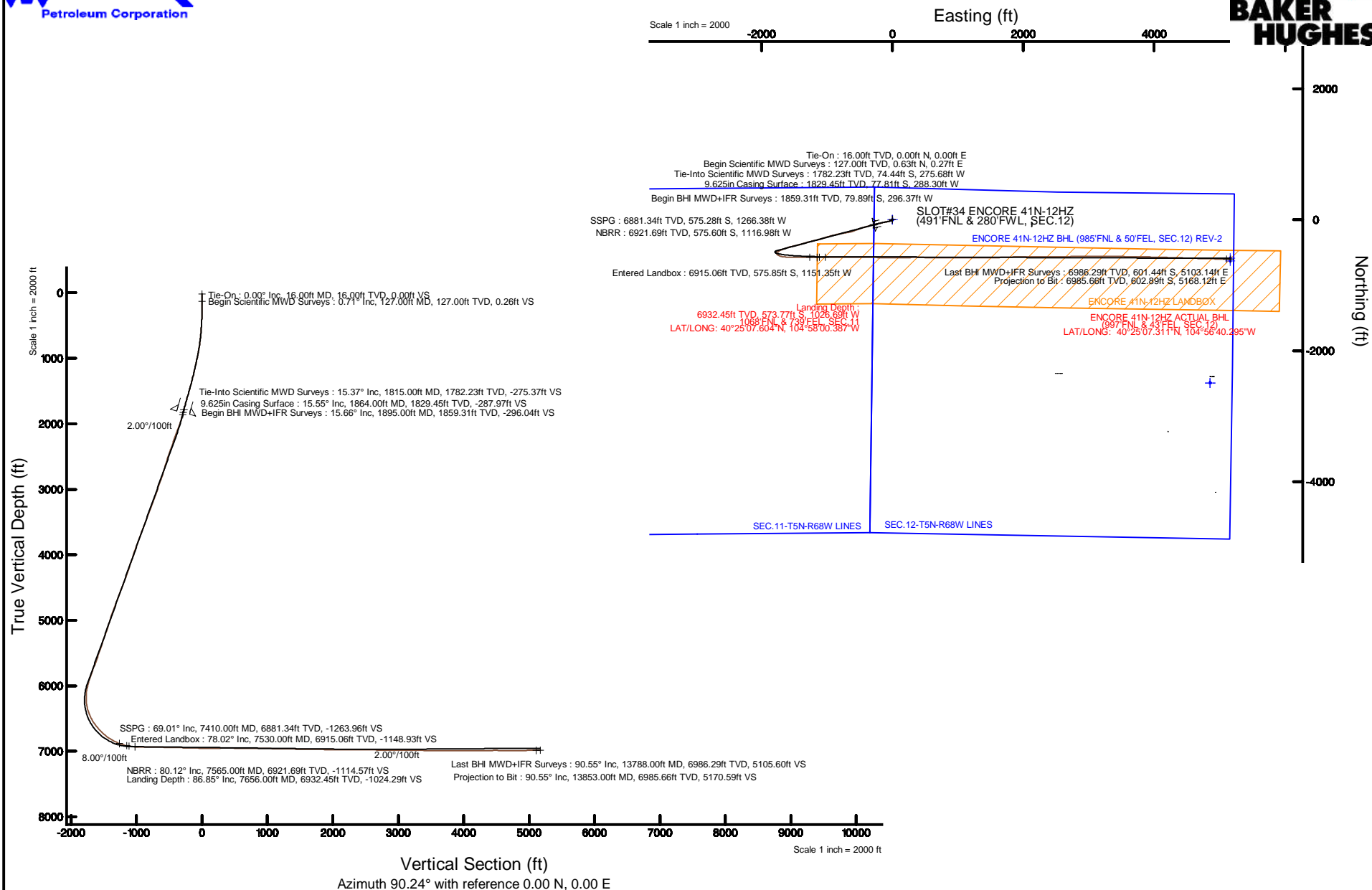


KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Location: COLORADO Slot: SLOT#34 ENCORE 41N-12HZ (491'FNL & 280'FWL, SEC.12)
 Field: LARIMER COUNTY Well: ENCORE 41N-12HZ
 Facility: SEC.12-T5N-R68W Wellbore: ENCORE 41N-12HZ PWB



Plot reference wellpath is ENCORE 41N-12HZ (REV-A.0) PWP	
True vertical depths are referenced to XTREME 23 (16'KB) (RKB)	Grid System: NAD83 / UTM Zone 13 North, US feet
Measured depths are referenced to XTREME 23 (16'KB) (RKB)	North Reference: True north
XTREME 23 (16'KB) (RKB) to Mean Sea Level: 5006 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#34 ENCORE 41N-12HZ (491'FNL & 280'FWL, SEC.12)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: precain on 8/25/2015



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#34 ENCORE 41N-12HZ (491'FNL & 280'FWL, SEC.12)
Area	COLORADO	Well	ENCORE 41N-12HZ
Field	LARIMER COUNTY	Wellbore	ENCORE 41N-12HZ AWB <13853>
Facility	SEC.12-T5N-R68W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 4.1.1
North Reference	True	User	Precain
Scale	0.9996	Report Generated	8/25/2015 at 1:52:09 PM
Convergence at slot	0.02° East	Database/Source file	WellArchitectAPC/ENCORE_41N-12HZ_AWB__13853_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	2395.04	-4915.82	1650690.54	14679809.03	40°25'13.274"N	104°57'47.113"W
Facility Reference Pt			1655605.86	14677417.99	40°24'49.612"N	104°56'43.555"W
Field Reference Pt			0.00	0.00	0°00'00.000"	109°29'19.478"W

WELLPATH DATUM			
Calculation method	Minimum curvature	XTREME 23 (16'KB) (RKB) to Facility Vertical Datum	5006.00ft
Horizontal Reference Pt	Slot	XTREME 23 (16'KB) (RKB) to Mean Sea Level	5006.00ft
Vertical Reference Pt	XTREME 23 (16'KB) (RKB)	XTREME 23 (16'KB) (RKB) to Mud Line at Slot (SLOT#34 ENCORE 41N-12HZ (491'FNL & 280'FWL, SEC.12))	5006.00ft
MD Reference Pt	XTREME 23 (16'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	90.24°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#34 ENCORE 41N-12HZ (491'FNL & 280'FWL, SEC.12)
Area	COLORADO	Well	ENCORE 41N-12HZ
Field	LARIMER COUNTY	Wellbore	ENCORE 41N-12HZ AWB <13853>
Facility	SEC.12-T5N-R68W		

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	22.670	0.00	0.00	0.00	0.00	40°25'13.274"N	104°57'47.113"W	0.00	
16.00	0.000	22.670	16.00	0.00	0.00	0.00	40°25'13.274"N	104°57'47.113"W	0.00	Tie-On
127.00	0.710	22.670	127.00	0.26	0.63	0.27	40°25'13.280"N	104°57'47.110"W	0.64	Begin Scientific MWD Surveys
