

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1271590
OIL & GAS CONSERVATION DIVISION

Form ACO-1
November 2016

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

Gas DH EOR

OG GSW

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 EOR Conv. to SWD

Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: _____

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 Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

1271590

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Electric Log Run	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Geologist Report / Mud Logs	<input type="checkbox"/> Yes <input type="checkbox"/> No			
List All E. Logs Run:				

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)*

Date of first Production/Injection or Resumed Production/Injection:	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

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>			PRODUCTION INTERVAL: Top _____ Bottom _____	

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:
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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
Mai-Krug "L" #1
NE-SW-NE-SW (1814' FSL & 1940' FWL)
Section 15-15s-14w
Russell County, Kansas

Page 1

5 1/2" Production Casing Set

Contractor: Southwind Drilling Co. (rig #3)
Commenced: October 14, 2015
Completed: October 20, 2015
Elevation: 1882' K.B., 1880' D.F., 1874' G.L.
Casing program: Surface; 8 5/8" @ 517'
Production, 5 1/2" @ 3399'
Sample: Samples saved and examined 2350' to the Rotary Total Depth.
Drilling time: One (1) foot drilling time recorded and kept 2350' to the Rotary Total Depth.
Measurements: All depths measured from the Kelly Bushing.
Drill Stem Tests: There were five (5) Drill Stem Tests ran by Trilobite Testing Co.
Electric Log: By Casedhole Solutions, Dual Induction, Compensated Density/Neutron Log and Micro.

<u>Formation</u>	<u>Log Depth</u>	<u>Sub-Sea Datum</u>
Anhydrite	905	+977
Base Anhydrite	939	+943
Grand Haven	2446	-564
Dover	2469	-587
2 nd Tarkio Sand	2478	-596
Tarkio Lime	2515	-633
Elmont	2580	-698
Howard	2718	-836
Topeka	2787	-905
Heebner	3017	-1135
Toronto	3035	-1153
Lansing	3081	-1199
Base Kansas City (Mai)	3284	-1402
Arbuckle	3328	-1446
Rotary Total Depth	3400	-1518
Log Total Depth	3402	-1520

All tops and zones corrected to Electric Log Measurement

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

1st TARKIO SAND

2455-2462' Poorly developed – no true sand development.

2nd TARKIO SAND

2478-2490' Sand, gray, grayish, green; very fine grained, micaeous, friable, fair intergranular porosity, trace gas bubbles, no free oil and no odor in fresh samples

3rd TARKIO SAND

2537-2550' Poor sand development – no shows.

TOPEKA SECTION

2810-2820' Limestone, cream, gray, slightly chalky, scattered pin point porosity, predominately dense, no shows.

2937-2950' Limestone, gray, dark gray, fossiliferous, slightly cherty, few chalky, no shows.

2965-2980' Limestone, white, fossiliferous in part, highly chalky, plus white chalk.

2980-3006' Limestone, as above, chalky, plus gray/amber chert.

TORONTO SECTION

3035-3046' Limestone, gray, white, fine to medium crystalline, chalky, trace golden brown stain, no free oil and no odor in fresh samples. Trace gray fossiliferous, chert.

LANSING SECTION

3081-3091' Limestone, tan, white, finely crystalline, chalky, scattered pin point porosity, trace brown stain, trace of free oil and no odor in fresh samples.

3103-3107' Limestone, tan, gray, fine and medium crystalline, few sub-oomoldic, poor visible porosity, questionable edge staining, no free oil and no odor.

3124-3130' Limestone, white, few fossiliferous, chalky, no shows.

3149-3152' Limestone, tan, brown, finely crystalline, few fossiliferous, chalky, brown stain, show of free oil (trace gas bubbles) and faint odor in fresh samples.

3154-3160' Limestone, tan, oolitic, chalky, few cherty, trace golden brown stain, no free oil and no odor in fresh samples.

Drill Stem Test #1 **3082-3172**

Times: 30-30-30-30

Blow: Weak

Recovery: 10' mud, few oil spots

Pressures: ISIP 50 psi
FSIP 40 psi
IFP 19-20 psi
FFP 15-19 psi
HSH 1595-1559 psi

3176-3190' Limestone, tan, oomoldic, fair oomoldic porosity, (barren), plus white chalk.

3202-3210' Limestone, tan, gray, finely crystalline, granular, fair porosity, plus gray chert, no shows.

