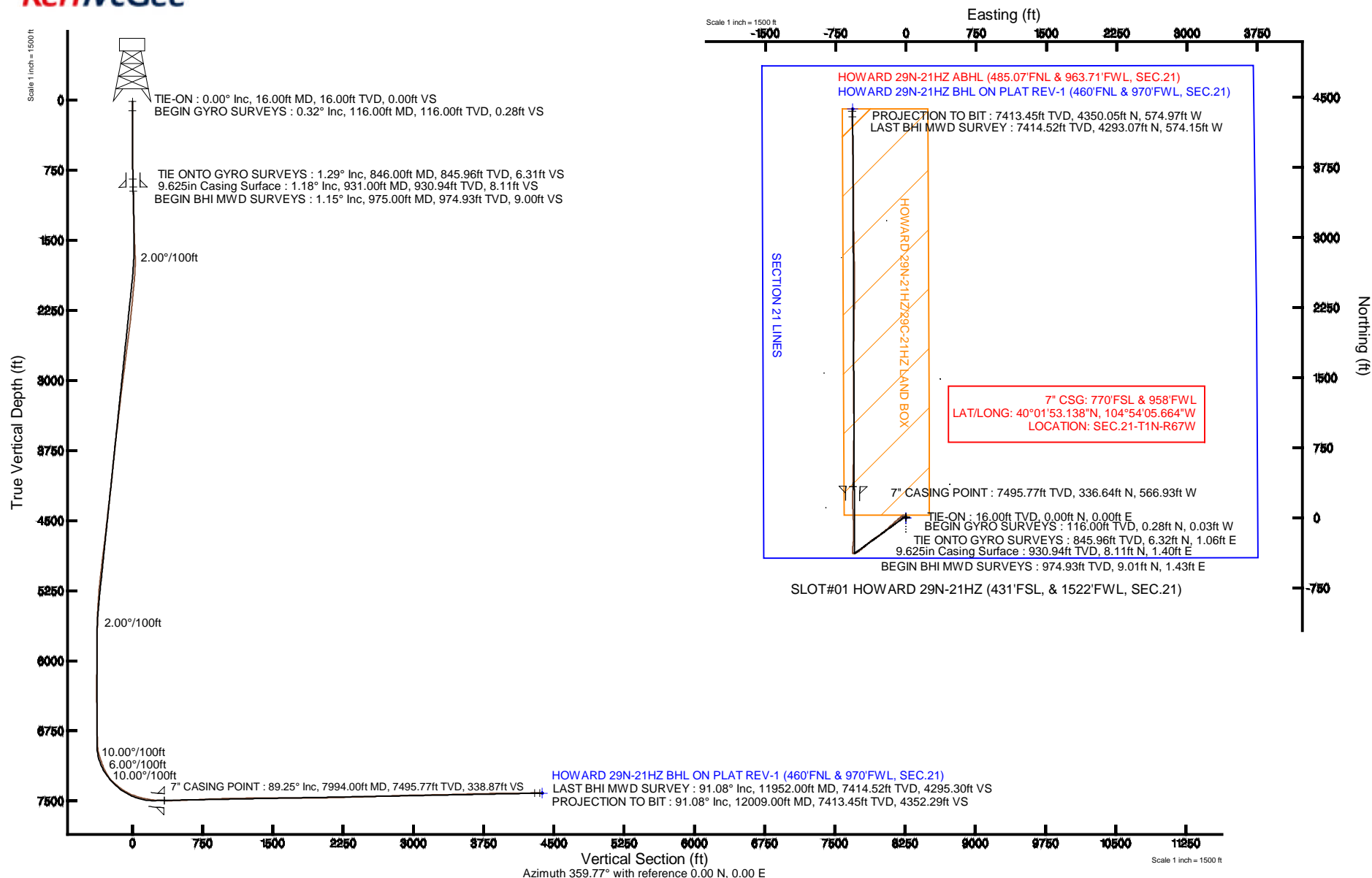


KERR-MCGEE OIL & GAS ONSHORE LP

Location:	COLORADO	Slot:	SLOT#01 HOWARD 29N-21HZ (431'FSL, & 1522'FWL, SEC.21)
Field:	WELD COUNTY (KERR MCGEE)	Well:	HOWARD 29N-21HZ
Facility:	SEC.21-T1N-R67W	Wellbore:	HOWARD 29N-21HZ PWB

