

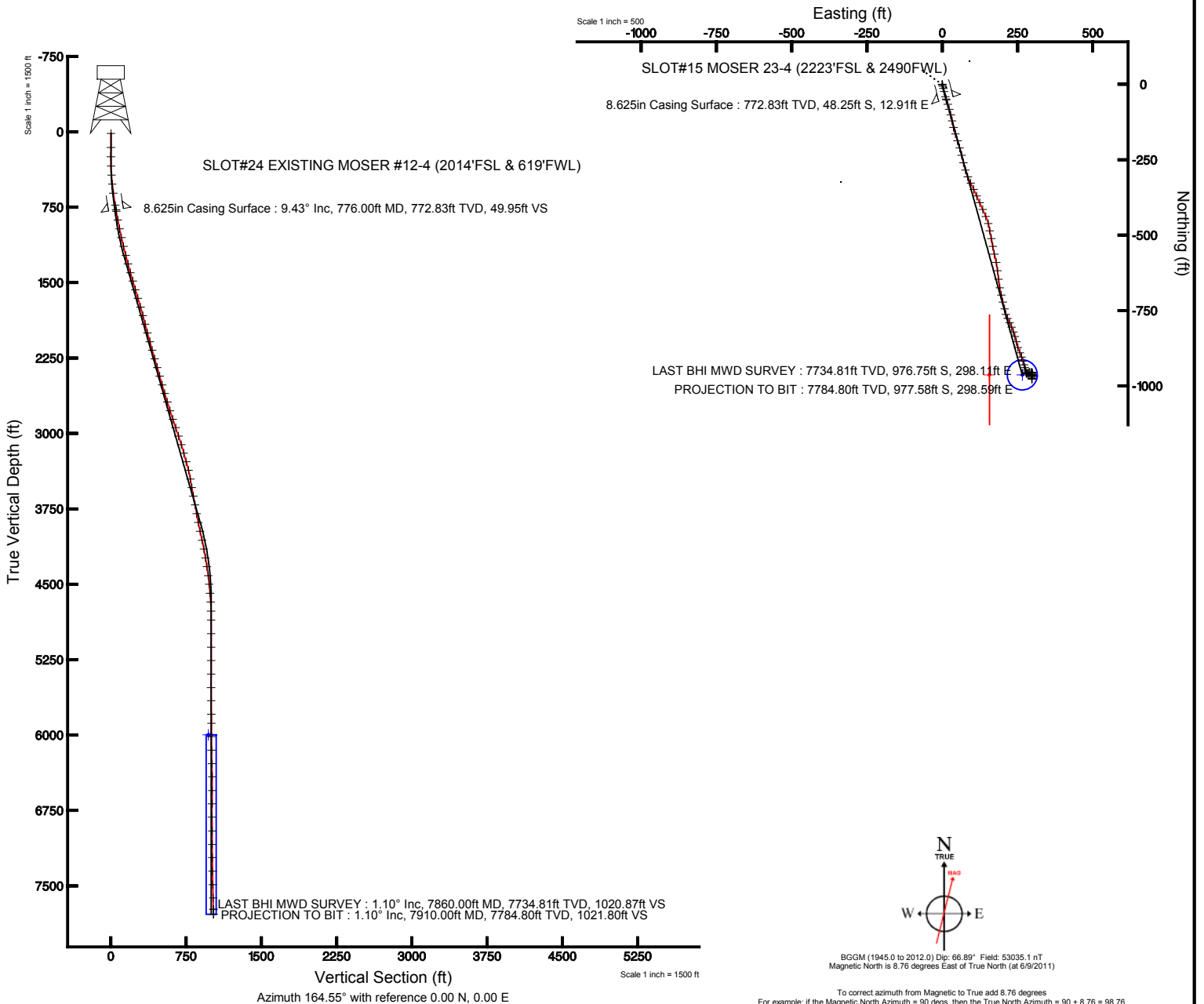


KERR MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#15 MOSER 23-4 (2223'FSL & 2490FWL)
 Field: WELD COUNTY (KERR MCGEE) Well: MOSER 23-4
 Facility: SEC.04-T2N-R65W Wellbore: MOSER 23-4 PWB



