



KANSAS CORPORATION COMMISSION 1090957
OIL & GAS CONSERVATION DIVISION

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

CONFIDENTIAL
WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 33168
Name: Woolsey Operating Company, LLC
Address 1: 125 N MARKET STE 1000
Address 2: _____
City: WICHITA State: KS Zip: 67202 + 1729
Contact Person: DEAN PATTISSON
Phone: (316) 267-4379
CONTRACTOR: License # 33132
Name: Dan D Drilling
Wellsite Geologist: BILLY KLAVER
Purchaser: PLAINS MARKETING / ATLAS PIPELINE

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SLOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____
Well Name: _____
Original Comp. Date: _____ Original Total Depth: _____
 Deepening Re-perf. Conv. to ENHR Conv. to SWD
 Conv. to GSW

Plug Back: _____ Plug Back Total Depth _____
 Commingled Permit #: _____
 Dual Completion Permit #: _____
 SWD Permit #: _____
 ENHR Permit #: _____
 GSW Permit #: _____

<u>04/18/2012</u>	<u>06/14/2012</u>	<u>07/30/2012</u>
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-007-23861-01-00
Spot Description: SESWNWNW
SE SW NW NW Sec. 5 Twp. 35 S. R. 11 East West
1055 Feet from North / South Line of Section
360 Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

County: Barber
Lease Name: RICKE Well #: 4 H
Field Name: STRANATHAN
Producing Formation: MISSISSIPPIAN
Elevation: Ground: 1375 Kelly Bushing: 1392
Total Depth: 8380 Plug Back Total Depth: _____
Amount of Surface Pipe Set and Cemented at: 270 Feet
Multiple Stage Cementing Collar Used? Yes No
If yes, show depth set: _____ Feet
If Alternate II completion, cement circulated from:
feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: 2500 ppm Fluid volume: 2500 bbls
Dewatering method used: Evaporated
Location of fluid disposal if hauled offsite: _____
Operator Name: _____
Lease Name: _____ License #: _____
Quarter: _____ Sec. _____ Twp. _____ S. R. _____ East West
County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Letter of Confidentiality Received
Date: 08/16/2012
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: 08/22/2012

Calmena Energy Services

Company: Woolsey Operating Company, LLC
 Well: Ricke #4-H
 Location: Barber County, Kansas

Date: 14-Jun-2012
 Surveys
 Page 1
 Job# : 6425

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N-S (feet)	E-W (feet)	DLS (deg/100')	VS @ 176.30° Az (feet)	Grid Y	Grid X	Comments
Surface Location								1445743.09	1298492.65	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1445743.09	1298492.65	
847.00	2.30	33.30	846.77	14.21	9.33	0.27	-13.58	1445757.29	1298501.98	
876.00	2.30	27.90	875.75	15.21	9.92	0.75	-14.54	1445758.29	1298502.57	
907.00	2.10	23.30	906.73	16.28	10.44	0.86	-15.57	1445759.37	1298503.09	
966.00	1.50	343.70	965.70	18.01	10.65	2.28	-17.29	1445761.10	1298503.30	
998.00	1.60	323.30	997.69	18.77	10.27	1.74	-18.07	1445761.86	1298502.91	
1029.00	1.70	322.30	1028.68	19.48	9.73	0.34	-18.82	1445762.57	1298502.37	
1092.00	2.00	292.80	1091.64	20.65	8.14	1.56	-20.08	1445763.74	1298500.79	
1122.00	2.20	293.10	1121.62	21.08	7.13	0.67	-20.57	1445764.17	1298499.78	
1184.00	3.30	285.60	1183.55	22.03	4.32	1.86	-21.70	1445765.11	1298496.96	
1213.00	3.60	281.80	1212.50	22.44	2.62	1.30	-22.22	1445765.52	1298495.27	
1245.00	3.70	283.40	1244.43	22.88	0.63	0.45	-22.79	1445765.97	1298493.28	
1276.00	3.70	280.30	1275.37	23.29	-1.32	0.65	-23.33	1445766.38	1298491.32	
1307.00	3.30	271.10	1306.31	23.49	-3.20	2.22	-23.64	1445766.57	1298489.45	
1337.00	3.00	254.60	1336.27	23.30	-4.82	3.17	-23.56	1445766.38	1298487.83	
1367.00	3.00	236.40	1366.23	22.65	-6.23	3.16	-23.01	1445765.74	1298486.42	
1397.00	3.50	215.50	1396.18	21.47	-7.42	4.26	-21.91	1445764.56	1298485.23	
1426.00	4.10	206.70	1425.12	19.83	-8.40	2.88	-20.33	1445762.91	1298484.25	
1458.00	4.40	204.10	1457.03	17.68	-9.41	1.11	-18.25	1445760.77	1298483.23	
1487.00	4.30	203.00	1485.94	15.67	-10.29	0.45	-16.30	1445758.75	1298482.36	
1516.00	4.30	201.80	1514.86	13.66	-11.12	0.31	-14.35	1445756.74	1298481.53	
1547.00	4.00	198.50	1545.78	11.55	-11.89	1.24	-12.30	1445754.64	1298480.75	
1578.00	4.20	195.10	1576.70	9.43	-12.53	1.02	-10.22	1445752.52	1298480.11	
1608.00	4.30	188.70	1606.62	7.26	-12.99	1.61	-8.08	1445750.35	1298479.66	
1637.00	4.20	184.90	1635.54	5.13	-13.24	1.03	-5.97	1445748.21	1298479.40	
1668.00	3.30	178.30	1666.47	3.10	-13.32	3.22	-3.96	1445746.19	1298479.33	
1700.00	2.30	174.60	1698.43	1.54	-13.23	3.17	-2.39	1445744.63	1298479.42	
1729.00	1.00	173.20	1727.42	0.71	-13.14	4.48	-1.56	1445743.80	1298479.50	
1760.00	0.40	325.40	1758.42	0.53	-13.17	4.41	-1.38	1445743.62	1298479.47	
1790.00	0.70	340.60	1788.42	0.79	-13.29	1.10	-1.65	1445743.88	1298479.35	

