



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1237805  
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
-----------------------------------	-----------------	---

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: \_\_\_\_\_

1237805

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
--	---

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: <input type="checkbox"/> Yes <input type="checkbox"/> No
----------------	-------	---------	------------	---

Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____						
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity		

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <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> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
--	---	---

Form	ACO1 - Well Completion
Operator	Mai Oil Operations, Inc.
Well Name	Long "A" 3
Doc ID	1237805

Tops

Name	Top	Datum
Anhydrite	631	+1215
Heebner	3101	-1255
Toronto	3118	-1272
Brown Lime	3236	-1390
Lansing	3249	-1403
Base Kansas City	3470	-1624
Viola	3483	-1637
Arbuckle	3562	-1716



**JAMES C. MUSGROVE**

Petroleum Geologist, LLC

212 Main Street

P.O. Box 215

Clafin, KS 67525

Office (620) 588-4250

Res. Clafin (620) 587-3444

Mai Oil Operations  
Long 'A' #3  
N/2-SE-SW-NE (2280' FNL & 1650' FEL)  
Section 22-21s-12w  
Stafford County, Kansas

Page 1

**5 1/2" Production Casing Set**

**Contractor:** Southwind Drilling Co. (rig #3)  
**Commenced:** October 21, 2014  
**Completed:** October 29, 2014  
**Elevation:** 1846' K.B., 1844' D.F., 1836' G.L.  
**Casing program:** Surface; 8 5/8" @ 641'  
Production, 5 1/2" @ 3693'  
**Sample:** Samples saved and examined 2900' the Rotary Total Depth.  
**Drilling time:** One (1) foot drilling time recorded and kept 2900' to the Rotary Total Depth.  
**Measurements:** All depths measured from the Kelly Bushing.  
**Drill Stem Tests:** There were eight (8) Drill Stem Tests ran by Diamond Testing Co.  
**Electric Log:** By Pioneer, Dual Induction, Dual Compensated Porosity and Micro-Resistivity Log.

<u>Formation</u>	<u>Log Depth</u>	<u>Sub-Sea Datum</u>
Anhydrite	631	+1215
Base Anhydrite	653	+1193
Heebner	3101	-1255
Toronto	3118	-1272
Douglas	3134	-1288
Brown Lime	3236	-1390
Lansing	3249	-1403
Base Kansas City	3470	-1624
Viola	3483	-1637
Simpson Shale	3509	-1663
Arbuckle	3562	-1716
Rotary Total Depth	3693	-1847
Log Total Depth	3694	-1848

All tops and zones corrected to Electric Log Measurement.

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

**TOPEKA SECTION**

2900-3100' No shows of oil and/or gas was noted in the drilling of the Topeka Section.

**TORONTO SECTION**

3118-3130' Limestone, tan, brown, finely crystalline, poor visible porosity, dense.

**LANSING SECTION**

3250-3258' Limestone, tan, brown, finely crystalline, few fossiliferous, scattered porosity, no shows.

3264-3276' Limestone, tan, brown, finely crystalline, fossiliferous, dense.

3280-3290' Limestone, tan, finely crystalline, poor scattered porosity, light brown stain, show of free oil and faint odor.

3306-3310' Limestone, tan, finely crystalline, fossiliferous, poor scattered porosity, brown stain, trace of free oil and faint odor.

**Drill Stem Test #1**

**3245-3310**

**Times: 30-30-45-45**

**Blow: Strong**

**Recovery: 1550' gas in pipe  
45' mud with oil spots**

**Pressures: ISIP 347 psi  
FSIP 388 psi  
IFP 17-22 psi  
FFP 24-29 psi  
HSH 1624-1543 psi**

3312-3350' Limestone, gray, tan, finely fossiliferous, poorly developed porosity, no shows.

3374-3381' Limestone, tan, cream, oomoldic, good oomoldic and vuggy type porosity, brown stain, show of free oil and no odor.

3390-3400' Limestone, tan, brown, finely crystalline, chalky, poor porosity, no shows, plus white chert.

3410-3420' Limestone, cream, tan, finely crystalline, oolitic, poorly developed porosity, light black stain, trace of free oil and no odor.

