

Location:	COLORADO	Slot:	SLOT#14 FARLEY 30N-23HZ (516'FSL & 532'FWL, SEC.23)
Field:	WELD COUNTY (KERR MCGEE)	Well:	FARLEY 30N-23HZ
Facility:	SEC.23-T3N-R66W	Wellbore:	FARLEY 30N-23HZ PWB

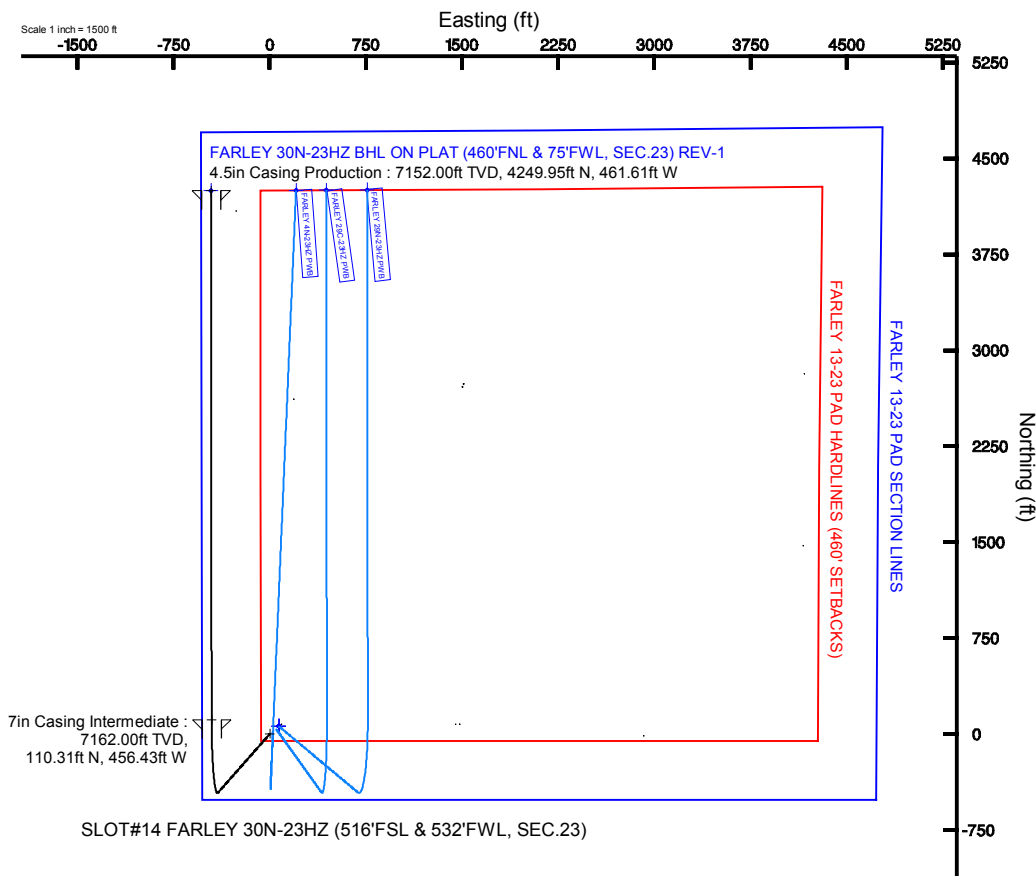
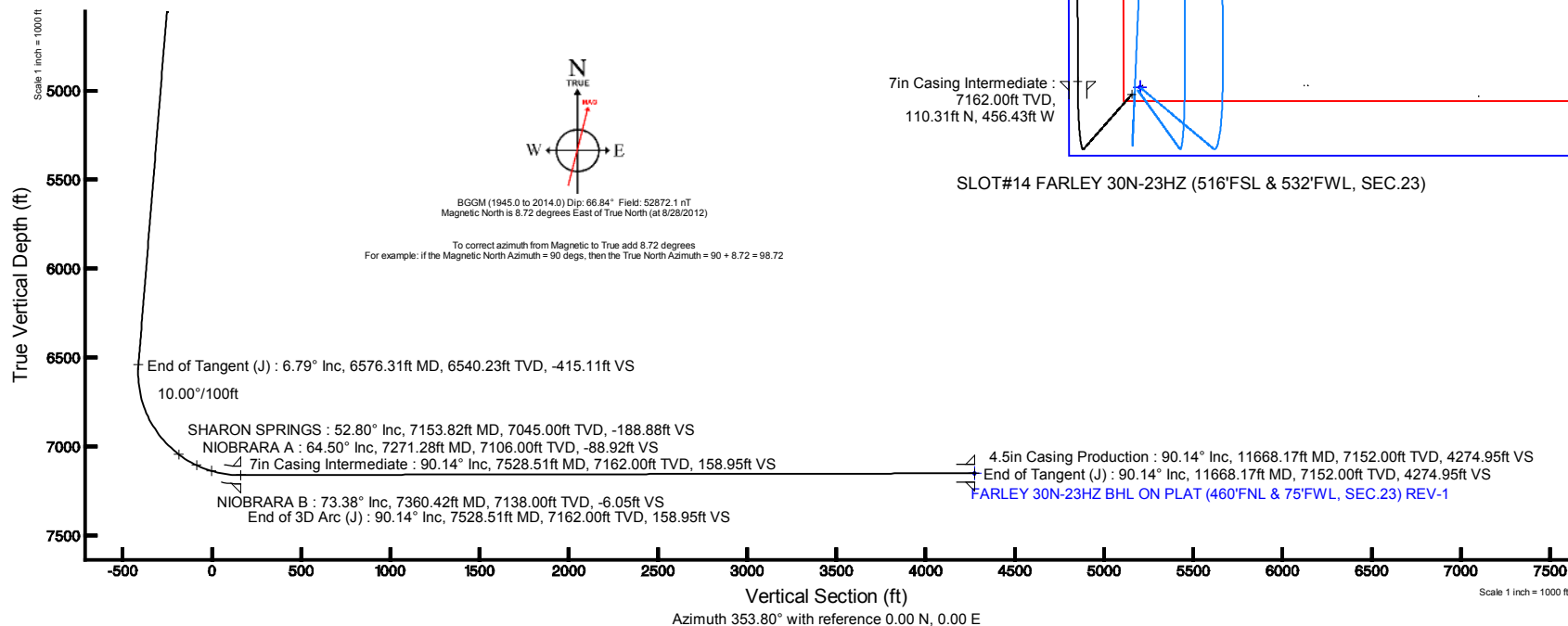
Location:	COLORADO	Slot:	SLOT#14 FARLEY 30N-23HZ (516'FSL & 532'FWL, SEC.23)
Field:	WELD COUNTY (KERR MCGEE)	Well:	FARLEY 30N-23HZ
Facility:	SEC.23-T3N-R66W	Wellbore:	FARLEY 30N-23HZ PWB

