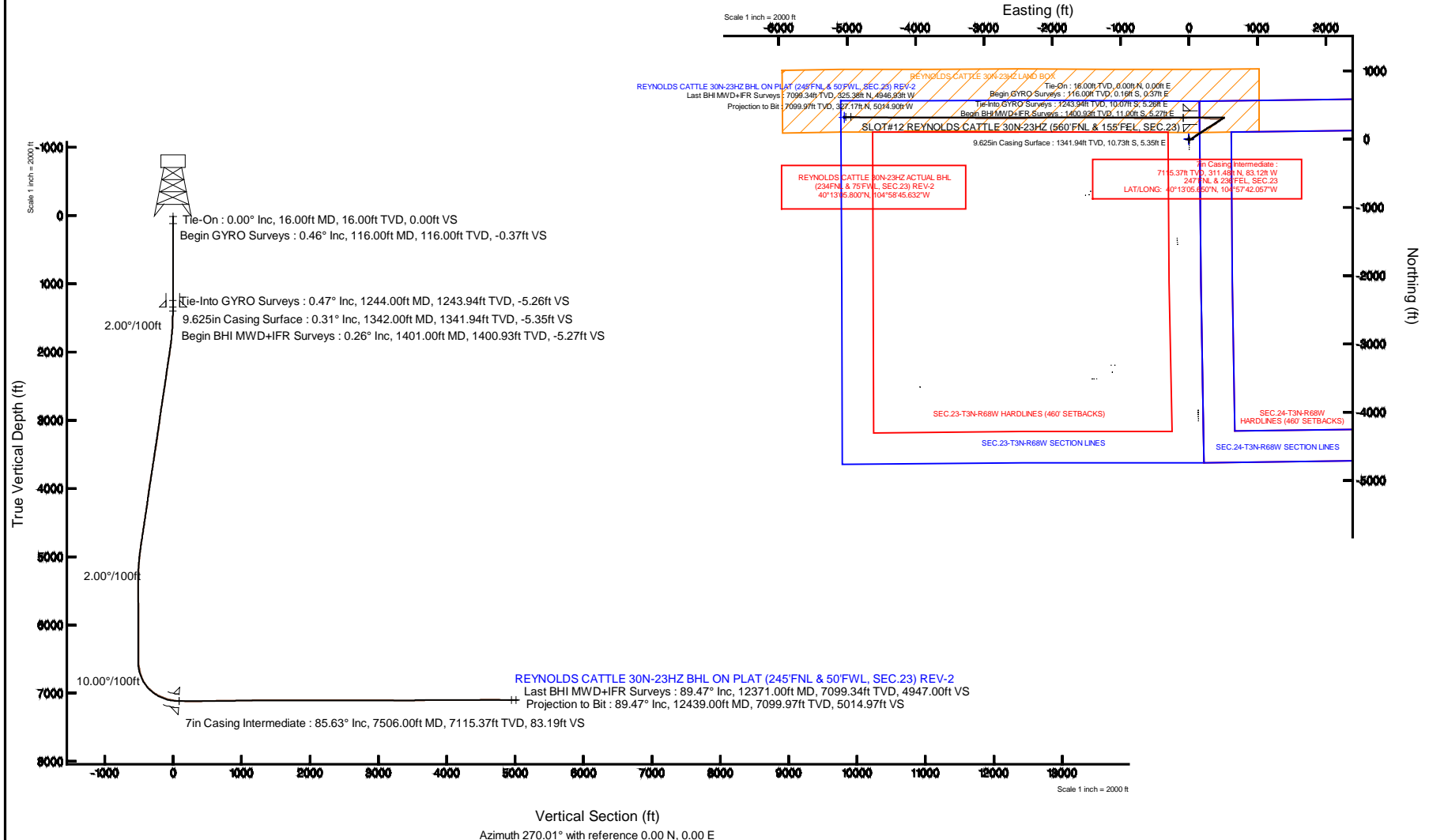
KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#12 REYNOLDS CATTLE 30N-23HZ (560°FNL & 155°FEL, SEC.23)
 Field: WELD COUNTY (KERR MCGEE) Well: REYNOLDS CATTLE 30N-23HZ
 Facility: SEC.23-T3N-R68W Wellbore: REYNOLDS CATTLE 30N-23HZ PWB



