

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#08 STEWARD 14C-6HZ (440'FSL & 1689'FWL, SEC.07)
 Field: WELD COUNTY (KERR MCGEE) Well: STEWARD 14C-6HZ
 Facility: SEC.07-T1N-R65W Wellbore: STEWARD 14C-6HZ PWB

Plot reference wellpath is STEWARD 14C-6HZ (PERMIT REV-1) PWP

True vertical depths are referenced to PERMIT (17KB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to PERMIT (17KB) (RKB)	North Reference: True north
PERMIT (17KB) (RKB) to Mean Sea Level: 5018 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#08 STEWARD 14C-6HZ (440'FSL & 1689'FWL, SEC.07): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: precin on 25/Mar/2014

Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.07-T1N-R65W			3224261.659	1265739.756	40°03'36.230"N	104°41'55.637"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#08 STEWARD 14C-6HZ (440FSL & 1689FWL, SEC.07)	-74.79	-3125.84	3221136.749	1265636.734	40°03'35.489"N	104°42'35.838"W
PERMT (17KB) (RKB) to Mud line (At Slot: SLOT#08 STEWARD 14C-6HZ (440FSL & 1689FWL, SEC.07))					5018ft	
Mean Sea Level to Mud line (At Slot: SLOT#08 STEWARD 14C-6HZ (440FSL & 1689FWL, SEC.07))					0ft	
PERMT (17KB) (RKB) to Mean Sea Level					5018ft	

Survey Program

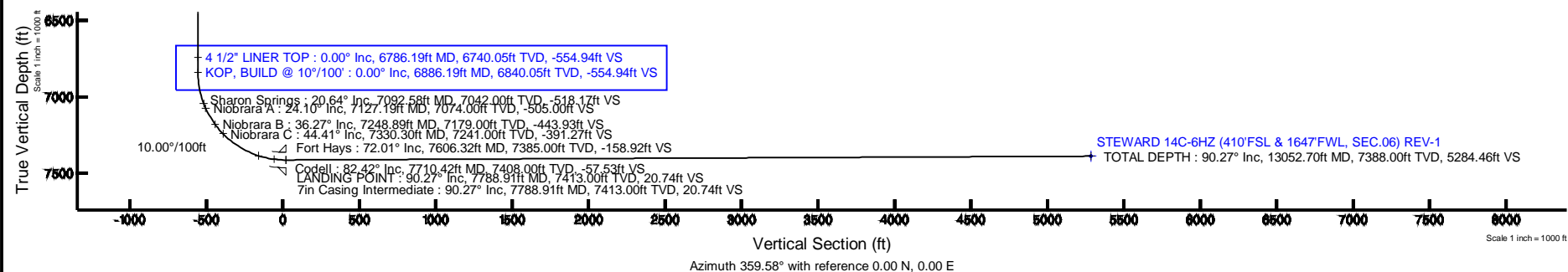
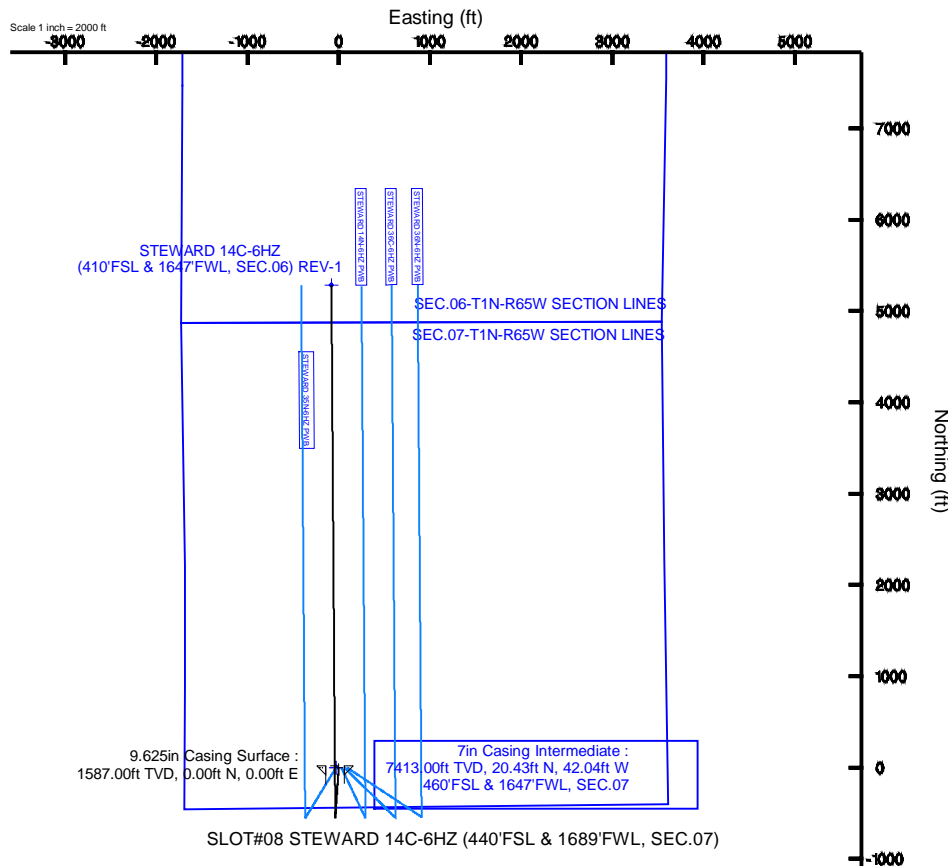
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	13052.70	NaviTrak	NaviTrak (IFR)		STEWARD 14C-6HZ PWB