Calmena Energy Services

Company: Woolsey Operating Company, LLC
 Well: Ricke #4-H
 Location: Barber County, Kansas

Date: 14-Jun-2012
 Surveys
 Page 2

Job#: 6425

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N-S (feet)	E-W (feet)	DLS (deg/100')	VS @ 176.30° Az (feet)	Grid Y	Grid X	Comments
1819.00	0.80	353.00	1817.42	1.16	-13.38	0.66	-2.02	1445744.25	1298479.27	
1848.00	0.70	22.40	1846.41	1.52	-13.33	1.35	-2.38	1445744.61	1298479.31	
1879.00	0.80	53.70	1877.41	1.83	-13.09	1.34	-2.67	1445744.91	1298479.56	
1911.00	1.00	73.90	1909.41	2.04	-12.64	1.16	-2.85	1445745.12	1298480.01	
1942.00	1.10	80.50	1940.40	2.16	-12.09	0.51	-2.94	1445745.25	1298480.56	
1973.00	1.20	85.30	1971.40	2.24	-11.47	0.45	-2.97	1445745.32	1298481.18	
2003.00	1.10	84.40	2001.39	2.29	-10.87	0.34	-2.99	1445745.38	1298481.78	
2034.00	1.10	82.70	2032.39	2.36	-10.28	0.11	-3.02	1445745.44	1298482.37	
2065.00	1.00	80.60	2063.38	2.44	-9.72	0.35	-3.06	1445745.53	1298482.93	
2094.00	1.00	84.40	2092.38	2.51	-9.21	0.23	-3.10	1445745.59	1298483.43	
2125.00	1.00	83.40	2123.37	2.56	-8.68	0.06	-3.12	1445745.65	1298483.97	
2154.00	1.00	89.30	2152.37	2.60	-8.17	0.35	-3.12	1445745.68	1298484.48	
2183.00	1.10	91.60	2181.36	2.59	-7.64	0.37	-3.08	1445745.68	1298485.01	
2215.00	1.10	88.40	2213.36	2.59	-7.03	0.19	-3.04	1445745.68	1298485.62	
2278.00	1.00	87.00	2276.34	2.64	-5.87	0.16	-3.01	1445745.72	1298486.77	
2340.00	0.90	90.80	2338.34	2.66	-4.85	0.19	-2.97	1445745.75	1298487.80	
2403.00	1.00	94.80	2401.33	2.61	-3.80	0.19	-2.85	1445745.69	1298488.84	
2464.00	0.90	90.80	2462.32	2.55	-2.79	0.20	-2.73	1445745.64	1298489.85	
2558.00	1.00	89.90	2556.31	2.55	-1.23	0.11	-2.62	1445745.63	1298491.41	
2652.00	0.90	87.30	2650.29	2.58	0.32	0.12	-2.56	1445745.67	1298492.97	
2746.00	0.90	82.00	2744.28	2.72	1.79	0.09	-2.60	1445745.81	1298494.44	
2839.00	1.00	88.60	2837.27	2.84	3.33	0.16	-2.62	1445745.93	1298495.97	
2933.00	1.00	100.70	2931.25	2.71	4.95	0.22	-2.38	1445745.80	1298497.60	
3024.00	1.10	110.70	3022.24	2.25	6.55	0.23	-1.82	1445745.34	1298499.20	
3115.00	0.90	125.40	3113.23	1.53	7.95	0.36	-1.01	1445744.62	1298500.60	
3206.00	1.00	118.70	3204.21	0.73	9.23	0.16	-0.14	1445743.82	1298501.88	
3299.00	1.00	110.70	3297.20	0.06	10.70	0.15	0.63	1445743.14	1298503.35	
3390.00	1.00	97.70	3388.19	-0.33	12.23	0.25	1.12	1445742.76	1298504.88	
3482.00	0.80	105.00	3480.17	-0.60	13.64	0.25	1.48	1445742.48	1298506.29	
3513.00	0.80	118.50	3511.17	-0.76	14.04	0.61	1.67	1445742.32	1298506.69	