218.00	0.430	2.720	217.99	0.49	1.50	0.50	40°25'13.289"N	104°57'47.107"W	0.37	
342.00	1.890	217.290	341.97	-0.72	0.33	-0.72	40°25'13.277"N	104°57'47.122"W	1.82	
469.00	4.020	234.790	468.80	-5.61	-3.90	-5.63	40°25'13.235"N	104°57'47.186"W	1.80	
595.00	5.730	237.950	594.34	-14.52	-9.78	-14.57	40°25'13.177"N	104°57'47.301"W	1.37	
690.00	7.110	246.650	688.74	-23.92	-14.63	-23.98	40°25'13.129"N	104°57'47.423"W	1.77	
785.00	8.630	251.400	782.85	-36.06	-19.24	-36.14	40°25'13.084"N	104°57'47.580"W	1.74	
914.00	11.020	256.760	909.95	-57.21	-25.15	-57.32	40°25'13.026"N	104°57'47.854"W	1.98	
1007.00	11.550	260.230	1001.15	-75.02	-28.76	-75.14	40°25'12.990"N	104°57'48.085"W	0.93	
1102.00	12.650	257.890	1094.04	-94.55	-32.56	-94.69	40°25'12.952"N	104°57'48.337"W	1.27	
1197.00	13.430	258.170	1186.59	-115.50	-37.00	-115.66	40°25'12.908"N	104°57'48.608"W	0.82	
1292.00	14.040	259.780	1278.87	-137.62	-41.31	-137.80	40°25'12.866"N	104°57'48.895"W	0.76	
1386.00	15.020	255.990	1369.87	-160.64	-46.28	-160.84	40°25'12.817"N	104°57'49.192"W	1.45	
1481.00	16.280	256.480	1461.34	-185.51	-52.38	-185.73	40°25'12.756"N	104°57'49.514"W	1.33	
1576.00	16.650	258.440	1552.45	-211.76	-58.22	-212.01	40°25'12.699"N	104°57'49.854"W	0.70	
1671.00	16.260	254.540	1643.56	-237.89	-64.49	-238.16	40°25'12.637"N	104°57'50.192"W	1.23	
1766.00	15.320	255.750	1734.97	-262.85	-71.12	-263.14	40°25'12.571"N	104°57'50.515"W	1.05	
1815.00	15.370	254.650	1782.23	-275.37	-74.44	-275.68	40°25'12.538"N	104°57'50.677"W	0.60	Tie-Into Scientific MWD Surveys
1895.00	15.660	255.820	1859.31	-296.04	-79.89	-296.37	40°25'12.485"N	104°57'50.945"W	0.53	Begin BHI MWD+IFR Surveys
1990.00	17.480	254.720	1950.36	-322.20	-86.79	-322.57	40°25'12.416"N	104°57'51.284"W	1.94	
2085.00	19.860	256.180	2040.36	-351.61	-94.40	-352.01	40°25'12.341"N	104°57'51.664"W	2.55	
2180.00	21.500	256.170	2129.23	-384.15	-102.42	-384.58	40°25'12.262"N	104°57'52.085"W	1.73	
2275.00	20.850	254.470	2217.82	-417.31	-111.11	-417.78	40°25'12.176"N	104°57'52.515"W	0.94	
2370.00	20.230	253.040	2306.78	-449.27	-120.43	-449.78	40°25'12.084"N	104°57'52.928"W	0.84	
2465.00	20.370	251.750	2395.88	-480.64	-130.40	-481.19	40°25'11.985"N	104°57'53.334"W	0.49	
2560.00	20.060	249.930	2485.03	-511.60	-141.17	-512.20	40°25'11.879"N	104°57'53.735"W	0.74	
2656.00	18.460	249.200	2575.65	-541.23	-152.21	-541.87	40°25'11.770"N	104°57'54.119"W	1.69	
2751.00	17.240	248.780	2666.08	-568.37	-162.65	-569.05	40°25'11.667"N	104°57'54.470"W	1.29	
