





# Planned Wellpath Report

## HOWARD 26N-28HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#18 HOWARD 26N-28HZ (250' FNL & 1094' FEL, SEC. 28)
Area	COLORADO	Well	HOWARD 26N-28HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HOWARD 26N-28HZ PWB
Facility	SEC.28-T1N-R67W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect@ 3.0.2
North Reference	True	User	Precaín
Scale	0.999964	Report Generated	6/3/2013 at 4:12:41 PM
Convergence at slot	0.39° East	Database/Source file	WellArchitectDB/HOWARD_26N-28HZ_PWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	1416916.73	2716919.58	3170811.87	1253866.73	40°01'43.100"N	104°53'24.112"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	ENSIGN 145 (RKB) to Facility Vertical Datum	4996.00ft
Horizontal Reference Pt	Slot	ENSIGN 145 (RKB) to Mean Sea Level	4996.00ft
Vertical Reference Pt	ENSIGN 145 (RKB)	ENSIGN 145 (RKB) to Mud Line at Slot (SLOT#18 HOWARD 26N-28HZ (250' FNL & 1094' FEL, SEC. 28))	4996.00ft
MD Reference Pt	ENSIGN 145 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	179.73°



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WELLPATH DATA (135 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	78.200	0.00	0.00	0.00	0.00	40°01'43.100"N	104°53'24.112"W	0.00	
13.00	0.000	78.200	13.00	0.00	0.00	0.00	40°01'43.100"N	104°53'24.112"W	0.00	TIE-ON
113.00†	0.000	78.200	113.00	0.00	0.00	0.00	40°01'43.100"N	104°53'24.112"W	0.00	
213.00†	0.000	78.200	213.00	0.00	0.00	0.00	40°01'43.100"N	104°53'24.112"W	0.00	
313.00†	0.000	78.200	313.00	0.00	0.00	0.00	40°01'43.100"N	104°53'24.112"W	0.00	
413.00†	0.000	78.200	413.00	0.00	0.00	0.00	40°01'43.100"N	104°53'24.112"W	0.00	
513.00†	0.000	78.200	513.00	0.00	0.00	0.00	40°01'43.100"N	104°53'24.112"W	0.00	
613.00†	0.000	78.200	613.00	0.00	0.00	0.00	40°01'43.100"N	104°53'24.112"W	0.00	
713.00†	0.000	78.200	713.00	0.00	0.00	0.00	40°01'43.100"N	104°53'24.112"W	0.00	
813.00†	0.000	78.200	813.00	0.00	0.00	0.00	40°01'43.100"N	104°53'24.112"W	0.00	
913.00†	0.000	78.200	913.00	0.00	0.00	0.00	40°01'43.100"N	104°53'24.112"W	0.00	
1013.00†	0.000	78.200	1013.00	0.00	0.00	0.00	40°01'43.100"N	104°53'24.112"W	0.00	
1088.00†	0.000	78.200	1088.00	0.00	0.00	0.00	40°01'43.100"N	104°53'24.112"W	0.00	FOX HILLS BASE
1100.00	0.000	78.200	1100.00	0.00	0.00	0.00	40°01'43.100"N	104°53'24.112"W	0.00	BEGIN NUDGE
1113.00†	0.260	78.200	1113.00	-0.01	0.01	0.03	40°01'43.100"N	104°53'24.112"W	2.00	
1213.00†	2.260	78.200	1212.97	-0.45	0.46	2.18	40°01'43.105"N	104°53'24.084"W	2.00	