Calmena Energy Services

Company: Woolsey Operating Company, LLC
 Well: Ricke #4-H
 Location: Barber County, Kansas

Date: 14-Jun-2012
 Surveys
 Page 3
 Job# : 6425

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N/-S (feet)	E/-W (feet)	DLS (deg/100')	VS @ 176.30° Az (feet)	Grid Y	Grid X	Comments
3542.00	0.90	98.30	3540.17	-0.89	14.45	1.08	1.82	1445742.19	1298507.09	
3573.00	0.80	98.90	3571.16	-0.96	14.90	0.32	1.92	1445742.13	1298507.55	
3635.00	0.90	110.10	3633.16	-1.20	15.79	0.31	2.21	1445741.89	1298508.43	
3697.00	0.70	105.30	3695.15	-1.46	16.61	0.34	2.53	1445741.62	1298509.26	
3758.00	1.00	98.50	3756.15	-1.64	17.50	0.52	2.77	1445741.45	1298510.14	
3821.00	1.00	94.60	3819.14	-1.77	18.59	0.11	2.96	1445741.32	1298511.23	
3884.00	0.60	100.20	3882.13	-1.87	19.46	0.65	3.12	1445741.22	1298512.11	
3946.00	0.60	98.40	3944.13	-1.97	20.10	0.03	3.27	1445741.11	1298512.75	
4008.00	0.60	99.20	4006.12	-2.07	20.74	0.01	3.41	1445741.02	1298513.39	
4069.00	0.80	116.30	4067.12	-2.31	21.44	0.47	3.69	1445740.78	1298514.09	
4102.00	0.50	118.60	4100.12	-2.48	21.77	0.91	3.88	1445740.60	1298514.42	
4137.00	1.00	132.00	4135.11	-2.76	22.13	1.50	4.18	1445740.33	1298514.78	
4168.00	2.00	153.30	4166.10	-3.42	22.58	3.64	4.87	1445739.66	1298515.22	
4199.00	3.70	162.20	4197.06	-4.86	23.13	5.65	6.34	1445738.23	1298515.77	
4230.00	5.80	166.00	4227.95	-7.33	23.81	6.85	8.85	1445735.75	1298516.46	
4261.00	7.90	168.70	4258.73	-10.94	24.61	6.85	12.51	1445732.15	1298517.25	
4292.00	10.40	170.60	4289.33	-15.79	25.48	8.12	17.40	1445727.29	1298518.13	
4323.00	13.10	172.80	4319.68	-22.04	26.38	8.83	23.70	1445721.05	1298519.03	
4352.00	16.50	173.90	4347.72	-29.40	27.23	11.76	31.09	1445713.69	1298519.88	
4384.00	20.60	172.10	4378.05	-39.50	28.49	12.94	41.25	1445703.59	1298521.13	
4413.00	24.20	172.40	4404.85	-50.44	29.97	12.42	52.27	1445692.64	1298522.62	
4444.00	28.20	175.10	4432.67	-64.05	31.44	13.46	65.94	1445679.04	1298524.09	
4474.00	31.60	178.90	4458.67	-78.97	32.20	12.97	80.89	1445664.11	1298524.84	
4505.00	35.40	181.30	4484.52	-96.08	32.15	12.98	97.95	1445647.01	1298524.80	
4534.00	39.20	180.60	4507.58	-113.64	31.86	13.18	115.46	1445629.44	1298524.51	
4565.00	43.30	179.50	4530.88	-134.08	31.85	13.43	135.86	1445609.01	1298524.50	
4596.00	47.60	179.00	4552.63	-156.16	32.15	13.92	157.91	1445586.92	1298524.79	
4626.00	51.30	178.30	4572.13	-178.95	32.69	12.46	180.68	1445564.14	1298525.33	
4655.00	54.60	179.10	4589.60	-202.08	33.21	11.59	203.81	1445541.00	1298525.85	
4684.00	57.50	180.20	4605.79	-226.14	33.35	10.48	227.82	1445516.95	1298526.00	