**Stem Test #2**

**3358-3420**

**Times: 30-30-45-45**

**Blow: Weak**

**Recovery: 32' mud with oil spots**

**Pressures: ISIP 371 psi  
FSIP 403 psi  
IFP 18-27 psi  
FFP 29-34 psi  
HSH 1656--1647 psi**

3432-3440' Limestone, tan, brown finely crystalline, poor visible porosity, no shows.

3448-3460' Limestone, cream, tan, finely crystalline, poor visible porosity, no shows.

**VIOLA SECTION**

3483-3507' Chert, white, to tan, yellow and gray, scattered porosity, black stain, show of free oil and faint odor.

**Drill Stem Test #3**

**3418-3515**

**Times: 30-45-45-60**

**Blow: Weak**

**Recovery: 15' mud no show of oil (strong oil odor)**

**Pressures: ISIP 39 psi  
FSIP 34 psi  
IFP 21-18 psi  
FFP 17-211 psi  
HSH 1757-1703 psi**

**SIMPSON SECTION**

3542-3545' Sand, clean white, sub-rounded, well sorted, friable in part, black stain, trace heavy black dead oil, and no odor in fresh samples.

**ARBUCKLE SECTION**

3562-3578' Dolomite, tan, brown gray, sucrosic, fine and medium crystalline, good stain, and saturation, show of free oil and strong odor in fresh samples.

**Drill Stem Test #4** **3498-3578**

---

**Times:** 30-45-45-60

**Blow:** Fair

**Recovery:** 25' oil cut watery mud  
(12 % oil; 12% water; 76% mud)

**Pressures:** ISIP 44 psi  
FSIP 45 psi  
IFP 20-23 psi  
FFP 20-30 psi  
HSH 1725-1703 psi

3578-3592' Dolomite, tan, white, gray, finely crystalline , sucrosic, poor to fair inter-crystalline porosity, brown stain, show of free oil and fair odor in fresh samples.

**Drill Stem Test #5** **3578-3592**

---

**Times:** 30-45-45-60

**Blow:** Fair

**Recovery:** 175' gas in pipe  
5' clean oil  
28' heavily oil and gas cut mud  
(14% gas; 36% oil; 50% mud)

**Pressures:** ISIP 995 psi  
FSIP 1021 psi  
IFP 18-23 psi  
FFP 15-24 psi  
HSH 1781-1764 psi

3592-3604' Dolomite, tan, brown, finely crystalline, sucrosic, fair inter-crystalline porosity, brown stain, show of free oil and faint odor.

**Drill Stem Test #6** **3593-3604**

---

**Times:** 30-30-45-45

**Blow:** Fair

**Recovery:** 945' gas in pipe  
10' clean oil  
10' heavily oil cut mud  
(35% oil; 65% mud)

**Pressures:** ISIP 329 psi  
FSIP 186 psi  
IFP 17-20 psi  
FFP 19-27 psi  
HSH 1789-1769 psi



3604-3619' Dolomite, as above, fair stain, show of free oil and faint fair odor in fresh samples.

**Drill Stem Test #7** **3593-3619**

**Times:** 30-30-45-45  
**Blow:** Strong  
**Recovery:** 730' gas in pipe  
35' clean oil  
60' heavily oil and gas cut mud  
(15% gas; 30% oil; 55% mud)  
**Pressures:** ISIP 376 psi  
FSIP 313 psi  
IFP 35-49 psi  
FFP 50-64 psi  
HSH 1796-1766 psi

3620-3638' Dolomite, tan, brown, fine and medium crystalline, fair scattered inter-crystalline porosity, fair stain and saturation, fair show of free oil and strong odor in fresh samples.

**Drill Stem Test #8** **3620-3638**

**Times:** 30-30-45-45  
**Blow:** Fair  
**Recovery:** 190' gas in pipe  
8' clean oil  
24' heavily oil and gas cut mud  
(31% oil; 69% mud)  
**Pressures:** ISIP 239 psi  
FSIP 168 psi  
IFP 21-24 psi  
FFP 23-30 psi  
HSH 1803-1789 psi

3638-3660' Dolomite, gray finely crystalline, good vuggy porosity, black stain, show of free oil and good odor in fresh samples.