1313.00†	4.260	78.200	1312.80	-1.58	1.62	7.75	40°01'43.116"N	104°53'24.012"W	2.00	
1413.00†	6.260	78.200	1412.38	-3.41	3.49	16.72	40°01'43.135"N	104°53'23.897"W	2.00	
1513.00†	8.260	78.200	1511.57	-5.94	6.08	29.09	40°01'43.160"N	104°53'23.738"W	2.00	
1613.00†	10.260	78.200	1610.26	-9.15	9.37	44.84	40°01'43.193"N	104°53'23.536"W	2.00	
1713.00†	12.260	78.200	1708.33	-13.06	13.36	63.95	40°01'43.232"N	104°53'23.290"W	2.00	
1800.00	14.000	78.200	1793.06	-17.01	17.40	83.30	40°01'43.272"N	104°53'23.041"W	2.00	END NUDGE
1813.00†	14.000	78.200	1805.67	-17.63	18.05	86.38	40°01'43.278"N	104°53'23.002"W	0.00	
1913.00†	14.000	78.200	1902.70	-22.47	22.99	110.06	40°01'43.327"N	104°53'22.697"W	0.00	
2013.00†	14.000	78.200	1999.73	-27.30	27.94	133.74	40°01'43.376"N	104°53'22.393"W	0.00	
2113.00†	14.000	78.200	2096.76	-32.14	32.89	157.42	40°01'43.425"N	104°53'22.088"W	0.00	
2213.00†	14.000	78.200	2193.79	-36.97	37.83	181.10	40°01'43.474"N	104°53'21.784"W	0.00	
2313.00†	14.000	78.200	2290.82	-41.81	42.78	204.78	40°01'43.523"N	104°53'21.480"W	0.00	
2413.00†	14.000	78.200	2387.85	-46.64	47.73	228.46	40°01'43.572"N	104°53'21.175"W	0.00	
2513.00†	14.000	78.200	2484.88	-51.48	52.68	252.14	40°01'43.621"N	104°53'20.871"W	0.00	
2613.00†	14.000	78.200	2581.91	-56.31	57.62	275.82	40°01'43.669"N	104°53'20.566"W	0.00	
2713.00†	14.000	78.200	2678.94	-61.15	62.57	299.51	40°01'43.718"N	104°53'20.262"W	0.00	
2813.00†	14.000	78.200	2775.96	-65.98	67.52	323.19	40°01'43.767"N	104°53'19.957"W	0.00	
2913.00†	14.000	78.200	2872.99	-70.82	72.46	346.87	40°01'43.816"N	104°53'19.653"W	0.00	
3013.00†	14.000	78.200	2970.02	-75.65	77.41	370.55	40°01'43.865"N	104°53'19.349"W	0.00	
3113.00†	14.000	78.200	3067.05	-80.49	82.36	394.23	40°01'43.914"N	104°53'19.044"W	0.00	
3213.00†	14.000	78.200	3164.08	-85.32	87.31	417.91	40°01'43.963"N	104°53'18.740"W	0.00	
3313.00†	14.000	78.200	3261.11	-90.16	92.25	441.59	40°01'44.012"N	104°53'18.435"W	0.00	
3413.00†	14.000	78.200	3358.14	-94.99	97.20	465.27	40°01'44.061"N	104°53'18.131"W	0.00	
3513.00†	14.000	78.200	3455.17	-99.83	102.15	488.95	40°01'44.109"N	104°53'17.826"W	0.00	
3613.00†	14.000	78.200	3552.20	-104.66	107.09	512.63	40°01'44.158"N	104°53'17.522"W	0.00	
3713.00†	14.000	78.200	3649.23	-109.49	112.04	536.31	40°01'44.207"N	104°53'17.218"W	0.00	
3813.00†	14.000	78.200	3746.26	-114.33	116.99	560.00	40°01'44.256"N	104°53'16.913"W	0.00	
3913.00†	14.000	78.200	3843.29	-119.16	121.94	583.68	40°01'44.305"N	104°53'16.609"W	0.00	
4013.00†	14.000	78.200	3940.32	-124.00	126.88	607.36	40°01'44.354"N	104°53'16.304"W	0.00	



