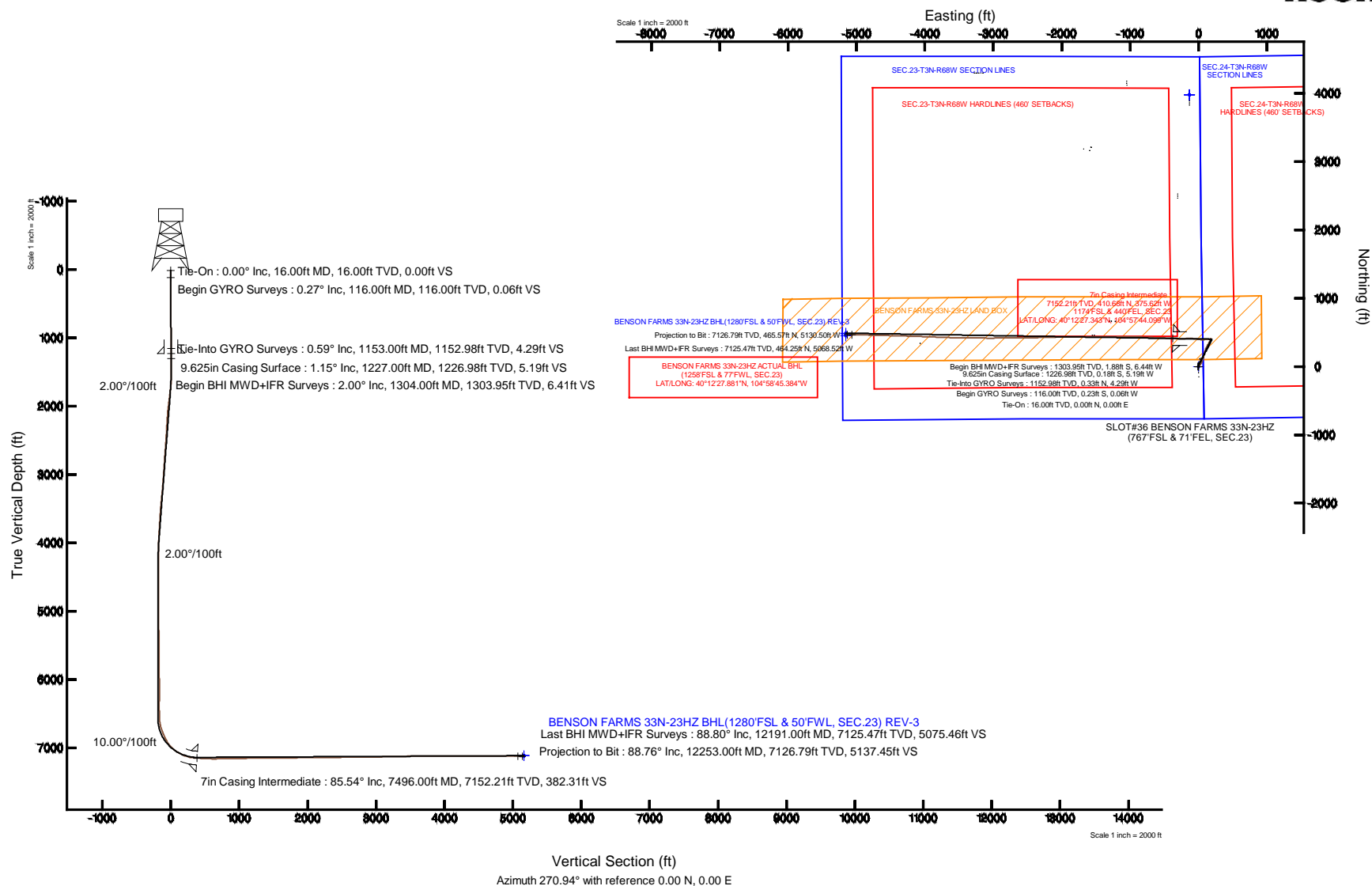


Location:	COLORADO	Slot:	SLOT#36 BENSON FARMS 33N-23HZ (767FSL & 71FEL, SEC.23)
Field:	WELD COUNTY (KERR MCGEE)	Well:	BENSON FARMS 33N-23HZ
Facility:	SEC.23-T3N-R68W	Wellbore:	BENSON FARMS 33N-23HZ PWP

