



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 POWERS 2N-34HZ
Area	Compass Import	Well	POWERS 2N-34HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	POWERS 2N-34HZ PWB
Facility	2N-65W-27 Powers 27-1 Pad		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 4.1.1
North Reference	True	User	Amarcar
Scale	0.999611	Report Generated	22/Apr/2015 at 11:43
Convergence at slot	0.23° East	Database/Source file	MAP CHECK./POWERS_2N-34HZ_PWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	998.08	3732.43	1739537.77	14569116.07	40°06'57.049"N	104°38'43.660"W
Facility Reference Pt			1735809.20	14568103.69	40°06'47.185"N	104°39'31.720"W
Field Reference Pt			1700626.56	14568707.73	40°06'54.245"N	104°47'04.711"W

WELLPATH DATUM			
Calculation method	Minimum curvature	PERMIT (17'KB) (RKB) to 2N-65W-27 Offsets vertical datum	4942.00ft
Horizontal Reference Pt	Slot	PERMIT (17'KB) (RKB) to Mean Sea Level	4942.00ft
Vertical Reference Pt	PERMIT (17'KB) (RKB)	PERMIT (17'KB) (RKB) to Mud Line at Slot (SLOT#02 POWERS 2N-34HZ)	4942.00ft
MD Reference Pt	PERMIT (17'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	179.31°

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Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	POWERS 2N-34HZ PWB
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WELLPATH DATA (140 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	309.060	0.00	0.00	0.00	0.00	40°06'57.049"N	104°38'43.660"W	0.00	
17.00	0.000	309.060	17.00	0.00	0.00	0.00	40°06'57.049"N	104°38'43.660"W	0.00	TIE-ON
117.00†	0.000	309.060	117.00	0.00	0.00	0.00	40°06'57.049"N	104°38'43.660"W	0.00	
217.00†	0.000	309.060	217.00	0.00	0.00	0.00	40°06'57.049"N	104°38'43.660"W	0.00	
317.00†	0.000	309.060	317.00	0.00	0.00	0.00	40°06'57.049"N	104°38'43.660"W	0.00	
417.00†	0.000	309.060	417.00	0.00	0.00	0.00	40°06'57.049"N	104°38'43.660"W	0.00	
517.00†	0.000	309.060	517.00	0.00	0.00	0.00	40°06'57.049"N	104°38'43.660"W	0.00	
617.00†	0.000	309.060	617.00	0.00	0.00	0.00	40°06'57.049"N	104°38'43.660"W	0.00	
717.00†	0.000	309.060	717.00	0.00	0.00	0.00	40°06'57.049"N	104°38'43.660"W	0.00	
817.00†	0.000	309.060	817.00	0.00	0.00	0.00	40°06'57.049"N	104°38'43.660"W	0.00	
917.00†	0.000	309.060	917.00	0.00	0.00	0.00	40°06'57.049"N	104°38'43.660"W	0.00	
1017.00†	0.000	309.060	1017.00	0.00	0.00	0.00	40°06'57.049"N	104°38'43.660"W	0.00	
1117.00†	0.000	309.060	1117.00	0.00	0.00	0.00	40°06'57.049"N	104°38'43.660"W	0.00	
1217.00†	0.000	309.060	1217.00	0.00	0.00	0.00	40°06'57.049"N	104°38'43.660"W	0.00	
1317.00†	0.000	309.060	1317.00	0.00	0.00	0.00	40°06'57.049"N	104°38'43.660"W	0.00	
1417.00†	0.000	309.060	1417.00	0.00	0.00	0.00	40°06'57.049"N	104°38'43.660"W	0.00	
1517.00†	0.000	309.060	1517.00	0.00	0.00	0.00	40°06'57.049"N	104°38'43.660"W	0.00	
1600.00	0.000	309.060	1600.00	0.00	0.00	0.00	40°06'57.049"N	104°38'43.660"W	0.00	BEGIN NUDGE
