



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1095139  
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: \_\_\_\_\_

1095139

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			
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)*

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

<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> _____ _____
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Conservation Division  
Finney State Office Building  
130 S. Market, Rm. 2078  
Wichita, KS 67202-3802



Phone: 316-337-6200  
Fax: 316-337-6211  
<http://kcc.ks.gov/>

Mark Sievers, Chairman  
Thomas E. Wright, Commissioner  
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

September 28, 2012

Allen Bangert  
Mai Oil Operations, Inc.  
8411 PRESTON RD STE 800  
DALLAS, TX 75225-5520

Re: ACO1  
API 15-009-25704-00-00  
Ludwig 2  
SW/4 Sec.28-17S-14W  
Barton County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,  
Allen Bangert

**OPERATOR**

Company: Mai Oil Operations  
 Address: 8411 Preston Rd STE 800  
 Dallas, Tx 75225

Contact Geologist: Allen Bangert  
 Contact Phone Nbr: 214-219-8883

Well Name: Ludwig #2

Location: N2-NW-SW 2310' FSL 660' FWL

Pool: 8 5/8" @ 839'

State: Kansas

API: 15-009-25704-00-00

Field: Carroll

Country: USA



Scale 1:240 Imperial

Well Name: Ludwig #2  
 Surface Location: N2-NW-SW 2310' FSL 660' FWL  
 Bottom Location:  
 API: 15-009-25704-00-00  
 License Number:  
 Spud Date: 6/27/2012 Time: 9:00 AM  
 Region: Barton County  
 Drilling Completed: 7/4/2012 Time: 12:00 AM  
 Surface Coordinates:  
 Bottom Hole Coordinates:  
 Ground Elevation: 1859.00ft  
 K.B. Elevation: 1867.00ft  
 Logged Interval: 2700.00ft To: 3425.00ft  
 Total Depth: 3425.00ft  
 Formation: Arbuckle  
 Drilling Fluid Type: Chemical/Fresh Water Gel

**LOGGED BY**

Company: Musgrove Petroleum  
 Address: 212 Main  
 Claflin, KS 67525

Phone Nbr: 620-450-7087

Logged By: Geologist

Name: Kurt Talbott

**CONTRACTOR**

Contractor: Southwind Drilling

Rig #: 3

Rig Type: mud rotary

Spud Date: 6/27/2012

TD Date: 7/4/2012

Rig Release:

Time: 9:00 AM

Time: 12:00 AM

Time:

**ELEVATIONS**

K.B. Elevation: 1867.00ft

Ground Elevation: 1859.00ft

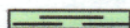
K.B. to Ground: 8.00ft

**ROCK TYPES**

Cht vari



Dolprim



shale, gm



Carbon Sh



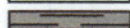
Sltst



Chtcong1



Lmst fw<7



shale, gry



shale, red

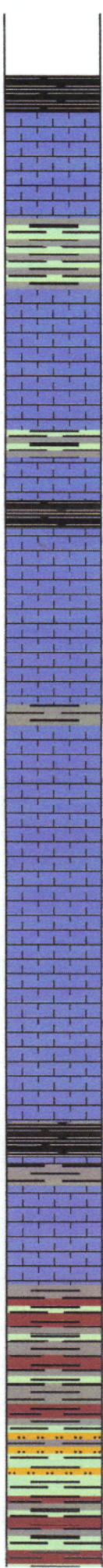
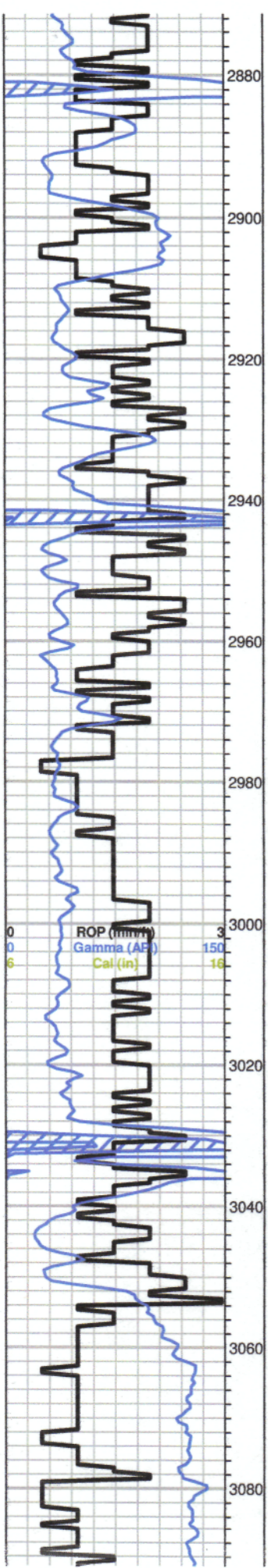
**OTHER SYMBOLS**