Plot reference wellpath is REYNOLDS CATTLE 30N-23HZ (REV-A.0) PWP

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: 4947 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#12 REYNOLDS CATTLE 30N-23HZ (560°FNL & 155°FEL, SEC.23)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: preccan on 29/Aug/2014



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#12 REYNOLDS CATTLE 30N-23HZ (560'FNL & 155'FEL, SEC.23)
Area	COLORADO	Well	REYNOLDS CATTLE 30N-23HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	REYNOLDS CATTLE 30N-23HZ AWB
Facility	SEC.23-T3N-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	0.999957	Report Generated	29/Aug/2014 at 09:15
Convergence at slot	n/a	Database/Source file	WellArchitectDB/REYNOLDS_CATTLE_30N-23HZ_AWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-316.35	3020.34	3150413.01	1322490.92	40°13'02.572"N	104°57'40.986"W
Facility Reference Pt			3147390.98	1322789.28	40°13'05.700"N	104°58'19.920"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	4947.00ft
Horizontal Reference Pt	Slot	XTREME 20 (16'KB) (RKB) to Mean Sea Level	4947.00ft
Vertical Reference Pt	XTREME 20 (16'KB) (RKB)	XTREME 20 (16'KB) (RKB) to Mud Line at Slot (SLOT#12 REYNOLDS CATTLE 30N-23HZ (560'FNL & 155'FEL, SEC.23))	4947.00ft
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	270.01°

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Area	COLORADO	Well	REYNOLDS CATTLE 30N-23HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	REYNOLDS CATTLE 30N-23HZ AWB
Facility	SEC.23-T3N-R68W		

