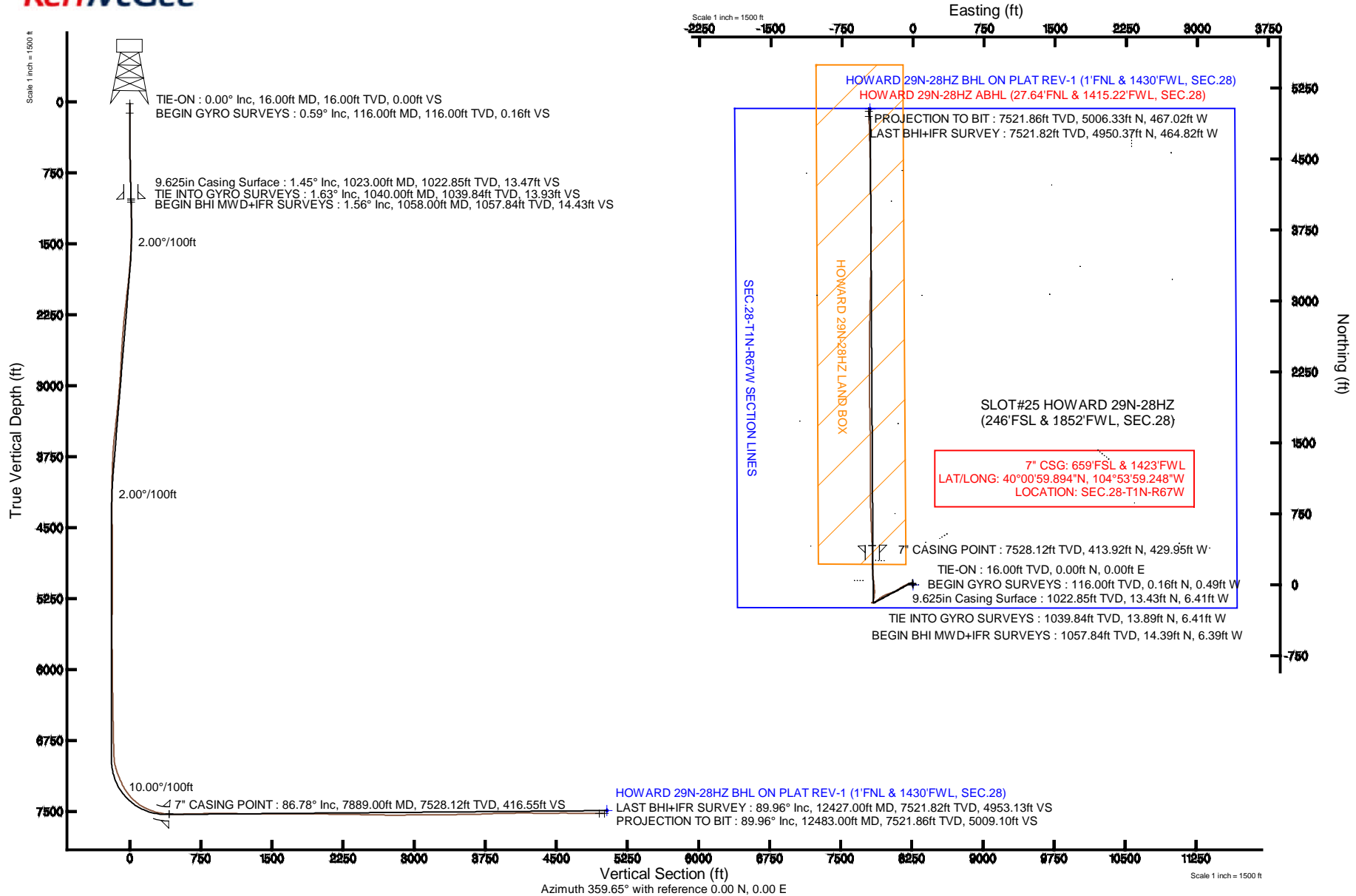


KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#25 HOWARD 29N-28HZ (246'FSL & 1852'FWL, SEC.28)
 Field: WELD COUNTY (KERR MCGEE) Well: HOWARD 29N-28HZ
 Facility: SEC.28-T1N-R67W Wellbore: HOWARD 29N-28HZ PWB