True vertical depths are referenced to Rig on SLOTH14 FARLEY 30N-23HZ (516FSL & 532FWL, SEC.23) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to Rig on SLOTH14 FARLEY 30N-23HZ (516FSL & 532FWL, SEC.23) (RKB)	North Reference: True north
Rig on SLOTH14 FARLEY 30N-23HZ (516FSL & 532FWL, SEC.23) (RKB) to Mean Sea Level: 4956 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOTH14 FARLEY 30N-23HZ (516FSL & 532FWL, SEC.23)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: wlsjeE2 on 8/28/2012

Facility Name		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
SEC 23-TDRBWW		3213154.907	1321212.880	40°12'45.396"N	104°44'12.864"W	
Stet	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SL0TR14 FAIRLEY 30N-23H (516PSL & 532PWL, SEC 23)	-2816.80	-4173.42	3208956.068	1318360.499	40°12'17.557"N	104°45'06.772"W
Fig on SL0TR14 FAIRLEY 30N-23H (516PSL & 532PWL, SEC 23) (R00) to Mad line (At Stet: SL0TR14 FAIRLEY 30N-23H (516PSL & 532PWL, SEC 23))					4956ft	
Mean Sea Level to Mad line (At Stet: SL0TR14 FAIRLEY 30N-23H (516PSL & 532PWL, SEC 23))					0ft	
Fig on SL0TR14 FAIRLEY 30N-23H (516PSL & 532PWL, SEC 23) (R00) to Mean Sea Level					4956ft	