2846.00	18.740	247.310	2756.43	-595.53	-173.63	-596.26	40°25'11.558"N	104°57'54.822"W	1.65	
2941.00	18.460	255.680	2846.49	-624.15	-183.24	-624.92	40°25'11.463"N	104°57'55.193"W	2.82	
3037.00	20.930	260.670	2936.87	-655.77	-189.78	-656.57	40°25'11.399"N	104°57'55.602"W	3.11	
3132.00	20.000	260.000	3025.87	-688.49	-195.35	-689.31	40°25'11.343"N	104°57'56.025"W	1.01	
3228.00	20.530	259.890	3115.93	-721.21	-201.16	-722.05	40°25'11.286"N	104°57'56.449"W	0.55	
3323.00	20.150	259.690	3205.01	-753.68	-207.01	-754.55	40°25'11.228"N	104°57'56.869"W	0.41	
3418.00	21.640	259.750	3293.76	-786.99	-213.06	-787.89	40°25'11.169"N	104°57'57.300"W	1.57	
3514.00	20.490	259.090	3383.34	-820.89	-219.39	-821.81	40°25'11.106"N	104°57'57.738"W	1.22	
3609.00	21.470	256.990	3472.04	-854.12	-226.45	-855.08	40°25'11.036"N	104°57'58.168"W	1.30	
3705.00	21.430	256.430	3561.39	-888.26	-234.52	-889.24	40°25'10.956"N	104°57'58.610"W	0.22	
3800.00	21.350	256.530	3649.85	-921.91	-242.62	-922.93	40°25'10.876"N	104°57'59.046"W	0.09	
3895.00	21.180	254.820	3738.38	-955.25	-251.14	-956.31	40°25'10.792"N	104°57'59.477"W	0.68	
3990.00	21.030	254.220	3827.01	-988.18	-260.27	-989.28	40°25'10.702"N	104°57'59.903"W	0.28	
4086.00	19.450	251.810	3917.08	-1019.90	-269.95	-1021.04	40°25'10.606"N	104°58'00.314"W	1.86	
4181.00	18.010	249.750	4007.05	-1048.67	-279.97	-1049.85	40°25'10.507"N	104°58'00.687"W	1.67	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#34 ENCORE 41N-12HZ (491'FNL & 280'FWL, SEC.12)
Area	COLORADO	Well	ENCORE 41N-12HZ
Field	LARIMER COUNTY	Wellbore	ENCORE 41N-12HZ AWB <13853>
Facility	SEC.12-T5N-R68W		

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
4276.00	20.100	254.360	4096.84	-1078.13	-289.45	-1079.35	40°25'10.414"N	104°58'01.068"W	2.71	
4372.00	19.770	254.010	4187.09	-1109.59	-298.37	-1110.84	40°25'10.325"N	104°58'01.475"W	0.37	
4466.00	20.380	255.940	4275.38	-1140.71	-306.73	-1142.00	40°25'10.243"N	104°58'01.878"W	0.96	
4561.00	21.310	256.970	4364.16	-1173.54	-314.64	-1174.87	40°25'10.165"N	104°58'02.303"W	1.05	
4656.00	20.400	256.690	4452.94	-1206.44	-322.34	-1207.80	40°25'10.088"N	104°58'02.729"W	0.96	
4751.00	22.090	256.200	4541.48	-1239.87	-330.42	-1241.26	40°25'10.009"N	104°58'03.161"W	1.79	
4846.00	22.250	256.030	4629.45	-1274.64	-339.02	-1276.06	40°25'09.924"N	104°58'03.611"W	0.18	
4941.00	21.330	254.190	4717.67	-1308.68	-348.07	-1310.14	40°25'09.834"N	104°58'04.052"W	1.21	
