

# KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#05 STEWARD 13N-6HZ (442°FSL & 1479°FWL, SEC.07)  
 Field: WELD COUNTY (KERR MCGEE) Well: STEWARD 13N-6HZ  
 Facility: SEC.07-T1N-R65W Wellbore: STEWARD 13N-6HZ PWB

Plot reference wellpath is STEWARD 13N-6HZ (PERMIT REV-3) 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: 5021 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#05 STEWARD 13N-6HZ (442°FSL & 1479°FWL, SEC.07)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: robiale01 on 9/9/2014

## 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#05 STEWARD 13N-6HZ (442°FSL & 1479°FWL, SEC.07)	-75.87	-335.78	3220926.836	1265633.751	40°03'35.478"N	104°42'38.538"W
PERMIT (17KB) (RKB) to Mud line (At Slot: SLOT#05 STEWARD 13N-6HZ (442°FSL & 1479°FWL, SEC.07))		5021ft				
Mean Sea Level to Mud line (At Slot: SLOT#05 STEWARD 13N-6HZ (442°FSL & 1479°FWL, SEC.07))		0ft				
PERMIT (17KB) (RKB) to Mean Sea Level		5021ft				

## Survey Program

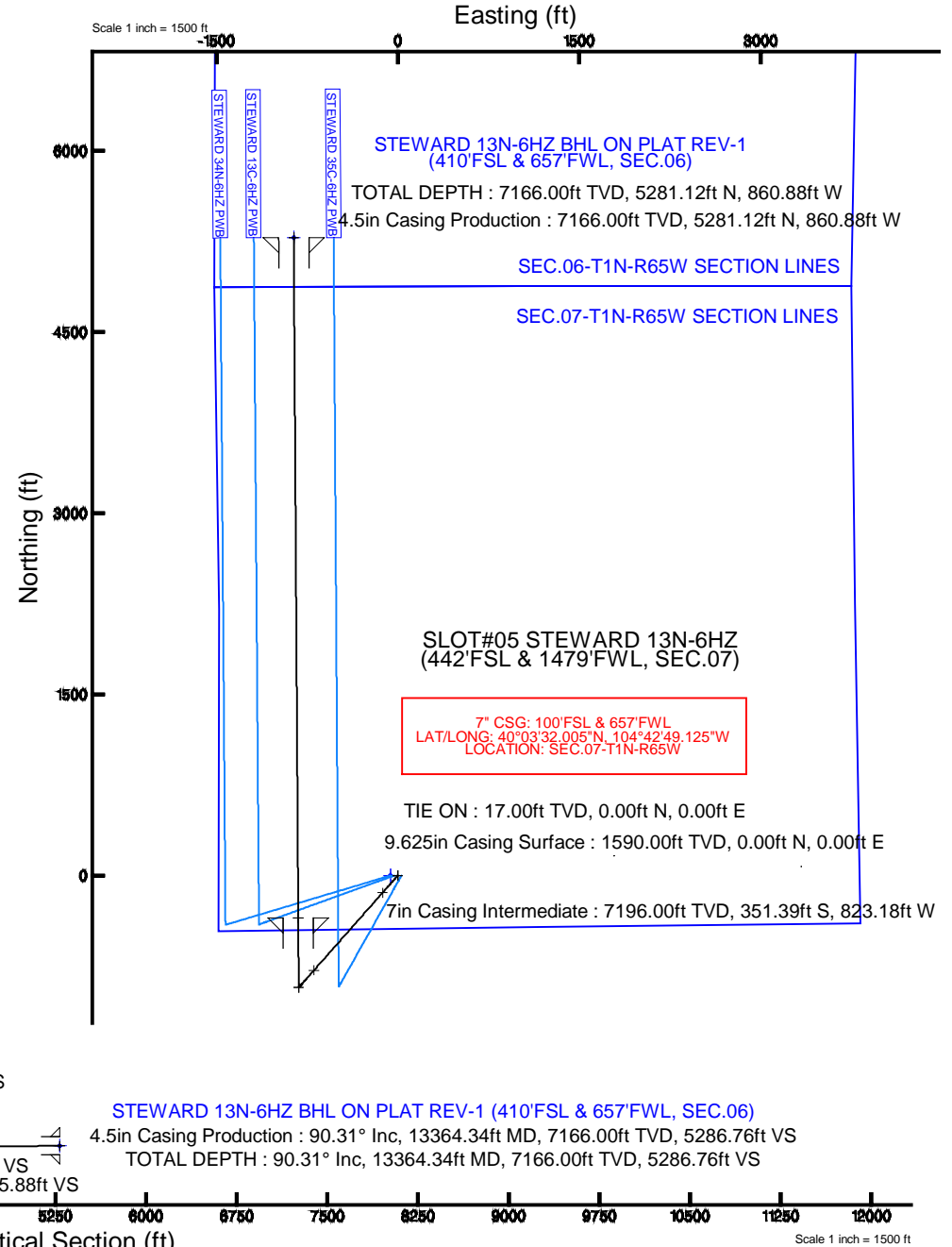
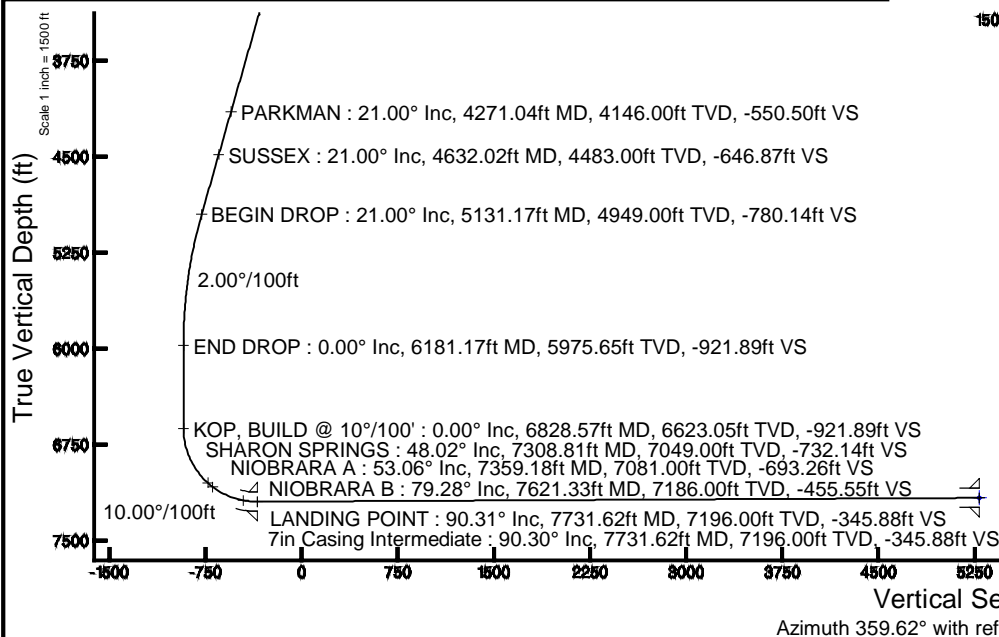
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	13364.34	NaviTrak	NaviTrak (MAGCORR,IFR)		STEWARD 13N-6HZ PWB