3660-3680' Dolomite, white, gray, finely crystalline, poor inter-crystalline porosity, black stain, show of free oil and fair odor in fresh samples.

3680-3693' Dolomite, white, gray, finely crystalline poor visible porosity, trace white chert, no shows.

Mai Oil Operations  
Long 'A' #3  
N/2-SE-SW-NE (2280' FNL & 1650' FEL)  
Section 22-21s-12w  
Stafford County, Kansas

Page 6

**Rotary Total Depth            3693**

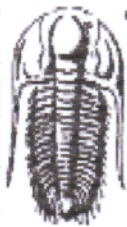
**Recommendations:**

The 5 ½" production casing set and cemented on the Mai Oil Operations Long 'A' #3.

Respectfully yours,

A handwritten signature in cursive script, appearing to read "Wyatt Urban".

Wyatt Urban  
Petroleum Geologist



**TRILOBITE TESTING, INC.**

**DRILL STEM TEST REPORT**

Mai Oil Operations Inc.  
8411 Preston Rd. Ste.800  
Dallas TX .75225  
ATTN: Wyatt Urban

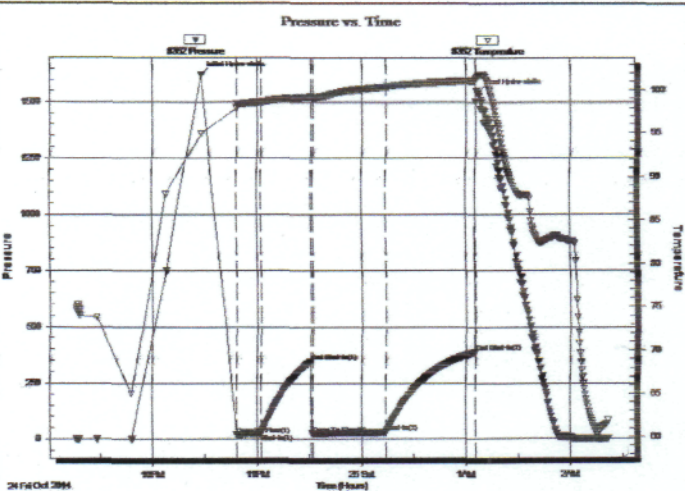
**22-21s-12w Stafford,KS**  
**Long A #3**  
Job Ticket: 57862      **DST#: 1**  
Test Start: 2014.10.24 @ 21:16:04

**GENERAL INFORMATION:**

Formation: **LKC A - F**  
Deviated: No Whipstock:                      ft (KB)  
Time Tool Opened: 22:48:04  
Time Test Ended: 02:21:49  
Interval: **3245.00 ft (KB) To 3310.00 ft (KB) (TVD)**  
Total Depth: 3310.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Gary Pevoteaux  
Unit No: 56  
Reference Elevations: 1846.00 ft (KB)  
1838.00 ft (CF)  
KB to GR/CF: 8.00 ft

**Serial #: 8352**      Outside  
Press@RunDepth: 28.60 psig @ 3246.00 ft (KB)  
Start Date: 2014.10.24      End Date: 2014.10.25  
Start Time: 21:16:09      End Time: 02:21:48  
Capacity: 8000.00 psig  
Last Calib.: 2014.10.25  
Time On Btm: 2014.10.24 @ 22:28:04  
Time Off Btm: 2014.10.25 @ 01:07:04

**TEST COMMENT:** F:Strong blow . B.O.B. in 2 mins.  
IS:Very weak blow . (surface) Dead in 12 mins.  
FF:Strong blow . B.O.B. in 25 secs.  
FS:No blow.



