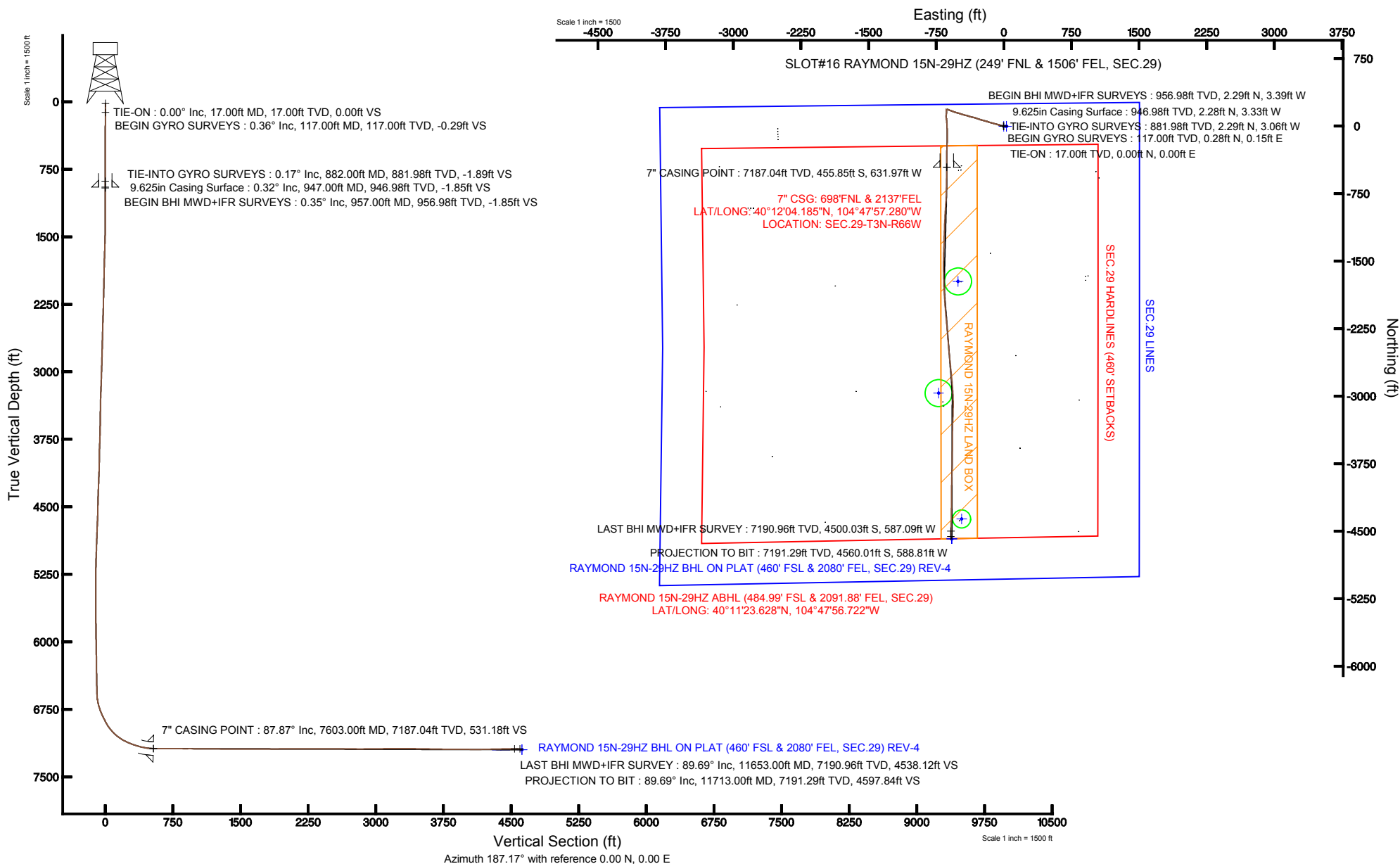


Location:	COLORADO	Slot:	SLOT#16 RAYMOND 15N-29HZ (249' FNL & 1506' FEL, SEC.29)
Field:	WELD COUNTY (KERR MCGEE)	Well:	RAYMOND 15N-29HZ
Facility:	SEC.29-T3N-R66W	Wellbore:	RAYMOND 15N-29HZ PWB

