

Confidentiality Requested:

Yes No

**KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION**

Form ACO-1

January 2018

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: _____

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 Geologist Report / Mud Logs <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				

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
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) (Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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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
Louise #1
E/2-SW-NW-SW (1650'FSL & 350'FWL)
Section 12-19s-12w
Barton County, Kansas

Page 1

5 1/2 Production Casing Set

Contractor: Southwind Drilling Co. (rig #3)
Commenced: December 14, 2017
Completed: December 20, 2017
Elevation: 1830' K.B., 1828' D.F., 1828' G.L.
Casing program: Surface; 8 5/8" @ 370'
Production, 5 1/2" @ 3477'
Sample: Samples saved and examined 2800' to the Rotary Total Depth.
Drilling time: One (1) foot drilling time recorded and kept 2800' to the Rotary Total Depth.
Measurements: All depths measured from the Kelly Bushing.
Drill Stem Tests: There were six (6) Drill Stem Tests ran by Trilobite Testing Co.
Electric Log: By Eli, Dual Induction; Compensated Density/Neutron Log and Micro Log.

<u>Formation</u>	<u>Log Depth</u>	<u>Sub-Sea Datum</u>
Anhydrite	634	+1196
Base Anhydrite	659	-1171
Heebner	2978	-1148
Toronto	2996	-1166
Douglas	3014	-1184
Brown Lime	3093	-1263
Lansing	3107	-1277
Base Kansas City	3358	-1528
Arbuckle	3371	-1541
Rotary Total Depth	3480	-1650
Log Total Depth	3481	-1651

(All tops and zone(s) corrected to Electric Log Measurements)

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

TOPEKA SECTION

2920-2932' Limestone, gray, oolitic, few sub-oomoldic; trace black tarry stain, trace of free oil (heavy, black) no odor.

TORONTO SECTION

3004-3112' Limestone, white, tan, finely oolitic, few chalky; trace golden brown stain, no free oil and no odor in fresh samples.

LANSING SECTION

3110-3119' Limestone, white, gray, finely crystalline, fossiliferous in part; scattered porosity, fair golden brown stain and saturation, show of free oil and good odor in fresh samples.

3130-3144' Limestone, tan, oomoldic, good oomoldic porosity, good brown stain, and saturation, good show of free oil and good odor in fresh samples..

Drill Stem Test #1 **3096-3150**

Times: 30-45-45-45

Blow: Strong

Recovery: 1700' gas in pipe
100' gassy mud

Pressures: ISIP 224 psi
FSIP 224 psi
IFP 16-33 psi
FFP 31-56 psi
HSH 1478-1448 psi

3156-3166' Limestone, tan; oolitic/fossiliferous slightly cherty; few chalky in part, no shows.

3180-3190' Limestone, tan, finely crystalline, few oolitic, trace poor stain, no free oil and questionable odor in fresh samples.

3193-3200' Limestone, tan, oolitic, oomoldic, fair oomoldic porosity, fair stain and saturation, fair show of free oil and good odor in fresh samples.

Drill Stem Test #2 **3160-3200**

Times: 30-45-45-60

Blow: Strong

Recovery: 600' gas in pipe
30' very slightly oil & gas cut mud
(2% oil; 3% gas; 95% mud)

Pressures: ISIP 136 psi
FSIP 128 psi
IFP 15-19 psi
FFP 17-25 psi
HSH 1520-1504 psi

3250-3260' Limestone, tan, finely crystalline, sub-oomoldic, spotty stain, weak show of free oil and questionable odor in fresh samples.

- 3266-3280' Limestone, white, oolitic, chalky in part; poor visible porosity, no shows.
- 3280-3292' Limestone, white/cream, oomoldic, scattered oomoldic porosity, (barren).
- 3318-3330' Limestone, gray, cream, oolitic/fossiliferous, poor visible porosity, no shows.
- 3346-3352' Limestone, gray, white, chalky; few cherty; (dense) no shows.

ARBUCKLE SECTION

- 3371-3395' Dolomite, tan, sucrosic, granular, finely crystalline, scattered porosity, good golden brown stain and saturation, fair show of free oil and good odor.

Drill Stem Test #3 **3365-3395**

--Misrun-- Packer Run

Drill Stem Test #4 **3340-3395**

Times: 30-30-45-60

Blow: Strong

Recovery: 140' Gassy oil
120' Gassy muddy oil
(5% gas; 65% oil; 30% mud)
60' Gassy muddy oil
(20% gas; 60% oil; 20% mud)

Pressures: ISIP 741 psi
FSIP 684 psi
IFP 26-83 psi
FFP 89-130 psi
HSH 1639-1604 psi

- 3395-3406' Dolomite, tan, finely crystalline, few medium crystalline, sucrosic in part; fair stain and saturation; show of free oil and good odor in fresh samples.

Drill Stem Test #5 **3395-3406**

Times: 30-30-45-60

Blow: Good

Recovery: 60' clean oil
30' oil cut mud
(20% oil; 80% mud)

Pressures: ISIP 928 psi
FSIP 929 psi
IFP 16-25 psi
FFP 26-41 psi
HSH 1660-1642 psi

- 3406-3416' Dolomite, as above, few with fine vuggy type porosity, fair stain and

saturation, show of free oil and good door in fresh samples.

Drill Stem Test #6 **3395-3416**

Times: 30-30-45-60

Blow: Good

Recovery: 30' clean oil
15' muddy oil
(80% oil; 20% mud)

Pressures: ISIP 635 psi
FSIP 774 psi
IFP 16-22 psi
FFP 23-31 psi
HSH 1662-1620 psi

3416-3422' Dolomite, as above, plus white chert; spotty stain, trace of free oil and faint odor in fresh samples.

3424-3440' Dolomite, white, gray, medium crystalline, scattered porosity, trace white chalk and white chert.

3440-3460' Dolomite, as above, plus white and gray oolitic, chert, no shows.

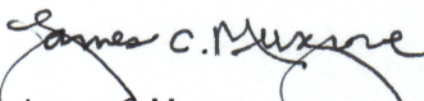
3460-3481' Dolomite, tan, finely crystalline, slightly cherty; plus chert as above, no shows.

Rotary Total Depth 3480
Log Total Depth 3481

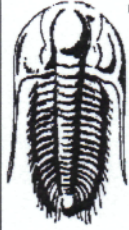
Recommendations:

5 1/2" production casing was set and cemented on the Mai Oil Operations, Inc. Louise #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 75225-5520
 ATTN: Jim Musgrove

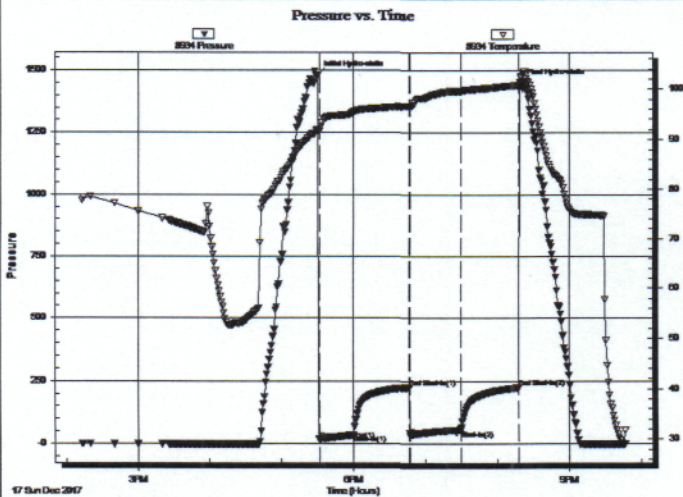
12-19S-12W Barton,KS
Louise #1
 Job Ticket: 63528 **DST#: 1**
 Test Start: 2017.12.17 @ 14:13:15

GENERAL INFORMATION:

