

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#20 USA FED 02C-36HZ (636'FSL & 1947'FEL, SEC.36)
 Field: WELD COUNTY (KERR MCGEE) Well: USA FED 02C-36HZ
 Facility: SEC.36-T3N-R66W Wellbore: USA FED 02C-36HZ PWB

Plot reference wellpath is USA FED 02C-36HZ (PERMIT) PWP

True vertical depths are referenced to Rig on SLOT#20 USA FED 02C-36HZ (636'FSL & 1947'FEL, SEC.36) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to Rig on SLOT#20 USA FED 02C-36HZ (636'FSL & 1947'FEL, SEC.36) (RKB)	North Reference: True north
Rig on SLOT#20 USA FED 02C-36HZ (636'FSL & 1947'FEL, SEC.36) (RKB) to Mean Sea Level: 5012 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#20 USA FED 02C-36HZ (636'FSL & 1947'FEL, SEC.36)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: wiljer02 on 8/6/2012

Location Information

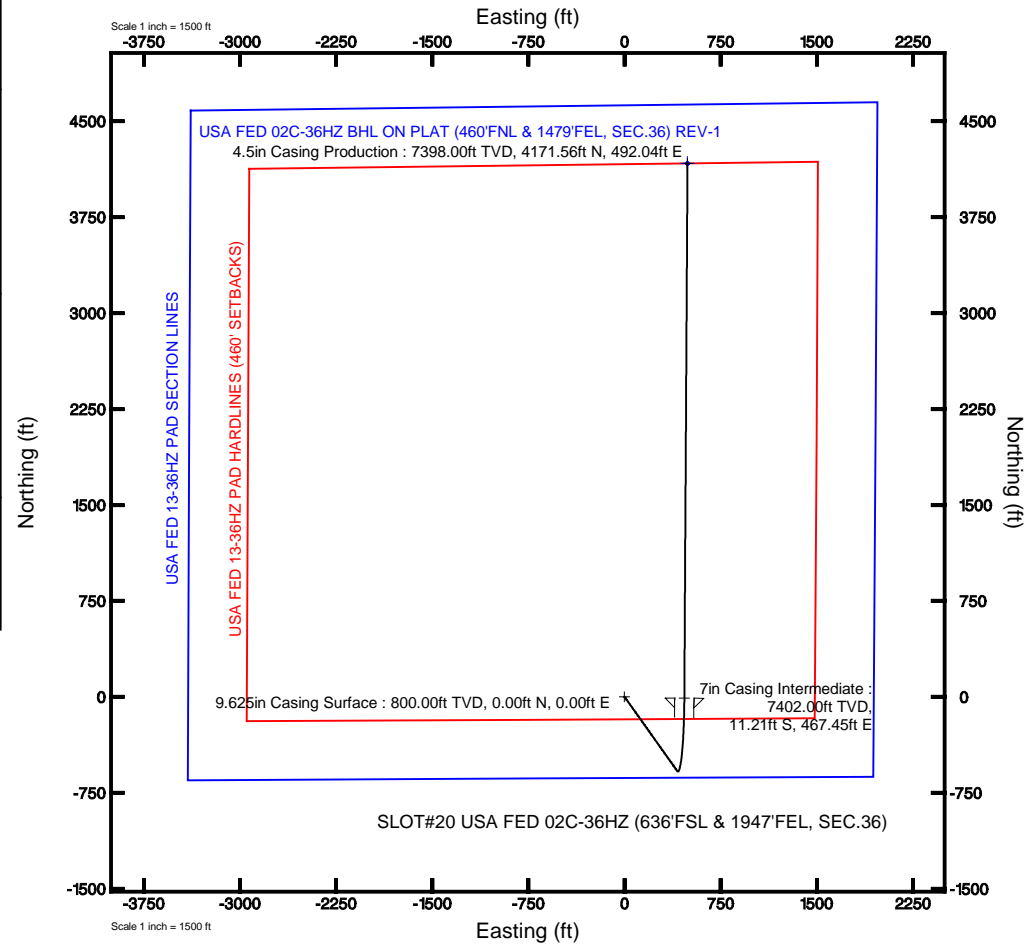
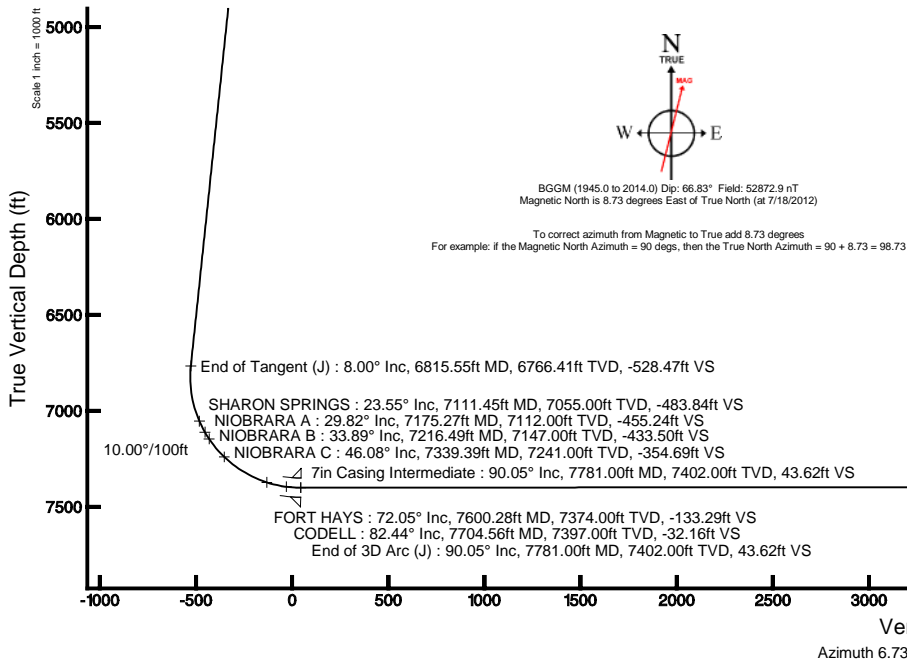
Facility Name	Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude		
SEC.36-T3N-R66W	3214305.575	1310913.744	40°11'03.516"N	104°43'58.656"W		
Slot	Local N (ft)	Local E (ft)	Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude
SLOT#20 USA FED 02C-36HZ (636'FSL & 1947'FEL, SEC.36)	-2871.22	2838.81	3217188.989	1308967.318	40°10'35.141"N	104°43'22.084"W
Rig on SLOT#20 USA FED 02C-36HZ (636'FSL & 1947'FEL, SEC.36) (RKB) to Mud line (At Slot: SLOT#20 USA FED 02C-36HZ (636'FSL & 1947'FEL, SEC.36))	5012ft					
Mean Sea Level to Mud line (At Slot: SLOT#20 USA FED 02C-36HZ (636'FSL & 1947'FEL, SEC.36))	0ft					
Rig on SLOT#20 USA FED 02C-36HZ (636'FSL & 1947'FEL, SEC.36) (RKB) to Mean Sea Level	5012ft					

