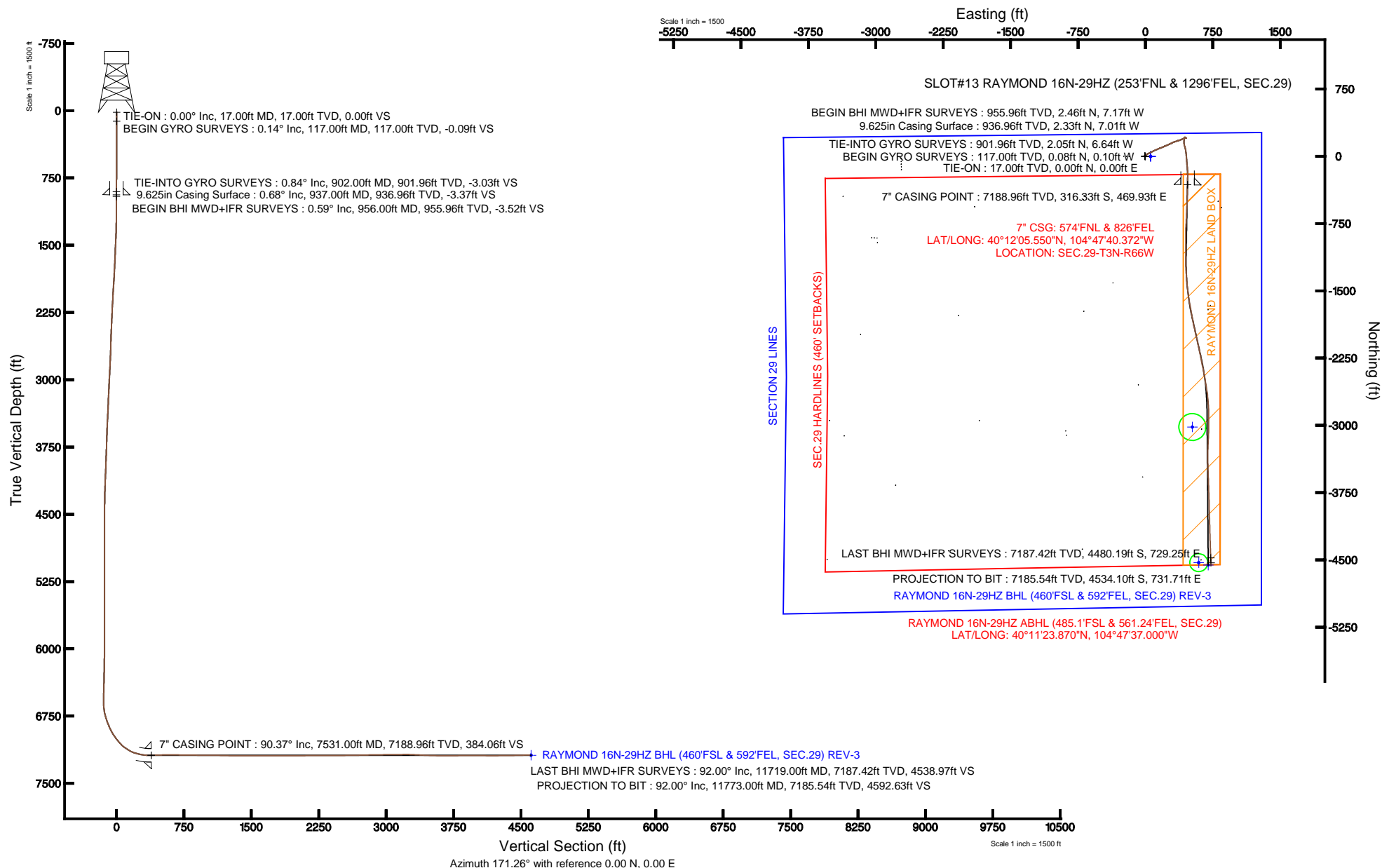


KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#13 RAYMOND 16N-29HZ (253°FNL & 1296°FEL, SEC.29)
 Field: WELD COUNTY (KERR MCGEE) Well: RAYMOND 16N-29HZ
 Facility: SEC.29-T3N-R66W Wellbore: RAYMOND 16N-29HZ PWB

