



## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#07 STEWARD 35N-6HZ (441'FSL & 1659'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 35N-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 35N-6HZ PWB
Facility	SEC.07-T1N-R65W		

## REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.0.0
North Reference	True	User	Amarcar
Scale	0.999962	Report Generated	10/3/2014 at 1:14:47 PM
Convergence at slot	n/a	Database/Source file	WellArchitectDB/STEWARD_35N-6HZ_PWB.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-74.78	-3155.77	3221106.82	1265636.47	40°03'35.489"N	104°42'36.223"W
Facility Reference Pt			3224261.66	1265739.76	40°03'36.230"N	104°41'55.637"W
Field Reference Pt			<b>3197771.84</b>	<b>1268891.29</b>	40°04'09.600"N	104°47'36.000"W

## WELLPATH DATUM

Calculation method	Minimum curvature	PERMIT (17'KB) (RKB) to Facility Vertical Datum	5018.00ft
Horizontal Reference Pt	Slot	PERMIT (17'KB) (RKB) to Mean Sea Level	5018.00ft
Vertical Reference Pt	PERMIT (17'KB) (RKB)	PERMIT (17'KB) (RKB) to Mud Line at Slot (SLOT#07 STEWARD 35N-6HZ (441'FSL & 1659'FWL, SEC.07))	5018.00ft
MD Reference Pt	PERMIT (17'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.70°

