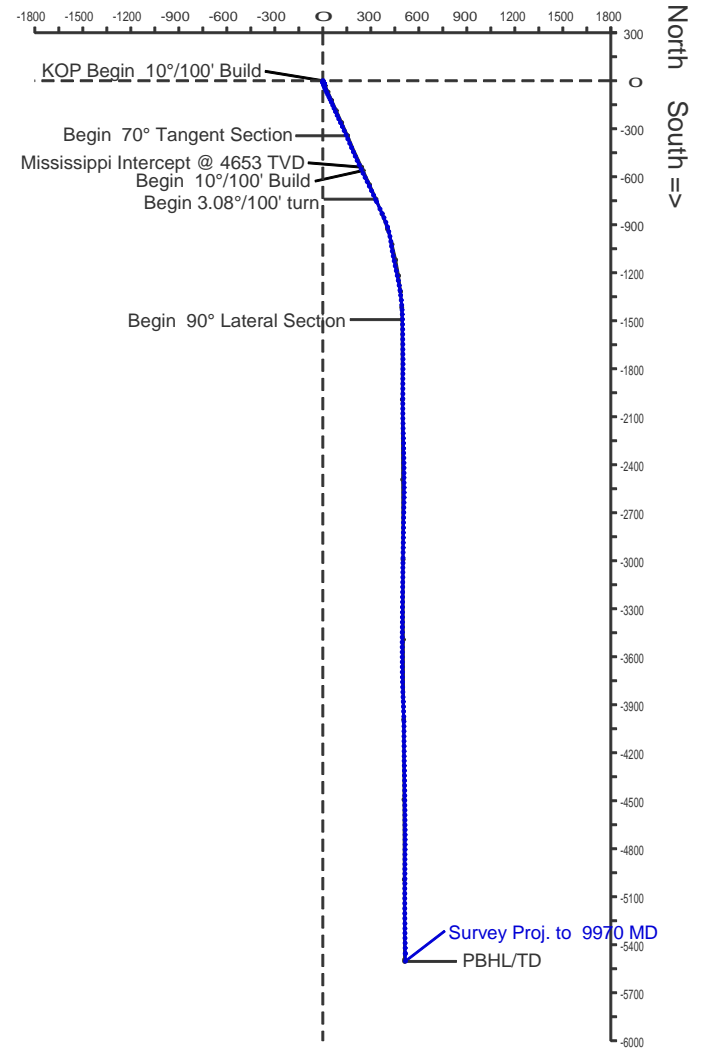


Woolsey Operating Company, LLC

Michel 2H

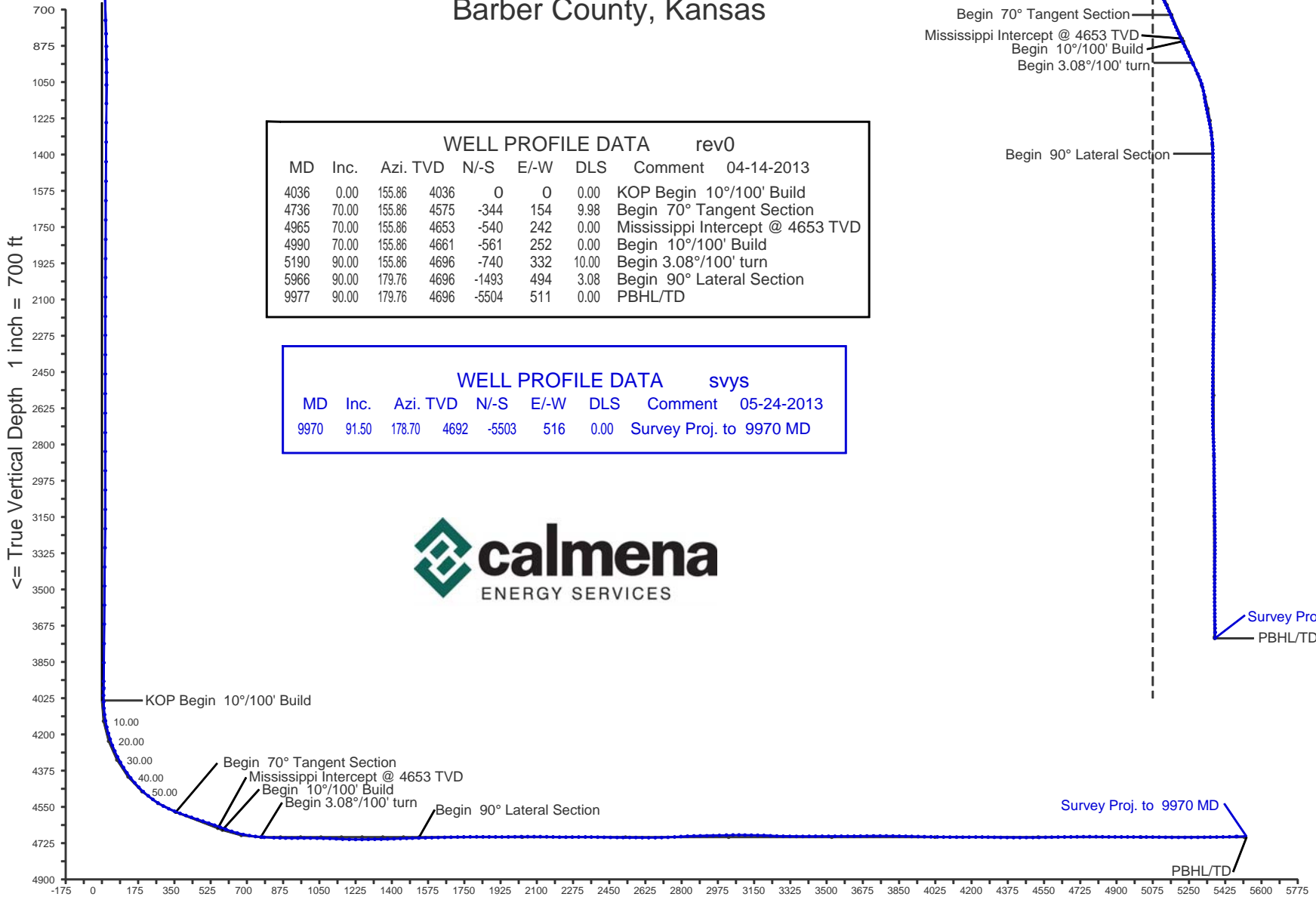
Barber County, Kansas

1 inch = 1200 ft <= West East =>



WELL PROFILE DATA rev0							
MD	Inc.	Azi.	TVD	N/S	E/W	DLS	Comment
4036	0.00	155.86	4036	0	0	0.00	KOP Begin 10°/100' Build
4736	70.00	155.86	4575	-344	154	9.98	Begin 70° Tangent Section
4965	70.00	155.86	4653	-540	242	0.00	Mississippi Intercept @ 4653 TVD
4990	70.00	155.86	4661	-561	252	0.00	Begin 10°/100' Build
5190	90.00	155.86	4696	-740	332	10.00	Begin 3.08°/100' turn
5966	90.00	179.76	4696	-1493	494	3.08	Begin 90° Lateral Section
9977	90.00	179.76	4696	-5504	511	0.00	PBHL/TD

WELL PROFILE DATA svys							
MD	Inc.	Azi.	TVD	N/S	E/W	DLS	Comment
9970	91.50	178.70	4692	-5503	516	0.00	Survey Proj. to 9970 MD



Vertical Section on 174.7 deg azimuth with reference 0.00 N, 0.00 E

Calmena Energy Services

Company: Woolsey Operating Company, LLC
 Well: Michel 2H
 Location: Barber County, Kansas

Date: 24-May-2013
 Surveys
 Page 1
 Job# : 7241

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N/-S (feet)	E/-W (feet)	DLS (deg/100')	VS @ 174.70° (feet)	Az Grid Y	NAD27 Ks South gr elev=1479 RKB=1496 Grid X	Comments
Surface Location								158960.00	1980829.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	158960.00	1980829.00	
752.00	2.80	157.10	751.70	-16.92	7.15	0.37	17.51	158943.08	1980836.15	
817.00	2.30	156.90	816.64	-19.59	8.28	0.77	20.27	158940.41	1980837.28	
878.00	1.00	149.90	877.61	-21.17	9.03	2.15	21.92	158938.83	1980838.03	
941.00	0.50	83.40	940.61	-21.62	9.57	1.46	22.41	158938.38	1980838.57	
1004.00	0.40	30.90	1003.60	-21.40	9.96	0.65	22.22	158938.60	1980838.96	