Plot reference wellpath is RAYMOND 16N-29HZ (REV-B.0) PWP

True vertical depths are referenced to XTREME 8 (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to XTREME 8 (RKB)	North Reference: True north
XTREME 8 (RKB) to Mean Sea Level: 4942 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#13 RAYMOND 16N-29HZ (253°FNL & 1296°FEL, SEC.29)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: wilajef02 on 3/6/2013





Actual Wellpath Report

RAYMOND 16N-29HZ AWP

Page 1 of 7



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#13 RAYMOND 16N-29HZ (253'FNL & 1296'FEL, SEC.29)
Area	COLORADO	Well	RAYMOND 16N-29HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RAYMOND 16N-29HZ AWB
Facility	SEC.29-T3N-R66W		

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	0.999957	Report Generated	3/6/2013 at 10:55:15
Convergence at slot	0.45° East	Database/Source file	WellArchitectDB/RAYMOND_16N-29HZ_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	910.93	2983.29	3196576.44	1317360.45	40°12'08.676"N	104°47'46.428"W
Facility Reference Pt			3193600.49	1316426.28	40°11'59.676"N	104°48'24.876"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 8 (RKB) to Facility Vertical Datum	4942.00ft
Horizontal Reference Pt	Slot	XTREME 8 (RKB) to Mean Sea Level	4942.00ft
Vertical Reference Pt	XTREME 8 (RKB)	XTREME 8 (RKB) to Mud Line at Slot (SLOT#13 RAYMOND 16N-29HZ (253'FNL & 1296'FEL, SEC.29))	4942.00ft
MD Reference Pt	XTREME 8 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	170.83°



Actual Wellpath Report

RAYMOND 16N-29HZ AWP

Page 2 of 7



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#13 RAYMOND 16N-29HZ (253'FNL & 1296'FEL, SEC.29)
Area	COLORADO	Well	RAYMOND 16N-29HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RAYMOND 16N-29HZ AWB
Facility	SEC.29-T3N-R66W		

