

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#16 USA FED 29N-36HZ (767'FSL & 621'FWL, SEC.36)
Field: WELD COUNTY (KERR MCGEE) Well: USA FED 29N-36HZ
Facility: SEC.36-T3N-R66W Wellbore: USA FED 29N-36HZ PWB

Plot reference wellpath is USA FED 29N-36HZ (PERMIT) PWP

True vertical depths are referenced to XTREME 6 (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to XTREME 6 (RKB)	North Reference: True north
XTREME 6 (RKB) to Mean Sea Level: 5041 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#16 USA FED 29N-36HZ (767'FSL & 621'FWL, SEC.36)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: wiljel02 on 3/28/2012

Location Information

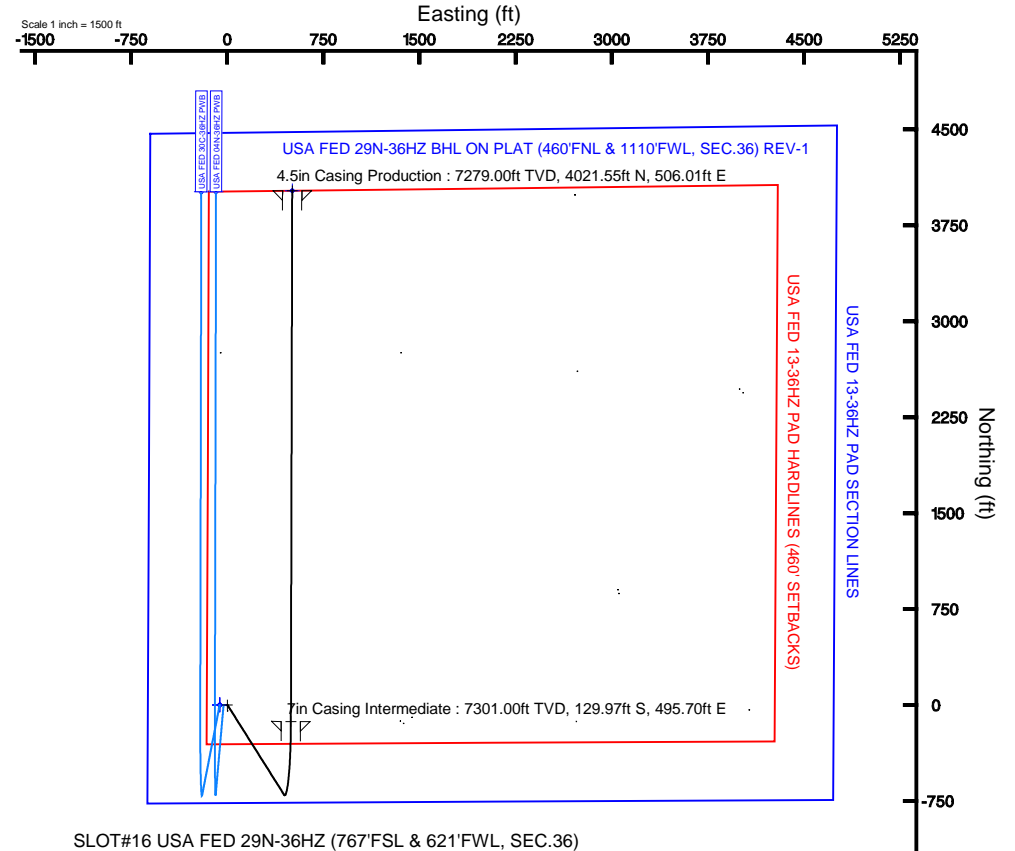
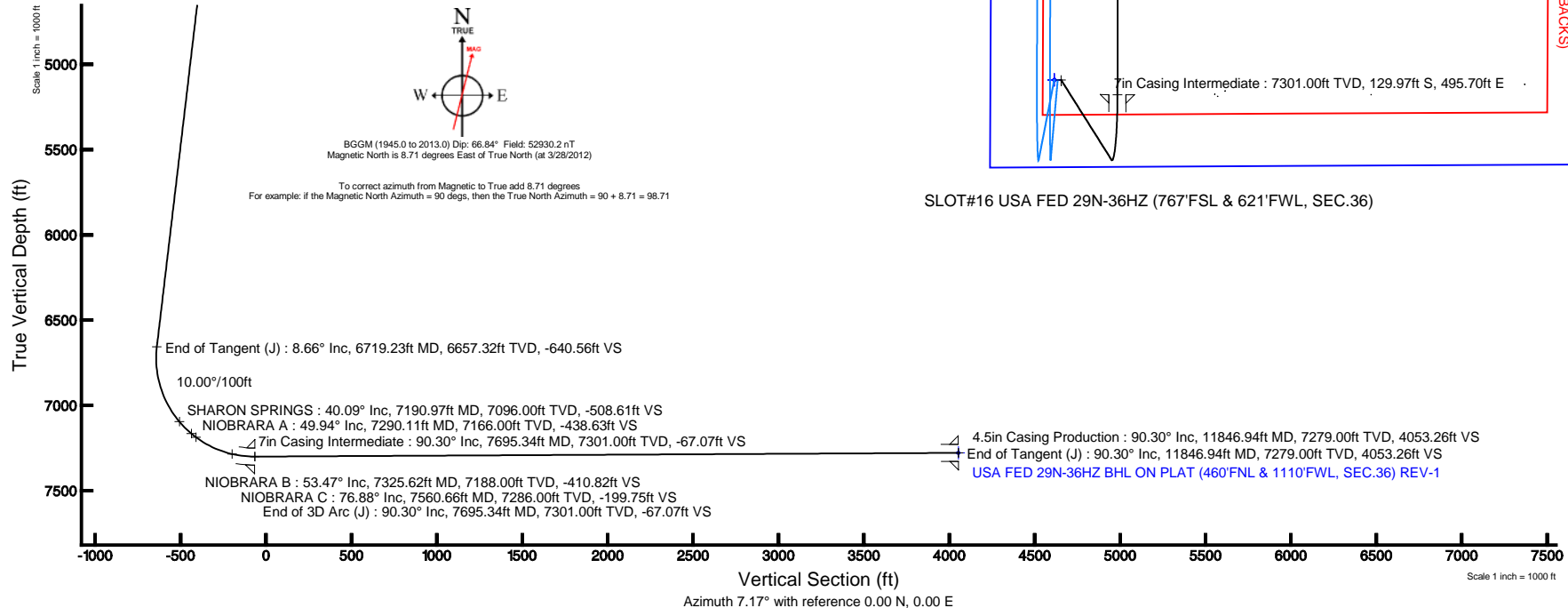
Facility Name				Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.36-T3N-R66W				3214305.575	1310913.744	40°11'03.516"N	104°43'58.656"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
SLOT#16 USA FED 29N-36HZ (767'FSL & 621'FWL, SEC.36)	-2754.50	53.09	3214382.489	1308159.929	40°10'36.296"N	104°43'57.972"W	
XTREME 6 (RKB) to Mud line (At Slot: SLOT#16 USA FED 29N-36HZ (767'FSL & 621'FWL, SEC.36))						5041ft	
Mean Sea Level to Mud line (At Slot: SLOT#16 USA FED 29N-36HZ (767'FSL & 621'FWL, SEC.36))						0ft	
XTREME 6 (RKB) to Mean Sea Level						5041ft	

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	147.800	17.00	0.00	0.00	0.00	0.00
End of Tangent	1000.00	0.000	147.800	1000.00	0.00	0.00	0.00	0.00
End of Build (J)	1433.00	8.660	147.800	1431.35	-27.64	17.40	2.00	-25.25
End of Tangent (J)	6719.23	8.660	147.800	6657.32	-701.17	441.55	0.00	-640.56
End of 3D Arc (J)	7695.34	90.304	0.142	7301.00	-129.97	495.70	10.00	-67.07
End of Tangent (J)	11846.94	90.304	0.142	7279.00	4021.55	506.01	0.00	4053.26