nst









Black carbon Shale

Ls-crm/tan, f-med xln, poor iner xln por, dense

A/A Fossils

A/A chalky

Ls-tan/buff, fxln, few fossils, chalky, poor vis por

Black carbon shale

Ls-tan/crm, f-med xln, ool, ofssils fragments, poor vis por, chalky, Trace black carbon shale

Ls-tan/buff, f-med xln, fossils, poor vis por

Ls-crm/tan, f-med xln, poor iner xln & poor finely vuffy por, ool/fossils, dense, dark brown stains, dead oil, Faint odor.

Ls-crm/tan, fxln, poor iner xln por with finely vug por, dark brown stains, dead oil, no odor.

Ls-tan/buff, fxln, ool, dense, poor vis por

Ls-tan/buff, dense, poor vis por,

Ls-crm/tan, fxln, poor iner xln por, spotty brown stains, NSFO, no odor

**Heebner 3030.0 (-1163.0) 0.0**

Black Carbon Shale

**Toronto 3042.0 (-1175.0) 0.0**

Ls-buff/tan, fxln, poor iner xln por, Trace spotty brown stains, NSFO, no odor

**Douglas 3054.0 (-1187.0) 0.0**

Shale-brown/gry/grn, Ls-tan/crm, chalky

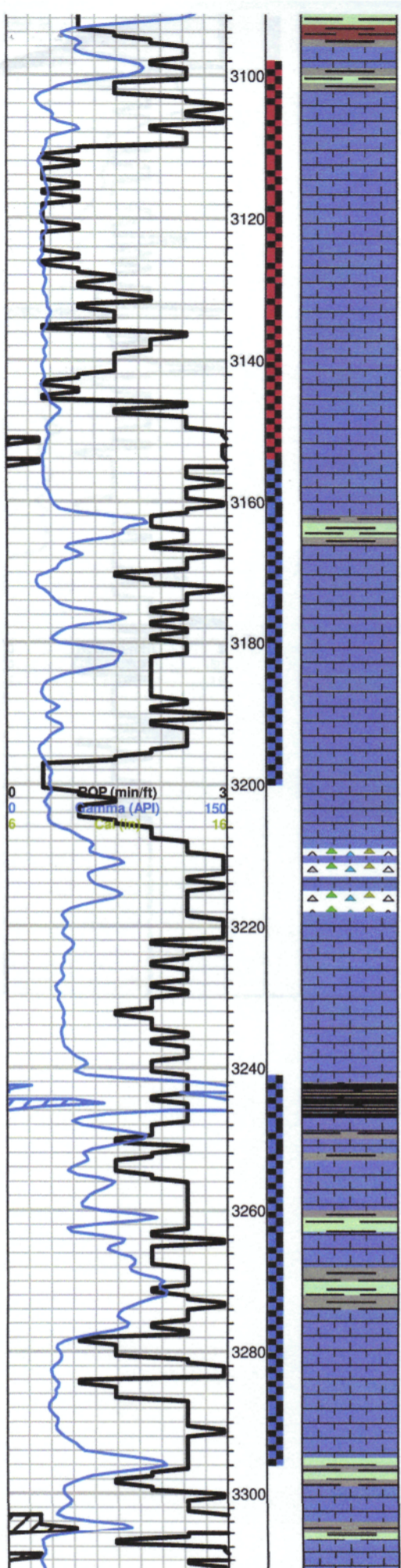
Shale-gry/grn, slightly silty

A/A

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100

**DST #1 3099-3154**  
30-45-45-60  
IF: BOB 1 min





**Brown Lime 3093.0 (-1226.0) 0.0**

Ls-tan/buff, fxln, dense, cherty

**Lansing 3103.0 (-1236.0) 0.0**

Ls-wht/crm, fxln, ool, poor inner ool to sub oom por, brown stains, fair/good odor, TrSFO

A/A, gas bubbles, poor/fair sub oom por

Ls-crm/tan, fxln, poor vis por, dense, chalky

Ls-wht/crm, fxln, fair sub oom por, gas bubbles, brown stains, TrSFO, faint odor.

