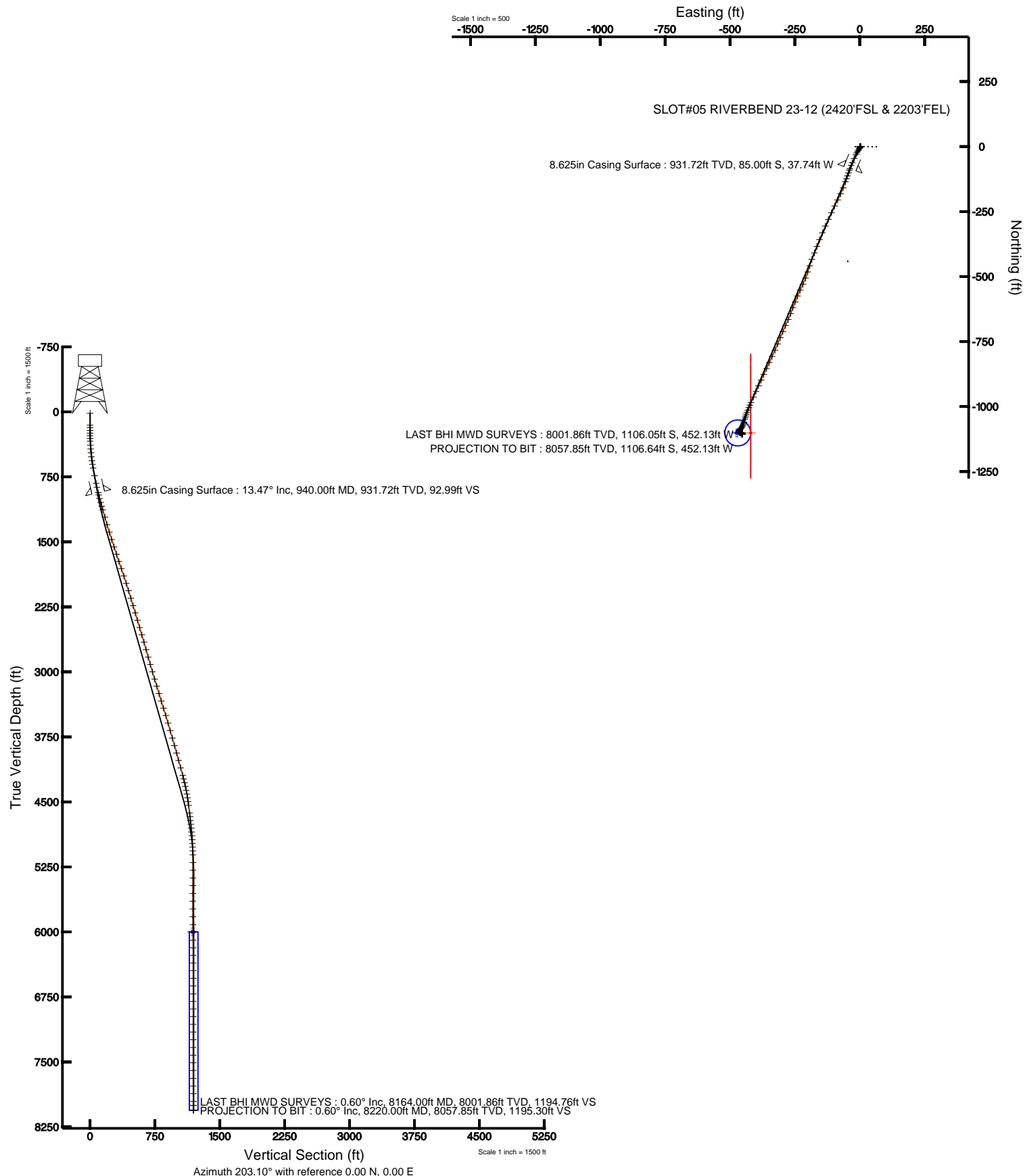


KERR MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#05 RIVERBEND 23-12 (2420'FSL & 2203'FEL)
 Field: WELD COUNTY (KERR MCGEE) Well: RIVERBEND 23-12
 Facility: SEC.12-T1N-R67W Wellbore: RIVERBEND 23-12 PWB