1064.00	0.20	338.20	1063.60	-21.12	10.03	0.54	21.95	158938.88	1980839.03	
1154.00	0.30	310.00	1153.60	-20.82	9.79	0.17	21.64	158939.18	1980838.79	
1246.00	0.30	320.90	1245.60	-20.48	9.45	0.06	21.27	158939.52	1980838.45	
1340.00	0.40	313.70	1339.60	-20.06	9.06	0.12	20.81	158939.94	1980838.06	
1435.00	0.30	329.00	1434.60	-19.62	8.69	0.14	20.34	158940.38	1980837.69	
1529.00	0.40	349.00	1528.60	-19.09	8.50	0.17	19.79	158940.91	1980837.50	
1623.00	0.40	8.70	1622.59	-18.44	8.49	0.15	19.15	158941.56	1980837.49	
1716.00	0.40	28.80	1715.59	-17.83	8.70	0.15	18.56	158942.17	1980837.70	
1810.00	0.20	298.40	1809.59	-17.47	8.71	0.48	18.20	158942.53	1980837.71	
1903.00	0.30	289.10	1902.59	-17.31	8.34	0.12	18.01	158942.69	1980837.34	
1994.00	0.30	298.20	1993.59	-17.12	7.90	0.05	17.78	158942.88	1980836.90	
2088.00	0.40	302.80	2087.59	-16.83	7.41	0.11	17.44	158943.17	1980836.41	
2182.00	0.50	281.70	2181.58	-16.57	6.73	0.20	17.12	158943.43	1980835.73	
2273.00	0.50	283.00	2272.58	-16.40	5.96	0.01	16.88	158943.60	1980834.96	
2367.00	0.60	280.10	2366.58	-16.22	5.07	0.11	16.62	158943.78	1980834.07	
2460.00	0.30	295.60	2459.57	-16.03	4.37	0.35	16.36	158943.97	1980833.37	
2555.00	0.40	265.90	2554.57	-15.94	3.82	0.21	16.23	158944.06	1980832.82	
2649.00	0.10	267.10	2648.57	-15.97	3.41	0.32	16.22	158944.03	1980832.41	
2743.00	0.10	128.10	2742.57	-16.03	3.39	0.20	16.27	158943.97	1980832.39	
2834.00	0.20	103.30	2833.57	-16.11	3.61	0.13	16.38	158943.89	1980832.61	
2927.00	0.30	145.50	2926.57	-16.35	3.90	0.22	16.64	158943.65	1980832.90	
3020.00	0.20	88.90	3019.57	-16.55	4.20	0.27	16.87	158943.45	1980833.20	
3114.00	0.30	65.90	3113.57	-16.44	4.59	0.15	16.80	158943.56	1980833.59	
3207.00	0.70	341.80	3206.56	-15.80	4.64	0.79	16.17	158944.20	1980833.64	