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		0.00	-0.30	-60.08	3214322.42	1308159.11	40°10'36.293"N	104°43'58.746"W
USA FED 29N-36HZ BHL ON PLAT (460'FNL & 1110'FWL, SEC.36) REV-1	11846.94	7279.00	4021.55	506.01	3214863.67	1312185.53	40°11'16.037"N	104°43'51.452"W
USA FED 13-36HZ PAD HARDLINES (460' SETBACKS)		7440.00	-0.30	-60.08	3214322.42	1308159.11	40°10'36.293"N	104°43'58.746"W





Planned Wellpath Report

USA FED 29N-36HZ (PERMIT) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#16 USA FED 29N-36HZ (767'FSL & 621'FWL, SEC.36)
Area	COLORADO	Well	USA FED 29N-36HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	USA FED 29N-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	Wilsjef02
Scale	0.999958	Report Generated	3/28/2012 at 16:23:18
Convergence at slot	0.50° East	Database/Source file	WellArchitectDB/USA_FED_29N-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	-2754.50	53.09	3214382.49	1308159.93	40°10'36.296"N	104°43'57.972"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	XTREME 6 (RKB) to Facility Vertical Datum	5041.00ft
Horizontal Reference Pt	Slot	XTREME 6 (RKB) to Mean Sea Level	5041.00ft
Vertical Reference Pt	XTREME 6 (RKB)	XTREME 6 (RKB) to Mud Line at Slot (SLOT#16 USA FED 29N-36HZ (767'FSL & 621'FWL, SEC.36))	5041.00ft
MD Reference Pt	XTREME 6 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	7.17°



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USA FED 29N-36HZ (PERMIT) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#16 USA FED 29N-36HZ (767'FSL & 621'FWL, SEC.36)
Area	COLORADO	Well	USA FED 29N-36HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	USA FED 29N-36HZ PWB
Facility	SEC.36-T3N-R66W		