WELLPATH DATA (151 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	308.750	0.00	0.00	0.00	0.00	40°12'08.676"N	104°47'46.428"W	0.00	
17.00	0.000	308.750	17.00	0.00	0.00	0.00	40°12'08.676"N	104°47'46.428"W	0.00	TIE-ON
117.00	0.140	308.750	117.00	-0.09	0.08	-0.10	40°12'08.677"N	104°47'46.429"W	0.14	BEGIN GYRO SURVEYS
217.00	0.280	257.630	217.00	-0.17	0.10	-0.43	40°12'08.677"N	104°47'46.434"W	0.22	
317.00	0.200	243.900	317.00	-0.10	-0.03	-0.82	40°12'08.676"N	104°47'46.439"W	0.10	
417.00	0.600	288.040	417.00	-0.29	0.06	-1.48	40°12'08.677"N	104°47'46.447"W	0.48	
517.00	0.630	268.900	516.99	-0.61	0.21	-2.53	40°12'08.678"N	104°47'46.461"W	0.21	
617.00	0.580	310.280	616.99	-1.07	0.53	-3.46	40°12'08.681"N	104°47'46.473"W	0.43	
717.00	0.820	294.920	716.98	-1.86	1.15	-4.50	40°12'08.687"N	104°47'46.486"W	0.30	
817.00	0.630	282.520	816.97	-2.46	1.57	-5.68	40°12'08.692"N	104°47'46.501"W	0.25	
902.00	0.840	306.650	901.96	-3.08	2.05	-6.64	40°12'08.696"N	104°47'46.514"W	0.43	TIE-INTO GYRO SURVEYS
956.00	0.590	308.440	955.96	-3.57	2.46	-7.17	40°12'08.700"N	104°47'46.520"W	0.46	BEGIN BHI MWD+IFR SURVEYS
1047.00	0.330	297.460	1046.96	-4.07	2.87	-7.77	40°12'08.704"N	104°47'46.528"W	0.30	
1138.00	0.400	285.770	1137.95	-4.36	3.08	-8.31	40°12'08.706"N	104°47'46.535"W	0.11	
1228.00	0.400	276.620	1227.95	-4.58	3.20	-8.93	40°12'08.708"N	104°47'46.543"W	0.07	
1319.00	1.810	35.620	1318.94	-5.69	4.40	-8.41	40°12'08.720"N	104°47'46.536"W	2.24	
1411.00	4.180	47.020	1410.81	-8.58	7.87	-5.11	40°12'08.754"N	104°47'46.494"W	2.64	
1496.00	6.170	50.450	1495.46	-12.62	12.89	0.68	40°12'08.803"N	104°47'46.419"W	2.37	
1582.00	6.010	63.570	1580.97	-16.29	17.84	8.28	40°12'08.852"N	104°47'46.321"W	1.63	
1667.00	8.310	59.680	1665.31	-19.83	22.92	17.57	40°12'08.902"N	104°47'46.202"W	2.76	
1753.00	9.070	64.260	1750.32	-24.01	29.00	29.04	40°12'08.963"N	104°47'46.054"W	1.19	
1838.00	10.590	64.060	1834.07	-28.17	35.33	42.10	40°12'09.025"N	104°47'45.885"W	1.79	
1923.00	10.660	62.180	1917.61	-32.94	42.41	56.07	40°12'09.095"N	104°47'45.705"W	0.42	
2009.00	10.570	64.360	2002.14	-37.72	49.54	70.22	40°12'09.166"N	104°47'45.523"W	0.48	
2094.00	11.230	62.550	2085.61	-42.53	56.73	84.59	40°12'09.237"N	104°47'45.338"W	0.87	
2179.00	9.820	65.160	2169.18	-47.08	63.59	98.52	40°12'09.304"N	104°47'45.158"W	1.75	
2265.00	9.940	64.770	2253.90	-51.12	69.83	111.89	40°12'09.366"N	104°47'44.986"W	0.16	
2350.00	10.040	70.760	2337.61	-54.44	75.40	125.52	40°12'09.421"N	104°47'44.810"W	1.23	
2435.00	8.600	64.210	2421.49	-57.56	80.61	138.24	40°12'09.473"N	104°47'44.646"W	2.10	
2521.00	8.790	64.750	2506.50	-61.22	86.21	149.97	40°12'09.528"N	104°47'44.495"W	0.24	
2606.00	7.510	73.400	2590.65	-63.73	90.57	161.17	40°12'09.571"N	104°47'44.351"W	2.08	
2691.00	9.120	67.970	2674.75	-65.95	94.68	172.74	40°12'09.612"N	104°47'44.202"W	2.11	
2777.00	10.020	66.540	2759.55	-69.32	100.22	185.92	40°12'09.666"N	104°47'44.032"W	1.08	
2862.00	10.630	67.510	2843.18	-72.95	106.16	199.95	40°12'09.725"N	104°47'43.851"W	0.75	
2947.00	11.290	65.730	2926.63	-76.92	112.58	214.78	40°12'09.788"N	104°47'43.660"W	0.87	
3033.00	11.410	66.960	3010.94	-81.16	119.37	230.28	40°12'09.856"N	104°47'43.460"W	0.31	
3118.00	9.540	69.110	3094.52	-84.60	125.17	244.60	40°12'09.913"N	104°47'43.276"W	2.25	
3203.00	9.280	61.110	3178.38	-88.35	130.99	257.18	40°12'09.970"N	104°47'43.114"W	1.57	
3289.00	8.770	68.410	3263.32	-92.10	136.76	269.35	40°12'10.027"N	104°47'42.957"W	1.46	
3374.00	8.990	64.780	3347.30	-95.33	141.97	281.38	40°12'10.079"N	104°47'42.802"W	0.71	
3459.00	8.510	60.550	3431.31	-99.35	147.89	292.86	40°12'10.137"N	104°47'42.654"W	0.94	
3545.00	8.730	64.290	3516.34	-103.41	153.85	304.29	40°12'10.196"N	104°47'42.506"W	0.70	
3630.00	10.370	70.980	3600.17	-106.56	159.14	317.33	40°12'10.249"N	104°47'42.338"W	2.33	
3715.00	11.920	73.200	3683.56	-109.03	164.18	332.97	40°12'10.298"N	104°47'42.137"W	1.89	
3801.00	11.160	70.720	3767.82	-111.67	169.49	349.33	40°12'10.351"N	104°47'41.926"W	1.06	



