

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#10 STEWARD 36C-6HZ (440'FSL & 1749'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 36C-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 36C-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	10/6/2014 at 10:37:50 AM
Convergence at slot	n/a	Database/Source file	WellArchitectDB/STEWARD_36C-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	-74.49	-3065.97	3221196.61	1265637.57	40°03'35.492"N	104°42'35.068"W
Facility Reference Pt			3224261.66	1265739.76	40°03'36.230"N	104°41'55.637"W
Field Reference Pt			3197771.84	1268891.29	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#10 STEWARD 36C-6HZ (440'FSL & 1749'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	357.84°

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Facility	SEC.07-T1N-R65W		

WELLPATH DATA (157 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	140.697	0.00	0.00	0.00	0.00	40°03'35.492"N	104°42'35.068"W	0.00	
17.00	0.000	140.697	17.00	0.00	0.00	0.00	40°03'35.492"N	104°42'35.068"W	0.00	TIE-ON
117.00†	0.000	140.697	117.00	0.00	0.00	0.00	40°03'35.492"N	104°42'35.068"W	0.00	
217.00†	0.000	140.697	217.00	0.00	0.00	0.00	40°03'35.492"N	104°42'35.068"W	0.00	
317.00†	0.000	140.697	317.00	0.00	0.00	0.00	40°03'35.492"N	104°42'35.068"W	0.00	
417.00†	0.000	140.697	417.00	0.00	0.00	0.00	40°03'35.492"N	104°42'35.068"W	0.00	
517.00†	0.000	140.697	517.00	0.00	0.00	0.00	40°03'35.492"N	104°42'35.068"W	0.00	
617.00†	0.000	140.697	617.00	0.00	0.00	0.00	40°03'35.492"N	104°42'35.068"W	0.00	
717.00†	0.000	140.697	717.00	0.00	0.00	0.00	40°03'35.492"N	104°42'35.068"W	0.00	
817.00†	0.000	140.697	817.00	0.00	0.00	0.00	40°03'35.492"N	104°42'35.068"W	0.00	
917.00†	0.000	140.697	917.00	0.00	0.00	0.00	40°03'35.492"N	104°42'35.068"W	0.00	
1017.00†	0.000	140.697	1017.00	0.00	0.00	0.00	40°03'35.492"N	104°42'35.068"W	0.00	
1117.00†	0.000	140.697	1117.00	0.00	0.00	0.00	40°03'35.492"N	104°42'35.068"W	0.00	
1217.00†	0.000	140.697	1217.00	0.00	0.00	0.00	40°03'35.492"N	104°42'35.068"W	0.00	
1317.00†	0.000	140.697	1317.00	0.00	0.00	0.00	40°03'35.492"N	104°42'35.068"W	0.00	
1417.00†	0.000	140.697	1417.00	0.00	0.00	0.00	40°03'35.492"N	104°42'35.068"W	0.00	
1517.00†	0.000	140.697	1517.00	0.00	0.00	0.00	40°03'35.492"N	104°42'35.068"W	0.00	
1537.00†	0.000	140.697	1537.00	0.00	0.00	0.00	40°03'35.492"N	104°42'35.068"W	0.00	Fox Hills Marker
1617.00†	0.000	140.697	1617.00	0.00	0.00	0.00	40°03'35.492"N	104°42'35.068"W	0.00	
1700.00	0.000	140.697	1700.00	0.00	0.00	0.00	40°03'35.492"N	104°42'35.068"W	0.00	BEGIN NUDGE
1717.00†	0.340	140.697	1717.00	-0.04	-0.04	0.03	40°03'35.492"N	104°42'35.068"W	2.00	