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Facility	SEC.07-T1N-R65W		

WELLPATH DATA (146 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	203.546	0.00	0.00	0.00	0.00	40°03'35.489"N	104°42'36.223"W	0.00	
17.00	0.000	203.546	17.00	0.00	0.00	0.00	40°03'35.489"N	104°42'36.223"W	0.00	TIE-ON
117.00†	0.000	203.546	117.00	0.00	0.00	0.00	40°03'35.489"N	104°42'36.223"W	0.00	
217.00†	0.000	203.546	217.00	0.00	0.00	0.00	40°03'35.489"N	104°42'36.223"W	0.00	
317.00†	0.000	203.546	317.00	0.00	0.00	0.00	40°03'35.489"N	104°42'36.223"W	0.00	
417.00†	0.000	203.546	417.00	0.00	0.00	0.00	40°03'35.489"N	104°42'36.223"W	0.00	
517.00†	0.000	203.546	517.00	0.00	0.00	0.00	40°03'35.489"N	104°42'36.223"W	0.00	
617.00†	0.000	203.546	617.00	0.00	0.00	0.00	40°03'35.489"N	104°42'36.223"W	0.00	
717.00†	0.000	203.546	717.00	0.00	0.00	0.00	40°03'35.489"N	104°42'36.223"W	0.00	
817.00†	0.000	203.546	817.00	0.00	0.00	0.00	40°03'35.489"N	104°42'36.223"W	0.00	
917.00†	0.000	203.546	917.00	0.00	0.00	0.00	40°03'35.489"N	104°42'36.223"W	0.00	
1017.00†	0.000	203.546	1017.00	0.00	0.00	0.00	40°03'35.489"N	104°42'36.223"W	0.00	
1117.00†	0.000	203.546	1117.00	0.00	0.00	0.00	40°03'35.489"N	104°42'36.223"W	0.00	
1217.00†	0.000	203.546	1217.00	0.00	0.00	0.00	40°03'35.489"N	104°42'36.223"W	0.00	
1317.00†	0.000	203.546	1317.00	0.00	0.00	0.00	40°03'35.489"N	104°42'36.223"W	0.00	
1417.00†	0.000	203.546	1417.00	0.00	0.00	0.00	40°03'35.489"N	104°42'36.223"W	0.00	
1517.00†	0.000	203.546	1517.00	0.00	0.00	0.00	40°03'35.489"N	104°42'36.223"W	0.00	
1537.00†	0.000	203.546	1537.00	0.00	0.00	0.00	40°03'35.489"N	104°42'36.223"W	0.00	Fox Hills Marker
1617.00†	0.000	203.546	1617.00	0.00	0.00	0.00	40°03'35.489"N	104°42'36.223"W	0.00	
1700.00	0.000	203.546	1700.00	0.00	0.00	0.00	40°03'35.489"N	104°42'36.223"W	0.00	BEGIN NUDGE
1717.00†	0.340	203.546	1717.00	-0.05	-0.05	-0.02	40°03'35.489"N	104°42'36.223"W	2.00	
1817.00†	2.340	203.546	1816.97	-2.18	-2.19	-0.95	40°03'35.467"N	104°42'36.235"W	2.00	
1917.00†	4.340	203.546	1916.79	-7.51	-7.53	-3.28	40°03'35.415"N	104°42'36.265"W	2.00	
2017.00†	6.340	203.546	2016.35	-16.03	-16.06	-7.00	40°03'35.330"N	104°42'36.313"W	2.00	
2117.00†	8.340	203.546	2115.53	-27.71	-27.77	-12.10	40°03'35.215"N	104°42'36.379"W	2.00	
2217.00†	10.340	203.546	2214.20	-42.55	-42.65	-18.59	40°03'35.068"N	104°42'36.462"W	2.00	
2317.00†	12.340	203.546	2312.24	-60.54	-60.68	-26.44	40°03'34.889"N	104°42'36.563"W	2.00	
2417.00†	14.340	203.546	2409.54	-81.64	-81.83	-35.66	40°03'34.680"N	104°42'36.682"W	2.00	
2500.00	16.000	203.546	2489.64	-101.50	-101.74	-44.33	40°03'34.484"N	104°42'36.793"W	2.00	END NUDGE
2517.00†	16.000	203.546	2505.98	-105.79	-106.03	-46.21	40°03'34.441"N	104°42'36.817"W	0.00	
2617.00†	16.000	203.546	2602.11	-131.00	-131.30	-57.22	40°03'34.191"N	104°42'36.959"W	0.00	
2717.00†	16.000	203.546	2698.24	-156.21	-156.57	-68.23	40°03'33.942"N	104°42'37.100"W	0.00	
2817.00†	16.000	203.546	2794.36	-181.42	-181.84	-79.24	40°03'33.692"N	104°42'37.242"W	0.00	
2917.00†	16.000	203.546	2890.49	-206.63	-207.11	-90.25	40°03'33.442"N	104°42'37.384"W	0.00	
3017.00†	16.000	203.546	2986.62	-231.85	-232.38	-101.26	40°03'33.193"N	104°42'37.525"W	0.00	
3117.00†	16.000	203.546	3082.74	-257.06	-257.65	-112.27	40°03'32.943"N	104°42'37.667"W	0.00	
3217.00†	16.000	203.546	3178.87	-282.27	-282.91	-123.28	40°03'32.693"N	104°42'37.809"W	0.00	
3317.00†	16.000	203.546	3274.99	-307.48	-308.18	-134.30	40°03'32.443"N	104°42'37.950"W	0.00	
3417.00†	16.000	203.546	3371.12	-332.69	-333.45	-145.31	40°03'32.194"N	104°42'38.092"W	0.00	
3517.00†	16.000	203.546	3467.25	-357.90	-358.72	-156.32	40°03'31.944"N	104°42'38.233"W	0.00	
3617.00†	16.000	203.546	3563.37	-383.11	-383.99	-167.33	40°03'31.694"N	104°42'38.375"W	0.00	
3717.00†	16.000	203.546	3659.50	-408.32	-409.26	-178.34	40°03'31.445"N	104°42'38.517"W	0.00	
3817.00†	16.000	203.546	3755.62	-433.53	-434.53	-189.35	40°03'31.195"N	104°42'38.658"W	0.00	
3917.00†	16.000	203.546	3851.75	-458.74	-459.80	-200.36	40°03'30.945"N	104°42'38.800"W	0.00	
4017.00†	16.000	203.546	3947.88	-483.95	-485.06	-211.38	40°03'30.695"N	104°42'38.941"W	0.00	