Coordinates are in feet referenced to Slot

Created by: precain on 24/Sep/2014



# Actual Wellpath Report

BENSON FARMS 33N-23HZ AWP

Page 1 of 6

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#36 BENSON FARMS 33N-23HZ (767'FSL & 71'FEL, SEC.23)
Area	COLORADO	Well	BENSON FARMS 33N-23HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BENSON FARMS 33N-23HZ AWB
Facility	SEC.23-T3N-R68W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.0.0
North Reference	True	User	Precain
Scale	0.999957	Report Generated	24/Sep/2014 at 09:43
Convergence at slot	n/a	Database/Source file	WellArchitectDB/BENSON_FARMS_33N-23HZ_AWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4291.96	3154.90	3150571.23	1318516.36	40°12'23.285"N	104°57'39.258"W
Facility Reference Pt			3147390.98	1322789.28	40°13'05.700"N	104°58'19.920"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 23 (16'KB) (RKB) to Facility Vertical Datum	4976.00ft
Horizontal Reference Pt	Slot	XTREME 23 (16'KB) (RKB) to Mean Sea Level	4976.00ft
Vertical Reference Pt	XTREME 23 (16'KB) (RKB)	XTREME 23 (16'KB) (RKB) to Mud Line at Slot (SLOT#36 BENSON FARMS 33N-23HZ (767'FSL & 71'FEL, SEC.23))	4976.00ft
MD Reference Pt	XTREME 23 (16'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	270.94°

# Actual Wellpath Report

BENSON FARMS 33N-23HZ AWP

Page 2 of 6

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#36 BENSON FARMS 33N-23HZ (767'FSL & 71'FEL, SEC.23)
Area	COLORADO	Well	BENSON FARMS 33N-23HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BENSON FARMS 33N-23HZ AWB
Facility	SEC.23-T3N-R68W		