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: 4941 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#16 RAYMOND 15N-29HZ (249' FNL & 1506' FEL, SEC.29): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: wilsjeff02 on 3/6/2013





Actual Wellpath Report

RAYMOND 15N-29HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#16 RAYMOND 15N-29HZ (249' FNL & 1506' FEL, SEC.29)
Area	COLORADO	Well	RAYMOND 15N-29HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RAYMOND 15N-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 13:29:35
Convergence at slot	0.45° East	Database/Source file	WellArchitectDB/RAYMOND_15N-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	912.32	2773.25	3196366.40	1317360.20	40°12'08.690"N	104°47'49.135"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	4941.00ft
Horizontal Reference Pt	Slot	XTREME 8 (RKB) to Mean Sea Level	4941.00ft
Vertical Reference Pt	XTREME 8 (RKB)	XTREME 8 (RKB) to Mud Line at Slot (SLOT#16 RAYMOND 15N-29HZ (249' FNL & 1506' FEL, SEC.29))	4941.00ft
MD Reference Pt	XTREME 8 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	187.36°

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#16 RAYMOND 15N-29HZ (249' FNL & 1506' FEL, SEC.29)
Area	COLORADO	Well	RAYMOND 15N-29HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RAYMOND 15N-29HZ AWP
Facility	SEC.29-T3N-R66W		

