



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1230985
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- 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
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ 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: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

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

- Confidentiality Requested
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____

1230985

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

Date of First, Resumed Production, SWD or ENHR: _____ Producing Method:
 Flowing Pumping Gas Lift Other *(Explain)* _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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JAMES C. MUSGROVE

Petroleum Geologist, LLC
212 Main Street
P.O. Box 215
Claflin, KS 67525

Office (620) 588-4250

Res. Claflin (620) 587-3444

Mai Oil Operations
Miller Farms #2
N/2-NE-SE-NE (1625' FNL & 330' FEL)
Section 36-16s-14w
Barton County, Kansas

Page 1

5 1/2" Production Casing Set

Contractor: Southwind Drilling Co. (rig #3)
Commenced: July 22, 2014
Completed: July 27, 2014
Elevation: 1988' K.B., 1986" D.F., 1980' G.L.
Casing program: Surface; 8 5/8" @ 514'
Production, 5 1/2 @ 3549'
Sample: Samples saved and examined 3000' to the Rotary Total Depth.
Drilling time: One (1) foot drilling time recorded and kept 3000 ft. to the Rotary Total Depth.
Measurements: All depths measured from the Kelly Bushing.
Drill Stem Tests: There were three (3) Drill Stem Tests ran by Trilobite Testing Co.
Electric Log: By Nabors; Dual Induction, Compensated Density/Neutron Log and Micro Log.

<u>Formation</u>	<u>Log Depth</u>	<u>Sub-Sea Datum</u>
Anhydrite	951	+1037
Base Anhydrite	980	+1008
Heebner	3146	-1158
Toronto	3162	-1174
Brown Lime	3221	-1233
Lansing	3230	-1242
Base Kansas City	3437	-1449
Arbuckle	3453	-1465
Rotary Total Depth	3550	-1562
Log Total Depth	3549	-1561

All tops and zones corrected to Electric Log Measurement.

SAMPLE ANALYSIS, SHOWS OF OIL, TESTING DATA, ETC.

TOPEKA SECTION

- 3093-3106' Limestone, white/gray, fossiliferous, chalky, poor porosity, trace black and brown stain, no free oil and no odor in fresh samples.
- 3106-3126' Limestone, white, cream, finely crystalline, poor visible porosity, dark brown spotty stain, trace of free oil and no odor in fresh samples.

TORONTO SECTION

- 3163-3171' Limestone, cream, finely crystalline, fossiliferous in part, chalky, poor visible porosity, black spotty stain, no free oil and no odor in fresh samples.

LANSING SECTION

- 3203-3236' Limestone, tan, medium crystalline, few fossiliferous, chalky, trace tan chert.
- 3246-3254' Limestone, cream, finely crystalline, few cherty, dense.
- 3257-3264' Limestone, cream, tan, finely crystalline, oolitic, sub-oomoldic, scattered porosity; chalky, trace poor brown stain, no free oil and no odor, plus gray and tan chert.
- 3270-3280' Limestone, white, gray, oolitic, chalky, poorly developed porosity; no shows.
- 3290-3300' Limestone, tan, oolitic, chalky, poor visible porosity, brown spotty stain, no free oil and questionable odor in fresh samples.
- 3306-3326' Limestone, gray, cream oomoldic, good oomoldic porosity, chalky (barren).
- 3359-3367' Limestone, white, cream, oolitic, oomoldic, fair porosity, trace brown and gray stain, show of free oil and faint odor.
- 3381-3387' Limestone, white, gray, oolitic, chalky, scattered porosity, brown stain; show of free oil and faint odor in fresh samples.
- 3395-3400' Limestone, white, cream, sub-oomoldic, oolitic, fair sub-oomoldic porosity, brown stain, trace of free oil and no odor in fresh samples.

Drill Stem Test #1 **3340-3400**

Times: 30-30-45-60
Blow: Weak
Recovery: 160' muddy water
Pressures: ISIP 848 psi
FSIP 832 psi
IFP 31-52 psi
FFP 56-84 psi
HSH 1616-1584 psi

3421-3432' Limestone, white, oolitic, chalky, poor porosity, no shows.