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1624.24	94.93	Initial Hydro-static
20	17.14	97.90	Open To Flow (1)
34	21.51	98.61	Shut-In(1)
63	347.19	99.19	End Shut-In(1)
64	23.53	99.07	Open To Flow (2)
106	28.60	100.36	Shut-In(2)
157	388.21	101.06	End Shut-In(2)
159	1542.93	101.67	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
0.00	1550 ft.of GIP	0.00
45.00	Mud w o specs	0.63

**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: Wyatt Urban

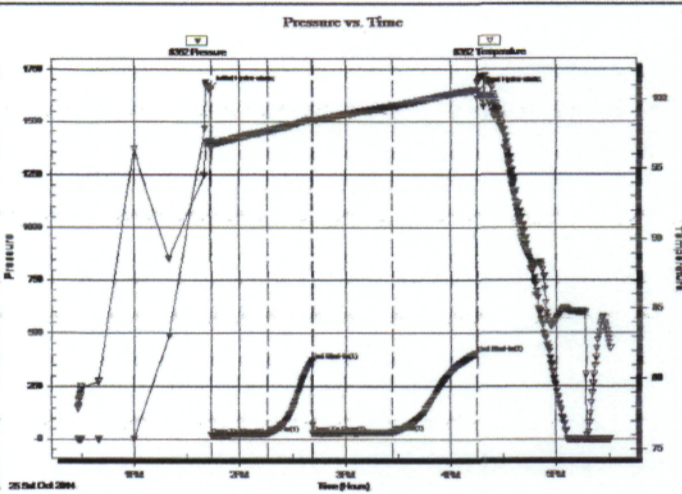
**22-21s-12w Stafford,KS**  
**Long A #3**  
Job Ticket: 57863      **DST#: 2**  
Test Start: 2014.10.25 @ 12:27:54

**GENERAL INFORMATION:**

Formation: **LKC H - I**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 13:43:39  
Time Test Ended: 17:30:39  
Interval: **3358.00 ft (KB) To 3420.00 ft (KB) (TVD)**  
Total Depth: 3420.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Gary Pevoteaux  
Unit No: 56  
Reference Elevations: 1846.00 ft (KB)  
1838.00 ft (CF)  
KB to GR/CF: 8.00 ft

**Serial #: 8352**      **Outside**  
Press@RunDepth: 34.41 psig @ 3359.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2014.10.25      End Date: 2014.10.25      Last Calib.: 2014.10.25  
Start Time: 12:27:59      End Time: 17:30:38      Time On Btm: 2014.10.25 @ 13:42:54  
Time Off Btm: 2014.10.25 @ 16:15:24

**TEST COMMENT:** IF:Weak blow . 1/2".  
IS:No blow .  
FF:Weak blow . 1/2"decreasing.  
FS:No blow .



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1655.64	96.91	Initial Hydro-static
1	17.86	96.39	Open To Flow (1)
33	27.41	97.64	Shut-In(1)
59	371.12	98.51	End Shut-In(1)
59	28.52	98.40	Open To Flow (2)
104	34.41	99.47	Shut-In(2)
152	402.94	100.66	End Shut-In(2)
153	1646.90	101.27	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
32.00	Mud w/ tar like oil specs	0.45

\* Recovery from multiple tests

**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: Wyatt Urban

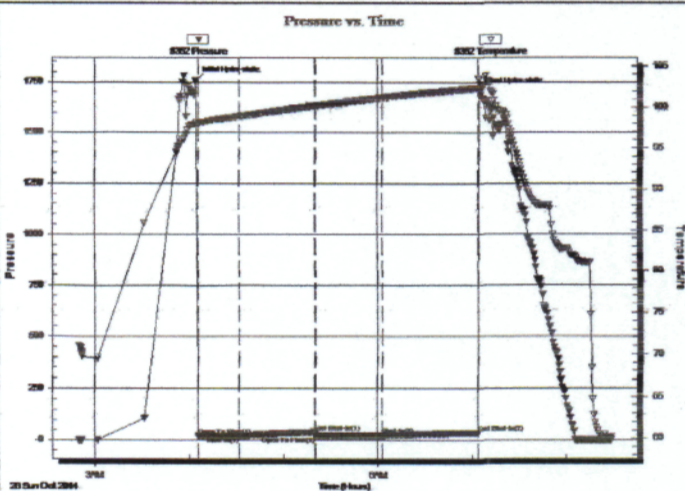
**22-21s-12w Stafford,KS**  
**Long A #3**  
Job Ticket: 57864      **DST#: 3**  
Test Start: 2014.10.26 @ 02:49:45