WELLPATH DATA (152 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	28.520	0.00	0.00	0.00	0.00	40°12'08.690"N	104°47'49.135"W	0.00	
17.00	0.000	28.520	17.00	0.00	0.00	0.00	40°12'08.690"N	104°47'49.135"W	0.00	TIE-ON
117.00	0.360	28.520	117.00	-0.29	0.28	0.15	40°12'08.693"N	104°47'49.133"W	0.36	BEGIN GYRO SURVEYS
217.00	0.290	341.370	217.00	-0.81	0.79	0.22	40°12'08.698"N	104°47'49.132"W	0.27	
317.00	0.520	306.490	317.00	-1.26	1.30	-0.23	40°12'08.703"N	104°47'49.138"W	0.33	
417.00	0.370	253.970	416.99	-1.35	1.48	-0.90	40°12'08.705"N	104°47'49.147"W	0.42	
517.00	0.250	335.650	516.99	-1.41	1.59	-1.30	40°12'08.706"N	104°47'49.152"W	0.42	
617.00	0.500	310.180	616.99	-1.83	2.07	-1.73	40°12'08.710"N	104°47'49.157"W	0.29	
717.00	0.550	280.130	716.99	-2.09	2.44	-2.53	40°12'08.714"N	104°47'49.168"W	0.28	
817.00	0.140	170.510	816.98	-2.00	2.40	-2.98	40°12'08.714"N	104°47'49.173"W	0.61	
882.00	0.170	248.920	881.98	-1.88	2.29	-3.06	40°12'08.713"N	104°47'49.174"W	0.30	TIE-INTO GYRO SURVEYS
957.00	0.350	279.860	956.98	-1.84	2.29	-3.39	40°12'08.713"N	104°47'49.179"W	0.30	BEGIN BHI MWD+IFR SURVEYS
1048.00	0.260	261.060	1047.98	-1.79	2.30	-3.87	40°12'08.713"N	104°47'49.185"W	0.15	
1139.00	0.330	272.870	1138.98	-1.71	2.28	-4.33	40°12'08.713"N	104°47'49.191"W	0.10	
1230.00	0.410	275.790	1229.98	-1.68	2.33	-4.92	40°12'08.713"N	104°47'49.198"W	0.09	
1321.00	3.290	282.620	1320.92	-1.91	2.93	-7.79	40°12'08.719"N	104°47'49.235"W	3.17	
1412.00	6.030	282.340	1411.61	-2.57	4.53	-15.01	40°12'08.735"N	104°47'49.328"W	3.01	
1497.00	9.160	284.340	1495.86	-3.78	7.16	-25.93	40°12'08.761"N	104°47'49.469"W	3.69	
1582.00	10.530	287.630	1579.60	-5.99	11.19	-39.89	40°12'08.801"N	104°47'49.649"W	1.74	
1668.00	10.550	285.830	1664.15	-8.55	15.71	-54.95	40°12'08.845"N	104°47'49.843"W	0.38	
1753.00	10.570	285.840	1747.71	-10.84	19.96	-69.94	40°12'08.887"N	104°47'50.036"W	0.02	
1838.00	10.330	285.330	1831.30	-13.05	24.11	-84.79	40°12'08.928"N	104°47'50.228"W	0.30	
1924.00	8.900	284.220	1916.09	-14.91	27.78	-98.67	40°12'08.965"N	104°47'50.407"W	1.68	
2009.00	8.640	284.320	2000.10	-16.47	30.97	-111.23	40°12'08.996"N	104°47'50.569"W	0.31	
2094.00	9.560	286.010	2084.03	-18.31	34.50	-124.20	40°12'09.031"N	104°47'50.736"W	1.13	
2179.00	9.140	285.420	2167.90	-20.32	38.24	-137.50	40°12'09.068"N	104°47'50.907"W	0.51	
2264.00	9.920	284.720	2251.73	-22.20	41.90	-151.09	40°12'09.104"N	104°47'51.082"W	0.93	
2349.00	9.220	288.390	2335.54	-24.45	45.91	-164.63	40°12'09.144"N	104°47'51.257"W	1.09	
2434.00	8.110	288.730	2419.57	-26.93	49.98	-176.77	40°12'09.184"N	104°47'51.413"W	1.31	
2520.00	8.820	286.100	2504.63	-29.13	53.76	-188.85	40°12'09.221"N	104°47'51.569"W	0.94	
2605.00	9.280	286.310	2588.58	-31.19	57.49	-201.69	40°12'09.258"N	104°47'51.734"W	0.54	
2690.00	9.450	285.520	2672.44	-33.24	61.28	-214.99	40°12'09.296"N	104°47'51.906"W	0.25	
2776.00	10.650	286.290	2757.12	-35.48	65.40	-229.42	40°12'09.336"N	104°47'52.092"W	1.40	
2861.00	10.600	285.080	2840.66	-37.75	69.63	-244.51	40°12'09.378"N	104°47'52.286"W	0.27	
2946.00	10.480	287.340	2924.23	-40.14	73.97	-259.44	40°12'09.421"N	104°47'52.479"W	0.51	
3031.00	10.070	287.190	3007.87	-42.75	78.47	-273.91	40°12'09.465"N	104°47'52.665"W	0.48	
3117.00	9.200	287.710	3092.65	-45.27	82.79	-287.65	40°12'09.508"N	104°47'52.842"W	1.02	
3202.00	9.190	290.500	3176.56	-48.03	87.23	-300.48	40°12'09.552"N	104°47'53.008"W	0.52	
3287.00	9.560	289.660	3260.43	-51.08	91.98	-313.48	40°12'09.599"N	104°47'53.175"W	0.46	
3372.00	9.010	284.850	3344.31	-53.45	96.06	-326.56	40°12'09.639"N	104°47'53.344"W	1.12	
3458.00	8.910	281.020	3429.26	-54.76	99.06	-339.61	40°12'09.669"N	104°47'53.512"W	0.70	
3543.00	8.920	282.390	3513.24	-55.75	101.73	-352.51	40°12'09.695"N	104°47'53.678"W	0.25	
3628.00	8.330	286.030	3597.28	-57.26	104.85	-364.86	40°12'09.726"N	104°47'53.837"W	0.95	
3714.00	8.900	285.150	3682.31	-59.10	108.31	-377.27	40°12'09.760"N	104°47'53.997"W	0.68	
3799.00	9.350	288.780	3766.23	-61.36	112.25	-390.15	40°12'09.799"N	104°47'54.163"W	0.86	



Actual Wellpath Report

RAYMOND 15N-29HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#16 RAYMOND 15N-29HZ (249' FNL & 1506' FEL, SEC.29)
Area	COLORADO	Well	RAYMOND 15N-29HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RAYMOND 15N-29HZ AWB
Facility	SEC.29-T3N-R66W		

