

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#11 STEWARD 36N-6HZ (440'FSL & 1779'FWL, SEC.07)
 Field: WELD COUNTY (KERR MCGEE) Well: STEWARD 36N-6HZ
 Facility: SEC.07-T1N-R65W Wellbore: STEWARD 36N-6HZ PWB

Plot reference wellpath is STEWARD 36N-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: 5018 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#11 STEWARD 36N-6HZ (440'FSL & 1779'FWL, SEC.07)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: amarcar on 10/3/2014

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#11 STEWARD 36N-6HZ (440'FSL & 1779'FWL, SEC.07)	-74.09	-3035.95	3221226.620	1265638.243	40°03'35.496"N	104°42'34.682"W
PERMIT (17KB) (RKB) to Mud line (At Slot: SLOT#11 STEWARD 36N-6HZ (440'FSL & 1779'FWL, SEC.07))	5018ft					
Mean Sea Level to Mud line (At Slot: SLOT#11 STEWARD 36N-6HZ (440'FSL & 1779'FWL, SEC.07))	0ft					
PERMIT (17KB) (RKB) to Mean Sea Level	5018ft					

Survey Program

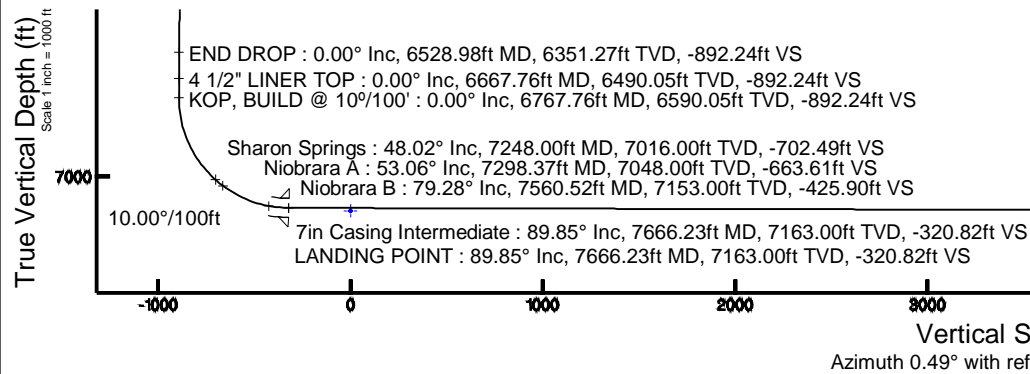
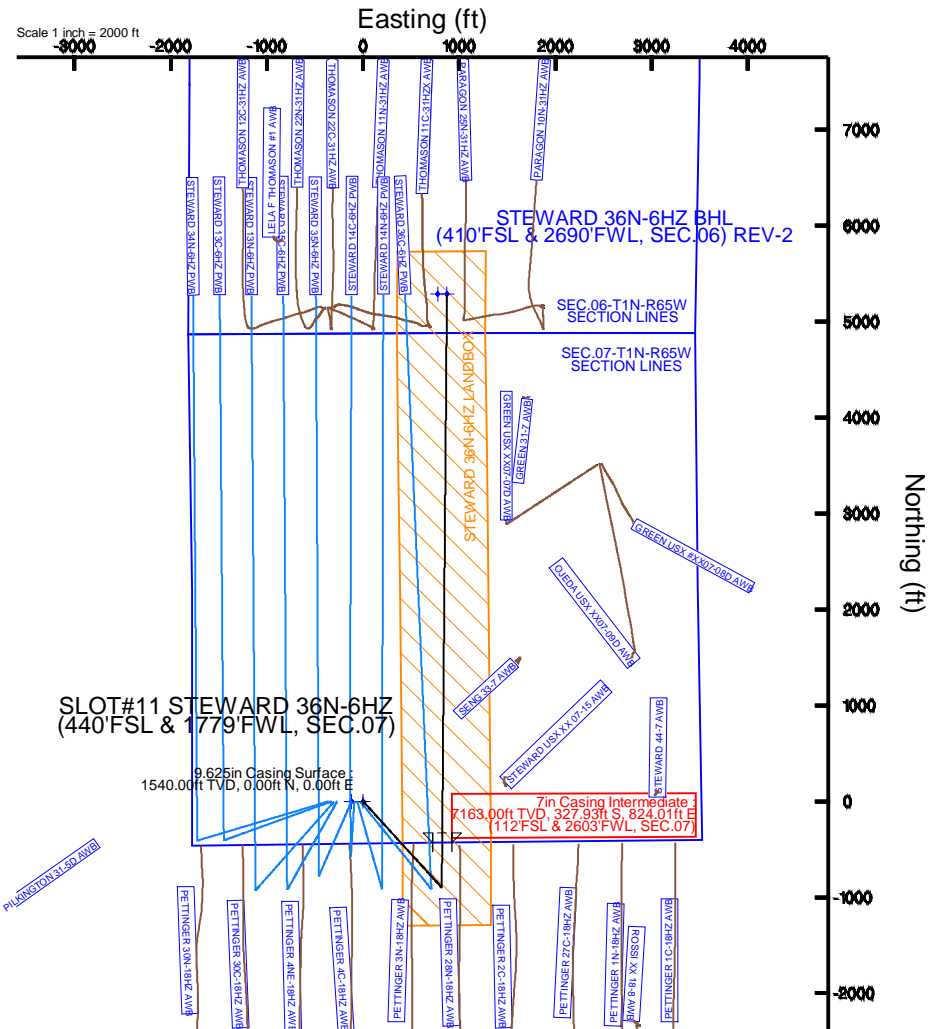
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	13281.36	NaviTrak	NaviTrak (MAGCORR, IFR)		STEWARD 36N-6HZ PWB