1617.00†	0.340	309.060	1617.00	-0.03	0.03	-0.04	40°06'57.050"N	104°38'43.660"W	2.00	
1717.00†	2.340	309.060	1716.97	-1.53	1.51	-1.85	40°06'57.064"N	104°38'43.683"W	2.00	
1817.00†	4.340	309.060	1816.79	-5.25	5.18	-6.38	40°06'57.100"N	104°38'43.742"W	2.00	
1917.00†	6.340	309.060	1916.35	-11.20	11.04	-13.60	40°06'57.158"N	104°38'43.835"W	2.00	
2017.00†	8.340	309.060	2015.53	-19.37	19.09	-23.52	40°06'57.238"N	104°38'43.963"W	2.00	
2117.00†	10.340	309.060	2114.20	-29.75	29.32	-36.13	40°06'57.339"N	104°38'44.125"W	2.00	
2150.00	11.000	309.060	2146.63	-33.65	33.17	-40.87	40°06'57.377"N	104°38'44.186"W	2.00	END NUDGE
2217.00†	11.000	309.060	2212.40	-41.83	41.22	-50.80	40°06'57.457"N	104°38'44.314"W	0.00	
2317.00†	11.000	309.060	2310.56	-54.03	53.25	-65.61	40°06'57.576"N	104°38'44.504"W	0.00	
2417.00†	11.000	309.060	2408.72	-66.23	65.27	-80.43	40°06'57.694"N	104°38'44.695"W	0.00	
2517.00†	11.000	309.060	2506.88	-78.43	77.29	-95.24	40°06'57.813"N	104°38'44.886"W	0.00	
2617.00†	11.000	309.060	2605.05	-90.63	89.32	-110.06	40°06'57.932"N	104°38'45.077"W	0.00	
2717.00†	11.000	309.060	2703.21	-102.83	101.34	-124.88	40°06'58.051"N	104°38'45.268"W	0.00	
2817.00†	11.000	309.060	2801.37	-115.03	113.36	-139.69	40°06'58.170"N	104°38'45.458"W	0.00	
2917.00†	11.000	309.060	2899.54	-127.23	125.39	-154.51	40°06'58.289"N	104°38'45.649"W	0.00	
3017.00†	11.000	309.060	2997.70	-139.43	137.41	-169.33	40°06'58.408"N	104°38'45.840"W	0.00	
3117.00†	11.000	309.060	3095.86	-151.63	149.43	-184.14	40°06'58.526"N	104°38'46.031"W	0.00	
3217.00†	11.000	309.060	3194.02	-163.83	161.46	-198.96	40°06'58.645"N	104°38'46.221"W	0.00	
3317.00†	11.000	309.060	3292.19	-176.03	173.48	-213.77	40°06'58.764"N	104°38'46.412"W	0.00	
3417.00†	11.000	309.060	3390.35	-188.23	185.50	-228.59	40°06'58.883"N	104°38'46.603"W	0.00	
3517.00†	11.000	309.060	3488.51	-200.43	197.53	-243.41	40°06'59.002"N	104°38'46.794"W	0.00	
3617.00†	11.000	309.060	3586.67	-212.63	209.55	-258.22	40°06'59.121"N	104°38'46.985"W	0.00	
3717.00†	11.000	309.060	3684.84	-224.83	221.58	-273.04	40°06'59.240"N	104°38'47.175"W	0.00	
3817.00†	11.000	309.060	3783.00	-237.03	233.60	-287.85	40°06'59.359"N	104°38'47.366"W	0.00	
3917.00†	11.000	309.060	3881.16	-249.23	245.62	-302.67	40°06'59.477"N	104°38'47.557"W	0.00	
4017.00†	11.000	309.060	3979.33	-261.43	257.65	-317.49	40°06'59.596"N	104°38'47.748"W	0.00	
4117.00†	11.000	309.060	4077.49	-273.63	269.67	-332.30	40°06'59.715"N	104°38'47.939"W	0.00	

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Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	POWERS 2N-34HZ PWB
Facility	2N-65W-27 Powers 27-1 Pad		

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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4217.00†	11.000	309.060	4175.65	-285.83	281.69	-347.12	40°06'59.834"N	104°38'48.129"W	0.00	