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	144.650	17.00	0.00	0.00	0.00	0.00
End of Tangent	1500.00	0.000	144.650	1500.00	0.00	0.00	0.00	0.00
End of Build (J)	1900.00	8.000	144.650	1898.70	-22.74	16.13	2.00	-20.69
End of Tangent (J)	6815.55	8.000	144.650	6766.41	-580.72	411.94	0.00	-528.47
End of 3D Arc (J)	7781.00	90.055	0.337	7402.00	-11.21	467.45	10.00	43.62
End of Tangent (J)	11963.85	90.055	0.337	7398.00	4171.56	492.04	0.00	4200.48

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
USA FED 13-36HZ PAD SECTION LINES		-29.00	116.74	-2945.78	3214322.42	1308159.11	40°10'36.283"N	104°43'58.746"W
USA FED 02C-36HZ BHL ON PLAT (460'FNL & 1479'FEL, SEC.36) REV-1	11963.85	7398.00	4171.56	492.04	3217624.43	1312242.85	40°11'16.364"N	104°43'15.744"W
USA FED 13-36HZ PAD HARDLINES (460' SETBACKS)	7411.00	116.74	-2945.78	3214322.42	1308159.11	40°10'36.283"N	104°43'58.746"W	





Planned Wellpath Report

USA FED 02C-36HZ (PERMIT) PWP

Page 1 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#20 USA FED 02C-36HZ (636'FSL & 1947'FEL, SEC.36)
Area	COLORADO	Well	USA FED 02C-36HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	USA FED 02C-36HZ PWB
Facility	SEC.36-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	Wilsje02
Scale	0.999958	Report Generated	8/6/2012 at 07:55:34
Convergence at slot	0.50° East	Database/Source file	WellArchitectDB/USA_FED_02C-36HZ_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-2871.22	2838.81	3217168.99	1308067.32	40°10'35.141"N	104°43'22.084"W
Facility Reference Pt			3214305.58	1310913.74	40°11'03.516"N	104°43'58.656"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#20 USA FED 02C-36HZ (636'FSL & 1947'FEL, SEC.36) (RKB) to Facility Vertical Datum
Horizontal Reference Pt	Slot	Rig on SLOT#20 USA FED 02C-36HZ (636'FSL & 1947'FEL, SEC.36) (RKB) to Mean Sea Level
Vertical Reference Pt	Rig on SLOT#20 USA FED 02C-36HZ (636'FSL & 1947'FEL, SEC.36) (RKB)	Rig on SLOT#20 USA FED 02C-36HZ (636'FSL & 1947'FEL, SEC.36) (RKB) to Mud Line at Slot (SLOT#20 USA FED 02C-36HZ) (RKB)
MD Reference Pt	Rig on SLOT#20 USA FED 02C-36HZ (636'FSL & 1947'FEL, SEC.36) (RKB)	Section Origin
Field Vertical Reference	Mean Sea Level	Section Azimuth



Planned Wellpath Report

USA FED 02C-36HZ (PERMIT) PWP
Page 2 of 6



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#20 USA FED 02C-36HZ (636'FSL & 1947'FEL, SEC.36)
Area	COLORADO	Well	USA FED 02C-36HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	USA FED 02C-36HZ PWB
Facility	SEC.36-T3N-R66W		