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4117.00†	16.000	203.546	4044.00	-509.17	-510.33	-222.39	40°03'30.446"N	104°42'39.083"W	0.00	
4209.58†	16.000	203.546	4133.00	-532.51	-533.73	-232.58	40°03'30.215"N	104°42'39.214"W	0.00	Parkman
4217.00†	16.000	203.546	4140.13	-534.38	-535.60	-233.40	40°03'30.196"N	104°42'39.225"W	0.00	
4317.00†	16.000	203.546	4236.26	-559.59	-560.87	-244.41	40°03'29.946"N	104°42'39.366"W	0.00	
4417.00†	16.000	203.546	4332.38	-584.80	-586.14	-255.42	40°03'29.697"N	104°42'39.508"W	0.00	
4517.00†	16.000	203.546	4428.51	-610.01	-611.41	-266.43	40°03'29.447"N	104°42'39.649"W	0.00	
4560.16†	16.000	203.546	4470.00	-620.89	-622.32	-271.18	40°03'29.339"N	104°42'39.711"W	0.00	Sussex
4617.00†	16.000	203.546	4524.63	-635.22	-636.68	-277.44	40°03'29.197"N	104°42'39.791"W	0.00	
4717.00†	16.000	203.546	4620.76	-660.43	-661.95	-288.45	40°03'28.947"N	104°42'39.933"W	0.00	
4773.43	16.000	203.546	4675.00	-674.66	-676.20	-294.67	40°03'28.807"N	104°42'40.013"W	0.00	BEGIN DROP
4817.00†	15.129	203.546	4716.98	-685.35	-686.92	-299.34	40°03'28.701"N	104°42'40.073"W	2.00	
4917.00†	13.129	203.546	4813.95	-707.68	-709.30	-309.09	40°03'28.480"N	104°42'40.198"W	2.00	
5017.00†	11.129	203.546	4911.71	-726.89	-728.56	-317.48	40°03'28.289"N	104°42'40.306"W	2.00	
5117.00†	9.129	203.546	5010.15	-742.98	-744.68	-324.51	40°03'28.130"N	104°42'40.396"W	2.00	
5217.00†	7.129	203.546	5109.14	-755.91	-757.64	-330.16	40°03'28.002"N	104°42'40.469"W	2.00	
5317.00†	5.129	203.546	5208.56	-765.67	-767.43	-334.42	40°03'27.905"N	104°42'40.524"W	2.00	
5417.00†	3.129	203.546	5308.29	-772.26	-774.03	-337.30	40°03'27.840"N	104°42'40.561"W	2.00	
5517.00†	1.129	203.546	5408.22	-775.65	-777.43	-338.78	40°03'27.806"N	104°42'40.580"W	2.00	
5573.43	0.000	359.701	5464.64	-776.16	-777.94	-339.00	40°03'27.801"N	104°42'40.583"W	2.00	END DROP
5617.00†	0.000	359.701	5508.22	-776.16	-777.94	-339.00	40°03'27.801"N	104°42'40.583"W	0.00	
5717.00†	0.000	359.701	5608.22	-776.16	-777.94	-339.00	40°03'27.801"N	104°42'40.583"W	0.00	
5817.00†	0.000	359.701	5708.22	-776.16	-777.94	-339.00	40°03'27.801"N	104°42'40.583"W	0.00	
5917.00†	0.000	359.701	5808.22	-776.16	-777.94	-339.00	40°03'27.801"N	104°42'40.583"W	0.00	
6017.00†	0.000	359.701	5908.22	-776.16	-777.94	-339.00	40°03'27.801"N	104°42'40.583"W	0.00	
6117.00†	0.000	359.701	6008.22	-776.16	-777.94	-339.00	40°03'27.801"N	104°42'40.583"W	0.00	
6217.00†	0.000	359.701	6108.22	-776.16	-777.94	-339.00	40°03'27.801"N	104°42'40.583"W	0.00	
6317.00†	0.000	359.701	6208.22	-776.16	-777.94	-339.00	40°03'27.801"N	104°42'40.583"W	0.00	
6417.00†	0.000	359.701	6308.22	-776.16	-777.94	-339.00	40°03'27.801"N	104°42'40.583"W	0.00	
6517.00†	0.000	359.701	6408.22	-776.16	-777.94	-339.00	40°03'27.801"N	104°42'40.583"W	0.00	
6617.00†	0.000	359.701	6508.22	-776.16	-777.94	-339.00	40°03'27.801"N	104°42'40.583"W	0.00	
6618.83†	0.000	359.701	6510.05	-776.16	-777.94	-339.00	40°03'27.801"N	104°42'40.583"W	0.00	4 1/2 LINER TOP
6717.00†	0.000	359.701	6608.22	-776.16	-777.94	-339.00	40°03'27.801"N	104°42'40.583"W	0.00	
6718.83	0.000	359.701	6610.04	-776.16	-777.94	-339.00	40°03'27.801"N	104°42'40.583"W	0.00	KOP, BUILD @ 10°/100'
6817.00†	9.817	359.701	6707.74	-767.77	-769.55	-339.05	40°03'27.884"N	104°42'40.583"W	10.00	
6917.00†	19.817	359.701	6804.29	-742.23	-744.01	-339.18	40°03'28.137"N	104°42'40.585"W	10.00	
7017.00†	29.817	359.701	6894.94	-700.31	-702.09	-339.40	40°03'28.551"N	104°42'40.588"W	10.00	
7117.00†	39.817	359.701	6976.93	-643.29	-645.07	-339.69	40°03'29.114"N	104°42'40.592"W	10.00	
7199.07†	48.025	359.701	7036.00	-586.40	-588.18	-339.99	40°03'29.676"N	104°42'40.595"W	10.00	Sharon Springs
7217.00†	49.817	359.701	7047.78	-572.89	-574.67	-340.06	40°03'29.810"N	104°42'40.596"W	10.00	
7249.45†	53.062	359.701	7068.00	-547.52	-549.31	-340.19	40°03'30.061"N	104°42'40.598"W	10.00	Niobrara A
7317.00†	59.817	359.701	7105.32	-491.26	-493.05	-340.49	40°03'30.617"N	104°42'40.602"W	10.00	
7417.00†	69.817	359.701	7147.82	-400.88	-402.67	-340.96	40°03'31.510"N	104°42'40.608"W	10.00	
7511.62†	79.279	359.701	7173.00	-309.78	-311.57	-341.43	40°03'32.410"N	104°42'40.614"W	10.00	Niobrara B
7517.00†	79.817	359.701	7173.98	-304.49	-306.28	-341.46	40°03'32.462"N	104°42'40.614"W	10.00	
7617.00†	89.817	359.701	7183.00	-205.03	-206.82	-341.98	40°03'33.445"N	104°42'40.621"W	10.00	