1817.00†	2.340	140.697	1816.97	-1.90	-1.85	1.51	40°03'35.474"N	104°42'35.049"W	2.00	
1917.00†	4.340	140.697	1916.79	-6.55	-6.36	5.20	40°03'35.429"N	104°42'35.001"W	2.00	
2017.00†	6.340	140.697	2016.35	-13.97	-13.56	11.10	40°03'35.358"N	104°42'34.925"W	2.00	
2117.00†	8.340	140.697	2115.53	-24.15	-23.44	19.19	40°03'35.260"N	104°42'34.821"W	2.00	
2217.00†	10.340	140.697	2214.20	-37.09	-36.00	29.47	40°03'35.136"N	104°42'34.689"W	2.00	
2317.00†	12.340	140.697	2312.24	-52.76	-51.22	41.92	40°03'34.986"N	104°42'34.529"W	2.00	
2417.00†	14.340	140.697	2409.54	-71.15	-69.07	56.54	40°03'34.809"N	104°42'34.341"W	2.00	
2517.00†	16.340	140.697	2505.97	-92.24	-89.54	73.29	40°03'34.607"N	104°42'34.125"W	2.00	
2600.00	18.000	140.697	2585.27	-111.77	-108.50	88.81	40°03'34.420"N	104°42'33.926"W	2.00	END NUDGE
2617.00†	18.000	140.697	2601.44	-115.95	-112.56	92.14	40°03'34.380"N	104°42'33.883"W	0.00	
2717.00†	18.000	140.697	2696.54	-140.59	-136.47	111.72	40°03'34.143"N	104°42'33.631"W	0.00	
2817.00†	18.000	140.697	2791.65	-165.22	-160.39	131.29	40°03'33.907"N	104°42'33.380"W	0.00	
2917.00†	18.000	140.697	2886.75	-189.85	-184.30	150.86	40°03'33.671"N	104°42'33.128"W	0.00	
3017.00†	18.000	140.697	2981.86	-214.48	-208.21	170.44	40°03'33.434"N	104°42'32.876"W	0.00	
3117.00†	18.000	140.697	3076.96	-239.12	-232.12	190.01	40°03'33.198"N	104°42'32.624"W	0.00	
3217.00†	18.000	140.697	3172.07	-263.75	-256.03	209.58	40°03'32.962"N	104°42'32.373"W	0.00	
3317.00†	18.000	140.697	3267.18	-288.38	-279.95	229.16	40°03'32.725"N	104°42'32.121"W	0.00	
3417.00†	18.000	140.697	3362.28	-313.02	-303.86	248.73	40°03'32.489"N	104°42'31.869"W	0.00	
3517.00†	18.000	140.697	3457.39	-337.65	-327.77	268.31	40°03'32.253"N	104°42'31.617"W	0.00	
3617.00†	18.000	140.697	3552.49	-362.28	-351.68	287.88	40°03'32.017"N	104°42'31.366"W	0.00	
3717.00†	18.000	140.697	3647.60	-386.91	-375.59	307.45	40°03'31.780"N	104°42'31.114"W	0.00	
3817.00†	18.000	140.697	3742.70	-411.55	-399.51	327.03	40°03'31.544"N	104°42'30.862"W	0.00	
3917.00†	18.000	140.697	3837.81	-436.18	-423.42	346.60	40°03'31.308"N	104°42'30.610"W	0.00	
4017.00†	18.000	140.697	3932.92	-460.81	-447.33	366.17	40°03'31.071"N	104°42'30.359"W	0.00	

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4117.00†	18.000	140.697	4028.02	-485.44	-471.24	385.75	40°03'30.835"N	104°42'30.107"W	0.00	
4217.00†	18.000	140.697	4123.13	-510.08	-495.15	405.32	40°03'30.599"N	104°42'29.855"W	0.00	
4223.18†	18.000	140.697	4129.00	-511.60	-496.63	406.53	40°03'30.584"N	104°42'29.840"W	0.00	Parkman
4317.00†	18.000	140.697	4218.23	-534.71	-519.07	424.90	40°03'30.362"N	104°42'29.604"W	0.00	