Plot reference wellpath is HOWARD 29N-21HZ (REV-B.0) PWP	
True vertical depths are referenced to XTREME 6 (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to XTREME 6 (RKB)	North Reference: True north
XTREME 6 (RKB) to Mean Sea Level: 5041 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOTR01 HOWARD 29N-21HZ (431'FSL, & 1522'FWL, SEC.21)): 0 feet	Depths are in feet
Coordinates are in feet referenced to SLOT	Created by: robaleo1 on 15/Oct/2013



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 HOWARD 29N-21HZ (431'FSL, & 1522'FWL, SEC.21)
Area	COLORADO	Well	HOWARD 29N-21HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HOWARD 29N-21HZ AWB
Facility	SEC.21-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	0.999964	Report Generated	15/Oct/2013 at 10:10
Convergence at slot	n/a	Database/Source file	WA_ANADARKO/HOWARD_29N-21HZ_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-0.10	0.00	3168142.01	1254527.59	40°01'49.811"N	104°53'58.376"W
Facility Reference Pt			3168142.01	1254527.69	40°01'49.812"N	104°53'58.376"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 6 (RKB) to Facility Vertical Datum	5041.00ft
Horizontal Reference Pt	Slot	XTREME 6 (RKB) to Mean Sea Level	5041.00ft
Vertical Reference Pt	XTREME 6 (RKB)	XTREME 6 (RKB) to Mud Line at Slot (SLOT#01 HOWARD 29N-21HZ (431'FSL, & 1522'FWL, SEC.21))	5041.00ft
MD Reference Pt	XTREME 6 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	352.47°

Actual Wellpath Report

HOWARD 29N-21HZ AWP

Page 2 of 6

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 HOWARD 29N-21HZ (431'FSL, & 1522'FWL, SEC.21)
Area	COLORADO	Well	HOWARD 29N-21HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HOWARD 29N-21HZ AWB
Facility	SEC.21-T1N-R67W		