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
TIE-ON	17.00	0.000	183.900	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1700.00	0.000	183.900	1700.00	0.00	0.00	0.00	0.00
END NUDGE	2200.00	10.000	183.900	2197.47	-43.42	-2.96	2.00	-43.40
BEGIN DROP	4903.61	10.000	183.900	4860.00	-511.81	-34.89	0.00	-511.54
END DROP	5403.61	0.000	359.583	5357.47	-555.23	-37.85	2.00	-554.94
KOP, BUILD @ 10°/100'	6886.19	0.000	359.583	6840.05	-555.23	-37.85	0.00	-554.94
LANDING POINT	7788.91	90.272	359.583	7413.00	20.43	-42.04	10.00	20.74
TOTAL DEPTH	13052.70	90.272	359.583	7388.00	5284.02	-80.32	0.00	5284.46

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.06-T1N-R65W SECTION LINES		0.00	0.00	-29.94	3221106.82	1265636.47	40°03'35.489"N	104°42'36.223"W
SEC.07-T1N-R65W SECTION LINES		0.00	0.00	-29.94	3221106.82	1265636.47	40°03'35.489"N	104°42'36.223"W
STEWARD 14C-6HZ (410'FSL & 1647'FWL, SEC.06) REV-1	13052.70	7388.00	5284.02	-80.32	3221099.36	1270919.62	40°04'27.707"N	104°42'36.871"W



Azimuth 359.58° with reference 0.00 N, 0.00 E

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 STEWARD 14C-6HZ (440'FSL & 1689'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 14C-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 14C-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	Precain
Scale	0.999962	Report Generated	25/Mar/2014 at 12:44
Convergence at slot	n/a	Database/Source file	WellArchitectDB/STEWARD_14C-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	-74.79	-3125.84	3221136.75	1265636.73	40°03'35.489"N	104°42'35.838"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#08 STEWARD 14C-6HZ (440'FSL & 1689'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	359.58°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 STEWARD 14C-6HZ (440'FSL & 1689'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 14C-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 14C-6HZ PWB
Facility	SEC.07-T1N-R6SW		