WELLPATH DATA (134 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	144.650	0.00	0.00	0.00	0.00	40°10'35.141"N	104°43'22.084"W	0.00	
17.00	0.000	144.650	17.00	0.00	0.00	0.00	40°10'35.141"N	104°43'22.084"W	0.00	Tie On
117.00†	0.000	144.650	117.00	0.00	0.00	0.00	40°10'35.141"N	104°43'22.084"W	0.00	
217.00†	0.000	144.650	217.00	0.00	0.00	0.00	40°10'35.141"N	104°43'22.084"W	0.00	
317.00†	0.000	144.650	317.00	0.00	0.00	0.00	40°10'35.141"N	104°43'22.084"W	0.00	
417.00†	0.000	144.650	417.00	0.00	0.00	0.00	40°10'35.141"N	104°43'22.084"W	0.00	
517.00†	0.000	144.650	517.00	0.00	0.00	0.00	40°10'35.141"N	104°43'22.084"W	0.00	
617.00†	0.000	144.650	617.00	0.00	0.00	0.00	40°10'35.141"N	104°43'22.084"W	0.00	
717.00†	0.000	144.650	717.00	0.00	0.00	0.00	40°10'35.141"N	104°43'22.084"W	0.00	
817.00†	0.000	144.650	817.00	0.00	0.00	0.00	40°10'35.141"N	104°43'22.084"W	0.00	
917.00†	0.000	144.650	917.00	0.00	0.00	0.00	40°10'35.141"N	104°43'22.084"W	0.00	
1017.00†	0.000	144.650	1017.00	0.00	0.00	0.00	40°10'35.141"N	104°43'22.084"W	0.00	
1117.00†	0.000	144.650	1117.00	0.00	0.00	0.00	40°10'35.141"N	104°43'22.084"W	0.00	
1217.00†	0.000	144.650	1217.00	0.00	0.00	0.00	40°10'35.141"N	104°43'22.084"W	0.00	
1317.00†	0.000	144.650	1317.00	0.00	0.00	0.00	40°10'35.141"N	104°43'22.084"W	0.00	
1417.00†	0.000	144.650	1417.00	0.00	0.00	0.00	40°10'35.141"N	104°43'22.084"W	0.00	
1500.00	0.000	144.650	1500.00	0.00	0.00	0.00	40°10'35.141"N	104°43'22.084"W	0.00	End of Tangent
1517.00†	0.340	144.650	1517.00	-0.04	-0.04	0.03	40°10'35.141"N	104°43'22.084"W	2.00	
1617.00†	2.340	144.650	1616.97	-1.77	-1.95	1.38	40°10'35.122"N	104°43'22.066"W	2.00	
1717.00†	4.340	144.650	1716.79	-6.10	-6.70	4.75	40°10'35.075"N	104°43'22.023"W	2.00	
1817.00†	6.340	144.650	1816.35	-13.00	-14.29	10.14	40°10'35.000"N	104°43'21.953"W	2.00	
1900.00	8.000	144.650	1898.70	-20.69	-22.74	16.13	40°10'34.916"N	104°43'21.876"W	2.00	End of Build (J)
1917.00†	8.000	144.650	1915.54	-22.45	-24.67	17.50	40°10'34.897"N	104°43'21.859"W	0.00	
2017.00†	8.000	144.650	2014.56	-32.78	-36.02	25.55	40°10'34.785"N	104°43'21.755"W	0.00	
2117.00†	8.000	144.650	2113.59	-43.11	-47.37	33.60	40°10'34.673"N	104°43'21.651"W	0.00	
2217.00†	8.000	144.650	2212.62	-53.44	-58.72	41.66	40°10'34.561"N	104°43'21.547"W	0.00	
2317.00†	8.000	144.650	2311.64	-63.77	-70.08	49.71	40°10'34.449"N	104°43'21.444"W	0.00	
2417.00†	8.000	144.650	2410.67	-74.10	-81.43	57.76	40°10'34.336"N	104°43'21.340"W	0.00	
2517.00†	8.000	144.650	2509.70	-84.43	-92.78	65.81	40°10'34.224"N	104°43'21.236"W	0.00	
2617.00†	8.000	144.650	2608.72	-94.76	-104.13	73.86	40°10'34.112"N	104°43'21.132"W	0.00	
2717.00†	8.000	144.650	2707.75	-105.09	-115.48	81.92	40°10'34.000"N	104°43'21.029"W	0.00	
2817.00†	8.000	144.650	2806.78	-115.42	-126.83	89.97	40°10'33.888"N	104°43'20.925"W	0.00	
2917.00†	8.000	144.650	2905.80	-125.75	-138.18	98.02	40°10'33.775"N	104°43'20.821"W	0.00	
3017.00†	8.000	144.650	3004.83	-136.08	-149.54	106.07	40°10'33.663"N	104°43'20.717"W	0.00	
3117.00†	8.000	144.650	3103.86	-146.41	-160.89	114.12	40°10'33.551"N	104°43'20.614"W	0.00	
3217.00†	8.000	144.650	3202.88	-156.74	-172.24	122.18	40°10'33.439"N	104°43'20.510"W	0.00	
3317.00†	8.000	144.650	3301.91	-167.07	-183.59	130.23	40°10'33.327"N	104°43'20.406"W	0.00	
3417.00†	8.000	144.650	3400.94	-177.40	-194.94	138.28	40°10'33.215"N	104°43'20.303"W	0.00	
3517.00†	8.000	144.650	3499.97	-187.73	-206.29	146.33	40°10'33.102"N	104°43'20.199"W	0.00	
3617.00†	8.000	144.650	3598.99	-198.06	-217.64	154.39	40°10'32.990"N	104°43'20.095"W	0.00	
3717.00†	8.000	144.650	3698.02	-208.39	-229.00	162.44	40°10'32.878"N	104°43'19.991"W	0.00	
3817.00†	8.000	144.650	3797.05	-218.72	-240.35	170.49	40°10'32.766"N	104°43'19.888"W	0.00	
3917.00†	8.000	144.650	3896.07	-229.05	-251.70	178.54	40°10'32.654"N	104°43'19.784"W	0.00	
4017.00†	8.000	144.650	3995.10	-239.38	-263.05	186.59	40°10'32.542"N	104°43'19.680"W	0.00	
4117.00†	8.000	144.650	4094.13	-249.71	-274.40	194.65	40°10'32.429"N	104°43'19.576"W	0.00	