WELLPATH DATA (114 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	353.280	0.00	0.00	0.00	0.00	40°01'49.811"N	104°53'58.376"W	0.00	
16.00	0.000	353.280	16.00	0.00	0.00	0.00	40°01'49.811"N	104°53'58.376"W	0.00	TIE-ON
116.00	0.320	353.280	116.00	0.28	0.28	-0.03	40°01'49.814"N	104°53'58.376"W	0.32	BEGIN GYRO SURVEYS
216.00	0.100	262.450	216.00	0.56	0.54	-0.15	40°01'49.816"N	104°53'58.378"W	0.34	
316.00	0.320	16.650	316.00	0.81	0.80	-0.16	40°01'49.819"N	104°53'58.378"W	0.37	
416.00	0.220	355.030	416.00	1.26	1.26	-0.09	40°01'49.823"N	104°53'58.377"W	0.14	
516.00	0.370	19.040	516.00	1.74	1.75	-0.01	40°01'49.828"N	104°53'58.376"W	0.19	
616.00	0.630	8.320	615.99	2.56	2.60	0.18	40°01'49.837"N	104°53'58.374"W	0.28	
716.00	1.000	11.710	715.98	3.91	4.00	0.44	40°01'49.851"N	104°53'58.370"W	0.37	
816.00	1.050	17.400	815.97	5.57	5.73	0.89	40°01'49.868"N	104°53'58.365"W	0.11	
846.00	1.290	16.160	845.96	6.12	6.32	1.06	40°01'49.873"N	104°53'58.362"W	0.80	TIE ONTO GYRO SURVEYS
975.00	1.150	358.260	974.93	8.74	9.01	1.43	40°01'49.900"N	104°53'58.358"W	0.31	BEGIN BHI MWD SURVEYS
1067.00	1.130	358.650	1066.91	10.56	10.84	1.38	40°01'49.918"N	104°53'58.358"W	0.02	
1159.00	1.180	357.460	1158.89	12.41	12.69	1.31	40°01'49.936"N	104°53'58.359"W	0.06	
1251.00	1.270	358.360	1250.87	14.37	14.65	1.24	40°01'49.956"N	104°53'58.360"W	0.10	
1344.00	1.220	358.530	1343.85	16.38	16.67	1.19	40°01'49.976"N	104°53'58.361"W	0.05	
1435.00	3.090	316.230	1434.79	19.32	19.41	-0.53	40°01'50.003"N	104°53'58.383"W	2.57	
1526.00	4.240	315.360	1525.60	23.98	23.58	-4.59	40°01'50.044"N	104°53'58.435"W	1.27	
1618.00	4.480	301.440	1617.34	28.95	27.87	-10.05	40°01'50.086"N	104°53'58.505"W	1.18	
1708.00	5.840	274.480	1706.98	32.11	30.07	-17.61	40°01'50.108"N	104°53'58.602"W	3.05	
1800.00	6.670	251.270	1798.45	32.05	28.71	-27.34	40°01'50.095"N	104°53'58.727"W	2.87	
1891.00	6.730	229.220	1888.84	28.10	23.53	-36.39	40°01'50.044"N	104°53'58.844"W	2.81	
1952.00	7.760	228.110	1949.35	23.82	18.45	-42.16	40°01'49.993"N	104°53'58.918"W	1.70	
2038.00	8.060	227.960	2034.54	17.12	10.54	-50.96	40°01'49.915"N	104°53'59.031"W	0.35	
2122.00	8.400	230.480	2117.67	10.54	2.69	-60.07	40°01'49.838"N	104°53'59.148"W	0.59	
2207.00	8.750	233.520	2201.72	4.12	-5.11	-70.05	40°01'49.761"N	104°53'59.277"W	0.67	
2293.00	9.560	228.900	2286.63	-3.00	-13.69	-80.69	40°01'49.676"N	104°53'59.413"W	1.27	
2378.00	10.460	229.370	2370.33	-11.12	-23.36	-91.87	40°01'49.580"N	104°53'59.557"W	1.06	
2549.00	11.140	229.420	2538.30	-28.60	-44.21	-116.20	40°01'49.374"N	104°53'59.870"W	0.40	
2719.00	10.140	229.390	2705.38	-45.73	-64.63	-140.03	40°01'49.172"N	104°54'00.176"W	0.59	
2890.00	10.840	226.520	2873.52	-63.38	-85.50	-163.13	40°01'48.966"N	104°54'00.473"W	0.51	
3060.00	11.280	228.680	3040.36	-82.02	-107.47	-187.21	40°01'48.749"N	104°54'00.783"W	0.36	
3230.00	9.240	225.700	3207.63	-99.43	-127.99	-209.47	40°01'48.546"N	104°54'01.069"W	1.24	
3401.00	11.120	233.810	3375.94	-115.56	-147.31	-232.61	40°01'48.355"N	104°54'01.366"W	1.38	
3571.00	11.090	230.780	3542.76	-132.02	-167.33	-258.50	40°01'48.157"N	104°54'01.699"W	0.34	
3741.00	9.610	232.230	3709.99	-147.75	-186.36	-282.39	40°01'47.969"N	104°54'02.006"W	0.88	
3912.00	10.900	237.140	3878.26	-161.86	-203.88	-307.25	40°01'47.796"N	104°54'02.326"W	0.91	
4082.00	11.000	239.330	4045.17	-175.11	-220.87	-334.71	40°01'47.628"N	104°54'02.679"W	0.25	
4253.00	10.550	233.470	4213.16	-189.11	-238.51	-361.32	40°01'47.454"N	104°54'03.021"W	0.69	
4423.00	11.000	231.180	4380.16	-205.08	-257.94	-386.46	40°01'47.262"N	104°54'03.344"W	0.37	
4593.00	9.690	230.230	4547.39	-221.14	-277.26	-410.09	40°01'47.071"N	104°54'03.648"W	0.78	
4764.00	9.870	237.380	4715.91	-237.24	-296.39	-431.94	40°01'46.882"N	104°54'03.929"W	0.30	
4934.00	11.080	230.030	4883.07	-254.38	-316.75	-455.18	40°01'46.681"N	104°54'04.227"W	0.77	
5019.00	11.040	229.800	4966.49	-263.15	-327.25	-467.66	40°01'46.577"N	104°54'04.388"W	0.07	
5104.00	10.180	229.900	5050.04	-271.59	-337.35	-479.62	40°01'46.477"N	104°54'04.542"W	1.01	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 HOWARD 29N-21HZ (431'FSL, & 1522'FWL, SEC.21)
Area	COLORADO	Well	HOWARD 29N-21HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HOWARD 29N-21HZ AWB
Facility	SEC.21-T1N-R67W		