3227-3237' Limestone, white, tan, fine and medium crystalline, chalky, poor porosity, no shows.

3239-3250' Limestone, white, oolitic, chalky, golden brown stain, trace of free oil and faint odor in fresh samples.

3259-3272' Limestone, gray, cream, oomoldic, fair oomoldic porosity, brown stain and saturation, fair show of free oil and fair to good odor in fresh samples.

Drill Stem Test #2 **3230-3275**

Times: 30-30-30-30

Blow: Weak

Recovery: 15' mud

Pressures: ISIP 366 psi
FSIP 198 psi
IFP 16-19 psi
FFP 20-20 psi
HSH 1674-1635 psi

3295-3300' Limestone, tan, fossiliferous, few cherty, plus tan, fossiliferous, chert, no stain, no free oil and questionable odor in fresh samples.

ARBUCKLE SECTION

3328-3333' Dolomite, gray, medium and coarse crystalline, fair inter-crystalline porosity, fair stain and saturation, fair show of free oil and good odor in fresh samples.

Drill Stem Test #3 **3296-3333**

Times: 30-30-30-30
Blow: Weak
Recovery: 5' clean oil
5' very slightly oil cut mud
(5% oil; 95% mud)
Pressures: ISIP 1077 psi
FSIP 1073 psi
IFP 15-18 psi
FFP 16-24 psi
HSH 1723-1693 psi

3333-3336' Dolomite, as above, fair stain and saturation, fair to good show of free oil and good odor in fresh samples.

Drill Stem Test #4 **3296-3336**

Times: 45-30-45-30
Blow: Fair
Recovery: 65' clean oil
30' very slightly oil cut mud
(5% oil; 95% mud)
Pressures: ISIP 1063 psi
FSIP 1053 psi
IFP 17-34 psi
FFP 38-93 psi
HSH 1729-1655 psi

3336-3344' Dolomite, white and gray, medium and coarse crystalline, fair inter-crystalline porosity, few with fair to good vuggy type porosity, brown stain and saturation, show of free oil and good odor in fresh samples.

Drill Stem Test #5 **3291-3344**

Times: 30-30-45-45

Blow: Strong

Recovery: 360' clean oil
180' slightly oil and gas cut mud
(5% oil; 95% mud)

Pressures: ISIP 993 psi
FSIP 974 psi
IFP 30-117 psi
FFP 125-228 psi
HSH 1731-1673 psi

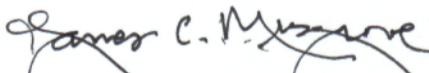
- 3344-3360' Dolomite, as above, decreasing stain, show of free oil, good odor, plus white, chalk.
- 3360-3368' Dolomite, cream, white, finely crystalline, few cherty, dense, plus iron pyrite, no shows.
- 3368-3380' Dolomite, cream, white, medium and coarse crystalline, fair porosity, spotty brown stain, show of free oil and good odor in fresh samples.
- 3380-3402' Dolomite, as above decreasing stain, trace of free oil and faint odor in fresh samples' plus trace of white chert.

Rotary Total Depth 3400
Log Total Depth 3402

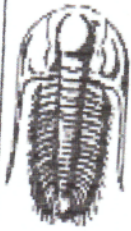
Recommendations:

The 5 1/2" production casing was set and cemented on Mai Oil Operations Inc., Mai-Krug "L" #1.

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

15-15s-14w Russell, KS

Mai-Krug "L" #1

Job Ticket: 64856

DST#: 1

Test Start: 2015.10.17 @ 17:30:00

GENERAL INFORMATION:

Formation: **LISO-A-T**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:46:45
 Time Test Ended: 23:55:15
 Interval: **3082.00 ft (KB) To 3172.00 ft (KB) (TVD)**
 Total Depth: 3172.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)
 Tester: Brett Dickinson
 Unit No: 81
 Reference Elevations: 1882.00 ft (KB)
 1874.00 ft (CF)
 KR to GR/CF: 8.00 ft