4317.00†	11.000	309.060	4273.81	-298.03	293.72	-361.93	40°06'59.953"N	104°38'48.320"W	0.00	
4417.00†	11.000	309.060	4371.98	-310.23	305.74	-376.75	40°07'00.072"N	104°38'48.511"W	0.00	
4517.00†	11.000	309.060	4470.14	-322.43	317.76	-391.57	40°07'00.191"N	104°38'48.702"W	0.00	
4588.17†	11.000	309.060	4540.00	-331.11	326.32	-402.11	40°07'00.275"N	104°38'48.837"W	0.00	SUSSEX
4617.00†	11.000	309.060	4568.30	-334.63	329.79	-406.38	40°07'00.309"N	104°38'48.892"W	0.00	
4717.00†	11.000	309.060	4666.46	-346.83	341.81	-421.20	40°07'00.428"N	104°38'49.083"W	0.00	
4817.00†	11.000	309.060	4764.63	-359.03	353.83	-436.01	40°07'00.547"N	104°38'49.274"W	0.00	
4917.00†	11.000	309.060	4862.79	-371.23	365.86	-450.83	40°07'00.666"N	104°38'49.465"W	0.00	
5017.00†	11.000	309.060	4960.95	-383.43	377.88	-465.65	40°07'00.785"N	104°38'49.656"W	0.00	
5117.00†	11.000	309.060	5059.12	-395.63	389.90	-480.46	40°07'00.904"N	104°38'49.846"W	0.00	
5217.00†	11.000	309.060	5157.28	-407.83	401.93	-495.28	40°07'01.023"N	104°38'50.037"W	0.00	
5317.00†	11.000	309.060	5255.44	-420.03	413.95	-510.09	40°07'01.141"N	104°38'50.228"W	0.00	
5404.04	11.000	309.060	5340.88	-430.65	424.42	-522.99	40°07'01.245"N	104°38'50.394"W	0.00	BEGIN DROP
5417.00†	10.741	309.060	5353.61	-432.21	425.96	-524.89	40°07'01.260"N	104°38'50.418"W	2.00	
5517.00†	8.741	309.060	5452.16	-443.03	436.62	-538.02	40°07'01.366"N	104°38'50.588"W	2.00	
5617.00†	6.741	309.060	5551.25	-451.64	445.10	-548.48	40°07'01.449"N	104°38'50.722"W	2.00	
5717.00†	4.741	309.060	5650.74	-458.03	451.41	-556.25	40°07'01.512"N	104°38'50.822"W	2.00	
5817.00†	2.741	309.060	5750.52	-462.21	455.52	-561.32	40°07'01.552"N	104°38'50.887"W	2.00	
5917.00†	0.741	309.060	5850.47	-464.15	457.43	-563.67	40°07'01.571"N	104°38'50.918"W	2.00	
5954.04	0.000	179.314	5887.51	-464.30	457.58	-563.86	40°07'01.573"N	104°38'50.920"W	2.00	END DROP
6017.00†	0.000	179.314	5950.47	-464.30	457.58	-563.86	40°07'01.573"N	104°38'50.920"W	0.00	
6117.00†	0.000	179.314	6050.47	-464.30	457.58	-563.86	40°07'01.573"N	104°38'50.920"W	0.00	
6217.00†	0.000	179.314	6150.47	-464.30	457.58	-563.86	40°07'01.573"N	104°38'50.920"W	0.00	
6317.00†	0.000	179.314	6250.47	-464.30	457.58	-563.86	40°07'01.573"N	104°38'50.920"W	0.00	
6417.00†	0.000	179.314	6350.47	-464.30	457.58	-563.86	40°07'01.573"N	104°38'50.920"W	0.00	
6517.00†	0.000	179.314	6450.47	-464.30	457.58	-563.86	40°07'01.573"N	104°38'50.920"W	0.00	
6535.53†	0.000	179.314	6469.00	-464.30	457.58	-563.86	40°07'01.573"N	104°38'50.920"W	0.00	SHARON SPRINGS
6537.57	0.000	179.314	6471.04	-464.30	457.58	-563.86	40°07'01.573"N	104°38'50.920"W	0.00	KOP, BUILD @ 10°/100'
6617.00†	7.943	179.314	6550.21	-458.80	452.09	-563.79	40°07'01.518"N	104°38'50.919"W	10.00	
6717.00†	17.943	179.314	6647.55	-436.43	429.72	-563.53	40°07'01.297"N	104°38'50.916"W	10.00	
6817.00†	27.943	179.314	6739.52	-397.50	390.79	-563.06	40°07'00.912"N	104°38'50.910"W	10.00	