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	137.674	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1700.00	0.000	137.674	1700.00	0.00	0.00	0.00	0.00
END NUDGE	2600.00	18.000	137.674	2585.27	-103.66	94.41	2.00	-102.85
BEGIN DROP	5628.98	18.000	137.674	5466.00	-795.68	724.67	0.00	-789.40
END DROP	6528.98	0.000	0.494	6351.27	-899.34	819.08	2.00	-892.24
KOP, BUILD @ 10°/100'	6767.76	0.000	0.494	6590.05	-899.34	819.08	0.00	-892.24
LANDING POINT	7666.23	89.847	0.494	7163.00	-327.93	824.01	10.00	-320.82
TOTAL DEPTH	13281.36	89.847	0.494	7178.00	5286.97	872.46	0.00	5294.30

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	-0.71	-119.82	3221106.82	1265636.47	40°03'35.489"N	104°42'36.223"W
SEC.07-T1N-R65W SECTION LINES		0.00	-0.71	-119.82	3221106.82	1265636.47	40°03'35.489"N	104°42'36.223"W
STEWARD 36N-6HZ BHL (410'FSL & 2690'FWL, SEC.06) REV-2	13281.36	7178.00	5286.97	872.46	3222051.89	1270932.57	40°04'27.743"N	104°42'23.459"W
STEWARD 36N-6HZ BHL ON PLAT (410'FSL & 2593'FWL, SEC.06) REV-1	7178.00	5286.97	775.46	3221954.90	1270931.70	104°04'27.743"N	104°42'24.707"W	
STEWARD 36N-6HZ LANDBOX	7178.00	0.00	0.00	0.00	3221226.62	1265638.24	40°03'35.496"N	104°42'34.682"W



STEWARD 36N-6HZ BHL (410'FSL & 2690'FWL, SEC.06) REV-2
 TOTAL DEPTH : 89.85° Inc, 13281.36ft MD, 7178.00ft TVD, 5294.30ft VS