Calmena Energy Services

Company: Woolsey Operating Company, LLC
 Well: Michel 2H
 Location: Barber County, Kansas

Date: 24-May-2013
 Surveys
 Page 2
 Job# : 7241

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N/S (feet)	E/W (feet)	DLS (deg/100')	VS @ 174.70° (feet)	Az Grid Y	NAD27 Ks South gr elev=1479 RKB=1496 Grid X	Comments
3299.00	1.00	330.80	3298.55	-14.57	4.07	0.37	14.88	158945.43	1980833.07	
3392.00	0.50	327.40	3391.55	-13.52	3.46	0.54	13.78	158946.48	1980832.46	
3484.00	0.50	328.50	3483.54	-12.84	3.03	0.01	13.06	158947.16	1980832.03	
3576.00	0.60	324.10	3575.54	-12.11	2.54	0.12	12.29	158947.89	1980831.54	
3668.00	0.60	314.80	3667.53	-11.38	1.91	0.11	11.51	158948.62	1980830.91	
3762.00	0.70	327.30	3761.53	-10.55	1.25	0.18	10.62	158949.45	1980830.25	
3854.00	0.80	336.90	3853.52	-9.48	0.70	0.17	9.51	158950.52	1980829.70	
3944.00	0.70	323.70	3943.51	-8.46	0.13	0.22	8.44	158951.54	1980829.13	
3975.00	0.50	316.90	3974.51	-8.21	-0.08	0.68	8.17	158951.79	1980828.92	
3981.00	0.50	304.90	3980.51	-8.18	-0.12	1.74	8.13	158951.82	1980828.88	
4012.00	0.30	265.40	4011.51	-8.11	-0.31	1.06	8.04	158951.89	1980828.69	
4043.00	1.70	178.00	4042.50	-8.57	-0.37	5.53	8.50	158951.43	1980828.63	
4074.00	4.00	169.90	4073.46	-10.10	-0.17	7.51	10.04	158949.90	1980828.83	
4105.00	6.80	165.70	4104.32	-12.94	0.48	9.12	12.93	158947.06	1980829.48	
4135.00	9.90	164.70	4134.00	-17.15	1.59	10.34	17.22	158942.85	1980830.59	
4166.00	13.10	163.10	4164.38	-23.08	3.32	10.37	23.29	158936.92	1980832.32	
4197.00	16.20	161.50	4194.36	-30.55	5.71	10.08	30.94	158929.45	1980834.71	
4227.00	19.20	159.20	4222.94	-39.13	8.79	10.27	39.77	158920.87	1980837.79	
4259.00	22.40	157.30	4252.85	-49.68	13.02	10.22	50.67	158910.32	1980842.02	
4289.00	25.20	154.80	4280.30	-60.73	17.94	9.92	62.13	158899.27	1980846.94	
4320.00	28.10	153.80	4308.00	-73.26	23.98	9.47	75.16	158886.74	1980852.98	
4350.00	30.80	153.80	4334.12	-86.49	30.49	9.00	88.94	158873.51	1980859.49	
4380.00	33.40	154.60	4359.54	-100.84	37.42	8.78	103.87	158859.16	1980866.42	
4411.00	36.40	155.50	4384.96	-116.92	44.90	9.82	120.57	158843.08	1980873.90	
4442.00	39.50	156.00	4409.40	-134.30	52.73	10.05	138.60	158825.70	1980881.73	
4474.00	42.50	156.40	4433.55	-153.51	61.19	9.41	158.51	158806.49	1980890.19	
4504.00	45.70	156.40	4455.09	-172.64	69.55	10.67	178.33	158787.36	1980898.55	
4535.00	49.00	156.20	4476.09	-193.51	78.72	10.66	199.96	158766.49	1980907.72	
4567.00	52.50	155.70	4496.33	-216.14	88.82	11.00	223.42	158743.86	1980917.82	
4597.00	55.50	155.30	4513.96	-238.22	98.88	10.06	246.34	158721.78	1980927.88	