## WELLPATH DATA (94 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	195.100	0.00	0.00	0.00	0.00	40°12'23.285"N	104°57'39.258"W	0.00	
16.00	0.000	195.100	16.00	0.00	0.00	0.00	40°12'23.285"N	104°57'39.258"W	0.00	Tie-On
116.00	0.270	195.100	116.00	0.06	-0.23	-0.06	40°12'23.283"N	104°57'39.259"W	0.27	Begin GYRO Surveys
216.00	0.250	284.850	216.00	0.33	-0.40	-0.33	40°12'23.281"N	104°57'39.262"W	0.37	
316.00	0.400	342.360	316.00	0.65	-0.01	-0.65	40°12'23.285"N	104°57'39.266"W	0.34	
416.00	0.050	331.730	416.00	0.78	0.36	-0.78	40°12'23.289"N	104°57'39.268"W	0.35	
516.00	0.420	241.620	516.00	1.12	0.22	-1.12	40°12'23.287"N	104°57'39.272"W	0.42	
616.00	0.320	327.730	615.99	1.60	0.29	-1.59	40°12'23.288"N	104°57'39.279"W	0.51	
716.00	0.040	271.780	715.99	1.78	0.52	-1.78	40°12'23.290"N	104°57'39.281"W	0.30	
816.00	0.550	238.670	815.99	2.22	0.28	-2.22	40°12'23.288"N	104°57'39.287"W	0.52	
916.00	0.410	295.300	915.99	2.96	0.18	-2.95	40°12'23.287"N	104°57'39.296"W	0.47	
1016.00	0.100	296.120	1015.99	3.36	0.37	-3.36	40°12'23.289"N	104°57'39.301"W	0.31	
1116.00	0.560	262.420	1115.99	3.92	0.34	-3.92	40°12'23.288"N	104°57'39.309"W	0.48	
1153.00	0.590	272.770	1152.98	4.29	0.33	-4.29	40°12'23.288"N	104°57'39.313"W	0.29	Tie-Into GYRO Surveys
1304.00	2.000	211.400	1303.95	6.41	-1.88	-6.44	40°12'23.266"N	104°57'39.341"W	1.19	Begin BHI MWD+IFR Surveys
1398.00	1.300	281.500	1397.92	8.29	-3.07	-8.34	40°12'23.255"N	104°57'39.365"W	2.11	
1489.00	2.400	8.400	1488.88	9.05	-0.98	-9.07	40°12'23.275"N	104°57'39.375"W	2.93	
1584.00	4.300	24.000	1583.72	7.40	4.24	-7.33	40°12'23.327"N	104°57'39.352"W	2.20	
1674.00	5.800	50.600	1673.38	2.61	10.21	-2.44	40°12'23.386"N	104°57'39.289"W	3.05	
1765.00	8.200	52.400	1763.69	-5.97	17.09	6.25	40°12'23.454"N	104°57'39.177"W	2.65	
1857.00	9.800	46.500	1854.56	-16.69	26.49	17.13	40°12'23.547"N	104°57'39.037"W	2.01	
1949.00	12.000	40.400	1944.89	-28.36	39.16	29.01	40°12'23.672"N	104°57'38.884"W	2.70	
2042.00	11.900	30.300	2035.89	-39.21	54.80	40.12	40°12'23.827"N	104°57'38.741"W	2.25	
2134.00	12.500	19.300	2125.82	-47.00	72.39	48.19	40°12'24.000"N	104°57'38.637"W	2.61	
2226.00	12.300	17.900	2215.68	-52.99	91.11	54.50	40°12'24.185"N	104°57'38.556"W	0.39	
2411.00	12.300	13.400	2396.43	-62.99	129.04	65.12	40°12'24.560"N	104°57'38.419"W	0.52	
2503.00	13.200	20.800	2486.17	-68.67	148.39	71.12	40°12'24.751"N	104°57'38.341"W	2.02	
2779.00	12.400	18.500	2755.31	-88.32	205.95	91.71	40°12'25.320"N	104°57'38.076"W	0.34	
2964.00	11.800	17.300	2936.20	-99.64	242.85	103.64	40°12'25.685"N	104°57'37.922"W	0.35	
3056.00	12.400	24.100	3026.16	-106.17	260.85	110.47	40°12'25.863"N	104°57'37.834"W	1.68	
3240.00	11.300	21.800	3206.24	-120.36	295.62	125.24	40°12'26.206"N	104°57'37.644"W	0.65	
3333.00	11.600	32.900	3297.40	-128.56	311.93	133.70	40°12'26.368"N	104°57'37.535"W	2.39	
3416.00	10.800	33.100	3378.82	-137.11	325.45	142.48	40°12'26.501"N	104°57'37.422"W	0.96	
3503.00	10.100	31.600	3464.37	-145.34	338.78	150.93	40°12'26.633"N	104°57'37.313"W	0.86	
3588.00	9.400	25.500	3548.15	-152.03	351.39	157.82	40°12'26.757"N	104°57'37.224"W	1.47	
3675.00	8.700	22.800	3634.07	-157.43	363.87	163.43	40°12'26.881"N	104°57'37.152"W	0.94	
3760.00	8.500	21.900	3718.11	-162.07	375.63	168.26	40°12'26.997"N	104°57'37.089"W	0.28	
3846.00	7.200	29.500	3803.30	-166.92	386.22	173.29	40°12'27.102"N	104°57'37.025"W	1.93	
3931.00	5.600	34.900	3887.77	-171.79	394.25	178.28	40°12'27.181"N	104°57'36.960"W	2.01	
4016.00	3.300	37.700	3972.51	-175.57	399.59	182.15	40°12'27.234"N	104°57'36.910"W	2.72	
4101.00	2.400	4.200	4057.41	-177.13	403.30	183.78	40°12'27.270"N	104°57'36.889"W	2.18	
4187.00	1.100	307.400	4143.37	-176.57	405.60	183.26	40°12'27.293"N	104°57'36.896"W	2.35	
4272.00	0.400	95.000	4228.37	-176.21	406.07	182.90	40°12'27.298"N	104°57'36.901"W	1.71	
4700.00	0.100	162.800	4656.37	-177.82	405.58	184.50	40°12'27.293"N	104°57'36.880"W	0.09	
5126.00	0.400	252.900	5082.36	-176.52	404.79	183.19	40°12'27.285"N	104°57'36.897"W	0.10	

# Actual Wellpath Report

BENSON FARMS 33N-23HZ AWP

Page 3 of 6

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#36 BENSON FARMS 33N-23HZ (767'FSL & 71'FEL, SEC.23)
Area	COLORADO	Well	BENSON FARMS 33N-23HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BENSON FARMS 33N-23HZ AWB
Facility	SEC.23-T3N-R68W		