Vertical Section (ft)
 Azimuth 0.49° with reference 0.00 N, 0.00 E

Scale 1 inch = 1000 ft

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 STEWARD 36N-6HZ (440'FSL & 1779'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 36N-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 36N-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 11:20:46 AM
Convergence at slot	n/a	Database/Source file	WellArchitectDB/STEWARD_36N-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	-74.09	-3035.95	3221226.62	1265638.24	40°03'35.496"N	104°42'34.682"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#11 STEWARD 36N-6HZ (440'FSL & 1779'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	0.49°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 STEWARD 36N-6HZ (440'FSL & 1779'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 36N-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 36N-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
0.00†	0.000	137.674	0.00	0.00	0.00	0.00	40°03'35.496"N	104°42'34.682"W	0.00	
17.00	0.000	137.674	17.00	0.00	0.00	0.00	40°03'35.496"N	104°42'34.682"W	0.00	TIE-ON
117.00†	0.000	137.674	117.00	0.00	0.00	0.00	40°03'35.496"N	104°42'34.682"W	0.00	
217.00†	0.000	137.674	217.00	0.00	0.00	0.00	40°03'35.496"N	104°42'34.682"W	0.00	
317.00†	0.000	137.674	317.00	0.00	0.00	0.00	40°03'35.496"N	104°42'34.682"W	0.00	
417.00†	0.000	137.674	417.00	0.00	0.00	0.00	40°03'35.496"N	104°42'34.682"W	0.00	
517.00†	0.000	137.674	517.00	0.00	0.00	0.00	40°03'35.496"N	104°42'34.682"W	0.00	
617.00†	0.000	137.674	617.00	0.00	0.00	0.00	40°03'35.496"N	104°42'34.682"W	0.00	
717.00†	0.000	137.674	717.00	0.00	0.00	0.00	40°03'35.496"N	104°42'34.682"W	0.00	
817.00†	0.000	137.674	817.00	0.00	0.00	0.00	40°03'35.496"N	104°42'34.682"W	0.00	
917.00†	0.000	137.674	917.00	0.00	0.00	0.00	40°03'35.496"N	104°42'34.682"W	0.00	
1017.00†	0.000	137.674	1017.00	0.00	0.00	0.00	40°03'35.496"N	104°42'34.682"W	0.00	
1117.00†	0.000	137.674	1117.00	0.00	0.00	0.00	40°03'35.496"N	104°42'34.682"W	0.00	
1217.00†	0.000	137.674	1217.00	0.00	0.00	0.00	40°03'35.496"N	104°42'34.682"W	0.00	
1317.00†	0.000	137.674	1317.00	0.00	0.00	0.00	40°03'35.496"N	104°42'34.682"W	0.00	
1417.00†	0.000	137.674	1417.00	0.00	0.00	0.00	40°03'35.496"N	104°42'34.682"W	0.00	
1517.00†	0.000	137.674	1517.00	0.00	0.00	0.00	40°03'35.496"N	104°42'34.682"W	0.00	
1537.00†	0.000	137.674	1537.00	0.00	0.00	0.00	40°03'35.496"N	104°42'34.682"W	0.00	Fox Hills Marker
1617.00†	0.000	137.674	1617.00	0.00	0.00	0.00	40°03'35.496"N	104°42'34.682"W	0.00	
1700.00	0.000	137.674	1700.00	0.00	0.00	0.00	40°03'35.496"N	104°42'34.682"W	0.00	BEGIN NUDGE
1717.00†	0.340	137.674	1717.00	-0.04	-0.04	0.03	40°03'35.496"N	104°42'34.682"W	2.00	
1817.00†	2.340	137.674	1816.97	-1.75	-1.77	1.61	40°03'35.479"N	104°42'34.661"W	2.00	
1917.00†	4.340	137.674	1916.79	-6.03	-6.07	5.53	40°03'35.436"N	104°42'34.611"W	2.00	
2017.00†	6.340	137.674	2016.35	-12.85	-12.95	11.80	40°03'35.368"N	104°42'34.530"W	2.00	
2117.00†	8.340	137.674	2115.53	-22.22	-22.40	20.40	40°03'35.275"N	104°42'34.420"W	2.00	
2217.00†	10.340	137.674	2214.20	-34.13	-34.40	31.33	40°03'35.156"N	104°42'34.279"W	2.00	