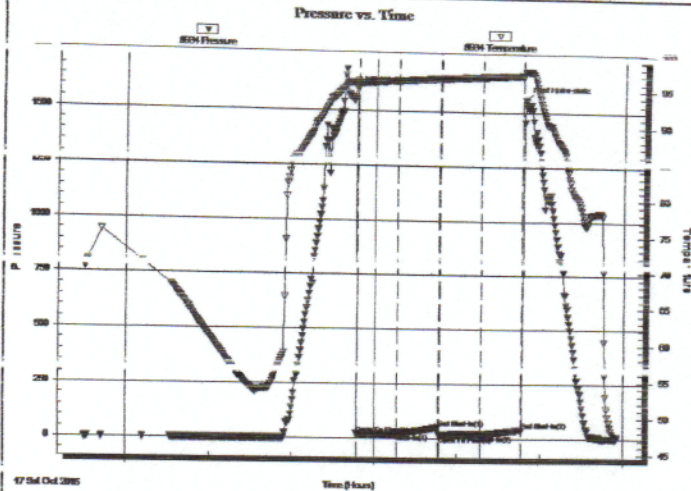
Serial #: 8934

Outside

Press@RunDepth: 19.00 psig @ 3083.00 ft (KB)
 Start Date: 2015.10.17 End Date: 2015.10.17
 Start Time: 17:30:05 End Time: 23:55:14

Capacity: 8000.00 psig
 Last Calib.: 2015.10.17
 Time On Btm: 2015.10.17 @ 20:46:15
 Time Off Btm: 2015.10.17 @ 22:47:45

TEST COMMENT: F-1" blow
 IS-No blow
 FF-weak surface blow died in 15 min
 FOR No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1594.98	96.00	Initial Hydro-static
1	19.47	95.51	Open To Flow (1)
30	20.00	96.14	Shut-In(1)
60	49.99	96.48	End Shut-In(1)
61	15.34	96.48	Open To Flow (2)
61	15.34	96.48	Shut-In(2)
120	40.18	97.06	End Shut-In(2)
122	1558.53	97.68	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud	0.14

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

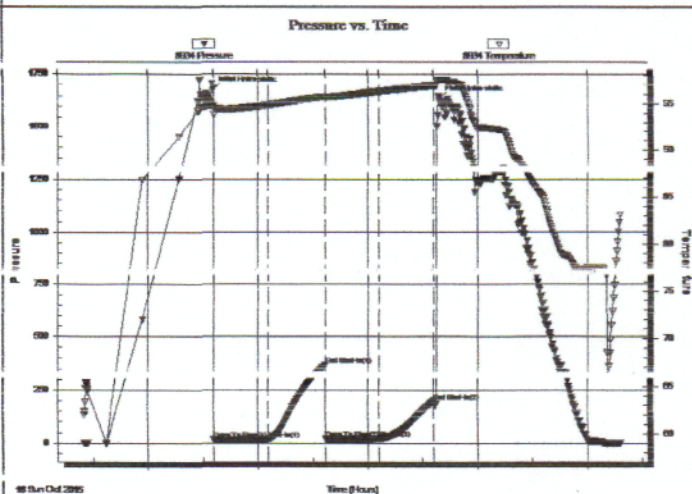
15-15s-14w Russell, KS
Mai-Krug "L" #1
Job Ticket: 64857 **DST#: 2**
Test Start: 2015.10.18 @ 09:25:00

GENERAL INFORMATION:

Formation: **L15 "L"**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened: 10:36:00 Tester: Brett Dickinson
Time Test Ended: 14:18:15 Unit No: 81
Interval: **3230.00 ft (KB) To 3275.00 ft (KB) (TVD)** Reference Elevations: 1882.00 ft (KB)
Total Depth: 3275.00 ft (KB) (TVD) 1874.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 8.00 ft

Serial #: 8934 Outside
Press@RunDepth: 20.40 psig @ 3231.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2015.10.18 End Date: 2015.10.18 Last Calib.: 2015.10.18
Start Time: 09:25:05 End Time: 14:18:14 Time On Btrn: 2015.10.18 @ 10:35:15
Time Off Btrn: 2015.10.18 @ 12:39:00

TEST COMMENT: IF-Weak surface blow died in 25 min
ISI-No blow
FF-No blow
CFW-No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1674.35	94.77	Initial Hydro-static
1	15.88	93.83	Open To Flow (1)
31	19.17	94.86	Shut-In(1)
62	365.98	95.70	End Shut-In(1)
62	19.59	95.50	Open To Flow (2)
64	20.40	96.34	Shut-In(?)
121	198.23	96.88	End Shut-In(2)
124	1635.02	97.46	Final Hydro-static