Plot reference wellpath is MOSER 23-4 (REV:8.0) PWP	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (801), US feet
True vertical depths are referenced to XTREME 15 (RKB)	North Reference: True north
Measured depths are referenced to XTREME 15 (RKB)	Scale: True distance
XTREME 15 (RKB) to Mean Sea Level 4874 feet	Depths are in feet
Mean Sea Level to Mud line (At Site: SLOT#15 MOSER 23-4 (2223'FSL & 2490FWL)): 0 feet	Coordinates are in feet referenced to Slot
	Created by: coolstam on 9/7/2011





Actual Wellpath Report

MOSER 23-4 awp

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#15 MOSER 23-4 (2223'FSL & 2490FWL)
Area	COLORADO	Well	MOSER 23-4
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MOSER 23-4 awb
Facility	SEC.04-T2N-R65W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 3.0.1
North Reference	True	User	Cookdanm
Scale	0.999958	Report Generated	9/7/2011 at 4:19:13 PM
Convergence at slot	0.54° East	Database/Source file	WA_Denver/_MOSER_23-4_awb.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-710.02	-32.70	3232161.39	1304629.12	40°09'59.821"N	104°40'09.354"W
Facility Reference Pt			3232187.43	1305339.38	40°10'06.838"N	104°40'08.933"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM

Calculation method	Minimum curvature	XTREME 15 (RKB) to Facility Vertical Datum	4874.00ft
Horizontal Reference Pt	Slot	XTREME 15 (RKB) to Mean Sea Level	4874.00ft
Vertical Reference Pt	XTREME 15 (RKB)	XTREME 15 (RKB) to Mud Line at Slot (SLOT#15 MOSER 23-4 (2223'FSL & 2490FWL))	4874.00ft
MD Reference Pt	XTREME 15 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	164.55°



Actual Wellpath Report

MOSER 23-4 awp

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REFERENCE WELLPATH IDENTIFICATION

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Area	COLORADO	Well	MOSER 23-4
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MOSER 23-4 awb
Facility	SEC.04-T2N-R65W		