Plot reference wellpath is HOWARD 29N-28HZ (REV-A.0) PWP

True vertical depths are referenced to XTREME 24 (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to XTREME 24 (RKB)	North Reference: True north
XTREME 24 (RKB) to Mean Sea Level: 5036 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#25 HOWARD 29N-28HZ (246'FSL & 1852'FWL, SEC.28)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: rbiabe01 on 11/Oct/2013





Actual Wellpath Report

HOWARD 29N-28HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#25 HOWARD 29N-28HZ (246'FSL & 1852'FWL, SEC.28)
Area	COLORADO	Well	HOWARD 29N-28HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HOWARD 29N-28HZ AWB
Facility	SEC.28-T1N-R67W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.0.0
North Reference	True	User	Robiale01
Scale	0.999965	Report Generated	11/Oct/2013 at 11:46
Convergence at slot	n/a	Database/Source file	WA_ANADARKO/HOWARD_29N-28HZ_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	1411917.39	2715157.91	3168541.10	1249065.34	40°00'55.804"N	104°53'53.722"W
Facility Reference Pt			316923.76	121463.46	36°32'36.656"N	114°37'52.006"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 24 (RKB) to Facility Vertical Datum	5036.00ft
Horizontal Reference Pt	Slot	XTREME 24 (RKB) to Mean Sea Level	5036.00ft
Vertical Reference Pt	XTREME 24 (RKB)	XTREME 24 (RKB) to Mud Line at Slot (SLOT#25 HOWARD 29N-28HZ (246'FSL & 1852'FWL, SEC.28))	5036.00ft
MD Reference Pt	XTREME 24 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	354.67°



Actual Wellpath Report

HOWARD 29N-28HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#25 HOWARD 29N-28HZ (246'FSL & 1852'FWL, SEC.28)
Area	COLORADO	Well	HOWARD 29N-28HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HOWARD 29N-28HZ AWB
Facility	SEC.28-T1N-R67W		