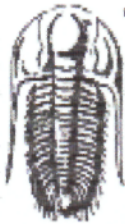
Recovery

Length (ft)	Description	Volume (bbl)
15.00	Mud	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: Jim Musgrove

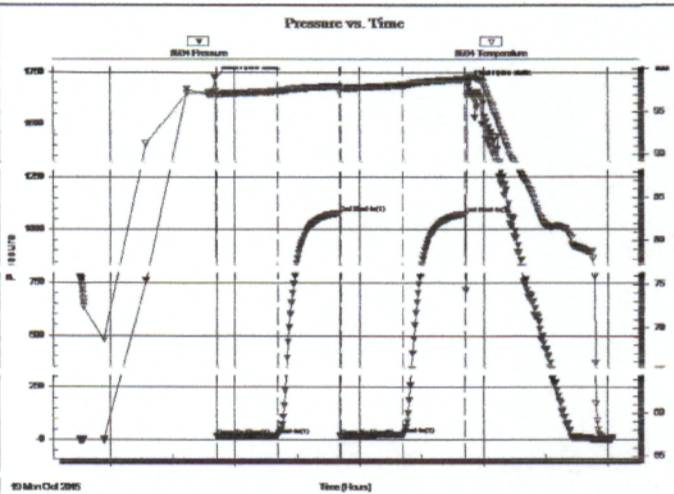
15-15s-14w Russell, KS
Mai-Krug "L" #1
Job Ticket: 64858 **DST#: 3**
Test Start: 2015.10.19 @ 01:45:00

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 02:51:15
Time Test Ended: 06:02:00
Interval: **3296.00 ft (KB) To 3333.00 ft (KB) (TVD)**
Total Depth: 3333.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Reference Elevations: 1882.00 ft (KB)
1874.00 ft (CF)
KR to GR/CF: 8.00 ft

Serial #: 8934 **Outside**
Press@RunDepth: 23.58 psig @ 3297.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2015.10.19 End Date: 2015.10.19 Last Calib.: 2015.10.19
Start Time: 01:45:05 End Time: 06:01:59 Time On Btm: 2015.10.19 @ 02:50:45
Time Off Btm: 2015.10.19 @ 04:52:30

TEST COMMENT: IF-1/2" blow
IS-No blow
FF-surface blow
TOFW blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1723.26	97.45	Initial Hydro-static
1	15.32	96.78	Open To Flow (1)
30	18.35	97.42	Shut-In (1)
60	1077.46	98.00	End Shut-In (1)
61	15.77	97.76	Open To Flow (2)
64	22.58	98.12	Shut-In (?)
121	1073.06	98.81	End Shut-In (2)
122	1692.77	99.04	Final Hydro-static

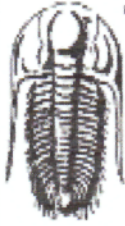
Recovery

Length (ft)	Description	Volume (bbl)
5.00	SGO 5%G 95%O	0.07
5.00	VSOCM 5%O 95%M	0.07

* 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: Jim Musgrove

15-15s-14w Russell,KS
Mai-Krug "L"#1
 Job Ticket: 64859 **DST#: 4**
 Test Start: 2015.10.19 @ 10:30:00

GENERAL INFORMATION:

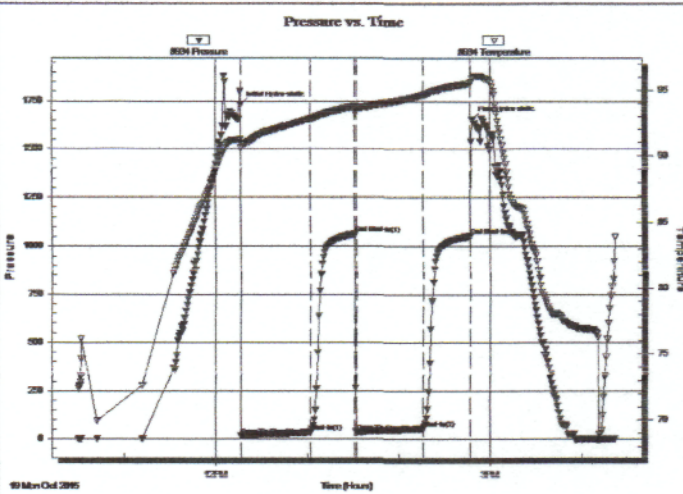
Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 12:16:45
 Time Test Ended: 16:22:15
 Interval: **3296.00 ft (KB) To 3336.00 ft (KB) (TVD)**
 Total Depth: 3336.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brett Dickinson
 Unit No: 81
 Reference Elevations: 1882.00 ft (KB)
 1874.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8934