## GENERAL INFORMATION:

Formation: **Viola**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 04:05:30  
Time Test Ended: 08:28:30  
Interval: **3448.00 ft (KB) To 3515.00 ft (KB) (TVD)**  
Total Depth: 3515.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Gary Pevoteaux  
Unit No: 56  
Reference Elevations: 1846.00 ft (KB)  
1838.00 ft (CF)  
KB to GR/CF: 8.00 ft

**Serial #: 8352**      **Outside**  
Press@RunDepth: 21.45 psig @ 3449.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2014.10.26      End Date: 2014.10.26      Last Calib.: 2014.10.26  
Start Time: 02:49:50      End Time: 08:28:29      Time On Btm: 2014.10.26 @ 04:04:30  
Time Off Btm: 2014.10.26 @ 07:05:00

TEST COMMENT: IF:Weak blow . 1/2 - 1".  
IS:No blow .  
FF:Weak blow . 1/2" decreasing. Dead in 30 mins.  
FS:No blow .



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1757.28	98.13	Initial Hydro-static
1	20.66	97.89	Open To Flow (1)
28	18.32	98.89	Shut-in(1)
75	39.27	100.17	End Shut-in(1)
76	17.45	100.17	Open To Flow (2)
118	21.45	101.15	Shut-in(2)
180	33.90	102.33	End Shut-in(2)
181	1702.54	102.73	Final Hydro-static

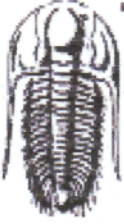
## Recovery

Length (ft)	Description	Volume (bbl)
15.00	Drig.mud (good odor)	0.21

\* Recovery from multiple tests

## 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: Wyatt Urban

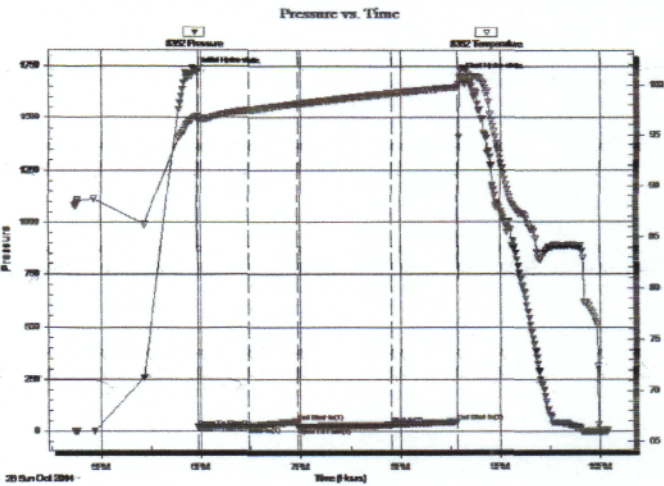
**22-21s-12w Stafford,KS**  
**Long A #3**  
Job Ticket: 57865      **DST#: 4**  
Test Start: 2014.10.26 @ 16:44:21

### GENERAL INFORMATION:

Formation: **Arbuckle**  
Deviated: No Whipstock:                      ft (KB)      Test Type: Conventional Bottom Hole (Reset)  
Time Tool Opened: 17:58:06      Tester: Gary Pevoteaux  
Time Test Ended: 22:04:06      Unit No: 56  
Interval: 3498.00 ft (KB) To 3578.00 ft (KB) (TVD)      Reference Elevations: 1846.00 ft (KB)  
Total Depth: 3578.00 ft (KB) (TVD)      1838.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: Fair      KB to GR/CF: 8.00 ft

**Serial #: 8352**      Outside  
Press@RunDepth: 30.33 psig @ 3499.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2014.10.26      End Date: 2014.10.26      Last Calib.: 2014.10.26  
Start Time: 16:44:26      End Time: 22:04:05      Time On Btm: 2014.10.26 @ 17:57:06  
Time Off Btm: 2014.10.26 @ 20:35:51

TEST COMMENT: IF:Weak to fair blow. Increase to 4 12".  
IS:No blow.  
FF:Weak blow. 1/2 - 3".  
FS:No blow.