5037.00	20.100	252.620	4807.46	-1341.18	-357.75	-1342.68	40°25'09.738"N	104°58'04.473"W	1.41	
5132.00	19.760	252.930	4896.77	-1372.07	-367.34	-1373.61	40°25'09.644"N	104°58'04.873"W	0.37	
5227.00	18.250	253.290	4986.59	-1401.63	-376.33	-1403.21	40°25'09.555"N	104°58'05.255"W	1.59	
5322.00	18.500	254.300	5076.74	-1430.35	-384.69	-1431.97	40°25'09.472"N	104°58'05.627"W	0.43	
5418.00	19.590	258.190	5167.49	-1460.74	-392.11	-1462.39	40°25'09.399"N	104°58'06.020"W	1.74	
5513.00	20.270	258.250	5256.80	-1492.41	-398.72	-1494.09	40°25'09.334"N	104°58'06.430"W	0.72	
5609.00	17.510	255.800	5347.62	-1522.67	-405.65	-1524.38	40°25'09.265"N	104°58'06.822"W	2.99	
5704.00	19.110	255.420	5437.81	-1551.55	-413.07	-1553.28	40°25'09.192"N	104°58'07.195"W	1.69	
5798.00	20.510	255.000	5526.25	-1582.31	-421.20	-1584.08	40°25'09.111"N	104°58'07.594"W	1.50	
5893.00	21.390	253.510	5614.97	-1614.96	-430.43	-1616.77	40°25'09.020"N	104°58'08.016"W	1.08	
5988.00	22.380	251.690	5703.12	-1648.70	-441.03	-1650.55	40°25'08.915"N	104°58'08.453"W	1.26	
6084.00	20.600	245.980	5792.45	-1681.43	-453.65	-1683.33	40°25'08.791"N	104°58'08.877"W	2.86	
6178.00	20.740	244.740	5880.40	-1711.53	-467.48	-1713.49	40°25'08.654"N	104°58'09.267"W	0.49	
6273.00	17.510	238.820	5970.16	-1738.92	-482.06	-1740.94	40°25'08.510"N	104°58'09.622"W	3.96	
6368.00	12.770	234.980	6061.83	-1759.70	-495.50	-1761.78	40°25'08.377"N	104°58'09.891"W	5.10	
6463.00	6.030	193.760	6155.60	-1769.46	-506.39	-1771.59	40°25'08.269"N	104°58'10.018"W	9.61	
6559.00	10.310	155.900	6250.66	-1767.09	-519.14	-1769.27	40°25'08.143"N	104°58'09.988"W	6.94	
6654.00	17.090	128.170	6343.00	-1752.55	-535.57	-1754.80	40°25'07.981"N	104°58'09.801"W	9.75	
6749.00	24.120	113.750	6431.92	-1723.68	-552.04	-1726.00	40°25'07.818"N	104°58'09.428"W	9.08	
6844.00	30.260	101.250	6516.45	-1682.32	-564.55	-1684.68	40°25'07.695"N	104°58'08.894"W	8.80	
6940.00	36.720	91.570	6596.53	-1629.79	-570.07	-1632.18	40°25'07.640"N	104°58'08.215"W	8.71	
7035.00	41.950	89.490	6669.99	-1569.60	-570.56	-1571.99	40°25'07.635"N	104°58'07.437"W	5.68	
7130.00	48.560	91.010	6736.83	-1502.17	-570.91	-1504.56	40°25'07.632"N	104°58'06.565"W	7.05	
7225.00	56.090	91.490	6794.85	-1427.04	-572.56	-1429.44	40°25'07.616"N	104°58'05.594"W	7.94	
7321.00	61.820	90.890	6844.33	-1344.84	-574.26	-1347.25	40°25'07.599"N	104°58'04.531"W	5.99	
7410.00†	69.006	90.570	6881.34	-1263.96	-575.28	-1266.38	40°25'07.589"N	104°58'03.486"W	8.08	SSPG