ARBUCKLE SECTION

3453-3460' Dolomite, white, cream, finely crystalline, few cherty, poor porosity, trace brown stain, trace of free oil and faint odor.
3460-3470' Dolomite, cream, white, fine and medium crystalline, scattered inter-crystalline porosity, brown stain and saturation, show of free oil and faint odor in fresh samples.

Drill Stem Test #2 **3407-3470**

Times: 30-30-3030
Blow: Weak
Recovery: 2' mud
2' clean oil
Pressures: ISIP 131 psi
FSIP 53 psi
IFP 16-17 psi
FFP 18-17 psi
HSH 1656-1619 psi

3470-3480' Dolomite, as above, brown stain, show of free oil and odor.
3480-3487' Dolomite, tan, brown, medium crystalline, fair inter-crystalline porosity, brown stain and saturated in part; show of free oil and faint odor, plus tan, oolitic chert.

Mai Oil Operations
Miller Farms #2
N/2-NE-SE-NE (1625' FNL & 330' FEL)
Section 36-16s-14w
Barton County, Kansas

Page 4

Drill Stem Test #3

3407-3487

Times: 30-30-30-45

Blow: Strong

**Recovery: 30' clean oil
30' muddy oil
(25% mud; 75% oil)
320' mud cut watery oil
(60% oil; 10% water; 30% mud)**

**Pressures: ISIP 1085 psi
FSIP 1089 psi
IFP 20-102 psi
FFP 110-174 psi
HSH 1665-1621 psi**

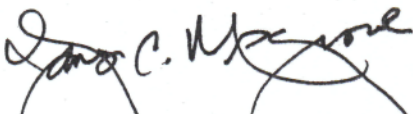
- 3481-3510' Dolomite, as above, plus tan/gray, fine and medium crystalline, dolomite, and white/tan oolitic chert, no shows.
- 3510-3530' Dolomite, tan, gray, finely crystalline, fair to good inter-crystalline and vuggy type porosity, no shows.
- 3530-3550' Dolomite, tan, buff, finely crystalline, few medium crystalline, sucrosic in part, fair porosity, plus white boney chert.

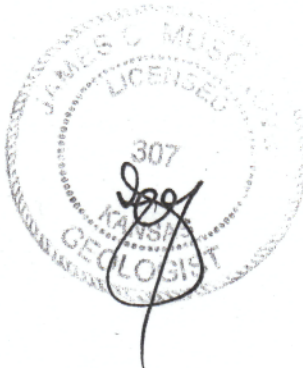
**Rotary Total Depth 3550
Log Total Depth 3549**

Recommendations:

5 1/2" production casing set and cemented on the Mai Oil Operations Inc., Miller Farms #2.

Respectfully yours,


James C. Musgrove
Petroleum Geologist





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mai Oil Operations, Inc.
 8411 Preston Rd. Ste. 800
 Dallas, TX 75225
 ATTN: Jim Musgrove

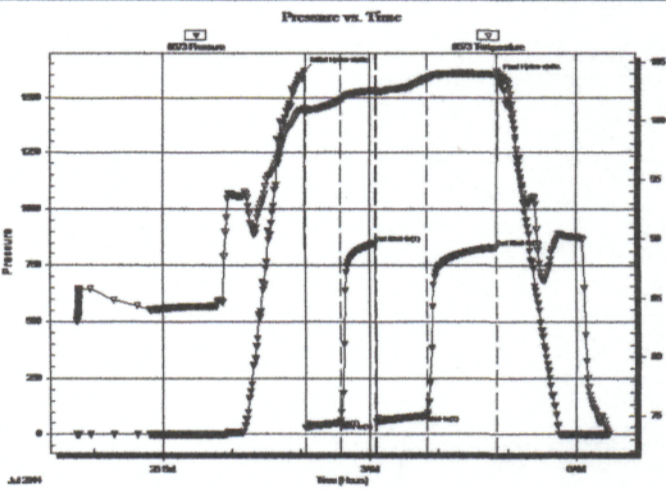
36-16s-14w Barton,KS
Miller Farms #2
 Job Ticket: 58382 **DST#: 1**
 Test Start: 2014.07.25 @ 22:45:18