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1725.51	96.85	Initial Hydro-static
1	20.24	96.38	Open To Flow (1)
32	21.76	97.45	Shut-In(1)
61	44.11	98.08	End Shut-In(1)
62	20.46	98.07	Open To Flow (2)
118	30.33	99.11	Shut-In(2)
157	44.74	99.73	End Shut-In(2)
159	1702.58	101.35	Final Hydro-static

### Recovery

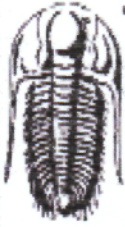
Length (ft)	Description	Volume (bbl)
0.00	Trace of GP	0.00
25.00	OCWM 12%o 12%w 76%m	0.35

\* Recovery from multiple tests

### 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: Wyatt Urban

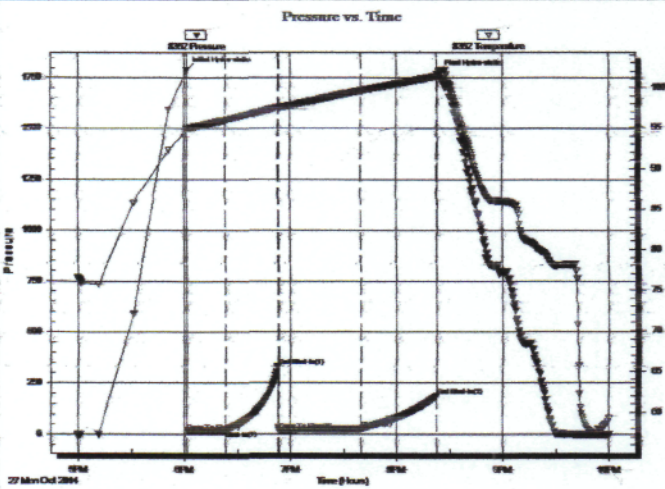
**22-21s-12w Stafford,KS**  
**Long A #3**  
 Job Ticket: 57867 **DST#: 6**  
 Test Start: 2014.10.27 @ 16:59:20

**GENERAL INFORMATION:**

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 18:01:35  
 Time Test Ended: 22:00:20  
 Interval: **3593.00 ft (KB) To 3604.00 ft (KB) (TVD)**  
 Total Depth: 3604.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Gary Pevoteaux  
 Unit No: 56  
 Reference Elevations: 1846.00 ft (KB)  
 1838.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8352** Outside  
 Press@RunDepth: 26.99 psig @ 3594.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.10.27 End Date: 2014.10.27 Last Calib.: 2014.10.27  
 Start Time: 16:59:25 End Time: 22:00:19 Time On Btm: 2014.10.27 @ 18:01:20  
 Time Off Btm: 2014.10.27 @ 20:23:35

**TEST COMMENT:** F:Fair blow . Increase to 11".  
 IS:No blow .  
 FF:Fair to strong blow . B.O.B. in 39 mins.  
 FS:No blow .



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1789.22	94.66	Initial Hydro-static
1	16.50	94.84	Open To Flow (1)
22	20.45	95.91	Shut-In(1)
52	328.88	97.55	End Shut-In(1)
52	18.90	97.45	Open To Flow (2)
99	26.99	99.57	Shut-In(2)
142	186.31	101.31	End Shut-In(2)
143	1769.47	101.62	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
0.00	945 ft. of GIP	0.00
10.00	Clean oil	0.14
10.00	HOCM 35%o 65%m	0.14