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	17.00	0.000	221.370	17.00	0.00	0.00	0.00	0.00
End of Tangent	1200.00	0.000	221.370	1200.00	0.00	0.00	0.00	0.00
End of Build (J)	1539.30	6.786	221.370	1538.51	-15.06	-13.26	2.00	-13.54
End of Tangent (J)	6576.31	6.786	221.370	6540.23	-461.72	-406.63	0.00	-415.11
End of 3D Arc (J)	7528.51	90.138	359.928	7162.00	110.31	-456.43	10.00	158.95
End of Tangent (J)	11668.17	90.138	359.928	7152.00	4249.95	-461.61	0.00	4274.95

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
FARLEY 13-23 PAD SECTION LINES		0.00	58.69	68.20	3209023.77	1318419.76	40°12'18.137"N	104°45'55.893"W
FARLEY 30N-23HZ BHL ON PLAT (460'FNL & 75'FWL SEC 23) REV-1	11668.17	7152.00	4249.95	-48.61	3208458.64	1322606.21	40°12'59.555"N	104°45'12.722"W
FARLEY 13-23 PAD HANDLINES (460' SETBACKS)		7400.00	58.69	68.20	3209023.77	1318419.76	40°12'18.137"N	104°45'55.893"W





Planned Wellpath Report

FARLEY 30N-23HZ (PERMIT) PWP

Page 1 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 FARLEY 30N-23HZ (516'FSL & 532'FWL, SEC.23)
Area	COLORADO	Well	FARLEY 30N-23HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	FARLEY 30N-23HZ PWB
Facility	SEC.23-T3N-R66W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 3.0.2
North Reference	True	User	Wilsjef02
Scale	0.999957	Report Generated	8/28/2012 at 22:25:57
Convergence at slot	0.48° East	Database/Source file	WellArchitectDB\FARLEY_30N-23HZ_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-2816.80	-4173.42	3208956.07	1318360.50	40°12'17.557"N	104°45'06.772"W
Facility Reference Pt			3213104.91	1321212.98	40°12'45.396"N	104°44'12.984"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on SLOT#14 FARLEY 30N-23HZ (516'FSL & 532'FWL, SEC.23) (RKB) to Facility Vertical Datum
Horizontal Reference Pt	Slot	Rig on SLOT#14 FARLEY 30N-23HZ (516'FSL & 532'FWL, SEC.23) (RKB) to Mean Sea Level
Vertical Reference Pt	Rig on SLOT#14 FARLEY 30N-23HZ (516'FSL & 532'FWL, SEC.23) (RKB)	Rig on SLOT#14 FARLEY 30N-23HZ (516'FSL & 532'FWL, SEC.23) (RKB) to Mud Line at Slot (SLOT#14 FARLEY 30N-23HZ (516'FSL & 532'FWL, SEC.23) (RKB) to Mean Sea Level)
MD Reference Pt	Rig on SLOT#14 FARLEY 30N-23HZ (516'FSL & 532'FWL, SEC.23) (RKB)	Section Origin
Field Vertical Reference	Mean Sea Level	Section Azimuth



Planned Wellpath Report

FARLEY 30N-23HZ (PERMIT) PWP

Page 2 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 FARLEY 30N-23HZ (516'FSL & 532'FWL, SEC.23)
Area	COLORADO	Well	FARLEY 30N-23HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	FARLEY 30N-23HZ PWB
Facility	SEC.23-T3N-R66W		