WELLPATH DATA (80 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	20.400	0.00	0.00	0.00	0.00	0.00	
15.00	0.000	20.400	15.00	0.00	0.00	0.00	0.00	
153.00	0.500	20.400	153.00	-0.49	0.56	0.21	0.36	
246.00	0.100	165.600	246.00	-0.74	0.87	0.37	0.63	
338.00	1.900	168.000	337.98	0.87	-0.70	0.71	1.96	
430.00	4.000	165.200	429.85	5.60	-5.30	1.85	2.29	
519.00	6.000	165.600	518.51	13.35	-12.81	3.80	2.25	
609.00	7.600	168.000	607.87	24.00	-23.18	6.20	1.81	
731.00	9.800	164.200	728.46	42.44	-41.07	10.71	1.86	
793.00	9.300	160.600	789.60	52.71	-50.87	13.81	1.26	
881.00	10.700	163.800	876.27	67.97	-65.42	18.45	1.71	
970.00	11.800	162.400	963.55	85.33	-82.03	23.51	1.27	
1060.00	12.700	167.000	1051.51	104.41	-100.44	28.51	1.47	
1150.00	14.000	168.700	1139.07	125.15	-120.76	32.87	1.51	
1241.00	14.200	166.300	1227.33	147.29	-142.40	37.67	0.68	
1330.00	14.900	162.400	1313.48	169.63	-163.91	43.72	1.35	
1419.00	16.300	162.000	1399.20	193.55	-186.70	51.04	1.58	
1507.00	16.500	164.500	1483.62	218.38	-210.48	58.20	0.83	
1596.00	16.400	165.200	1568.98	243.58	-234.81	64.78	0.25	
1686.00	16.700	167.300	1655.25	269.20	-259.71	70.87	0.74	
1776.00	16.100	163.400	1741.59	294.60	-284.29	77.28	1.39	
1865.00	14.900	157.100	1827.36	318.29	-306.65	85.26	2.32	
1954.00	14.900	152.900	1913.37	340.84	-327.38	94.92	1.21	
2043.00	15.400	155.700	1999.27	363.72	-348.34	105.00	1.00	
2133.00	15.400	156.400	2086.04	387.36	-370.18	114.70	0.21	
2223.00	16.000	156.100	2172.69	411.46	-392.47	124.51	0.67	
2311.00	16.400	155.400	2257.19	435.72	-414.86	134.60	0.51	
2401.00	16.700	156.100	2343.46	461.05	-438.23	145.12	0.40	
2491.00	15.300	165.200	2429.99	485.72	-461.54	153.40	3.19	
2581.00	16.400	170.500	2516.57	510.23	-485.55	158.53	2.02	
2671.00	17.100	168.000	2602.75	536.08	-511.03	163.38	1.12	
2760.00	17.400	170.500	2687.75	562.38	-536.95	168.29	0.90	
2850.00	17.600	166.600	2773.59	589.36	-563.46	173.67	1.32	
2939.00	18.500	168.400	2858.21	616.90	-590.38	179.63	1.19	
3028.00	18.700	173.300	2942.56	645.09	-618.38	184.13	1.77	
3116.00	19.100	173.300	3025.82	673.26	-646.69	187.45	0.45	
3206.00	17.400	170.500	3111.29	701.20	-674.59	191.39	2.12	
3294.00	15.600	166.300	3195.67	726.12	-699.07	196.37	2.45	
3383.00	15.700	167.300	3281.37	750.11	-722.44	201.85	0.32	
3471.00	14.600	164.500	3366.31	773.09	-744.75	207.43	1.50	
3561.00	9.600	168.700	3454.28	791.93	-763.05	211.94	5.64	
3647.00	9.800	148.000	3539.08	806.11	-776.29	217.22	4.04	
3734.00	11.100	156.400	3624.64	821.49	-790.25	224.50	2.30	
3822.00	11.000	157.100	3711.01	838.20	-805.74	231.16	0.19	
3911.00	10.400	163.400	3798.46	854.66	-821.26	236.76	1.48	



Actual Wellpath Report

MOSER 23-4 awp

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#15 MOSER 23-4 (2223'FSL & 2490FWL)
Area	COLORADO	Well	MOSER 23-4
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MOSER 23-4 awb
Facility	SEC.04-T2N-R65W		