7416.00	69.490	90.550	6883.47	-1258.35	-575.34	-1260.77	40°25'07.588"N	104°58'03.413"W	8.08	
7511.00	76.880	90.120	6910.93	-1167.48	-575.86	-1169.89	40°25'07.583"N	104°58'02.238"W	7.79	
7530.00†	78.021	89.836	6915.06	-1148.93	-575.85	-1151.35	40°25'07.583"N	104°58'01.999"W	6.18	Entered Landbox
7565.00†	80.125	89.318	6921.69	-1114.57	-575.60	-1116.98	40°25'07.586"N	104°58'01.554"W	6.18	NBRR
7606.00	82.590	88.720	6927.85	-1074.05	-574.91	-1076.46	40°25'07.593"N	104°58'01.030"W	6.18	
7656.00†	86.850	88.668	6932.45	-1024.29	-573.77	-1026.69	40°25'07.604"N	104°58'00.387"W	8.52	Landing Depth
7702.00	90.770	88.620	6933.41	-978.33	-572.68	-980.73	40°25'07.615"N	104°57'59.793"W	8.52	
7797.00	88.860	89.600	6933.71	-883.35	-571.21	-885.74	40°25'07.629"N	104°57'58.565"W	2.26	
7893.00	89.040	89.890	6935.47	-787.37	-570.78	-789.76	40°25'07.634"N	104°57'57.324"W	0.36	
7988.00	89.660	89.880	6936.55	-692.38	-570.59	-694.77	40°25'07.636"N	104°57'56.096"W	0.65	
8083.00	88.180	90.530	6938.34	-597.40	-570.93	-599.79	40°25'07.632"N	104°57'54.868"W	1.70	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#34 ENCORE 41N-12HZ (491'FNL & 280'FWL, SEC.12)
Area	COLORADO	Well	ENCORE 41N-12HZ
Field	LARIMER COUNTY	Wellbore	ENCORE 41N-12HZ AWB <13853>
Facility	SEC.12-T5N-R68W		

WELLPATH DATA (151 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8178.00	88.860	91.040	6940.80	-502.44	-572.23	-504.83	40°25'07.619"N	104°57'53.640"W	0.89	
8274.00	89.600	91.460	6942.09	-406.46	-574.32	-408.86	40°25'07.599"N	104°57'52.399"W	0.89	
8369.00	87.500	90.590	6944.49	-311.51	-576.02	-313.91	40°25'07.582"N	104°57'51.172"W	2.39	
8464.00	87.930	90.830	6948.28	-216.59	-577.20	-219.00	40°25'07.570"N	104°57'49.944"W	0.52	
8559.00	88.580	91.380	6951.17	-121.64	-579.03	-124.06	40°25'07.552"N	104°57'48.717"W	0.90	
8655.00	89.320	91.550	6952.93	-25.68	-581.48	-28.11	40°25'07.528"N	104°57'47.476"W	0.79	
8750.00	89.900	89.220	6953.58	69.31	-582.12	66.88	40°25'07.522"N	104°57'46.248"W	2.53	
8845.00	89.750	88.370	6953.87	164.28	-580.12	161.86	40°25'07.541"N	104°57'45.020"W	0.91	
8940.00	91.140	88.720	6953.13	259.23	-577.71	256.82	40°25'07.565"N	104°57'43.793"W	1.51	
9036.00	90.550	89.540	6951.71	355.20	-576.26	352.80	40°25'07.580"N	104°57'42.552"W	1.05	
9130.00	89.160	90.820	6951.95	449.20	-576.55	446.79	40°25'07.577"N	104°57'41.336"W	2.01	
9225.00	88.640	91.140	6953.77	544.17	-578.17	541.76	40°25'07.561"N	104°57'40.109"W	0.64	