## WELLPATH DATA (94 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5554.00	0.500	249.200	5510.35	-173.36	403.69	180.02	40°12'27.274"N	104°57'36.938"W	0.02	
5987.00	0.900	255.400	5943.31	-168.33	402.16	174.96	40°12'27.259"N	104°57'37.003"W	0.09	
6415.00	0.900	78.200	6371.30	-168.37	402.00	175.00	40°12'27.258"N	104°57'37.002"W	0.42	
6504.00	1.900	257.600	6460.29	-167.62	401.83	174.24	40°12'27.256"N	104°57'37.012"W	3.15	
6589.00	1.900	243.700	6545.24	-164.99	400.90	171.60	40°12'27.247"N	104°57'37.046"W	0.54	
6674.00	7.000	271.600	6629.96	-158.56	400.42	165.16	40°12'27.242"N	104°57'37.129"W	6.35	
6759.00	17.700	267.300	6712.88	-140.43	399.95	147.02	40°12'27.237"N	104°57'37.363"W	12.63	
6844.00	22.100	263.200	6792.78	-111.68	397.45	118.22	40°12'27.213"N	104°57'37.734"W	5.43	
6931.00	27.100	263.900	6871.86	-75.77	393.40	82.24	40°12'27.173"N	104°57'38.198"W	5.76	
7020.00	35.800	275.600	6947.79	-29.57	393.79	36.05	40°12'27.176"N	104°57'38.793"W	11.90	
7104.00	48.000	280.500	7010.21	25.92	401.91	-19.32	40°12'27.257"N	104°57'39.507"W	15.03	
7189.00	57.300	271.800	7061.78	93.05	408.81	-86.35	40°12'27.325"N	104°57'40.371"W	13.62	
7275.00	65.600	268.900	7102.85	168.51	409.20	-161.81	40°12'27.329"N	104°57'41.344"W	10.09	
7360.00	74.000	268.200	7132.18	248.14	407.17	-241.49	40°12'27.309"N	104°57'42.370"W	9.91	
7445.00	84.700	273.000	7147.87	331.53	408.10	-324.87	40°12'27.318"N	104°57'43.445"W	13.75	
7496.00†	85.545	272.818	7152.21	382.31	410.68	-375.62	40°12'27.343"N	104°57'44.099"W	1.69	7" Casing Intermediate
7614.00	87.500	272.400	7159.37	500.04	416.04	-493.27	40°12'27.396"N	104°57'45.616"W	1.69	
7699.00	88.400	272.100	7162.41	584.96	419.38	-578.15	40°12'27.429"N	104°57'46.710"W	1.12	
7779.00	91.000	272.700	7162.83	664.93	422.73	-658.07	40°12'27.462"N	104°57'47.740"W	3.34	
7954.00	90.700	273.100	7160.23	839.80	431.58	-832.83	40°12'27.550"N	104°57'49.992"W	0.29	
8039.00	91.000	271.500	7158.97	924.77	434.99	-917.75	40°12'27.583"N	104°57'51.087"W	1.91	
8124.00	91.200	270.200	7157.34	1009.75	436.25	-1002.72	40°12'27.596"N	104°57'52.182"W	1.55	
8295.00	90.600	270.000	7154.65	1180.71	436.55	-1173.70	40°12'27.599"N	104°57'54.386"W	0.37	
8380.00	91.200	270.200	7153.31	1265.69	436.70	-1258.69	40°12'27.600"N	104°57'55.481"W	0.74	
8465.00	90.800	270.000	7151.83	1350.67	436.85	-1343.67	40°12'27.602"N	104°57'56.576"W	0.53	
8551.00	90.200	269.900	7151.08	1436.65	436.77	-1429.67	40°12'27.601"N	104°57'57.685"W	0.71	
8721.00	90.100	270.000	7150.64	1606.63	436.62	-1599.67	40°12'27.599"N	104°57'59.876"W	0.08	
8891.00	90.900	269.600	7149.15	1776.58	436.03	-1769.66	40°12'27.593"N	104°58'02.067"W	0.53	
9062.00	90.800	269.000	7146.62	1947.49	433.94	-1940.63	40°12'27.572"N	104°58'04.270"W	0.36	
9233.00	90.900	268.500	7144.08	2118.35	430.21	-2111.57	40°12'27.535"N	104°58'06.474"W	0.30	
9403.00	90.100	268.100	7142.60	2288.16	425.17	-2281.49	40°12'27.485"N	104°58'08.664"W	0.53	
9574.00	91.000	269.200	7140.95	2459.01	421.14	-2452.43	40°12'27.445"N	104°58'10.867"W	0.83	
9745.00	90.500	269.300	7138.72	2629.92	418.90	-2623.40	40°12'27.423"N	104°58'13.070"W	0.30	
9915.00	90.800	269.700	7136.79	2799.86	417.42	-2793.38	40°12'27.408"N	104°58'15.261"W	0.29	
10085.00	90.400	269.400	7135.01	2969.80	416.08	-2963.36	40°12'27.395"N	104°58'17.452"W	0.29	
10256.00	91.500	270.600	7132.17	3140.74	416.08	-3134.33	40°12'27.395"N	104°58'19.656"W	0.95	
10425.00	91.300	270.800	7128.04	3309.69	418.15	-3303.27	40°12'27.415"N	104°58'21.833"W	0.17	
10596.00	90.500	270.400	7125.36	3480.67	419.94	-3474.24	40°12'27.432"N	104°58'24.037"W	0.52	
10766.00	90.200	272.000	7124.32	3650.66	423.50	-3644.19	40°12'27.467"N	104°58'26.227"W	0.96	
10937.00	89.900	271.900	7124.17	3821.63	429.32	-3815.09	40°12'27.525"N	104°58'28.430"W	0.18	
11107.00	89.900	272.600	7124.47	3991.58	435.99	-3984.96	40°12'27.590"N	104°58'30.619"W	0.41	
11192.00	90.300	271.700	7124.32	4076.56	439.18	-4069.90	40°12'27.622"N	104°58'31.714"W	1.16	
11363.00	90.400	272.100	7123.27	4247.54	444.85	-4240.80	40°12'27.677"N	104°58'33.917"W	0.24	
11533.00	89.800	271.500	7122.98	4417.51	450.19	-4410.72	40°12'27.730"N	104°58'36.107"W	0.50	
11704.00	90.400	271.400	7122.68	4588.51	454.51	-4581.66	40°12'27.772"N	104°58'38.310"W	0.36	