## 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	-0.40	-60.18	3220866.66	1265632.81	40°03'35.474"N	104°42'39.312"W
SEC.07-T1N-R65W SECTION LINES		0.00	-0.40	-60.18	3220866.66	1265632.81	40°03'35.474"N	104°42'39.312"W
STEWARD 13N-6HZ BHL ON PLAT REV-1 (410°FSL & 657°FWL, SEC.06)	13364.34	7166.00	5281.12	-860.88	3220019.02	1270906.79	40°04'27.667"N	104°42'49.612"W

## 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	221.460	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1690.00	0.000	221.460	1690.00	0.00	0.00	0.00	0.00
END NUDGE	2740.00	21.000	221.460	2716.65	-142.60	-125.98	2.00	-141.75
BEGIN DROP	5131.17	21.000	221.460	4949.00	-784.79	-693.35	0.00	-780.14
END DROP	6181.17	0.000	359.617	5975.65	-927.39	-819.33	2.00	-921.89
KOP, BUILD @ 10°/100'	6828.57	0.000	359.617	6623.05	-927.39	-819.33	0.00	-921.89
LANDING POINT	7731.62	90.305	359.617	7196.00	-351.39	-823.18	10.00	-345.88
TOTAL DEPTH	13364.34	90.305	359.617	7166.00	5281.12	-860.88	0.00	5286.76



REFERENCE WELLPATH IDENTIFICATION			
Operator	<b>KERR-MCGEE OIL &amp; GAS ONSHORE LP</b>	Slot	<b>SLOT#05 STEWARD 13N-6HZ (442'FSL &amp; 1479'FWL, SEC.07)</b>
Area	<b>COLORADO</b>	Well	<b>STEWARD 13N-6HZ</b>
Field	<b>WELD COUNTY (KERR MCGEE)</b>	Wellbore	<b>STEWARD 13N-6HZ PWB</b>
Facility	<b>SEC.07-T1N-R65W</b>		