Outside

Press@RunDepth: 53.18 psig @ 3297.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.10.19 End Date: 2015.10.19 Last Calib.: 2015.10.19
 Start Time: 10:30:05 End Time: 16:22:14 Time On Btmr: 2015.10.19 @ 12:16:15
 Time Off Btmr: 2015.10.19 @ 14:48:00

TEST COMMENT: F-3 1/4" blow
 IS-No blow
 FF-2 1/2" blow
 FSI-No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1729.86	91.21	Initial Hydro-static
1	16.59	90.58	Open To Flow (1)
46	33.69	92.79	Shut-In(1)
75	1063.14	93.76	End Shut-In(1)
76	37.76	93.59	Open To Flow (2)
120	53.18	94.64	Shut-In(2)
151	1053.25	95.54	End Shut-In(2)
152	1654.99	95.91	Final Hydro-static

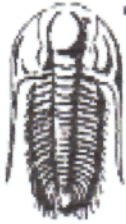
Recovery

Length (ft)	Description	Volume (bbl)
30.00	VSOCM 5%O 95%M	0.42
65.00	GO 15%G 85%)	0.91
0.00	90' GIP	0.00

* 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: Jim Musgrove

15-15s-14w Russell,KS
Mai-Krug "L"#1
 Job Ticket: 64861 **DST#: 5**
 Test Start: 2015.10.19 @ 20:30:00

GENERAL INFORMATION:

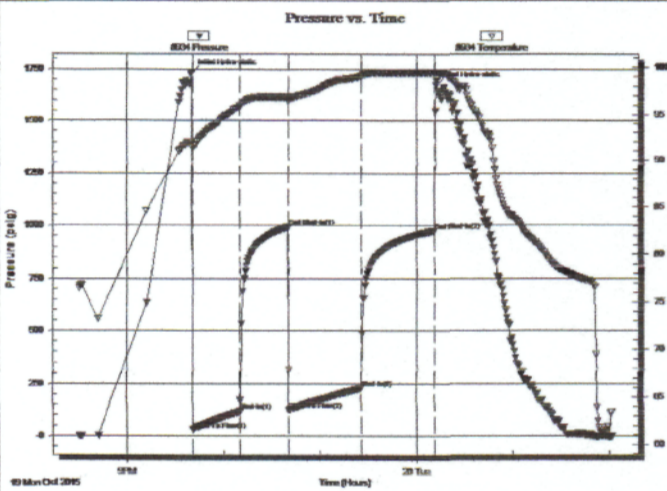
Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 21:41:00
 Time Test Ended: 02:02:00
 Interval: **3297.00 ft (KB) To 3344.00 ft (KB) (TVD)**
 Total Depth: 3344.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brett Dickinson
 Unit No: 81
 Reference Elevations: 1882.00 ft (KB)
 1874.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8934

Outside

Press@RunDepth: 227.81 psig @ 3298.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.10.19 End Date: 2015.10.20 Last Calib.: 2015.10.20
 Start Time: 20:30:05 End Time: 02:01:59 Time On Btm: 2015.10.19 @ 21:40:15
 Time Off Btm: 2015.10.20 @ 00:12:15

TEST COMMENT: IF-BOB in 7 min
 IS-1/2" blow
 FF-BOB in 8 min
 FSI-surface blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1730.61	91.95	Initial Hydro-static
1	30.32	91.32	Open To Flow (1)
30	117.33	95.83	Shut-In(1)
60	992.65	96.79	End Shut-In(1)
61	124.53	96.53	Open To Flow (2)
106	227.81	99.04	Shut-In(2)
151	973.92	99.32	End Shut-In(2)
152	1672.53	99.48	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	SOCM 5%G 10%O 85%O	2.52
360.00	GO 15% 85%O	5.05
0.00	180' GIP	0.00

* Recovery from multiple tests

Gas Rates

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

QUALITY OILWELL CEMENTING, INC.