Plot reference wellpath is RIVERBEND 23-12 (REV-C.0) PWP	
True vertical depths are referenced to XTREME 15 (RKB)	Grid System: NAD83 / Lambert Colorado State Planes, Northern Zone (501), US feet
Measured depths are referenced to XTREME 15 (RKB)	North Reference: True north
XTREME 15 (RKB) to Mean Sea Level: 4928 feet	Scale: True distance
Mean Sea Level to Mud line (Facility: SEC.12-T1N-R67W): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: cookdarrn on 1/27/2011





Actual Wellpath Report

RIVERBEND 23-12 AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 RIVERBEND 23-12 (2420'FSL & 2203'FEL)
Area	COLORADO	Well	RIVERBEND 23-12
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RIVERBEND 23-12 AWB
Facility	SEC.12-T1N-R67W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado State Planes, Northern Zone (501), US feet	Software System	WellArchitect® 2.0
North Reference	True	User	Cookdanm
Scale	0.999962	Report Generated	1/27/2011 at 5:02:22 PM
Convergence at slot	0.43° East	Database/Source file	Denver Server/RIVERBEND_23-12_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	0.00	-64.10	3185372.28	1267204.61	40°03'53.878"N	104°50'15.655"W
Facility Reference Pt			3185436.38	1267205.09	40°03'53.878"N	104°50'14.831"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	4928.00ft
Horizontal Reference Pt	Slot	XTREME 15 (RKB) to Mean Sea Level	4928.00ft
Vertical Reference Pt	XTREME 15 (RKB)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	XTREME 15 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	203.10°



Actual Wellpath Report

RIVERBEND 23-12 AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 RIVERBEND 23-12 (2420'FSL & 2203'FEL)
Area	COLORADO	Well	RIVERBEND 23-12
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RIVERBEND 23-12 AWB
Facility	SEC.12-T1N-R67W		

WELLPATH DATA (114 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	83.400	0.00	0.00	0.00	0.00	0.00	
15.00	0.000	83.400	15.00	0.00	0.00	0.00	0.00	
152.00	1.500	83.400	151.98	-0.89	0.21	1.78	1.09	
182.00	1.500	87.000	181.97	-1.26	0.27	2.56	0.31	
214.00	1.100	98.100	213.97	-1.52	0.25	3.29	1.47	
245.00	0.700	167.500	244.96	-1.44	0.02	3.62	3.47	
275.00	0.700	190.000	274.96	-1.12	-0.34	3.63	0.91	