# Actual Wellpath Report

BENSON FARMS 33N-23HZ AWP

Page 4 of 6

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#36 BENSON FARMS 33N-23HZ (767'FSL & 71'FEL, SEC.23)
Area	COLORADO	Well	BENSON FARMS 33N-23HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BENSON FARMS 33N-23HZ AWB
Facility	SEC.23-T3N-R68W		

## WELLPATH DATA (94 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11875.00	90.200	271.500	7121.78	4759.50	458.84	-4752.60	40°12'27.815"N	104°58'40.513"W	0.13	
12047.00	89.100	270.600	7122.83	4931.49	461.99	-4924.57	40°12'27.846"N	104°58'42.730"W	0.83	
12191.00	88.800	271.200	7125.47	5075.46	464.25	-5068.52	40°12'27.868"N	104°58'44.585"W	0.47	Last BHI MWD+IFR Surveys
12253.00	88.763	271.237	7126.79	5137.45	465.57	-5130.50	40°12'27.881"N	104°58'45.384"W	0.08	Projection to Bit

## HOLE & CASING SECTIONS - Ref Wellbore: BENSON FARMS 33N-23HZ AWB Ref Wellpath: BENSON FARMS 33N-23HZ 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]
13.5in Open Hole	16.00	1237.00	1221.00	16.00	1236.97	0.00	0.00	-0.34	-5.34
9.625in Casing Surface	16.00	1227.00	1211.00	16.00	1226.98	0.00	0.00	-0.18	-5.19
8.75in Open Hole	1237.00	7505.00	6268.00	1236.97	7152.90	-0.34	-5.34	411.12	-384.58
7in Casing Intermediate	16.00	7496.00	7480.00	16.00	7152.21	0.00	0.00	410.68	-375.62
6.125in Open Hole	7496.00	12253.00	4757.00	7152.21	7126.79	410.68	-375.62	465.57	-5130.50