WELLPATH DATA (130 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	288.320	0.00	0.00	0.00	0.00	40°00'55.804"N	104°53'53.722"W	0.00	
16.00	0.000	288.320	16.00	0.00	0.00	0.00	40°00'55.804"N	104°53'53.722"W	0.00	TIE-ON
116.00	0.590	288.320	116.00	0.21	0.16	-0.49	40°00'55.806"N	104°53'53.728"W	0.59	BEGIN GYRO SURVEYS
216.00	0.440	300.100	215.99	0.64	0.52	-1.31	40°00'55.809"N	104°53'53.739"W	0.18	
316.00	0.580	299.850	315.99	1.15	0.96	-2.08	40°00'55.813"N	104°53'53.749"W	0.14	
416.00	0.840	318.090	415.98	2.03	1.76	-3.01	40°00'55.821"N	104°53'53.761"W	0.34	
516.00	0.920	332.360	515.97	3.36	3.01	-3.87	40°00'55.834"N	104°53'53.772"W	0.23	
616.00	1.010	327.760	615.96	4.89	4.47	-4.71	40°00'55.848"N	104°53'53.783"W	0.12	
716.00	1.280	341.540	715.94	6.76	6.28	-5.54	40°00'55.866"N	104°53'53.793"W	0.38	
816.00	1.190	349.380	815.91	8.89	8.36	-6.08	40°00'55.887"N	104°53'53.800"W	0.19	
916.00	1.540	356.050	915.89	11.26	10.72	-6.37	40°00'55.910"N	104°53'53.804"W	0.38	
1016.00	1.380	1.930	1015.85	13.80	13.26	-6.42	40°00'55.935"N	104°53'53.805"W	0.22	
1040.00	1.630	0.460	1039.84	14.43	13.89	-6.41	40°00'55.941"N	104°53'53.804"W	1.05	TIE INTO GYRO SURVEYS
1058.00	1.560	3.550	1057.84	14.92	14.39	-6.39	40°00'55.946"N	104°53'53.804"W	0.62	BEGIN BHI MWD+IFR SURVEYS
1089.00	1.450	357.910	1088.83	15.73	15.21	-6.38	40°00'55.954"N	104°53'53.804"W	0.59	
1183.00	2.300	294.480	1182.78	17.86	17.18	-8.14	40°00'55.974"N	104°53'53.827"W	2.23	
1277.00	4.380	272.040	1276.62	19.26	18.09	-13.44	40°00'55.983"N	104°53'53.895"W	2.57	
1372.00	5.540	256.140	1371.27	19.04	17.12	-21.52	40°00'55.973"N	104°53'53.999"W	1.88	
1465.00	6.550	257.140	1463.75	17.68	14.86	-31.05	40°00'55.951"N	104°53'54.121"W	1.09	
1560.00	8.080	253.680	1557.98	15.70	11.78	-42.74	40°00'55.920"N	104°53'54.271"W	1.68	
1654.00	8.940	244.850	1650.94	11.96	6.82	-55.69	40°00'55.871"N	104°53'54.438"W	1.66	
1748.00	10.620	244.740	1743.58	6.53	0.02	-70.14	40°00'55.804"N	104°53'54.623"W	1.79	
1842.00	12.230	241.090	1835.71	-0.41	-8.49	-86.69	40°00'55.720"N	104°53'54.836"W	1.88	
1937.00	12.100	239.170	1928.58	-8.72	-18.46	-104.05	40°00'55.622"N	104°53'55.059"W	0.45	
2031.00	12.150	237.360	2020.48	-17.50	-28.85	-120.84	40°00'55.519"N	104°53'55.275"W	0.41	
2123.00	11.570	236.350	2110.52	-26.32	-39.18	-136.67	40°00'55.417"N	104°53'55.479"W	0.67	
2214.00	11.690	234.520	2199.65	-35.28	-49.59	-151.77	40°00'55.314"N	104°53'55.673"W	0.43	
2305.00	11.130	236.170	2288.85	-44.10	-59.83	-166.58	40°00'55.213"N	104°53'55.863"W	0.71	
2396.00	10.780	245.340	2378.20	-51.11	-68.27	-181.61	40°00'55.129"N	104°53'56.056"W	1.95	
2487.00	10.220	245.070	2467.67	-56.63	-75.22	-196.66	40°00'55.061"N	104°53'56.250"W	0.62	
2578.00	10.980	249.810	2557.12	-61.56	-81.62	-212.12	40°00'54.997"N	104°53'56.448"W	1.27	
2669.00	10.500	251.760	2646.53	-65.64	-87.20	-228.13	40°00'54.942"N	104°53'56.654"W	0.66	
2761.00	10.440	255.620	2737.00	-68.82	-91.90	-244.16	40°00'54.896"N	104°53'56.860"W	0.77	
2852.00	10.780	252.640	2826.44	-71.89	-96.48	-260.27	40°00'54.850"N	104°53'57.067"W	0.71	
2942.00	11.450	245.600	2914.76	-76.57	-102.69	-276.44	40°00'54.789"N	104°53'57.275"W	1.68	
3034.00	10.270	246.710	3005.11	-82.08	-109.70	-292.29	40°00'54.720"N	104°53'57.479"W	1.30	
3125.00	10.680	242.680	3094.59	-87.74	-116.78	-307.24	40°00'54.650"N	104°53'57.671"W	0.92	
3217.00	11.050	236.750	3184.95	-95.06	-125.53	-322.18	40°00'54.563"N	104°53'57.863"W	1.28	
3309.00	10.270	237.200	3275.36	-102.97	-134.80	-336.45	40°00'54.472"N	104°53'58.046"W	0.85	
3400.00	9.960	233.280	3364.95	-110.81	-143.90	-349.58	40°00'54.382"N	104°53'58.215"W	0.83	
3492.00	10.200	227.080	3455.53	-119.92	-154.21	-361.92	40°00'54.280"N	104°53'58.374"W	1.21	
3583.00	9.450	226.740	3545.19	-129.43	-164.81	-373.26	40°00'54.175"N	104°53'58.519"W	0.83	
3676.00	7.970	234.700	3637.12	-137.35	-173.77	-384.08	40°00'54.087"N	104°53'58.658"W	2.05	
3769.00	5.560	239.660	3729.47	-142.47	-179.78	-393.24	40°00'54.027"N	104°53'58.776"W	2.66	
3862.00	4.640	241.160	3822.10	-145.88	-183.87	-400.42	40°00'53.987"N	104°53'58.868"W	1.00	