WELLPATH DATA (152 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3884.00	8.810	291.450	3850.17	-64.31	116.85	-402.75	40°12'09.845"N	104°47'54.326"W	0.81	
3969.00	9.590	279.810	3934.08	-66.20	120.44	-415.79	40°12'09.880"N	104°47'54.494"W	2.37	
4055.00	11.530	282.310	4018.62	-67.25	123.49	-431.24	40°12'09.910"N	104°47'54.693"W	2.32	
4140.00	11.740	287.520	4101.87	-69.51	127.91	-447.79	40°12'09.954"N	104°47'54.906"W	1.26	
4225.00	11.240	287.390	4185.17	-72.48	132.99	-463.94	40°12'10.004"N	104°47'55.114"W	0.59	
4311.00	10.540	289.590	4269.62	-75.60	138.13	-479.35	40°12'10.055"N	104°47'55.313"W	0.95	
4396.00	9.400	288.280	4353.34	-78.57	142.91	-493.27	40°12'10.102"N	104°47'55.492"W	1.37	
4481.00	10.150	283.840	4437.10	-80.73	146.88	-507.13	40°12'10.141"N	104°47'55.671"W	1.25	
4567.00	10.420	283.150	4521.72	-82.37	150.46	-522.06	40°12'10.177"N	104°47'55.863"W	0.35	
4652.00	10.080	288.700	4605.37	-84.61	154.60	-536.59	40°12'10.218"N	104°47'56.051"W	1.23	
4737.00	10.300	289.600	4689.03	-87.68	159.53	-550.80	40°12'10.266"N	104°47'56.234"W	0.32	
4822.00	9.950	291.190	4772.70	-91.05	164.73	-564.80	40°12'10.318"N	104°47'56.414"W	0.53	
4908.00	9.380	290.240	4857.48	-94.39	169.84	-578.31	40°12'10.368"N	104°47'56.588"W	0.69	
4993.00	8.670	289.040	4941.43	-97.23	174.33	-590.86	40°12'10.413"N	104°47'56.750"W	0.86	
5078.00	7.710	290.890	5025.56	-99.86	178.45	-602.25	40°12'10.453"N	104°47'56.897"W	1.17	
5163.00	6.220	293.790	5109.93	-102.50	182.35	-611.79	40°12'10.492"N	104°47'57.020"W	1.80	
5249.00	5.190	287.860	5195.51	-104.53	185.42	-619.75	40°12'10.522"N	104°47'57.122"W	1.38	
5334.00	3.740	278.500	5280.25	-105.28	187.01	-626.15	40°12'10.538"N	104°47'57.205"W	1.90	
5419.00	3.420	281.350	5365.08	-105.51	187.92	-631.38	40°12'10.547"N	104°47'57.272"W	0.43	
5504.00	1.680	281.910	5449.99	-105.79	188.67	-635.09	40°12'10.554"N	104°47'57.320"W	2.05	
5589.00	0.470	240.710	5534.98	-105.68	188.76	-636.61	40°12'10.555"N	104°47'57.340"W	1.60	
5675.00	0.290	202.080	5620.98	-105.26	188.38	-637.00	40°12'10.552"N	104°47'57.345"W	0.35	
5760.00	0.470	193.960	5705.97	-104.70	187.85	-637.16	40°12'10.546"N	104°47'57.347"W	0.22	
5845.00	0.640	172.820	5790.97	-103.90	187.04	-637.19	40°12'10.538"N	104°47'57.347"W	0.31	
5931.00	0.790	187.860	5876.96	-102.84	185.97	-637.21	40°12'10.528"N	104°47'57.347"W	0.28	
6016.00	0.890	186.640	5961.95	-101.59	184.74	-637.37	40°12'10.515"N	104°47'57.349"W	0.12	
6101.00	1.250	182.560	6046.94	-100.01	183.15	-637.48	40°12'10.500"N	104°47'57.351"W	0.43	
6186.00	0.290	235.640	6131.93	-98.94	182.11	-637.70	40°12'10.489"N	104°47'57.354"W	1.29	
6272.00	0.630	201.220	6217.93	-98.34	181.54	-638.05	40°12'10.484"N	104°47'57.358"W	0.49	
6357.00	0.950	177.080	6302.92	-97.19	180.40	-638.19	40°12'10.473"N	104°47'57.360"W	0.54	
6442.00	1.160	166.310	6387.91	-95.70	178.86	-637.95	40°12'10.457"N	104°47'57.357"W	0.34	
6527.00	1.250	154.660	6472.89	-94.11	177.19	-637.35	40°12'10.441"N	104°47'57.349"W	0.31	
6587.00	1.260	152.340	6532.87	-93.02	176.01	-636.76	40°12'10.429"N	104°47'57.341"W	0.09	
6646.00	2.790	164.660	6591.83	-91.17	174.06	-636.08	40°12'10.410"N	104°47'57.333"W	2.68	
6655.00	3.540	166.930	6600.82	-90.70	173.57	-635.96	40°12'10.405"N	104°47'57.331"W	8.45	
6698.00	8.460	178.690	6643.57	-86.33	169.12	-635.59	40°12'10.361"N	104°47'57.326"W	11.73	
6741.00	12.750	183.180	6685.83	-78.47	161.21	-635.78	40°12'10.283"N	104°47'57.329"W	10.15	
6783.00	17.050	183.790	6726.41	-67.69	150.44	-636.44	40°12'10.177"N	104°47'57.337"W	10.24	
6826.00	20.240	186.070	6767.15	-53.96	136.74	-637.64	40°12'10.041"N	104°47'57.353"W	7.61	
6869.00	23.420	186.150	6807.06	-37.98	120.85	-639.35	40°12'09.884"N	104°47'57.375"W	7.40	
6911.00	26.850	175.720	6845.09	-20.33	103.08	-639.53	40°12'09.709"N	104°47'57.377"W	13.31	
6954.00	29.180	170.050	6883.06	-0.80	83.06	-637.00	40°12'09.511"N	104°47'57.345"W	8.22	
6997.00	31.090	174.790	6920.25	20.04	61.68	-634.18	40°12'09.299"N	104°47'57.308"W	7.09	
7039.00	36.520	176.390	6955.14	42.92	38.39	-632.40	40°12'09.069"N	104°47'57.285"W	13.10	
7082.00	41.620	177.130	6988.51	69.55	11.34	-630.88	40°12'08.802"N	104°47'57.266"W	11.91	