Planned Wellpath Report

USA FED 02C-36HZ (PERMIT) PWP
Page 3 of 6



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#20 USA FED 02C-36HZ (636'FSL & 1947'FEL, SEC.36)
Area	COLORADO	Well	USA FED 02C-36HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	USA FED 02C-36HZ PWB
Facility	SEC.36-T3N-R66W		

WELLPATH DATA (134 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4158.28†	8.000	144.650	4135.00	-253.97	-279.09	197.97	40°10'32.383"N	104°43'19.534"W	0.00	PARKMAN
4217.00†	8.000	144.650	4193.15	-260.04	-285.75	202.70	40°10'32.317"N	104°43'19.473"W	0.00	
4317.00†	8.000	144.650	4292.18	-270.37	-297.10	210.75	40°10'32.205"N	104°43'19.369"W	0.00	
4417.00†	8.000	144.650	4391.21	-280.70	-308.45	218.80	40°10'32.093"N	104°43'19.265"W	0.00	
4517.00†	8.000	144.650	4490.23	-291.03	-319.81	226.85	40°10'31.981"N	104°43'19.162"W	0.00	
4617.00†	8.000	144.650	4589.26	-301.36	-331.16	234.91	40°10'31.868"N	104°43'19.058"W	0.00	
4620.78†	8.000	144.650	4593.00	-301.75	-331.59	235.21	40°10'31.864"N	104°43'19.054"W	0.00	
4717.00†	8.000	144.650	4688.29	-311.69	-342.51	242.96	40°10'31.756"N	104°43'18.954"W	0.00	SUSSEX
4817.00†	8.000	144.650	4787.31	-322.02	-353.86	251.01	40°10'31.644"N	104°43'18.850"W	0.00	
4917.00†	8.000	144.650	4886.34	-332.35	-365.21	259.06	40°10'31.532"N	104°43'18.747"W	0.00	
5017.00†	8.000	144.650	4985.37	-342.68	-376.56	267.12	40°10'31.420"N	104°43'18.643"W	0.00	
5117.00†	8.000	144.650	5084.39	-353.01	-387.91	275.17	40°10'31.308"N	104°43'18.539"W	0.00	
5217.00†	8.000	144.650	5183.42	-363.34	-399.27	283.22	40°10'31.195"N	104°43'18.435"W	0.00	
5317.00†	8.000	144.650	5282.45	-373.67	-410.62	291.27	40°10'31.083"N	104°43'18.332"W	0.00	
5417.00†	8.000	144.650	5381.47	-384.00	-421.97	299.32	40°10'30.971"N	104°43'18.228"W	0.00	
5517.00†	8.000	144.650	5480.50	-394.33	-433.32	307.38	40°10'30.859"N	104°43'18.124"W	0.00	
5617.00†	8.000	144.650	5579.53	-404.66	-444.67	315.43	40°10'30.747"N	104°43'18.020"W	0.00	
5717.00†	8.000	144.650	5678.55	-414.99	-456.02	323.48	40°10'30.635"N	104°43'17.917"W	0.00	
5817.00†	8.000	144.650	5777.58	-425.32	-467.37	331.53	40°10'30.522"N	104°43'17.813"W	0.00	
5917.00†	8.000	144.650	5876.61	-435.65	-478.73	339.58	40°10'30.410"N	104°43'17.709"W	0.00	
6017.00†	8.000	144.650	5975.64	-445.98	-490.08	347.64	40°10'30.298"N	104°43'17.606"W	0.00	