2317.00†	12.340	137.674	2312.24	-48.55	-48.93	44.57	40°03'35.012"N	104°42'34.109"W	2.00	
2417.00†	14.340	137.674	2409.54	-65.47	-65.99	60.10	40°03'34.844"N	104°42'33.909"W	2.00	
2517.00†	16.340	137.674	2505.97	-84.87	-85.55	77.91	40°03'34.651"N	104°42'33.680"W	2.00	
2600.00	18.000	137.674	2585.27	-102.85	-103.66	94.41	40°03'34.472"N	104°42'33.468"W	2.00	END NUDGE
2617.00†	18.000	137.674	2601.44	-106.70	-107.55	97.95	40°03'34.433"N	104°42'33.422"W	0.00	
2717.00†	18.000	137.674	2696.54	-129.36	-130.39	118.76	40°03'34.207"N	104°42'33.155"W	0.00	
2817.00†	18.000	137.674	2791.65	-152.03	-153.24	139.56	40°03'33.982"N	104°42'32.887"W	0.00	
2917.00†	18.000	137.674	2886.75	-174.70	-176.09	160.37	40°03'33.756"N	104°42'32.619"W	0.00	
3017.00†	18.000	137.674	2981.86	-197.36	-198.93	181.18	40°03'33.530"N	104°42'32.352"W	0.00	
3117.00†	18.000	137.674	3076.96	-220.03	-221.78	201.99	40°03'33.304"N	104°42'32.084"W	0.00	
3217.00†	18.000	137.674	3172.07	-242.70	-244.63	222.79	40°03'33.079"N	104°42'31.817"W	0.00	
3317.00†	18.000	137.674	3267.18	-265.36	-267.47	243.60	40°03'32.853"N	104°42'31.549"W	0.00	
3417.00†	18.000	137.674	3362.28	-288.03	-290.32	264.41	40°03'32.627"N	104°42'31.281"W	0.00	
3517.00†	18.000	137.674	3457.39	-310.69	-313.16	285.22	40°03'32.401"N	104°42'31.014"W	0.00	
3617.00†	18.000	137.674	3552.49	-333.36	-336.01	306.03	40°03'32.175"N	104°42'30.746"W	0.00	
3717.00†	18.000	137.674	3647.60	-356.03	-358.86	326.83	40°03'31.950"N	104°42'30.479"W	0.00	
3817.00†	18.000	137.674	3742.70	-378.69	-381.70	347.64	40°03'31.724"N	104°42'30.211"W	0.00	
3917.00†	18.000	137.674	3837.81	-401.36	-404.55	368.45	40°03'31.498"N	104°42'29.944"W	0.00	
4017.00†	18.000	137.674	3932.92	-424.02	-427.40	389.26	40°03'31.272"N	104°42'29.676"W	0.00	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 STEWARD 36N-6HZ (440'FSL & 1779'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 36N-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 36N-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
4117.00†	18.000	137.674	4028.02	-446.69	-450.24	410.06	40°03'31.047"N	104°42'29.408"W	0.00	
4206.35†	18.000	137.674	4113.00	-466.94	-470.66	428.66	40°03'30.845"N	104°42'29.169"W	0.00	Parkman
4217.00†	18.000	137.674	4123.13	-469.36	-473.09	430.87	40°03'30.821"N	104°42'29.141"W	0.00	
4317.00†	18.000	137.674	4218.23	-492.02	-495.94	451.68	40°03'30.595"N	104°42'28.873"W	0.00	
4417.00†	18.000	137.674	4313.34	-514.69	-518.78	472.49	40°03'30.369"N	104°42'28.606"W	0.00	
4517.00†	18.000	137.674	4408.44	-537.36	-541.63	493.29	40°03'30.143"N	104°42'28.338"W	0.00	
4560.69†	18.000	137.674	4450.00	-547.26	-551.61	502.39	40°03'30.045"N	104°42'28.221"W	0.00	Sussex
4617.00†	18.000	137.674	4503.55	-560.02	-564.48	514.10	40°03'29.918"N	104°42'28.070"W	0.00	
4717.00†	18.000	137.674	4598.66	-582.69	-587.32	534.91	40°03'29.692"N	104°42'27.803"W	0.00	
4817.00†	18.000	137.674	4693.76	-605.35	-610.17	555.72	40°03'29.466"N	104°42'27.535"W	0.00	
4917.00†	18.000	137.674	4788.87	-628.02	-633.01	576.52	40°03'29.240"N	104°42'27.268"W	0.00	
5017.00†	18.000	137.674	4883.97	-650.69	-655.86	597.33	40°03'29.015"N	104°42'27.000"W	0.00	