9320.00	89.100	91.810	6955.65	639.13	-580.62	636.71	40°25'07.536"N	104°57'38.881"W	0.86	
9415.00	89.500	90.230	6956.81	734.11	-582.31	731.69	40°25'07.520"N	104°57'37.653"W	1.72	
9510.00	90.790	90.140	6956.57	829.11	-582.62	826.68	40°25'07.517"N	104°57'36.425"W	1.36	
9606.00	89.630	89.370	6956.22	925.10	-582.21	922.68	40°25'07.521"N	104°57'35.184"W	1.45	
9701.00	88.150	89.440	6958.06	1020.07	-581.22	1017.65	40°25'07.530"N	104°57'33.956"W	1.56	
9796.00	88.180	89.830	6961.10	1115.02	-580.62	1112.60	40°25'07.536"N	104°57'32.728"W	0.41	
9891.00	88.920	90.180	6963.50	1209.98	-580.62	1207.57	40°25'07.536"N	104°57'31.500"W	0.86	
9987.00	89.590	90.490	6964.75	1305.97	-581.19	1303.56	40°25'07.531"N	104°57'30.259"W	0.77	
10082.00	88.670	89.070	6966.19	1400.96	-580.82	1398.55	40°25'07.534"N	104°57'29.031"W	1.78	
10177.00	89.160	89.120	6967.99	1495.92	-579.32	1493.52	40°25'07.549"N	104°57'27.803"W	0.52	
10273.00	89.870	89.340	6968.80	1591.90	-578.03	1589.50	40°25'07.562"N	104°57'26.562"W	0.77	
10368.00	89.010	88.390	6969.73	1686.87	-576.15	1684.48	40°25'07.580"N	104°57'25.334"W	1.35	
10463.00	88.950	87.460	6971.42	1781.77	-572.71	1779.40	40°25'07.614"N	104°57'24.107"W	0.98	
10558.00	88.050	88.390	6973.91	1876.66	-569.27	1874.30	40°25'07.648"N	104°57'22.880"W	1.36	
10653.00	87.990	88.680	6977.19	1971.56	-566.84	1969.22	40°25'07.672"N	104°57'21.653"W	0.31	
10748.00	89.690	89.660	6979.12	2066.52	-565.47	2064.18	40°25'07.685"N	104°57'20.425"W	2.07	
10843.00	90.890	90.000	6978.64	2161.52	-565.19	2159.18	40°25'07.688"N	104°57'19.197"W	1.31	
10939.00	89.900	90.710	6977.97	2257.51	-565.78	2255.17	40°25'07.682"N	104°57'17.956"W	1.27	
11034.00	89.350	90.290	6978.60	2352.51	-566.61	2350.17	40°25'07.674"N	104°57'16.728"W	0.73	
11129.00	89.720	90.700	6979.37	2447.50	-567.43	2445.16	40°25'07.666"N	104°57'15.500"W	0.58	
11224.00	90.310	90.530	6979.34	2542.50	-568.45	2540.15	40°25'07.656"N	104°57'14.271"W	0.65	
11319.00	88.950	87.790	6979.96	2637.47	-567.06	2635.13	40°25'07.669"N	104°57'13.043"W	3.22	
11414.00	88.860	87.130	6981.77	2732.34	-562.85	2730.02	40°25'07.711"N	104°57'11.817"W	0.70	
11509.00	88.430	90.140	6984.02	2827.27	-560.59	2824.95	40°25'07.733"N	104°57'10.589"W	3.20	
11604.00	89.230	89.710	6985.96	2922.25	-560.46	2919.93	40°25'07.734"N	104°57'09.361"W	0.96	
11700.00	89.880	89.670	6986.70	3018.24	-559.94	3015.93	40°25'07.739"N	104°57'08.120"W	0.68	
11795.00	91.140	89.740	6985.86	3113.23	-559.45	3110.92	40°25'07.744"N	104°57'06.892"W	1.33	