6117.00†	8.000	144.650	6074.66	-456.31	-501.43	355.69	40°10'30.186"N	104°43'17.502"W	0.00	
6217.00†	8.000	144.650	6173.69	-466.64	-512.78	363.74	40°10'30.074"N	104°43'17.398"W	0.00	
6317.00†	8.000	144.650	6272.72	-476.97	-524.13	371.79	40°10'29.961"N	104°43'17.294"W	0.00	
6417.00†	8.000	144.650	6371.74	-487.30	-535.48	379.85	40°10'29.849"N	104°43'17.191"W	0.00	
6517.00†	8.000	144.650	6470.77	-497.63	-546.83	387.90	40°10'29.737"N	104°43'17.087"W	0.00	
6617.00†	8.000	144.650	6569.80	-507.96	-558.19	395.95	40°10'29.625"N	104°43'16.983"W	0.00	
6717.00†	8.000	144.650	6668.82	-518.29	-569.54	404.00	40°10'29.513"N	104°43'16.879"W	0.00	
6815.55	8.000	144.650	6766.41	-528.47	-580.72	411.94	40°10'29.402"N	104°43'16.777"W	0.00	End of Tangent (J)
6817.00†	7.883	144.029	6767.85	-528.62	-580.89	412.05	40°10'29.401"N	104°43'16.776"W	10.00	
6917.00†	5.941	52.329	6867.36	-530.04	-583.28	420.20	40°10'29.377"N	104°43'16.671"W	10.00	
7017.00†	14.423	18.933	6965.77	-514.21	-568.30	428.36	40°10'29.525"N	104°43'16.566"W	10.00	
7111.45†	23.545	11.187	7055.00	-483.84	-538.60	435.85	40°10'29.819"N	104°43'16.469"W	10.00	SHARON SPRINGS
7117.00†	24.089	10.909	7060.08	-481.60	-536.40	436.28	40°10'29.840"N	104°43'16.464"W	10.00	
7175.27†	29.819	8.566	7112.00	-455.24	-510.37	440.69	40°10'30.097"N	104°43'16.407"W	10.00	NIOBRARA A
7216.49†	33.891	7.353	7147.00	-433.50	-488.83	443.69	40°10'30.310"N	104°43'16.368"W	10.00	NIOBRARA B
7217.00†	33.942	7.339	7147.42	-433.21	-488.55	443.73	40°10'30.313"N	104°43'16.368"W	10.00	
7317.00†	43.855	5.237	7225.16	-370.50	-426.21	450.47	40°10'30.929"N	104°43'16.281"W	10.00	
7339.39†	46.080	4.870	7241.00	-354.69	-410.44	451.87	40°10'31.085"N	104°43'16.263"W	10.00	NIOBRARA C
7417.00†	53.796	3.782	7290.91	-295.39	-351.26	456.31	40°10'31.670"N	104°43'16.205"W	10.00	
7517.00†	63.750	2.659	7342.69	-210.15	-265.99	461.06	40°10'32.512"N	104°43'16.144"W	10.00	
7600.28†	72.045	1.864	7374.00	-133.29	-188.96	464.09	40°10'33.274"N	104°43'16.105"W	10.00	FORT HAYS
7617.00†	73.711	1.714	7378.92	-117.38	-172.99	464.59	40°10'33.431"N	104°43'16.099"W	10.00	
7704.56†	82.437	0.965	7397.00	-32.16	-87.42	466.58	40°10'34.277"N	104°43'16.073"W	10.00	CODELL
7717.00†	83.676	0.862	7398.50	-19.88	-75.08	466.78	40°10'34.399"N	104°43'16.071"W	10.00	