Formation: **LKC 'A-C'**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 17:31:30
 Time Test Ended: 21:47:15
 Interval: **3096.00 ft (KB) To 3150.00 ft (KB) (TVD)**
 Total Depth: 3150.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Spencer J. Staab
 Unit No: 84
 Reference Elevations: 1830.00 ft (KB)
 1822.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8934 **Inside**
 Press@RunDepth: 56.29 psig @ 3099.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.12.17 End Date: 2017.12.17 Last Calib.: 2017.12.17
 Start Time: 14:13:15 End Time: 21:47:15 Time On Btm: 2017.12.17 @ 17:30:15
 Time Off Btm: 2017.12.17 @ 20:19:30

TEST COMMENT: 30-IF-Strong Blow; BOB in 4 mins
 45-IS-No Return
 45-FF-Very Strong Blow; BOB instantaneously
 45-FSI-No Return



PRESSURE SUMMARY

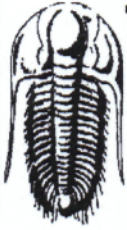
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1478.81	91.90	Initial Hydro-static
2	16.95	91.61	Open To Flow (1)
30	33.72	95.33	Shut-In(1)
77	224.68	96.65	End Shut-In(1)
77	31.65	96.59	Open To Flow (2)
119	56.29	99.61	Shut-In(2)
168	224.02	100.79	End Shut-In(2)
170	1448.95	102.47	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
100.00	GM 10%G 90%M	1.40
0.00	1700' GIP 100%G	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mai Oil Operations, Inc.
8411 Preston Rd STE 800
Dallas TX 75225-5520
ATTN: Jim Musgrove

12-19S-12W Barton,KS
Louise #1
Job Ticket: 63528 **DST#: 1**
Test Start: 2017.12.17 @ 14:13:15

Tool Information

Drill Pipe:	Length: 3078.00 ft	Diameter: 3.80 inches	Volume: 43.18 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 39000.00 lb
			<u>Total Volume: 43.18 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	3096.00 ft			Final 38000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	54.00 ft			
Tool Length:	82.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3069.00	
Shut In Tool	5.00			3074.00	
Hydraulic tool	5.00			3079.00	
Jars	5.00			3084.00	
Safety Joint	3.00			3087.00	
Packer	5.00			3092.00	28.00 Bottom Of Top Packer
Packer	4.00			3096.00	
Stubb	1.00			3097.00	
Perforations	1.00			3098.00	
Change Over Sub	1.00			3099.00	
Recorder	0.00	9120	Inside	3099.00	
Recorder	0.00	8934	Inside	3099.00	
Drill Pipe	31.00			3130.00	
Change Over Sub	1.00			3131.00	
Perforations	15.00			3146.00	
Bullnose	4.00			3150.00	54.00 Bottom Packers & Anchor
Total Tool Length:	82.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mai Oil Operations, Inc.

12-19S-12W Barton,KS

8411 Preston Rd STE 800
Dallas TX 75225-5520

Louise #1

Job Ticket: 63528

DST#: 1

ATTN: Jim Musgrove

Test Start: 2017.12.17 @ 14:13:15

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
100.00	GM 10%G 90%M	1.403
0.00	1700' GIP 100%G	0.000

Total Length: 100.00 ft Total Volume: 1.403 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 1/2#LCM

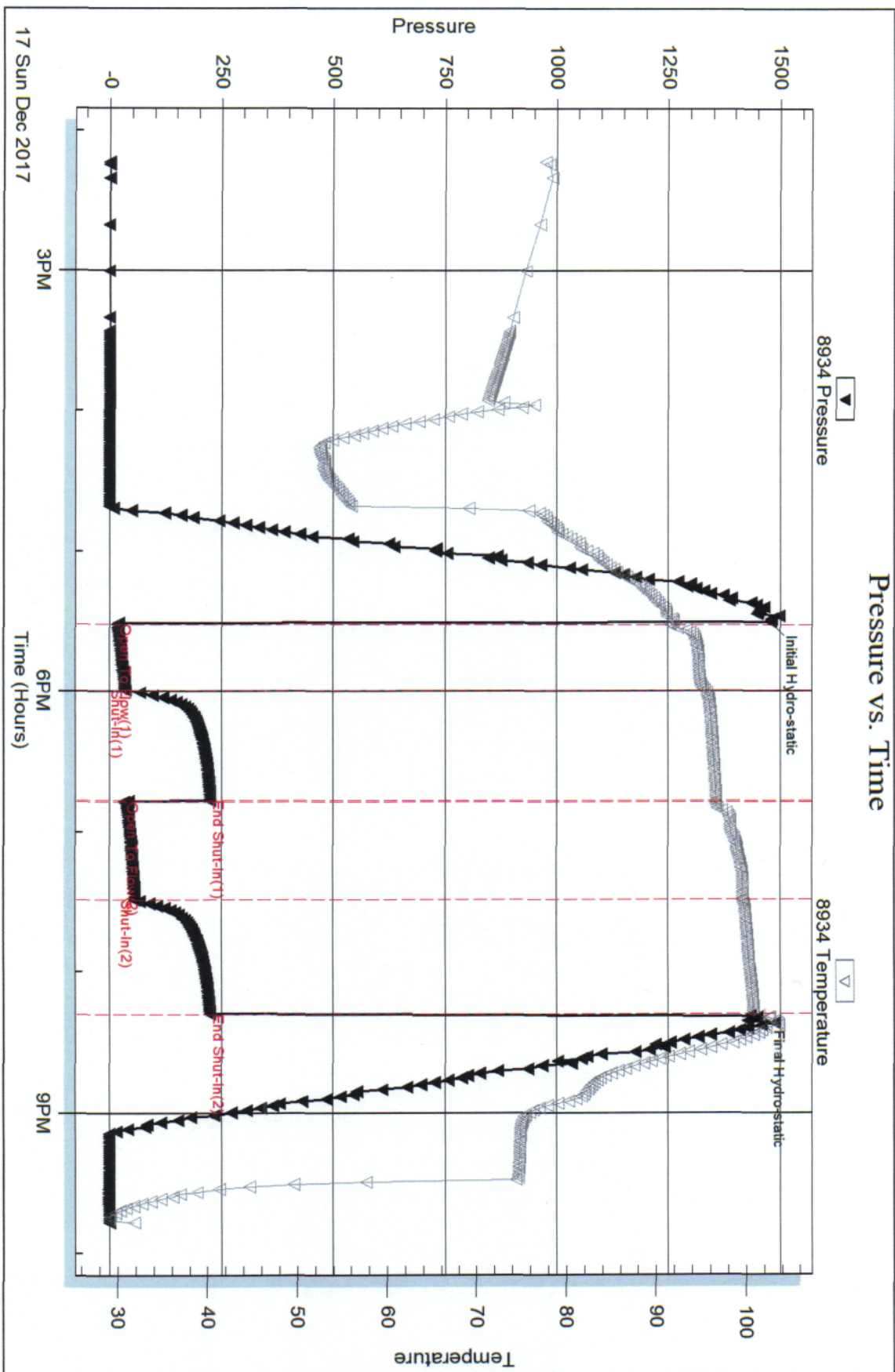
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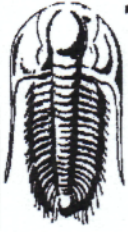
Inside

Mai Oil Operations, Inc.