5117.00†	18.000	137.674	4979.08	-673.35	-678.71	618.14	40°03'28.789"N	104°42'26.732"W	0.00	
5217.00†	18.000	137.674	5074.18	-696.02	-701.55	638.95	40°03'28.563"N	104°42'26.465"W	0.00	
5317.00†	18.000	137.674	5169.29	-718.68	-724.40	659.75	40°03'28.337"N	104°42'26.197"W	0.00	
5417.00†	18.000	137.674	5264.39	-741.35	-747.25	680.56	40°03'28.111"N	104°42'25.930"W	0.00	
5517.00†	18.000	137.674	5359.50	-764.02	-770.09	701.37	40°03'27.886"N	104°42'25.662"W	0.00	
5617.00†	18.000	137.674	5454.61	-786.68	-792.94	722.18	40°03'27.660"N	104°42'25.394"W	0.00	
5628.98	18.000	137.674	5466.00	-789.40	-795.68	724.67	40°03'27.633"N	104°42'25.362"W	0.00	BEGIN DROP
5717.00†	16.240	137.674	5550.12	-808.40	-814.83	742.12	40°03'27.444"N	104°42'25.138"W	2.00	
5817.00†	14.240	137.674	5646.59	-827.68	-834.26	759.81	40°03'27.251"N	104°42'24.910"W	2.00	
5917.00†	12.240	137.674	5743.93	-844.48	-851.20	775.24	40°03'27.084"N	104°42'24.712"W	2.00	
6017.00†	10.240	137.674	5842.01	-858.78	-865.61	788.36	40°03'26.942"N	104°42'24.543"W	2.00	
6117.00†	8.240	137.674	5940.71	-870.55	-877.48	799.17	40°03'26.824"N	104°42'24.404"W	2.00	
6217.00†	6.240	137.674	6039.90	-879.80	-886.79	807.65	40°03'26.732"N	104°42'24.295"W	2.00	
6317.00†	4.240	137.674	6139.48	-886.49	-893.54	813.80	40°03'26.666"N	104°42'24.216"W	2.00	
6417.00†	2.240	137.674	6239.32	-890.64	-897.72	817.61	40°03'26.624"N	104°42'24.167"W	2.00	
6517.00†	0.240	137.674	6339.29	-892.23	-899.32	819.07	40°03'26.609"N	104°42'24.148"W	2.00	
6528.98	0.000	0.494	6351.27	-892.24	-899.34	819.08	40°03'26.608"N	104°42'24.148"W	2.00	END DROP
6617.00†	0.000	0.494	6439.29	-892.24	-899.34	819.08	40°03'26.608"N	104°42'24.148"W	0.00	
6667.76†	0.000	0.494	6490.05	-892.24	-899.34	819.08	40°03'26.608"N	104°42'24.148"W	0.00	4 1/2" LINER TOP
6717.00†	0.000	0.494	6539.29	-892.24	-899.34	819.08	40°03'26.608"N	104°42'24.148"W	0.00	
6767.76	0.000	0.494	6590.05	-892.24	-899.34	819.08	40°03'26.608"N	104°42'24.148"W	0.00	KOP, BUILD @ 10°/100'
6817.00†	4.924	0.494	6639.23	-890.13	-897.22	819.10	40°03'26.629"N	104°42'24.148"W	10.00	
6917.00†	14.924	0.494	6737.61	-872.92	-880.01	819.25	40°03'26.799"N	104°42'24.146"W	10.00	
7017.00†	24.924	0.494	6831.50	-838.88	-845.98	819.54	40°03'27.136"N	104°42'24.142"W	10.00	
7117.00†	34.924	0.494	6918.06	-789.06	-796.16	819.97	40°03'27.628"N	104°42'24.137"W	10.00	
7217.00†	44.924	0.494	6994.65	-724.97	-732.07	820.53	40°03'28.261"N	104°42'24.130"W	10.00	
7248.00†	48.024	0.494	7016.00	-702.49	-709.59	820.72	40°03'28.484"N	104°42'24.127"W	10.00	Sharon Springs
7298.37†	53.061	0.494	7048.00	-663.61	-670.72	821.05	40°03'28.868"N	104°42'24.123"W	10.00	Niobrara A
7317.00†	54.924	0.494	7058.95	-648.54	-655.65	821.18	40°03'29.017"N	104°42'24.121"W	10.00	
7417.00†	64.924	0.494	7109.00	-562.12	-569.23	821.93	40°03'29.871"N	104°42'24.111"W	10.00	
7517.00†	74.924	0.494	7143.29	-468.31	-475.42	822.74	40°03'30.798"N	104°42'24.101"W	10.00	
7560.52†	79.276	0.494	7153.00	-425.90	-433.01	823.11	40°03'31.217"N	104°42'24.096"W	10.00	Niobrara B