WELLPATH DATA (131 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	147.800	0.00	0.00	0.00	0.00	40°10'36.296"N	104°43'57.972"W	0.00	
17.00	0.000	147.800	17.00	0.00	0.00	0.00	40°10'36.296"N	104°43'57.972"W	0.00	Tie On
117.00†	0.000	147.800	117.00	0.00	0.00	0.00	40°10'36.296"N	104°43'57.972"W	0.00	
217.00†	0.000	147.800	217.00	0.00	0.00	0.00	40°10'36.296"N	104°43'57.972"W	0.00	
317.00†	0.000	147.800	317.00	0.00	0.00	0.00	40°10'36.296"N	104°43'57.972"W	0.00	
417.00†	0.000	147.800	417.00	0.00	0.00	0.00	40°10'36.296"N	104°43'57.972"W	0.00	
517.00†	0.000	147.800	517.00	0.00	0.00	0.00	40°10'36.296"N	104°43'57.972"W	0.00	
617.00†	0.000	147.800	617.00	0.00	0.00	0.00	40°10'36.296"N	104°43'57.972"W	0.00	
717.00†	0.000	147.800	717.00	0.00	0.00	0.00	40°10'36.296"N	104°43'57.972"W	0.00	
817.00†	0.000	147.800	817.00	0.00	0.00	0.00	40°10'36.296"N	104°43'57.972"W	0.00	
917.00†	0.000	147.800	917.00	0.00	0.00	0.00	40°10'36.296"N	104°43'57.972"W	0.00	
1000.00	0.000	147.800	1000.00	0.00	0.00	0.00	40°10'36.296"N	104°43'57.972"W	0.00	End of Tangent
1017.00†	0.340	147.800	1017.00	-0.04	-0.04	0.03	40°10'36.296"N	104°43'57.972"W	2.00	
1117.00†	2.340	147.800	1116.97	-1.85	-2.02	1.27	40°10'36.276"N	104°43'57.956"W	2.00	
1217.00†	4.340	147.800	1216.79	-6.35	-6.95	4.38	40°10'36.227"N	104°43'57.916"W	2.00	
1317.00†	6.340	147.800	1316.35	-13.54	-14.83	9.34	40°10'36.149"N	104°43'57.852"W	2.00	
1417.00†	8.340	147.800	1415.53	-23.42	-25.64	16.14	40°10'36.043"N	104°43'57.764"W	2.00	
1433.00	8.660	147.800	1431.35	-25.25	-27.64	17.40	40°10'36.023"N	104°43'57.748"W	2.00	End of Build (J)
1517.00†	8.660	147.800	1514.40	-35.03	-38.34	24.14	40°10'35.917"N	104°43'57.661"W	0.00	
1617.00†	8.660	147.800	1613.26	-46.67	-51.08	32.17	40°10'35.791"N	104°43'57.558"W	0.00	
1717.00†	8.660	147.800	1712.12	-58.31	-63.82	40.19	40°10'35.665"N	104°43'57.454"W	0.00	
1817.00†	8.660	147.800	1810.98	-69.95	-76.56	48.21	40°10'35.539"N	104°43'57.351"W	0.00	
1917.00†	8.660	147.800	1909.84	-81.59	-89.30	56.24	40°10'35.413"N	104°43'57.247"W	0.00	
2017.00†	8.660	147.800	2008.70	-93.23	-102.05	64.26	40°10'35.288"N	104°43'57.144"W	0.00	
2117.00†	8.660	147.800	2107.56	-104.86	-114.79	72.29	40°10'35.162"N	104°43'57.041"W	0.00	
2217.00†	8.660	147.800	2206.42	-116.50	-127.53	80.31	40°10'35.036"N	104°43'56.937"W	0.00	
2317.00†	8.660	147.800	2305.27	-128.14	-140.27	88.33	40°10'34.910"N	104°43'56.834"W	0.00	
2417.00†	8.660	147.800	2404.13	-139.78	-153.01	96.36	40°10'34.784"N	104°43'56.731"W	0.00	
2517.00†	8.660	147.800	2502.99	-151.42	-165.75	104.38	40°10'34.658"N	104°43'56.627"W	0.00	
2617.00†	8.660	147.800	2601.85	-163.06	-178.49	112.40	40°10'34.532"N	104°43'56.524"W	0.00	
2717.00†	8.660	147.800	2700.71	-174.70	-191.23	120.43	40°10'34.406"N	104°43'56.421"W	0.00	