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Facility	SEC.28-T1N-R67W		

WELLPATH DATA (135 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4113.00†	14.000	78.200	4037.35	-128.83	131.83	631.04	40°01'44.403"N	104°53'16.000"W	0.00	
4213.00†	14.000	78.200	4134.38	-133.67	136.78	654.72	40°01'44.452"N	104°53'15.696"W	0.00	
4313.00†	14.000	78.200	4231.41	-138.50	141.73	678.40	40°01'44.500"N	104°53'15.391"W	0.00	
4413.00†	14.000	78.200	4328.44	-143.34	146.67	702.08	40°01'44.549"N	104°53'15.087"W	0.00	
4513.00†	14.000	78.200	4425.47	-148.17	151.62	725.76	40°01'44.598"N	104°53'14.782"W	0.00	
4613.00†	14.000	78.200	4522.50	-153.01	156.57	749.44	40°01'44.647"N	104°53'14.478"W	0.00	
4713.00†	14.000	78.200	4619.53	-157.84	161.51	773.12	40°01'44.696"N	104°53'14.173"W	0.00	
4813.00†	14.000	78.200	4716.56	-162.68	166.46	796.81	40°01'44.745"N	104°53'13.869"W	0.00	
4874.26†	14.000	78.200	4776.00	-165.64	169.49	811.31	40°01'44.775"N	104°53'13.682"W	0.00	SUSSEX
4913.00†	14.000	78.200	4813.59	-167.51	171.41	820.49	40°01'44.794"N	104°53'13.565"W	0.00	
5013.00†	14.000	78.200	4910.62	-172.35	176.36	844.17	40°01'44.843"N	104°53'13.260"W	0.00	
5038.13	14.000	78.200	4935.00	-173.56	177.60	850.12	40°01'44.855"N	104°53'13.184"W	0.00	BEGIN DROP
5113.00†	12.503	78.200	5007.87	-176.99	181.11	866.92	40°01'44.890"N	104°53'12.968"W	2.00	
5213.00†	10.503	78.200	5105.86	-180.98	185.19	886.44	40°01'44.930"N	104°53'12.717"W	2.00	
5313.00†	8.503	78.200	5204.48	-184.27	188.56	902.60	40°01'44.963"N	104°53'12.509"W	2.00	
5413.00†	6.503	78.200	5303.62	-186.88	191.23	915.38	40°01'44.990"N	104°53'12.345"W	2.00	
5513.00†	4.503	78.200	5403.16	-188.80	193.19	924.76	40°01'45.009"N	104°53'12.224"W	2.00	
5613.00†	2.503	78.200	5502.96	-190.02	194.44	930.74	40°01'45.021"N	104°53'12.147"W	2.00	
5713.00†	0.503	78.200	5602.92	-190.55	194.98	933.31	40°01'45.027"N	104°53'12.114"W	2.00	
5738.13	0.000	179.728	5628.06	-190.57	195.00	933.42	40°01'45.027"N	104°53'12.113"W	2.00	END DROP
5813.00†	0.000	179.728	5702.92	-190.57	195.00	933.42	40°01'45.027"N	104°53'12.113"W	0.00	
5913.00†	0.000	179.728	5802.92	-190.57	195.00	933.42	40°01'45.027"N	104°53'12.113"W	0.00	
6013.00†	0.000	179.728	5902.92	-190.57	195.00	933.42	40°01'45.027"N	104°53'12.113"W	0.00	
6113.00†	0.000	179.728	6002.92	-190.57	195.00	933.42	40°01'45.027"N	104°53'12.113"W	0.00	
6213.00†	0.000	179.728	6102.92	-190.57	195.00	933.42	40°01'45.027"N	104°53'12.113"W	0.00	
6313.00†	0.000	179.728	6202.92	-190.57	195.00	933.42	40°01'45.027"N	104°53'12.113"W	0.00	
6413.00†	0.000	179.728	6302.92	-190.57	195.00	933.42	40°01'45.027"N	104°53'12.113"W	0.00	
6513.00†	0.000	179.728	6402.92	-190.57	195.00	933.42	40°01'45.027"N	104°53'12.113"W	0.00	
6613.00†	0.000	179.728	6502.92	-190.57	195.00	933.42	40°01'45.027"N	104°53'12.113"W	0.00	
6713.00†	0.000	179.728	6602.92	-190.57	195.00	933.42	40°01'45.027"N	104°53'12.113"W	0.00	
6813.00†	0.000	179.728	6702.92	-190.57	195.00	933.42	40°01'45.027"N	104°53'12.113"W	0.00	
6913.00†	0.000	179.728	6802.92	-190.57	195.00	933.42	40°01'45.027"N	104°53'12.113"W	0.00	
6913.12†	0.000	179.728	6803.04	-190.57	195.00	933.42	40°01'45.027"N	104°53'12.113"W	0.00	4 1/2" LINER TOP
7013.00†	0.000	179.728	6902.92	-190.57	195.00	933.42	40°01'45.027"N	104°53'12.113"W	0.00	
7013.12	0.000	179.728	6903.05	-190.57	195.00	933.42	40°01'45.027"N	104°53'12.113"W	0.00	KOP, BUILD @ 10°/100
7113.00†	9.988	179.728	7002.42	-181.88	186.32	933.46	40°01'44.941"N	104°53'12.112"W	10.00	
7213.00†	19.988	179.728	7098.89	-156.06	160.49	933.58	40°01'44.686"N	104°53'12.111"W	10.00	
7313.00†	29.988	179.728	7189.42	-113.87	118.30	933.78	40°01'44.269"N	104°53'12.108"W	10.00	
7413.00†	39.988	179.728	7271.24	-56.60	61.03	934.05	40°01'43.703"N	104°53'12.105"W	10.00	
7451.66†	43.854	179.728	7300.00	-30.78	35.21	934.17	40°01'43.448"N	104°53'12.103"W	10.00	SHARON SPRINGS
7505.47†	49.235	179.728	7337.00	8.27	-3.84	934.36	40°01'43.062"N	104°53'12.101"W	10.00	NIOBRARA A
7513.00†	49.988	179.728	7341.88	14.01	-9.57	934.39	40°01'43.005"N	104°53'12.100"W	10.00	
7613.00†	59.988	179.728	7399.18	95.81	-91.37	934.77	40°01'42.197"N	104°53'12.096"W	10.00	
7713.00†	69.988	179.728	7441.41	186.31	-181.88	935.20	40°01'41.302"N	104°53'12.090"W	10.00	
7813.00†	79.988	179.728	7467.28	282.78	-278.34	935.66	40°01'40.349"N	104°53'12.084"W	10.00	