Calmena Energy Services

Company: Woolsey Operating Company, LLC
 Well: Michel 2H
 Location: Barber County, Kansas

Date: 24-May-2013
 Surveys
 Page 3
 Job# : 7241

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N/-S (feet)	E/-W (feet)	DLS (deg/100')	VS @ 174.70° (feet)	Az Grid Y	NAD27 Ks South gr elev=1479 RKB=1496 Grid X	Comments
4628.00	59.10	155.00	4530.71	-261.89	109.84	11.64	270.91	158698.11	1980938.84	
4659.00	63.00	155.00	4545.71	-286.47	121.31	12.58	296.45	158673.53	1980950.31	
4690.00	66.70	156.00	4558.88	-312.00	132.94	12.29	322.94	158648.00	1980961.94	
4721.00	69.20	156.40	4570.52	-338.29	144.53	8.15	350.19	158621.71	1980973.53	
4751.00	70.30	156.40	4580.90	-364.08	155.80	3.67	376.91	158595.92	1980984.80	
4783.00	71.60	156.90	4591.35	-391.85	167.78	4.32	405.67	158568.15	1980996.78	
4813.00	72.30	157.10	4600.64	-418.10	178.93	2.42	432.84	158541.90	1981007.93	
4844.00	72.60	156.70	4609.99	-445.29	190.53	1.57	460.99	158514.71	1981019.53	
4874.00	72.10	156.40	4619.09	-471.52	201.90	1.92	488.15	158488.48	1981030.90	
4905.00	72.10	155.70	4628.62	-498.48	213.88	2.15	516.10	158461.52	1981042.88	
4936.00	71.50	155.20	4638.30	-525.26	226.11	2.47	543.90	158434.74	1981055.11	
4967.00	71.10	155.30	4648.24	-551.93	238.41	1.33	571.59	158408.07	1981067.41	
4998.00	70.90	154.50	4658.33	-578.47	250.84	2.52	599.17	158381.53	1981079.84	
5029.00	72.90	153.90	4667.96	-605.00	263.66	6.71	626.77	158355.00	1981092.66	
5059.00	75.60	153.90	4676.10	-630.93	276.37	9.00	653.76	158329.07	1981105.37	
5091.00	78.80	154.30	4683.19	-658.99	289.99	10.07	682.96	158301.01	1981118.99	
5123.00	81.50	154.80	4688.67	-687.46	303.54	8.58	712.56	158272.54	1981132.54	
5154.00	83.40	155.30	4692.74	-715.32	316.50	6.33	741.50	158244.68	1981145.50	
5186.00	86.00	155.20	4695.69	-744.26	329.84	8.13	771.54	158215.74	1981158.84	
5199.00	87.10	155.00	4696.48	-756.03	335.30	8.60	783.77	158203.97	1981164.30	
5249.00	88.10	155.30	4698.57	-801.36	356.30	2.09	830.84	158158.64	1981185.30	
5280.00	87.70	154.60	4699.71	-829.42	369.42	2.60	860.00	158130.58	1981198.42	
5309.00	88.70	156.40	4700.62	-855.80	381.43	7.10	887.37	158104.20	1981210.43	
5340.00	90.40	159.20	4700.86	-884.49	393.15	10.57	917.03	158075.51	1981222.15	
5370.00	90.70	162.20	4700.57	-912.80	403.06	10.05	946.13	158047.20	1981232.06	
5401.00	89.90	165.20	4700.41	-942.55	411.76	10.02	976.56	158017.45	1981240.76	
5432.00	89.10	168.50	4700.68	-972.73	418.81	10.95	1007.26	157987.27	1981247.81	
5464.00	88.90	171.50	4701.24	-1004.24	424.37	9.39	1039.14	157955.76	1981253.37	
5495.00	89.00	171.90	4701.81	-1034.91	428.84	1.33	1070.10	157925.09	1981257.84	
5526.00	87.90	170.60	4702.65	-1065.54	433.55	5.49	1101.03	157894.46	1981262.55	

Calmena Energy Services

Company: Woolsey Operating Company, LLC
 Well: Michel 2H
 Location: Barber County, Kansas