2817.00†	8.660	147.800	2799.57	-186.34	-203.98	128.45	40°10'34.280"N	104°43'56.317"W	0.00	
2917.00†	8.660	147.800	2898.43	-197.98	-216.72	136.47	40°10'34.154"N	104°43'56.214"W	0.00	
3017.00†	8.660	147.800	2997.29	-209.62	-229.46	144.50	40°10'34.028"N	104°43'56.110"W	0.00	
3117.00†	8.660	147.800	3096.15	-221.26	-242.20	152.52	40°10'33.903"N	104°43'56.007"W	0.00	
3217.00†	8.660	147.800	3195.01	-232.90	-254.94	160.54	40°10'33.777"N	104°43'55.904"W	0.00	
3317.00†	8.660	147.800	3293.87	-244.54	-267.68	168.57	40°10'33.651"N	104°43'55.800"W	0.00	
3417.00†	8.660	147.800	3392.73	-256.18	-280.42	176.59	40°10'33.525"N	104°43'55.697"W	0.00	
3517.00†	8.660	147.800	3491.59	-267.82	-293.16	184.62	40°10'33.399"N	104°43'55.594"W	0.00	
3617.00†	8.660	147.800	3590.45	-279.46	-305.90	192.64	40°10'33.273"N	104°43'55.490"W	0.00	
3717.00†	8.660	147.800	3689.31	-291.10	-318.65	200.66	40°10'33.147"N	104°43'55.387"W	0.00	
3817.00†	8.660	147.800	3788.17	-302.74	-331.39	208.69	40°10'33.021"N	104°43'55.284"W	0.00	
3917.00†	8.660	147.800	3887.03	-314.38	-344.13	216.71	40°10'32.895"N	104°43'55.180"W	0.00	
4017.00†	8.660	147.800	3985.89	-326.02	-356.87	224.73	40°10'32.769"N	104°43'55.077"W	0.00	
4083.87†	8.660	147.800	4052.00	-333.81	-365.39	230.10	40°10'32.685"N	104°43'55.008"W	0.00	PARKMAN
4117.00†	8.660	147.800	4084.75	-337.66	-369.61	232.76	40°10'32.643"N	104°43'54.973"W	0.00	
4217.00†	8.660	147.800	4183.61	-349.30	-382.35	240.78	40°10'32.518"N	104°43'54.870"W	0.00	
4317.00†	8.660	147.800	4282.47	-360.94	-395.09	248.80	40°10'32.392"N	104°43'54.767"W	0.00	
4417.00†	8.660	147.800	4381.33	-372.58	-407.83	256.83	40°10'32.266"N	104°43'54.663"W	0.00	
4517.00†	8.660	147.800	4480.19	-384.22	-420.58	264.85	40°10'32.140"N	104°43'54.560"W	0.00	
4617.00†	8.660	147.800	4579.05	-395.86	-433.32	272.87	40°10'32.014"N	104°43'54.457"W	0.00	
4622.00†	8.660	147.800	4584.00	-396.44	-433.95	273.28	40°10'32.008"N	104°43'54.451"W	0.00	SUSSEX
4717.00†	8.660	147.800	4677.91	-407.50	-446.06	280.90	40°10'31.888"N	104°43'54.353"W	0.00	
4817.00†	8.660	147.800	4776.77	-419.14	-458.80	288.92	40°10'31.762"N	104°43'54.250"W	0.00	
4917.00†	8.660	147.800	4875.63	-430.78	-471.54	296.94	40°10'31.636"N	104°43'54.147"W	0.00	
5017.00†	8.660	147.800	4974.49	-442.42	-484.28	304.97	40°10'31.510"N	104°43'54.043"W	0.00	
5117.00†	8.660	147.800	5073.35	-454.06	-497.02	312.99	40°10'31.384"N	104°43'53.940"W	0.00	
5217.00†	8.660	147.800	5172.21	-465.70	-509.76	321.02	40°10'31.258"N	104°43'53.836"W	0.00	
5317.00†	8.660	147.800	5271.07	-477.34	-522.51	329.04	40°10'31.133"N	104°43'53.733"W	0.00	
5417.00†	8.660	147.800	5369.93	-488.98	-535.25	337.06	40°10'31.007"N	104°43'53.630"W	0.00	