Actual Wellpath Report

HOWARD 29N-28HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#25 HOWARD 29N-28HZ (246'FSL & 1852'FWL, SEC.28)
Area	COLORADO	Well	HOWARD 29N-28HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HOWARD 29N-28HZ AWB
Facility	SEC.28-T1N-R67W		

WELLPATH DATA (130 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3955.00	4.340	245.350	3914.81	-148.54	-187.15	-406.91	40°00'53.955"N	104°53'58.952"W	0.48	
4049.00	3.860	255.350	4008.57	-150.23	-189.43	-413.21	40°00'53.932"N	104°53'59.033"W	0.91	
4142.00	3.770	251.160	4101.37	-151.45	-191.21	-419.13	40°00'53.914"N	104°53'59.109"W	0.31	
4236.00	2.390	279.470	4195.23	-151.68	-191.89	-423.99	40°00'53.908"N	104°53'59.171"W	2.14	
4422.00	2.790	290.710	4381.05	-148.70	-189.65	-432.05	40°00'53.930"N	104°53'59.275"W	0.35	
4609.00	1.690	352.840	4567.92	-143.94	-185.30	-436.65	40°00'53.973"N	104°53'59.334"W	1.33	
4703.00	1.250	82.560	4661.90	-142.52	-183.79	-435.80	40°00'53.988"N	104°53'59.323"W	2.23	
4787.00	0.880	107.390	4745.89	-142.73	-183.87	-434.28	40°00'53.987"N	104°53'59.304"W	0.69	
4957.00	0.730	152.290	4915.87	-144.24	-185.22	-432.53	40°00'53.974"N	104°53'59.281"W	0.37	
5128.00	0.530	117.230	5086.86	-145.67	-186.54	-431.32	40°00'53.960"N	104°53'59.266"W	0.25	
5468.00	0.920	109.530	5426.84	-147.67	-188.17	-427.35	40°00'53.944"N	104°53'59.215"W	0.12	
5810.00	0.900	70.550	5768.80	-148.17	-188.20	-422.23	40°00'53.944"N	104°53'59.149"W	0.18	
6151.00	0.830	22.670	6109.76	-145.33	-185.03	-418.75	40°00'53.975"N	104°53'59.104"W	0.21	
6492.00	1.050	352.670	6450.72	-140.03	-179.65	-418.20	40°00'54.029"N	104°53'59.097"W	0.16	
6894.00	1.460	332.180	6852.62	-131.62	-171.47	-421.06	40°00'54.109"N	104°53'59.134"W	0.15	
6918.00	1.560	336.490	6876.61	-131.02	-170.90	-421.33	40°00'54.115"N	104°53'59.137"W	0.63	
7004.00	6.460	15.290	6962.39	-125.38	-165.15	-420.52	40°00'54.172"N	104°53'59.127"W	6.20	
7046.00	12.380	21.990	7003.80	-119.16	-158.69	-418.21	40°00'54.236"N	104°53'59.097"W	14.31	
7089.00	17.270	18.630	7045.36	-109.23	-148.36	-414.45	40°00'54.338"N	104°53'59.049"W	11.54	
7131.00	19.950	13.250	7085.16	-96.73	-135.48	-410.81	40°00'54.465"N	104°53'59.002"W	7.57	
7174.00	21.780	5.010	7125.35	-81.93	-120.39	-408.43	40°00'54.614"N	104°53'58.971"W	8.03	
7217.00	23.940	3.090	7164.97	-65.45	-103.73	-407.26	40°00'54.779"N	104°53'58.956"W	5.31	