Date: 24-May-2013
 Surveys
 Page 4
 Job# : 7241

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N/S (feet)	E/-W (feet)	DLS (deg/100')	VS @ 174.70° (feet)	Az Grid Y	NAD27 Ks South gr elev=1479 RKB=1496 Grid X	Comments
5557.00	87.00	168.50	4704.02	-1095.99	439.17	7.36	1131.87	157864.01	1981268.17	
5588.00	87.10	168.50	4705.62	-1126.33	445.34	0.32	1162.65	157833.67	1981274.34	
5620.00	88.70	168.00	4706.79	-1157.63	451.85	5.24	1194.42	157802.37	1981280.85	
5651.00	90.20	167.80	4707.09	-1187.94	458.35	4.88	1225.20	157772.06	1981287.35	
5682.00	90.50	168.20	4706.90	-1218.27	464.80	1.61	1255.99	157741.74	1981293.80	
5713.00	90.70	169.00	4706.58	-1248.65	470.92	2.66	1286.81	157711.35	1981299.92	
5744.00	90.90	170.10	4706.14	-1279.13	476.55	3.61	1317.68	157680.87	1981305.55	
5775.00	91.10	171.50	4705.60	-1309.73	481.50	4.56	1348.61	157650.27	1981310.50	
5806.00	91.70	172.90	4704.85	-1340.43	485.71	4.91	1379.57	157619.57	1981314.71	
5837.00	91.80	173.80	4703.90	-1371.21	489.30	2.92	1410.54	157588.79	1981318.30	
5868.00	92.20	174.70	4702.82	-1402.03	492.40	3.18	1441.52	157557.97	1981321.40	
5898.00	92.00	176.80	4701.72	-1431.93	494.62	7.03	1471.50	157528.07	1981323.62	
5926.00	91.40	178.00	4700.89	-1459.89	495.89	4.79	1499.45	157500.11	1981324.89	
5957.00	91.20	178.20	4700.18	-1490.86	496.92	0.91	1530.39	157469.14	1981325.92	
5989.00	91.50	178.70	4699.43	-1522.84	497.78	1.82	1562.31	157437.16	1981326.78	
6020.00	91.70	179.20	4698.56	-1553.83	498.35	1.74	1593.22	157406.18	1981327.35	
6051.00	91.70	179.60	4697.64	-1584.81	498.68	1.29	1624.10	157375.19	1981327.68	
6082.00	91.20	179.60	4696.86	-1615.80	498.89	1.61	1654.97	157344.20	1981327.89	
6113.00	91.20	179.40	4696.21	-1646.79	499.16	0.65	1685.86	157313.21	1981328.16	
6145.00	91.20	179.40	4695.54	-1678.78	499.50	0.00	1717.74	157281.22	1981328.50	
6175.00	91.40	179.60	4694.86	-1708.77	499.76	0.94	1747.63	157251.23	1981328.76	
6206.00	90.30	179.40	4694.40	-1739.77	500.03	3.61	1778.52	157220.23	1981329.03	
6237.00	89.80	180.10	4694.37	-1770.77	500.17	2.77	1809.40	157189.23	1981329.17	
6268.00	89.60	180.50	4694.54	-1801.77	500.00	1.44	1840.25	157158.23	1981329.00	
6298.00	89.50	180.10	4694.77	-1831.77	499.85	1.37	1870.11	157128.24	1981328.85	
6329.00	89.80	180.10	4694.96	-1862.77	499.79	0.97	1900.97	157097.24	1981328.79	
6360.00	90.00	180.30	4695.01	-1893.76	499.68	0.91	1931.82	157066.24	1981328.68	
6391.00	90.70	180.10	4694.82	-1924.76	499.58	2.35	1962.68	157035.24	1981328.58	
6423.00	91.10	180.10	4694.32	-1956.76	499.52	1.25	1994.54	157003.24	1981328.52	
6454.00	90.90	180.70	4693.78	-1987.75	499.30	2.04	2025.38	156972.25	1981328.30	

Calmena Energy Services

Company: Woolsey Operating Company, LLC
 Well: Michel 2H
 Location: Barber County, Kansas