Calmena Energy Services

Company: Woolsey Operating Company, LLC
 Well: Ricke #4-H
 Location: Barber County, Kansas

Date: 14-Jun-2012

Surveys

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Job# : 6425

NAD83 Ks South gr elev=1370 RKB=1392

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N-S (feet)	E-W (feet)	DLS (deg/100')	VS @ 176.30° Az (feet)	Grid Y	Grid X	Comments
4716.00	59.30	180.90	4622.56	-253.39	33.09	5.93	255.00	1445489.70	1298525.73	
4747.00	60.40	181.30	4638.13	-280.19	32.57	3.72	281.71	1445462.90	1298525.22	
4778.00	61.30	181.60	4653.23	-307.25	31.89	3.02	308.67	1445435.83	1298524.53	
4809.00	62.60	181.60	4667.81	-334.60	31.12	4.19	335.91	1445408.49	1298523.77	
4840.00	64.90	181.40	4681.52	-362.39	30.40	7.44	363.60	1445380.69	1298523.04	
4872.00	67.30	181.60	4694.48	-391.64	29.63	7.52	392.73	1445351.45	1298522.28	
4901.00	68.00	182.10	4705.51	-418.44	28.76	2.89	419.43	1445324.64	1298521.41	
4930.00	68.40	182.10	4716.28	-445.35	27.78	1.38	446.22	1445297.73	1298520.42	
4959.00	68.20	183.10	4727.00	-472.27	26.55	3.28	473.00	1445270.82	1298519.20	
4989.00	68.40	184.20	4738.09	-500.09	24.78	3.47	500.64	1445243.00	1298517.43	
5020.00	68.70	184.70	4749.43	-528.85	22.54	1.79	529.20	1445214.24	1298515.19	
5096.00	69.70	185.30	4776.42	-599.63	16.35	1.51	599.43	1445143.46	1298509.00	
5127.00	70.00	185.20	4787.10	-628.61	13.69	1.01	628.18	1445114.48	1298506.33	
5157.00	71.10	185.10	4797.09	-656.78	11.15	3.68	656.13	1445086.31	1298503.79	
5186.00	73.00	184.60	4806.02	-684.27	8.81	6.75	683.41	1445058.82	1298501.46	
5217.00	75.40	183.60	4814.46	-714.02	6.68	8.34	712.96	1445029.07	1298499.33	
5248.00	78.10	183.30	4821.57	-744.14	4.87	8.76	742.90	1444998.95	1298497.52	
5277.00	81.90	183.60	4826.60	-772.64	3.15	13.14	771.23	1444970.45	1298495.80	
5307.00	84.10	181.50	4830.26	-802.38	1.83	10.10	800.83	1444940.70	1298494.47	
5338.00	87.00	180.70	4832.66	-833.28	1.23	9.70	831.62	1444909.81	1298493.88	
5367.00	87.70	178.90	4834.00	-862.25	1.33	6.65	860.54	1444880.84	1298493.98	
5399.00	90.50	177.30	4834.51	-894.22	2.40	10.08	892.51	1444848.87	1298495.04	
5428.00	93.70	176.30	4833.44	-923.15	4.01	11.56	921.49	1444819.93	1298496.66	
5459.00	95.70	174.00	4830.90	-953.93	6.62	9.81	952.37	1444789.15	1298499.27	
5489.00	96.20	174.40	4827.79	-983.62	9.64	2.13	982.19	1444759.47	1298502.29	
5520.00	96.10	174.00	4824.47	-1014.28	12.75	1.32	1012.99	1444728.80	1298505.40	
5551.00	94.90	173.40	4821.50	-1044.95	16.14	4.32	1043.82	1444698.13	1298508.79	
5583.00	93.90	172.70	4819.05	-1076.62	20.00	3.81	1075.67	1444666.46	1298512.65	
5614.00	92.10	172.50	4817.42	-1107.32	23.99	5.84	1106.56	1444635.77	1298516.63	
5644.00	89.00	172.30	4817.14	-1137.05	27.95	10.35	1136.49	1444606.03	1298520.60	