Actual Wellpath Report

RAYMOND 16N-29HZ AWP

Page 3 of 7



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#13 RAYMOND 16N-29HZ (253'FNL & 1296'FEL, SEC.29)
Area	COLORADO	Well	RAYMOND 16N-29HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RAYMOND 16N-29HZ AWB
Facility	SEC.29-T3N-R66W		

WELLPATH DATA (151 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3886.00	10.860	71.600	3851.26	-114.40	174.73	364.69	40°12'10.403"N	104°47'41.728"W	0.40	
3971.00	10.130	69.680	3934.84	-117.13	179.86	379.30	40°12'10.453"N	104°47'41.540"W	0.95	
4057.00	10.770	69.680	4019.41	-120.15	185.27	393.93	40°12'10.507"N	104°47'41.351"W	0.74	
4142.00	10.130	68.310	4103.00	-123.31	190.80	408.32	40°12'10.561"N	104°47'41.166"W	0.81	
4227.00	9.450	67.770	4186.76	-126.50	196.20	421.72	40°12'10.615"N	104°47'40.993"W	0.81	
4313.00	7.310	70.920	4271.84	-129.04	200.66	433.43	40°12'10.659"N	104°47'40.842"W	2.54	
4398.00	5.740	72.730	4356.28	-130.57	203.69	442.60	40°12'10.689"N	104°47'40.724"W	1.86	
4483.00	3.830	72.510	4440.98	-131.58	205.80	449.37	40°12'10.710"N	104°47'40.637"W	2.25	
4568.00	1.950	75.240	4525.87	-132.13	207.02	453.48	40°12'10.722"N	104°47'40.584"W	2.22	
4654.00	0.820	65.490	4611.85	-132.44	207.65	455.45	40°12'10.728"N	104°47'40.558"W	1.34	
4739.00	0.510	39.130	4696.84	-132.85	208.20	456.24	40°12'10.733"N	104°47'40.548"W	0.50	
4824.00	0.220	55.960	4781.84	-133.17	208.58	456.62	40°12'10.737"N	104°47'40.543"W	0.36	
4910.00	0.170	17.480	4867.84	-133.36	208.80	456.79	40°12'10.739"N	104°47'40.541"W	0.16	
4995.00	0.280	196.280	4952.84	-133.28	208.72	456.77	40°12'10.739"N	104°47'40.541"W	0.53	
5081.00	0.220	232.400	5038.84	-133.01	208.42	456.58	40°12'10.736"N	104°47'40.544"W	0.19	
5166.00	0.390	249.260	5123.84	-132.88	208.21	456.18	40°12'10.734"N	104°47'40.549"W	0.22	
5251.00	0.470	237.760	5208.83	-132.68	207.93	455.62	40°12'10.731"N	104°47'40.556"W	0.14	
5336.00	0.860	239.600	5293.83	-132.31	207.42	454.77	40°12'10.726"N	104°47'40.567"W	0.46	
5422.00	0.960	250.480	5379.82	-131.95	206.85	453.54	40°12'10.720"N	104°47'40.583"W	0.23	
5507.00	0.970	244.910	5464.80	-131.63	206.31	452.21	40°12'10.715"N	104°47'40.600"W	0.11	
5592.00	0.810	260.460	5549.79	-131.42	205.90	450.97	40°12'10.711"N	104°47'40.616"W	0.34	
5678.00	0.640	262.780	5635.79	-131.44	205.74	449.89	40°12'10.709"N	104°47'40.630"W	0.20	