Date: 24-May-2013
 Surveys
 Page 5
 Job# : 7241

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N/S (feet)	E/-W (feet)	DLS (deg/100')	VS @ 174.70° (feet)	Az Grid Y	NAD27 Ks South gr elev=1479 RKB=1496 Grid X	Comments
6485.00	90.10	180.10	4693.51	-2018.75	499.09	3.23	2056.22	156941.25	1981328.09	
6516.00	90.10	179.80	4693.46	-2049.75	499.11	0.97	2087.09	156910.25	1981328.11	
6546.00	89.60	179.60	4693.54	-2079.75	499.27	1.80	2116.98	156880.25	1981328.27	
6577.00	88.40	179.20	4694.08	-2110.74	499.60	4.08	2147.87	156849.26	1981328.60	
6608.00	88.20	178.70	4695.00	-2141.73	500.16	1.74	2178.77	156818.28	1981329.16	
6639.00	88.60	178.40	4695.86	-2172.70	500.95	1.61	2209.69	156787.30	1981329.95	
6670.00	90.70	178.50	4696.05	-2203.69	501.79	6.78	2240.62	156756.31	1981330.79	
6701.00	90.80	178.20	4695.64	-2234.67	502.68	1.02	2271.55	156725.33	1981331.68	
6732.00	90.60	178.70	4695.27	-2265.66	503.52	1.74	2302.48	156694.34	1981332.52	
6764.00	90.00	178.50	4695.10	-2297.65	504.30	1.98	2334.41	156662.35	1981333.30	
6793.00	89.10	179.20	4695.33	-2326.64	504.88	3.93	2363.33	156633.36	1981333.88	
6824.00	88.60	178.90	4695.95	-2357.63	505.39	1.88	2394.24	156602.37	1981334.39	
6855.00	88.80	178.90	4696.65	-2388.62	505.99	0.65	2425.14	156571.38	1981334.99	
6886.00	89.10	179.20	4697.22	-2419.61	506.50	1.37	2456.05	156540.39	1981335.50	
6918.00	89.80	179.90	4697.53	-2451.61	506.75	3.09	2487.93	156508.40	1981335.75	
6947.00	90.30	179.90	4697.50	-2480.61	506.81	1.72	2516.81	156479.40	1981335.81	
6979.00	89.70	179.60	4697.50	-2512.61	506.94	2.10	2548.69	156447.40	1981335.94	
7009.00	89.10	179.60	4697.82	-2542.60	507.15	2.00	2578.58	156417.40	1981336.15	
7040.00	88.80	180.10	4698.38	-2573.60	507.24	1.88	2609.45	156386.40	1981336.24	
7071.00	89.60	180.80	4698.82	-2604.59	506.99	3.43	2640.29	156355.41	1981335.99	
7103.00	91.00	181.50	4698.65	-2636.59	506.35	4.89	2672.08	156323.42	1981335.35	
7134.00	91.60	181.00	4697.95	-2667.57	505.67	2.52	2702.87	156292.43	1981334.67	
7165.00	92.50	181.20	4696.84	-2698.54	505.08	2.97	2733.66	156261.46	1981334.08	
7197.00	93.80	181.40	4695.08	-2730.49	504.35	4.11	2765.40	156229.51	1981333.35	
7228.00	93.20	180.80	4693.19	-2761.42	503.76	2.73	2796.15	156198.58	1981332.76	
7260.00	92.70	180.80	4691.54	-2793.38	503.31	1.56	2827.93	156166.62	1981332.31	
7291.00	91.90	180.80	4690.29	-2824.35	502.88	2.58	2858.73	156135.65	1981331.88	
7322.00	90.80	180.80	4689.56	-2855.34	502.45	3.55	2889.54	156104.66	1981331.45	
7354.00	90.00	181.00	4689.34	-2887.33	501.95	2.58	2921.35	156072.67	1981330.95	
7385.00	92.00	181.00	4688.80	-2918.32	501.41	6.45	2952.16	156041.68	1981330.41	

Calmena Energy Services

Company: Woolsey Operating Company, LLC
 Well: Michel 2H
 Location: Barber County, Kansas