WELLPATH DATA (129 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVL [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	221.370	0.00	0.00	0.00	0.00	40°12'17.557"N	104°45'06.772"W	0.00	
17.00	0.000	221.370	17.00	0.00	0.00	0.00	40°12'17.557"N	104°45'06.772"W	0.00	Tie On
117.00†	0.000	221.370	117.00	0.00	0.00	0.00	40°12'17.557"N	104°45'06.772"W	0.00	
217.00†	0.000	221.370	217.00	0.00	0.00	0.00	40°12'17.557"N	104°45'06.772"W	0.00	
317.00†	0.000	221.370	317.00	0.00	0.00	0.00	40°12'17.557"N	104°45'06.772"W	0.00	
417.00†	0.000	221.370	417.00	0.00	0.00	0.00	40°12'17.557"N	104°45'06.772"W	0.00	
517.00†	0.000	221.370	517.00	0.00	0.00	0.00	40°12'17.557"N	104°45'06.772"W	0.00	
617.00†	0.000	221.370	617.00	0.00	0.00	0.00	40°12'17.557"N	104°45'06.772"W	0.00	
717.00†	0.000	221.370	717.00	0.00	0.00	0.00	40°12'17.557"N	104°45'06.772"W	0.00	
771.00†	0.000	221.370	771.00	0.00	0.00	0.00	40°12'17.557"N	104°45'06.772"W	0.00	FOX HILLS
817.00†	0.000	221.370	817.00	0.00	0.00	0.00	40°12'17.557"N	104°45'06.772"W	0.00	
917.00†	0.000	221.370	917.00	0.00	0.00	0.00	40°12'17.557"N	104°45'06.772"W	0.00	
1017.00†	0.000	221.370	1017.00	0.00	0.00	0.00	40°12'17.557"N	104°45'06.772"W	0.00	
1117.00†	0.000	221.370	1117.00	0.00	0.00	0.00	40°12'17.557"N	104°45'06.772"W	0.00	
1200.00	0.000	221.370	1200.00	0.00	0.00	0.00	40°12'17.557"N	104°45'06.772"W	0.00	End of Tangent
1217.00†	0.340	221.370	1217.00	-0.03	-0.04	-0.03	40°12'17.557"N	104°45'06.772"W	2.00	
1317.00†	2.340	221.370	1316.97	-1.61	-1.79	-1.58	40°12'17.539"N	104°45'06.792"W	2.00	
1417.00†	4.340	221.370	1416.79	-5.54	-6.16	-5.43	40°12'17.496"N	104°45'06.842"W	2.00	
1517.00†	6.340	221.370	1516.35	-11.82	-13.15	-11.58	40°12'17.427"N	104°45'06.921"W	2.00	
1539.30	6.786	221.370	1538.51	-13.54	-15.06	-13.26	40°12'17.408"N	104°45'06.943"W	2.00	End of Build (I)
1617.00†	6.786	221.370	1615.66	-19.74	-21.95	-19.33	40°12'17.340"N	104°45'07.021"W	0.00	
1717.00†	6.786	221.370	1714.96	-27.71	-30.82	-27.14	40°12'17.252"N	104°45'07.122"W	0.00	
1817.00†	6.786	221.370	1814.26	-35.68	-39.69	-34.95	40°12'17.165"N	104°45'07.222"W	0.00	
1917.00†	6.786	221.370	1913.56	-43.65	-48.55	-42.76	40°12'17.077"N	104°45'07.323"W	0.00	
2017.00†	6.786	221.370	2012.86	-51.63	-57.42	-50.57	40°12'16.990"N	104°45'07.424"W	0.00	
2117.00†	6.786	221.370	2112.16	-59.60	-66.29	-58.38	40°12'16.902"N	104°45'07.524"W	0.00	
2217.00†	6.786	221.370	2211.46	-67.57	-75.16	-66.19	40°12'16.814"N	104°45'07.625"W	0.00	
2317.00†	6.786	221.370	2310.76	-75.54	-84.02	-74.00	40°12'16.727"N	104°45'07.726"W	0.00	
2417.00†	6.786	221.370	2410.06	-83.51	-92.89	-81.81	40°12'16.639"N	104°45'07.826"W	0.00	
2517.00†	6.786	221.370	2509.36	-91.49	-101.76	-89.62	40°12'16.551"N	104°45'07.927"W	0.00	
2617.00†	6.786	221.370	2608.66	-99.46	-110.63	-97.43	40°12'16.464"N	104°45'08.028"W	0.00	
2717.00†	6.786	221.370	2707.96	-107.43	-119.49	-105.24	40°12'16.376"N	104°45'08.128"W	0.00	
2817.00†	6.786	221.370	2807.26	-115.40	-128.36	-113.05	40°12'16.289"N	104°45'08.229"W	0.00	
2917.00†	6.786	221.370	2906.56	-123.38	-137.23	-120.86	40°12'16.201"N	104°45'08.330"W	0.00	
3017.00†	6.786	221.370	3005.86	-131.35	-146.10	-128.67	40°12'16.113"N	104°45'08.430"W	0.00	
3117.00†	6.786	221.370	3105.15	-139.32	-154.96	-136.47	40°12'16.026"N	104°45'08.531"W	0.00	
3217.00†	6.786	221.370	3204.45	-147.29	-163.83	-144.28	40°12'15.938"N	104°45'08.632"W	0.00	
3317.00†	6.786	221.370	3303.75	-155.27	-172.70	-152.09	40°12'15.850"N	104°45'08.732"W	0.00	
3417.00†	6.786	221.370	3403.05	-163.24	-181.57	-159.90	40°12'15.763"N	104°45'08.833"W	0.00	
3517.00†	6.786	221.370	3502.35	-171.21	-190.43	-167.71	40°12'15.675"N	104°45'08.934"W	0.00	
3617.00†	6.786	221.370	3601.65	-179.18	-199.30	-175.52	40°12'15.588"N	104°45'09.034"W	0.00	
3717.00†	6.786	221.370	3700.95	-187.16	-208.17	-183.33	40°12'15.500"N	104°45'09.135"W	0.00	
3817.00†	6.786	221.370	3800.25	-195.13	-217.04	-191.14	40°12'15.412"N	104°45'09.235"W	0.00	
3917.00†	6.786	221.370	3899.55	-203.10	-225.90	-198.95	40°12'15.325"N	104°45'09.336"W	0.00	
3939.61†	6.786	221.370	3922.00	-204.90	-227.91	-200.72	40°12'15.305"N	104°45'09.359"W	0.00	PARKMAN