REPORT SETUP INFORMATION			
Projection System	<b>NAD83 / Lambert Colorado SP, Northern Zone (501), US feet</b>	Software System	<b>WellArchitect® 4.0.0</b>
North Reference	<b>True</b>	User	<b>Robiale01</b>
Scale	<b>0.999962</b>	Report Generated	<b>9/9/2014 at 2:31:49 PM</b>
Convergence at slot	<b>n/a</b>	Database/Source file	<b>WellArchitectDB/STEWARD_13N-6HZ_PWB.xml</b>

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-75.87	-3335.78	3220926.84	1265633.75	<b>40°03'35.478"N</b>	<b>104°42'38.538"W</b>
Facility Reference Pt			3224261.66	1265739.76	<b>40°03'36.230"N</b>	<b>104°41'55.637"W</b>
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	<b>Minimum curvature</b>	PERMIT (17'KB) (RKB) to Facility Vertical Datum	<b>5021.00ft</b>
Horizontal Reference Pt	<b>Slot</b>	PERMIT (17'KB) (RKB) to Mean Sea Level	<b>5021.00ft</b>
Vertical Reference Pt	<b>PERMIT (17'KB) (RKB)</b>	PERMIT (17'KB) (RKB) to Mud Line at Slot (SLOT#05 STEWARD 13N-6HZ (442'FSL & 1479'FWL, SEC.07))	<b>5021.00ft</b>
MD Reference Pt	<b>PERMIT (17'KB) (RKB)</b>	Section Origin	<b>N 0.00, E 0.00 ft</b>
Field Vertical Reference	<b>Mean Sea Level</b>	Section Azimuth	<b>359.62°</b>

# Planned Wellpath Report

## STEWARD 13N-6HZ (PERMIT REV-3) PWP

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 STEWARD 13N-6HZ (442'FSL & 1479'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 13N-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 13N-6HZ PWB
Facility	SEC.07-T1N-R65W		