Planned Wellpath Report

USA FED 29N-36HZ (PERMIT) PWP
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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#16 USA FED 29N-36HZ (767'FSL & 621'FWL, SEC.36)
Area	COLORADO	Well	USA FED 29N-36HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	USA FED 29N-36HZ PWB
Facility	SEC.36-T3N-R66W		

WELLPATH DATA (131 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5517.00†	8.660	147.800	5468.79	-500.62	-547.99	345.09	40°10'30.881"N	104°43'53.526"W	0.00	
5617.00†	8.660	147.800	5567.65	-512.26	-560.73	353.11	40°10'30.755"N	104°43'53.423"W	0.00	
5717.00†	8.660	147.800	5666.51	-523.90	-573.47	361.13	40°10'30.629"N	104°43'53.320"W	0.00	
5817.00†	8.660	147.800	5765.37	-535.54	-586.21	369.16	40°10'30.503"N	104°43'53.216"W	0.00	
5917.00†	8.660	147.800	5864.23	-547.18	-598.95	377.18	40°10'30.377"N	104°43'53.113"W	0.00	
6017.00†	8.660	147.800	5963.09	-558.82	-611.69	385.20	40°10'30.251"N	104°43'53.010"W	0.00	
6117.00†	8.660	147.800	6061.95	-570.46	-624.43	393.23	40°10'30.125"N	104°43'52.906"W	0.00	
6217.00†	8.660	147.800	6160.81	-582.10	-637.18	401.25	40°10'29.999"N	104°43'52.803"W	0.00	
6317.00†	8.660	147.800	6259.67	-593.74	-649.92	409.27	40°10'29.873"N	104°43'52.699"W	0.00	
6417.00†	8.660	147.800	6358.53	-605.38	-662.66	417.30	40°10'29.748"N	104°43'52.596"W	0.00	
6517.00†	8.660	147.800	6457.39	-617.02	-675.40	425.32	40°10'29.622"N	104°43'52.493"W	0.00	
6617.00†	8.660	147.800	6556.25	-628.66	-688.14	433.35	40°10'29.496"N	104°43'52.389"W	0.00	
6717.00†	8.660	147.800	6655.11	-640.30	-700.88	441.37	40°10'29.370"N	104°43'52.286"W	0.00	
6719.23	8.660	147.800	6657.32	-640.56	-701.17	441.55	40°10'29.367"N	104°43'52.284"W	0.00	End of Tangent (J)
6817.00†	5.274	62.203	6754.56	-643.68	-705.31	449.46	40°10'29.326"N	104°43'52.182"W	10.00	
6917.00†	13.300	20.344	6853.26	-629.81	-692.35	457.55	40°10'29.454"N	104°43'52.078"W	10.00	
7017.00†	22.924	11.283	6948.21	-599.11	-662.39	465.38	40°10'29.750"N	104°43'51.977"W	10.00	
7117.00†	32.767	7.445	7036.53	-552.50	-616.34	472.71	40°10'30.205"N	104°43'51.882"W	10.00	
7190.97†	40.094	5.725	7096.00	-508.61	-572.73	477.69	40°10'30.636"N	104°43'51.818"W	10.00	SHARON SPRINGS
7217.00†	42.677	5.240	7115.53	-491.41	-555.60	479.33	40°10'30.806"N	104°43'51.797"W	10.00	
7290.11†	49.942	4.098	7166.00	-438.63	-502.94	483.60	40°10'31.326"N	104°43'51.742"W	10.00	NIOBRARA A
7317.00†	52.616	3.739	7182.82	-417.69	-482.02	485.03	40°10'31.533"N	104°43'51.723"W	10.00	
7325.62†	53.473	3.629	7188.00	-410.82	-475.14	485.48	40°10'31.601"N	104°43'51.718"W	10.00	NIOBRARA B
7417.00†	62.569	2.593	7236.35	-333.58	-397.82	489.64	40°10'32.365"N	104°43'51.664"W	10.00	
7517.00†	72.530	1.638	7274.49	-241.64	-305.58	493.02	40°10'33.276"N	104°43'51.620"W	10.00	
7560.66†	76.881	1.256	7286.00	-199.75	-263.49	494.09	40°10'33.692"N	104°43'51.607"W	10.00	NIOBRARA C
7617.00†	82.496	0.783	7296.08	-144.66	-208.09	495.07	40°10'34.240"N	104°43'51.594"W	10.00	