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Area	COLORADO	Well	STEWARD 35N-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 35N-6HZ PWB
Facility	SEC.07-T1N-R65W		

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7620.39	90.157	359.701	7183.00	-201.64	-203.42	-342.00	40°03'33.479"N	104°42'40.621"W	10.00	LANDING POINT
7717.00†	90.157	359.701	7182.73	-105.03	-106.82	-342.50	40°03'34.433"N	104°42'40.628"W	0.00	
7817.00†	90.157	359.701	7182.46	-5.03	-6.82	-343.02	40°03'35.422"N	104°42'40.635"W	0.00	
7917.00†	90.157	359.701	7182.19	94.97	93.18	-343.55	40°03'36.410"N	104°42'40.641"W	0.00	
8017.00†	90.157	359.701	7181.91	194.97	193.18	-344.07	40°03'37.398"N	104°42'40.648"W	0.00	
8117.00†	90.157	359.701	7181.64	294.97	293.17	-344.59	40°03'38.386"N	104°42'40.655"W	0.00	
8217.00†	90.157	359.701	7181.37	394.97	393.17	-345.11	40°03'39.374"N	104°42'40.662"W	0.00	
8317.00†	90.157	359.701	7181.09	494.97	493.17	-345.63	40°03'40.363"N	104°42'40.668"W	0.00	
8417.00†	90.157	359.701	7180.82	594.97	593.17	-346.15	40°03'41.351"N	104°42'40.675"W	0.00	
8517.00†	90.157	359.701	7180.55	694.97	693.17	-346.68	40°03'42.339"N	104°42'40.682"W	0.00	
8617.00†	90.157	359.701	7180.27	794.97	793.17	-347.20	40°03'43.327"N	104°42'40.688"W	0.00	
8717.00†	90.157	359.701	7180.00	894.97	893.16	-347.72	40°03'44.315"N	104°42'40.695"W	0.00	
8817.00†	90.157	359.701	7179.73	994.97	993.16	-348.24	40°03'45.304"N	104°42'40.702"W	0.00	
8917.00†	90.157	359.701	7179.45	1094.97	1093.16	-348.76	40°03'46.292"N	104°42'40.709"W	0.00	
9017.00†	90.157	359.701	7179.18	1194.97	1193.16	-349.28	40°03'47.280"N	104°42'40.715"W	0.00	
9117.00†	90.157	359.701	7178.91	1294.97	1293.16	-349.81	40°03'48.268"N	104°42'40.722"W	0.00	
9217.00†	90.157	359.701	7178.63	1394.96	1393.16	-350.33	40°03'49.256"N	104°42'40.729"W	0.00	
9317.00†	90.157	359.701	7178.36	1494.96	1493.15	-350.85	40°03'50.245"N	104°42'40.736"W	0.00	
9417.00†	90.157	359.701	7178.09	1594.96	1593.15	-351.37	40°03'51.233"N	104°42'40.742"W	0.00	
9517.00†	90.157	359.701	7177.81	1694.96	1693.15	-351.89	40°03'52.221"N	104°42'40.749"W	0.00	
9617.00†	90.157	359.701	7177.54	1794.96	1793.15	-352.42	40°03'53.209"N	104°42'40.756"W	0.00	
9717.00†	90.157	359.701	7177.27	1894.96	1893.15	-352.94	40°03'54.197"N	104°42'40.762"W	0.00	
9817.00†	90.157	359.701	7176.99	1994.96	1993.15	-353.46	40°03'55.186"N	104°42'40.769"W	0.00	