WELLPATH DATA (131 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	112.980	0.00	0.00	0.00	0.00	40°13'02.572"N	104°57'40.986"W	0.00	
16.00	0.000	112.980	16.00	0.00	0.00	0.00	40°13'02.572"N	104°57'40.986"W	0.00	Tie-On
116.00	0.460	112.980	116.00	-0.37	-0.16	0.37	40°13'02.570"N	104°57'40.981"W	0.46	Begin GYRO Surveys
216.00	0.560	130.110	216.00	-1.11	-0.63	1.11	40°13'02.566"N	104°57'40.972"W	0.18	
316.00	0.550	137.410	315.99	-1.81	-1.30	1.81	40°13'02.559"N	104°57'40.963"W	0.07	
416.00	0.540	124.080	415.99	-2.53	-1.91	2.53	40°13'02.553"N	104°57'40.953"W	0.13	
516.00	0.560	133.190	515.98	-3.27	-2.51	3.27	40°13'02.547"N	104°57'40.944"W	0.09	
616.00	0.720	154.660	615.98	-3.90	-3.41	3.90	40°13'02.538"N	104°57'40.936"W	0.29	
716.00	0.660	162.360	715.97	-4.34	-4.53	4.34	40°13'02.527"N	104°57'40.930"W	0.11	
816.00	0.690	173.180	815.96	-4.59	-5.68	4.59	40°13'02.516"N	104°57'40.927"W	0.13	
916.00	0.610	165.810	915.95	-4.79	-6.79	4.79	40°13'02.505"N	104°57'40.924"W	0.12	
1016.00	0.720	172.430	1015.95	-5.00	-7.93	5.00	40°13'02.494"N	104°57'40.922"W	0.13	
1116.00	0.430	178.840	1115.94	-5.10	-8.93	5.09	40°13'02.484"N	104°57'40.920"W	0.30	
1216.00	0.600	168.910	1215.94	-5.20	-9.82	5.20	40°13'02.475"N	104°57'40.919"W	0.19	
1244.00	0.470	163.890	1243.94	-5.26	-10.07	5.26	40°13'02.472"N	104°57'40.918"W	0.49	Tie-Into GYRO Surveys
1401.00	0.260	208.420	1400.93	-5.27	-11.00	5.27	40°13'02.463"N	104°57'40.918"W	0.22	Begin BHI MWD+IFR Surveys
1495.00	1.170	56.030	1494.93	-5.97	-10.66	5.97	40°13'02.467"N	104°57'40.909"W	1.50	
1589.00	2.810	67.810	1588.87	-8.90	-9.25	8.89	40°13'02.481"N	104°57'40.871"W	1.79	
1681.00	5.110	70.360	1680.64	-14.84	-7.02	14.84	40°13'02.503"N	104°57'40.795"W	2.51	
1772.00	6.330	67.490	1771.19	-23.30	-3.74	23.29	40°13'02.535"N	104°57'40.686"W	1.38	
1864.00	7.510	61.310	1862.52	-33.25	1.09	33.25	40°13'02.583"N	104°57'40.557"W	1.51	
1956.00	8.580	58.430	1953.61	-44.37	7.57	44.38	40°13'02.647"N	104°57'40.414"W	1.24	
2047.00	9.830	52.980	2043.44	-56.36	15.80	56.36	40°13'02.728"N	104°57'40.259"W	1.67	
2139.00	12.090	52.620	2133.76	-70.28	26.38	70.29	40°13'02.833"N	104°57'40.080"W	2.46	