WELLPATH DATA (149 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	183.900	0.00	0.00	0.00	0.00	40°03'35.489"N	104°42'35.838"W	0.00	
17.00	0.000	183.900	17.00	0.00	0.00	0.00	40°03'35.489"N	104°42'35.838"W	0.00	TIE-ON
117.00†	0.000	183.900	117.00	0.00	0.00	0.00	40°03'35.489"N	104°42'35.838"W	0.00	
217.00†	0.000	183.900	217.00	0.00	0.00	0.00	40°03'35.489"N	104°42'35.838"W	0.00	
317.00†	0.000	183.900	317.00	0.00	0.00	0.00	40°03'35.489"N	104°42'35.838"W	0.00	
417.00†	0.000	183.900	417.00	0.00	0.00	0.00	40°03'35.489"N	104°42'35.838"W	0.00	
517.00†	0.000	183.900	517.00	0.00	0.00	0.00	40°03'35.489"N	104°42'35.838"W	0.00	
617.00†	0.000	183.900	617.00	0.00	0.00	0.00	40°03'35.489"N	104°42'35.838"W	0.00	
717.00†	0.000	183.900	717.00	0.00	0.00	0.00	40°03'35.489"N	104°42'35.838"W	0.00	
817.00†	0.000	183.900	817.00	0.00	0.00	0.00	40°03'35.489"N	104°42'35.838"W	0.00	
917.00†	0.000	183.900	917.00	0.00	0.00	0.00	40°03'35.489"N	104°42'35.838"W	0.00	
1017.00†	0.000	183.900	1017.00	0.00	0.00	0.00	40°03'35.489"N	104°42'35.838"W	0.00	
1117.00†	0.000	183.900	1117.00	0.00	0.00	0.00	40°03'35.489"N	104°42'35.838"W	0.00	
1217.00†	0.000	183.900	1217.00	0.00	0.00	0.00	40°03'35.489"N	104°42'35.838"W	0.00	
1317.00†	0.000	183.900	1317.00	0.00	0.00	0.00	40°03'35.489"N	104°42'35.838"W	0.00	
1417.00†	0.000	183.900	1417.00	0.00	0.00	0.00	40°03'35.489"N	104°42'35.838"W	0.00	
1517.00†	0.000	183.900	1517.00	0.00	0.00	0.00	40°03'35.489"N	104°42'35.838"W	0.00	
1537.00†	0.000	183.900	1537.00	0.00	0.00	0.00	40°03'35.489"N	104°42'35.838"W	0.00	Fox Hills Marker
1617.00†	0.000	183.900	1617.00	0.00	0.00	0.00	40°03'35.489"N	104°42'35.838"W	0.00	
1700.00	0.000	183.900	1700.00	0.00	0.00	0.00	40°03'35.489"N	104°42'35.838"W	0.00	BEGIN NUDGE
1717.00†	0.340	183.900	1717.00	-0.05	-0.05	0.00	40°03'35.489"N	104°42'35.838"W	2.00	
1817.00†	2.340	183.900	1816.97	-2.38	-2.38	-0.16	40°03'35.465"N	104°42'35.840"W	2.00	
1917.00†	4.340	183.900	1916.79	-8.19	-8.20	-0.56	40°03'35.408"N	104°42'35.845"W	2.00	
2017.00†	6.340	183.900	2016.35	-17.47	-17.48	-1.19	40°03'35.316"N	104°42'35.853"W	2.00	
2117.00†	8.340	183.900	2115.53	-30.21	-30.23	-2.06	40°03'35.190"N	104°42'35.865"W	2.00	
2200.00	10.000	183.900	2197.47	-43.40	-43.42	-2.96	40°03'35.060"N	104°42'35.876"W	2.00	END NUDGE
2217.00†	10.000	183.900	2214.21	-46.34	-46.37	-3.16	40°03'35.031"N	104°42'35.879"W	0.00	
2317.00†	10.000	183.900	2312.69	-63.66	-63.69	-4.34	40°03'34.860"N	104°42'35.894"W	0.00	
2417.00†	10.000	183.900	2411.17	-80.97	-81.02	-5.52	40°03'34.688"N	104°42'35.909"W	0.00	
2517.00†	10.000	183.900	2509.65	-98.29	-98.34	-6.70	40°03'34.517"N	104°42'35.924"W	0.00	
2617.00†	10.000	183.900	2608.13	-115.60	-115.67	-7.89	40°03'34.346"N	104°42'35.939"W	0.00	
2717.00†	10.000	183.900	2706.61	-132.92	-132.99	-9.07	40°03'34.175"N	104°42'35.955"W	0.00	
2817.00†	10.000	183.900	2805.09	-150.24	-150.31	-10.25	40°03'34.004"N	104°42'35.970"W	0.00	
2917.00†	10.000	183.900	2903.57	-167.55	-167.64	-11.43	40°03'33.832"N	104°42'35.985"W	0.00	
3017.00†	10.000	183.900	3002.05	-184.87	-184.96	-12.61	40°03'33.661"N	104°42'36.000"W	0.00	
3117.00†	10.000	183.900	3100.53	-202.18	-202.29	-13.79	40°03'33.490"N	104°42'36.015"W	0.00	
3217.00†	10.000	183.900	3199.01	-219.50	-219.61	-14.97	40°03'33.319"N	104°42'36.031"W	0.00	
3317.00†	10.000	183.900	3297.50	-236.81	-236.94	-16.15	40°03'33.148"N	104°42'36.046"W	0.00	
3417.00†	10.000	183.900	3395.98	-254.13	-254.26	-17.33	40°03'32.976"N	104°42'36.061"W	0.00	
3517.00†	10.000	183.900	3494.46	-271.44	-271.59	-18.51	40°03'32.805"N	104°42'36.076"W	0.00	
3617.00†	10.000	183.900	3592.94	-288.76	-288.91	-19.70	40°03'32.634"N	104°42'36.091"W	0.00	
3717.00†	10.000	183.900	3691.42	-306.08	-306.24	-20.88	40°03'32.463"N	104°42'36.106"W	0.00	
3817.00†	10.000	183.900	3789.90	-323.39	-323.56	-22.06	40°03'32.292"N	104°42'36.122"W	0.00	
3917.00†	10.000	183.900	3888.38	-340.71	-340.89	-23.24	40°03'32.120"N	104°42'36.137"W	0.00	
4017.00†	10.000	183.900	3986.86	-358.02	-358.21	-24.42	40°03'31.949"N	104°42'36.152"W	0.00	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 STEWARD 14C-6HZ (440'FSL & 1689'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 14C-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 14C-6HZ PWB
Facility	SEC.07-T1N-R65W		