6917.00†	37.943	179.314	6823.34	-343.19	336.48	-562.41	40°07'00.376"N	104°38'50.902"W	10.00	
7017.00†	47.943	179.314	6896.45	-275.15	268.45	-561.60	40°06'59.703"N	104°38'50.891"W	10.00	
7078.30†	54.073	179.314	6935.00	-227.53	220.83	-561.02	40°06'59.232"N	104°38'50.884"W	10.00	NIOBRARA TOP
7117.00†	57.943	179.314	6956.63	-195.45	188.75	-560.64	40°06'58.915"N	104°38'50.879"W	10.00	
7217.00†	67.943	179.314	7002.06	-106.51	99.81	-559.58	40°06'58.036"N	104°38'50.865"W	10.00	
7239.20†	70.163	179.314	7010.00	-85.77	79.08	-559.33	40°06'57.831"N	104°38'50.862"W	10.00	NIOBRARA B BENCH
7317.00†	77.943	179.314	7031.36	-11.03	4.34	-558.43	40°06'57.092"N	104°38'50.850"W	10.00	
7417.00†	87.943	179.314	7043.63	88.09	-94.77	-557.25	40°06'56.112"N	104°38'50.835"W	10.00	
7437.24†	89.967	179.314	7044.00	108.33	-115.00	-557.00	40°06'55.912"N	104°38'50.832"W	10.00	TOP OF PRODUCTION
7437.24	89.967	179.314	7044.00	108.33	-115.00	-557.00	40°06'55.912"N	104°38'50.832"W	10.00	LANDING POINT
7517.00†	89.967	179.314	7044.04	188.09	-194.76	-556.05	40°06'55.124"N	104°38'50.819"W	0.00	
7617.00†	89.967	179.314	7044.10	288.09	-294.75	-554.85	40°06'54.135"N	104°38'50.804"W	0.00	
7717.00†	89.967	179.314	7044.16	388.09	-394.74	-553.65	40°06'53.147"N	104°38'50.789"W	0.00	

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7817.00†	89.967	179.314	7044.21	488.09	-494.74	-552.46	40°06'52.158"N	104°38'50.773"W	0.00	
7917.00†	89.967	179.314	7044.27	588.09	-594.73	-551.26	40°06'51.170"N	104°38'50.758"W	0.00	
8017.00†	89.967	179.314	7044.33	688.09	-694.72	-550.06	40°06'50.181"N	104°38'50.742"W	0.00	
8117.00†	89.967	179.314	7044.39	788.09	-794.71	-548.86	40°06'49.193"N	104°38'50.727"W	0.00	
8217.00†	89.967	179.314	7044.44	888.09	-894.71	-547.67	40°06'48.204"N	104°38'50.711"W	0.00	
8317.00†	89.967	179.314	7044.50	988.09	-994.70	-546.47	40°06'47.216"N	104°38'50.696"W	0.00	
8417.00†	89.967	179.314	7044.56	1088.09	-1094.69	-545.27	40°06'46.227"N	104°38'50.680"W	0.00	
8517.00†	89.967	179.314	7044.62	1188.09	-1194.69	-544.07	40°06'45.239"N	104°38'50.665"W	0.00	
8617.00†	89.967	179.314	7044.67	1288.09	-1294.68	-542.88	40°06'44.250"N	104°38'50.650"W	0.00	
8717.00†	89.967	179.314	7044.73	1388.09	-1394.67	-541.68	40°06'43.261"N	104°38'50.634"W	0.00	
8817.00†	89.967	179.314	7044.79	1488.09	-1494.66	-540.48	40°06'42.273"N	104°38'50.619"W	0.00	
8917.00†	89.967	179.314	7044.85	1588.09	-1594.66	-539.28	40°06'41.284"N	104°38'50.603"W	0.00	
9017.00†	89.967	179.314	7044.90	1688.09	-1694.65	-538.09	40°06'40.296"N	104°38'50.588"W	0.00	
9117.00†	89.967	179.314	7044.96	1788.09	-1794.64	-536.89	40°06'39.307"N	104°38'50.572"W	0.00	
9217.00†	89.967	179.314	7045.02	1888.09	-1894.64	-535.69	40°06'38.319"N	104°38'50.557"W	0.00	
9317.00†	89.967	179.314	7045.08	1988.09	-1994.63	-534.49	40°06'37.330"N	104°38'50.541"W	0.00	