4417.00†	18.000	140.697	4313.34	-559.34	-542.98	444.47	40°03'30.126"N	104°42'29.352"W	0.00	
4517.00†	18.000	140.697	4408.44	-583.97	-566.89	464.04	40°03'29.890"N	104°42'29.100"W	0.00	
4577.52†	18.000	140.697	4466.00	-598.88	-581.36	475.89	40°03'29.747"N	104°42'28.948"W	0.00	Sussex
4617.00†	18.000	140.697	4503.55	-608.61	-590.80	483.62	40°03'29.654"N	104°42'28.848"W	0.00	
4717.00†	18.000	140.697	4598.66	-633.24	-614.71	503.19	40°03'29.417"N	104°42'28.597"W	0.00	
4817.00†	18.000	140.697	4693.76	-657.87	-638.63	522.76	40°03'29.181"N	104°42'28.345"W	0.00	
4917.00†	18.000	140.697	4788.87	-682.50	-662.54	542.34	40°03'28.945"N	104°42'28.093"W	0.00	
5017.00†	18.000	140.697	4883.97	-707.14	-686.45	561.91	40°03'28.708"N	104°42'27.842"W	0.00	
5117.00†	18.000	140.697	4979.08	-731.77	-710.36	581.49	40°03'28.472"N	104°42'27.590"W	0.00	
5217.00†	18.000	140.697	5074.18	-756.40	-734.27	601.06	40°03'28.236"N	104°42'27.338"W	0.00	
5317.00†	18.000	140.697	5169.29	-781.03	-758.19	620.63	40°03'27.999"N	104°42'27.086"W	0.00	
5417.00†	18.000	140.697	5264.39	-805.67	-782.10	640.21	40°03'27.763"N	104°42'26.835"W	0.00	
5499.35	18.000	140.697	5342.71	-825.95	-801.79	656.33	40°03'27.568"N	104°42'26.627"W	0.00	BEGIN DROP
5517.00†	17.647	140.697	5359.52	-830.26	-805.97	659.75	40°03'27.527"N	104°42'26.583"W	2.00	
5617.00†	15.647	140.697	5455.32	-853.09	-828.14	677.89	40°03'27.308"N	104°42'26.350"W	2.00	
5717.00†	13.647	140.697	5552.07	-873.25	-847.70	693.91	40°03'27.115"N	104°42'26.144"W	2.00	
5817.00†	11.647	140.697	5649.64	-890.70	-864.64	707.78	40°03'26.947"N	104°42'25.966"W	2.00	
5917.00†	9.647	140.697	5747.91	-905.43	-878.94	719.48	40°03'26.806"N	104°42'25.815"W	2.00	
6017.00†	7.647	140.697	5846.77	-917.41	-890.57	729.00	40°03'26.691"N	104°42'25.693"W	2.00	
6117.00†	5.647	140.697	5946.09	-926.64	-899.53	736.33	40°03'26.603"N	104°42'25.598"W	2.00	
6217.00†	3.647	140.697	6045.76	-933.09	-905.80	741.46	40°03'26.541"N	104°42'25.532"W	2.00	
6317.00†	1.647	140.697	6145.64	-936.77	-909.37	744.39	40°03'26.505"N	104°42'25.495"W	2.00	
6399.35	0.000	353.500	6227.98	-937.72	-910.29	745.14	40°03'26.496"N	104°42'25.485"W	2.00	END DROP
6417.00†	0.000	353.500	6245.63	-937.72	-910.29	745.14	40°03'26.496"N	104°42'25.485"W	0.00	
6517.00†	0.000	353.500	6345.63	-937.72	-910.29	745.14	40°03'26.496"N	104°42'25.485"W	0.00	
6617.00†	0.000	353.500	6445.63	-937.72	-910.29	745.14	40°03'26.496"N	104°42'25.485"W	0.00	
6717.00†	0.000	353.500	6545.63	-937.72	-910.29	745.14	40°03'26.496"N	104°42'25.485"W	0.00	
6817.00†	0.000	353.500	6645.63	-937.72	-910.29	745.14	40°03'26.496"N	104°42'25.485"W	0.00	
6901.41†	0.000	353.500	6730.04	-937.72	-910.29	745.14	40°03'26.496"N	104°42'25.485"W	0.00	4 1/2" LINER TOP