Calmena Energy Services

Company: Woolsey Operating Company, LLC
 Well: Ricke #4-H
 Location: Barber County, Kansas

Date: 14-Jun-2012
 Surveys
 Page 5
 Job# : 6425

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N/S (feet)	E/W (feet)	DLS (deg/100')	VS @ 176.30° Az (feet)	Grid Y	NAD83 Ks South gr elev=1370 RKB=1392 Grid X	Comments
5675.00	87.70	172.20	4818.03	-1167.76	32.13	4.21	1167.40	1444575.33	1298524.78	
5705.00	88.90	172.60	4818.92	-1197.48	36.10	4.22	1197.31	1444545.61	1298528.75	
5737.00	89.80	173.10	4819.28	-1229.23	40.08	3.22	1229.25	1444513.86	1298532.73	
5768.00	90.30	173.10	4819.25	-1260.00	43.81	1.61	1260.21	1444483.08	1298536.45	
5800.00	91.50	172.90	4818.75	-1291.76	47.71	3.80	1292.15	1444451.33	1298540.35	
5829.00	91.40	172.70	4818.02	-1320.52	51.34	0.77	1321.08	1444422.56	1298543.99	
5861.00	91.70	172.50	4817.15	-1352.25	55.46	1.13	1353.01	1444390.84	1298548.11	
5892.00	91.10	171.70	4816.40	-1382.94	59.72	3.23	1383.91	1444360.15	1298552.37	
5924.00	89.10	171.10	4816.34	-1414.58	64.50	6.53	1415.79	1444328.51	1298557.15	
5954.00	89.70	171.20	4816.65	-1444.22	69.12	2.03	1445.67	1444298.87	1298561.77	
5985.00	90.30	171.30	4816.65	-1474.86	73.83	1.96	1476.55	1444268.23	1298566.48	
6017.00	90.90	171.00	4816.32	-1506.48	78.76	2.10	1508.42	1444236.61	1298571.40	
6049.00	90.50	171.10	4815.93	-1538.09	83.73	1.29	1540.28	1444205.00	1298576.38	
6080.00	89.30	172.10	4815.98	-1568.75	88.26	5.04	1571.18	1444174.34	1298580.91	
6111.00	89.20	173.30	4816.39	-1599.50	92.20	3.88	1602.11	1444143.59	1298584.85	
6142.00	90.00	173.20	4816.60	-1630.28	95.85	2.60	1633.07	1444112.81	1298588.49	
6173.00	90.60	172.90	4816.44	-1661.05	99.60	2.16	1664.02	1444082.04	1298592.24	
6206.00	89.50	172.90	4816.41	-1693.80	103.68	3.33	1696.96	1444049.29	1298596.32	
6237.00	89.30	173.20	4816.74	-1724.57	107.43	1.16	1727.91	1444018.52	1298600.07	
6269.00	89.30	173.20	4817.13	-1756.34	111.21	0.00	1759.86	1443986.75	1298603.86	
6298.00	89.60	173.10	4817.41	-1785.13	114.67	1.09	1788.81	1443957.95	1298607.32	
6329.00	89.60	173.30	4817.62	-1815.92	118.34	0.65	1819.77	1443927.17	1298610.99	
6360.00	89.70	172.90	4817.81	-1846.69	122.07	1.33	1850.72	1443896.40	1298614.72	
6389.00	89.60	172.80	4817.99	-1875.46	125.68	0.49	1879.67	1443867.62	1298618.32	
6420.00	88.80	173.00	4818.42	-1906.22	129.51	2.66	1910.61	1443836.87	1298622.16	
6452.00	88.50	172.70	4819.18	-1937.97	133.49	1.33	1942.54	1443805.12	1298626.14	
6481.00	88.20	172.10	4820.01	-1966.70	137.32	2.31	1971.46	1443776.39	1298629.97	
6511.00	87.90	173.20	4821.03	-1996.43	141.16	3.80	2001.38	1443746.65	1298633.81	
6542.00	87.90	174.70	4822.17	-2027.24	144.43	4.84	2032.33	1443715.85	1298637.07	
6573.00	88.00	174.80	4823.28	-2058.09	147.26	0.46	2063.30	1443685.00	1298639.91	