Date: 24-May-2013
 Surveys
 Page 6
 Job# : 7241

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N/S (feet)	E/-W (feet)	DLS (deg/100')	VS @ 174.70° (feet)	Az Grid Y	NAD27 Ks South gr elev=1479 RKB=1496 Grid X	Comments
7415.00	92.70	180.80	4687.57	-2948.29	500.93	2.43	2981.96	156011.71	1981329.93	
7449.00	92.20	180.80	4686.12	-2982.26	500.46	1.47	3015.73	155977.74	1981329.46	
7481.00	90.60	180.80	4685.33	-3014.24	500.01	5.00	3047.54	155945.76	1981329.01	
7510.00	88.80	180.30	4685.49	-3043.24	499.74	6.44	3076.39	155916.76	1981328.74	
7539.00	88.60	180.30	4686.15	-3072.23	499.58	0.69	3105.24	155887.77	1981328.58	
7570.00	89.40	180.70	4686.69	-3103.23	499.31	2.89	3136.08	155856.77	1981328.31	
7601.00	89.60	180.70	4686.96	-3134.22	498.93	0.65	3166.91	155825.78	1981327.93	
7631.00	87.40	180.80	4687.74	-3164.21	498.54	7.34	3196.73	155795.79	1981327.54	
7663.00	87.10	181.00	4689.28	-3196.17	498.04	1.13	3228.51	155763.83	1981327.04	
7694.00	87.50	180.80	4690.74	-3227.13	497.55	1.44	3259.29	155732.87	1981326.55	
7725.00	88.80	180.70	4691.74	-3258.11	497.15	4.21	3290.10	155701.89	1981326.15	
7757.00	89.70	180.10	4692.16	-3290.11	496.92	3.38	3321.94	155669.90	1981325.92	
7789.00	89.80	180.70	4692.30	-3322.10	496.70	1.90	3353.78	155637.90	1981325.70	
7820.00	90.20	180.30	4692.30	-3353.10	496.43	1.82	3384.62	155606.90	1981325.43	
7851.00	90.60	180.30	4692.08	-3384.10	496.27	1.29	3415.47	155575.90	1981325.27	
7882.00	90.50	180.30	4691.78	-3415.10	496.11	0.32	3446.32	155544.90	1981325.11	
7914.00	89.80	180.10	4691.70	-3447.10	495.99	2.28	3478.18	155512.90	1981324.99	
7945.00	90.00	180.70	4691.75	-3478.10	495.78	2.04	3509.02	155481.90	1981324.78	
7976.00	90.20	180.50	4691.70	-3509.10	495.45	0.91	3539.86	155450.90	1981324.45	
8007.00	90.00	179.60	4691.64	-3540.10	495.43	2.97	3570.72	155419.91	1981324.43	
8038.00	89.90	179.60	4691.67	-3571.10	495.64	0.32	3601.61	155388.91	1981324.64	
8069.00	90.40	179.90	4691.59	-3602.09	495.78	1.88	3632.49	155357.91	1981324.78	
8100.00	90.70	179.80	4691.29	-3633.09	495.86	1.02	3663.36	155326.91	1981324.86	
8131.00	91.20	180.10	4690.78	-3664.09	495.89	1.88	3694.23	155295.91	1981324.89	
8163.00	90.50	179.40	4690.30	-3696.08	496.03	3.09	3726.10	155263.92	1981325.03	
8195.00	89.90	178.40	4690.19	-3728.08	496.64	3.64	3758.01	155231.92	1981325.64	
8225.00	89.90	178.50	4690.25	-3758.07	497.45	0.33	3787.95	155201.93	1981326.45	
8257.00	88.80	178.00	4690.61	-3790.05	498.43	3.78	3819.89	155169.95	1981327.43	
8288.00	88.80	177.70	4691.26	-3821.02	499.59	0.97	3850.83	155138.98	1981328.59	
8319.00	88.90	177.70	4691.88	-3851.99	500.83	0.32	3881.78	155108.01	1981329.83	

Calmena Energy Services

Company: Woolsey Operating Company, LLC
 Well: Michel 2H
 Location: Barber County, Kansas

Date: 24-May-2013
 Surveys
 Page 7
 Job# : 7241

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N/S (feet)	E/-W (feet)	DLS (deg/100')	VS @ 174.70° (feet)	Az Grid Y	NAD27 Ks South gr elev=1479 RKB=1496 Grid X	Comments
8348.00	88.70	177.50	4692.49	-3880.96	502.05	0.98	3910.74	155079.04	1981331.05	
8379.00	88.60	178.20	4693.22	-3911.93	503.21	2.28	3941.68	155048.07	1981332.21	
8409.00	88.90	177.80	4693.87	-3941.90	504.26	1.67	3971.63	155018.10	1981333.26	
8441.00	89.50	178.00	4694.32	-3973.88	505.43	1.98	4003.57	154986.12	1981334.43	
8472.00	89.10	179.20	4694.70	-4004.86	506.19	4.08	4034.50	154955.14	1981335.19	
8502.00	88.90	179.60	4695.22	-4034.86	506.50	1.49	4064.39	154925.14	1981335.50	
8533.00	89.20	180.10	4695.73	-4065.85	506.58	1.88	4095.26	154894.15	1981335.58	
8565.00	89.50	179.60	4696.10	-4097.85	506.67	1.82	4127.13	154862.15	1981335.67	
8595.00	90.20	179.60	4696.18	-4127.85	506.88	2.33	4157.02	154832.15	1981335.88	
8626.00	90.70	179.90	4695.93	-4158.85	507.01	1.88	4187.90	154801.15	1981336.01	
8658.00	90.50	179.60	4695.60	-4190.85	507.15	1.13	4219.78	154769.15	1981336.15	
8689.00	89.90	179.40	4695.49	-4221.85	507.42	2.04	4250.67	154738.16	1981336.42	
8718.00	88.50	179.10	4695.89	-4250.84	507.80	4.94	4279.57	154709.16	1981336.80	
8748.00	88.40	178.70	4696.71	-4280.82	508.38	1.37	4309.48	154679.18	1981337.38	
8779.00	89.10	178.70	4697.38	-4311.81	509.08	2.26	4340.40	154648.19	1981338.08	
8810.00	89.40	178.90	4697.79	-4342.80	509.73	1.16	4371.31	154617.20	1981338.73	
8841.00	89.90	178.70	4697.98	-4373.79	510.38	1.74	4402.23	154586.21	1981339.38	
8872.00	90.10	179.60	4697.98	-4404.79	510.84	2.97	4433.14	154555.21	1981339.84	
8903.00	90.30	179.60	4697.87	-4435.79	511.06	0.65	4464.03	154524.22	1981340.06	
8935.00	90.80	179.40	4697.56	-4467.78	511.33	1.68	4495.91	154492.22	1981340.33	
8965.00	91.20	179.40	4697.04	-4497.78	511.65	1.33	4525.81	154462.22	1981340.65	
8996.00	91.00	179.40	4696.44	-4528.77	511.97	0.65	4556.70	154431.23	1981340.97	
9026.00	90.90	179.90	4695.95	-4558.76	512.16	1.70	4586.58	154401.24	1981341.16	
9057.00	90.70	179.40	4695.51	-4589.76	512.35	1.74	4617.46	154370.24	1981341.35	
9088.00	90.90	179.20	4695.08	-4620.75	512.72	0.91	4648.36	154339.25	1981341.72	
9119.00	90.80	179.90	4694.62	-4651.75	512.97	2.28	4679.25	154308.25	1981341.97	
9149.00	90.60	179.20	4694.25	-4681.75	513.20	2.43	4709.14	154278.25	1981342.20	
9180.00	90.90	179.80	4693.85	-4712.74	513.47	2.16	4740.02	154247.26	1981342.47	
9210.00	90.10	179.90	4693.59	-4742.74	513.55	2.69	4769.90	154217.26	1981342.55	
9241.00	89.20	180.70	4693.78	-4773.74	513.39	3.88	4800.75	154186.26	1981342.39	