9417.00†	89.967	179.314	7045.13	2088.09	-2094.62	-533.30	40°06'36.342"N	104°38'50.526"W	0.00	
9517.00†	89.967	179.314	7045.19	2188.09	-2194.61	-532.10	40°06'35.353"N	104°38'50.511"W	0.00	
9617.00†	89.967	179.314	7045.25	2288.09	-2294.61	-530.90	40°06'34.365"N	104°38'50.495"W	0.00	
9717.00†	89.967	179.314	7045.31	2388.09	-2394.60	-529.71	40°06'33.376"N	104°38'50.480"W	0.00	
9817.00†	89.967	179.314	7045.36	2488.09	-2494.59	-528.51	40°06'32.388"N	104°38'50.464"W	0.00	
9917.00†	89.967	179.314	7045.42	2588.09	-2594.59	-527.31	40°06'31.399"N	104°38'50.449"W	0.00	
10017.00†	89.967	179.314	7045.48	2688.09	-2694.58	-526.11	40°06'30.411"N	104°38'50.433"W	0.00	
10117.00†	89.967	179.314	7045.54	2788.09	-2794.57	-524.92	40°06'29.422"N	104°38'50.418"W	0.00	
10217.00†	89.967	179.314	7045.59	2888.09	-2894.56	-523.72	40°06'28.434"N	104°38'50.402"W	0.00	
10317.00†	89.967	179.314	7045.65	2988.09	-2994.56	-522.52	40°06'27.445"N	104°38'50.387"W	0.00	
10417.00†	89.967	179.314	7045.71	3088.09	-3094.55	-521.32	40°06'26.457"N	104°38'50.372"W	0.00	
10517.00†	89.967	179.314	7045.77	3188.09	-3194.54	-520.13	40°06'25.468"N	104°38'50.356"W	0.00	
10617.00†	89.967	179.314	7045.82	3288.09	-3294.54	-518.93	40°06'24.479"N	104°38'50.341"W	0.00	
10717.00†	89.967	179.314	7045.88	3388.09	-3394.53	-517.73	40°06'23.491"N	104°38'50.325"W	0.00	
10817.00†	89.967	179.314	7045.94	3488.09	-3494.52	-516.53	40°06'22.502"N	104°38'50.310"W	0.00	
10917.00†	89.967	179.314	7046.00	3588.09	-3594.51	-515.34	40°06'21.514"N	104°38'50.294"W	0.00	
11017.00†	89.967	179.314	7046.05	3688.09	-3694.51	-514.14	40°06'20.525"N	104°38'50.279"W	0.00	
11117.00†	89.967	179.314	7046.11	3788.09	-3794.50	-512.94	40°06'19.537"N	104°38'50.263"W	0.00	
11217.00†	89.967	179.314	7046.17	3888.09	-3894.49	-511.74	40°06'18.548"N	104°38'50.248"W	0.00	
11317.00†	89.967	179.314	7046.23	3988.09	-3994.48	-510.55	40°06'17.560"N	104°38'50.233"W	0.00	
11417.00†	89.967	179.314	7046.28	4088.09	-4094.48	-509.35	40°06'16.571"N	104°38'50.217"W	0.00	
11517.00†	89.967	179.314	7046.34	4188.09	-4194.47	-508.15	40°06'15.583"N	104°38'50.202"W	0.00	
11617.00†	89.967	179.314	7046.40	4288.09	-4294.46	-506.95	40°06'14.594"N	104°38'50.186"W	0.00	
11717.00†	89.967	179.314	7046.46	4388.09	-4394.46	-505.76	40°06'13.606"N	104°38'50.171"W	0.00	
11817.00†	89.967	179.314	7046.51	4488.09	-4494.45	-504.56	40°06'12.617"N	104°38'50.155"W	0.00	
11917.00†	89.967	179.314	7046.57	4588.09	-4594.44	-503.36	40°06'11.629"N	104°38'50.140"W	0.00	
12017.00†	89.967	179.314	7046.63	4688.09	-4694.43	-502.16	40°06'10.640"N	104°38'50.124"W	0.00	
12117.00†	89.967	179.314	7046.69	4788.09	-4794.43	-500.97	40°06'09.652"N	104°38'50.109"W	0.00	
12217.00†	89.967	179.314	7046.74	4888.09	-4894.42	-499.77	40°06'08.663"N	104°38'50.094"W	0.00	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 POWERS 2N-34HZ