Ls-crm/tan, fxln, poor vis por, dense

Shale-gry/grn/brwn

Ls-gry/tan, fxln, poor vis por, dense, chalky

Ls-tan/gry, fxln, ool, poor por, spotty dark brown stains, Faint odor, nSFO

Ls-crm/tan, fxln, poor por, trace golden brown stains, NSFO, faint odor

Ls-crm/tan/grym fxln, ool, good oom por, golden brown stains, Fair SFO, good odor

Ls-wht/crm, fxln, ool, fair inner ool por, trace brwn stains, NSFO

Ls-tan/gry, fxln, dense, poor vis por,

Ls-tan/buff, dense, por vis por, cherty

Black Carbon Shale

Ls-tan/buff, fxln, trace sub oom por, gas bubbles, trace brown stains, Fair odor

Ls-tan/buff/gry, fxln, fossils, poor ppt por, sporry brown stains, NSFO, faint odor

Ls-crm/tan, fxln, ool, poor sub oom por, dark brwn stains, cherty, chalky

Shale-brwn/gry/grn

Ls-crm/tan/gry, fxln, ool, fair inner clast por, slightly saturated/golden brown stains, TrSFO, fair/good odor

Ls-tan/gry, fxln, dense, poor ppt to finely vuggy por, black stains, NSFO, no odor

ISI: 6" in 12 min  
FF: BOB 6 min  
FSI: 10" in 19 min

Recovery:  
1550' Gas in Pipe  
250' WMCGO  
(40%g30%o20%m10%w)  
60' WMCGO  
(30%g30%o20%m20%w)  
250' Muddy Water  
(20%m80%w)

Pressures:  
ISIP 536psi  
FSIP 522psi  
IFP 35-147psi  
FFP 151-267psi  
HSH 1518-1480psi

**DST #2 3154-3200**  
30-30-30-30  
IF: Died in 10 min

Recovery:  
20' Mud

Pressures:  
ISIP 556psi  
FSIP 532psi  
IFP 14-18psi  
FFP 19-23psi  
HSH 1555-1509psi

0	Total Gas (units)	100
0	C1 (units)	100
0	C2 (units)	100
0	C3 (units)	100
0	C4 (units)	100

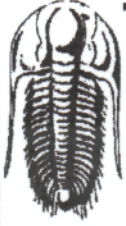
**DST #3 3241-3295**  
30-45-45-60

IF: BOB 2 min  
ISI: No return  
FF: BOB 3 min  
FSI: GTS, bled off, BOB 5 min

Recovery:  
2700' Gas in Pipe  
500' Gassy Oil  
(40%g60%o)

Pressures:  
ISIP 857psi  
FSIP 789psi  
IFP 22-101psi  
FFP 107-199psi  
HSH 1578-1539psi





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Mai Oil Oper. inc.  
8411 Preston Rd  
STE 800  
Dallas TX 75225+5520  
ATTN: Kurt Talbott

**28-17s-14w Barton,KS**  
**Ludwig #2**  
Job Ticket: 47890      **DST#: 1**  
Test Start: 2012.07.01 @ 11:38:05

## GENERAL INFORMATION:

Formation: **LKC"A-C"**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 12:57:40  
Time Test Ended: 18:19:20  
Interval: **3099.00 ft (KB) To 3154.00 ft (KB) (TVD)**  
Total Depth: 3154.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Poor  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Andy Carreira  
Unit No: 39  
Reference Elevations: 1867.00 ft (KB)  
1859.00 ft (CF)  
KB to GR/CF: 8.00 ft