Louise #1

DST Test Number: 1





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mai Oil Operations, Inc.
 8411 Preston Rd STE 800
 Dallas TX 75225-5520
 ATTN: Jim Musgrove

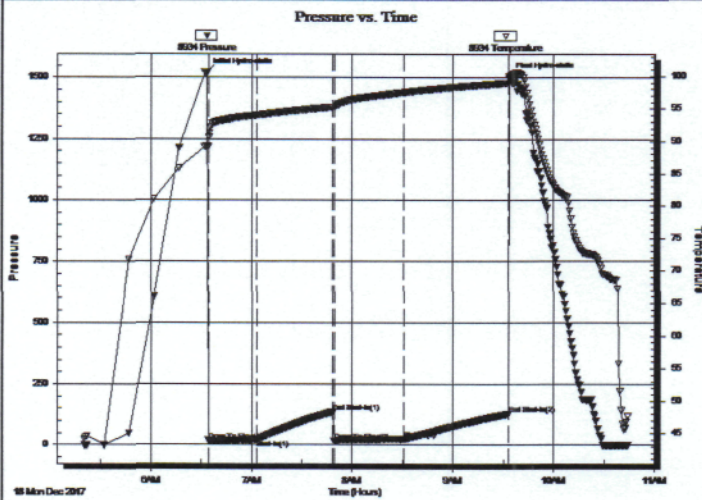
12-19S-12W Barton,KS
Louise #1
 Job Ticket: 63529 **DST#: 2**
 Test Start: 2017.12.18 @ 05:20:00

GENERAL INFORMATION:

Formation: **LKC 'F-G'**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 06:34:45
 Time Test Ended: 10:44:30
 Interval: **3160.00 ft (KB) To 3200.00 ft (KB) (TVD)**
 Total Depth: 3200.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Spencer J. Staab
 Unit No: 84
 Reference Elevations: 1830.00 ft (KB)
 1822.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8934 Inside
 Press@RunDepth: 24.87 psig @ 3163.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.12.18 End Date: 2017.12.18 Last Calib.: 2017.12.18
 Start Time: 05:20:15 End Time: 10:44:30 Time On Btm: 2017.12.18 @ 06:33:30
 Time Off Btm: 2017.12.18 @ 09:33:15

TEST COMMENT: 30-IF-Strong Blow ; BOB in 30 seconds
 45-ISI-No Return
 45-FF-Very Strong Blow ; BOB instantaneously
 60-FSI-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1519.38	89.20	Initial Hydro-static
2	15.41	90.58	Open To Flow (1)
30	19.45	93.97	Shut-In(1)
75	136.25	95.23	End Shut-In(1)
76	17.04	95.22	Open To Flow (2)
118	24.87	97.49	Shut-In(2)
180	127.69	98.94	End Shut-In(2)
180	1503.76	99.65	Final Hydro-static

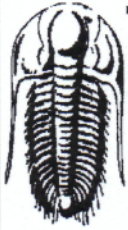
Recovery

Length (ft)	Description	Volume (bbl)
30.00	GVSOCM 3%G 2%O 95%M	0.42
0.00	600' GIP 100%G	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mai Oil Operations, Inc.
8411 Preston Rd STE 800
Dallas TX 75225-5520
ATTN: Jim Musgrove

12-19S-12W Barton,KS
Louise #1
Job Ticket: 63529 **DST#: 2**
Test Start: 2017.12.18 @ 05:20:00

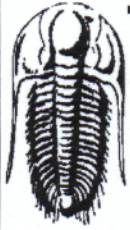
Tool Information

Drill Pipe: Length: 3169.00 ft	Diameter: 3.80 inches	Volume: 44.45 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe: Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar: Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 40000.00 lb
			Tool Chased ft
Total Volume: 44.45 bbl			String Weight: Initial 38000.00 lb
			Final 38000.00 lb
Drill Pipe Above KB: 32.00 ft			
Depth to Top Packer: 3160.00 ft			
Depth to Bottom Packer: ft			
Interval between Packers: 40.00 ft			
Tool Length: 63.00 ft			
Number of Packers: 1	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3138.00	
Shut In Tool	5.00			3143.00	
Hydraulic tool	5.00			3148.00	
Safety Joint	3.00			3151.00	
Packer	5.00			3156.00	23.00 Bottom Of Top Packer
Packer	4.00			3160.00	
Stubb	1.00			3161.00	
Perforations	1.00			3162.00	
Change Over Sub	1.00			3163.00	
Recorder	0.00	9120	Inside	3163.00	
Recorder	0.00	8934	Inside	3163.00	
Drill Pipe	32.00			3195.00	
Change Over Sub	1.00			3196.00	
Bullnose	4.00			3200.00	40.00 Bottom Packers & Anchor

Total Tool Length: 63.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mai Oil Operations, Inc.

12-19S-12W Barton,KS

8411 Preston Rd STE 800
Dallas TX 75225-5520

Louise #1

Job Ticket: 63529

DST#: 2

ATTN: Jim Musgrove

Test Start: 2017.12.18 @ 05:20:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	GVSOCM 3%G 2%O 95%M	0.421
0.00	600' GIP 100%G	0.000

Total Length: 30.00 ft Total Volume: 0.421 bbl

Num Fluid Samples: 0

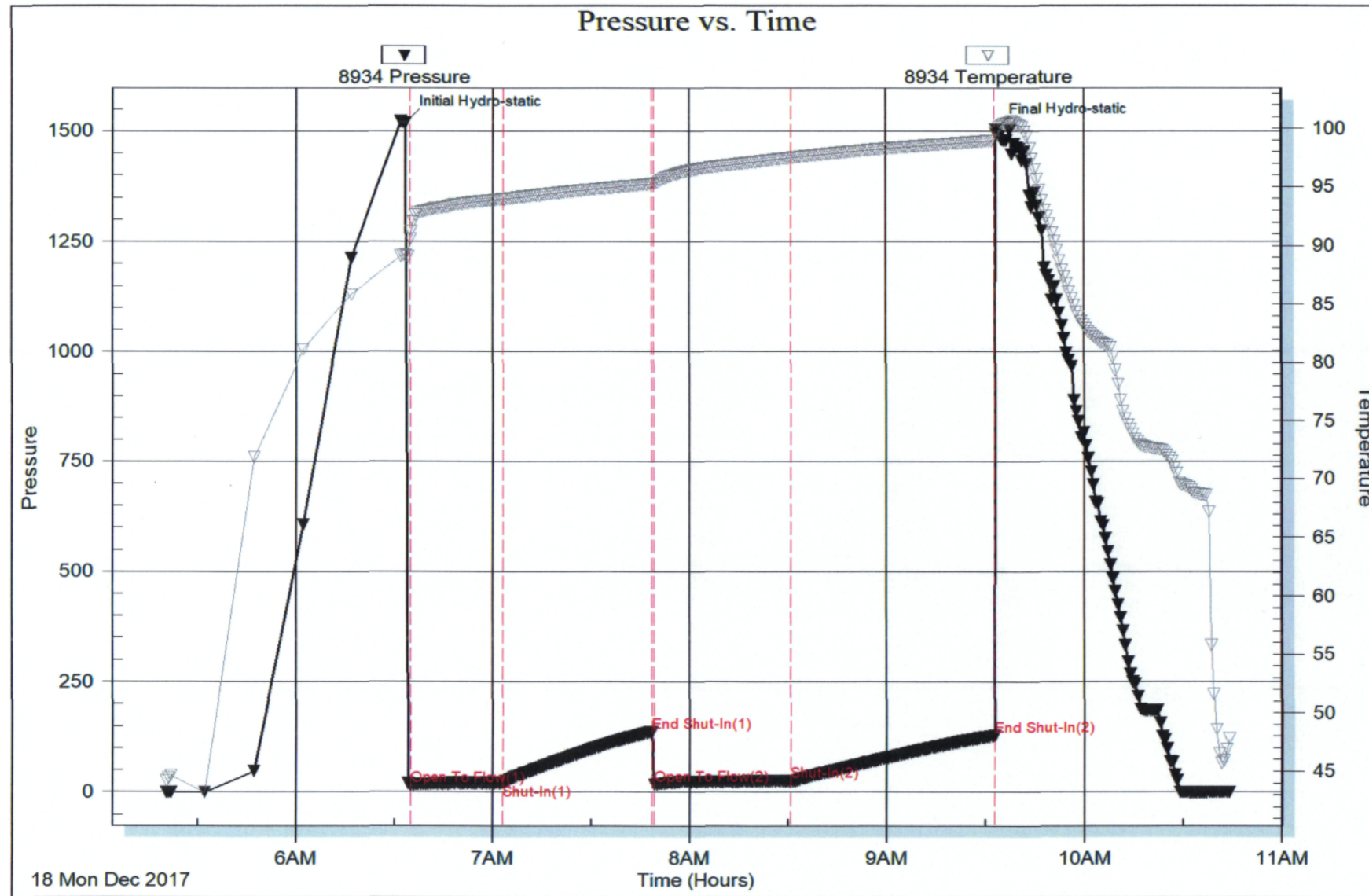
Num Gas Bombs: 0

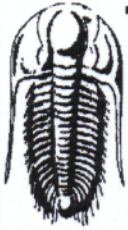
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 1/2#LCM