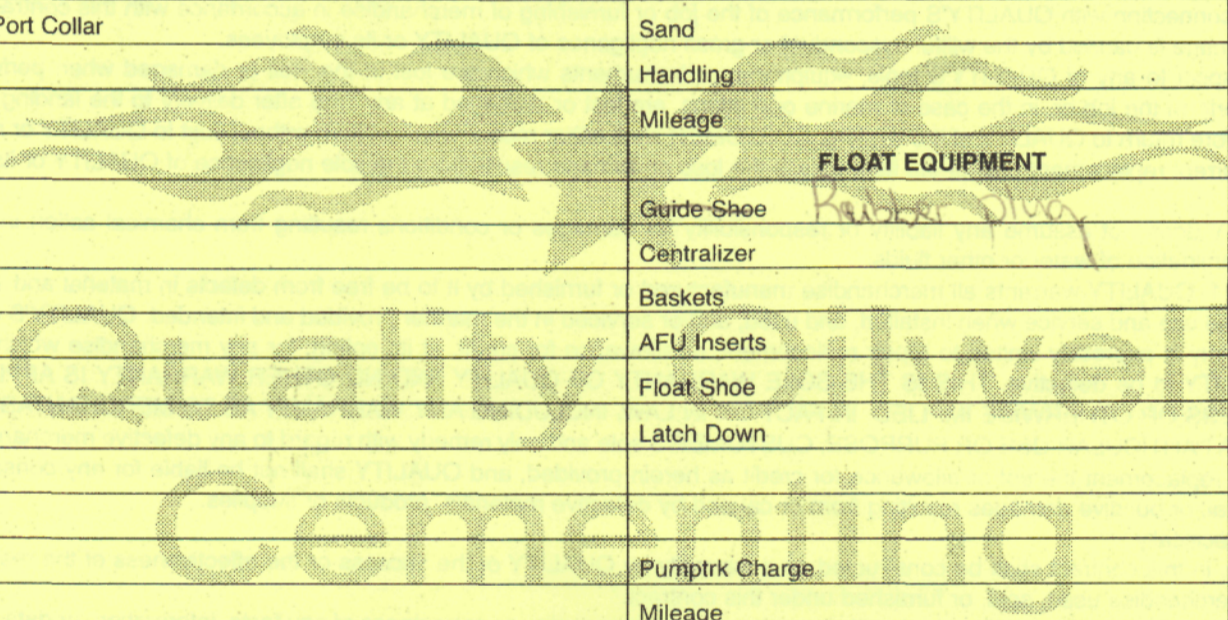
Federal Tax I.D.# 20-2886107

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

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

No. 1641

Date	10-14-15	Sec.	15	Twp.	15	Range	14	County	Russell	State	KS	On Location	Finish	
Location													Russell, KS - 5 to Winterset Rd, 3/4 W	
Lease	Mai-Krug "L"					Well No.	1	Owner	M. Intro					
Contractor	Southwind					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	Surface													
Hole Size	12 1/4"		T.D.	517'		Charge To	Mai oil operations							
Csg.	8 5/8"		Depth	517'		Street								
Tbg. Size			Depth			City								
Tool			Depth			State								
Cement Left in Csg.	15'		Shoe Joint	15'		The above was done to satisfaction and supervision of owner agent or contractor.								
Meas Line			Displace	31 3/4 BLS		Cement Amount Ordered 250 60/40 3% CC 2% Gel								
EQUIPMENT						Common								
Pumptrk	17	No.	Cementer	T. Travis		Poz. Mix								
Bulktrk	3	No.	Driver	Nick		Gel.								
Bulktrk	p.m.	No.	Driver	Rick		Calcium								
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 Rubber plug								
						Centralizer								
						Baskets								
						AFU Inserts								
						Float Shoe								
						Latch Down								
						Pumptrk Charge								
						Mileage								
						Tax								
						Discount								
						Total Charge								
Signature						[Signature]								



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. 1853

Date	10-20-15	Sec.	15	Twp.	15	Range	14	County	Russell	State	KS	On Location	9:00 PM
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Location *Russell S to Winnesat LW S 10*