7259.00	25.710	1.550	7203.09	-47.97	-86.11	-406.56	40°00'54.953"N	104°53'58.947"W	4.49	
7302.00	28.620	358.720	7241.34	-28.44	-66.48	-406.54	40°00'55.147"N	104°53'58.947"W	7.40	
7344.00	32.160	356.240	7277.57	-7.22	-45.27	-407.49	40°00'55.357"N	104°53'58.959"W	8.94	
7387.00	37.420	354.090	7312.87	17.30	-20.83	-409.59	40°00'55.598"N	104°53'58.986"W	12.56	
7429.00	42.550	353.090	7345.04	44.28	5.98	-412.62	40°00'55.863"N	104°53'59.025"W	12.31	
7472.00	45.140	353.680	7376.05	74.05	35.56	-416.04	40°00'56.155"N	104°53'59.069"W	6.10	
7514.00	50.960	354.060	7404.11	105.27	66.61	-419.37	40°00'56.462"N	104°53'59.112"W	13.87	
7557.00	57.410	355.410	7429.26	140.12	101.31	-422.55	40°00'56.805"N	104°53'59.153"W	15.21	
7599.00	61.380	356.130	7450.64	176.26	137.35	-425.22	40°00'57.161"N	104°53'59.187"W	9.57	
7642.00	64.520	358.590	7470.20	214.50	175.60	-426.97	40°00'57.539"N	104°53'59.210"W	8.90	
7684.00	68.070	359.140	7487.08	252.85	214.04	-427.73	40°00'57.919"N	104°53'59.219"W	8.54	
7727.00	72.980	0.390	7501.41	293.21	254.57	-427.89	40°00'58.320"N	104°53'59.221"W	11.74	
7769.00	77.380	359.640	7512.15	333.63	295.16	-427.88	40°00'58.721"N	104°53'59.221"W	10.62	
7812.00	80.810	359.610	7520.29	375.69	337.38	-428.15	40°00'59.138"N	104°53'59.225"W	7.98	
7853.00	84.710	358.470	7525.45	416.24	378.04	-428.84	40°00'59.540"N	104°53'59.234"W	9.90	
7889.00†	86.784	357.992	7528.12	452.07	413.92	-429.95	40°00'59.894"N	104°53'59.248"W	5.91	7" CASING POINT
7958.00	90.760	357.080	7529.60	520.95	482.83	-432.91	40°01'00.575"N	104°53'59.286"W	5.91	
8043.00	91.230	357.110	7528.13	605.86	567.70	-437.22	40°01'01.414"N	104°53'59.342"W	0.55	
8129.00	90.950	357.590	7526.49	691.75	653.60	-441.19	40°01'02.263"N	104°53'59.393"W	0.65	
8214.00	92.030	358.120	7524.28	776.59	738.51	-444.37	40°01'03.102"N	104°53'59.434"W	1.42	
8299.00	91.350	358.470	7521.77	861.38	823.43	-446.90	40°01'03.941"N	104°53'59.466"W	0.90	
8384.00	90.550	359.500	7520.36	946.13	908.40	-448.41	40°01'04.781"N	104°53'59.485"W	1.53	
8469.00	89.070	359.900	7520.64	1030.80	993.40	-448.85	40°01'05.621"N	104°53'59.491"W	1.80	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#25 HOWARD 29N-28HZ (246'FSL & 1852'FWL, SEC.28)
Area	COLORADO	Well	HOWARD 29N-28HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HOWARD 29N-28HZ AWB
Facility	SEC.28-T1N-R67W		