2322.00	9.730	50.450	2313.44	-97.44	47.87	97.45	40°13'03.045"N	104°57'39.730"W	1.31	
2414.00	9.920	48.230	2404.09	-109.34	58.09	109.35	40°13'03.146"N	104°57'39.576"W	0.46	
2506.00	11.210	55.400	2494.53	-122.61	68.45	122.62	40°13'03.248"N	104°57'39.405"W	2.00	
2598.00	11.180	56.290	2584.78	-137.39	78.48	137.40	40°13'03.348"N	104°57'39.215"W	0.19	
2690.00	9.930	56.590	2675.22	-151.43	87.80	151.45	40°13'03.440"N	104°57'39.034"W	1.36	
2782.00	10.150	58.870	2765.81	-164.98	96.36	165.01	40°13'03.524"N	104°57'38.859"W	0.49	
2874.00	10.580	58.780	2856.31	-179.14	104.93	179.17	40°13'03.609"N	104°57'38.676"W	0.47	
2965.00	8.030	60.920	2946.11	-191.84	112.35	191.87	40°13'03.682"N	104°57'38.513"W	2.83	
3057.00	8.550	53.460	3037.15	-202.95	119.54	202.98	40°13'03.753"N	104°57'38.369"W	1.30	
3149.00	8.980	58.240	3128.07	-214.55	127.39	214.58	40°13'03.831"N	104°57'38.220"W	0.92	
3240.00	9.410	60.030	3217.90	-227.03	134.85	227.06	40°13'03.905"N	104°57'38.059"W	0.57	
3332.00	9.640	52.000	3308.64	-239.62	143.35	239.65	40°13'03.989"N	104°57'37.897"W	1.46	
3417.00	11.240	56.830	3392.23	-252.16	152.26	252.19	40°13'04.077"N	104°57'37.735"W	2.14	
3502.00	10.930	59.110	3475.65	-266.01	160.93	266.04	40°13'04.162"N	104°57'37.557"W	0.63	
3587.00	11.540	61.060	3559.02	-280.36	169.18	280.40	40°13'04.244"N	104°57'37.371"W	0.85	
3673.00	10.140	60.960	3643.48	-294.51	177.02	294.55	40°13'04.321"N	104°57'37.189"W	1.63	
3758.00	11.060	61.680	3727.03	-308.22	184.52	308.27	40°13'04.395"N	104°57'37.012"W	1.09	
3843.00	10.900	62.790	3810.47	-322.55	192.06	322.59	40°13'04.470"N	104°57'36.828"W	0.31	
3928.00	10.430	62.420	3894.01	-336.51	199.30	336.56	40°13'04.541"N	104°57'36.648"W	0.56	
4013.00	8.260	62.840	3977.87	-348.76	205.65	348.81	40°13'04.604"N	104°57'36.490"W	2.55	
4098.00	7.650	63.410	4062.05	-359.25	210.97	359.30	40°13'04.657"N	104°57'36.354"W	0.72	

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Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#12 REYNOLDS CATTLE 30N-23HZ (560'FNL & 155'FEL, SEC.23)
Area	COLORADO	Well	REYNOLDS CATTLE 30N-23HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	REYNOLDS CATTLE 30N-23HZ AWP
Facility	SEC.23-T3N-R68W		