Actual Wellpath Report

RAYMOND 15N-29HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#16 RAYMOND 15N-29HZ (249' FNL & 1506' FEL, SEC.29)
Area	COLORADO	Well	RAYMOND 15N-29HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RAYMOND 15N-29HZ AWB
Facility	SEC.29-T3N-R66W		

WELLPATH DATA (152 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7125.00	46.400	177.810	7019.43	98.97	-18.50	-629.57	40°12'08.507"N	104°47'57.249"W	11.17	
7167.00	51.450	178.190	7047.02	130.20	-50.13	-628.47	40°12'08.195"N	104°47'57.235"W	12.04	
7210.00	56.260	179.300	7072.37	164.53	-84.84	-627.72	40°12'07.852"N	104°47'57.225"W	11.38	
7252.00	60.790	180.670	7094.30	200.04	-120.65	-627.72	40°12'07.498"N	104°47'57.225"W	11.14	
7295.00	64.900	181.870	7113.92	238.08	-158.89	-628.58	40°12'07.120"N	104°47'57.236"W	9.88	
7338.00	68.560	182.090	7130.90	277.40	-198.36	-629.94	40°12'06.730"N	104°47'57.253"W	8.52	
7380.00	70.720	181.400	7145.52	316.58	-237.72	-631.14	40°12'06.341"N	104°47'57.269"W	5.37	
7423.00	73.480	180.600	7158.73	357.25	-278.62	-631.85	40°12'05.937"N	104°47'57.278"W	6.66	
7466.00	76.800	180.080	7169.76	398.49	-320.18	-632.10	40°12'05.526"N	104°47'57.281"W	7.81	
7509.00	80.580	179.670	7178.19	440.29	-362.34	-632.00	40°12'05.109"N	104°47'57.280"W	8.84	
7551.00	84.240	179.880	7183.73	481.55	-403.96	-631.84	40°12'04.698"N	104°47'57.278"W	8.73	
7570.00	86.170	180.010	7185.32	500.32	-422.89	-631.82	40°12'04.511"N	104°47'57.278"W	10.18	
7603.00†	87.866	180.514	7187.04	533.02	-455.85	-631.97	40°12'04.185"N	104°47'57.280"W	5.36	7" CASING POINT
7648.00	90.180	181.200	7187.81	577.73	-500.83	-632.65	40°12'03.741"N	104°47'57.288"W	5.36	
7733.00	89.660	181.450	7187.93	662.25	-585.81	-634.61	40°12'02.901"N	104°47'57.314"W	0.68	
7819.00	89.480	181.150	7188.57	747.77	-671.78	-636.56	40°12'02.051"N	104°47'57.339"W	0.41	
7904.00	89.820	181.390	7189.09	832.29	-756.76	-638.45	40°12'01.212"N	104°47'57.363"W	0.49	
7989.00	90.090	183.910	7189.16	917.00	-841.66	-642.38	40°12'00.373"N	104°47'57.414"W	2.98	
8075.00	89.720	183.870	7189.30	1002.84	-927.47	-648.21	40°11'59.525"N	104°47'57.489"W	0.43	
8160.00	89.880	183.020	7189.60	1087.64	-1012.31	-653.32	40°11'58.686"N	104°47'57.554"W	1.02	
8245.00	89.570	182.190	7190.00	1172.35	-1097.22	-657.18	40°11'57.847"N	104°47'57.604"W	1.04	