WELLPATH DATA (130 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8554.00	89.010	359.940	7522.07	1115.43	1078.39	-448.97	40°01'06.461"N	104°53'59.493"W	0.08	
8639.00	88.980	359.680	7523.56	1200.07	1163.37	-449.25	40°01'07.301"N	104°53'59.496"W	0.31	
8724.00	89.560	359.940	7524.64	1284.72	1248.37	-449.54	40°01'08.141"N	104°53'59.500"W	0.75	
8810.00	89.470	0.010	7525.37	1370.35	1334.36	-449.57	40°01'08.991"N	104°53'59.500"W	0.13	
8895.00	89.810	359.970	7525.90	1454.98	1419.36	-449.59	40°01'09.831"N	104°53'59.501"W	0.40	
8980.00	89.930	359.470	7526.10	1539.65	1504.36	-450.00	40°01'10.670"N	104°53'59.506"W	0.60	
9065.00	89.560	359.000	7526.48	1624.38	1589.35	-451.14	40°01'11.510"N	104°53'59.521"W	0.70	
9151.00	89.840	359.050	7526.93	1710.13	1675.34	-452.60	40°01'12.360"N	104°53'59.539"W	0.33	
9236.00	90.860	358.230	7526.41	1794.93	1760.31	-454.62	40°01'13.200"N	104°53'59.565"W	1.54	
9321.00	89.720	359.340	7525.98	1879.70	1845.29	-456.42	40°01'14.040"N	104°53'59.589"W	1.87	
9406.00	89.810	358.950	7526.33	1964.44	1930.28	-457.69	40°01'14.880"N	104°53'59.605"W	0.47	
9492.00	89.260	359.650	7527.02	2050.16	2016.27	-458.74	40°01'15.729"N	104°53'59.618"W	1.04	
9577.00	89.100	359.150	7528.24	2134.86	2101.25	-459.63	40°01'16.569"N	104°53'59.630"W	0.62	
9662.00	88.920	359.010	7529.71	2219.60	2186.23	-460.99	40°01'17.409"N	104°53'59.647"W	0.27	
9747.00	89.220	0.160	7531.09	2304.27	2271.21	-461.61	40°01'18.249"N	104°53'59.655"W	1.40	
9833.00	89.290	359.960	7532.21	2389.88	2357.21	-461.52	40°01'19.099"N	104°53'59.654"W	0.25	
9918.00	88.980	0.570	7533.49	2474.47	2442.20	-461.13	40°01'19.938"N	104°53'59.649"W	0.80	
10003.00	88.490	0.580	7535.37	2559.00	2527.17	-460.27	40°01'20.778"N	104°53'59.638"W	0.58	
10088.00	89.290	0.570	7537.01	2643.53	2612.15	-459.42	40°01'21.618"N	104°53'59.627"W	0.94	
10173.00	88.850	0.940	7538.39	2728.04	2697.13	-458.30	40°01'22.458"N	104°53'59.613"W	0.68	
10258.00	90.120	1.060	7539.16	2812.52	2782.11	-456.82	40°01'23.298"N	104°53'59.594"W	1.50	
10343.00	90.640	1.090	7538.59	2896.98	2867.10	-455.22	40°01'24.137"N	104°53'59.573"W	0.61	
10428.00	90.860	1.610	7537.48	2981.40	2952.06	-453.22	40°01'24.977"N	104°53'59.548"W	0.66	
10513.00	90.430	1.200	7536.52	3065.81	3037.03	-451.14	40°01'25.817"N	104°53'59.521"W	0.70	
10598.00	90.430	1.100	7535.89	3150.26	3122.01	-449.43	40°01'26.657"N	104°53'59.499"W	0.12	
10683.00	90.030	1.210	7535.54	3234.72	3206.99	-447.72	40°01'27.496"N	104°53'59.477"W	0.49	
10768.00	91.040	1.390	7534.75	3319.14	3291.97	-445.79	40°01'28.336"N	104°53'59.452"W	1.21	
10853.00	90.400	1.150	7533.68	3403.57	3376.94	-443.91	40°01'29.176"N	104°53'59.428"W	0.80	
10938.00	90.520	0.210	7533.00	3488.10	3461.93	-442.90	40°01'30.016"N	104°53'59.415"W	1.11	
11023.00	91.130	359.960	7531.78	3572.71	3546.92	-442.77	40°01'30.856"N	104°53'59.414"W	0.78	
11108.00	90.830	0.650	7530.32	3657.29	3631.91	-442.32	40°01'31.696"N	104°53'59.408"W	0.89	
11278.00	93.140	359.730	7524.43	3826.39	3801.79	-441.75	40°01'33.374"N	104°53'59.401"W	1.46	
11449.00	90.550	358.980	7518.93	3996.71	3972.68	-443.68	40°01'35.063"N	104°53'59.425"W	1.58	
11619.00	90.150	358.990	7517.89	4166.23	4142.65	-446.69	40°01'36.743"N	104°53'59.464"W	0.24	
11789.00	89.260	359.670	7518.77	4335.66	4312.63	-448.68	40°01'38.423"N	104°53'59.490"W	0.66	
11960.00	90.860	358.730	7518.59	4506.12	4483.60	-451.07	40°01'40.112"N	104°53'59.520"W	1.09	
12130.00	89.010	358.130	7518.78	4675.74	4653.53	-455.72	40°01'41.792"N	104°53'59.580"W	1.14	
12300.00	89.410	358.520	7521.12	4845.38	4823.44	-460.69	40°01'43.471"N	104°53'59.644"W	0.33	
12427.00	89.960	357.750	7521.82	4972.15	4950.37	-464.82	40°01'44.725"N	104°53'59.697"W	0.75	LAST BHI+IFR SURVEY
12483.00	89.960	357.750	7521.86	5028.07	5006.33	-467.02	40°01'45.278"N	104°53'59.726"W	0.00	PROJECTION TO BIT