Planned Wellpath Report

USA FED 02C-36HZ (PERMIT) PWP
Page 4 of 6



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#20 USA FED 02C-36HZ (636'FSL & 1947'FEL, SEC.36)
Area	COLORADO	Well	USA FED 02C-36HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	USA FED 02C-36HZ PWB
Facility	SEC.36-T3N-R66W		

WELLPATH DATA (134 stations) † = interpolated/extrapolated station											
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments	
7781.00†	90.055	0.337	7402.00	43.62	-11.21	467.45	40°10'35.030"N	104°43'16.062"W	10.00	End of 3D Arc (J)	
7817.00†	90.055	0.337	7401.97	79.40	24.79	467.66	40°10'35.386"N	104°43'16.059"W	0.00		
7917.00†	90.055	0.337	7401.87	178.78	124.79	468.25	40°10'36.374"N	104°43'16.052"W	0.00		
8017.00†	90.055	0.337	7401.78	278.16	224.79	468.83	40°10'37.362"N	104°43'16.044"W	0.00		
8117.00†	90.055	0.337	7401.68	377.54	324.78	469.42	40°10'38.350"N	104°43'16.036"W	0.00		
8217.00†	90.055	0.337	7401.58	476.91	424.78	470.01	40°10'39.339"N	104°43'16.029"W	0.00		
8317.00†	90.055	0.337	7401.49	576.29	524.78	470.60	40°10'40.327"N	104°43'16.021"W	0.00		
8417.00†	90.055	0.337	7401.39	675.67	624.78	471.19	40°10'41.315"N	104°43'16.014"W	0.00		
8517.00†	90.055	0.337	7401.30	775.05	724.78	471.77	40°10'42.303"N	104°43'16.006"W	0.00		
8617.00†	90.055	0.337	7401.20	874.43	824.77	472.36	40°10'43.291"N	104°43'15.998"W	0.00		
8717.00†	90.055	0.337	7401.11	973.81	924.77	472.95	40°10'44.280"N	104°43'15.991"W	0.00		
8817.00†	90.055	0.337	7401.01	1073.19	1024.77	473.54	40°10'45.268"N	104°43'15.983"W	0.00		
8917.00†	90.055	0.337	7400.91	1172.56	1124.77	474.13	40°10'46.256"N	104°43'15.976"W	0.00		
9017.00†	90.055	0.337	7400.82	1271.94	1224.77	474.71	40°10'47.244"N	104°43'15.968"W	0.00		
9117.00†	90.055	0.337	7400.72	1371.32	1324.77	475.30	40°10'48.232"N	104°43'15.960"W	0.00		
9217.00†	90.055	0.337	7400.63	1470.70	1424.76	475.89	40°10'49.220"N	104°43'15.953"W	0.00		
9317.00†	90.055	0.337	7400.53	1570.08	1524.76	476.48	40°10'50.209"N	104°43'15.945"W	0.00		
9417.00†	90.055	0.337	7400.44	1669.46	1624.76	477.07	40°10'51.197"N	104°43'15.938"W	0.00		
9517.00†	90.055	0.337	7400.34	1768.84	1724.76	477.66	40°10'52.185"N	104°43'15.930"W	0.00		
9617.00†	90.055	0.337	7400.24	1868.22	1824.76	478.24	40°10'53.173"N	104°43'15.922"W	0.00		
9717.00†	90.055	0.337	7400.15	1967.59	1924.76	478.83	40°10'54.161"N	104°43'15.915"W	0.00		
9817.00†	90.055	0.337	7400.05	2066.97	2024.75	479.42	40°10'55.150"N	104°43'15.907"W	0.00		
9917.00†	90.055	0.337	7399.96	2166.35	2124.75	480.01	40°10'56.138"N	104°43'15.900"W	0.00		
10017.00†	90.055	0.337	7399.86	2265.73	2224.75	480.60	40°10'57.126"N	104°43'15.892"W	0.00		
10117.00†	90.055	0.337	7399.77	2365.11	2324.75	481.18	40°10'58.114"N	104°43'15.884"W	0.00		
10217.00†	90.055	0.337	7399.67	2464.49	2424.75	481.77	40°10'59.102"N	104°43'15.877"W	0.00		
10317.00†	90.055	0.337	7399.58	2563.87	2524.74	482.36	40°11'00.091"N	104°43'15.869"W	0.00		
10417.00†	90.055	0.337	7399.48	2663.24	2624.74	482.95	40°11'01.079"N	104°43'15.862"W	0.00		
10517.00†	90.055	0.337	7399.38	2762.62	2724.74	483.54	40°11'02.067"N	104°43'15.854"W	0.00		
10617.00†	90.055	0.337	7399.29	2862.00	2824.74	484.12	40°11'03.055"N	104°43'15.846"W	0.00		
10717.00†	90.055	0.337	7399.19	2961.38	2924.74	484.71	40°11'04.043"N	104°43'15.839"W	0.00		
10817.00†	90.055	0.337	7399.10	3060.76	3024.74	485.30	40°11'05.031"N	104°43'15.831"W	0.00		
10917.00†	90.055	0.337	7399.00	3160.14	3124.73	485.89	40°11'06.020"N	104°43'15.824"W	0.00		
11017.00†	90.055	0.337	7398.91	3259.52	3224.73	486.48	40°11'07.008"N	104°43'15.816"W	0.00		
11117.00†	90.055	0.337	7398.81	3358.90	3324.73	487.06	40°11'07.996"N	104°43'15.808"W	0.00		
11217.00†	90.055	0.337	7398.71	3458.27	3424.73	487.65	40°11'08.984"N	104°43'15.801"W	0.00		
11317.00†	90.055	0.337	7398.62	3557.65	3524.73	488.24	40°11'09.972"N	104°43'15.793"W	0.00		
11417.00†	90.055	0.337	7398.52	3657.03	3624.72	488.83	40°11'10.961"N	104°43'15.786"W	0.00		
11517.00†	90.055	0.337	7398.43	3756.41	3724.72	489.42	40°11'11.949"N	104°43'15.778"W	0.00		
11617.00†	90.055	0.337	7398.33	3855.79	3824.72	490.00	40°11'12.937"N	104°43'15.770"W	0.00		
11717.00†	90.055	0.337	7398.24	3955.17	3924.72	490.59	40°11'13.925"N	104°43'15.763"W	0.00		
11817.00†	90.055	0.337	7398.14	4054.55	4024.72	491.18	40°11'14.913"N	104°43'15.755"W	0.00		
11917.00†	90.055	0.337	7398.04	4153.92	4124.72	491.77	40°11'15.901"N	104°43'15.748"W	0.00		
11963.85	90.055	0.337	7398.00†	4200.48	4171.56	492.04	40°11'16.364"N	104°43'15.744"W	0.00	End of Tangent (J)	