7617.00†	84.924	0.494	7160.76	-369.98	-377.09	823.59	40°03'31.769"N	104°42'24.090"W	10.00	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 STEWARD 36N-6HZ (440'FSL & 1779'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 36N-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 36N-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
7666.23	89.847	0.494	7163.00	-320.82	-327.93	824.01	40°03'32.255"N	104°42'24.085"W	10.00	LANDING POINT
7717.00†	89.847	0.494	7163.14	-270.05	-277.17	824.45	40°03'32.757"N	104°42'24.079"W	0.00	
7817.00†	89.847	0.494	7163.41	-170.05	-177.17	825.31	40°03'33.745"N	104°42'24.068"W	0.00	
7917.00†	89.847	0.494	7163.67	-70.05	-77.17	826.18	40°03'34.733"N	104°42'24.057"W	0.00	
8017.00†	89.847	0.494	7163.94	29.95	22.82	827.04	40°03'35.721"N	104°42'24.046"W	0.00	
8117.00†	89.847	0.494	7164.21	129.95	122.82	827.90	40°03'36.710"N	104°42'24.034"W	0.00	
8217.00†	89.847	0.494	7164.48	229.95	222.81	828.76	40°03'37.698"N	104°42'24.023"W	0.00	
8317.00†	89.847	0.494	7164.74	329.95	322.81	829.63	40°03'38.686"N	104°42'24.012"W	0.00	
8417.00†	89.847	0.494	7165.01	429.95	422.81	830.49	40°03'39.674"N	104°42'24.001"W	0.00	
8517.00†	89.847	0.494	7165.28	529.95	522.80	831.35	40°03'40.662"N	104°42'23.990"W	0.00	
8617.00†	89.847	0.494	7165.54	629.95	622.80	832.22	40°03'41.650"N	104°42'23.979"W	0.00	
8717.00†	89.847	0.494	7165.81	729.95	722.79	833.08	40°03'42.639"N	104°42'23.968"W	0.00	
8817.00†	89.847	0.494	7166.08	829.95	822.79	833.94	40°03'43.627"N	104°42'23.956"W	0.00	
8917.00†	89.847	0.494	7166.34	929.95	922.79	834.80	40°03'44.615"N	104°42'23.945"W	0.00	
9017.00†	89.847	0.494	7166.61	1029.95	1022.78	835.67	40°03'45.603"N	104°42'23.934"W	0.00	
9117.00†	89.847	0.494	7166.88	1129.95	1122.78	836.53	40°03'46.591"N	104°42'23.923"W	0.00	
9217.00†	89.847	0.494	7167.15	1229.95	1222.77	837.39	40°03'47.580"N	104°42'23.912"W	0.00	
9317.00†	89.847	0.494	7167.41	1329.95	1322.77	838.26	40°03'48.568"N	104°42'23.901"W	0.00	
9417.00†	89.847	0.494	7167.68	1429.95	1422.77	839.12	40°03'49.556"N	104°42'23.890"W	0.00	
9517.00†	89.847	0.494	7167.95	1529.95	1522.76	839.98	40°03'50.544"N	104°42'23.878"W	0.00	
9617.00†	89.847	0.494	7168.21	1629.95	1622.76	840.84	40°03'51.532"N	104°42'23.867"W	0.00	
9717.00†	89.847	0.494	7168.48	1729.95	1722.75	841.71	40°03'52.520"N	104°42'23.856"W	0.00	
9817.00†	89.847	0.494	7168.75	1829.95	1822.75	842.57	40°03'53.509"N	104°42'23.845"W	0.00	
9917.00†	89.847	0.494	7169.02	1929.95	1922.75	843.43	40°03'54.497"N	104°42'23.834"W	0.00	
10017.00†	89.847	0.494	7169.28	2029.95	2022.74	844.29	40°03'55.485"N	104°42'23.823"W	0.00	
10117.00†	89.847	0.494	7169.55	2129.94	2122.74	845.16	40°03'56.473"N	104°42'23.812"W	0.00	
10217.00†	89.847	0.494	7169.82	2229.94	2222.73	846.02	40°03'57.461"N	104°42'23.800"W	0.00	
10317.00†	89.847	0.494	7170.08	2329.94	2322.73	846.88	40°03'58.450"N	104°42'23.789"W	0.00	
10417.00†	89.847	0.494	7170.35	2429.94	2422.72	847.75	40°03'59.438"N	104°42'23.778"W	0.00	
10517.00†	89.847	0.494	7170.62	2529.94	2522.72	848.61	40°04'00.426"N	104°42'23.767"W	0.00	
10617.00†	89.847	0.494	7170.88	2629.94	2622.72	849.47	40°04'01.414"N	104°42'23.756"W	0.00	
10717.00†	89.847	0.494	7171.15	2729.94	2722.71	850.33	40°04'02.402"N	104°42'23.745"W	0.00	