WELLPATH DATA (149 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4117.00†	10.000	183.900	4085.34	-375.34	-375.53	-25.60	40°03'31.778"N	104°42'36.167"W	0.00	
4171.49†	10.000	183.900	4139.00	-384.77	-384.97	-26.24	40°03'31.685"N	104°42'36.176"W	0.00	Parkman
4217.00†	10.000	183.900	4183.82	-392.65	-392.86	-26.78	40°03'31.607"N	104°42'36.182"W	0.00	
4317.00†	10.000	183.900	4282.30	-409.97	-410.18	-27.96	40°03'31.435"N	104°42'36.198"W	0.00	
4417.00†	10.000	183.900	4380.78	-427.28	-427.51	-29.14	40°03'31.264"N	104°42'36.213"W	0.00	
4513.68†	10.000	183.900	4476.00	-444.03	-444.26	-30.29	40°03'31.099"N	104°42'36.228"W	0.00	Sussex
4517.00†	10.000	183.900	4479.26	-444.60	-444.83	-30.33	40°03'31.093"N	104°42'36.228"W	0.00	
4617.00†	10.000	183.900	4577.75	-461.92	-462.16	-31.51	40°03'30.922"N	104°42'36.243"W	0.00	
4717.00†	10.000	183.900	4676.23	-479.23	-479.48	-32.69	40°03'30.751"N	104°42'36.258"W	0.00	
4817.00†	10.000	183.900	4774.71	-496.55	-496.81	-33.87	40°03'30.579"N	104°42'36.274"W	0.00	
4903.61	10.000	183.900	4860.00	-511.54	-511.81	-34.89	40°03'30.431"N	104°42'36.287"W	0.00	BEGIN DROP
4917.00†	9.732	183.900	4873.19	-513.83	-514.10	-35.05	40°03'30.409"N	104°42'36.289"W	2.00	
5017.00†	7.732	183.900	4972.03	-528.97	-529.25	-36.08	40°03'30.259"N	104°42'36.302"W	2.00	
5117.00†	5.732	183.900	5071.33	-540.66	-540.94	-36.88	40°03'30.143"N	104°42'36.312"W	2.00	
5217.00†	3.732	183.900	5170.99	-548.88	-549.17	-37.44	40°03'30.062"N	104°42'36.319"W	2.00	
5317.00†	1.732	183.900	5270.87	-553.64	-553.93	-37.76	40°03'30.015"N	104°42'36.324"W	2.00	
5403.61	0.000	359.583	5357.47	-554.94	-555.23	-37.85	40°03'30.002"N	104°42'36.325"W	2.00	END DROP
5417.00†	0.000	359.583	5370.86	-554.94	-555.23	-37.85	40°03'30.002"N	104°42'36.325"W	0.00	
5517.00†	0.000	359.583	5470.86	-554.94	-555.23	-37.85	40°03'30.002"N	104°42'36.325"W	0.00	
5617.00†	0.000	359.583	5570.86	-554.94	-555.23	-37.85	40°03'30.002"N	104°42'36.325"W	0.00	
5717.00†	0.000	359.583	5670.86	-554.94	-555.23	-37.85	40°03'30.002"N	104°42'36.325"W	0.00	
5817.00†	0.000	359.583	5770.86	-554.94	-555.23	-37.85	40°03'30.002"N	104°42'36.325"W	0.00	
5917.00†	0.000	359.583	5870.86	-554.94	-555.23	-37.85	40°03'30.002"N	104°42'36.325"W	0.00	
6017.00†	0.000	359.583	5970.86	-554.94	-555.23	-37.85	40°03'30.002"N	104°42'36.325"W	0.00	