306.00	1.200	211.800	305.96	-0.61	-0.80	3.43	1.96	
337.00	2.300	219.900	336.94	0.31	-1.55	2.86	3.63	
383.00	3.400	216.000	382.88	2.52	-3.36	1.46	2.43	
428.00	4.500	213.500	427.78	5.56	-5.91	-0.30	2.47	
473.00	5.700	210.400	472.60	9.51	-9.31	-2.40	2.74	
519.00	7.100	210.400	518.31	14.60	-13.74	-5.00	3.04	
564.00	8.200	210.000	562.91	20.54	-18.91	-8.01	2.45	
607.00	9.100	209.300	605.42	26.97	-24.54	-11.21	2.11	
651.00	9.900	206.500	648.82	34.20	-30.96	-14.60	2.10	
740.00	11.200	204.400	736.31	50.48	-45.67	-21.58	1.52	
830.00	12.100	202.300	824.45	68.65	-62.36	-28.77	1.11	
877.00	12.700	202.300	870.36	78.74	-71.70	-32.60	1.28	
967.00	13.800	199.100	957.96	99.34	-91.00	-39.87	1.47	
1010.00	15.100	198.100	999.60	110.04	-101.17	-43.29	3.08	
1056.00	15.300	199.100	1043.99	122.06	-112.60	-47.13	0.72	
1101.00	15.500	197.400	1087.38	133.97	-123.95	-50.88	1.10	
1146.00	16.400	200.200	1130.64	146.30	-135.65	-54.87	2.63	
1234.00	16.000	200.500	1215.15	170.82	-158.66	-63.40	0.46	
1323.00	16.500	205.400	1300.60	195.70	-181.57	-73.12	1.64	
1414.00	17.100	206.500	1387.71	221.97	-205.22	-84.63	0.75	
1502.00	17.800	206.100	1471.66	248.32	-228.88	-96.32	0.81	
1593.00	18.500	205.400	1558.14	276.63	-254.41	-108.64	0.81	
1682.00	18.600	205.400	1642.51	304.92	-279.99	-120.78	0.11	
1770.00	18.800	203.300	1725.87	333.13	-305.69	-132.41	0.80	
1857.00	19.000	204.000	1808.18	361.31	-331.50	-143.72	0.35	
1947.00	18.000	202.300	1893.53	389.86	-357.75	-154.95	1.26	
2037.00	18.300	199.500	1979.05	417.87	-383.94	-164.94	1.02	
2125.00	17.100	203.000	2062.88	444.60	-408.87	-174.61	1.82	
2216.00	17.000	199.500	2149.89	471.25	-433.73	-184.28	1.13	
2305.00	16.800	196.300	2235.04	497.01	-458.34	-192.23	1.07	
2393.00	16.400	199.100	2319.38	522.03	-482.28	-199.87	1.02	
2481.00	16.900	201.900	2403.69	547.21	-505.89	-208.70	1.07	
2570.00	16.700	204.700	2488.89	572.93	-529.51	-218.87	0.94	
2657.00	16.700	205.100	2572.22	597.91	-552.19	-229.40	0.13	
2745.00	16.200	202.600	2656.62	622.83	-574.97	-239.48	0.98	
2835.00	15.300	202.300	2743.24	647.25	-597.55	-248.81	1.00	
2924.00	15.500	200.200	2829.05	670.87	-619.57	-257.37	0.67	
3013.00	16.400	201.200	2914.62	695.31	-642.45	-266.02	1.06	