Calmena Energy Services

Company: Woolsey Operating Company, LLC
 Well: Ricke #4-H
 Location: Barber County, Kansas

Date: 14-Jun-2012
 Surveys
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MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N-S (feet)	E-W (feet)	DLS (deg/100')	VS @ 176.30° Az (feet)	Grid Y	NAD83 Ks South gr elev=1370 RKB=1392 Grid X	Comments
6605.00	88.50	174.60	4824.25	-2089.94	150.21	1.68	2095.28	1443653.15	1298642.86	
6636.00	88.30	174.10	4825.12	-2120.78	153.27	1.74	2126.25	1443622.31	1298645.91	
6668.00	88.20	173.80	4826.10	-2152.58	156.64	0.99	2158.20	1443590.51	1298649.28	
6699.00	88.10	173.80	4827.10	-2183.39	159.98	0.32	2189.16	1443559.70	1298652.63	
6729.00	88.00	173.50	4828.12	-2213.18	163.30	1.05	2219.11	1443529.90	1298655.95	
6759.00	88.80	173.20	4828.96	-2242.97	166.77	2.85	2249.06	1443500.12	1298659.42	
6788.00	89.00	173.20	4829.51	-2271.76	170.20	0.69	2278.01	1443471.33	1298662.85	
6818.00	89.50	174.10	4829.91	-2301.57	173.52	3.43	2307.97	1443441.51	1298666.17	
6847.00	88.90	175.70	4830.31	-2330.45	176.10	5.89	2336.96	1443412.63	1298668.75	
6878.00	88.70	175.80	4830.96	-2361.36	178.40	0.72	2367.95	1443381.73	1298671.04	
6907.00	89.20	176.50	4831.49	-2390.29	180.34	2.97	2396.95	1443352.80	1298672.99	
6937.00	89.70	177.30	4831.78	-2420.25	181.97	3.14	2426.94	1443322.84	1298674.61	
6966.00	90.10	176.70	4831.83	-2449.21	183.48	2.49	2455.94	1443293.88	1298676.13	
6996.00	91.30	176.70	4831.46	-2479.15	185.21	4.00	2485.94	1443263.93	1298677.86	
7025.00	92.50	176.40	4830.50	-2508.09	186.95	4.27	2514.92	1443235.00	1298679.60	
7057.00	93.70	176.50	4828.77	-2539.98	188.93	3.76	2546.87	1443203.11	1298681.58	
7089.00	93.50	176.20	4826.76	-2571.85	190.97	1.13	2578.81	1443171.24	1298683.61	
7118.00	91.90	176.80	4825.40	-2600.76	192.73	5.89	2607.78	1443142.33	1298685.38	
7147.00	90.80	176.30	4824.71	-2629.70	194.48	4.17	2636.77	1443113.39	1298687.13	
7179.00	90.60	176.40	4824.32	-2661.63	196.52	0.70	2668.77	1443081.46	1298689.16	
7208.00	89.60	175.80	4824.27	-2690.56	198.49	4.02	2697.77	1443052.52	1298691.14	
7239.00	89.30	175.30	4824.57	-2721.47	200.89	1.88	2728.76	1443021.62	1298693.54	
7269.00	89.90	175.40	4824.78	-2751.37	203.33	2.03	2758.76	1442991.72	1298695.97	
7298.00	90.80	175.50	4824.60	-2780.28	205.63	3.12	2787.75	1442962.81	1298698.27	
7330.00	91.60	175.60	4823.93	-2812.17	208.11	2.52	2819.74	1442930.91	1298700.76	
7359.00	91.20	175.30	4823.22	-2841.07	210.41	1.72	2848.73	1442902.01	1298703.05	
7391.00	88.80	175.60	4823.22	-2872.97	212.95	7.56	2880.72	1442870.12	1298705.59	
7420.00	89.10	175.10	4823.75	-2901.87	215.30	2.01	2909.72	1442841.22	1298707.94	
7451.00	88.50	174.90	4824.40	-2932.75	218.00	2.04	2940.70	1442810.34	1298710.65	
7482.00	88.30	174.90	4825.27	-2963.61	220.75	0.65	2971.68	1442779.48	1298713.40	