11889.00	89.510	90.220	6985.32	3207.22	-559.42	3204.92	40°25'07.744"N	104°57'05.677"W	1.81	
11985.00	89.690	89.080	6986.00	3303.21	-558.83	3300.91	40°25'07.750"N	104°57'04.436"W	1.20	
12080.00	88.240	91.400	6987.71	3398.19	-559.23	3395.89	40°25'07.746"N	104°57'03.208"W	2.88	
12175.00	88.520	91.620	6990.40	3493.13	-561.73	3490.81	40°25'07.721"N	104°57'01.980"W	0.37	
12270.00	89.080	91.020	6992.39	3588.09	-563.92	3585.77	40°25'07.699"N	104°57'00.753"W	0.86	
12365.00	89.880	90.360	6993.25	3683.08	-565.07	3680.76	40°25'07.688"N	104°56'59.525"W	1.09	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#34 ENCORE 41N-12HZ (491'FNL & 280'FWL, SEC.12)
Area	COLORADO	Well	ENCORE 41N-12HZ
Field	LARIMER COUNTY	Wellbore	ENCORE 41N-12HZ AWB <13853>
Facility	SEC.12-T5N-R68W		

WELLPATH DATA (151 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12460.00	91.020	89.970	6992.50	3778.08	-565.34	3775.75	40°25'07.685"N	104°56'58.296"W	1.27	
12555.00	90.400	91.960	6991.33	3873.06	-566.94	3870.72	40°25'07.669"N	104°56'57.069"W	2.19	
12650.00	90.650	93.070	6990.45	3967.97	-571.11	3965.63	40°25'07.627"N	104°56'55.842"W	1.20	
12745.00	90.310	90.850	6989.66	4062.92	-574.36	4060.56	40°25'07.595"N	104°56'54.614"W	2.36	
12840.00	91.080	91.230	6988.51	4157.91	-576.08	4155.54	40°25'07.578"N	104°56'53.386"W	0.90	
12935.00	89.600	91.600	6987.94	4252.88	-578.43	4250.51	40°25'07.555"N	104°56'52.158"W	1.61	
13030.00	89.750	91.650	6988.48	4347.85	-581.12	4345.47	40°25'07.528"N	104°56'50.931"W	0.17	
13125.00	91.140	92.040	6987.74	4442.81	-584.18	4440.41	40°25'07.497"N	104°56'49.703"W	1.52	
13220.00	88.890	91.270	6987.72	4537.77	-586.92	4535.36	40°25'07.470"N	104°56'48.475"W	2.50	
13315.00	90.610	92.160	6988.13	4632.74	-589.77	4630.32	40°25'07.442"N	104°56'47.248"W	2.04	
13411.00	89.160	91.740	6988.33	4728.69	-593.03	4726.26	40°25'07.409"N	104°56'46.007"W	1.57	
13506.00	89.780	91.340	6989.20	4823.66	-595.59	4821.22	40°25'07.384"N	104°56'44.780"W	0.78	
13602.00	91.220	91.420	6988.37	4919.64	-597.90	4917.18	40°25'07.361"N	104°56'43.539"W	1.50	
13697.00	90.390	90.830	6987.03	5014.61	-599.76	5012.16	40°25'07.342"N	104°56'42.311"W	1.07	
13788.00	90.550	91.280	6986.29	5105.60	-601.44	5103.14	40°25'07.326"N	104°56'41.135"W	0.52	Last BHI MWD+IFR Surveys
13853.00	90.550	91.280	6985.66	5170.59	-602.89	5168.12	40°25'07.311"N	104°56'40.295"W	0.00	Projection to Bit