WELLPATH DATA (148 stations) † = interpolated/extrapolated station										
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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	221.460	0.00	0.00	0.00	0.00	40°03'35.478"N	104°42'38.538"W	0.00	
17.00	0.000	221.460	17.00	0.00	0.00	0.00	40°03'35.478"N	104°42'38.538"W	0.00	TIE ON
117.00†	0.000	221.460	117.00	0.00	0.00	0.00	40°03'35.478"N	104°42'38.538"W	0.00	
217.00†	0.000	221.460	217.00	0.00	0.00	0.00	40°03'35.478"N	104°42'38.538"W	0.00	
317.00†	0.000	221.460	317.00	0.00	0.00	0.00	40°03'35.478"N	104°42'38.538"W	0.00	
417.00†	0.000	221.460	417.00	0.00	0.00	0.00	40°03'35.478"N	104°42'38.538"W	0.00	
517.00†	0.000	221.460	517.00	0.00	0.00	0.00	40°03'35.478"N	104°42'38.538"W	0.00	
617.00†	0.000	221.460	617.00	0.00	0.00	0.00	40°03'35.478"N	104°42'38.538"W	0.00	
717.00†	0.000	221.460	717.00	0.00	0.00	0.00	40°03'35.478"N	104°42'38.538"W	0.00	
817.00†	0.000	221.460	817.00	0.00	0.00	0.00	40°03'35.478"N	104°42'38.538"W	0.00	
917.00†	0.000	221.460	917.00	0.00	0.00	0.00	40°03'35.478"N	104°42'38.538"W	0.00	
1017.00†	0.000	221.460	1017.00	0.00	0.00	0.00	40°03'35.478"N	104°42'38.538"W	0.00	
1117.00†	0.000	221.460	1117.00	0.00	0.00	0.00	40°03'35.478"N	104°42'38.538"W	0.00	
1217.00†	0.000	221.460	1217.00	0.00	0.00	0.00	40°03'35.478"N	104°42'38.538"W	0.00	
1317.00†	0.000	221.460	1317.00	0.00	0.00	0.00	40°03'35.478"N	104°42'38.538"W	0.00	
1417.00†	0.000	221.460	1417.00	0.00	0.00	0.00	40°03'35.478"N	104°42'38.538"W	0.00	
1517.00†	0.000	221.460	1517.00	0.00	0.00	0.00	40°03'35.478"N	104°42'38.538"W	0.00	
1540.00†	0.000	221.460	1540.00	0.00	0.00	0.00	40°03'35.478"N	104°42'38.538"W	0.00	FOX HILLS MARKER
1617.00†	0.000	221.460	1617.00	0.00	0.00	0.00	40°03'35.478"N	104°42'38.538"W	0.00	
1690.00	0.000	221.460	1690.00	0.00	0.00	0.00	40°03'35.478"N	104°42'38.538"W	0.00	BEGIN NUDGE
1717.00†	0.540	221.460	1717.00	-0.09	-0.10	-0.08	40°03'35.477"N	104°42'38.539"W	2.00	
1817.00†	2.540	221.460	1816.96	-2.10	-2.11	-1.86	40°03'35.457"N	104°42'38.562"W	2.00	
1917.00†	4.540	221.460	1916.76	-6.70	-6.74	-5.95	40°03'35.411"N	104°42'38.615"W	2.00	
2017.00†	6.540	221.460	2016.29	-13.89	-13.97	-12.34	40°03'35.340"N	104°42'38.697"W	2.00	
2117.00†	8.540	221.460	2115.42	-23.66	-23.80	-21.03	40°03'35.243"N	104°42'38.808"W	2.00	
2217.00†	10.540	221.460	2214.03	-36.01	-36.22	-32.00	40°03'35.120"N	104°42'38.950"W	2.00	
2317.00†	12.540	221.460	2312.01	-50.91	-51.22	-45.25	40°03'34.972"N	104°42'39.120"W	2.00	
2417.00†	14.540	221.460	2409.22	-68.35	-68.76	-60.75	40°03'34.798"N	104°42'39.319"W	2.00	
2517.00†	16.540	221.460	2505.56	-88.31	-88.84	-78.49	40°03'34.600"N	104°42'39.547"W	2.00	
2617.00†	18.540	221.460	2600.91	-110.76	-111.42	-98.44	40°03'34.377"N	104°42'39.804"W	2.00	
2717.00†	20.540	221.460	2695.14	-135.68	-136.49	-120.58	40°03'34.129"N	104°42'40.089"W	2.00	
2740.00	21.000	221.460	2716.65	-141.75	-142.60	-125.98	40°03'34.069"N	104°42'40.158"W	2.00	END NUDGE
2817.00†	21.000	221.460	2788.53	-162.31	-163.28	-144.25	40°03'33.864"N	104°42'40.393"W	0.00	
2917.00†	21.000	221.460	2881.89	-189.01	-190.13	-167.98	40°03'33.599"N	104°42'40.698"W	0.00	
3017.00†	21.000	221.460	2975.25	-215.70	-216.99	-191.71	40°03'33.334"N	104°42'41.004"W	0.00	
3117.00†	21.000	221.460	3068.61	-242.40	-243.85	-215.43	40°03'33.068"N	104°42'41.309"W	0.00	
3217.00†	21.000	221.460	3161.97	-269.10	-270.70	-239.16	40°03'32.803"N	104°42'41.614"W	0.00	
3317.00†	21.000	221.460	3255.32	-295.80	-297.56	-262.89	40°03'32.537"N	104°42'41.919"W	0.00	
3417.00†	21.000	221.460	3348.68	-322.49	-324.42	-286.62	40°03'32.272"N	104°42'42.224"W	0.00	
3517.00†	21.000	221.460	3442.04	-349.19	-351.27	-310.34	40°03'32.007"N	104°42'42.529"W	0.00	
3617.00†	21.000	221.460	3535.40	-375.89	-378.13	-334.07	40°03'31.741"N	104°42'42.834"W	0.00	
3717.00†	21.000	221.460	3628.76	-402.59	-404.99	-357.80	40°03'31.476"N	104°42'43.140"W	0.00	
3817.00†	21.000	221.460	3722.11	-429.28	-431.84	-381.53	40°03'31.210"N	104°42'43.445"W	0.00	
3917.00†	21.000	221.460	3815.47	-455.98	-458.70	-405.25	40°03'30.945"N	104°42'43.750"W	0.00	
4017.00†	21.000	221.460	3908.83	-482.68	-485.56	-428.98	40°03'30.680"N	104°42'44.055"W	0.00	

REFERENCE WELLPATH IDENTIFICATION			
Operator	<b>KERR-MCGEE OIL &amp; GAS ONSHORE LP</b>	Slot	<b>SLOT#05 STEWARD 13N-6HZ (442'FSL &amp; 1479'FWL, SEC.07)</b>
Area	<b>COLORADO</b>	Well	<b>STEWARD 13N-6HZ</b>
Field	<b>WELD COUNTY (KERR MCGEE)</b>	Wellbore	<b>STEWARD 13N-6HZ PWB</b>
Facility	<b>SEC.07-T1N-R65W</b>		