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mai Oil Operations, Inc.
 8411 Preston Rd STE 800
 Dallas TX 75225-5520
 ATTN: Jim Musgrove

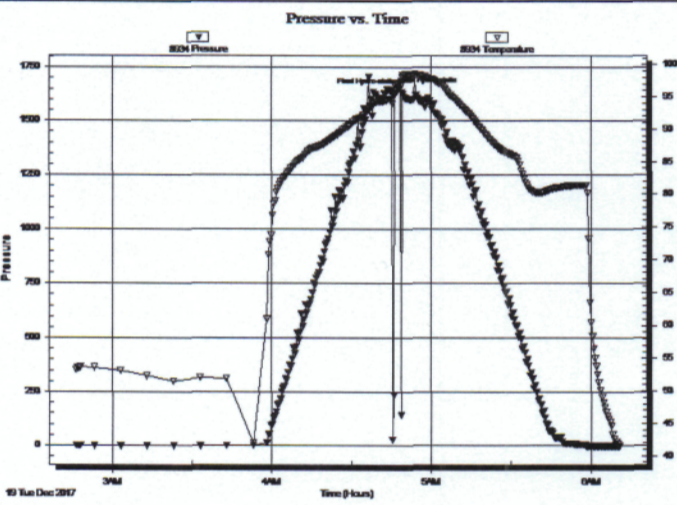
12-19S-12W Barton,KS
Louise #1
 Job Ticket: 63530 **DST#: 3**
 Test Start: 2017.12.19 @ 02:46:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened:
 Time Test Ended: 06:10:45
 Interval: **3365.00 ft (KB) To 3395.00 ft (KB) (TVD)**
 Total Depth: 3395.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Spencer J. Staab
 Unit No: 84
 Reference Elevations: 1830.00 ft (KB)
 1822.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8934 **Inside**
 Press@RunDepth: psig @ 3367.00 ft (KB)
 Start Date: 2017.12.19 End Date: 2017.12.19
 Start Time: 02:46:15 End Time: 06:10:45
 Capacity: 8000.00 psig
 Last Calib.: 2017.12.19
 Time On Btm: 2017.12.19 @ 04:45:00
 Time Off Btm: 2017.12.19 @ 04:49:00

TEST COMMENT: Packer Failure



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1641.05	94.75	Initial Hydro-static
4	1633.16	98.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
100.00	Mud 100%M	1.40

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mai Oil Operations, Inc.
8411 Preston Rd STE 800
Dallas TX 75225-5520
ATTN: Jim Musgrove

12-19S-12W Barton,KS
Louise #1
Job Ticket: 63530 **DST#: 3**
Test Start: 2017.12.19 @ 02:46:00

Tool Information

Drill Pipe: Length: 3362.00 ft	Diameter: 3.80 inches	Volume: 47.16 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe: Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar: Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 39000.00 lb
		<u>Total Volume: 47.16 bbl</u>	Tool Chased: ft
Drill Pipe Above KB: 20.00 ft			String Weight: Initial 39000.00 lb
Depth to Top Packer: 3365.00 ft			Final 39000.00 lb
Depth to Bottom Packer: ft			
Interval between Packers: 30.00 ft			
Tool Length: 53.00 ft			
Number of Packers: 1	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3343.00	
Shut In Tool	5.00			3348.00	
Hydraulic tool	5.00			3353.00	
Safety Joint	3.00			3356.00	
Packer	5.00			3361.00	23.00 Bottom Of Top Packer
Packer	4.00			3365.00	
Stubb	1.00			3366.00	
Perforations	1.00			3367.00	
Recorder	0.00	9120	Inside	3367.00	
Recorder	0.00	8934	Inside	3367.00	
Perforations	24.00			3391.00	
Bullnose	4.00			3395.00	30.00 Bottom Packers & Anchor
Total Tool Length: 53.00					



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mai Oil Operations, Inc.
8411 Preston Rd STE 800
Dallas TX 75225-5520
ATTN: Jim Musgrove

12-19S-12W Barton,KS
Louise #1
Job Ticket: 63530 **DST#: 3**
Test Start: 2017.12.19 @ 02:46:00

Mud and Cushion Information

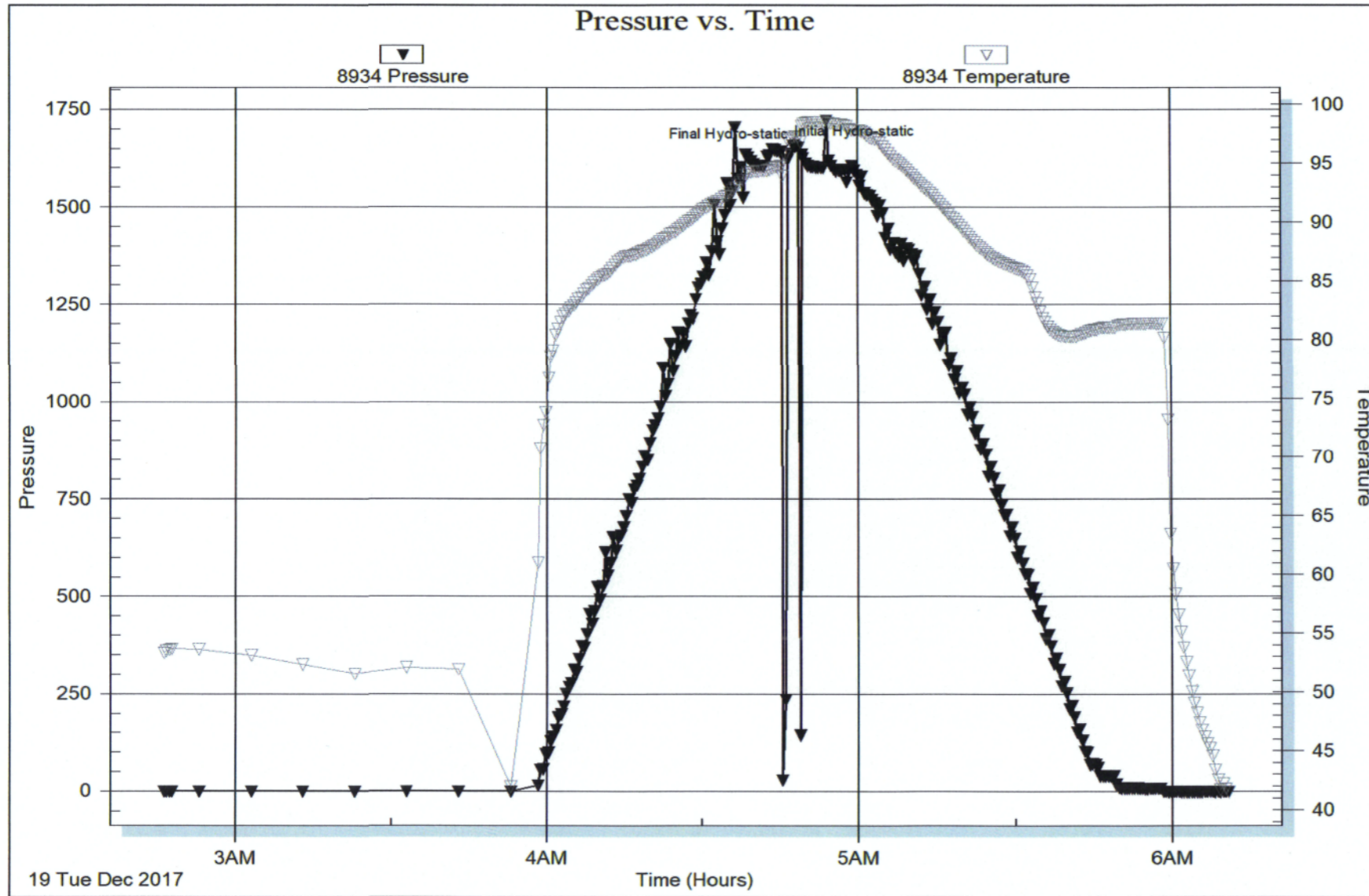
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 57.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.79 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4800.00 ppm			
Filter Cake: inches			