6917.00†	0.000	353.500	6745.63	-937.72	-910.29	745.14	40°03'26.496"N	104°42'25.485"W	0.00	
7001.41	0.000	353.500	6830.04	-937.72	-910.29	745.14	40°03'26.496"N	104°42'25.485"W	0.00	KOP, BUILD @ 10°/100'
7017.00†	1.559	353.500	6845.63	-937.51	-910.07	745.12	40°03'26.498"N	104°42'25.486"W	10.00	
7117.00†	11.559	353.500	6944.85	-926.13	-898.74	743.82	40°03'26.610"N	104°42'25.502"W	10.00	
7207.80†	20.640	353.500	7032.00	-901.05	-873.75	740.98	40°03'26.857"N	104°42'25.539"W	10.00	Sharon Springs
7217.00†	21.559	353.500	7040.58	-897.75	-870.46	740.60	40°03'26.890"N	104°42'25.544"W	10.00	
7242.41†	24.101	353.500	7064.00	-887.92	-860.66	739.49	40°03'26.987"N	104°42'25.558"W	10.00	Niobrara A
7317.00†	31.559	353.500	7129.91	-853.22	-826.09	735.55	40°03'27.328"N	104°42'25.609"W	10.00	
7364.11†	36.271	353.500	7169.00	-827.01	-799.98	732.57	40°03'27.586"N	104°42'25.647"W	10.00	Niobrara B
7417.00†	41.559	353.500	7210.14	-793.90	-766.98	728.81	40°03'27.912"N	104°42'25.695"W	10.00	
7445.52†	44.412	353.500	7231.00	-774.51	-747.66	726.61	40°03'28.103"N	104°42'25.723"W	10.00	Niobrara C
7517.00†	51.559	353.500	7278.81	-721.59	-694.93	720.60	40°03'28.624"N	104°42'25.801"W	10.00	

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7617.00†	61.559	353.500	7333.85	-638.49	-612.13	711.17	40°03'29.443"N	104°42'25.922"W	10.00	
7717.00†	71.559	353.500	7373.58	-547.12	-521.08	700.80	40°03'30.342"N	104°42'26.055"W	10.00	
7721.56†	72.015	353.500	7375.00	-542.81	-516.78	700.31	40°03'30.385"N	104°42'26.062"W	10.00	Fort Hays
7817.00†	81.559	353.500	7396.79	-450.26	-424.57	689.80	40°03'31.296"N	104°42'26.197"W	10.00	
7825.68†	82.428	353.500	7398.00	-441.69	-416.03	688.83	40°03'31.381"N	104°42'26.209"W	10.00	Codell
7902.43	90.102	353.500	7403.00	-365.39	-340.00	680.16	40°03'32.132"N	104°42'26.321"W	10.00	LANDING POINT
7917.00†	90.102	353.500	7402.97	-350.85	-325.52	678.51	40°03'32.275"N	104°42'26.342"W	0.00	
8017.00†	90.102	353.500	7402.79	-251.14	-226.16	667.19	40°03'33.257"N	104°42'26.487"W	0.00	
8117.00†	90.102	353.500	7402.61	-151.43	-126.80	655.87	40°03'34.239"N	104°42'26.633"W	0.00	
8217.00†	90.102	353.500	7402.44	-51.71	-27.45	644.55	40°03'35.221"N	104°42'26.778"W	0.00	
8302.43	90.102	353.500	7402.28	33.47	57.43	634.88	40°03'36.059"N	104°42'26.903"W	0.00	BEGIN TURN
8317.00†	90.102	353.791	7402.26	48.00	71.92	633.27	40°03'36.203"N	104°42'26.924"W	2.00	
8417.00†	90.102	355.791	7402.08	147.86	171.50	624.19	40°03'37.187"N	104°42'27.040"W	2.00	
8517.00†	90.102	357.791	7401.90	247.83	271.34	618.59	40°03'38.173"N	104°42'27.112"W	2.00	
8541.48	90.102	358.281	7401.86	272.32	295.80	617.76	40°03'38.415"N	104°42'27.123"W	2.00	END TURN