Planned Wellpath Report

FARLEY 30N-23HZ (PERMIT) PWP

Page 3 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 FARLEY 30N-23HZ (516'FSL & 532'FWL, SEC.23)
Area	COLORADO	Well	FARLEY 30N-23HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	FARLEY 30N-23HZ PWB
Facility	SEC.23-T3N-R66W		

WELLPATH DATA (129 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4017.00†	6.786	221.370	3998.85	-211.07	-234.77	-206.76	40°12'15.237"N	104°45'09.437"W	0.00	
4117.00†	6.786	221.370	4098.15	-219.04	-243.64	-214.57	40°12'15.149"N	104°45'09.537"W	0.00	
4217.00†	6.786	221.370	4197.45	-227.02	-252.51	-222.38	40°12'15.062"N	104°45'09.638"W	0.00	
4317.00†	6.786	221.370	4296.75	-234.99	-261.37	-230.19	40°12'14.974"N	104°45'09.739"W	0.00	
4417.00†	6.786	221.370	4396.05	-242.96	-270.24	-238.00	40°12'14.886"N	104°45'09.839"W	0.00	
4462.27†	6.786	221.370	4441.00	-246.57	-274.26	-241.53	40°12'14.847"N	104°45'09.885"W	0.00	SUSSEX
4517.00†	6.786	221.370	4495.35	-250.93	-279.11	-245.81	40°12'14.799"N	104°45'09.940"W	0.00	
4617.00†	6.786	221.370	4594.65	-258.91	-287.98	-253.62	40°12'14.711"N	104°45'10.041"W	0.00	
4717.00†	6.786	221.370	4693.95	-266.88	-296.84	-261.43	40°12'14.624"N	104°45'10.141"W	0.00	
4817.00†	6.786	221.370	4793.25	-274.85	-305.71	-269.24	40°12'14.536"N	104°45'10.242"W	0.00	
4917.00†	6.786	221.370	4892.54	-282.82	-314.58	-277.05	40°12'14.448"N	104°45'10.343"W	0.00	
5017.00†	6.786	221.370	4991.84	-290.80	-323.45	-284.86	40°12'14.361"N	104°45'10.443"W	0.00	
5117.00†	6.786	221.370	5091.14	-298.77	-332.31	-292.67	40°12'14.273"N	104°45'10.544"W	0.00	
5217.00†	6.786	221.370	5190.44	-306.74	-341.18	-300.47	40°12'14.185"N	104°45'10.645"W	0.00	
5317.00†	6.786	221.370	5289.74	-314.71	-350.05	-308.28	40°12'14.098"N	104°45'10.745"W	0.00	
5417.00†	6.786	221.370	5389.04	-322.69	-358.92	-316.09	40°12'14.010"N	104°45'10.846"W	0.00	
5517.00†	6.786	221.370	5488.34	-330.66	-367.78	-323.90	40°12'13.923"N	104°45'10.946"W	0.00	
5617.00†	6.786	221.370	5587.64	-338.63	-376.65	-331.71	40°12'13.835"N	104°45'11.047"W	0.00	
5717.00†	6.786	221.370	5686.94	-346.60	-385.52	-339.52	40°12'13.747"N	104°45'11.148"W	0.00	
5817.00†	6.786	221.370	5786.24	-354.58	-394.39	-347.33	40°12'13.660"N	104°45'11.248"W	0.00	
5917.00†	6.786	221.370	5885.54	-362.55	-403.25	-355.14	40°12'13.572"N	104°45'11.349"W	0.00	
6017.00†	6.786	221.370	5984.84	-370.52	-412.12	-362.95	40°12'13.484"N	104°45'11.450"W	0.00	
6117.00†	6.786	221.370	6084.14	-378.49	-420.99	-370.76	40°12'13.397"N	104°45'11.550"W	0.00	