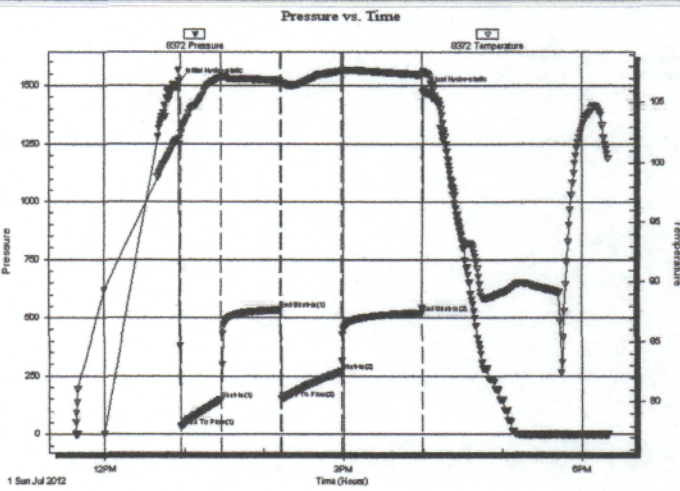
## Serial #: 8372

## Outside

Press@RunDepth: 267.29 psig @ 3103.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2012.07.01      End Date: 2012.07.01      Last Calib.: 2012.07.01  
Start Time: 11:38:05      End Time: 18:19:20      Time On Btm: 2012.07.01 @ 12:56:20  
Time Off Btm: 2012.07.01 @ 16:00:50

## TEST COMMENT:

IF:(30min) BOB, 1 min  
ISl:(45min) Return Blow, 2" in 2 min, 6" in 12 min, Decreased to surface blow  
FF:(45min) BOB,6 min.  
FSl:(60min) Return Blow, 2" in 2 min, 6" in 6 min, 10" in 19 min, Decreased to 3" blow



## PRESSURE SUMMARY

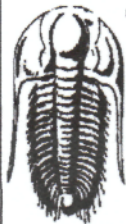
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1518.53	102.03	Initial Hydro-static
2	34.95	102.50	Open To Flow (1)
32	147.37	107.14	Shut-In(1)
77	536.30	106.86	End Shut-In(1)
78	150.58	106.70	Open To Flow (2)
122	267.29	107.63	Shut-In(2)
183	521.73	107.34	End Shut-In(2)
185	1480.88	107.56	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
250.00	MW m=20% w =80%	3.51
60.00	WMCGOg=30% w =20% m=20% o=30%	0.84
250.00	WMCGO g=40% w =10% m=20% o=30%	3.51
0.00	GIP= 1550	0.00

## Gas Rates

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



**TRIBOLITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Mai Oil Oper. inc.  
8411 Preston Rd  
STE 800  
Dallas TX 75225+5520  
ATTN: Kurt Talbott

**28-17s-14w Barton,KS**  
**Ludwig #2**  
Job Ticket: 47891      **DST#: 2**  
Test Start: 2012.07.02 @ 00:52:05

## GENERAL INFORMATION:

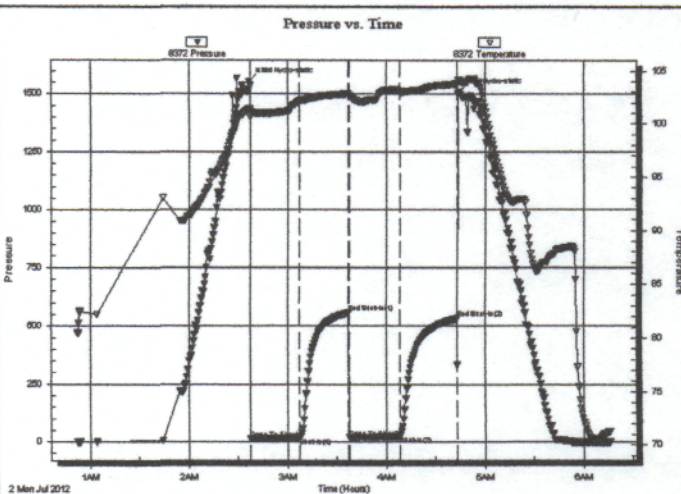
Formation: **LKC"E-F"**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 02:37:20  
Time Test Ended: 06:16:20  
Interval: **3154.00 ft (KB) To 3200.00 ft (KB) (TVD)**  
Total Depth: 3200.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Poor  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Andy Carreira  
Unit No: 39  
Reference Elevations: 1867.00 ft (KB)  
1859.00 ft (CF)  
KB to GR/CF: 8.00 ft

## Serial #: 8372

Outside

Press@RunDepth: 23.24 psig @ 3159.00 ft (KB)  
Start Date: 2012.07.02 End Date: 2012.07.02  
Start Time: 00:52:05 End Time: 06:16:20  
Capacity: 8000.00 psig  
Last Calib.: 2012.07.02  
Time On Btm: 2012.07.02 @ 02:36:30  
Time Off Btm: 2012.07.02 @ 04:44:20