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#25 HOWARD 29N-28HZ (246'FSL & 1852'FWL, SEC.28)
Area	COLORADO	Well	HOWARD 29N-28HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HOWARD 29N-28HZ AWB
Facility	SEC.28-T1N-R67W		

HOLE & CASING SECTIONS - Ref Wellbore: HOWARD 29N-28HZ AWB Ref Wellpath: HOWARD 29N-28HZ 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	1023.00	1007.00	16.00	1022.85	0.00	0.00	13.43	-6.41
9.625in Casing Surface	16.00	1023.00	1007.00	16.00	1022.85	0.00	0.00	13.43	-6.41
8.75in Open Hole	1023.00	7908.00	6885.00	1022.85	7529.01	13.43	-6.41	432.89	-430.65
7in Casing Intermediate	16.00	7889.00	7873.00	16.00	7528.12	0.00	0.00	413.92	-429.95
6.125in Open Hole	7908.00	12483.00	4575.00	7529.01	7521.86	432.89	-430.65	5006.33	-467.02

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.28-T1N-R67W SECTION LINES		5036.00	4725.94	2303.70	3170812.59	1253806.63	40°01'42.506"N	104°53'24.108"W	polygon
HOWARD 29N-28HZ BHL ON PLAT REV-1 (1'FNL & 1430'FWL, SEC.28)		7491.00	5032.97	-452.24	3168054.74	1254094.94	40°01'45.541"N	104°53'59.536"W	point
HOWARD 29N-28HZ LAND BOX		7500.00	0.00	0.00	3168541.10	1249065.34	40°00'55.804"N	104°53'53.722"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: HOWARD 29N-28HZ AWB Ref Wellpath: HOWARD 29N-28HZ AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	1040.00	Generic gyro - continuous (Standard)	MS GYRODATA SURVEYS <116-1040>	HOWARD 29N-28HZ AWB
1040.00	7853.00	NaviTrak (MAGCORR,IFR)	BHI MWD+IFR SURVEYS 8 3/4" HOLE <1058-7853>	HOWARD 29N-28HZ AWB
7853.00	12427.00	OnTrak (MAGCORR,IFR)	BHI MWD+IFR SURVEYS 6 1/8" HOLE <7958-124727>	HOWARD 29N-28HZ AWB
12427.00	12483.00	Blind Drilling (std)	Projection to bit	HOWARD 29N-28HZ AWB



Actual Wellpath Report

HOWARD 29N-28HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#25 HOWARD 29N-28HZ (246'FSL & 1852'FWL, SEC.28)
Area	COLORADO	Well	HOWARD 29N-28HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HOWARD 29N-28HZ AWB
Facility	SEC.28-T1N-R67W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
16.00	0.000	288.320	16.00	TIE-ON
116.00	0.590	288.320	116.00	BEGIN GYRO SURVEYS
1040.00	1.630	0.460	1039.84	TIE INTO GYRO SURVEYS
1058.00	1.560	3.550	1057.84	BEGIN BHI MWD+IFR SURVEYS
7889.00	86.784	357.992	7528.12	7" CASING POINT
12427.00	89.960	357.750	7521.82	LAST BHI+IFR SURVEY
12483.00	89.960	357.750	7521.86	PROJECTION TO BIT