9917.00†	90.157	359.701	7176.72	2094.96	2093.14	-353.98	40°03'56.174"N	104°42'40.776"W	0.00	
10017.00†	90.157	359.701	7176.45	2194.96	2193.14	-354.50	40°03'57.162"N	104°42'40.783"W	0.00	
10117.00†	90.157	359.701	7176.17	2294.96	2293.14	-355.02	40°03'58.150"N	104°42'40.789"W	0.00	
10217.00†	90.157	359.701	7175.90	2394.96	2393.14	-355.55	40°03'59.138"N	104°42'40.796"W	0.00	
10317.00†	90.157	359.701	7175.63	2494.96	2493.14	-356.07	40°04'00.127"N	104°42'40.803"W	0.00	
10417.00†	90.157	359.701	7175.35	2594.96	2593.13	-356.59	40°04'01.115"N	104°42'40.810"W	0.00	
10517.00†	90.157	359.701	7175.08	2694.96	2693.13	-357.11	40°04'02.103"N	104°42'40.816"W	0.00	
10617.00†	90.157	359.701	7174.81	2794.96	2793.13	-357.63	40°04'03.091"N	104°42'40.823"W	0.00	
10717.00†	90.157	359.701	7174.53	2894.96	2893.13	-358.15	40°04'04.080"N	104°42'40.830"W	0.00	
10817.00†	90.157	359.701	7174.26	2994.96	2993.13	-358.68	40°04'05.068"N	104°42'40.836"W	0.00	
10917.00†	90.157	359.701	7173.99	3094.96	3093.13	-359.20	40°04'06.056"N	104°42'40.843"W	0.00	
11017.00†	90.157	359.701	7173.71	3194.96	3193.12	-359.72	40°04'07.044"N	104°42'40.850"W	0.00	
11117.00†	90.157	359.701	7173.44	3294.96	3293.12	-360.24	40°04'08.032"N	104°42'40.857"W	0.00	
11217.00†	90.157	359.701	7173.17	3394.96	3393.12	-360.76	40°04'09.021"N	104°42'40.863"W	0.00	
11317.00†	90.157	359.701	7172.89	3494.96	3493.12	-361.28	40°04'10.009"N	104°42'40.870"W	0.00	
11417.00†	90.157	359.701	7172.62	3594.96	3593.12	-361.81	40°04'10.997"N	104°42'40.877"W	0.00	
11517.00†	90.157	359.701	7172.35	3694.96	3693.12	-362.33	40°04'11.985"N	104°42'40.884"W	0.00	
11617.00†	90.157	359.701	7172.07	3794.96	3793.11	-362.85	40°04'12.973"N	104°42'40.890"W	0.00	
11717.00†	90.157	359.701	7171.80	3894.96	3893.11	-363.37	40°04'13.962"N	104°42'40.897"W	0.00	
11817.00†	90.157	359.701	7171.53	3994.96	3993.11	-363.89	40°04'14.950"N	104°42'40.904"W	0.00	
11917.00†	90.157	359.701	7171.25	4094.95	4093.11	-364.41	40°04'15.938"N	104°42'40.910"W	0.00	
12017.00†	90.157	359.701	7170.98	4194.95	4193.11	-364.94	40°04'16.926"N	104°42'40.917"W	0.00	

### REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#07 STEWARD 35N-6HZ (441'FSL & 1659'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 35N-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 35N-6HZ PWB
Facility	SEC.07-T1N-R65W		