WELLPATH DATA (114 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5190.00	9.360	228.980	5134.79	-279.54	-346.83	-490.71	40°01'46.383"N	104°54'04.684"W	0.97	
5275.00	8.580	232.460	5218.75	-286.53	-355.23	-500.95	40°01'46.300"N	104°54'04.816"W	1.12	
5360.00	7.310	239.530	5302.94	-291.81	-361.84	-510.64	40°01'46.235"N	104°54'04.940"W	1.88	
5445.00	6.970	239.380	5387.28	-295.94	-367.21	-519.74	40°01'46.182"N	104°54'05.057"W	0.40	
5530.00	5.400	238.480	5471.78	-299.59	-371.92	-527.59	40°01'46.135"N	104°54'05.158"W	1.85	
5614.00	4.210	242.710	5555.48	-302.23	-375.41	-533.70	40°01'46.101"N	104°54'05.237"W	1.48	
5699.00	3.050	262.960	5640.31	-303.27	-377.11	-538.72	40°01'46.084"N	104°54'05.301"W	2.01	
5784.00	2.620	266.770	5725.21	-303.11	-377.50	-542.90	40°01'46.080"N	104°54'05.355"W	0.55	
5869.00	2.550	272.700	5810.12	-302.62	-377.52	-546.73	40°01'46.080"N	104°54'05.404"W	0.33	
5958.00	2.050	233.270	5899.06	-303.05	-378.38	-549.98	40°01'46.072"N	104°54'05.446"W	1.82	
6044.00	1.630	231.350	5985.01	-304.43	-380.06	-552.17	40°01'46.055"N	104°54'05.474"W	0.49	
6214.00	1.040	243.560	6154.97	-306.18	-382.26	-555.44	40°01'46.033"N	104°54'05.516"W	0.38	
6383.00	1.040	275.560	6323.94	-306.33	-382.79	-558.34	40°01'46.028"N	104°54'05.554"W	0.34	
6553.00	1.400	295.740	6493.90	-304.84	-381.74	-561.75	40°01'46.038"N	104°54'05.597"W	0.33	
6724.00	1.430	308.500	6664.85	-302.16	-379.51	-565.30	40°01'46.061"N	104°54'05.643"W	0.18	
6894.00	1.370	324.130	6834.80	-298.85	-376.54	-568.15	40°01'46.090"N	104°54'05.680"W	0.23	
6937.00	1.470	323.440	6877.79	-297.91	-375.68	-568.78	40°01'46.098"N	104°54'05.688"W	0.24	
6979.00	5.080	352.290	6919.71	-295.58	-373.40	-569.35	40°01'46.121"N	104°54'05.695"W	9.19	
7022.00	10.930	359.630	6962.28	-289.63	-367.44	-569.63	40°01'46.180"N	104°54'05.699"W	13.78	
7064.00	16.220	1.360	7003.09	-279.87	-357.58	-569.52	40°01'46.277"N	104°54'05.697"W	12.63	
7107.00	17.150	2.600	7044.28	-267.70	-345.25	-569.09	40°01'46.399"N	104°54'05.692"W	2.32	
7150.00	19.700	359.830	7085.07	-254.27	-331.66	-568.82	40°01'46.533"N	104°54'05.688"W	6.27	
7192.00	21.350	2.820	7124.40	-239.72	-316.95	-568.47	40°01'46.679"N	104°54'05.684"W	4.65	
7235.00	23.880	4.850	7164.10	-223.52	-300.45	-567.34	40°01'46.842"N	104°54'05.669"W	6.16	
7277.00	29.180	6.290	7201.66	-205.26	-281.79	-565.50	40°01'47.026"N	104°54'05.646"W	12.71	
7320.00	35.520	6.090	7237.97	-182.92	-258.93	-563.03	40°01'47.252"N	104°54'05.614"W	14.75	
7362.00	41.910	3.910	7270.72	-157.28	-232.77	-560.77	40°01'47.511"N	104°54'05.585"W	15.55	
7405.00	47.430	1.350	7301.29	-127.54	-202.59	-559.42	40°01'47.809"N	104°54'05.567"W	13.50	
7448.00	50.110	0.450	7329.63	-95.55	-170.26	-558.92	40°01'48.128"N	104°54'05.561"W	6.43	
7490.00	51.450	359.700	7356.19	-63.30	-137.72	-558.88	40°01'48.450"N	104°54'05.561"W	3.48	
7533.00	54.270	358.310	7382.15	-29.25	-103.45	-559.48	40°01'48.789"N	104°54'05.568"W	7.05	
7574.00	59.890	358.010	7404.42	4.98	-69.07	-560.59	40°01'49.128"N	104°54'05.583"W	13.72	
7616.00	65.870	356.600	7423.56	42.22	-31.75	-562.36	40°01'49.497"N	104°54'05.605"W	14.55	
7659.00	69.810	357.090	7439.78	81.92	8.01	-564.55	40°01'49.890"N	104°54'05.633"W	9.22	
7700.00	73.560	358.080	7452.66	120.68	46.89	-566.18	40°01'50.274"N	104°54'05.654"W	9.43	
7742.00	75.540	358.120	7463.85	160.96	87.35	-567.52	40°01'50.674"N	104°54'05.672"W	4.72	
7785.00	78.030	359.130	7473.68	202.58	129.19	-568.53	40°01'51.088"N	104°54'05.685"W	6.23	
7827.00	80.160	359.720	7481.62	243.51	170.43	-568.94	40°01'51.495"N	104°54'05.690"W	5.26	
7870.00	83.210	0.710	7487.84	285.67	212.97	-568.78	40°01'51.916"N	104°54'05.688"W	7.45	
7913.00	85.160	0.950	7492.20	327.99	255.75	-568.16	40°01'52.338"N	104°54'05.680"W	4.57	
7955.00	87.810	0.780	7494.77	369.46	297.66	-567.53	40°01'52.752"N	104°54'05.672"W	6.32	
7994.00†	89.248	0.956	7495.77	408.03	336.64	-566.93	40°01'53.138"N	104°54'05.664"W	3.71	7" CASING POINT
8006.00	89.690	1.010	7495.88	419.89	348.64	-566.73	40°01'53.256"N	104°54'05.662"W	3.71	
8091.00	91.070	0.930	7495.32	503.96	433.62	-565.29	40°01'54.096"N	104°54'05.643"W	1.63	
8177.00	91.940	1.090	7493.06	588.97	519.58	-563.77	40°01'54.946"N	104°54'05.624"W	1.03	