8617.00†	90.102	358.281	7401.72	347.83	371.29	615.49	40°03'39.161"N	104°42'27.152"W	0.00	
8717.00†	90.102	358.281	7401.55	447.83	471.24	612.49	40°03'40.149"N	104°42'27.191"W	0.00	
8817.00†	90.102	358.281	7401.37	547.82	571.20	609.49	40°03'41.137"N	104°42'27.229"W	0.00	
8917.00†	90.102	358.281	7401.19	647.82	671.15	606.49	40°03'42.124"N	104°42'27.268"W	0.00	
9017.00†	90.102	358.281	7401.01	747.82	771.11	603.49	40°03'43.112"N	104°42'27.306"W	0.00	
9117.00†	90.102	358.281	7400.84	847.81	871.06	600.49	40°03'44.100"N	104°42'27.345"W	0.00	
9217.00†	90.102	358.281	7400.66	947.81	971.02	597.49	40°03'45.088"N	104°42'27.383"W	0.00	
9317.00†	90.102	358.281	7400.48	1047.81	1070.97	594.49	40°03'46.075"N	104°42'27.422"W	0.00	
9417.00†	90.102	358.281	7400.30	1147.81	1170.93	591.49	40°03'47.063"N	104°42'27.460"W	0.00	
9517.00†	90.102	358.281	7400.13	1247.80	1270.88	588.50	40°03'48.051"N	104°42'27.499"W	0.00	
9617.00†	90.102	358.281	7399.95	1347.80	1370.84	585.50	40°03'49.039"N	104°42'27.538"W	0.00	
9717.00†	90.102	358.281	7399.77	1447.80	1470.79	582.50	40°03'50.027"N	104°42'27.576"W	0.00	
9817.00†	90.102	358.281	7399.60	1547.79	1570.75	579.50	40°03'51.014"N	104°42'27.615"W	0.00	
9917.00†	90.102	358.281	7399.42	1647.79	1670.70	576.50	40°03'52.002"N	104°42'27.653"W	0.00	
10017.00†	90.102	358.281	7399.24	1747.79	1770.65	573.50	40°03'52.990"N	104°42'27.692"W	0.00	
10117.00†	90.102	358.281	7399.06	1847.78	1870.61	570.50	40°03'53.978"N	104°42'27.730"W	0.00	
10217.00†	90.102	358.281	7398.89	1947.78	1970.56	567.50	40°03'54.965"N	104°42'27.769"W	0.00	
10317.00†	90.102	358.281	7398.71	2047.78	2070.52	564.50	40°03'55.953"N	104°42'27.807"W	0.00	
10417.00†	90.102	358.281	7398.53	2147.77	2170.47	561.50	40°03'56.941"N	104°42'27.846"W	0.00	
10517.00†	90.102	358.281	7398.35	2247.77	2270.43	558.50	40°03'57.929"N	104°42'27.885"W	0.00	
10617.00†	90.102	358.281	7398.18	2347.77	2370.38	555.50	40°03'58.917"N	104°42'27.923"W	0.00	
10716.06†	90.102	358.281	7398.00	2446.82	2469.40	552.53	40°03'59.895"N	104°42'27.961"W	0.00	Codell
10717.00†	90.102	358.281	7398.00	2447.76	2470.34	552.50	40°03'59.904"N	104°42'27.962"W	0.00	
10817.00†	90.102	358.281	7397.82	2547.76	2570.29	549.50	40°04'00.892"N	104°42'28.000"W	0.00	
10917.00†	90.102	358.281	7397.64	2647.76	2670.25	546.50	40°04'01.880"N	104°42'28.039"W	0.00	
11017.00†	90.102	358.281	7397.47	2747.76	2770.20	543.50	40°04'02.868"N	104°42'28.077"W	0.00	
11117.00†	90.102	358.281	7397.29	2847.75	2870.16	540.50	40°04'03.855"N	104°42'28.116"W	0.00	
11217.00†	90.102	358.281	7397.11	2947.75	2970.11	537.50	40°04'04.843"N	104°42'28.154"W	0.00	