WELLPATH DATA (131 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4183.00	8.310	62.340	4146.23	-369.75	216.35	369.80	40°13'04.710"N	104°57'36.219"W	0.80	
4268.00	9.330	55.230	4230.23	-380.85	223.14	380.90	40°13'04.777"N	104°57'36.076"W	1.75	
4353.00	11.210	53.100	4313.86	-393.12	232.03	393.17	40°13'04.865"N	104°57'35.918"W	2.26	
4438.00	11.630	53.200	4397.18	-406.58	242.12	406.64	40°13'04.965"N	104°57'35.744"W	0.49	
4523.00	10.260	50.760	4480.63	-419.31	252.04	419.36	40°13'05.063"N	104°57'35.580"W	1.70	
4608.00	10.050	56.410	4564.30	-431.34	260.93	431.40	40°13'05.150"N	104°57'35.425"W	1.20	
4694.00	10.120	57.870	4648.97	-443.99	269.10	444.05	40°13'05.231"N	104°57'35.262"W	0.31	
4778.00	11.320	56.650	4731.50	-457.13	277.56	457.19	40°13'05.315"N	104°57'35.092"W	1.45	
4864.00	10.590	54.310	4815.94	-470.59	286.81	470.66	40°13'05.406"N	104°57'34.919"W	0.99	
4949.00	7.930	55.260	4899.82	-481.76	294.71	481.82	40°13'05.484"N	104°57'34.775"W	3.13	
5034.00	5.930	53.120	4984.20	-490.09	300.69	490.15	40°13'05.543"N	104°57'34.668"W	2.37	
5119.00	5.820	54.890	5068.75	-497.12	305.80	497.19	40°13'05.594"N	104°57'34.577"W	0.25	
5206.00	4.660	59.670	5155.39	-503.78	310.12	503.85	40°13'05.637"N	104°57'34.491"W	1.42	
5293.00	2.610	49.840	5242.21	-508.34	313.19	508.42	40°13'05.667"N	104°57'34.432"W	2.45	
5378.00	1.200	29.200	5327.16	-510.26	315.21	510.33	40°13'05.687"N	104°57'34.407"W	1.82	
5463.00	0.170	186.560	5412.15	-510.68	315.86	510.75	40°13'05.693"N	104°57'34.402"W	1.60	
5633.00	0.760	231.510	5582.15	-509.77	314.91	509.84	40°13'05.684"N	104°57'34.414"W	0.38	
5803.00	1.300	197.140	5752.12	-508.32	312.37	508.39	40°13'05.659"N	104°57'34.433"W	0.47	
5888.00	0.840	162.400	5837.11	-508.22	310.85	508.29	40°13'05.644"N	104°57'34.434"W	0.91	
6058.00	0.480	351.590	6007.10	-508.49	310.37	508.56	40°13'05.639"N	104°57'34.430"W	0.77	
6228.00	0.190	183.460	6177.10	-508.37	310.79	508.44	40°13'05.643"N	104°57'34.432"W	0.39	
6313.00	0.330	150.910	6262.10	-508.48	310.44	508.55	40°13'05.640"N	104°57'34.430"W	0.23	
6397.00	1.290	204.990	6346.09	-508.20	309.37	508.27	40°13'05.629"N	104°57'34.434"W	1.34	
6482.00	0.240	141.750	6431.08	-507.91	308.36	507.98	40°13'05.619"N	104°57'34.438"W	1.41	
6567.00	0.700	221.700	6516.08	-507.67	307.83	507.74	40°13'05.614"N	104°57'34.441"W	0.82	
6610.00	4.810	256.840	6559.02	-505.74	307.23	505.81	40°13'05.608"N	104°57'34.466"W	9.90	
6652.00	8.630	253.960	6600.73	-501.00	305.95	501.07	40°13'05.595"N	104°57'34.527"W	9.13	
6695.00	11.620	252.700	6643.05	-493.76	303.77	493.83	40°13'05.574"N	104°57'34.620"W	6.97	
6737.00	13.870	256.210	6684.02	-484.83	301.32	484.90	40°13'05.550"N	104°57'34.735"W	5.66	
6780.00	17.340	259.450	6725.43	-473.52	298.91	473.59	40°13'05.526"N	104°57'34.881"W	8.32	
6822.00	20.440	262.650	6765.16	-460.09	296.83	460.16	40°13'05.505"N	104°57'35.054"W	7.78	
6864.00	24.560	264.420	6803.95	-444.13	295.04	444.19	40°13'05.488"N	104°57'35.260"W	9.94	
6906.00	29.570	266.150	6841.34	-425.09	293.49	425.15	40°13'05.472"N	104°57'35.505"W	12.07	
6949.00	35.830	270.380	6877.52	-401.89	292.87	401.96	40°13'05.466"N	104°57'35.804"W	15.49	
6991.00	41.740	272.870	6910.24	-375.61	293.65	375.68	40°13'05.474"N	104°57'36.143"W	14.55	
7034.00	46.860	275.190	6941.01	-345.67	295.78	345.73	40°13'05.495"N	104°57'36.529"W	12.49	
7076.00	51.770	275.550	6968.38	-313.97	298.77	314.04	40°13'05.524"N	104°57'36.938"W	11.71	
7119.00	56.160	276.380	6993.67	-279.39	302.39	279.46	40°13'05.560"N	104°57'37.384"W	10.33	
7161.00	58.900	275.010	7016.22	-244.14	305.90	244.21	40°13'05.595"N	104°57'37.838"W	7.08	
7204.00	63.790	272.900	7036.83	-206.51	308.48	206.58	40°13'05.620"N	104°57'38.323"W	12.16	
7247.00	68.260	271.380	7054.30	-167.25	309.94	167.32	40°13'05.635"N	104°57'38.829"W	10.89	
7290.00	71.150	272.010	7069.21	-126.95	311.14	127.02	40°13'05.647"N	104°57'39.349"W	6.86	
7332.00	71.600	271.730	7082.63	-87.17	312.43	87.24	40°13'05.659"N	104°57'39.861"W	1.24	
7380.00	75.940	269.780	7096.04	-41.10	313.03	41.17	40°13'05.665"N	104°57'40.455"W	9.85	
7417.00	77.930	269.470	7104.41	-5.06	312.80	5.13	40°13'05.663"N	104°57'40.920"W	5.44	