### WELLPATH DATA (146 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12117.00†	90.157	359.701	7170.71	4294.95	4293.11	-365.46	40°04'17.914"N	104°42'40.924"W	0.00	
12217.00†	90.157	359.701	7170.43	4394.95	4393.10	-365.98	40°04'18.903"N	104°42'40.931"W	0.00	
12317.00†	90.157	359.701	7170.16	4494.95	4493.10	-366.50	40°04'19.891"N	104°42'40.937"W	0.00	
12417.00†	90.157	359.701	7169.88	4594.95	4593.10	-367.02	40°04'20.879"N	104°42'40.944"W	0.00	
12517.00†	90.157	359.701	7169.61	4694.95	4693.10	-367.54	40°04'21.867"N	104°42'40.951"W	0.00	
12617.00†	90.157	359.701	7169.34	4794.95	4793.10	-368.07	40°04'22.855"N	104°42'40.958"W	0.00	
12717.00†	90.157	359.701	7169.06	4894.95	4893.09	-368.59	40°04'23.844"N	104°42'40.964"W	0.00	
12817.00†	90.157	359.701	7168.79	4994.95	4993.09	-369.11	40°04'24.832"N	104°42'40.971"W	0.00	
12917.00†	90.157	359.701	7168.52	5094.95	5093.09	-369.63	40°04'25.820"N	104°42'40.978"W	0.00	
13017.00†	90.157	359.701	7168.24	5194.95	5193.09	-370.15	40°04'26.808"N	104°42'40.984"W	0.00	
13106.44	90.157	359.701	7168.00 <sup>1</sup>	5284.39	5282.53	-370.62	40°04'27.692"N	104°42'40.991"W	0.00	TOTAL DEPTH

### HOLE & CASING SECTIONS - Ref Wellbore: STEWARD 35N-6HZ PWB      Ref Wellpath: STEWARD 35N-6HZ (PERMIT REV-3) 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	17.00	1540.00	1523.00	17.00	1540.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	1540.00	1523.00	17.00	1540.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1540.00	7620.39	6080.39	1540.00	7183.00	0.00	0.00	-203.43	-342.00
7in Casing Intermediate	17.00	7620.39	7603.39	17.00	7183.00	0.00	0.00	-203.43	-342.00
6.125in Open Hole	7620.39	13106.44	5486.05	7183.00	7168.00	-203.43	-342.00	5282.53	-370.62
4.5in Casing Production	17.00	13106.44	13089.44	17.00	7168.00	0.00	0.00	5282.53	-370.62

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#07 STEWARD 35N-6HZ (441'FSL & 1659'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 35N-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 35N-6HZ PWB
Facility	SEC.07-T1N-R65W		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.06-T1N-R65W SECTION LINES		0.00	0.00	0.00	3221106.82	1265636.47	40°03'35.489"N	104°42'36.223"W	polygon
SEC.07-T1N-R65W SECTION LINES		0.00	0.00	0.00	3221106.82	1265636.47	40°03'35.489"N	104°42'36.223"W	polygon
1) STEWARD 35N-6HZ BHL (410'FSL & 1321'FWL, SEC.06) REV-2	13106.44	7168.00	5282.53	-370.62	3220689.17	1270915.27	40°04'27.692"N	104°42'40.991"W	point
STEWARD 35N-6HZ BHL ON PLAT (410'FSL & 1317'FWL, SEC.06) REV-1		7168.00	5282.57	-380.62	3220679.17	1270915.22	40°04'27.692"N	104°42'41.119"W	point
STEWARD 35N-6HZ LANDBOX		7168.00	0.00	0.00	3221106.82	1265636.47	40°03'35.489"N	104°42'36.223"W	polygon

SURVEY PROGRAM - Ref Wellbore: STEWARD 35N-6HZ PWB      Ref Wellpath: STEWARD 35N-6HZ (PERMIT REV-3) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	13106.44	NaviTrak (MAGCORR,IFR)		STEWARD 35N-6HZ PWB

### REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#07 STEWARD 35N-6HZ (441'FSL & 1659'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 35N-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 35N-6HZ PWB
Facility	SEC.07-T1N-R65W		

### WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1537.00	0.000	203.546	1537.00	Fox Hills Marker
4209.58	16.000	203.546	4133.00	Parkman
4560.16	16.000	203.546	4470.00	Sussex
6618.83	0.000	359.701	6510.05	4 1/2 LINER TOP
7199.07	48.025	359.701	7036.00	Sharon Springs
7249.45	53.062	359.701	7068.00	Niobrara A
7511.62	79.279	359.701	7173.00	Niobrara B

### DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	203.546	17.00	TIE-ON
1700.00	0.000	203.546	1700.00	BEGIN NUDGE
2500.00	16.000	203.546	2489.64	END NUDGE
4773.43	16.000	203.546	4675.00	BEGIN DROP
5573.43	0.000	359.701	5464.64	END DROP
6718.83	0.000	359.701	6610.04	KOP, BUILD @ 10°/100'
7620.39	90.157	359.701	7183.00	LANDING POINT
13106.44	90.157	359.701	7168.00	TOTAL DEPTH