WELLPATH DATA (148 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4117.00†	21.000	221.460	4002.19	-509.38	-512.42	-452.71	40°03'30.414"N	104°42'44.360"W	0.00	
4217.00†	21.000	221.460	4095.55	-536.08	-539.27	-476.44	40°03'30.149"N	104°42'44.665"W	0.00	
4271.04†	21.000	221.460	4146.00	-550.50	-553.79	-489.26	40°03'30.005"N	104°42'44.830"W	0.00	PARKMAN
4317.00†	21.000	221.460	4188.90	-562.77	-566.13	-500.16	40°03'29.883"N	104°42'44.970"W	0.00	
4417.00†	21.000	221.460	4282.26	-589.47	-592.99	-523.89	40°03'29.618"N	104°42'45.276"W	0.00	
4517.00†	21.000	221.460	4375.62	-616.17	-619.84	-547.62	40°03'29.353"N	104°42'45.581"W	0.00	
4617.00†	21.000	221.460	4468.98	-642.87	-646.70	-571.35	40°03'29.087"N	104°42'45.886"W	0.00	
4632.02†	21.000	221.460	4483.00	-646.87	-650.73	-574.91	40°03'29.047"N	104°42'45.932"W	0.00	SUSSEX
4717.00†	21.000	221.460	4562.34	-669.56	-673.56	-595.07	40°03'28.822"N	104°42'46.191"W	0.00	
4817.00†	21.000	221.460	4655.70	-696.26	-700.41	-618.80	40°03'28.556"N	104°42'46.496"W	0.00	
4917.00†	21.000	221.460	4749.05	-722.96	-727.27	-642.53	40°03'28.291"N	104°42'46.801"W	0.00	
5017.00†	21.000	221.460	4842.41	-749.66	-754.13	-666.26	40°03'28.025"N	104°42'47.106"W	0.00	
5117.00†	21.000	221.460	4935.77	-776.35	-780.98	-689.98	40°03'27.760"N	104°42'47.412"W	0.00	
5131.17	21.000	221.460	4949.00	-780.14	-784.79	-693.35	40°03'27.722"N	104°42'47.455"W	0.00	BEGIN DROP
5217.00†	19.283	221.460	5029.58	-802.15	-806.94	-712.91	40°03'27.504"N	104°42'47.706"W	2.00	
5317.00†	17.283	221.460	5124.52	-825.52	-830.45	-733.68	40°03'27.271"N	104°42'47.973"W	2.00	
5417.00†	15.283	221.460	5220.51	-846.41	-851.46	-752.25	40°03'27.064"N	104°42'48.212"W	2.00	
5517.00†	13.283	221.460	5317.41	-864.79	-869.95	-768.58	40°03'26.881"N	104°42'48.422"W	2.00	
5617.00†	11.283	221.460	5415.12	-880.64	-885.89	-782.67	40°03'26.723"N	104°42'48.603"W	2.00	
5717.00†	9.283	221.460	5513.50	-893.94	-899.27	-794.49	40°03'26.591"N	104°42'48.755"W	2.00	
5817.00†	7.283	221.460	5612.46	-904.67	-910.06	-804.02	40°03'26.484"N	104°42'48.878"W	2.00	
5917.00†	5.283	221.460	5711.85	-912.82	-918.27	-811.27	40°03'26.403"N	104°42'48.971"W	2.00	
6017.00†	3.283	221.460	5811.57	-918.39	-923.86	-816.22	40°03'26.348"N	104°42'49.035"W	2.00	
6117.00†	1.283	221.460	5911.48	-921.35	-926.85	-818.85	40°03'26.319"N	104°42'49.069"W	2.00	
6181.17	0.000	359.617	5975.65	-921.89	-927.39	-819.33	40°03'26.313"N	104°42'49.075"W	2.00	END DROP
6217.00†	0.000	359.617	6011.48	-921.89	-927.39	-819.33	40°03'26.313"N	104°42'49.075"W	0.00	
6317.00†	0.000	359.617	6111.48	-921.89	-927.39	-819.33	40°03'26.313"N	104°42'49.075"W	0.00	
6417.00†	0.000	359.617	6211.48	-921.89	-927.39	-819.33	40°03'26.313"N	104°42'49.075"W	0.00	
6517.00†	0.000	359.617	6311.48	-921.89	-927.39	-819.33	40°03'26.313"N	104°42'49.075"W	0.00	
6617.00†	0.000	359.617	6411.48	-921.89	-927.39	-819.33	40°03'26.313"N	104°42'49.075"W	0.00	
6717.00†	0.000	359.617	6511.48	-921.89	-927.39	-819.33	40°03'26.313"N	104°42'49.075"W	0.00	
6817.00†	0.000	359.617	6611.48	-921.89	-927.39	-819.33	40°03'26.313"N	104°42'49.075"W	0.00	
6828.57	0.000	359.617	6623.05	-921.89	-927.39	-819.33	40°03'26.313"N	104°42'49.075"W	0.00	KOP, BUILD @ 10°/100'
6917.00†	8.843	359.617	6711.13	-915.08	-920.58	-819.37	40°03'26.381"N	104°42'49.075"W	10.00	
7017.00†	18.843	359.617	6808.10	-891.18	-896.68	-819.53	40°03'26.617"N	104°42'49.078"W	10.00	
7117.00†	28.843	359.617	6899.45	-850.81	-856.31	-819.80	40°03'27.016"N	104°42'49.081"W	10.00	
7217.00†	38.843	359.617	6982.40	-795.19	-800.69	-820.18	40°03'27.565"N	104°42'49.086"W	10.00	
7308.81†	48.024	359.617	7049.00	-732.14	-737.64	-820.60	40°03'28.188"N	104°42'49.091"W	10.00	SHARON SPRINGS
7317.00†	48.843	359.617	7054.43	-726.01	-731.51	-820.64	40°03'28.249"N	104°42'49.092"W	10.00	
7359.18†	53.061	359.617	7081.00	-693.26	-698.76	-820.86	40°03'28.573"N	104°42'49.095"W	10.00	NIOBRARA A
7417.00†	58.843	359.617	7113.36	-645.37	-650.88	-821.18	40°03'29.046"N	104°42'49.099"W	10.00	
7517.00†	68.843	359.617	7157.39	-555.73	-561.23	-821.78	40°03'29.932"N	104°42'49.107"W	10.00	
7617.00†	78.843	359.617	7185.18	-459.80	-465.31	-822.42	40°03'30.880"N	104°42'49.115"W	10.00	
7621.33†	79.276	359.617	7186.00	-455.55	-461.06	-822.45	40°03'30.922"N	104°42'49.115"W	10.00	NIOBRARA B
7717.00†	88.843	359.617	7195.89	-360.50	-366.01	-823.09	40°03'31.861"N	104°42'49.123"W	10.00	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 STEWARD 13N-6HZ (442'FSL & 1479'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 13N-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 13N-6HZ PWB
Facility	SEC.07-T1N-R65W		