Actual Wellpath Report

HOWARD 29N-21HZ AWP

Page 4 of 6

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 HOWARD 29N-21HZ (431'FSL, & 1522'FWL, SEC.21)
Area	COLORADO	Well	HOWARD 29N-21HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HOWARD 29N-21HZ AWB
Facility	SEC.21-T1N-R67W		

WELLPATH DATA (114 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8262.00	92.410	1.420	7489.83	672.91	604.50	-561.91	40°01'55.785"N	104°54'05.600"W	0.68	
8432.00	92.770	1.010	7482.15	840.77	774.28	-558.31	40°01'57.463"N	104°54'05.554"W	0.32	
8603.00	91.530	0.040	7475.74	1009.95	945.15	-556.75	40°01'59.151"N	104°54'05.533"W	0.92	
8773.00	91.100	359.380	7471.84	1178.55	1115.10	-557.61	40°02'00.831"N	104°54'05.545"W	0.46	
8943.00	90.210	359.590	7469.89	1347.27	1285.08	-559.14	40°02'02.510"N	104°54'05.564"W	0.54	
9114.00	91.470	0.110	7467.39	1516.83	1456.06	-559.58	40°02'04.200"N	104°54'05.570"W	0.80	
9285.00	89.220	0.470	7466.36	1686.23	1627.04	-558.72	40°02'05.890"N	104°54'05.559"W	1.33	
9455.00	89.320	0.040	7468.52	1854.64	1797.03	-557.96	40°02'07.570"N	104°54'05.549"W	0.26	
9626.00	90.920	0.590	7468.16	2024.04	1968.02	-557.02	40°02'09.259"N	104°54'05.537"W	0.99	
9797.00	91.720	1.100	7464.22	2193.17	2138.95	-554.50	40°02'10.949"N	104°54'05.505"W	0.55	
9968.00	91.260	1.270	7459.78	2362.14	2309.86	-550.97	40°02'12.638"N	104°54'05.460"W	0.29	
10138.00	91.930	359.620	7455.05	2530.42	2479.78	-549.65	40°02'14.317"N	104°54'05.443"W	1.05	
10308.00	92.060	359.290	7449.13	2699.06	2649.67	-551.26	40°02'15.996"N	104°54'05.463"W	0.21	
10477.00	91.540	359.200	7443.82	2866.79	2818.57	-553.49	40°02'17.665"N	104°54'05.492"W	0.31	
10647.00	91.200	358.840	7439.76	3035.63	2988.49	-556.39	40°02'19.344"N	104°54'05.530"W	0.29	
10818.00	91.360	359.630	7435.94	3205.40	3159.44	-558.68	40°02'21.033"N	104°54'05.559"W	0.47	
10989.00	91.200	0.100	7432.12	3374.94	3330.39	-559.08	40°02'22.723"N	104°54'05.564"W	0.29	
11159.00	91.930	358.550	7427.47	3543.65	3500.31	-561.08	40°02'24.402"N	104°54'05.590"W	1.01	
11329.00	91.070	359.270	7423.02	3712.52	3670.22	-564.31	40°02'26.081"N	104°54'05.632"W	0.66	
11500.00	91.260	358.980	7419.55	3882.33	3841.16	-566.92	40°02'27.770"N	104°54'05.665"W	0.20	
11670.00	90.090	359.190	7417.54	4051.18	4011.13	-569.64	40°02'29.450"N	104°54'05.700"W	0.70	
11839.00	90.740	358.980	7416.32	4219.05	4180.10	-572.34	40°02'31.120"N	104°54'05.735"W	0.40	
11952.00	91.080	359.180	7414.52	4331.29	4293.07	-574.15	40°02'32.236"N	104°54'05.758"W	0.35	LAST BHI MWD SURVEY
12009.00	91.080	359.180	7413.45	4387.89	4350.05	-574.97	40°02'32.799"N	104°54'05.769"W	0.00	PROJECTION TO BIT