7695.34	90.304	0.142	7301.00	-67.07	-129.97	495.70	40°10'35.012"N	104°43'51.586"W	10.00	End of 3D Arc (J)
7717.00†	90.304	0.142	7300.88	-45.57	-108.31	495.75	40°10'35.226"N	104°43'51.585"W	0.00	
7817.00†	90.304	0.142	7300.35	53.67	-8.31	496.00	40°10'36.214"N	104°43'51.582"W	0.00	
7917.00†	90.304	0.142	7299.82	152.92	91.69	496.25	40°10'37.202"N	104°43'51.579"W	0.00	
8017.00†	90.304	0.142	7299.29	252.17	191.68	496.50	40°10'38.190"N	104°43'51.576"W	0.00	
8117.00†	90.304	0.142	7298.76	351.41	291.68	496.75	40°10'39.178"N	104°43'51.572"W	0.00	
8217.00†	90.304	0.142	7298.23	450.66	391.68	496.99	40°10'40.167"N	104°43'51.569"W	0.00	
8317.00†	90.304	0.142	7297.70	549.91	491.68	497.24	40°10'41.155"N	104°43'51.566"W	0.00	
8417.00†	90.304	0.142	7297.17	649.16	591.68	497.49	40°10'42.143"N	104°43'51.563"W	0.00	
8517.00†	90.304	0.142	7296.64	748.40	691.67	497.74	40°10'43.131"N	104°43'51.559"W	0.00	
8617.00†	90.304	0.142	7296.11	847.65	791.67	497.99	40°10'44.119"N	104°43'51.556"W	0.00	
8717.00†	90.304	0.142	7295.58	946.90	891.67	498.24	40°10'45.107"N	104°43'51.553"W	0.00	
8817.00†	90.304	0.142	7295.05	1046.14	991.67	498.48	40°10'46.096"N	104°43'51.550"W	0.00	
8917.00†	90.304	0.142	7294.52	1145.39	1091.67	498.73	40°10'47.084"N	104°43'51.547"W	0.00	
9017.00†	90.304	0.142	7293.99	1244.64	1191.67	498.98	40°10'48.072"N	104°43'51.543"W	0.00	
9117.00†	90.304	0.142	7293.46	1343.88	1291.66	499.23	40°10'49.060"N	104°43'51.540"W	0.00	
9217.00†	90.304	0.142	7292.93	1443.13	1391.66	499.48	40°10'50.048"N	104°43'51.537"W	0.00	
9317.00†	90.304	0.142	7292.40	1542.38	1491.66	499.73	40°10'51.037"N	104°43'51.534"W	0.00	
9417.00†	90.304	0.142	7291.87	1641.63	1591.66	499.98	40°10'52.025"N	104°43'51.530"W	0.00	
9517.00†	90.304	0.142	7291.35	1740.87	1691.66	500.22	40°10'53.013"N	104°43'51.527"W	0.00	
9617.00†	90.304	0.142	7290.82	1840.12	1791.66	500.47	40°10'54.001"N	104°43'51.524"W	0.00	
9717.00†	90.304	0.142	7290.29	1939.37	1891.65	500.72	40°10'54.989"N	104°43'51.521"W	0.00	
9817.00†	90.304	0.142	7289.76	2038.61	1991.65	500.97	40°10'55.977"N	104°43'51.518"W	0.00	
9917.00†	90.304	0.142	7289.23	2137.86	2091.65	501.22	40°10'56.966"N	104°43'51.514"W	0.00	
10017.00†	90.304	0.142	7288.70	2237.11	2191.65	501.47	40°10'57.954"N	104°43'51.511"W	0.00	
10117.00†	90.304	0.142	7288.17	2336.35	2291.65	501.72	40°10'58.942"N	104°43'51.508"W	0.00	
10217.00†	90.304	0.142	7287.64	2435.60	2391.65	501.96	40°10'59.930"N	104°43'51.505"W	0.00	
10317.00†	90.304	0.142	7287.11	2534.85	2491.64	502.21	40°11'00.918"N	104°43'51.501"W	0.00	
10417.00†	90.304	0.142	7286.58	2634.10	2591.64	502.46	40°11'01.907"N	104°43'51.498"W	0.00	
10517.00†	90.304	0.142	7286.05	2733.34	2691.64	502.71	40°11'02.895"N	104°43'51.495"W	0.00	
10617.00†	90.304	0.142	7285.52	2832.59	2791.64	502.96	40°11'03.883"N	104°43'51.492"W	0.00	
10717.00†	90.304	0.142	7284.99	2931.84	2891.64	503.21	40°11'04.871"N	104°43'51.488"W	0.00	
10817.00†	90.304	0.142	7284.46	3031.08	2991.64	503.46	40°11'05.859"N	104°43'51.485"W	0.00	