Actual Wellpath Report

RIVERBEND 23-12 AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 RIVERBEND 23-12 (2420'FSL & 2203'FEL)
Area	COLORADO	Well	RIVERBEND 23-12
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RIVERBEND 23-12 AWB
Facility	SEC.12-T1N-R67W		

WELLPATH DATA (114 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
3101.00	16.500	204.000	2999.02	720.22	-665.45	-275.60	0.91	
3188.00	17.200	204.000	3082.28	745.43	-688.48	-285.86	0.80	
3275.00	16.900	203.300	3165.46	770.94	-711.85	-296.09	0.42	
3364.00	16.400	203.000	3250.73	796.44	-735.30	-306.12	0.57	
3453.00	17.600	201.600	3335.84	822.46	-759.37	-315.98	1.42	
3540.00	17.600	205.400	3418.77	848.75	-783.49	-326.46	1.32	
3629.00	16.900	204.700	3503.76	875.13	-807.39	-337.64	0.82	
3719.00	16.400	204.700	3589.99	900.90	-830.82	-348.42	0.56	
3810.00	16.000	204.700	3677.38	926.28	-853.89	-359.02	0.44	
3900.00	16.000	205.400	3763.89	951.07	-876.36	-369.53	0.21	
3990.00	15.300	204.700	3850.55	975.34	-898.35	-379.81	0.81	
4080.00	15.800	205.100	3937.26	999.45	-920.24	-389.97	0.57	
4167.00	15.900	203.700	4020.95	1023.21	-941.87	-399.78	0.45	
4257.00	15.300	203.700	4107.64	1047.41	-964.04	-409.51	0.67	
4346.00	14.600	204.700	4193.62	1070.36	-984.98	-418.92	0.84	
4389.00	14.200	203.300	4235.27	1081.05	-994.75	-423.27	1.23	
4433.00	13.500	203.700	4277.99	1091.59	-1004.41	-427.47	1.61	
4478.00	12.600	201.900	4321.83	1101.75	-1013.77	-431.41	2.19	
4524.00	11.200	201.200	4366.84	1111.23	-1022.59	-434.90	3.06	
4567.00	9.900	199.800	4409.11	1119.09	-1029.96	-437.66	3.08	
4612.00	8.700	192.400	4453.52	1126.30	-1036.93	-439.70	3.76	
4655.00	8.300	193.800	4496.05	1132.56	-1043.12	-441.14	1.05	
4700.00	8.000	194.500	4540.60	1138.86	-1049.30	-442.70	0.70	
4787.00	6.800	198.400	4626.87	1149.98	-1060.05	-445.84	1.49	
4832.00	6.500	199.500	4671.57	1155.18	-1064.98	-447.53	0.72	
4875.00	6.500	200.530	4714.29	1160.04	-1069.55	-449.20	0.27	
4920.00	6.200	200.900	4759.01	1165.01	-1074.21	-450.96	0.67	
4963.00	6.100	209.700	4801.77	1169.60	-1078.36	-452.92	2.20	
5008.00	5.900	218.400	4846.52	1174.20	-1082.25	-455.54	2.07	
5052.00	5.100	220.900	4890.32	1178.25	-1085.50	-458.23	1.90	
5097.00	4.100	226.200	4935.17	1181.63	-1088.13	-460.70	2.41	
5141.00	2.900	224.100	4979.09	1184.12	-1090.02	-462.61	2.74	
5184.00	2.100	218.800	5022.05	1185.89	-1091.41	-463.86	1.93	
5228.00	1.600	234.600	5066.03	1187.19	-1092.40	-464.86	1.61	
5273.00	1.200	207.500	5111.01	1188.20	-1093.18	-465.59	1.69	
5362.00	0.200	3.600	5200.01	1188.98	-1093.85	-466.01	1.56	
5451.00	0.700	82.700	5289.01	1188.56	-1093.63	-465.46	0.78	
5540.00	0.800	103.500	5378.00	1188.18	-1093.70	-464.32	0.32	
5628.00	0.800	97.900	5465.99	1187.92	-1093.93	-463.11	0.09	
5719.00	0.500	279.300	5556.99	1187.85	-1093.95	-462.88	1.43	
5808.00	0.600	267.000	5645.98	1188.14	-1093.91	-463.73	0.17	
5897.00	0.600	297.200	5734.98	1188.31	-1093.73	-464.61	0.35	
5987.00	0.400	214.200	5824.98	1188.59	-1093.77	-465.20	0.75	
6078.00	0.300	210.700	5915.98	1189.14	-1094.24	-465.50	0.11	
6168.00	0.400	181.500	6005.97	1189.66	-1094.75	-465.63	0.22	



Actual Wellpath Report

RIVERBEND 23-12 AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 RIVERBEND 23-12 (2420'FSL & 2203'FEL)
Area	COLORADO	Well	RIVERBEND 23-12
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RIVERBEND 23-12 AWB
Facility	SEC.12-T1N-R67W		