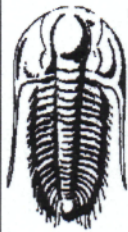
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
100.00	Mud 100%M	1.403

Total Length: 100.00 ft Total Volume: 1.403 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: 1/2#LCM





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mai Oil Operations, Inc.
 8411 Preston Rd STE 800
 Dallas TX 75225-5520
 ATTN: Jim Musgrove

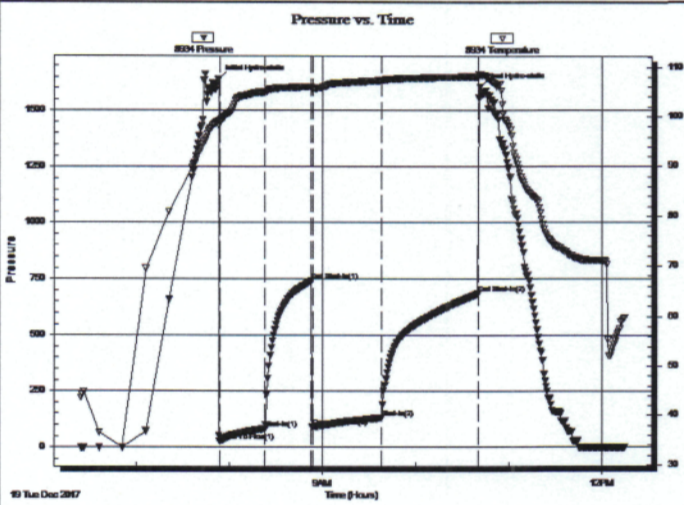
12-19S-12W Barton,KS
Louise #1
 Job Ticket: 63531 **DST#: 4**
 Test Start: 2017.12.19 @ 06:24:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 07:53:30
 Time Test Ended: 12:14:15
 Interval: **3340.00 ft (KB) To 3395.00 ft (KB) (TVD)**
 Total Depth: 3395.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Spencer J. Staab
 Unit No: 84
 Reference Elevations: 1830.00 ft (KB)
 1822.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8934 **Inside**
 Press@RunDepth: 130.95 psig @ 3343.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.12.19 End Date: 2017.12.19 Last Calib.: 2017.12.19
 Start Time: 06:24:15 End Time: 12:14:15 Time On Btm: 2017.12.19 @ 07:53:00
 Time Off Btm: 2017.12.19 @ 10:41:15

TEST COMMENT: 30-IF-Fair Blow ; BOB in 5 mins
 30-ISI-Weak Blow ; Built to 1/4"
 45-FF-Fair Blow ; BOB in 7 mins
 60-FSI-Weak Surface Blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1639.97	99.26	Initial Hydro-static
1	26.02	98.87	Open To Flow (1)
30	83.76	105.02	Shut-In(1)
60	741.22	106.05	End Shut-In(1)
61	89.98	105.80	Open To Flow (2)
105	130.95	107.33	Shut-In(2)
167	684.40	108.12	End Shut-In(2)
169	1604.00	108.60	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GMCO 20%G 20%M 60%O	0.84
120.00	GMCO 5%G 30%M 65%O	1.68
60.00	VGO 55%G 45%O	0.84
60.00	GO 30%G 70%O	0.84
20.00	GO 5%G 95%O	0.28

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mai Oil Operations, Inc.
8411 Preston Rd STE 800
Dallas TX 75225-5520
ATTN: Jim Musgrove

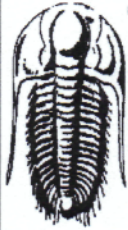
12-19S-12W Barton,KS
Louise #1
Job Ticket: 63531 **DST#: 4**
Test Start: 2017.12.19 @ 06:24:00

Tool Information

Drill Pipe:	Length: 3331.00 ft	Diameter: 3.80 inches	Volume: 46.73 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 42000.00 lb
			<u>Total Volume: 46.73 bbl</u>	Tool Chased: ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 39000.00 lb
Depth to Top Packer:	3340.00 ft			Final 41000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	55.00 ft			
Tool Length:	78.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3318.00	
Shut In Tool	5.00			3323.00	
Hydraulic tool	5.00			3328.00	
Safety Joint	3.00			3331.00	
Packer	5.00			3336.00	23.00 Bottom Of Top Packer
Packer	4.00			3340.00	
Stubb	1.00			3341.00	
Perforations	1.00			3342.00	
Change Over Sub	1.00			3343.00	
Recorder	0.00	9120	Inside	3343.00	
Recorder	0.00	8934	Inside	3343.00	
Drill Pipe	31.00			3374.00	
Change Over Sub	1.00			3375.00	
Perforations	16.00			3391.00	
Bullnose	4.00			3395.00	55.00 Bottom Packers & Anchor
Total Tool Length:	78.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mai Oil Operations, Inc.

12-19S-12W Barton,KS

8411 Preston Rd STE 800
Dallas TX 75225-5520

Louise #1

Job Ticket: 63531

DST#: 4

ATTN: Jim Musgrove

Test Start: 2017.12.19 @ 06:24:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

41 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4800.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	GMCO 20%G 20%M 60%O	0.842
120.00	GMCO 5%G 30%M 65%O	1.683
60.00	VGO 55%G 45%O	0.842
60.00	GO 30%G 70%O	0.842
20.00	GO 5%G 95%O	0.281