GENERAL INFORMATION:

Formation: _____
 Deviated: No Whipstock: _____ ft (KB)
 Time Tool Opened: 02:04:48
 Time Test Ended: 06:28:18
 Interval: **3340.00 ft (KB) To 3400.00 ft (KB) (TVD)**
 Total Depth: 3400.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Pbor
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Brannan Lonsdale
 Unit No: 62
 Reference Elevations: 1988.00 ft (KB)
 1980.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8673 **Inside**
 Press@RunDepth: 84.29 psig @ 3341.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.07.25 End Date: 2014.07.26 Last Calib.: 2014.07.26
 Start Time: 22:45:19 End Time: 06:28:18 Time On Btm: 2014.07.26 @ 02:03:48
 Time Off Btm: 2014.07.26 @ 04:50:48

TEST COMMENT: 30- IF- Built very quickly to 2" in 1 min then slowly an additional 2 1/2" during remainder of period
 30- IS- No blow
 45- FF- Built very slowly to 2 1/2"
 60- FS- No blow



PRESSURE SUMMARY

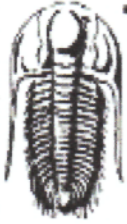
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1615.85	101.15	Initial Hydro-static
1	30.72	100.74	Open To Flow (1)
31	52.03	101.80	Shut-in(1)
61	847.75	102.65	End Shut-in(1)
62	55.73	102.45	Open To Flow (2)
107	84.29	103.63	Shut-in(2)
167	832.35	104.03	End Shut-in(2)
167	1584.26	104.28	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
160.00	MW, 35%M 65%W	2.19

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Mai Oil Operations, Inc.
 8411 Preston Rd. Ste. 800
 Dallas, TX 75225
 ATTN: Jim Musgrove

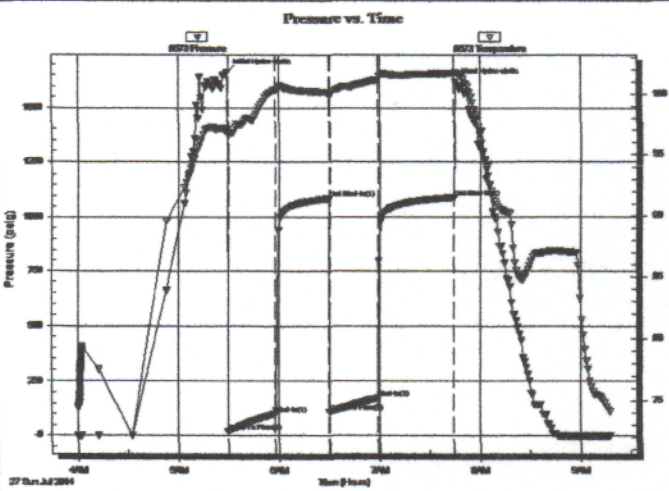
36-16s-14w Barton,KS
Miller Farms #2
 Job Ticket: 58384 DST#: 3
 Test Start: 2014.07.27 @ 04:00:07

GENERAL INFORMATION:

Formation: _____
 Deviated: No Whipstock: _____ ft (KB)
 Time Tool Opened: 05:29:37
 Time Test Ended: 09:17:37
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brannan Lonsdale
 Unit No: 62
 Interval: 3407.00 ft (KB) To 3487.00 ft (KB) (TVD)
 Total Depth: 3487.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Reference Elevations: 1988.00 ft (KB)
 1980.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8673 Outside
 Press@RunDepth: 174.47 psig @ 3408.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.07.27 End Date: 2014.07.27 Last Calib.: 2014.07.27
 Start Time: 04:00:08 End Time: 09:17:37 Time On Btm: 2014.07.27 @ 05:29:07
 Time Off Btm: 2014.07.27 @ 07:45:37