8330.00	88.730	182.010	7191.26	1256.98	-1182.15	-660.30	40°11'57.008"N	104°47'57.644"W	1.01	
8416.00	90.250	181.130	7192.03	1342.53	-1268.11	-662.65	40°11'56.158"N	104°47'57.675"W	2.04	
8501.00	90.060	181.900	7191.80	1427.09	-1353.08	-664.90	40°11'55.319"N	104°47'57.704"W	0.93	
8586.00	89.230	181.850	7192.33	1511.70	-1438.04	-667.68	40°11'54.479"N	104°47'57.739"W	0.98	
8671.00	89.660	180.770	7193.15	1596.22	-1523.01	-669.62	40°11'53.640"N	104°47'57.764"W	1.37	
8757.00	90.250	178.720	7193.22	1681.46	-1609.00	-669.24	40°11'52.790"N	104°47'57.759"W	2.48	
8842.00	89.450	178.390	7193.44	1765.46	-1693.97	-667.10	40°11'51.950"N	104°47'57.732"W	1.02	
8927.00	91.110	178.070	7193.03	1849.38	-1778.93	-664.47	40°11'51.111"N	104°47'57.698"W	1.99	
9012.00	90.740	175.910	7191.65	1932.97	-1863.80	-660.01	40°11'50.272"N	104°47'57.640"W	2.58	
9098.00	89.750	176.610	7191.29	2017.36	-1949.61	-654.40	40°11'49.424"N	104°47'57.568"W	1.41	
9183.00	90.220	175.290	7191.31	2100.68	-2034.40	-648.40	40°11'48.586"N	104°47'57.491"W	1.65	
9268.00	90.310	174.340	7190.91	2183.65	-2119.05	-640.72	40°11'47.750"N	104°47'57.392"W	1.12	
9354.00	89.750	175.200	7190.87	2267.58	-2204.69	-632.88	40°11'46.903"N	104°47'57.291"W	1.19	
9439.00	90.370	175.250	7190.78	2350.68	-2289.39	-625.80	40°11'46.066"N	104°47'57.199"W	0.73	
9524.00	90.030	175.460	7190.48	2433.82	-2374.11	-618.92	40°11'45.229"N	104°47'57.111"W	0.47	
9609.00	89.930	175.270	7190.51	2516.97	-2458.83	-612.05	40°11'44.392"N	104°47'57.022"W	0.25	
9695.00	89.900	173.750	7190.64	2600.81	-2544.44	-603.82	40°11'43.546"N	104°47'56.916"W	1.77	
9780.00	89.930	174.370	7190.77	2683.53	-2628.98	-595.03	40°11'42.710"N	104°47'56.803"W	0.73	
9865.00	89.160	174.560	7191.44	2766.39	-2713.58	-586.83	40°11'41.874"N	104°47'56.697"W	0.93	
9951.00	90.430	174.140	7191.75	2850.18	-2799.16	-578.36	40°11'41.029"N	104°47'56.588"W	1.56	
10036.00	90.210	174.760	7191.27	2933.03	-2883.76	-570.14	40°11'40.193"N	104°47'56.482"W	0.77	
10121.00	90.800	177.510	7190.53	3016.39	-2968.55	-564.41	40°11'39.355"N	104°47'56.408"W	3.31	
10206.00	91.380	178.730	7188.91	3100.27	-3053.49	-561.62	40°11'38.515"N	104°47'56.372"W	1.59	
10292.00	90.030	181.560	7187.85	3185.57	-3139.47	-561.84	40°11'37.666"N	104°47'56.375"W	3.65	