HOLE & CASING SECTIONS - Ref Wellbore: HOWARD 29N-21HZ AWB Ref Wellpath: HOWARD 29N-21HZ 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	931.00	915.00	16.00	930.94	0.00	0.00	8.11	1.40
9.625in Casing Surface	16.00	931.00	915.00	16.00	930.94	0.00	0.00	8.11	1.40
8.75in Open Hole	931.00	8003.00	7072.00	930.94	7495.86	8.11	1.40	345.64	-566.78
7in Casing Intermediate	16.00	7994.00	7978.00	16.00	7495.77	0.00	0.00	336.64	-566.93
6.125in Open Hole	8003.00	12009.00	4006.00	7495.86	7413.45	345.64	-566.78	4350.05	-574.97

Actual Wellpath Report

HOWARD 29N-21HZ AWP

Page 5 of 6

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 HOWARD 29N-21HZ (431'FSL, & 1522'FWL, SEC.21)
Area	COLORADO	Well	HOWARD 29N-21HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HOWARD 29N-21HZ AWB
Facility	SEC.21-T1N-R67W		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SECTION 21 LINES		0.00	0.00	0.00	3168142.01	1254527.59	40°01'49.811"N	104°53'58.376"W	polygon
HOWARD 29N-21HZ/29C-21HZ LAND BOX		7400.00	0.00	0.00	3168142.01	1254527.59	40°01'49.811"N	104°53'58.376"W	polygon
HOWARD 29N-21HZ BHL ON PLAT REV-1 (460'FNL & 970'FWL, SEC.21)		7416.00	4375.12	-568.69	3167543.73	1258898.59	40°02'33.047"N	104°54'05.688"W	point

WELLPATH COMPOSITION - Ref Wellbore: HOWARD 29N-21HZ AWB Ref Wellpath: HOWARD 29N-21HZ AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	846.00	Generic gyro - continuous (Standard)	MS ENERGY GYRODATA SURVEYS <116-846>	HOWARD 29N-21HZ AWB
846.00	7955.00	NaviTrak (Standard)	BHI NAVITRAK MWD 8 3/4" <975-7955>	HOWARD 29N-21HZ AWB
7955.00	11952.00	OnTrak (Standard)	BHI ONTRAK MWD 6 1/8" <8006-11952>	HOWARD 29N-21HZ AWB
11952.00	12009.00	Blind Drilling (std)	Projection to bit	HOWARD 29N-21HZ AWB



Actual Wellpath Report

HOWARD 29N-21HZ AWP

Page 6 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 HOWARD 29N-21HZ (431'FSL, & 1522'FWL, SEC.21)
Area	COLORADO	Well	HOWARD 29N-21HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HOWARD 29N-21HZ AWB
Facility	SEC.21-T1N-R67W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
16.00	0.000	353.280	16.00	TIE-ON
116.00	0.320	353.280	116.00	BEGIN GYRO SURVEYS
846.00	1.290	16.160	845.96	TIE ONTO GYRO SURVEYS
975.00	1.150	358.260	974.93	BEGIN BHI MWD SURVEYS
7994.00	89.248	0.956	7495.77	7" CASING POINT
11952.00	91.080	359.180	7414.52	LAST BHI MWD SURVEY
12009.00	91.080	359.180	7413.45	PROJECTION TO BIT