Lease <i>Mini/Krong</i>	Well No. <i>#1</i>	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 <i>Southwind #3</i>		Charge To <i>Ma Oil</i>
Type Job <i>Production String</i>		
Hole Size <i>7 7/8</i>	T.D. <i>3400</i>	Street
Csg. <i>5 1/2</i>	Depth <i>3400</i>	
Tbg. Size	Depth	City State
Tool	Depth	The above was done to satisfaction and supervision of owner agent or contractor.
Cement Left in Csg. <i>31.32</i>	Shoe Joint <i>31.32</i>	Cement Amount Ordered <i>160 6% 10 10% S.L. 5% bit</i>
Meas Line	Displace <i>82 bbl</i>	

EQUIPMENT

Pumptrk <i>18</i>	No.	Cementer Helper <i>Travis</i>	Common
Bulktrk <i>3</i>	No.	Driver <i>Billy</i>	Poz. Mix
Bulktrk <i>Pu</i>	No.	Driver <i>Brest</i>	Gel.
			Calcium

JOB SERVICES & REMARKS

Remarks:	Salt
Rat Hole <i>30"</i>	Flowseal
Mouse Hole	Kol-Seal
Centralizers	Mud CLR 48 - <i>1000 gal</i>
Baskets	CFL-117 or CD110 CAF 38
D/V or Port Collar	Sand

Ran 3400 5 1/2 and the Centralizer

Mix 1000 gal Mud Blue

Mix 160

Displaced 82 bbl

Lift @ 700 lbs

Land at @ 1400 lbs

Plug held

Plug held

Plug held

Plug held

Plug held

Plug held

Plug held

Plug held

Plug held

Plug held

Plug held

Plug held

Plug held

Plug held

Plug held

Plug held

Plug held

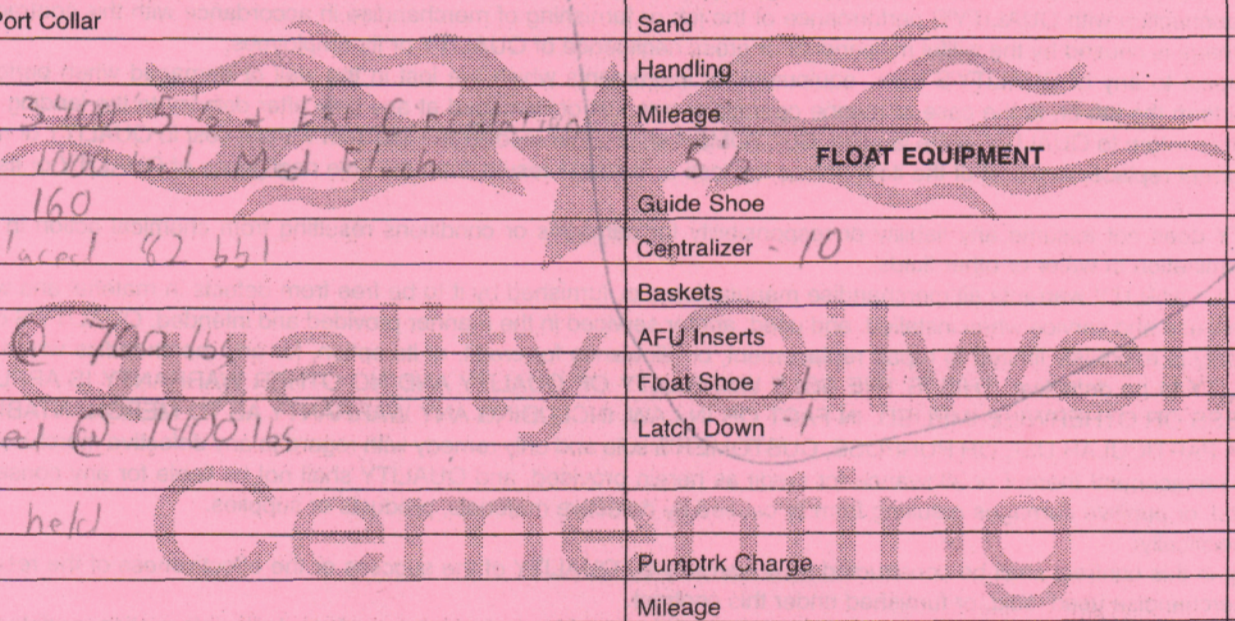
Plug held

Plug held

Plug held

X Signature *[Signature]*

Tax
Discount
Total Charge



left in yard