11317.00†	90.102	358.281	7396.93	3047.75	3070.07	534.50	40°04'05.831"N	104°42'28.193"W	0.00	
11417.00†	90.102	358.281	7396.76	3147.74	3170.02	531.51	40°04'06.819"N	104°42'28.232"W	0.00	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#10 STEWARD 36C-6HZ (440'FSL & 1749'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 36C-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 36C-6HZ PWB
Facility	SEC.07-T1N-R65W		

WELLPATH DATA (157 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11517.00†	90.102	358.281	7396.58	3247.74	3269.98	528.51	40°04'07.807"N	104°42'28.270"W	0.00	
11617.00†	90.102	358.281	7396.40	3347.74	3369.93	525.51	40°04'08.794"N	104°42'28.309"W	0.00	
11717.00†	90.102	358.281	7396.22	3447.73	3469.89	522.51	40°04'09.782"N	104°42'28.347"W	0.00	
11817.00†	90.102	358.281	7396.05	3547.73	3569.84	519.51	40°04'10.770"N	104°42'28.386"W	0.00	
11917.00†	90.102	358.281	7395.87	3647.73	3669.80	516.51	40°04'11.758"N	104°42'28.424"W	0.00	
12017.00†	90.102	358.281	7395.69	3747.72	3769.75	513.51	40°04'12.745"N	104°42'28.463"W	0.00	
12117.00†	90.102	358.281	7395.51	3847.72	3869.71	510.51	40°04'13.733"N	104°42'28.501"W	0.00	
12217.00†	90.102	358.281	7395.34	3947.72	3969.66	507.51	40°04'14.721"N	104°42'28.540"W	0.00	
12317.00†	90.102	358.281	7395.16	4047.72	4069.62	504.51	40°04'15.709"N	104°42'28.578"W	0.00	
12417.00†	90.102	358.281	7394.98	4147.71	4169.57	501.51	40°04'16.697"N	104°42'28.617"W	0.00	
12517.00†	90.102	358.281	7394.80	4247.71	4269.53	498.51	40°04'17.684"N	104°42'28.656"W	0.00	
12617.00†	90.102	358.281	7394.63	4347.71	4369.48	495.51	40°04'18.672"N	104°42'28.694"W	0.00	
12717.00†	90.102	358.281	7394.45	4447.70	4469.44	492.51	40°04'19.660"N	104°42'28.733"W	0.00	
12817.00†	90.102	358.281	7394.27	4547.70	4569.39	489.51	40°04'20.648"N	104°42'28.771"W	0.00	
12917.00†	90.102	358.281	7394.10	4647.70	4669.35	486.51	40°04'21.635"N	104°42'28.810"W	0.00	
13017.00†	90.102	358.281	7393.92	4747.69	4769.30	483.51	40°04'22.623"N	104°42'28.848"W	0.00	
13117.00†	90.102	358.281	7393.74	4847.69	4869.26	480.51	40°04'23.611"N	104°42'28.887"W	0.00	
13217.00†	90.102	358.281	7393.56	4947.69	4969.21	477.51	40°04'24.599"N	104°42'28.926"W	0.00	
13317.00†	90.102	358.281	7393.39	5047.68	5069.16	474.52	40°04'25.587"N	104°42'28.964"W	0.00	
13417.00†	90.102	358.281	7393.21	5147.68	5169.12	471.52	40°04'26.574"N	104°42'29.003"W	0.00	
13517.00†	90.102	358.281	7393.03	5247.68	5269.07	468.52	40°04'27.562"N	104°42'29.041"W	0.00	
13534.20	90.102	358.281	7393.00 ¹	5264.88	5286.27	468.00	40°04'27.732"N	104°42'29.048"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS - Ref Wellbore: STEWARD 36C-6HZ PWB Ref Wellpath: STEWARD 36C-6HZ (PERMIT REV-4) 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	7902.43	6362.43	1540.00	7403.00	0.00	0.00	-339.99	680.16