5763.00	0.610	269.980	5720.78	-131.52	205.68	448.97	40°12'10.708"N	104°47'40.642"W	0.10	
5848.00	0.720	267.320	5805.78	-131.66	205.66	447.98	40°12'10.708"N	104°47'40.654"W	0.13	
5933.00	0.910	276.570	5890.77	-131.90	205.71	446.78	40°12'10.709"N	104°47'40.670"W	0.27	
6019.00	0.750	291.300	5976.76	-132.37	205.99	445.58	40°12'10.712"N	104°47'40.685"W	0.31	
6104.00	0.880	295.520	6061.75	-133.02	206.47	444.47	40°12'10.716"N	104°47'40.700"W	0.17	
6189.00	0.890	320.290	6146.74	-133.96	207.26	443.46	40°12'10.724"N	104°47'40.713"W	0.45	
6274.00	1.310	321.310	6231.72	-135.38	208.53	442.43	40°12'10.737"N	104°47'40.726"W	0.49	
6360.00	1.370	314.020	6317.70	-137.06	210.01	441.08	40°12'10.751"N	104°47'40.743"W	0.21	
6445.00	1.480	321.460	6402.67	-138.83	211.58	439.66	40°12'10.767"N	104°47'40.762"W	0.25	
6530.00	1.730	331.720	6487.64	-141.00	213.56	438.37	40°12'10.786"N	104°47'40.778"W	0.45	
6589.00	1.680	317.350	6546.62	-142.56	214.98	437.36	40°12'10.800"N	104°47'40.791"W	0.73	
6645.00	0.940	250.260	6602.60	-143.16	215.43	436.37	40°12'10.805"N	104°47'40.804"W	2.81	
6701.00	6.300	187.270	6658.48	-140.13	212.23	435.55	40°12'10.773"N	104°47'40.815"W	10.59	
6743.00	11.170	187.110	6699.98	-134.01	205.90	434.76	40°12'10.711"N	104°47'40.825"W	11.60	
6786.00	14.970	185.480	6741.86	-124.63	196.24	433.71	40°12'10.615"N	104°47'40.838"W	8.88	
6829.00	18.020	185.940	6783.09	-112.83	184.09	432.49	40°12'10.495"N	104°47'40.854"W	7.10	
6871.00	20.990	187.100	6822.67	-99.34	170.16	430.89	40°12'10.357"N	104°47'40.875"W	7.13	
6914.00	24.020	179.020	6862.40	-83.28	153.76	430.09	40°12'10.195"N	104°47'40.885"W	10.05	
6957.00	25.220	167.740	6901.51	-65.45	136.05	432.18	40°12'10.020"N	104°47'40.858"W	11.26	
6999.00	29.910	163.760	6938.74	-46.12	117.24	437.01	40°12'09.834"N	104°47'40.796"W	11.99	
7042.00	34.560	163.940	6975.10	-23.36	95.21	443.39	40°12'09.617"N	104°47'40.714"W	10.82	
7084.00	37.350	170.430	7009.11	1.22	71.19	448.81	40°12'09.379"N	104°47'40.644"W	11.24	
7127.00	41.330	173.200	7042.36	28.47	44.21	452.66	40°12'09.113"N	104°47'40.594"W	10.11	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#13 RAYMOND 16N-29HZ (253'FNL & 1296'FEL, SEC.29)
Area	COLORADO	Well	RAYMOND 16N-29HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RAYMOND 16N-29HZ AWB
Facility	SEC.29-T3N-R66W		