Total Length: 320.00 ft Total Volume: 4.490 bbl

Num Fluid Samples: 0

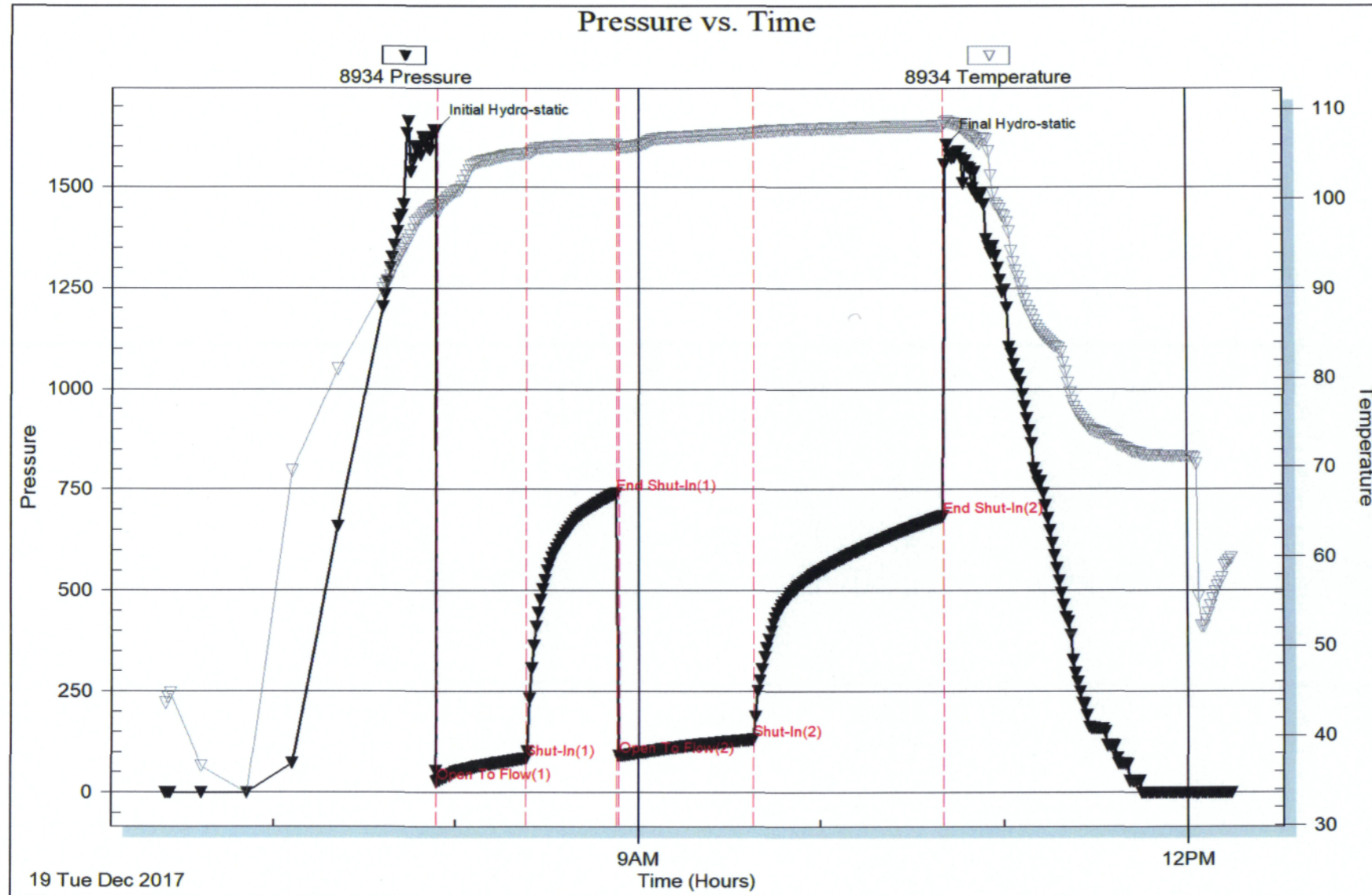
Num Gas Bombs: 0

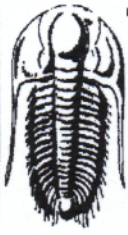
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 1/2#LCM





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mai Oil Operations, Inc.
 8411 Preston Rd STE 800
 Dallas TX 75225-5520
 ATTN: Jim Musgrove

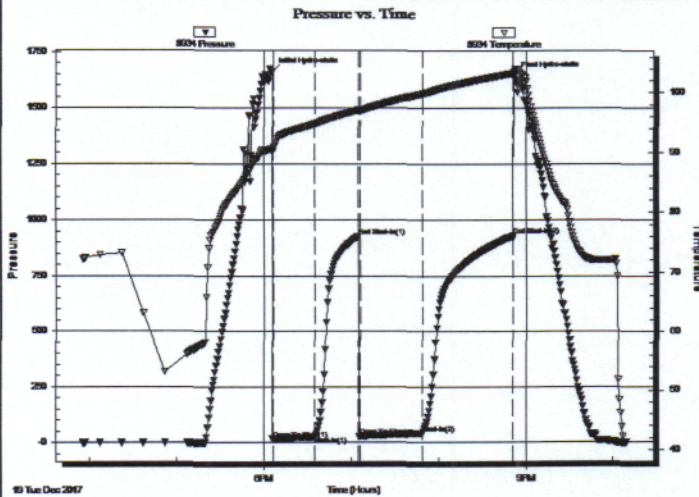
12-19S-12W Barton,KS
Louise #1
 Job Ticket: 63532 **DST#: 5**
 Test Start: 2017.12.19 @ 15:55:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 18:06:45
 Time Test Ended: 22:09:15
 Interval: **3395.00 ft (KB) To 3406.00 ft (KB) (TVD)**
 Total Depth: 3406.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Spencer J. Staab
 Unit No: 84
 Reference Elevations: 1830.00 ft (KB)
 1822.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8934 **Outside**
 Press@RunDepth: 41.69 psig @ 3397.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.12.19 End Date: 2017.12.19 Last Calib.: 2017.12.19
 Start Time: 15:55:15 End Time: 22:09:15 Time On Btm: 2017.12.19 @ 18:06:00
 Time Off Btm: 2017.12.19 @ 20:52:15

TEST COMMENT: 30-IF-Fair Blow ; Built to 9 1/2"
 30-ISI-No Return
 45-FF-Fair Blow ; Built to 9"
 60-FSI-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1660.88	90.68	Initial Hydro-static
1	16.19	90.66	Open To Flow (1)
29	25.87	94.83	Shut-In(1)
59	928.01	97.07	End Shut-In(1)
60	26.65	96.95	Open To Flow (2)
104	41.69	99.84	Shut-In(2)
165	929.29	103.23	End Shut-In(2)
167	1642.11	103.67	Final Hydro-static

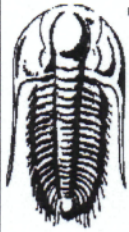
Recovery

Length (ft)	Description	Volume (bbl)
30.00	OCM 20%O 80%M	0.42
60.00	GO 15%G 85%O	0.84

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mai Oil Operations, Inc.
8411 Preston Rd STE 800
Dallas TX 75225-5520
ATTN: Jim Musgrove

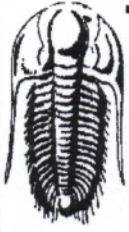
12-19S-12W Barton,KS
Louise #1
Job Ticket: 63532 **DST#: 5**
Test Start: 2017.12.19 @ 15:55:00

Tool Information

Drill Pipe: Length: 3393.00 ft	Diameter: 3.80 inches	Volume: 47.59 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe: Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar: Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 46000.00 lb
	Total Volume: 47.59 bbl		Tool Chased: ft
Drill Pipe Above KB: 21.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer: 3395.00 ft			Final 41000.00 lb
Depth to Bottom Packer: ft			
Interval between Packers: 11.00 ft			
Tool Length: 34.00 ft			
Number of Packers: 1	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3373.00	
Shut In Tool	5.00			3378.00	
Hydraulic tool	5.00			3383.00	
Safety Joint	3.00			3386.00	
Packer	5.00			3391.00	23.00 Bottom Of Top Packer
Packer	4.00			3395.00	
Stubb	1.00			3396.00	
Perforations	1.00			3397.00	
Recorder	0.00	9120	Inside	3397.00	
Recorder	0.00	8934	Outside	3397.00	
Perforations	5.00			3402.00	
Bullnose	4.00			3406.00	11.00 Bottom Packers & Anchor
Total Tool Length:		34.00			



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mai Oil Operations, Inc.