6217.00†	6.786	221.370	6183.44	-386.46	-429.86	-378.57	40°12'13.309"N	104°45'11.651"W	0.00	
6317.00†	6.786	221.370	6282.74	-394.44	-438.72	-386.38	40°12'13.222"N	104°45'11.752"W	0.00	
6417.00†	6.786	221.370	6382.04	-402.41	-447.59	-394.19	40°12'13.134"N	104°45'11.852"W	0.00	
6517.00†	6.786	221.370	6481.34	-410.38	-456.46	-402.00	40°12'13.046"N	104°45'11.953"W	0.00	
6576.31	6.786	221.370	6540.23	-415.11	-461.72	-406.63	40°12'12.994"N	104°45'12.013"W	0.00	End of Tangent (J)
6617.00†	4.616	257.242	6580.73	-416.92	-463.88	-409.82	40°12'12.973"N	104°45'12.054"W	10.00	
6717.00†	10.045	333.513	6680.05	-409.18	-456.95	-417.65	40°12'13.041"N	104°45'12.155"W	10.00	
6817.00†	19.496	347.061	6776.66	-384.37	-432.82	-425.30	40°12'13.280"N	104°45'12.253"W	10.00	
6917.00†	29.306	351.850	6867.63	-343.23	-392.23	-432.52	40°12'13.681"N	104°45'12.346"W	10.00	
7017.00†	39.206	354.376	6950.18	-287.02	-336.41	-439.10	40°12'14.233"N	104°45'12.431"W	10.00	
7117.00†	49.142	356.010	7021.82	-217.45	-267.05	-444.85	40°12'14.918"N	104°45'12.505"W	10.00	
7153.82†	52.805	356.490	7045.00	-188.88	-238.51	-446.71	40°12'15.200"N	104°45'12.529"W	10.00	SHARON SPRINGS
7217.00†	59.094	357.215	7080.36	-136.64	-186.27	-449.58	40°12'15.716"N	104°45'12.566"W	10.00	
7271.28†	64.500	357.764	7106.00	-88.92	-138.50	-451.66	40°12'16.188"N	104°45'12.593"W	10.00	NIOBRARA A
7317.00†	69.056	358.190	7124.02	-47.02	-96.52	-453.14	40°12'16.603"N	104°45'12.612"W	10.00	
7360.42†	73.383	358.570	7138.00	-6.05	-55.43	-454.30	40°12'17.009"N	104°45'12.627"W	10.00	NIOBRARA B
7417.00†	79.023	359.042	7151.49	48.66	-0.52	-455.45	40°12'17.552"N	104°45'12.642"W	10.00	
7517.00†	88.991	359.838	7161.92	147.50	98.80	-456.41	40°12'18.533"N	104°45'12.654"W	10.00	
7528.51	90.138	359.928	7162.00	158.95	110.31	-456.43	40°12'18.647"N	104°45'12.655"W	10.00	End of 3D Arc (J)
7617.00†	90.138	359.928	7161.79	246.93	198.80	-456.55	40°12'19.521"N	104°45'12.656"W	0.00	
7717.00†	90.138	359.928	7161.55	346.36	298.80	-456.67	40°12'20.510"N	104°45'12.658"W	0.00	
7817.00†	90.138	359.928	7161.31	445.79	398.80	-456.80	40°12'21.498"N	104°45'12.659"W	0.00	



Planned Wellpath Report

FARLEY 30N-23HZ (PERMIT) PWP

Page 4 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 FARLEY 30N-23HZ (516'FSL & 532'FWL, SEC.23)
Area	COLORADO	Well	FARLEY 30N-23HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	FARLEY 30N-23HZ PWB
Facility	SEC.23-T3N-R66W		