WELLPATH DATA (151 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7170.00	46.650	174.110	7073.29	58.28	14.54	455.95	40°12'08.820"N	104°47'40.552"W	12.46	
7212.00	52.070	175.510	7100.63	90.06	-17.19	458.81	40°12'08.506"N	104°47'40.515"W	13.15	
7255.00	57.940	175.400	7125.28	125.16	-52.29	461.60	40°12'08.159"N	104°47'40.479"W	13.65	
7298.00	64.080	176.120	7146.11	162.61	-89.78	464.37	40°12'07.789"N	104°47'40.443"W	14.35	
7340.00	70.640	175.140	7162.27	201.22	-128.41	467.33	40°12'07.407"N	104°47'40.405"W	15.77	
7383.00	76.690	176.040	7174.36	242.32	-169.53	470.50	40°12'07.001"N	104°47'40.364"W	14.21	
7425.00	81.040	179.450	7182.47	283.22	-210.69	472.11	40°12'06.594"N	104°47'40.344"W	13.07	
7468.00	85.720	181.970	7187.43	325.28	-253.38	471.58	40°12'06.172"N	104°47'40.350"W	12.34	
7490.00	88.460	181.450	7188.54	346.85	-275.34	470.92	40°12'05.955"N	104°47'40.359"W	12.68	
7531.00†	90.368	181.325	7188.96	387.16	-316.33	469.93	40°12'05.550"N	104°47'40.372"W	4.66	7" CASING POINT
7562.00	91.810	181.230	7188.37	417.64	-347.31	469.24	40°12'05.244"N	104°47'40.381"W	4.66	
7648.00	92.020	179.760	7185.50	502.37	-433.26	468.50	40°12'04.394"N	104°47'40.390"W	1.73	
7733.00	89.530	183.500	7184.35	585.83	-518.20	466.08	40°12'03.555"N	104°47'40.421"W	5.29	
7818.00	89.290	183.050	7185.23	668.83	-603.05	461.22	40°12'02.717"N	104°47'40.484"W	0.60	
7904.00	89.100	182.380	7186.43	752.98	-688.95	457.15	40°12'01.868"N	104°47'40.537"W	0.81	
7989.00	89.540	182.960	7187.44	836.17	-773.85	453.19	40°12'01.029"N	104°47'40.588"W	0.86	
8074.00	89.260	180.810	7188.33	919.58	-858.79	450.40	40°12'00.189"N	104°47'40.624"W	2.55	
8159.00	89.720	179.820	7189.09	1003.41	-943.79	449.93	40°11'59.349"N	104°47'40.630"W	1.28	
8245.00	89.410	179.900	7189.74	1088.35	-1029.78	450.14	40°11'58.500"N	104°47'40.627"W	0.37	
8330.00	88.860	180.350	7191.03	1172.22	-1114.77	449.95	40°11'57.660"N	104°47'40.629"W	0.84	
8416.00	88.420	178.080	7193.07	1257.27	-1200.74	451.13	40°11'56.810"N	104°47'40.614"W	2.69	
8501.00	90.090	176.070	7194.17	1341.75	-1285.61	455.47	40°11'55.972"N	104°47'40.558"W	3.07	
8586.00	90.150	176.160	7193.99	1426.39	-1370.41	461.23	40°11'55.134"N	104°47'40.484"W	0.13	
8671.00	89.590	174.450	7194.19	1511.13	-1455.13	468.18	40°11'54.296"N	104°47'40.395"W	2.12	
8756.00	89.750	172.300	7194.68	1596.04	-1539.55	477.99	40°11'53.462"N	104°47'40.268"W	2.54	
8842.00	89.840	169.780	7194.98	1682.03	-1624.50	491.38	40°11'52.623"N	104°47'40.096"W	2.93	
8927.00	90.330	169.650	7194.86	1767.02	-1708.13	506.56	40°11'51.796"N	104°47'39.900"W	0.60	
9012.00	90.300	170.030	7194.39	1852.00	-1791.79	521.55	40°11'50.969"N	104°47'39.707"W	0.45	
9098.00	90.150	167.940	7194.05	1937.95	-1876.20	537.98	40°11'50.135"N	104°47'39.495"W	2.44	
9183.00	90.460	166.930	7193.60	2022.80	-1959.17	556.47	40°11'49.315"N	104°47'39.257"W	1.24	
9268.00	90.430	167.310	7192.94	2107.62	-2042.03	575.42	40°11'48.497"N	104°47'39.013"W	0.45	
9354.00	90.090	168.090	7192.55	2193.49	-2126.05	593.74	40°11'47.666"N	104°47'38.777"W	0.99	
9439.00	90.180	168.370	7192.35	2278.40	-2209.26	611.08	40°11'46.844"N	104°47'38.553"W	0.35	
9524.00	89.590	168.760	7192.52	2363.33	-2292.57	627.93	40°11'46.021"N	104°47'38.336"W	0.83	
9610.00	91.050	169.000	7192.04	2449.28	-2376.96	644.52	40°11'45.187"N	104°47'38.122"W	1.72	
9695.00	90.860	169.990	7190.62	2534.24	-2460.52	660.01	40°11'44.361"N	104°47'37.923"W	1.19	
9780.00	90.740	169.960	7189.44	2619.23	-2544.21	674.81	40°11'43.534"N	104°47'37.732"W	0.15	
9865.00	91.420	172.290	7187.83	2704.20	-2628.17	687.92	40°11'42.704"N	104°47'37.563"W	2.86	
9951.00	91.190	174.580	7185.88	2790.09	-2713.58	697.75	40°11'41.860"N	104°47'37.437"W	2.68	
10036.00	90.560	177.090	7184.58	2874.75	-2798.34	703.92	40°11'41.023"N	104°47'37.357"W	3.04	
10121.00	91.170	180.100	7183.29	2958.95	-2883.30	706.00	40°11'40.183"N	104°47'37.330"W	3.61	
10206.00	91.060	179.680	7181.64	3042.87	-2968.28	706.17	40°11'39.343"N	104°47'37.328"W	0.51	
10291.00	90.000	181.240	7180.85	3126.67	-3053.27	705.48	40°11'38.504"N	104°47'37.337"W	2.22	
10376.00	90.930	182.790	7180.16	3210.05	-3138.21	702.50	40°11'37.664"N	104°47'37.376"W	2.13	
10461.00	87.220	182.490	7181.54	3293.22	-3223.09	698.58	40°11'36.825"N	104°47'37.426"W	4.38	