6117.00†	0.000	359.583	6070.86	-554.94	-555.23	-37.85	40°03'30.002"N	104°42'36.325"W	0.00	
6217.00†	0.000	359.583	6170.86	-554.94	-555.23	-37.85	40°03'30.002"N	104°42'36.325"W	0.00	
6317.00†	0.000	359.583	6270.86	-554.94	-555.23	-37.85	40°03'30.002"N	104°42'36.325"W	0.00	
6417.00†	0.000	359.583	6370.86	-554.94	-555.23	-37.85	40°03'30.002"N	104°42'36.325"W	0.00	
6517.00†	0.000	359.583	6470.86	-554.94	-555.23	-37.85	40°03'30.002"N	104°42'36.325"W	0.00	
6617.00†	0.000	359.583	6570.86	-554.94	-555.23	-37.85	40°03'30.002"N	104°42'36.325"W	0.00	
6717.00†	0.000	359.583	6670.86	-554.94	-555.23	-37.85	40°03'30.002"N	104°42'36.325"W	0.00	
6786.19†	0.000	359.583	6740.05	-554.94	-555.23	-37.85	40°03'30.002"N	104°42'36.325"W	0.00	4 1/2" LINER TOP
6817.00†	0.000	359.583	6770.86	-554.94	-555.23	-37.85	40°03'30.002"N	104°42'36.325"W	0.00	
6886.19	0.000	359.583	6840.05	-554.94	-555.23	-37.85	40°03'30.002"N	104°42'36.325"W	0.00	KOP, BUILD @ 10°/100'
6917.00†	3.081	359.583	6870.84	-554.11	-554.40	-37.86	40°03'30.010"N	104°42'36.325"W	10.00	
7017.00†	13.081	359.583	6969.72	-540.07	-540.37	-37.96	40°03'30.149"N	104°42'36.326"W	10.00	
7092.58†	20.639	359.583	7042.00	-518.17	-518.46	-38.12	40°03'30.365"N	104°42'36.328"W	10.00	Sharon Springs
7117.00†	23.081	359.583	7064.66	-509.08	-509.37	-38.19	40°03'30.455"N	104°42'36.329"W	10.00	
7127.19†	24.100	359.583	7074.00	-505.00	-505.29	-38.22	40°03'30.496"N	104°42'36.329"W	10.00	Niobrara A
7217.00†	33.081	359.583	7152.78	-462.07	-462.36	-38.53	40°03'30.920"N	104°42'36.333"W	10.00	
7248.89†	36.270	359.583	7179.00	-443.93	-444.22	-38.66	40°03'31.099"N	104°42'36.335"W	10.00	Niobrara B
7317.00†	43.081	359.583	7231.39	-400.47	-400.76	-38.98	40°03'31.529"N	104°42'36.339"W	10.00	
7330.30†	44.411	359.583	7241.00	-391.27	-391.57	-39.04	40°03'31.619"N	104°42'36.340"W	10.00	Niobrara C
7417.00†	53.081	359.583	7298.12	-326.15	-326.45	-39.52	40°03'32.263"N	104°42'36.346"W	10.00	
7517.00†	63.081	359.583	7350.92	-241.38	-241.68	-40.13	40°03'33.101"N	104°42'36.354"W	10.00	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 STEWARD 14C-6HZ (440'FSL & 1689'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 14C-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 14C-6HZ PWB
Facility	SEC.07-T1N-R65W		