WELLPATH DATA (148 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7731.62	90.305	359.617	7196.00	-345.88	-351.39	-823.18	40°03'32.005"N	104°42'49.125"W	10.00	LANDING POINT
7817.00†	90.305	359.617	7195.54	-260.50	-266.02	-823.75	40°03'32.849"N	104°42'49.132"W	0.00	
7917.00†	90.305	359.617	7195.01	-160.51	-166.02	-824.42	40°03'33.837"N	104°42'49.141"W	0.00	
8017.00†	90.305	359.617	7194.48	-60.51	-66.02	-825.09	40°03'34.825"N	104°42'49.149"W	0.00	
8117.00†	90.305	359.617	7193.95	39.49	33.97	-825.76	40°03'35.814"N	104°42'49.158"W	0.00	
8217.00†	90.305	359.617	7193.41	139.49	133.97	-826.43	40°03'36.802"N	104°42'49.167"W	0.00	
8317.00†	90.305	359.617	7192.88	239.49	233.96	-827.10	40°03'37.790"N	104°42'49.175"W	0.00	
8417.00†	90.305	359.617	7192.35	339.49	333.96	-827.77	40°03'38.778"N	104°42'49.184"W	0.00	
8517.00†	90.305	359.617	7191.82	439.49	433.96	-828.44	40°03'39.766"N	104°42'49.193"W	0.00	
8617.00†	90.305	359.617	7191.28	539.48	533.95	-829.11	40°03'40.755"N	104°42'49.201"W	0.00	
8717.00†	90.305	359.617	7190.75	639.48	633.95	-829.78	40°03'41.743"N	104°42'49.210"W	0.00	
8817.00†	90.305	359.617	7190.22	739.48	733.95	-830.45	40°03'42.731"N	104°42'49.219"W	0.00	
8917.00†	90.305	359.617	7189.69	839.48	833.94	-831.12	40°03'43.719"N	104°42'49.227"W	0.00	
9017.00†	90.305	359.617	7189.15	939.48	933.94	-831.79	40°03'44.707"N	104°42'49.236"W	0.00	
9117.00†	90.305	359.617	7188.62	1039.48	1033.94	-832.45	40°03'45.695"N	104°42'49.245"W	0.00	
9217.00†	90.305	359.617	7188.09	1139.48	1133.93	-833.12	40°03'46.684"N	104°42'49.253"W	0.00	
9317.00†	90.305	359.617	7187.55	1239.47	1233.93	-833.79	40°03'47.672"N	104°42'49.262"W	0.00	
9417.00†	90.305	359.617	7187.02	1339.47	1333.92	-834.46	40°03'48.660"N	104°42'49.270"W	0.00	
9517.00†	90.305	359.617	7186.49	1439.47	1433.92	-835.13	40°03'49.648"N	104°42'49.279"W	0.00	
9617.00†	90.305	359.617	7185.96	1539.47	1533.92	-835.80	40°03'50.636"N	104°42'49.288"W	0.00	
9717.00†	90.305	359.617	7185.42	1639.47	1633.91	-836.47	40°03'51.625"N	104°42'49.296"W	0.00	
9817.00†	90.305	359.617	7184.89	1739.47	1733.91	-837.14	40°03'52.613"N	104°42'49.305"W	0.00	
9917.00†	90.305	359.617	7184.36	1839.47	1833.91	-837.81	40°03'53.601"N	104°42'49.314"W	0.00	
10017.00†	90.305	359.617	7183.83	1939.46	1933.90	-838.48	40°03'54.589"N	104°42'49.322"W	0.00	
10117.00†	90.305	359.617	7183.29	2039.46	2033.90	-839.15	40°03'55.577"N	104°42'49.331"W	0.00	
10217.00†	90.305	359.617	7182.76	2139.46	2133.90	-839.82	40°03'56.565"N	104°42'49.340"W	0.00	
10317.00†	90.305	359.617	7182.23	2239.46	2233.89	-840.49	40°03'57.554"N	104°42'49.348"W	0.00	
10417.00†	90.305	359.617	7181.70	2339.46	2333.89	-841.15	40°03'58.542"N	104°42'49.357"W	0.00	
10517.00†	90.305	359.617	7181.16	2439.46	2433.88	-841.82	40°03'59.530"N	104°42'49.366"W	0.00	
10617.00†	90.305	359.617	7180.63	2539.46	2533.88	-842.49	40°04'00.518"N	104°42'49.374"W	0.00	
10717.00†	90.305	359.617	7180.10	2639.45	2633.88	-843.16	40°04'01.506"N	104°42'49.383"W	0.00	
10817.00†	90.305	359.617	7179.57	2739.45	2733.87	-843.83	40°04'02.495"N	104°42'49.392"W	0.00	
10917.00†	90.305	359.617	7179.03	2839.45	2833.87	-844.50	40°04'03.483"N	104°42'49.400"W	0.00	
11017.00†	90.305	359.617	7178.50	2939.45	2933.87	-845.17	40°04'04.471"N	104°42'49.409"W	0.00	
11117.00†	90.305	359.617	7177.97	3039.45	3033.86	-845.84	40°04'05.459"N	104°42'49.418"W	0.00	
11217.00†	90.305	359.617	7177.44	3139.45	3133.86	-846.51	40°04'06.447"N	104°42'49.426"W	0.00	
11317.00†	90.305	359.617	7176.90	3239.45	3233.86	-847.18	40°04'07.436"N	104°42'49.435"W	0.00	
11417.00†	90.305	359.617	7176.37	3339.44	3333.85	-847.85	40°04'08.424"N	104°42'49.444"W	0.00	
11517.00†	90.305	359.617	7175.84	3439.44	3433.85	-848.52	40°04'09.412"N	104°42'49.452"W	0.00	
11617.00†	90.305	359.617	7175.31	3539.44	3533.84	-849.18	40°04'10.400"N	104°42'49.461"W	0.00	
11717.00†	90.305	359.617	7174.77	3639.44	3633.84	-849.85	40°04'11.388"N	104°42'49.469"W	0.00	
11817.00†	90.305	359.617	7174.24	3739.44	3733.84	-850.52	40°04'12.376"N	104°42'49.478"W	0.00	
11917.00†	90.305	359.617	7173.71	3839.44	3833.83	-851.19	40°04'13.365"N	104°42'49.487"W	0.00	
12017.00†	90.305	359.617	7173.18	3939.44	3933.83	-851.86	40°04'14.353"N	104°42'49.495"W	0.00	
12117.00†	90.305	359.617	7172.64	4039.43	4033.83	-852.53	40°04'15.341"N	104°42'49.504"W	0.00	