Area	Compass Import	Well	POWERS 2N-34HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	POWERS 2N-34HZ PWB
Facility	2N-65W-27 Powers 27-1 Pad		

WELLPATH DATA (140 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12317.00†	89.967	179.314	7046.80	4988.09	-4994.41	-498.57	40°06'07.674"N	104°38'50.078"W	0.00	
12417.00†	89.967	179.314	7046.86	5088.09	-5094.41	-497.37	40°06'06.686"N	104°38'50.063"W	0.00	
12517.00†	89.967	179.314	7046.92	5188.09	-5194.40	-496.18	40°06'05.697"N	104°38'50.047"W	0.00	
12617.00†	89.967	179.314	7046.97	5288.09	-5294.39	-494.98	40°06'04.709"N	104°38'50.032"W	0.00	
12664.72	89.967	179.314	7047.00 ¹	5335.80	-5342.11	-494.41	40°06'04.237"N	104°38'50.024"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS - Ref Wellbore: POWERS 2N-34HZ PWB Ref Wellpath: POWERS 2N-34HZ (PERMIT REV-3) 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	1410.00	1393.00	17.00	1410.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	1410.00	1393.00	17.00	1410.00	0.00	0.00	0.00	0.00
7.875in Open Hole	1410.00	12664.72	11254.72	1410.00	N/A	0.00	0.00	N/A	N/A
5.5in Casing Production	17.00	12664.72	12647.72	17.00	7047.00	0.00	0.00	-5342.10	-494.41

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
POWERS 2N-34HZ SHL		4942.00	0.00	0.00	1739537.77	14569116.07	40°06'57.049"N	104°38'43.660"W	point
1) POWERS 2N-34HZ BHL	12664.72	7047.00	-5342.11	-494.41	1739064.66	14563772.05	40°06'04.237"N	104°38'50.024"W	point
SEC.27-T2N-R65W SECTION LINES		7245.00	0.00	-29.92	1739507.85	14569115.95	40°06'57.049"N	104°38'44.045"W	polygon
SEC.34-T2N-R65W SECTION LINES		7245.00	0.00	-29.92	1739507.85	14569115.95	40°06'57.049"N	104°38'44.045"W	polygon

SURVEY PROGRAM - Ref Wellbore: POWERS 2N-34HZ PWB Ref Wellpath: POWERS 2N-34HZ (PERMIT REV-3) PWP									
Start MD [ft]	End MD [ft]	Positional Uncertainty Model						Log Name/Comment	Wellbore
17.00	12664.72	ISCWSA MWD, Rev. 2, axial magnetic correction (Standard) (MagVAR IFR Wattenberg)							POWERS 2N-34HZ PWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 POWERS 2N-34HZ
Area	Compass Import	Well	POWERS 2N-34HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	POWERS 2N-34HZ PWB
Facility	2N-65W-27 Powers 27-1 Pad		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
4588.17	11.000	309.060	4540.00	SUSSEX
6535.53	0.000	179.314	6469.00	SHARON SPRINGS
7078.30	54.073	179.314	6935.00	NIOBRARA TOP
7239.20	70.163	179.314	7010.00	NIOBRARA B BENCH
7437.24	89.967	179.314	7044.00	TOP OF PRODUCTION

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	309.060	17.00	TIE-ON
1600.00	0.000	309.060	1600.00	BEGIN NUDGE
2150.00	11.000	309.060	2146.63	END NUDGE
5404.04	11.000	309.060	5340.88	BEGIN DROP
5954.04	0.000	179.314	5887.51	END DROP
6537.57	0.000	179.314	6471.04	KOP, BUILD @ 10°/100'
7437.24	89.967	179.314	7044.00	LANDING POINT
12664.72	89.967	179.314	7047.00	TOTAL DEPTH