# Actual Wellpath Report

BENSON FARMS 33N-23HZ AWP

Page 5 of 6

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#36 BENSON FARMS 33N-23HZ (767'FSL & 71'FEL, SEC.23)
Area	COLORADO	Well	BENSON FARMS 33N-23HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BENSON FARMS 33N-23HZ AWB
Facility	SEC.23-T3N-R68W		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.19-T3N-R67W HARDLINES (460' SETBACKS)		28.00	3975.59	-134.05	3150413.01	1322490.88	40°13'02.572"N	104°57'40.986"W	polygon
SEC.19-T3N-R67W SECTION LINES		28.00	3975.59	-134.05	3150413.01	1322490.88	40°13'02.572"N	104°57'40.986"W	polygon
SEC.23-T3N-R68W HARDLINES (460' SETBACKS)		28.00	3975.59	-134.05	3150413.01	1322490.88	40°13'02.572"N	104°57'40.986"W	polygon
SEC.23-T3N-R68W SECTION LINES		28.00	3975.59	-134.05	3150413.01	1322490.88	40°13'02.572"N	104°57'40.986"W	polygon
SEC.24-T3N-R68W HARDLINES (460' SETBACKS)		28.00	3975.59	-134.05	3150413.01	1322490.88	40°13'02.572"N	104°57'40.986"W	polygon
SEC.24-T3N-R68W SECTION LINES		28.00	3975.59	-134.05	3150413.01	1322490.88	40°13'02.572"N	104°57'40.986"W	polygon
BENSON FARMS 33N-23HZ LAND BOX		7116.00	0.00	0.00	3150571.23	1318516.36	40°12'23.285"N	104°57'39.258"W	polygon
BENSON FARMS 33N-23HZ BHL ON PLAT (1240'FSL & 50'FWL, SEC.23) REV-1		7117.00	448.22	-5156.97	3145411.86	1318933.20	40°12'27.709"N	104°58'45.725"W	point
BENSON FARMS 33N-23HZ BHL (1270'FSL & 50'FWL, SEC.23) REV-2		7117.00	478.24	-5156.95	3145411.69	1318963.22	40°12'28.006"N	104°58'45.725"W	point
BENSON FARMS 33N-23HZ BHL (1280'FSL & 50'FWL, SEC.23) REV-3		7117.00	488.24	-5156.95	3145411.63	1318973.22	40°12'28.104"N	104°58'45.725"W	point

WELLPATH COMPOSITION - Ref Wellbore: BENSON FARMS 33N-23HZ AWB					Ref Wellpath: BENSON FARMS 33N-23HZ AWP	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment		Wellbore	
16.00	1153.00	Generic gyro - continuous (Standard)	MS ENERGY GYRO <116-1153>		BENSON FARMS 33N-23HZ AWB	
1153.00	7445.00	NaviTrak (IFR)	BHI MWD+IFR SURVEYS 8 3/4" HOLE <1304-7445>		BENSON FARMS 33N-23HZ AWB	
7445.00	12191.00	NaviTrak (IFR)	BHI MWD+IFR SURVEYS 6 1/8" HOLE <7614-12191>		BENSON FARMS 33N-23HZ AWB	
12191.00	12253.00	Blind Drilling (std)	Projection to bit		BENSON FARMS 33N-23HZ AWB	

# Actual Wellpath Report

BENSON FARMS 33N-23HZ AWP

Page 6 of 6

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#36 BENSON FARMS 33N-23HZ (767'FSL & 71'FEL, SEC.23)
Area	COLORADO	Well	BENSON FARMS 33N-23HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BENSON FARMS 33N-23HZ AWB
Facility	SEC.23-T3N-R68W		

WELLPATH COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
16.00	0.000	195.100	16.00	Tie-On	
116.00	0.270	195.100	116.00	Begin GYRO Surveys	
1153.00	0.590	272.770	1152.98	Tie-Into GYRO Surveys	
1304.00	2.000	211.400	1303.95	Begin BHI MWD+IFR Surveys	
7496.00	85.545	272.818	7152.21	7" Casing Intermediate	
12191.00	88.800	271.200	7125.47	Last BHI MWD+IFR Surveys	
12253.00	88.763	271.237	7126.79	Projection to Bit	