10817.00†	89.847	0.494	7171.42	2829.94	2822.71	851.20	40°04'03.390"N	104°42'23.734"W	0.00	
10917.00†	89.847	0.494	7171.69	2929.94	2922.70	852.06	40°04'04.379"N	104°42'23.722"W	0.00	
11017.00†	89.847	0.494	7171.95	3029.94	3022.70	852.92	40°04'05.367"N	104°42'23.711"W	0.00	
11117.00†	89.847	0.494	7172.22	3129.94	3122.70	853.79	40°04'06.355"N	104°42'23.700"W	0.00	
11217.00†	89.847	0.494	7172.49	3229.94	3222.69	854.65	40°04'07.343"N	104°42'23.689"W	0.00	
11317.00†	89.847	0.494	7172.75	3329.94	3322.69	855.51	40°04'08.331"N	104°42'23.678"W	0.00	
11417.00†	89.847	0.494	7173.02	3429.94	3422.68	856.37	40°04'09.320"N	104°42'23.667"W	0.00	
11517.00†	89.847	0.494	7173.29	3529.94	3522.68	857.24	40°04'10.308"N	104°42'23.656"W	0.00	
11617.00†	89.847	0.494	7173.56	3629.94	3622.68	858.10	40°04'11.296"N	104°42'23.644"W	0.00	
11717.00†	89.847	0.494	7173.82	3729.94	3722.67	858.96	40°04'12.284"N	104°42'23.633"W	0.00	
11817.00†	89.847	0.494	7174.09	3829.94	3822.67	859.83	40°04'13.272"N	104°42'23.622"W	0.00	
11917.00†	89.847	0.494	7174.36	3929.94	3922.66	860.69	40°04'14.260"N	104°42'23.611"W	0.00	
12017.00†	89.847	0.494	7174.62	4029.94	4022.66	861.55	40°04'15.249"N	104°42'23.600"W	0.00	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 STEWARD 36N-6HZ (440'FSL & 1779'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 36N-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 36N-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
12117.00†	89.847	0.494	7174.89	4129.94	4122.66	862.41	40°04'16.237"N	104°42'23.589"W	0.00	
12217.00†	89.847	0.494	7175.16	4229.94	4222.65	863.28	40°04'17.225"N	104°42'23.578"W	0.00	
12317.00†	89.847	0.494	7175.42	4329.94	4322.65	864.14	40°04'18.213"N	104°42'23.566"W	0.00	
12417.00†	89.847	0.494	7175.69	4429.94	4422.64	865.00	40°04'19.201"N	104°42'23.555"W	0.00	
12517.00†	89.847	0.494	7175.96	4529.94	4522.64	865.87	40°04'20.190"N	104°42'23.544"W	0.00	
12617.00†	89.847	0.494	7176.23	4629.94	4622.63	866.73	40°04'21.178"N	104°42'23.533"W	0.00	
12717.00†	89.847	0.494	7176.49	4729.94	4722.63	867.59	40°04'22.166"N	104°42'23.522"W	0.00	
12817.00†	89.847	0.494	7176.76	4829.94	4822.63	868.45	40°04'23.154"N	104°42'23.511"W	0.00	
12917.00†	89.847	0.494	7177.03	4929.93	4922.62	869.32	40°04'24.142"N	104°42'23.500"W	0.00	
13017.00†	89.847	0.494	7177.29	5029.93	5022.62	870.18	40°04'25.130"N	104°42'23.488"W	0.00	
13117.00†	89.847	0.494	7177.56	5129.93	5122.61	871.04	40°04'26.119"N	104°42'23.477"W	0.00	
13217.00†	89.847	0.494	7177.83	5229.93	5222.61	871.90	40°04'27.107"N	104°42'23.466"W	0.00	
13281.36	89.847	0.494	7178.00 ¹	5294.30	5286.97	872.46	40°04'27.743"N	104°42'23.459"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS - Ref Wellbore: STEWARD 36N-6HZ PWB Ref Wellpath: STEWARD 36N-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	7666.23	6126.23	1540.00	7163.00	0.00	0.00	-327.93	824.01
7in Casing Intermediate	17.00	7666.23	7649.23	17.00	7163.00	0.00	0.00	-327.93	824.01
6.125in Open Hole	7666.23	13281.36	5615.13	7163.00	7178.00	-327.93	824.01	5286.97	872.46
4.5in Casing Production	17.00	13281.36	13264.36	17.00	7178.00	0.00	0.00	5286.97	872.46