TEST COMMENT: IF:(30min) Blow died in 10 min  
ISl:(30min) No Return  
FF:(30min) No Blow  
FSt:(30min) No Return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1555.34	101.39	Initial Hydro-static
1	14.22	100.68	Open To Flow (1)
31	18.83	102.17	Shut-In(1)
61	556.82	102.85	End Shut-In(1)
61	19.06	102.63	Open To Flow (2)
92	23.24	103.10	Shut-In(2)
127	532.33	103.81	End Shut-In(2)
128	1509.56	104.17	Final Hydro-static

## Recovery

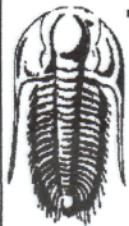
Length (ft)	Description	Volume (bbl)
20.00	Mud	0.28

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Mai Oil Oper. inc.  
8411 Preston Rd  
STE 800  
Dallas TX 75225+5520  
ATTN: Kurt Talbott

**28-17s-14w Barton,KS**  
**Ludwig #2**  
Job Ticket: 47892      **DST#: 3**  
Test Start: 2012.07.02 @ 15:28:05

## GENERAL INFORMATION:

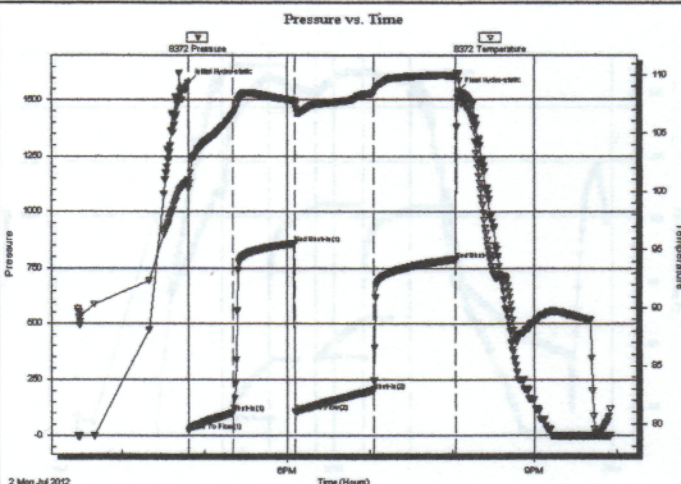
Formation: **LKC" H,I,J"**  
Deviated: **No Whipstock:**      ft (KB)  
Time Tool Opened: 16:48:30  
Time Test Ended: 21:54:29  
Test Type: **Conventional Bottom Hole (Reset)**  
Tester: **Andy Carreira**  
Unit No: **39**  
Interval: **3241.00 ft (KB) To 3295.00 ft (KB) (TVD)**  
Total Depth: **3295.00 ft (KB) (TVD)**  
Hole Diameter: **7.88 inches** Hole Condition: **Poor**  
Reference Elevations: **1867.00 ft (KB)**  
**1859.00 ft (CF)**  
KB to GR/CF: **8.00 ft**

## Serial #: 8372

**Outside**

Press@RunDepth: **199.85 psig @ 3244.00 ft (KB)**      Capacity: **8000.00 psig**  
Start Date: **2012.07.02**      End Date: **2012.07.02**      Last Calib.: **2012.07.02**  
Start Time: **15:28:05**      End Time: **21:54:29**      Time On Btmr: **2012.07.02 @ 16:48:20**  
Time Off Btmr: **2012.07.02 @ 20:04:20**

TEST COMMENT: IF:(30min) BOB, 2 min.  
ISl:(45min) No Return  
FF:(45min) BOB, 3 min.  
FSl:(60min) Gas to surface during bleed off. BOB, 5 min. (Red Flame) decreased to surface blow .