WELLPATH DATA (80 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
3999.00	10.600	159.900	3884.99	870.66	-836.48	241.81	0.76	
4089.00	12.400	168.000	3973.18	888.56	-853.70	246.66	2.68	
4180.00	12.700	161.000	4062.02	908.30	-872.72	251.95	1.70	
4271.00	11.200	158.500	4151.04	927.07	-890.40	258.45	1.74	
4358.00	9.100	159.200	4236.67	942.33	-904.70	263.99	2.42	
4449.00	9.300	162.700	4326.50	956.84	-918.44	268.73	0.65	
4538.00	7.300	164.900	4414.57	969.69	-930.77	272.34	2.27	
4625.00	5.400	164.500	4501.03	979.31	-940.05	274.87	2.18	
4714.00	5.000	162.700	4589.66	987.37	-947.79	277.15	0.49	
4803.00	3.600	169.400	4678.41	994.03	-954.24	278.81	1.67	
4892.00	1.600	180.000	4767.32	998.01	-958.23	279.33	2.30	
4982.00	0.800	110.400	4857.30	999.59	-959.71	279.92	1.69	
5117.00	0.800	56.600	4992.29	999.86	-959.52	281.59	0.54	
5251.00	1.400	56.900	5126.26	999.07	-958.11	283.74	0.45	
5385.00	1.700	86.500	5260.22	998.99	-957.09	287.10	0.63	
5520.00	1.000	21.800	5395.18	998.46	-955.88	289.53	1.16	
5654.00	1.200	96.700	5529.17	998.06	-954.95	291.36	1.01	
5785.00	1.800	97.000	5660.12	999.36	-955.36	294.76	0.46	
5920.00	1.300	94.200	5795.07	1000.69	-955.73	298.40	0.37	
6009.00	0.800	154.300	5884.06	1001.64	-956.37	299.67	1.28	
6142.00	0.900	265.800	6017.05	1002.35	-957.28	299.03	1.06	
6275.00	0.800	178.200	6150.04	1003.05	-958.29	298.02	0.89	
6410.00	1.800	151.500	6285.00	1006.03	-961.09	299.06	0.85	
6542.00	1.000	136.700	6416.96	1009.07	-963.75	300.84	0.66	
6678.00	1.000	293.500	6552.96	1009.37	-964.14	300.57	1.44	
6811.00	0.700	286.800	6685.94	1008.21	-963.44	298.72	0.24	
6944.00	0.200	218.300	6818.94	1007.91	-963.39	297.80	0.49	
7081.00	0.200	146.200	6955.94	1008.28	-963.78	297.79	0.17	
7215.00	0.500	176.500	7089.93	1009.07	-964.56	297.95	0.26	
7346.00	0.900	165.600	7220.92	1010.66	-966.12	298.24	0.32	
7481.00	1.100	182.800	7355.90	1012.95	-968.44	298.44	0.27	
7614.00	1.400	197.900	7488.87	1015.52	-971.27	297.88	0.33	
7748.00	1.400	176.500	7622.83	1018.49	-974.46	297.48	0.39	
7860.00	1.100	149.700	7734.81	1020.87	-976.75	298.11	0.58	LAST BHI MWD SURVEY
7910.00	1.100	149.700	7784.80	1021.80	-977.58	298.59	0.00	PROJECTION TO BIT



Actual Wellpath Report

MOSER 23-4 awp

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#15 MOSER 23-4 (2223'FSL & 2490FWL)
Area	COLORADO	Well	MOSER 23-4
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MOSER 23-4 awb
Facility	SEC.04-T2N-R65W		

HOLE & CASING SECTIONS - Ref Wellbore: MOSER 23-4 awb Ref Wellpath: MOSER 23-4 awp

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]
12.25in Open Hole	15.00	786.00	771.00	15.00	782.70	0.00	0.00	-49.80	13.44
8.625in Casing Surface	15.00	776.00	761.00	15.00	772.83	0.00	0.00	-48.25	12.91
7.875in Open Hole	786.00	7910.00	7124.00	782.70	7784.80	-49.80	13.44	-977.58	298.59

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
MOSER 23-4 HARDLINE 110'W OF GEO TARGET		6000.00	-963.93	156.36	3232326.76	1303666.74	40°09'50.296"N	104°40'07.340"W	point
MOSER 23-4 GEO TARGET 50' RADIUS (1260'FSL & 2525'FEL, REV-1)		6000.00	-963.89	266.37	3232436.77	1303667.81	40°09'50.296"N	104°40'05.923"W	circle

WELLPATH COMPOSITION - Ref Wellbore: MOSER 23-4 awb Ref Wellpath: MOSER 23-4 awp

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
15.00	7860.00	NaviTrak (Standard)	bhi mwd surveys <153-7860>	MOSER 23-4 awb
7860.00	7910.00	Blind Drilling (std)	Projection to bit	MOSER 23-4 awb



Actual Wellpath Report

MOSER 23-4 awp

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REFERENCE WELLPATH IDENTIFICATION

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Area	COLORADO	Well	MOSER 23-4
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MOSER 23-4 awb
Facility	SEC.04-T2N-R65W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
7860.00	1.100	149.700	7734.81	LAST BHI MWD SURVEY
7910.00	1.100	149.700	7784.80	PROJECTION TO BIT