WELLPATH DATA (114 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
6258.00	0.400	150.900	6095.97	1190.15	-1095.34	-465.49	0.23	
6346.00	0.400	159.000	6183.97	1190.56	-1095.90	-465.23	0.06	
6434.00	0.600	155.500	6271.97	1191.09	-1096.60	-464.93	0.23	
6521.00	0.500	168.900	6358.96	1191.71	-1097.39	-464.66	0.19	
6608.00	0.700	159.400	6445.96	1192.41	-1098.26	-464.40	0.26	
6698.00	0.600	138.600	6535.95	1193.01	-1099.13	-463.90	0.28	
6786.00	0.800	108.800	6623.95	1193.16	-1099.67	-463.01	0.46	
6878.00	0.900	111.600	6715.93	1193.09	-1100.15	-461.73	0.12	
6965.00	0.700	102.800	6802.93	1192.98	-1100.52	-460.58	0.27	
7052.00	0.900	119.000	6889.92	1192.95	-1100.96	-459.46	0.34	
7139.00	0.800	90.800	6976.91	1192.79	-1101.30	-458.26	0.49	
7229.00	0.900	92.200	7066.90	1192.30	-1101.34	-456.92	0.11	
7318.00	0.400	204.000	7155.90	1192.36	-1101.65	-456.35	1.25	
7407.00	0.500	104.000	7244.89	1192.61	-1102.03	-456.10	0.78	
7496.00	0.700	82.700	7333.89	1192.28	-1102.05	-455.18	0.33	
7585.00	0.400	72.200	7422.88	1191.80	-1101.89	-454.35	0.35	
7673.00	0.400	111.600	7510.88	1191.59	-1101.91	-453.77	0.31	
7761.00	0.400	129.100	7598.88	1191.67	-1102.22	-453.25	0.14	
7852.00	0.700	135.500	7689.88	1191.97	-1102.81	-452.61	0.34	
7941.00	0.400	162.500	7778.87	1192.41	-1103.50	-452.14	0.44	
8028.00	0.700	179.800	7865.87	1193.13	-1104.32	-452.04	0.39	
8117.00	0.800	185.400	7954.86	1194.22	-1105.48	-452.10	0.14	
8164.00	0.600	179.800	8001.86	1194.76	-1106.05	-452.13	0.45	LAST BHI MWD SURVEYS
8220.00	0.600	179.800	8057.85	1195.30	-1106.64	-452.13	0.00	PROJECTION TO BIT

HOLE & CASING SECTIONS Ref Wellbore: RIVERBEND 23-12 AWB Ref Wellpath: RIVERBEND 23-12 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	940.00	925.00	15.00	931.72	0.00	0.00	-85.00	-37.74
8.625in Casing Surface	15.00	940.00	925.00	15.00	931.72	0.00	0.00	-85.00	-37.74
7.875in Open Hole	940.00	8220.00	7280.00	931.72	8057.85	-85.00	-37.74	-1106.64	-452.13



Actual Wellpath Report

RIVERBEND 23-12 AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 RIVERBEND 23-12 (2420'FSL & 2203'FEL)
Area	COLORADO	Well	RIVERBEND 23-12
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RIVERBEND 23-12 AWB
Facility	SEC.12-T1N-R67W		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
RIVERBEND 23-12 BHL ON PLAT (1320'FSL & 2590'FWL, REV-1)		6000.00	-1101.61	-455.97	3184924.57	1266099.67	40°03'42.991"N	104°50'21.520"W	point
RIVERBEND 23-12 GEO TARGET 50' RADIUS (1320'FSL & 2540'FWL, REV- 2)		6000.00	-1101.61	-475.97	3184904.57	1266099.52	40°03'42.991"N	104°50'21.777"W	point
RIVERBEND 23-12 GEO TARGET 50' RADIUS (1320'FSL & 2576'FWL, REV- 3)		6000.00	-1101.61	-469.97	3184910.57	1266099.56	40°03'42.991"N	104°50'21.700"W	circle
RIVERBEND 23-12 HARDLINE 50'E OF THE GEO TARGET		6000.00	-1101.61	-419.97	3184960.57	1266099.94	40°03'42.991"N	104°50'21.057"W	point

WELLPATH COMPOSITION					Ref Wellbore: RIVERBEND 23-12 AWB	Ref Wellpath: RIVERBEND 23-12 AWP
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment		Wellbore	
15.00	877.00	NaviTrak (Standard)	BHI MWD SURVEY 12.25 HOLE <152-877>		RIVERBEND 23-12 AWB	
877.00	8164.00	NaviTrak (Standard)	BHI MWD SURVEYS 7.875 HOLE <967-8164>		RIVERBEND 23-12 AWB	
8164.00	8220.00	Blind Drilling (std)	Projection to bit		RIVERBEND 23-12 AWB	



Actual Wellpath Report

RIVERBEND 23-12 AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 RIVERBEND 23-12 (2420'FSL & 2203'FEL)
Area	COLORADO	Well	RIVERBEND 23-12
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RIVERBEND 23-12 AWB
Facility	SEC.12-T1N-R67W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
8164.00	0.600	179.800	8001.86	LAST BHI MWD SURVEYS
8220.00	0.600	179.800	8057.85	PROJECTION TO BIT