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 STEWARD 36N-6HZ (440'FSL & 1779'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 36N-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 36N-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	-0.71	-119.82	3221106.82	1265636.47	40°03'35.489"N	104°42'36.223"W	polygon
SEC.07-T1N-R65W SECTION LINES		0.00	-0.71	-119.82	3221106.82	1265636.47	40°03'35.489"N	104°42'36.223"W	polygon
1) STEWARD 36N-6HZ BHL (410'FSL & 2691'FWL, SEC.06) REV-2	13281.36	7178.00	5286.97	872.46	3222051.89	1270932.57	40°04'27.743"N	104°42'23.459"W	point
STEWARD 36N-6HZ BHL ON PLAT (410'FSL & 2593'FWL, SEC.06) REV-1		7178.00	5286.97	775.46	3221954.90	1270931.70	40°04'27.743"N	104°42'24.707"W	point
STEWARD 36N-6HZ LANDBOX		7178.00	0.00	0.00	3221226.62	1265638.24	40°03'35.496"N	104°42'34.682"W	polygon

SURVEY PROGRAM - Ref Wellbore: STEWARD 36N-6HZ PWB Ref Wellpath: STEWARD 36N-6HZ (PERMIT REV-3) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	13281.36	NaviTrak (MAGCORR,IFR)		STEWARD 36N-6HZ PWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 STEWARD 36N-6HZ (440'FSL & 1779'FWL, SEC.07)
Area	COLORADO	Well	STEWARD 36N-6HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	STEWARD 36N-6HZ PWB
Facility	SEC.07-T1N-R65W		

WELLPATH COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
1537.00	0.000	137.674	1537.00	Fox Hills Marker	
4206.35	18.000	137.674	4113.00	Parkman	
4560.69	18.000	137.674	4450.00	Sussex	
6667.76	0.000	0.494	6490.05	4 1/2" LINER TOP	
7248.00	48.024	0.494	7016.00	Sharon Springs	
7298.37	53.061	0.494	7048.00	Niobrara A	
7560.52	79.276	0.494	7153.00	Niobrara B	

DESIGN COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
17.00	0.000	137.674	17.00	TIE-ON	
1700.00	0.000	137.674	1700.00	BEGIN NUDGE	
2600.00	18.000	137.674	2585.27	END NUDGE	
5628.98	18.000	137.674	5466.00	BEGIN DROP	
6528.98	0.000	0.494	6351.27	END DROP	
6767.76	0.000	0.494	6590.05	KOP, BUILD @ 10°/100'	
7666.23	89.847	0.494	7163.00	LANDING POINT	
13281.36	89.847	0.494	7178.00	TOTAL DEPTH	