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Facility	SEC.23-T3N-R68W		

WELLPATH DATA (131 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7456.00	83.580	269.170	7110.67	33.42	312.34	-33.35	40°13'05.659"N	104°57'41.416"W	14.51	
7506.00†	85.627	268.856	7115.37	83.19	311.48	-83.12	40°13'05.650"N	104°57'42.057"W	4.14	7" Casing Point
7563.00	87.960	268.500	7118.56	140.08	310.17	-140.01	40°13'05.637"N	104°57'42.791"W	4.14	
7648.00	89.070	268.820	7120.76	225.02	308.18	-224.95	40°13'05.617"N	104°57'43.886"W	1.36	
7733.00	90.490	269.110	7121.09	310.01	306.65	-309.94	40°13'05.602"N	104°57'44.981"W	1.71	
7818.00	91.380	269.870	7119.70	394.99	305.89	-394.92	40°13'05.595"N	104°57'46.077"W	1.38	
7904.00	91.940	269.870	7117.21	480.95	305.69	-480.88	40°13'05.593"N	104°57'47.185"W	0.65	
7989.00	92.400	269.880	7113.99	565.89	305.51	-565.82	40°13'05.591"N	104°57'48.280"W	0.54	
8074.00	92.000	270.350	7110.73	650.83	305.68	-650.76	40°13'05.593"N	104°57'49.375"W	0.73	
8159.00	91.320	270.760	7108.27	735.79	306.50	-735.72	40°13'05.601"N	104°57'50.470"W	0.93	
8244.00	90.550	270.690	7106.88	820.77	307.58	-820.70	40°13'05.611"N	104°57'51.565"W	0.91	
8329.00	90.150	270.640	7106.36	905.76	308.56	-905.69	40°13'05.621"N	104°57'52.661"W	0.47	
8414.00	90.210	270.690	7106.09	990.76	309.55	-990.69	40°13'05.631"N	104°57'53.757"W	0.09	
8499.00	90.640	271.280	7105.46	1075.74	311.01	-1075.67	40°13'05.645"N	104°57'54.852"W	0.86	
8584.00	91.200	271.030	7104.10	1160.71	312.72	-1160.64	40°13'05.662"N	104°57'55.948"W	0.72	
8670.00	91.010	270.910	7102.44	1246.69	314.18	-1246.61	40°13'05.676"N	104°57'57.056"W	0.26	
8755.00	90.210	270.780	7101.53	1331.67	315.43	-1331.60	40°13'05.689"N	104°57'58.151"W	0.95	
8840.00	90.150	270.640	7101.27	1416.66	316.49	-1416.59	40°13'05.699"N	104°57'59.247"W	0.18	
9010.00	91.140	270.880	7099.35	1586.64	318.74	-1586.56	40°13'05.721"N	104°58'01.438"W	0.60	
9095.00	90.210	269.960	7098.35	1671.63	319.36	-1671.55	40°13'05.727"N	104°58'02.534"W	1.54	
9180.00	89.010	269.120	7098.93	1756.62	318.68	-1756.55	40°13'05.721"N	104°58'03.629"W	1.72	
9436.00	90.300	269.580	7100.47	2012.59	315.78	-2012.52	40°13'05.692"N	104°58'06.929"W	0.53	
9606.00	89.720	268.390	7100.44	2182.56	312.77	-2182.49	40°13'05.662"N	104°58'09.120"W	0.78	
9861.00	90.150	268.530	7100.73	2437.47	305.91	-2437.40	40°13'05.594"N	104°58'12.406"W	0.18	
10031.00	90.460	268.640	7099.83	2607.41	301.72	-2607.34	40°13'05.552"N	104°58'14.597"W	0.19	
10201.00	89.010	270.480	7100.61	2777.39	300.41	-2777.32	40°13'05.539"N	104°58'16.788"W	1.38	
10457.00	90.520	271.670	7101.66	3033.33	305.21	-3033.26	40°13'05.586"N	104°58'20.087"W	0.75	
10542.00	89.410	270.960	7101.71	3118.31	307.16	-3118.24	40°13'05.605"N	104°58'21.183"W	1.55	
10627.00	88.080	269.840	7103.58	3203.28	307.76	-3203.21	40°13'05.611"N	104°58'22.278"W	2.05	
10797.00	89.560	270.130	7107.08	3373.24	307.71	-3373.17	40°13'05.611"N	104°58'24.469"W	0.89	
10967.00	90.920	270.130	7106.37	3543.24	308.10	-3543.17	40°13'05.614"N	104°58'26.660"W	0.80	
11137.00	90.830	270.360	7103.77	3713.22	308.83	-3713.15	40°13'05.621"N	104°58'28.851"W	0.15	
11223.00	89.870	270.270	7103.24	3799.21	309.30	-3799.14	40°13'05.626"N	104°58'29.960"W	1.12	
11393.00	90.400	270.430	7102.84	3969.21	310.34	-3969.14	40°13'05.636"N	104°58'32.151"W	0.33	
11563.00	91.130	270.390	7100.57	4139.19	311.55	-4139.12	40°13'05.647"N	104°58'34.342"W	0.43	
11733.00	90.090	270.770	7098.76	4309.17	313.27	-4309.10	40°13'05.664"N	104°58'36.534"W	0.65	
11903.00	91.200	271.030	7096.85	4479.13	315.94	-4479.06	40°13'05.690"N	104°58'38.725"W	0.67	
12158.00	89.100	271.020	7096.18	4734.08	320.51	-4734.01	40°13'05.735"N	104°58'42.011"W	0.82	
12243.00	88.980	271.310	7097.61	4819.05	322.23	-4818.98	40°13'05.752"N	104°58'43.106"W	0.37	
12371.00	89.470	271.510	7099.34	4947.00	325.38	-4946.93	40°13'05.783"N	104°58'44.756"W	0.41	Last BHI MWD+IFR Surveys
12439.00	89.470	271.510	7099.97	5014.97	327.17	-5014.90	40°13'05.800"N	104°58'45.632"W	0.00	Projection to Bit

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#12 REYNOLDS CATTLE 30N-23HZ (560'FNL & 155'FEL, SEC.23)
Area	COLORADO	Well	REYNOLDS CATTLE 30N-23HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	REYNOLDS CATTLE 30N-23HZ AWB
Facility	SEC.23-T3N-R68W		