WELLPATH DATA (149 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7606.32†	72.013	359.583	7385.00	-158.92	-159.22	-40.73	40°03'33.916"N	104°42'36.362"W	10.00	Fort Hays
7617.00†	73.081	359.583	7388.20	-148.73	-149.03	-40.81	40°03'34.016"N	104°42'36.363"W	10.00	
7710.42†	82.423	359.583	7408.00	-57.53	-57.84	-41.47	40°03'34.917"N	104°42'36.371"W	10.00	Codell
7717.00†	83.081	359.583	7408.83	-51.01	-51.31	-41.52	40°03'34.982"N	104°42'36.372"W	10.00	
7788.91	90.272	359.583	7413.00	20.74	20.43	-42.04	40°03'35.691"N	104°42'36.379"W	10.00	LANDING POINT
7817.00†	90.272	359.583	7412.86	48.83	48.52	-42.24	40°03'35.968"N	104°42'36.381"W	0.00	
7917.00†	90.272	359.583	7412.39	148.82	148.52	-42.97	40°03'36.957"N	104°42'36.391"W	0.00	
8017.00†	90.272	359.583	7411.91	248.82	248.51	-43.70	40°03'37.945"N	104°42'36.400"W	0.00	
8117.00†	90.272	359.583	7411.44	348.82	348.51	-44.42	40°03'38.933"N	104°42'36.409"W	0.00	
8217.00†	90.272	359.583	7410.96	448.82	448.50	-45.15	40°03'39.921"N	104°42'36.419"W	0.00	
8317.00†	90.272	359.583	7410.49	548.82	548.50	-45.88	40°03'40.909"N	104°42'36.428"W	0.00	
8417.00†	90.272	359.583	7410.01	648.82	648.50	-46.61	40°03'41.898"N	104°42'36.437"W	0.00	
8517.00†	90.272	359.583	7409.54	748.82	748.49	-47.33	40°03'42.886"N	104°42'36.447"W	0.00	
8617.00†	90.272	359.583	7409.06	848.82	848.49	-48.06	40°03'43.874"N	104°42'36.456"W	0.00	
8717.00†	90.272	359.583	7408.59	948.82	948.49	-48.79	40°03'44.862"N	104°42'36.465"W	0.00	
8817.00†	90.272	359.583	7408.11	1048.81	1048.48	-49.52	40°03'45.850"N	104°42'36.475"W	0.00	
8917.00†	90.272	359.583	7407.64	1148.81	1148.48	-50.24	40°03'46.839"N	104°42'36.484"W	0.00	
9017.00†	90.272	359.583	7407.16	1248.81	1248.47	-50.97	40°03'47.827"N	104°42'36.494"W	0.00	
9117.00†	90.272	359.583	7406.69	1348.81	1348.47	-51.70	40°03'48.815"N	104°42'36.503"W	0.00	
9217.00†	90.272	359.583	7406.21	1448.81	1448.47	-52.42	40°03'49.803"N	104°42'36.512"W	0.00	
9317.00†	90.272	359.583	7405.74	1548.81	1548.46	-53.15	40°03'50.791"N	104°42'36.522"W	0.00	
9417.00†	90.272	359.583	7405.27	1648.81	1648.46	-53.88	40°03'51.779"N	104°42'36.531"W	0.00	
9517.00†	90.272	359.583	7404.79	1748.81	1748.46	-54.61	40°03'52.768"N	104°42'36.540"W	0.00	
9617.00†	90.272	359.583	7404.32	1848.81	1848.45	-55.33	40°03'53.756"N	104°42'36.550"W	0.00	
9717.00†	90.272	359.583	7403.84	1948.80	1948.45	-56.06	40°03'54.744"N	104°42'36.559"W	0.00	
9817.00†	90.272	359.583	7403.37	2048.80	2048.44	-56.79	40°03'55.732"N	104°42'36.568"W	0.00	
9917.00†	90.272	359.583	7402.89	2148.80	2148.44	-57.52	40°03'56.720"N	104°42'36.578"W	0.00	
10017.00†	90.272	359.583	7402.42	2248.80	2248.44	-58.24	40°03'57.709"N	104°42'36.587"W	0.00	
10117.00†	90.272	359.583	7401.94	2348.80	2348.43	-58.97	40°03'58.697"N	104°42'36.596"W	0.00	
10217.00†	90.272	359.583	7401.47	2448.80	2448.43	-59.70	40°03'59.685"N	104°42'36.606"W	0.00	
10317.00†	90.272	359.583	7400.99	2548.80	2548.43	-60.42	40°04'00.673"N	104°42'36.615"W	0.00	
10417.00†	90.272	359.583	7400.52	2648.80	2648.42	-61.15	40°04'01.661"N	104°42'36.625"W	0.00	
10517.00†	90.272	359.583	7400.04	2748.80	2748.42	-61.88	40°04'02.649"N	104°42'36.634"W	0.00	
10617.00†	90.272	359.583	7399.57	2848.79	2848.41	-62.61	40°04'03.638"N	104°42'36.643"W	0.00	
10717.00†	90.272	359.583	7399.09	2948.79	2948.41	-63.33	40°04'04.626"N	104°42'36.653"W	0.00	
10817.00†	90.272	359.583	7398.62	3048.79	3048.41	-64.06	40°04'05.614"N	104°42'36.662"W	0.00	
10917.00†	90.272	359.583	7398.14	3148.79	3148.40	-64.79	40°04'06.602"N	104°42'36.671"W	0.00	
11017.00†	90.272	359.583	7397.67	3248.79	3248.40	-65.51	40°04'07.590"N	104°42'36.681"W	0.00	
11117.00†	90.272	359.583	7397.19	3348.79	3348.40	-66.24	40°04'08.579"N	104°42'36.690"W	0.00	
11217.00†	90.272	359.583	7396.72	3448.79	3448.39	-66.97	40°04'09.567"N	104°42'36.699"W	0.00	
11317.00†	90.272	359.583	7396.24	3548.79	3548.39	-67.70	40°04'10.555"N	104°42'36.709"W	0.00	
11417.00†	90.272	359.583	7395.77	3648.79	3648.38	-68.42	40°04'11.543"N	104°42'36.718"W	0.00	
11517.00†	90.272	359.583	7395.29	3748.78	3748.38	-69.15	40°04'12.531"N	104°42'36.727"W	0.00	
11617.00†	90.272	359.583	7394.82	3848.78	3848.38	-69.88	40°04'13.519"N	104°42'36.737"W	0.00	
11717.00†	90.272	359.583	7394.34	3948.78	3948.37	-70.61	40°04'14.508"N	104°42'36.746"W	0.00	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 STEWARD 14C-6HZ (440'FSL & 1689'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 14C-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 14C-6HZ PWB
Facility	SEC.07-T1N-R65W		