Planned Wellpath Report

USA FED 02C-36HZ (PERMIT) PWP
Page 5 of 6



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#20 USA FED 02C-36HZ (636'FSL & 1947'FEL, SEC.36)
Area	COLORADO	Well	USA FED 02C-36HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	USA FED 02C-36HZ PWB
Facility	SEC.36-T3N-R66W		

HOLE & CASING SECTIONS - Ref Wellbore: USA FED 02C-36HZ PWB Ref Wellpath: USA FED 02C-36HZ (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]
12.25in Open Hole	17.00	800.00	783.00	17.00	800.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	800.00	783.00	17.00	800.00	0.00	0.00	0.00	0.00
8.75in Open Hole	800.00	7781.00	6981.00	800.00	7402.00	0.00	0.00	-11.21	467.45
7in Casing Intermediate	17.00	7781.00	7764.00	17.00	7402.00	0.00	0.00	-11.21	467.45
6.125in Open Hole	7781.00	11963.85	4182.85	7402.00	7398.00	-11.21	467.45	4171.56	492.04
4.5in Casing Production	17.00	11963.85	11946.85	17.00	7398.00	0.00	0.00	4171.56	492.04

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
USA FED 13-36HZ PAD SECTION LINES		-29.00	116.74	-2845.78	3214322.42	1308159.11	40°10'36.293"N	104°43'58.746"W	polygon
1) USA FED 02C-36HZ BHL ON PLAT (460'FNL & 1479'FEL, SEC.36) REV-1	11963.85	7398.00	4171.56	492.04	3217624.43	1312242.85	40°11'16.364"N	104°43'15.744"W	point
USA FED 13-36HZ PAD HARDLINES (460' SETBACKS)		7411.00	116.74	-2845.78	3214322.42	1308159.11	40°10'36.293"N	104°43'58.746"W	polygon

SURVEY PROGRAM - Ref Wellbore: USA FED 02C-36HZ PWB Ref Wellpath: USA FED 02C-36HZ (PERMIT) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	11963.85	NaviTrak (Standard)		USA FED 02C-36HZ PWB



Planned Wellpath Report

USA FED 02C-36HZ (PERMIT) PWP

Page 6 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#20 USA FED 02C-36HZ (636'FSL & 1947'FEL, SEC.36)
Area	COLORADO	Well	USA FED 02C-36HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	USA FED 02C-36HZ PWB
Facility	SEC.36-T3N-R66W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
4158.28	8.000	144.650	4135.00	PARKMAN
4620.78	8.000	144.650	4593.00	SUSSEX
7111.45	23.545	11.187	7055.00	SHARON SPRINGS
7175.27	29.819	8.566	7112.00	NIOBRARA A
7216.49	33.891	7.353	7147.00	NIOBRARA B
7339.39	46.080	4.870	7241.00	NIOBRARA C
7600.28	72.045	1.864	7374.00	FORT HAYS
7704.56	82.437	0.965	7397.00	CODELL