Calmena Energy Services

Company: Woolsey Operating Company, LLC
 Well: Michel 2H
 Location: Barber County, Kansas

Date: 24-May-2013
 Surveys
 Page 8
 Job# : 7241

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N/S (feet)	E/-W (feet)	DLS (deg/100')	VS @ 174.70° (feet)	Az Grid Y	NAD27 Ks South gr elev=1479 RKB=1496 Grid X	Comments
9272.00	89.20	180.70	4694.21	-4804.73	513.01	0.00	4831.58	154155.27	1981342.01	
9303.00	89.40	180.70	4694.59	-4835.73	512.63	0.65	4862.41	154124.27	1981341.63	
9333.00	90.10	180.50	4694.72	-4865.73	512.32	2.43	4892.25	154094.27	1981341.32	
9364.00	89.70	180.30	4694.77	-4896.73	512.10	1.44	4923.10	154063.27	1981341.10	
9394.00	89.60	180.10	4694.96	-4926.73	512.00	0.75	4952.96	154033.27	1981341.00	
9423.00	89.70	179.80	4695.13	-4955.73	512.02	1.09	4981.83	154004.28	1981341.02	
9455.00	89.90	180.10	4695.24	-4987.73	512.05	1.13	5013.70	153972.28	1981341.05	
9485.00	89.60	180.10	4695.38	-5017.73	512.00	1.00	5043.57	153942.28	1981341.00	
9516.00	89.60	180.70	4695.59	-5048.72	511.78	1.94	5074.41	153911.28	1981340.78	
9547.00	88.90	180.50	4696.00	-5079.72	511.46	2.35	5105.25	153880.28	1981340.46	
9578.00	89.10	180.10	4696.54	-5110.71	511.30	1.44	5136.09	153849.29	1981340.30	
9609.00	89.80	180.10	4696.84	-5141.71	511.24	2.26	5166.95	153818.29	1981340.24	
9641.00	89.80	179.60	4696.95	-5173.71	511.32	1.56	5198.82	153786.29	1981340.32	
9672.00	89.80	179.20	4697.06	-5204.71	511.65	1.29	5229.72	153755.29	1981340.65	
9703.00	90.30	179.60	4697.03	-5235.71	511.97	2.07	5260.61	153724.29	1981340.97	
9735.00	90.70	179.60	4696.75	-5267.71	512.20	1.25	5292.50	153692.30	1981341.20	
9766.00	91.20	179.90	4696.24	-5298.70	512.33	1.88	5323.37	153661.30	1981341.33	
9795.00	90.80	179.20	4695.73	-5327.70	512.56	2.78	5352.26	153632.31	1981341.56	
9826.00	91.10	179.40	4695.22	-5358.69	512.94	1.16	5383.16	153601.31	1981341.94	
9857.00	91.10	178.90	4694.62	-5389.68	513.40	1.61	5414.06	153570.32	1981342.40	
9888.00	91.10	178.90	4694.02	-5420.67	513.99	0.00	5444.97	153539.33	1981342.99	
9920.00	91.50	179.10	4693.30	-5452.65	514.55	1.40	5476.87	153507.35	1981343.55	
9925.00	91.50	178.70	4693.17	-5457.65	514.65	8.00	5481.86	153502.35	1981343.65	
9970.00	91.50	178.70	4691.99	-5502.63	515.67	0.00	5526.73	153457.38	1981344.67	Survey projected