WELLPATH DATA (149 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11817.00†	90.272	359.583	7393.87	4048.78	4048.37	-71.33	40°04'15.496"N	104°42'36.756"W	0.00	
11917.00†	90.272	359.583	7393.39	4148.78	4148.37	-72.06	40°04'16.484"N	104°42'36.765"W	0.00	
12017.00†	90.272	359.583	7392.92	4248.78	4248.36	-72.79	40°04'17.472"N	104°42'36.774"W	0.00	
12117.00†	90.272	359.583	7392.44	4348.78	4348.36	-73.51	40°04'18.460"N	104°42'36.784"W	0.00	
12217.00†	90.272	359.583	7391.97	4448.78	4448.35	-74.24	40°04'19.449"N	104°42'36.793"W	0.00	
12317.00†	90.272	359.583	7391.49	4548.78	4548.35	-74.97	40°04'20.437"N	104°42'36.802"W	0.00	
12417.00†	90.272	359.583	7391.02	4648.77	4648.35	-75.70	40°04'21.425"N	104°42'36.812"W	0.00	
12517.00†	90.272	359.583	7390.54	4748.77	4748.34	-76.42	40°04'22.413"N	104°42'36.821"W	0.00	
12617.00†	90.272	359.583	7390.07	4848.77	4848.34	-77.15	40°04'23.401"N	104°42'36.830"W	0.00	
12717.00†	90.272	359.583	7389.59	4948.77	4948.34	-77.88	40°04'24.389"N	104°42'36.840"W	0.00	
12817.00†	90.272	359.583	7389.12	5048.77	5048.33	-78.61	40°04'25.378"N	104°42'36.849"W	0.00	
12917.00†	90.272	359.583	7388.64	5148.77	5148.33	-79.33	40°04'26.366"N	104°42'36.858"W	0.00	
13017.00†	90.272	359.583	7388.17	5248.77	5248.32	-80.06	40°04'27.354"N	104°42'36.868"W	0.00	
13052.70	90.272	359.583	7388.00 ¹	5284.46	5284.02	-80.32	40°04'27.707"N	104°42'36.871"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS - Ref Wellbore: STEWARD 14C-6HZ PWB Ref Wellpath: STEWARD 14C-6HZ (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	17.00	1587.00	1570.00	17.00	1587.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	1587.00	1570.00	17.00	1587.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1587.00	7788.91	6201.91	1587.00	7413.00	0.00	0.00	20.43	-42.04
7in Casing Intermediate	17.00	7788.91	7771.91	17.00	7413.00	0.00	0.00	20.43	-42.04
6.125in Open Hole	7788.91	13052.70	5263.79	7413.00	NA	20.43	-42.04	NA	NA
4.5in Casing Intermediate	17.00	13052.70	13035.70	17.00	NA	0.00	0.00	NA	NA