HOLE & CASING SECTIONS - Ref Wellbore: ENCORE 41N-12HZ AWB <13853> Ref Wellpath: ENCORE 41N-12HZ 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	1874.00	1858.00	16.00	1839.09	0.00	0.00	-78.49	-290.89
9.625in Casing Surface	16.00	1864.00	1848.00	16.00	1829.45	0.00	0.00	-77.81	-288.30
8.5in Open Hole	1874.00	13853.00	11979.00	1839.09	6985.66	-78.49	-290.89	-602.89	5168.12

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.11-T5N-R68W LINES	42.00	-2492.84	4856.16	1655545.78	14677319.22	40°24'48.636"N	104°56'44.333"W	polygon
SEC.12-T5N-R68W LINES	42.00	-2492.84	4856.16	1655545.78	14677319.22	40°24'48.636"N	104°56'44.333"W	polygon
ENCORE 41N-12HZ BHL (985'FNL & 50'FEL, SEC.12) REV-2	6953.00	-590.04	5161.25	1655849.96	14679221.38	40°25'07.438"N	104°56'40.383"W	point
ENCORE 41N-12HZ BHL ON PLAT (1025'FNL & 50'FEL, SEC.12) REV-1	6953.00	-630.04	5161.25	1655849.97	14679181.39	40°25'07.043"N	104°56'40.384"W	point
ENCORE 41N-12HZ LANDBOX	6953.00	0.00	0.00	1650690.54	14679809.03	40°25'13.274"N	104°57'47.113"W	polygon



Actual Wellpath Report
ENCORE 41N-12HZ AWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#34 ENCORE 41N-12HZ (491'FNL & 280'FWL, SEC.12)
Area	COLORADO	Well	ENCORE 41N-12HZ
Field	LARIMER COUNTY	Wellbore	ENCORE 41N-12HZ AWB <13853>
Facility	SEC.12-T5N-R68W		

WELLPATH COMPOSITION - Ref Wellbore: ENCORE 41N-12HZ AWB <13853> Ref Wellpath: ENCORE 41N-12HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	1815.00	Custom APC_ISCWSA REV 2 MWD	SCIENTIFIC DRILLIG MWD SURVEYS <127-1815>	ENCORE 41N-12HZ AWB <13853>
1815.00	13788.00	Custom APC_ISCWSA REV 2 MWD+IFR1 (approximation)	BHI MWD+IFR SURVEYS 8 1/2" HOLE <1895-13788>	ENCORE 41N-12HZ AWB <13853>
13788.00	13853.00	Blind Drilling (std)	Projection to bit	ENCORE 41N-12HZ AWB <13853>

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#34 ENCORE 41N-12HZ (491'FNL & 280'FWL, SEC.12)
Area	COLORADO	Well	ENCORE 41N-12HZ
Field	LARIMER COUNTY	Wellbore	ENCORE 41N-12HZ AWB <13853>
Facility	SEC.12-T5N-R68W		

WELLPATH COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
16.00	0.000	22.670	16.00	Tie-On	
127.00	0.710	22.670	127.00	Begin Scientific MWD Surveys	
1815.00	15.370	254.650	1782.23	Tie-Into Scientific MWD Surveys	
1895.00	15.660	255.820	1859.31	Begin BHI MWD+IFR Surveys	
7410.00	69.006	90.570	6881.34	SSPG	
7530.00	78.021	89.836	6915.06	Entered Landbox	
7565.00	80.125	89.318	6921.69	NBRR	
7656.00	86.850	88.668	6932.45	Landing Depth	
13788.00	90.550	91.280	6986.29	Last BHI MWD+IFR Surveys	
13853.00	90.550	91.280	6985.66	Projection to Bit	