Calmena Energy Services

Company: Woolsey Operating Company, LLC
 Well: Ricke #4-H
 Location: Barber County, Kansas

Date: 14-Jun-2012

Surveys

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Job# : 6425

South gr elev=1370 RKB=1392

MD (feet)	Inclination (degrees)	Azimuth (degrees)	TVD RKB (feet)	N-S (feet)	E-W (feet)	DLS (deg/100')	VS @ 176.30° Az (feet)	Grid Y	Grid X	Comments
7513.00	90.90	175.60	4825.49	-2994.50	223.32	8.69	3002.67	1442748.59	1298715.97	
7542.00	94.20	176.40	4824.20	-3023.40	225.34	11.71	3031.64	1442719.69	1298717.99	
7571.00	94.10	176.20	4822.10	-3052.26	227.21	0.77	3060.56	1442690.83	1298719.85	
7601.00	93.40	175.90	4820.13	-3082.13	229.27	2.54	3090.50	1442660.96	1298721.92	
7630.00	93.00	176.00	4818.52	-3111.01	231.31	1.42	3119.45	1442632.08	1298723.96	
7660.00	92.00	175.70	4817.21	-3140.90	233.48	3.48	3149.42	1442602.19	1298726.13	
7691.00	90.60	176.00	4816.50	-3171.81	235.73	4.62	3180.41	1442571.28	1298728.37	
7722.00	90.30	175.80	4816.26	-3202.73	237.94	1.16	3211.41	1442540.36	1298730.59	
7752.00	90.80	175.50	4815.97	-3232.64	240.22	1.94	3241.41	1442510.45	1298732.86	
7783.00	91.40	175.50	4815.38	-3263.54	242.65	1.94	3272.40	1442479.55	1298735.30	
7814.00	90.20	175.70	4814.94	-3294.45	245.03	3.92	3303.39	1442448.64	1298737.67	
7843.00	89.10	175.30	4815.12	-3323.36	247.30	4.04	3332.39	1442419.73	1298739.95	
7875.00	89.50	175.00	4815.51	-3355.24	250.01	1.56	3364.38	1442387.85	1298742.65	
7904.00	90.70	174.80	4815.46	-3384.12	252.59	4.20	3393.37	1442358.97	1298745.23	
7935.00	90.80	175.50	4815.06	-3415.01	255.21	2.28	3424.36	1442328.08	1298747.85	
7966.00	89.00	174.90	4815.11	-3445.90	257.80	6.12	3455.35	1442297.19	1298750.45	
7997.00	87.40	175.50	4816.08	-3476.77	260.39	5.51	3486.33	1442266.31	1298753.04	
8028.00	88.00	175.00	4817.33	-3507.64	262.96	2.52	3517.30	1442235.45	1298755.60	
8060.00	89.00	174.80	4818.17	-3539.50	265.80	3.19	3549.28	1442203.58	1298758.45	
8090.00	88.30	175.10	4818.87	-3569.38	268.44	2.54	3579.26	1442173.71	1298761.09	
8121.00	88.80	175.80	4819.66	-3600.27	270.90	2.77	3610.25	1442142.82	1298763.55	
8152.00	89.30	175.60	4820.17	-3631.18	273.22	1.74	3641.24	1442111.91	1298765.87	
8183.00	90.00	175.40	4820.36	-3662.08	275.66	2.35	3672.24	1442081.00	1298768.30	
8215.00	90.30	175.10	4820.28	-3693.97	278.31	1.33	3704.23	1442049.11	1298770.95	
8244.00	90.70	174.90	4820.02	-3722.86	280.83	1.54	3733.22	1442020.23	1298773.48	
8274.00	91.20	174.60	4819.53	-3752.73	283.58	1.94	3763.21	1441990.36	1298776.23	
8303.00	91.30	175.00	4818.89	-3781.61	286.21	1.42	3792.19	1441961.48	1298778.85	
8332.00	91.90	174.60	4818.08	-3810.47	288.83	2.49	3821.17	1441932.61	1298781.48	
8380.00	91.90	174.60	4816.49	-3858.24	293.35	0.00	3869.12	1441884.85	1298785.99	Survey projected