\* Recovery from multiple tests

**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: Wyatt Urban

**22-21s-12w Stafford,KS**  
**Long A #3**  
 Job Ticket: 57868 **DST#: 7**  
 Test Start: 2014.10.28 @ 03:43:53

**GENERAL INFORMATION:**

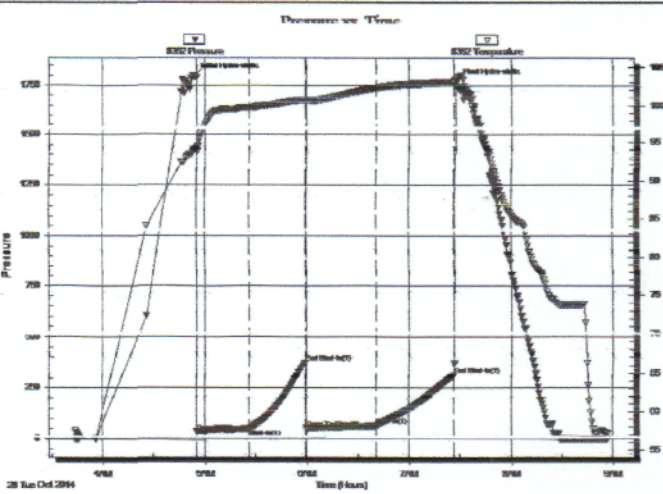
Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Test Opened: 04:55:22  
 Time Test Ended: 08:56:53  
 Interval: **3593.00 ft (KB) To 3619.00 ft (KB) (TVD)**  
 Total Depth: **3610.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Gary Bayoteaux  
 Unit No: 56  
 Reference Elevations: 1846.00 ft (KB)  
 1928.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8352**

**Outside**

Press@RunDepth: 64.33 psig @ 3594.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.10.28 End Date: 2014.10.28 Last Calib.: 2014.10.28  
 Start Time: 03:43:58 End Time: 08:56:52 Time On Btm: 2014.10.28 @ 04:54:08  
 Time Off Btm: 2014.10.28 @ 07:26:08

**TEST COMMENT:** F:Strong blow . B.O.B. in 12 mins.  
 IS:Weak blow . (surface)  
 FF:Strong blow . B.O.B. in 12 - 13 mins.  
 FS:Weak blow . 1/4".



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1796.09	94.12	Initial Hydro-static
2	35.25	93.85	Open To Flow (1)
32	49.03	99.68	Shut-In(1)
65	375.64	100.71	End Shut-In(1)
66	50.40	100.02	Open To Flow (2)
107	64.33	102.30	Shut-In(2)
153	313.03	103.07	End Shut-In(2)
154	1766.47	103.63	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
0.00	730 ft of GIP	0.00
35.00	Clean Oil	0.49
60.00	GOCM 15%g 30%o 55%m	0.84

\* Recovery from multiple tests

**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: Wyatt Urban

**22-21s-12w Stafford,KS**  
**Long A #3**  
 Job Ticket: 57869 **DST#: 8**  
 Test Start: 2014.10.28 @ 15:22:40

**GENERAL INFORMATION:**

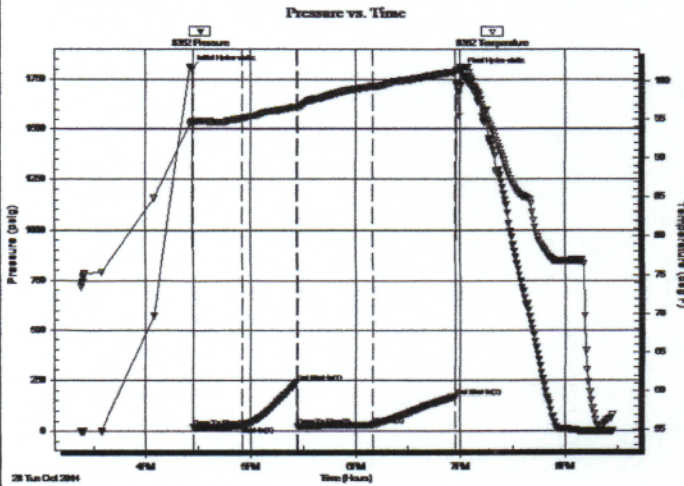
Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 16:27:10  
 Time Test Ended: 20:27:25  
 Interval: **3620.00 ft (KB) To 368.00 ft (KB) (TVD)**  
 Total Depth: 3638.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Poor  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Gary Pevoteaux  
 Unit No: 56  
 Reference Elevations: 1846.00 ft (KB)  
 1838.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8352**

**Outside**

Press@RunDepth: 30.48 psig @ 3621.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.10.28 End Date: 2014.10.28 Last Calib.: 2014.10.28  
 Start Time: 15:22:45 End Time: 20:27:24 Time On Btm: 2014.10.28 @ 16:25:55  
 Time Off Btm: 2014.10.28 @ 19:00:55

**TEST COMMENT:** F:Fair blow . Increase to 9 1/2".  
 IS:No blow .  
 FF:Weak to fair blow . Increase to 5 1/2".  
 FS:No blow .