12-19S-12W Barton,KS

8411 Preston Rd STE 800
Dallas TX 75225-5520

Louise #1

Job Ticket: 63532

DST#: 5

ATTN: Jim Musgrove

Test Start: 2017.12.19 @ 15:55:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

41 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6100.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	OCM 20%O 80%M	0.421
60.00	GO 15%G 85%O	0.842

Total Length: 90.00 ft Total Volume: 1.263 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

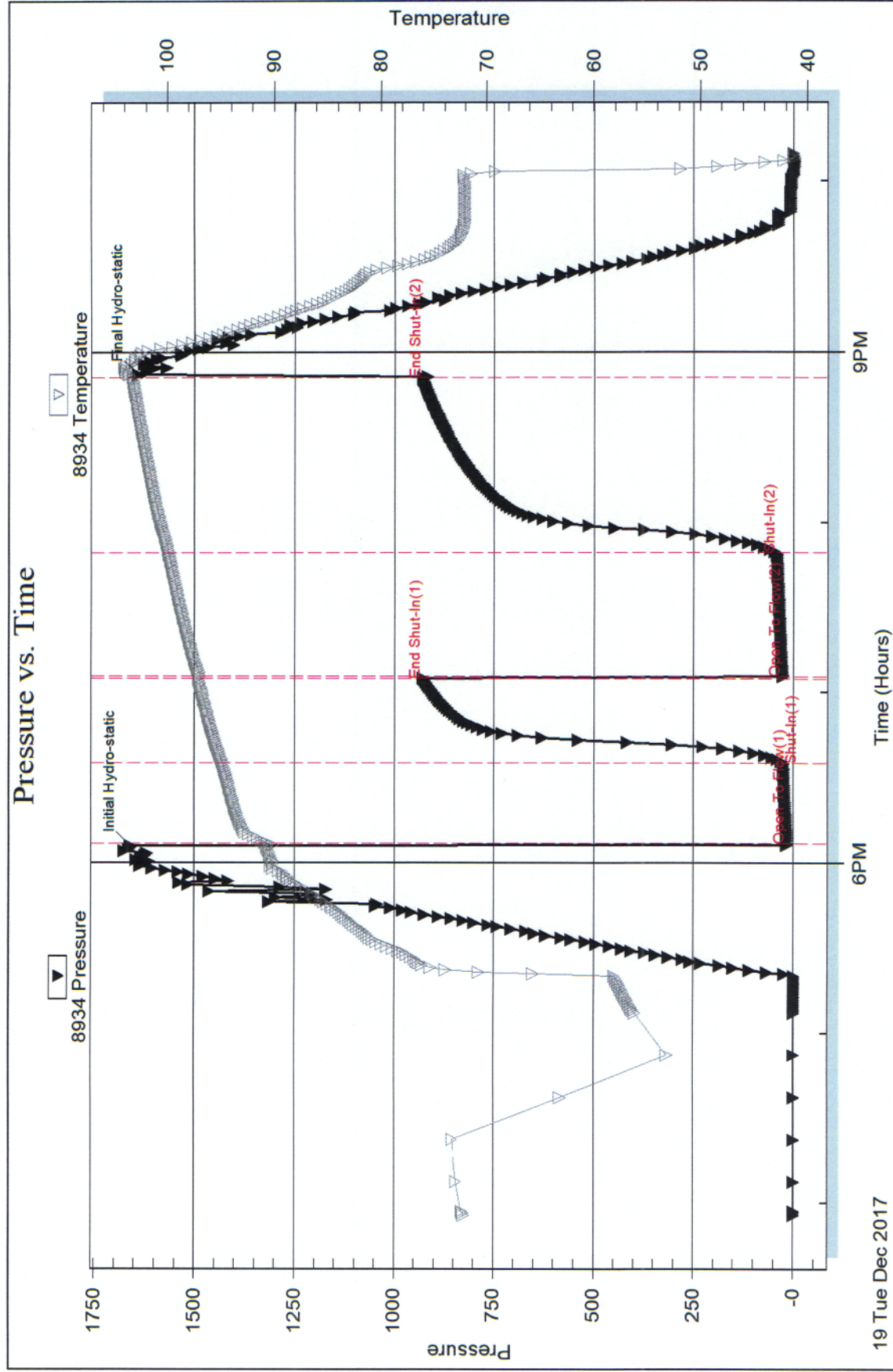
Recovery Comments: 1/2#LCM

Serial #: 8934

Outside Mai Oil Operations, Inc.

Louise #1

DST Test Number: 5

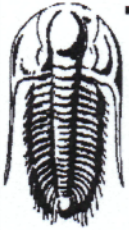


19 Tue Dec 2017

6PM

9PM

Time (Hours)



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mai Oil Operations, Inc.
 8411 Preston Rd STE 800
 Dallas TX 75225-5520
 ATTN: Jim Musgrove

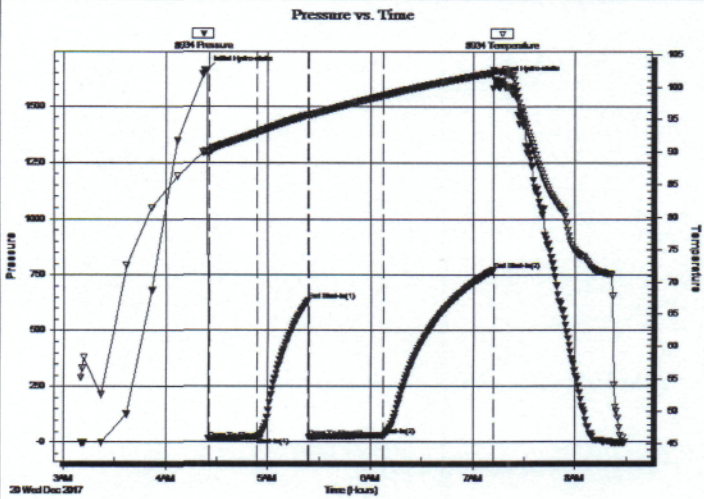
12-19S-12W Barton,KS
Louise #1
 Job Ticket: 63533 **DST#: 6**
 Test Start: 2017.12.20 @ 03:10:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:25:30
 Time Test Ended: 08:28:45
 Interval: **3405.00 ft (KB) To 3416.00 ft (KB) (TVD)**
 Total Depth: **3416.00 ft (KB) (TVD)**
 Hole Diameter: **7.88 inches** Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Spencer J. Staab
 Unit No: 84
 Reference Elevations: 1830.00 ft (KB)
 1822.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8934 **Outside**
 Press@RunDepth: 31.48 psig @ 3407.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.12.20 End Date: 2017.12.20 Last Calib.: 2017.12.20
 Start Time: 03:10:15 End Time: 08:28:45 Time On Btm: 2017.12.20 @ 04:24:15
 Time Off Btm: 2017.12.20 @ 07:13:15

TEST COMMENT: 30-IF-Fair Blow ; Built to 7 1/2"
 30-ISI-Weak Blow ; Built to 1/4"
 45-FF-Fair Blow ; Built to 7"
 60-FSI-Weak Surface Blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1661.72	90.05	Initial Hydro-static
2	16.12	89.94	Open To Flow (1)
30	22.88	92.94	Shut-In(1)
60	635.65	95.63	End Shut-In(1)
60	23.38	95.51	Open To Flow (2)
104	31.48	98.65	Shut-In(2)
168	774.57	102.19	End Shut-In(2)
169	1620.03	102.42	Final Hydro-static

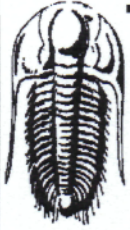
Recovery

Length (ft)	Description	Volume (bbl)
15.00	MCO 20%M 80%O	0.21
30.00	GO 10%G 90%O	0.42

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mai Oil Operations, Inc.
8411 Preston Rd STE 800
Dallas TX 75225-5520
ATTN: Jim Musgrove

12-19S-12W Barton,KS
Louise #1
Job Ticket: 63533 **DST#: 6**
Test Start: 2017.12.20 @ 03:10:00

Tool Information

Drill Pipe:	Length: 3393.00 ft	Diameter: 3.80 inches	Volume: 47.59 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 40000.00 lb
			<u>Total Volume: 47.59 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3405.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	11.00 ft			
Tool Length:	34.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Change Over Sub	1.00			3383.00	
Shut In Tool	5.00			3388.00	
Hydraulic tool	5.00			3393.00	
Safety Joint	3.00			3396.00	
Packer	5.00			3401.00	23.00 Bottom Of Top Packer
Packer	4.00			3405.00	
Stubb	1.00			3406.00	
Perforations	1.00			3407.00	
Recorder	0.00	9120	Inside	3407.00	
Recorder	0.00	8934	Outside	3407.00	
Perforations	5.00			3412.00	
Bullnose	4.00			3416.00	11.00 Bottom Packers & Anchor

Total Tool Length: 34.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mai Oil Operations, Inc.