WELLPATH DATA (129 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7917.00†	90.138	359.928	7161.06	545.22	498.80	-456.92	40°12'22.486"N	104°45'12.661"W	0.00	
8017.00†	90.138	359.928	7160.82	644.65	598.80	-457.05	40°12'23.474"N	104°45'12.663"W	0.00	
8117.00†	90.138	359.928	7160.58	744.08	698.80	-457.17	40°12'24.462"N	104°45'12.664"W	0.00	
8217.00†	90.138	359.928	7160.34	843.50	798.80	-457.30	40°12'25.451"N	104°45'12.666"W	0.00	
8317.00†	90.138	359.928	7160.10	942.93	898.79	-457.42	40°12'26.439"N	104°45'12.668"W	0.00	
8417.00†	90.138	359.928	7159.86	1042.36	998.79	-457.55	40°12'27.427"N	104°45'12.669"W	0.00	
8517.00†	90.138	359.928	7159.61	1141.79	1098.79	-457.67	40°12'28.415"N	104°45'12.671"W	0.00	
8617.00†	90.138	359.928	7159.37	1241.22	1198.79	-457.80	40°12'29.403"N	104°45'12.672"W	0.00	
8717.00†	90.138	359.928	7159.13	1340.65	1298.79	-457.92	40°12'30.392"N	104°45'12.674"W	0.00	
8817.00†	90.138	359.928	7158.89	1440.07	1398.79	-458.05	40°12'31.380"N	104°45'12.676"W	0.00	
8917.00†	90.138	359.928	7158.65	1539.50	1498.79	-458.17	40°12'32.368"N	104°45'12.677"W	0.00	
9017.00†	90.138	359.928	7158.41	1638.93	1598.79	-458.30	40°12'33.356"N	104°45'12.679"W	0.00	
9117.00†	90.138	359.928	7158.16	1738.36	1698.79	-458.42	40°12'34.344"N	104°45'12.681"W	0.00	
9217.00†	90.138	359.928	7157.92	1837.79	1798.79	-458.55	40°12'35.333"N	104°45'12.682"W	0.00	
9317.00†	90.138	359.928	7157.68	1937.22	1898.79	-458.67	40°12'36.321"N	104°45'12.684"W	0.00	
9417.00†	90.138	359.928	7157.44	2036.65	1998.79	-458.80	40°12'37.309"N	104°45'12.686"W	0.00	
9517.00†	90.138	359.928	7157.20	2136.07	2098.79	-458.92	40°12'38.297"N	104°45'12.687"W	0.00	
9617.00†	90.138	359.928	7156.96	2235.50	2198.79	-459.05	40°12'39.285"N	104°45'12.689"W	0.00	
9717.00†	90.138	359.928	7156.71	2334.93	2298.79	-459.17	40°12'40.274"N	104°45'12.690"W	0.00	
9817.00†	90.138	359.928	7156.47	2434.36	2398.79	-459.30	40°12'41.262"N	104°45'12.692"W	0.00	
9917.00†	90.138	359.928	7156.23	2533.79	2498.79	-459.42	40°12'42.250"N	104°45'12.694"W	0.00	
10017.00†	90.138	359.928	7155.99	2633.22	2598.79	-459.55	40°12'43.238"N	104°45'12.695"W	0.00	
10117.00†	90.138	359.928	7155.75	2732.64	2698.79	-459.67	40°12'44.226"N	104°45'12.697"W	0.00	
10217.00†	90.138	359.928	7155.51	2832.07	2798.79	-459.80	40°12'45.214"N	104°45'12.699"W	0.00	
10317.00†	90.138	359.928	7155.26	2931.50	2898.79	-459.92	40°12'46.203"N	104°45'12.700"W	0.00	
10417.00†	90.138	359.928	7155.02	3030.93	2998.79	-460.05	40°12'47.191"N	104°45'12.702"W	0.00	
10517.00†	90.138	359.928	7154.78	3130.36	3098.79	-460.17	40°12'48.179"N	104°45'12.704"W	0.00	
10617.00†	90.138	359.928	7154.54	3229.79	3198.79	-460.30	40°12'49.167"N	104°45'12.705"W	0.00	
10717.00†	90.138	359.928	7154.30	3329.21	3298.79	-460.42	40°12'50.155"N	104°45'12.707"W	0.00	
10817.00†	90.138	359.928	7154.06	3428.64	3398.79	-460.55	40°12'51.144"N	104°45'12.708"W	0.00	
10917.00†	90.138	359.928	7153.82	3528.07	3498.79	-460.67	40°12'52.132"N	104°45'12.710"W	0.00	
11017.00†	90.138	359.928	7153.57	3627.50	3598.78	-460.80	40°12'53.120"N	104°45'12.712"W	0.00	
11117.00†	90.138	359.928	7153.33	3726.93	3698.78	-460.92	40°12'54.108"N	104°45'12.713"W	0.00	
11217.00†	90.138	359.928	7153.09	3826.36	3798.78	-461.05	40°12'55.096"N	104°45'12.715"W	0.00	
11317.00†	90.138	359.928	7152.85	3925.79	3898.78	-461.17	40°12'56.085"N	104°45'12.717"W	0.00	
11417.00†	90.138	359.928	7152.61	4025.21	3998.78	-461.30	40°12'57.073"N	104°45'12.718"W	0.00	
11517.00†	90.138	359.928	7152.37	4124.64	4098.78	-461.42	40°12'58.061"N	104°45'12.720"W	0.00	
11617.00†	90.138	359.928	7152.12	4224.07	4198.78	-461.55	40°12'59.049"N	104°45'12.722"W	0.00	
11668.17	90.138	359.928	7152.00†	4274.95	4249.95	-461.61	40°12'59.555"N	104°45'12.722"W	0.00	End of Tangent (J)