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1802.63	94.64	Initial Hydro-static
2	21.21	94.39	Open To Flow (1)
30	23.84	95.15	Shut-In(1)
61	239.37	96.74	End Shut-In(1)
61	23.24	96.69	Open To Flow (2)
104	30.48	99.32	Shut-In(2)
152	168.06	101.16	End Shut-In(2)
155	1789.08	101.78	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
0.00	190 ft.of GIP	0.00
8.00	Clean oil	0.11
24.00	HOCM 31%o 69%m	0.34

\* 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. 773

Date	10-22-14	Sec.	22	Twp.	21	Range	12	County	Haskell	State	KS	On Location	6:45pm	Finish	9:00pm
Lease								Location		Great Bend KS to 170RD					
Long A								Well No.		3					
Contractor								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.					
South Wind 3								7 E 1/4 N 410							
Type Job								Charge To		Mabil					
Surface								Street							
Hole Size								City		State					
12 1/4								Depth		The above was done to satisfaction and supervision of owner agent or contractor.					
8 5/8								Cement Amount Ordered		400 6940					
Tbg. Size								Cement Left in Csg.		30ft					
Depth								Shoe Joint		30ft					
T.D. 641								Meas Line		Displace 38.5 BBL					
Depth 643.11								39% CL		2% gel 1/2 flow					
EQUIPMENT								Common							
Pumptrk 20 No. Cementer Helper								Poz. Mix							
Bulktrk 4 No. Driver								Gel.							
Bulktrk pu No. Driver								Calcium							
JOB SERVICES & REMARKS								Hulls							
Remarks:								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							
Cement + did								Handling							
Cultrate								Mileage							
FLOAT EQUIPMENT															
								Guide Shoe							
								Centralizer							
								Baskets							
								AFU Inserts							
								Float Shoe							
								Latch Down							
								Pumptrk Charge							
								Mileage							
								Tax							
								Discount							
X Signature								Total Charge							

# 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. 868

Date	10-29-14	Sec.	22	Twp.	21	Range	12	County	Stafford	State	KS	On Location		Finish	5 WPM
Location												Great Bend 115 to 170rd 7E 1/4N Winto			

Lease	Long A	Well No.	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.
Contractor	Sutherland		3	Charge To	Major oil operations
Type Job	Production			Street	
Hole Size	7 7/8	T.D.	3693	City	State
Csg.	5 1/2 14" New	Depth	3692	The above was done to satisfaction and supervision of owner agent or contractor.	
Tbg. Size		Depth		Cement Amount Ordered 160s, 6 1/4 10% 10% 1/2 2 1/2 ge	
Tool		Depth		Meas Line Displace 89 1/2 ss 1 1/16 Flow seal	
Cement Left in Csg.	19.34	Shoe Joint	19.34	EQUIPMENT	

EQUIPMENT		Common
Pumptrk 16 No.	Cementer Billy	Poz. Mix
	Helper	
Bulktrk 3 No.	Driver Lonnie M	Gel.
	Driver	
Bulktrk Pu No.	Driver Fick	Calcium
	Driver	

JOB SERVICES & REMARKS		Hulls
Remarks:		Salt
Rat Hole	30sx	Flowseal
Mouse Hole		Kol-Seal
Centralizers	1-10 12-15	Mud CLR 48
Baskets		CFL-117 or CD110 CAF 38
D/V or Port Collar		Sand
Pipe on bottom make circulation		Handling
Pump 1000 gal mud clear Plug Rat hole w/ 30sx Hooked to 5 1/2 csg pump		Mileage
130sx cement, blink down, unhooked		FLOAT EQUIPMENT
Washed Pump and Lines 1000 released		Guide Shoe
Plug displaced w/ 89 1/2 ss water, released and plug held.		Centralizer 14 turbos
Left PSI - 500		Baskets
Plug landed PSI 1500		AFU Inserts
		Float Shoe
		Latch Down
		1,000 gal mud clear
		Pumptrk Charge
		Mileage

Signature <i>[Signature]</i>		Tax
		Discount
		Total Charge