Actual Wellpath Report

RAYMOND 16N-29HZ AWP

Page 5 of 7



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#13 RAYMOND 16N-29HZ (253'FNL & 1296'FEL, SEC.29)
Area	COLORADO	Well	RAYMOND 16N-29HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RAYMOND 16N-29HZ AWB
Facility	SEC.29-T3N-R66W		

WELLPATH DATA (151 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10547.00	86.790	180.550	7186.03	3377.61	-3308.94	696.30	40°11'35.977"N	104°47'37.455"W	2.31	
10632.00	88.140	179.300	7189.79	3461.46	-3393.85	696.41	40°11'35.138"N	104°47'37.454"W	2.16	
10718.00	88.020	178.320	7192.67	3546.58	-3479.79	698.20	40°11'34.289"N	104°47'37.431"W	1.15	
10803.00	89.810	177.810	7194.28	3630.88	-3564.72	701.07	40°11'33.449"N	104°47'37.394"W	2.19	
10888.00	90.740	178.220	7193.87	3715.21	-3649.67	704.01	40°11'32.610"N	104°47'37.356"W	1.20	
10973.00	90.430	178.220	7193.00	3799.50	-3734.62	706.65	40°11'31.770"N	104°47'37.322"W	0.36	
11059.00	90.180	178.640	7192.55	3884.75	-3820.59	709.01	40°11'30.921"N	104°47'37.292"W	0.57	
11144.00	90.060	178.890	7192.37	3968.93	-3905.57	710.84	40°11'30.081"N	104°47'37.268"W	0.33	
11229.00	89.780	178.270	7192.49	4053.16	-3990.54	712.95	40°11'29.241"N	104°47'37.241"W	0.80	
11315.00	89.160	177.890	7193.28	4138.46	-4076.49	715.83	40°11'28.392"N	104°47'37.204"W	0.85	
11400.00	90.830	178.810	7193.29	4222.73	-4161.45	718.28	40°11'27.553"N	104°47'37.173"W	2.24	
11485.00	90.610	178.440	7192.22	4306.94	-4246.42	720.32	40°11'26.713"N	104°47'37.146"W	0.51	
11570.00	90.920	177.890	7191.09	4391.23	-4331.37	723.04	40°11'25.873"N	104°47'37.111"W	0.74	
11656.00	91.440	177.540	7189.32	4476.60	-4417.28	726.47	40°11'25.024"N	104°47'37.067"W	0.73	
11719.00	92.000	177.390	7187.42	4539.15	-4480.19	729.25	40°11'24.403"N	104°47'37.031"W	0.92	LAST BHI MWD+IFR SURVEYS
11773.00	92.000	177.390	7185.54	4592.76	-4534.10	731.71	40°11'23.870"N	104°47'37.000"W	0.00	PROJECTION TO BIT