Planned Wellpath Report

USA FED 29N-36HZ (PERMIT) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#16 USA FED 29N-36HZ (767'FSL & 621'FWL, SEC.36)
Area	COLORADO	Well	USA FED 29N-36HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	USA FED 29N-36HZ PWB
Facility	SEC.36-T3N-R66W		

WELLPATH DATA (131 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10917.00†	90.304	0.142	7283.93	3130.33	3091.63	503.70	40°11'06.848"N	104°43'51.482"W	0.00	
11017.00†	90.304	0.142	7283.40	3229.58	3191.63	503.95	40°11'07.836"N	104°43'51.479"W	0.00	
11117.00†	90.304	0.142	7282.87	3328.82	3291.63	504.20	40°11'08.824"N	104°43'51.476"W	0.00	
11217.00†	90.304	0.142	7282.34	3428.07	3391.63	504.45	40°11'09.812"N	104°43'51.472"W	0.00	
11317.00†	90.304	0.142	7281.81	3527.32	3491.63	504.70	40°11'10.800"N	104°43'51.469"W	0.00	
11417.00†	90.304	0.142	7281.28	3626.57	3591.63	504.95	40°11'11.788"N	104°43'51.466"W	0.00	
11517.00†	90.304	0.142	7280.75	3725.81	3691.62	505.19	40°11'12.777"N	104°43'51.463"W	0.00	
11617.00†	90.304	0.142	7280.22	3825.06	3791.62	505.44	40°11'13.765"N	104°43'51.459"W	0.00	
11717.00†	90.304	0.142	7279.69	3924.31	3891.62	505.69	40°11'14.753"N	104°43'51.456"W	0.00	
11817.00†	90.304	0.142	7279.16	4023.55	3991.62	505.94	40°11'15.741"N	104°43'51.453"W	0.00	
11846.94	90.304	0.142	7279.00 ¹	4053.26	4021.55	506.01	40°11'16.037"N	104°43'51.452"W	0.00	End of Tangent (J)

HOLE & CASING SECTIONS - Ref Wellbore: USA FED 29N-36HZ PWB Ref Wellpath: USA FED 29N-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]
13.5in 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	7695.34	6895.34	800.00	7301.00	0.00	0.00	-129.97	495.70
7in Casing Intermediate	17.00	7695.34	7678.34	17.00	7301.00	0.00	0.00	-129.97	495.70
6.125in Open Hole	7695.34	11846.94	4151.60	7301.00	7279.00	-129.97	495.70	4021.55	506.01
4.5in Casing Production	17.00	11846.94	11829.94	17.00	7279.00	0.00	0.00	4021.55	506.01

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		0.00	-0.30	-60.08	3214322.42	1308159.11	40°10'36.293"N	104°43'58.746"W	polygon
1) USA FED 29N-36HZ BHL ON PLAT (460'FNL & 1110'FWL, SEC.36) REV-1	11846.94	7279.00	4021.55	506.01	3214853.67	1312185.53	40°11'16.037"N	104°43'51.452"W	point
USA FED 13-36HZ PAD HARDLINES (460' SETBACKS)		7440.00	-0.30	-60.08	3214322.42	1308159.11	40°10'36.293"N	104°43'58.746"W	polygon

SURVEY PROGRAM - Ref Wellbore: USA FED 29N-36HZ PWB Ref Wellpath: USA FED 29N-36HZ (PERMIT) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	11846.94	NaviTrak (Standard)		USA FED 29N-36HZ PWB



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USA FED 29N-36HZ (PERMIT) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#16 USA FED 29N-36HZ (767'FSL & 621'FWL, SEC.36)
Area	COLORADO	Well	USA FED 29N-36HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	USA FED 29N-36HZ PWB
Facility	SEC.36-T3N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
4083.87	8.660	147.800	4052.00	PARKMAN
4622.00	8.660	147.800	4584.00	SUSSEX
7190.97	40.094	5.725	7096.00	SHARON SPRINGS
7290.11	49.942	4.098	7166.00	NIOBRARA A
7325.62	53.473	3.629	7188.00	NIOBRARA B
7560.66	76.881	1.256	7286.00	NIOBRARA C