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1578.79	100.94	Initial Hydro-static
1	22.95	100.20	Open To Flow (1)
33	101.70	106.64	Shut-In(1)
77	857.86	107.81	End Shut-In(1)
78	107.18	107.37	Open To Flow (2)
135	199.85	108.43	Shut-In(2)
194	789.29	109.93	End Shut-In(2)
196	1539.52	110.01	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
500.00	GO g=40% o=60%	7.01
0.00	GTS	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. 5407

Date	6-28-12	Sec.	28	Twp.	17	Range	14	County	BARTON	State	KANSAS	On Location		Finish	
Lease	LUDWIG	Well No.	2			Location 281 & Hwy 4 - 2 mi - 1/2 N - E INTO									
Contractor	SOUTHWIND #3							Owner	MAT OIL OPERATIONS						
Type Job	SURFACE							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.							
Hole Size	12 1/4		T.D.	839'											
Csg.	8 5/8		Depth	839'											
Tbg. Size			Depth												
Tool			Depth												
Cement Left in Csg.			Shoe Joint	20'											
Meas Line			Displace	52 BLS											
			Cement Amount Ordered	350 1/4 3% 30 GEL											

**EQUIPMENT**

Pumptrk #15	No.	Cement Helper	NICK	Common
Bulktrk #12	No.	Driver	DOUG	Poz. Mix
Bulktrk P/u	No.	Driver	CRISCO	Gel.

**JOB SERVICES & REMARKS**

Remarks:	Calcium
Rat Hole	Hulls
Mouse Hole	Salt
Centralizers	Flowseal
Baskets	Kol-Seal
D/V or Port Collar	Mud CLR 48
	CFL-117 or CD110 CAF 38
	Sand
	Handling
	Mileage

CEMENTED CIRCULATE

**FLOAT EQUIPMENT**

	Guide Shoe
	Centralizer
	Baskets
	AFU Inserts
	Float Shoe
	Latch Down
	1 RUBBER PLUG

THANK YOU!

	Pumptrk Charge	
	Mileage	
		Tax
		Discount
		Total Charge

X Signature *Gary Huer*



# 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. 893

Date	Sec.	Twp.	Range	County	State	On Location	Finish
7-4-10	28	17	14	BARTON	KANSAS		1:00 PM
Lease	Well No.		Location				
LUDWIG	#2		281st Hwy 4 - 3W - 1N - E INTO				
Contractor	Owner						
SOUTHWIND DRILLING #3	MAT OIL OPERATIONS						
Type Job	To Quality Oilwell Cementing, Inc.						
PROD STRING	You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.						
Hole Size	T.D.		Charge To				
7 7/8"	3422'		MAT OIL OPERATIONS				
Csg.	Depth		Street				
5 1/2" - 14 - NEW	3421'		8411 PRESTON RD STE 800				
Tbg. Size	Depth		City				
			DALLAS				
Tool	Depth		State				
			TX, 75225				
Cement Left in Csg.	Shoe Joint		The above was done to satisfaction and supervision of owner agent or contractor.				
	21.35						
Meas Line	Displace		Cement Amount Ordered				
	83 BLS		160 40-100 20-100 20-100 20-100 20-100 20-100 20-100				
<b>EQUIPMENT</b>							
Pumptrk #15	No.	Cementer					
		Helper	NICK				
Bulktrk #8	No.	Driver					
		Driver	CODY				
Bulktrk #14	No.	Driver					
		Driver	CISAO				
<b>JOB SERVICES &amp; REMARKS</b>							
Remarks:	Calcium						
	Hulls						
Rat Hole	Salt						
30 SKS							
Mouse Hole	Flowseal						
15							
Centralizers	Kol-Seal						
1, 2, 3, 4, 5, 6, 7, 8, 10							
Baskets	Mud CLR 48 1000 GAL						
	CFL-117 or CD110 CAF 38						
D/V or Port Collar	Sand						
	Handling						
ESTABLISHED CIRCULATION 45 MIN	Mileage						
ON BOTTOM & PUMPED 1000 GALLONS							
MUD CLR 48 PLUGGED RATHOLE 30 SKS	<b>FLOAT EQUIPMENT</b>						
PLUGGED MORE 15 SKS - MOVED 115 SKS	Guide Shoe						
DOWNHOLE - DISCONNECTED - WASHED	Centralizer						
PUMP - RE-CONNECTED DROPPED PLUG	Baskets						
& DISPLACED - PLUG LANDED & HELD.	AFU Inserts						
	Float Shoe 1-5 1/2"						
	Latch Down 1-5 1/2" w/ PLUG						
	Pumptrk Charge						
	Mileage						
THANK YOU							Tax
Signature							Discount
Total Charge							