Actual Wellpath Report

RAYMOND 15N-29HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#16 RAYMOND 15N-29HZ (249' FNL & 1506' FEL, SEC.29)
Area	COLORADO	Well	RAYMOND 15N-29HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RAYMOND 15N-29HZ AWB
Facility	SEC.29-T3N-R66W		

WELLPATH DATA (152 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10377.00	89.930	181.690	7187.88	3270.15	-3224.44	-564.25	40°11'36.826"N	104°47'56.406"W	0.19	
10463.00	90.090	182.180	7187.86	3355.76	-3310.39	-567.15	40°11'35.977"N	104°47'56.443"W	0.60	
10548.00	88.430	180.960	7188.96	3440.32	-3395.35	-569.48	40°11'35.137"N	104°47'56.473"W	2.42	
10633.00	89.380	180.100	7190.59	3524.70	-3480.33	-570.27	40°11'34.297"N	104°47'56.483"W	1.51	
10719.00	89.010	180.770	7191.80	3610.06	-3566.31	-570.92	40°11'33.448"N	104°47'56.492"W	0.89	
10804.00	88.680	181.150	7193.51	3694.52	-3651.28	-572.35	40°11'32.608"N	104°47'56.510"W	0.59	
10889.00	90.150	180.760	7194.38	3778.98	-3736.27	-573.76	40°11'31.768"N	104°47'56.528"W	1.79	
10974.00	89.850	181.070	7194.38	3863.44	-3821.26	-575.12	40°11'30.928"N	104°47'56.546"W	0.51	
11060.00	89.200	181.440	7195.09	3948.95	-3907.23	-577.00	40°11'30.079"N	104°47'56.570"W	0.87	
11145.00	88.920	181.860	7196.48	4033.52	-3992.18	-579.45	40°11'29.239"N	104°47'56.602"W	0.59	
11230.00	90.150	180.070	7197.17	4117.98	-4077.16	-580.88	40°11'28.399"N	104°47'56.620"W	2.56	
11315.00	91.540	180.390	7195.92	4202.31	-4162.15	-581.22	40°11'27.560"N	104°47'56.624"W	1.68	
11401.00	91.480	180.410	7193.65	4287.65	-4248.12	-581.82	40°11'26.710"N	104°47'56.632"W	0.07	
11486.00	90.950	181.060	7191.85	4372.06	-4333.09	-582.91	40°11'25.870"N	104°47'56.646"W	0.99	
11571.00	90.280	181.520	7190.94	4456.58	-4418.07	-584.83	40°11'25.031"N	104°47'56.671"W	0.96	
11653.00	89.690	181.640	7190.96	4538.17	-4500.03	-587.09	40°11'24.221"N	104°47'56.700"W	0.73	LAST BHI MWD+IFR SURVEY
11713.00	89.690	181.640	7191.29	4597.87	-4560.01	-588.81	40°11'23.628"N	104°47'56.722"W	0.00	PROJECTION TO BIT

HOLE & CASING SECTIONS - Ref Wellbore: RAYMOND 15N-29HZ AWB Ref Wellpath: RAYMOND 15N-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	947.00	930.00	17.00	946.98	0.00	0.00	2.28	-3.33
9.625in Casing Surface	17.00	947.00	930.00	17.00	946.98	0.00	0.00	2.28	-3.33
8.75in Open Hole	947.00	7616.00	6669.00	946.98	7187.45	2.28	-3.33	-468.84	-632.11
7in Casing Intermediate	17.00	7603.00	7586.00	17.00	7187.04	0.00	0.00	-455.85	-631.97
6.125in Open Hole	7603.00	11713.00	4110.00	7187.04	7191.29	-455.85	-631.97	-4560.01	-588.81