TEST COMMENT: 30- IF- BOB 13 mins
 30- IS- No blow
 30- FF- BOB 13 mins
 45- FS- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1665.30	97.03	Initial Hydro-static
1	19.68	96.53	Open To Flow (1)
29	102.09	100.33	Shut-In(1)
61	1084.69	100.17	End Shut-In(1)
61	109.59	99.79	Open To Flow (2)
90	174.47	101.17	Shut-In(2)
136	1089.25	101.67	End Shut-In(2)
137	1621.30	101.78	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	MCO, 25%M 75%O	0.82
320.00	SWMCO, 10%W 30%M 60%O	4.37

* Recovery from multiple tests

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 098

Date	7-22-14	Sec.	36	Twp.	16	Range	14	County	Barton	State	Ks	On Location		Finish	10:15 PM
Lease	Miller Farms		Well No.	2		Location: Stickney Elevator - 1E, 1 1/2 S, W 1/4									
Contractor	Southwind		3		Owner: To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.										
Type Job	Surface														
Hole Size	12 1/4"		T.D.	514'		Charge To: Mai oil operations									
Csg.	8 5/8"		Depth	514'		Street									
Tbg. Size			Depth			City State									
Tool			Depth			The above was done to satisfaction and supervision of owner agent or contractor.									
Cement Left in Csg.	20'		Shoe Joint	20'		Cement Amount Ordered 250 SX 60/40 3% CC 2% Gel									
Meas Line			Displace	31 1/2 BLS											
EQUIPMENT						Common									
Pumptrk	16	No.	Cementer	Billy		Poz. Mix									
			Helper												
Bulktrk	9	No.	Driver	Chad		Gel.									
			Driver												
Bulktrk	p.u.	No.	Driver	Rick		Calcium									
			Driver												
JOB SERVICES & REMARKS						Hulls									
Remarks:	Cement did		Circulate		Salt										
Rat Hole	Flowseal														
Mouse Hole	Kol-Seal														
Centralizers	Mud CLR 48														
Baskets	CFL-117 or CD110 CAF 38														
D/V or Port Collar	Sand														
						Handling									
						Mileage									
						FLOAT EQUIPMENT									
						Guide Shoe									
						Centralizer									
						Baskets									
						AFU Inserts									
						Float Shoe									
						Latch Down									
						Pumptrk Charge									
						Mileage									
						Tax									
						Discount									
						Total Charge									
X Signature	Joy Krien														

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 322

Date	7-28-14	Sec.	36	Twp.	16	Range	14	County	Benton	State	KS	On Location	12:45 AM	Finish	4:30 AM
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Lease Miller farms
Well No. 2
Location Stickney Elevator 1 E 1/2 S
Owner Write

Contractor	See below	3	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.	
Type Job	Long string		Charge To	Ma Oil
Hole Size	7 7/8	T.D.	3550	
Csg.	5 1/2	Depth	3546	
Tbg. Size		Depth		
Tool		Depth		The above was done to satisfaction and supervision of owner agent or contractor.
Cement Left in Csg.	19,577	Shoe Joint	19,577	Cement Amount Ordered 160 60/40
Meas Line	141	Displace	86. B/B	10% salt 2% gel ya flow

EQUIPMENT

Pumptrk	18	No.	Cementor	Write	Common
			Helper		Poz. Mix
Bulktrk	2	No.	Driver	Cody	Gel.
			Driver		Calcium
Bulktrk	pu	No.	Driver	Doug	
			Driver		

JOB SERVICES & REMARKS

Remarks:		Hulls
Rat Hole	3054s	Salt
Mouse Hole		Flowseal
Centralizers	1-8 10-11	Kol-Seal
Baskets		Mud CLR 48 1000 gal
D/V or Port Collar		CFL-117 or CD110 CAF 38
Dropped Bull Centralizer		Sand
45 min Run 100 g		Handling
and high plug but		Mileage
hole 3054s mixed		50
13054 down hole		FLOAT EQUIPMENT
displaced with Write		Guide Shoe
86 B/B		Centralizer turbos 10
		Baskets
		AFU Inserts
		Float Shoe
		Latch Down
		Pumptrk Charge
		Mileage
		Tax
		Discount
		Total Charge

X Signature *Butt Horner*