HOLE & CASING SECTIONS - Ref Wellbore: RAYMOND 16N-29HZ AWB Ref Wellpath: RAYMOND 16N-29HZ 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]
12.25in Open Hole	17.00	937.00	920.00	17.00	936.96	0.00	0.00	2.33	-7.01
9.625in Casing Surface	17.00	937.00	920.00	17.00	936.96	0.00	0.00	2.33	-7.01
8.75in Open Hole	937.00	7541.00	6604.00	936.96	7188.86	2.33	-7.01	-326.33	469.70
7in Casing Intermediate	17.00	7531.00	7514.00	17.00	7188.96	0.00	0.00	-316.33	469.93
6.125in Open Hole	7531.00	11773.00	4242.00	7188.96	7185.54	-316.33	469.93	-4534.10	731.71



Actual Wellpath Report

RAYMOND 16N-29HZ AWP

Page 6 of 7



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#13 RAYMOND 16N-29HZ (253'FNL & 1296'FEL, SEC.29)
Area	COLORADO	Well	RAYMOND 16N-29HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RAYMOND 16N-29HZ AWB
Facility	SEC.29-T3N-R66W		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
RAYMOND PAD SECTION LINES		0.00	-0.71	59.75	3196636.19	1317360.22	40°12'08.669"N	104°47'45.658"W	polygon
RAYMOND 16N-29HZ BHL (460'FSL & 592'FEL, SEC.29) REV-3		7188.00	-4559.20	700.95	3197313.52	1312807.16	40°11'23.622"N	104°47'37.396"W	point
RAYMOND 16N-29HZ BHL (460'FSL & 850'FEL, SEC.29) REV-2		7192.00	-4559.20	442.95	3197055.54	1312805.12	40°11'23.622"N	104°47'40.720"W	point
RAYMOND 16N-29HZ BHL ON PLAT (460'FSL & 775'FEL, SEC.29) REV-1		7192.00	-4559.20	517.95	3197130.53	1312805.71	40°11'23.622"N	104°47'39.754"W	point
UPRC 29-16K 100' CIRCLE		7192.05	-4532.32	594.69	3197207.05	1312833.20	40°11'23.888"N	104°47'38.765"W	circle
UPRC 29-9K 100' CIRCLE		7196.00	-3019.19	523.95	3197124.31	1314345.65	40°11'38.840"N	104°47'39.676"W	circle
RAYMOND 16N-29HZ LAND BOX		7200.00	-0.71	59.75	3196636.19	1317360.22	40°12'08.669"N	104°47'45.658"W	polygon
RAYMOND PAD HARDLINES (460' SETBACKS)		7500.00	-0.71	59.75	3196636.19	1317360.22	40°12'08.669"N	104°47'45.658"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: RAYMOND 16N-29HZ AWB Ref Wellpath: RAYMOND 16N-29HZ AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	902.00	Generic gyro - continuous (Standard)	GYRODATA SURVEYS <117-902>	RAYMOND 16N-29HZ AWB
902.00	7490.00	NaviTrak (MAGCORR,IFR)	BHI MWD+IFR SURVEYS 8 3/4" HOLE <956-7490>	RAYMOND 16N-29HZ AWB
7490.00	11719.00	OnTrak (MAGCORR,IFR)	BHI MWD+IFR SURVEYS 6 1/8" HOLE <7562-11719>	RAYMOND 16N-29HZ AWB
11719.00	11773.00	Blind Drilling (std)	Projection to bit	RAYMOND 16N-29HZ AWB



Actual Wellpath Report

RAYMOND 16N-29HZ AWP

Page 7 of 7



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#13 RAYMOND 16N-29HZ (253'FNL & 1296'FEL, SEC.29)
Area	COLORADO	Well	RAYMOND 16N-29HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RAYMOND 16N-29HZ AWB
Facility	SEC.29-T3N-R66W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	308.750	17.00	TIE-ON
117.00	0.140	308.750	117.00	BEGIN GYRO SURVEYS
902.00	0.840	306.650	901.96	TIE-INTO GYRO SURVEYS
956.00	0.590	308.440	955.96	BEGIN BHI MWD+IFR SURVEYS
7531.00	90.368	181.325	7188.96	7" CASING POINT
11719.00	92.000	177.390	7187.42	LAST BHI MWD+IFR SURVEYS
11773.00	92.000	177.390	7185.54	PROJECTION TO BIT