Planned Wellpath Report

STEWARD 14C-6HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 STEWARD 14C-6HZ (440'FSL & 1689'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 14C-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 14C-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	-29.94	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	-29.94	3221106.82	1265636.47	40°03'35.489"N	104°42'36.223"W	polygon
1) STEWARD 14C-6HZ (410'FSL & 1647'FWL, SEC.06) REV-1	13052.70	7388.00	5284.02	-80.32	3221009.36	1270919.62	40°04'27.707"N	104°42'36.871"W	point

SURVEY PROGRAM - Ref Wellbore: STEWARD 14C-6HZ PWB					Ref Wellpath: STEWARD 14C-6HZ (PERMIT REV-1) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model			Log Name/Comment		Wellbore		
17.00	13052.70	NaviTrak (IFR)					STEWARD 14C-6HZ PWB		

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 STEWARD 14C-6HZ (440'FSL & 1689'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 14C-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 14C-6HZ PWB
Facility	SEC.07-T1N-R65W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1537.00	0.000	183.900	1537.00	Fox Hills Marker
4171.49	10.000	183.900	4139.00	Parkman
4513.68	10.000	183.900	4476.00	Sussex
6786.19	0.000	359.583	6740.05	4 1/2" LINER TOP
7092.58	20.639	359.583	7042.00	Sharon Springs
7127.19	24.100	359.583	7074.00	Niobrara A
7248.89	36.270	359.583	7179.00	Niobrara B
7330.30	44.411	359.583	7241.00	Niobrara C
7606.32	72.013	359.583	7385.00	Fort Hays
7710.42	82.423	359.583	7408.00	Codell

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	183.900	17.00	TIE-ON
1700.00	0.000	183.900	1700.00	BEGIN NUDGE
2200.00	10.000	183.900	2197.47	END NUDGE
4903.61	10.000	183.900	4860.00	BEGIN DROP
5403.61	0.000	359.583	5357.47	END DROP
6886.19	0.000	359.583	6840.05	KOP, BUILD @ 10°/100'
7788.91	90.272	359.583	7413.00	LANDING POINT
13052.70	90.272	359.583	7388.00	TOTAL DEPTH