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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7911.27†	89.815	179.728	7476.00	380.54	-376.10	936.12	40°01'39.383"N	104°53'12.078"W	10.00	NIOBRARA B
7913.00†	89.988	179.728	7476.00	382.27	-377.83	936.13	40°01'39.366"N	104°53'12.078"W	10.00	
7913.12	90.000	179.728	7476.00	382.39	-377.95	936.13	40°01'39.365"N	104°53'12.078"W	10.00	LANDING POINT
8013.00†	90.000	179.728	7476.00	482.27	-477.83	936.60	40°01'38.378"N	104°53'12.072"W	0.00	
8113.00†	90.000	179.728	7476.00	582.27	-577.83	937.08	40°01'37.390"N	104°53'12.066"W	0.00	
8213.00†	90.000	179.728	7476.00	682.27	-677.83	937.55	40°01'36.401"N	104°53'12.060"W	0.00	
8313.00†	90.000	179.728	7476.00	782.27	-777.82	938.03	40°01'35.413"N	104°53'12.054"W	0.00	
8413.00†	90.000	179.729	7476.00	882.27	-877.82	938.50	40°01'34.425"N	104°53'12.048"W	0.00	
8513.00†	90.000	179.729	7476.00	982.27	-977.82	938.97	40°01'33.437"N	104°53'12.042"W	0.00	
8613.00†	90.000	179.729	7476.00	1082.27	-1077.82	939.45	40°01'32.448"N	104°53'12.036"W	0.00	
8713.00†	90.000	179.729	7476.00	1182.27	-1177.82	939.92	40°01'31.460"N	104°53'12.030"W	0.00	
8813.00†	90.000	179.729	7476.00	1282.27	-1277.82	940.40	40°01'30.472"N	104°53'12.024"W	0.00	
8913.00†	90.000	179.729	7476.00	1382.27	-1377.82	940.87	40°01'29.484"N	104°53'12.018"W	0.00	
9013.00†	90.000	179.729	7476.00	1482.27	-1477.82	941.34	40°01'28.496"N	104°53'12.012"W	0.00	
9113.00†	90.000	179.729	7476.00	1582.27	-1577.82	941.82	40°01'27.507"N	104°53'12.006"W	0.00	
9213.00†	90.000	179.729	7476.00	1682.27	-1677.81	942.29	40°01'26.519"N	104°53'12.000"W	0.00	
9313.00†	90.000	179.729	7476.00	1782.27	-1777.81	942.76	40°01'25.531"N	104°53'11.994"W	0.00	
9413.00†	90.000	179.729	7476.00	1882.27	-1877.81	943.24	40°01'24.543"N	104°53'11.988"W	0.00	
9513.00†	90.000	179.729	7476.00	1982.27	-1977.81	943.71	40°01'23.555"N	104°53'11.982"W	0.00	
9613.00†	90.000	179.729	7476.00	2082.27	-2077.81	944.19	40°01'22.566"N	104°53'11.975"W	0.00	
9713.00†	90.000	179.729	7476.00	2182.27	-2177.81	944.66	40°01'21.578"N	104°53'11.969"W	0.00	
9813.00†	90.000	179.729	7476.00	2282.27	-2277.81	945.13	40°01'20.590"N	104°53'11.963"W	0.00	