Actual Wellpath Report

RAYMOND 15N-29HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#16 RAYMOND 15N-29HZ (249' FNL & 1506' FEL, SEC.29)
Area	COLORADO	Well	RAYMOND 15N-29HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RAYMOND 15N-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
SEC.29 LINES		-1.00	0.00	29.87	3196396.27	1317360.44	40°12'08.690"N	104°47'48.750"W	polygon
RAYMOND 15N-29HZ BHL ON PLAT (460' FSL & 2080' FEL, SEC.29) REV-3		7181.00	-4585.00	-576.93	3195825.86	1312770.98	40°11'23.381"N	104°47'56.569"W	point
UPRC 29-7K 150' CIRCLE		7183.00	-1724.75	-507.88	3195872.23	1315631.56	40°11'51.646"N	104°47'55.680"W	circle
UPRC 29-10K 150' CIRCLE		7190.00	-2965.79	-723.49	3195666.48	1314388.90	40°11'39.382"N	104°47'58.458"W	circle
RAYMOND 15N-29HZ BHL ON PLAT (460' FSL & 2080' FEL, SEC.29) REV-1		7198.00	-4585.00	-576.93	3195825.86	1312770.98	40°11'23.381"N	104°47'56.569"W	point
UPRC 29-15K 100' CIRCLE		7198.00	-4365.01	-467.74	3195933.31	1312991.82	40°11'25.555"N	104°47'55.162"W	circle
RAYMOND 15N-29HZ BHL ON PLAT (460' FSL & 2080' FEL, SEC.29) REV-2		7200.00	-4585.00	-576.93	3195825.86	1312770.98	40°11'23.381"N	104°47'56.569"W	point
RAYMOND 15N-29HZ BHL ON PLAT (460' FSL & 2080' FEL, SEC.29) REV-4		7200.00	-4585.00	-576.93	3195825.86	1312770.98	40°11'23.381"N	104°47'56.569"W	point
RAYMOND 15N-29HZ LAND BOX		7200.00	0.00	0.00	3196366.40	1317360.20	40°12'08.690"N	104°47'49.135"W	polygon
SEC.29 HARDLINES (460' SETBACKS)		7599.00	0.00	29.87	3196396.27	1317360.44	40°12'08.690"N	104°47'48.750"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: RAYMOND 15N-29HZ AWB Ref Wellpath: RAYMOND 15N-29HZ AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	882.00	Generic gyro - continuous (Standard)	GYRODATA SURVEYS <117-882>	RAYMOND 15N-29HZ AWB
882.00	7570.00	NaviTrak (MAGCORR,IFR)	BHI MWD+IFR SURVEYS 8 3/4" HOLE <957-7570>	RAYMOND 15N-29HZ AWB
7570.00	11653.00	OnTrak (MAGCORR,IFR)	BHI MWD+IFR SURVEYS 6 1/8" HOLE <7648-11653>	RAYMOND 15N-29HZ AWB
11653.00	11713.00	Blind Drilling (std)	Projection to bit	RAYMOND 15N-29HZ AWB



Actual Wellpath Report

RAYMOND 15N-29HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

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Area	COLORADO	Well	RAYMOND 15N-29HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RAYMOND 15N-29HZ AWP
Facility	SEC.29-T3N-R66W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	28.520	17.00	TIE-ON
117.00	0.360	28.520	117.00	BEGIN GYRO SURVEYS
882.00	0.170	248.920	881.98	TIE-INTO GYRO SURVEYS
957.00	0.350	279.860	956.98	BEGIN BHI MWD+IFR SURVEYS
7603.00	87.866	180.514	7187.04	7" CASING POINT
11653.00	89.690	181.640	7190.96	LAST BHI MWD+IFR SURVEY
11713.00	89.690	181.640	7191.29	PROJECTION TO BIT