7in Casing Intermediate	17.00	7902.43	7885.43	17.00	7403.00	0.00	0.00	-339.99	680.16
6.125in Open Hole	7902.43	13534.20	5631.77	7403.00	7393.00	-339.99	680.16	5286.27	468.00
4.5in Casing Production	17.00	13534.20	13517.20	17.00	7393.00	0.00	0.00	5286.27	468.00

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#10 STEWARD 36C-6HZ (440'FSL & 1749'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 36C-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 36C-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	-0.30	-89.81	3221106.82	1265636.47	40°03'35.489"N	104°42'36.223"W	polygon
SEC.07-T1N-R65W SECTION LINES		0.00	-0.30	-89.81	3221106.82	1265636.47	40°03'35.489"N	104°42'36.223"W	polygon
1) STEWARD 36C-6HZ BHL (410'FSL & 2255'FWL, SEC.06) REV-2	13534.20	7393.00	5286.27	468.00	3221617.47	1270927.59	40°04'27.732"N	104°42'29.048"W	point
STEWARD 36C-6HZ BHL ON PLAT (410'FSL & 2307'FWL, SEC.06) REV-1		7393.00	5286.27	520.01	3221669.47	1270928.06	40°04'27.732"N	104°42'28.379"W	point
STEWARD 36C-6HZ LANDBOX		7393.00	0.00	0.00	3221196.61	1265637.57	40°03'35.492"N	104°42'35.068"W	polygon

SURVEY PROGRAM - Ref Wellbore: STEWARD 36C-6HZ PWB Ref Wellpath: STEWARD 36C-6HZ (PERMIT REV-4) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	13534.20	NaviTrak (MAGCORR,IFR)		STEWARD 36C-6HZ PWB

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#10 STEWARD 36C-6HZ (440'FSL & 1749'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 36C-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 36C-6HZ PWB
Facility	SEC.07-T1N-R65W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1537.00	0.000	140.697	1537.00	Fox Hills Marker
4223.18	18.000	140.697	4129.00	Parkman
4577.52	18.000	140.697	4466.00	Sussex
6901.41	0.000	353.500	6730.04	4 1/2" LINER TOP
7207.80	20.640	353.500	7032.00	Sharon Springs
7242.41	24.101	353.500	7064.00	Niobrara A
7364.11	36.271	353.500	7169.00	Niobrara B
7445.52	44.412	353.500	7231.00	Niobrara C
7721.56	72.015	353.500	7375.00	Fort Hays
7825.68	82.428	353.500	7398.00	Codell
10716.06	90.102	358.281	7398.00	Codell

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	140.697	17.00	TIE-ON
1700.00	0.000	140.697	1700.00	BEGIN NUDGE
2600.00	18.000	140.697	2585.27	END NUDGE
5499.35	18.000	140.697	5342.71	BEGIN DROP
6399.35	0.000	353.500	6227.98	END DROP
7001.41	0.000	353.500	6830.04	KOP, BUILD @ 10°/100'
7902.43	90.102	353.500	7403.00	LANDING POINT
8302.43	90.102	353.500	7402.28	BEGIN TURN
8541.48	90.102	358.281	7401.86	END TURN
13534.20	90.102	358.281	7393.00	TOTAL DEPTH