9913.00†	90.000	179.729	7476.00	2382.27	-2377.81	945.61	40°01'19.602"N	104°53'11.957"W	0.00	
10013.00†	90.000	179.729	7476.00	2482.27	-2477.81	946.08	40°01'18.613"N	104°53'11.951"W	0.00	
10113.00†	90.000	179.729	7476.00	2582.27	-2577.80	946.55	40°01'17.625"N	104°53'11.945"W	0.00	
10213.00†	90.000	179.729	7476.00	2682.27	-2677.80	947.03	40°01'16.637"N	104°53'11.939"W	0.00	
10313.00†	90.000	179.729	7476.00	2782.27	-2777.80	947.50	40°01'15.649"N	104°53'11.933"W	0.00	
10413.00†	90.000	179.729	7476.00	2882.27	-2877.80	947.98	40°01'14.661"N	104°53'11.927"W	0.00	
10513.00†	90.000	179.729	7476.00	2982.27	-2977.80	948.45	40°01'13.672"N	104°53'11.921"W	0.00	
10613.00†	90.000	179.729	7476.00	3082.27	-3077.80	948.92	40°01'12.684"N	104°53'11.915"W	0.00	
10713.00†	90.000	179.729	7476.00	3182.27	-3177.80	949.40	40°01'11.696"N	104°53'11.909"W	0.00	
10813.00†	90.000	179.729	7476.00	3282.27	-3277.80	949.87	40°01'10.708"N	104°53'11.903"W	0.00	
10913.00†	90.000	179.729	7476.00	3382.27	-3377.80	950.34	40°01'09.720"N	104°53'11.897"W	0.00	
11013.00†	90.000	179.729	7476.00	3482.27	-3477.79	950.82	40°01'08.731"N	104°53'11.891"W	0.00	
11113.00†	90.000	179.729	7476.00	3582.27	-3577.79	951.29	40°01'07.743"N	104°53'11.885"W	0.00	
11213.00†	90.000	179.729	7476.00	3682.27	-3677.79	951.77	40°01'06.755"N	104°53'11.879"W	0.00	
11313.00†	90.000	179.729	7476.00	3782.27	-3777.79	952.24	40°01'05.767"N	104°53'11.873"W	0.00	
11413.00†	90.000	179.729	7476.00	3882.27	-3877.79	952.71	40°01'04.778"N	104°53'11.867"W	0.00	
11513.00†	90.000	179.729	7476.00	3982.27	-3977.79	953.19	40°01'03.790"N	104°53'11.861"W	0.00	
11613.00†	90.000	179.729	7476.00	4082.27	-4077.79	953.66	40°01'02.802"N	104°53'11.855"W	0.00	
11713.00†	90.000	179.729	7476.00	4182.27	-4177.79	954.13	40°01'01.814"N	104°53'11.849"W	0.00	
11813.00†	90.000	179.729	7476.00	4282.27	-4277.79	954.61	40°01'00.826"N	104°53'11.843"W	0.00	
11913.00†	90.000	179.729	7476.00	4382.27	-4377.78	955.08	40°00'59.837"N	104°53'11.837"W	0.00	
12013.00†	90.000	179.729	7476.00	4482.27	-4477.78	955.55	40°00'58.849"N	104°53'11.831"W	0.00	
12108.44	90.000	179.729	7476.00 <sup>1</sup>	4577.70	-4573.22	956.01	40°00'57.906"N	104°53'11.825"W	0.00	TOTAL DEPTH