12-19S-12W Barton,KS

8411 Preston Rd STE 800
Dallas TX 75225-5520

Louise #1

Job Ticket: 63533

DST#: 6

ATTN: Jim Musgrove

Test Start: 2017.12.20 @ 03:10:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

41 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6100.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	MCO 20%M 80%O	0.210
30.00	GO 10%G 90%O	0.421

Total Length: 45.00 ft Total Volume: 0.631 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

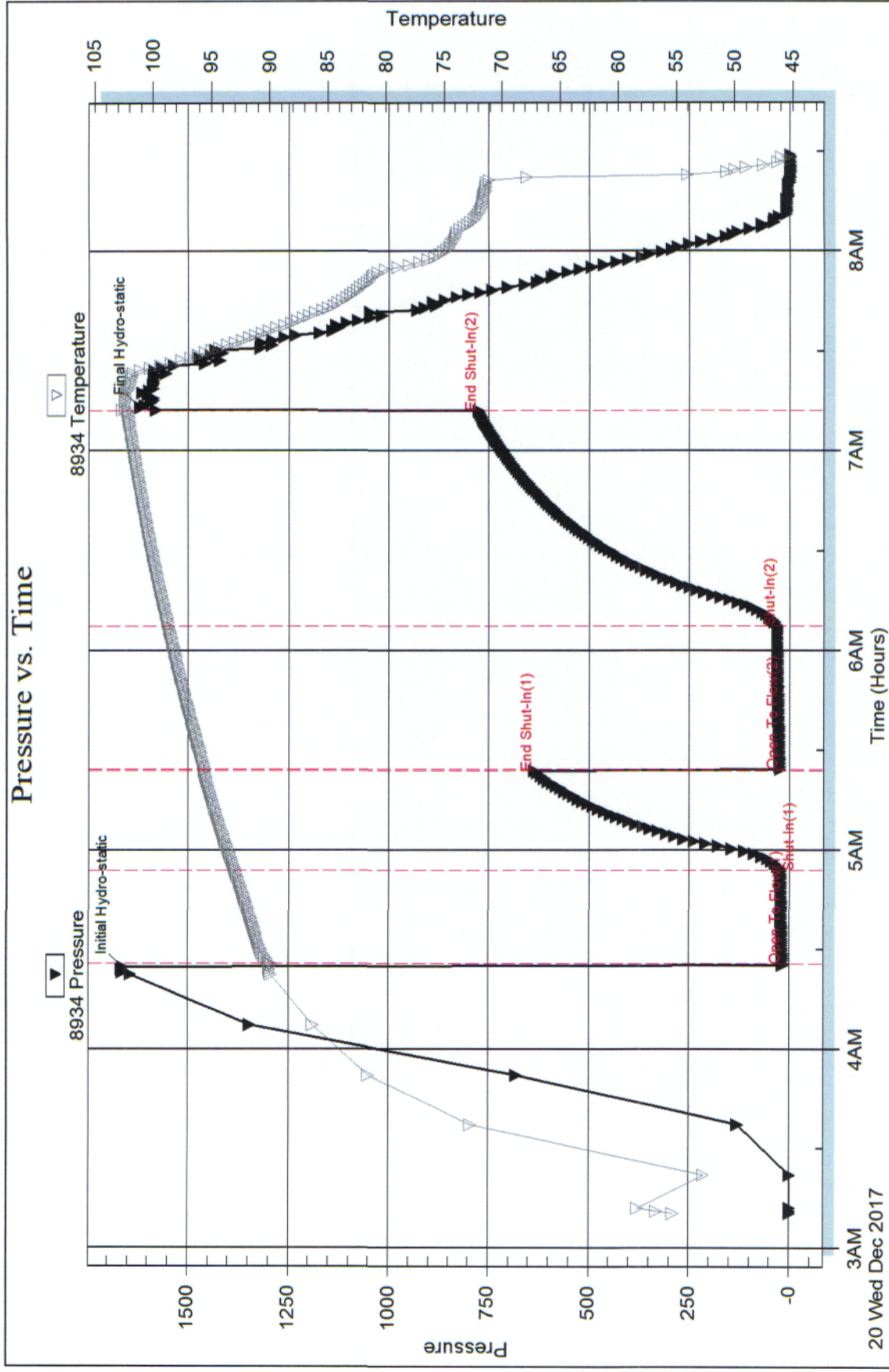
Recovery Comments: 1/2#LCM

Serial #: 8934

Outside Mai Oil Operations, Inc.

Louise #1

DST Test Number: 6



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. 620

Date	12-21-17	Sec.	12	Twp.	19	Range	12	County	Barton	State	Ks	On Location		Finish	4:15 AM
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Location 281 + Juice Rd - 8 1/2 E 1/4 N, E15

Lease Louise Well No. 1 Owner

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 Longstring Charge To Mai oil operations

Hole Size 7 7/8" T.D. 3480' Depth 3477'

Csg. 5 1/2" 14# used 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. 31.53' Shoe Joint 31.53' Cement Amount Ordered 160 60/40 10% Salt 2% Gel 1/4# Fl

Meas Line Displace 84 BCS 100 gal mud Clear 48

EQUIPMENT

Pumptrk 16 No. Cementer Helper Travis Common

Bulktrk 14 No. Driver Jordan Poz. Mix

Bulktrk p.u. No. Driver Rick Gel.

JOB SERVICES & REMARKS

Remarks: Hulls

Rat Hole Salt

Mouse Hole Flowseal

Centralizers 1-8, 10, 12, 13, 14 Mud CLR 48

Baskets pipe on bottom break Circulation CFL-117 or CD110 CAF 38

D/V or Port Collar pump 100 gal mud Clear 48 Sand

plug Rathole w/ 30% cement 5 1/2" Handling

Casing w/ 130% Shut down wash Mileage

pump 1/2 lines Displaced plug w/ 84 BCS

of Neo. Released + held.

FLOAT EQUIPMENT

Lift pressure 700 # Guide Shoe

Land plug to 1700 # Centralizer 12

Baskets

AFU Inserts

Float Shoe 1

Latch Down 1

Pumptrk Charge

Mileage

Tax

Discount

Total Charge

X Signature *B.A. Home*

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

No. 617

Date	12-14-17	Sec.	12	Twp.	19	Range	12	County	Barton	State	Ks	On Location		Finish	10:00PM
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Lease	Louise	Well No.	#1	Owner	E/S
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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.		
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Type Job	Surface		Charge To	Maui oil operations
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Hole Size	12 1/4"	T.D.	370'	Street	
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Csg.	8 5/8"	Depth	370'	City		State	
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Tbg. Size		Depth		The above was done to satisfaction and supervision of owner agent or contractor.		
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Tool		Depth		Cement Amount Ordered	180 64/40 4% CC 2% Gel
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Cement Left in Csg.	20	Shoe Joint	20'		
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Meas Line		Displace	22 1/4 BLS		
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EQUIPMENT			Common	
Pumptrk	18 No.	Cementer Helper	David	Poz. Mix
Bulktrk	3 No.	Driver	Tim	Gel.
Bulktrk	pu. No.	Driver	Rick	Calcium

JOB SERVICES & REMARKS			Hulls
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Remarks:	Cement did Circulate	Salt
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Rat Hole		Flowseal
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Mouse Hole		Kol-Seal
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Centralizers		Mud CLR 48
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Baskets		CFL-117 or CD110 CAF 38
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D/V or Port Collar		Sand
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		Handling
--	--	----------

		Mileage
--	--	---------

FLOAT EQUIPMENT		
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		Guide Shoe
--	--	------------

		Centralizer
--	--	-------------

		Baskets
--	--	---------

		AFU Inserts
--	--	-------------

		Float Shoe
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		Latch Down
--	--	------------

		Pumptrk Charge
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		Mileage
--	--	---------

		Tax
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		Discount
--	--	----------

		Total Charge
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X Signature	Jay Klein	
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