Planned Wellpath Report

FARLEY 30N-23HZ (PERMIT) PWP

Page 5 of 6

**REFERENCE WELLPATH IDENTIFICATION**

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 FARLEY 30N-23HZ (516'FSL & 532'FWL, SEC.23)
Area	COLORADO	Well	FARLEY 30N-23HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	FARLEY 30N-23HZ PWB
Facility	SEC.23-T3N-R66W		

HOLE & CASING SECTIONS - Ref Wellbore: FARLEY 30N-23HZ PWB Ref Wellpath: FARLEY 30N-23HZ (PERMIT) 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	973.00	956.00	17.00	973.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	973.00	956.00	17.00	973.00	0.00	0.00	0.00	0.00
8.75in Open Hole	973.00	7528.51	6555.51	973.00	7162.00	0.00	0.00	110.31	-456.43
7in Casing Intermediate	17.00	7528.51	7511.51	17.00	7162.00	0.00	0.00	110.31	-456.43
6.125in Open Hole	7528.51	11668.17	4139.66	7162.00	7152.00	110.31	-456.43	4249.95	-461.61
4.5in Casing Production	17.00	11668.17	11651.17	17.00	7152.00	0.00	0.00	4249.95	-461.61

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
FARLEY 13-23 PAD SECTION LINES		0.00	58.69	68.20	3209023.77	1318419.76	40°12'18.137"N	104°45'05.893"W	polygon
1) FARLEY 30N-23HZ BHL ON PLAT (460'FNL & 75'FWL, SEC.23) REV-1	11668.17	7152.00	4249.95	-461.61	3208458.64	1322606.21	40°12'59.555"N	104°45'12.722"W	point
FARLEY 13-23 PAD HARDLINES (460' SETBACKS)		7400.00	58.69	68.20	3209023.77	1318419.76	40°12'18.137"N	104°45'05.893"W	polygon

SURVEY PROGRAM - Ref Wellbore: FARLEY 30N-23HZ PWB Ref Wellpath: FARLEY 30N-23HZ (PERMIT) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	7528.51	NaviTrak (Standard)		FARLEY 30N-23HZ PWB
7528.51	11668.17	OnTrak (Standard)		FARLEY 30N-23HZ PWB



Planned Wellpath Report
FARLEY 30N-23HZ (PERMIT) PWP
Page 6 of 6



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 FARLEY 30N-23HZ (516'FSL & 532'FWL, SEC.23)
Area	COLORADO	Well	FARLEY 30N-23HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	FARLEY 30N-23HZ PWB
Facility	SEC.23-T3N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
771.00	0.000	221.370	771.00	FOX HILLS
3939.61	6.786	221.370	3922.00	PARKMAN
4462.27	6.786	221.370	4441.00	SUSSEX
7153.82	52.805	356.490	7045.00	SHARON SPRINGS
7271.28	64.500	357.764	7106.00	NIOBRARA A
7360.42	73.383	358.570	7138.00	NIOBRARA B