# Planned Wellpath Report

## HOWARD 26N-28HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#18 HOWARD 26N-28HZ (250' FNL & 1094' FEL, SEC. 28)
Area	COLORADO	Well	HOWARD 26N-28HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HOWARD 26N-28HZ PWB
Facility	SEC.28-T1N-R67W		

HOLE & CASING SECTIONS - Ref Wellbore: HOWARD 26N-28HZ PWB Ref Wellpath: HOWARD 26N-28HZ (PERMIT REV-1) PWP									
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	13.00	1000.00	987.00	13.00	1000.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	13.00	1000.00	987.00	13.00	1000.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1000.00	7913.13	6913.13	1000.00	7476.00	0.00	0.00	-377.96	936.13
7in Casing Intermediate	13.00	7913.13	7900.13	13.00	7476.00	0.00	0.00	-377.96	936.13
6.125in Open Hole	7913.12	12108.44	4195.31	7476.00	7476.00	-377.95	936.13	-4573.22	956.01
4.5in Casing Production	13.00	12108.44	12095.44	13.00	7476.00	0.00	0.00	-4573.22	956.01

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 HARD LINES (460' SET BACKS)		4996.00	-60.11	0.31	3170812.59	1253806.63	40°01'42.506"N	104°53'24.108"W	polygon
SEC.28-T1N-R67W SECTION LINES		4996.00	-60.11	0.31	3170812.59	1253806.63	40°01'42.506"N	104°53'24.108"W	polygon
1) HOWARD 26N-28HZ BHL ON PLAT (460' FSL & 160' FEL, SEC.28) REV-1	12108.44	7476.00	-4573.22	956.01	3171799.27	1249300.37	40°00'57.906"N	104°53'11.825"W	point

SURVEY PROGRAM - Ref Wellbore: HOWARD 26N-28HZ PWB Ref Wellpath: HOWARD 26N-28HZ (PERMIT REV-1) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	12108.45	NaviTrak (Standard)		HOWARD 26N-28HZ PWB



# Planned Wellpath Report

HOWARD 26N-28HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#18 HOWARD 26N-28HZ (250' FNL & 1094' FEL, SEC. 28)
Area	COLORADO	Well	HOWARD 26N-28HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HOWARD 26N-28HZ PWB
Facility	SEC.28-T1N-R67W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1088.00	0.000	78.200	1088.00	FOX HILLS BASE
4874.26	14.000	78.200	4776.00	SUSSEX
6913.12	0.000	179.728	6803.04	4 1/2" LINER TOP
7451.66	43.854	179.728	7300.00	SHARON SPRINGS
7505.47	49.235	179.728	7337.00	NIOBRARA A
7911.27	89.815	179.728	7476.00	NIOBRARA B

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
13.00	0.000	78.200	13.00	TIE-ON
1100.00	0.000	78.200	1100.00	BEGIN NUDGE
1800.00	14.000	78.200	1793.06	END NUDGE
5038.13	14.000	78.200	4935.00	BEGIN DROP
5738.13	0.000	179.728	5628.06	END DROP
7013.12	0.000	179.728	6903.05	KOP, BUILD @ 10°/100
7913.12	90.000	179.728	7476.00	LANDING POINT
12108.44	90.000	179.729	7476.00	TOTAL DEPTH