REFERENCE WELLPATH IDENTIFICATION			
Operator	<b>KERR-MCGEE OIL &amp; GAS ONSHORE LP</b>	Slot	<b>SLOT#05 STEWARD 13N-6HZ (442'FSL &amp; 1479'FWL, SEC.07)</b>
Area	<b>COLORADO</b>	Well	<b>STEWARD 13N-6HZ</b>
Field	<b>WELD COUNTY (KERR MCGEE)</b>	Wellbore	<b>STEWARD 13N-6HZ PWB</b>
Facility	<b>SEC.07-T1N-R65W</b>		

WELLPATH DATA (148 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12217.00†	90.305	359.617	7172.11	4139.43	4133.82	-853.20	40°04'16.329"N	104°42'49.513"W	0.00	
12317.00†	90.305	359.617	7171.58	4239.43	4233.82	-853.87	40°04'17.317"N	104°42'49.521"W	0.00	
12417.00†	90.305	359.617	7171.05	4339.43	4333.81	-854.54	40°04'18.306"N	104°42'49.530"W	0.00	
12517.00†	90.305	359.617	7170.51	4439.43	4433.81	-855.21	40°04'19.294"N	104°42'49.539"W	0.00	
12617.00†	90.305	359.617	7169.98	4539.43	4533.81	-855.88	40°04'20.282"N	104°42'49.547"W	0.00	
12717.00†	90.305	359.617	7169.45	4639.43	4633.80	-856.55	40°04'21.270"N	104°42'49.556"W	0.00	
12817.00†	90.305	359.617	7168.91	4739.42	4733.80	-857.22	40°04'22.258"N	104°42'49.565"W	0.00	
12917.00†	90.305	359.617	7168.38	4839.42	4833.80	-857.88	40°04'23.246"N	104°42'49.573"W	0.00	
13017.00†	90.305	359.617	7167.85	4939.42	4933.79	-858.55	40°04'24.235"N	104°42'49.582"W	0.00	
13117.00†	90.305	359.617	7167.32	5039.42	5033.79	-859.22	40°04'25.223"N	104°42'49.591"W	0.00	
13217.00†	90.305	359.617	7166.78	5139.42	5133.79	-859.89	40°04'26.211"N	104°42'49.599"W	0.00	
13317.00†	90.305	359.617	7166.25	5239.42	5233.78	-860.56	40°04'27.199"N	104°42'49.608"W	0.00	
13364.34	90.305	359.617	7166.00 <sup>†</sup>	5286.76	5281.12	-860.88	40°04'27.667"N	104°42'49.612"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS -									
Ref Wellbore: STEWARD 13N-6HZ PWB      Ref Wellpath: STEWARD 13N-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	1590.00	1573.00	17.00	1590.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	1590.00	1573.00	17.00	1590.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1590.00	7731.62	6141.62	1590.00	7196.00	0.00	0.00	-351.39	-823.18
7in Casing Intermediate	17.00	7731.62	7714.62	17.00	7196.00	0.00	0.00	-351.39	-823.18
6.125in Open Hole	7731.62	13364.34	5632.72	7196.00	7166.00	-351.39	-823.18	5281.12	-860.88
4.5in Casing Production	17.00	13364.34	13347.34	17.00	7166.00	0.00	0.00	5281.12	-860.88



# Planned Wellpath Report

## STEWARD 13N-6HZ (PERMIT REV-3) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 STEWARD 13N-6HZ (442'FSL & 1479'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 13N-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 13N-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	-0.40	-60.18	3220866.66	1265632.81	40°03'35.474"N	104°42'39.312"W	polygon
SEC.07-T1N-R65W SECTION LINES		0.00	-0.40	-60.18	3220866.66	1265632.81	40°03'35.474"N	104°42'39.312"W	polygon
1) STEWARD 13N-6HZ BHL ON PLAT REV-1 (410'FSL & 657'FWL, SEC.06)	13364.34	7166.00	5281.12	-860.88	3220019.02	1270906.79	40°04'27.667"N	104°42'49.612"W	point

SURVEY PROGRAM - Ref Wellbore: STEWARD 13N-6HZ PWB					Ref Wellpath: STEWARD 13N-6HZ (PERMIT REV-3) PWP	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore		
17.00	13364.34	NaviTrak (MAGCORR,IFR)		STEWARD 13N-6HZ PWB		

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 STEWARD 13N-6HZ (442'FSL & 1479'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 13N-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 13N-6HZ PWB
Facility	SEC.07-T1N-R65W		

WELLPATH COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
1540.00	0.000	221.460	1540.00	FOX HILLS MARKER	
4271.04	21.000	221.460	4146.00	PARKMAN	
4632.02	21.000	221.460	4483.00	SUSSEX	
7308.81	48.024	359.617	7049.00	SHARON SPRINGS	
7359.18	53.061	359.617	7081.00	NIOBRARA A	
7621.33	79.276	359.617	7186.00	NIOBRARA B	

DESIGN COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
17.00	0.000	221.460	17.00	TIE ON	
1690.00	0.000	221.460	1690.00	BEGIN NUDGE	
2740.00	21.000	221.460	2716.65	END NUDGE	
5131.17	21.000	221.460	4949.00	BEGIN DROP	
6181.17	0.000	359.617	5975.65	END DROP	
6828.57	0.000	359.617	6623.05	KOP, BUILD @ 10°/100'	
7731.62	90.305	359.617	7196.00	LANDING POINT	
13364.34	90.305	359.617	7166.00	TOTAL DEPTH	