HOLE & CASING SECTIONS - Ref Wellbore: REYNOLDS CATTLE 30N-23HZ AWB Ref Wellpath: REYNOLDS CATTLE 30N-23HZ 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	1353.00	1337.00	16.00	1352.93	0.00	0.00	-10.78	5.34
9.625in Casing Surface	16.00	1342.00	1326.00	16.00	1341.94	0.00	0.00	-10.73	5.35
8.75in Open Hole	1353.00	7517.00	6164.00	1352.93	7116.17	-10.78	5.34	311.26	-94.08
7in Casing Intermediate	16.00	7506.00	7490.00	16.00	7115.37	0.00	0.00	311.48	-83.12
6.125in Open Hole	7517.00	12439.00	4922.00	7116.17	7099.97	311.26	-94.08	327.17	-5014.90

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.19-T3N-R67W HARDLINES (460' SETBACKS)		-1.00	-0.04	0.00	3150413.01	1322490.88	40°13'02.572"N	104°57'40.986"W	polygon
SEC.19-T3N-R67W SECTION LINES		-1.00	-0.04	0.00	3150413.01	1322490.88	40°13'02.572"N	104°57'40.986"W	polygon
SEC.23-T3N-R68W HARDLINES (460' SETBACKS)		-1.00	-0.04	0.00	3150413.01	1322490.88	40°13'02.572"N	104°57'40.986"W	polygon
SEC.23-T3N-R68W SECTION LINES		-1.00	-0.04	0.00	3150413.01	1322490.88	40°13'02.572"N	104°57'40.986"W	polygon
SEC.24-T3N-R68W HARDLINES (460' SETBACKS)		-1.00	-0.04	0.00	3150413.01	1322490.88	40°13'02.572"N	104°57'40.986"W	polygon
SEC.24-T3N-R68W SECTION LINES		-1.00	-0.04	0.00	3150413.01	1322490.88	40°13'02.572"N	104°57'40.986"W	polygon
REYNOLDS CATTLE 30N-23HZ BHL ON PLAT (245'FNL & 50'FWL, SEC.23) REV-1		7096.00	317.78	-5039.98	3145371.43	1322778.07	40°13'05.707"N	104°58'45.955"W	point
REYNOLDS CATTLE 30N-23HZ LAND BOX		7096.00	-0.04	0.00	3150413.01	1322490.88	40°13'02.572"N	104°57'40.986"W	polygon
REYNOLDS CATTLE 30N-23HZ BHL ON PLAT (245'FNL & 50'FWL, SEC.23) REV-2		7100.00	317.78	-5039.98	3145371.43	1322778.07	40°13'05.707"N	104°58'45.955"W	point

WELLPATH COMPOSITION - Ref Wellbore: REYNOLDS CATTLE 30N-23HZ AWB Ref Wellpath: REYNOLDS CATTLE 30N-23HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	1244.00	Generic gyro - continuous (Standard)	MS ENERGY GYRO SURVEYS <116-1244>	REYNOLDS CATTLE 30N-23HZ AWB
1244.00	7456.00	NaviTrak (IFR)	BHI MWD+IFR 8 3/4 <1401-7456>	REYNOLDS CATTLE 30N-23HZ AWB
7456.00	12371.00	NaviTrak (IFR)	BHI MWD+IFR SURVEYS 6 1/8" HOLE <7563-12371>	REYNOLDS CATTLE 30N-23HZ AWB
12371.00	12439.00	Blind Drilling (std)	Projection to bit	REYNOLDS CATTLE 30N-23HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#12 REYNOLDS CATTLE 30N-23HZ (560'FNL & 155'FEL, SEC.23)
Area	COLORADO	Well	REYNOLDS CATTLE 30N-23HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	REYNOLDS CATTLE 30N-23HZ AWB
Facility	SEC.23-T3N-R68W		

WELLPATH COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
16.00	0.000	112.980	16.00	Tie-On	
116.00	0.460	112.980	116.00	Begin GYRO Surveys	
1244.00	0.470	163.890	1243.94	Tie-Into GYRO Surveys	
1401.00	0.260	208.420	1400.93	Begin BHI MWD+IFR Surveys	
7506.00	85.627	268.856	7115.37	7" Casing Point	
12371.00	89.470	271.510	7099.34	Last BHI MWD+IFR Surveys	
12439.00	89.470	271.510	7099.97	Projection to Bit	