



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1196862
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: _____

1196862

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

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

Prepared For: **Larson Engineering, Inc.**

562 West State Rd 4
Olmitz, KS 67564-8561

ATTN: Vern Schrag

Eaton #1-36

36-18s-31w Scott,KS

Start Date: 2013.12.09 @ 01:55:00

End Date: 2013.12.09 @ 09:34:00

Job Ticket #: 54585 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.12.13 @ 14:39:27

Larson Engineering, Inc. 36-18s-31w Scott,KS Eaton #1-36 DST # 1 LKC " L " 2013.12.09



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Larson Engineering, Inc.

36-18s-31w Scott,KS

562 West State Rd 4
Olmitz, KS 67564-8561

Eaton #1-36

Job Ticket: 54585

DST#: 1

ATTN: Vern Schrag

Test Start: 2013.12.09 @ 01:55:00

GENERAL INFORMATION:

Formation: **LKC " L "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:06:30

Time Test Ended: 09:34:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jace McKinney

Unit No: 46

Interval: 4269.00 ft (KB) To 4283.00 ft (KB) (TVD)

Reference Elevations: 2922.00 ft (KB)

Total Depth: 4283.00 ft (KB) (TVD)

2915.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8675

Inside

Press@RunDepth: 160.19 psig @ 4270.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.12.09

End Date:

2013.12.09

Last Calib.:

2013.12.09

Start Time: 01:55:15

End Time:

09:34:00

Time On Btm:

2013.12.09 @ 06:06:15

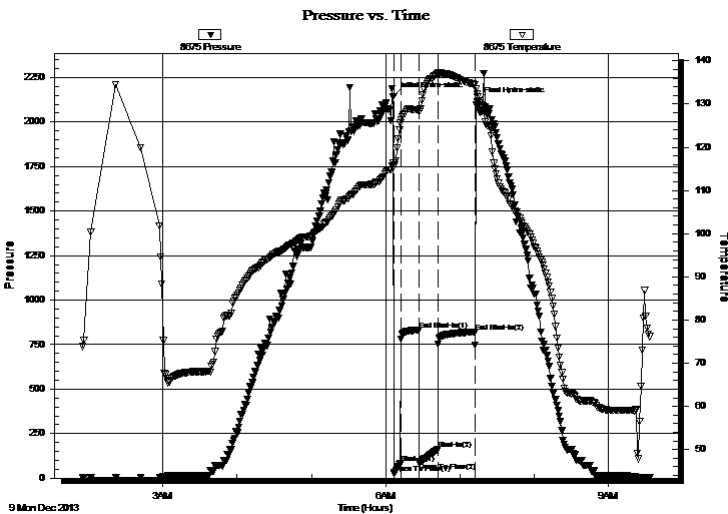
Time Off Btm:

2013.12.09 @ 07:13:45

TEST COMMENT:

Built to 7" blow
Bled off for 3 min. No return blow
B.O.B. in 9 1/2 min.
Bled off for 5 min. No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2143.87	116.46	Initial Hydro-static
1	25.14	115.52	Open To Flow (1)
6	82.28	125.58	Shut-In(1)
21	832.43	128.65	End Shut-In(1)
21	87.29	128.28	Open To Flow (2)
36	160.19	136.94	Shut-In(2)
66	820.96	134.49	End Shut-In(2)
68	2114.08	132.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
179.00	mcw 20% M 80% W	1.16
131.00	w cm 20%W 80%M w ith few oil spots	1.84

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering, Inc.

36-18s-31w Scott,KS

562 West State Rd 4
Olmitz, KS 67564-8561

Eaton #1-36

Job Ticket: 54585

DST#: 1

ATTN: Vern Schrag

Test Start: 2013.12.09 @ 01:55:00

Tool Information

Drill Pipe:	Length: 4103.51 ft	Diameter: 3.80 inches	Volume: 57.56 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 147.95 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose: 62000.00 lb
			<u>Total Volume: 58.29 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.96 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4269.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	14.00 ft			
Tool Length:	41.50 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4242.50	
Shut In Tool	5.00			4247.50	
Hydraulic tool	5.00			4252.50	
Jars	5.00			4257.50	
Safety Joint	2.50			4260.00	
Packer	5.00			4265.00	27.50 Bottom Of Top Packer
Packer	4.00			4269.00	
Stubb	1.00			4270.00	
Recorder	0.00	8675	Inside	4270.00	
Recorder	0.00	8650	Outside	4270.00	
Perforations	10.00			4280.00	
Change Over Sub	0.00			4280.00	
Drill Pipe	0.00			4280.00	
Change Over Sub	0.00			4280.00	
Bullnose	3.00			4283.00	14.00 Bottom Packers & Anchor

Total Tool Length: 41.50



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc.

36-18s-31w Scott, KS

562 West State Rd 4
Olmitz, KS 67564-8561

Eaton #1-36

Job Ticket: 54585

DST#: 1

ATTN: Vern Schrag

Test Start: 2013.12.09 @ 01:55:00

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:

20000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1800.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
179.00	mcw 20% M 80% W	1.163
131.00	w cm 20%W 80%M w ith few oil spots	1.838

Total Length: 310.00 ft Total Volume: 3.001 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

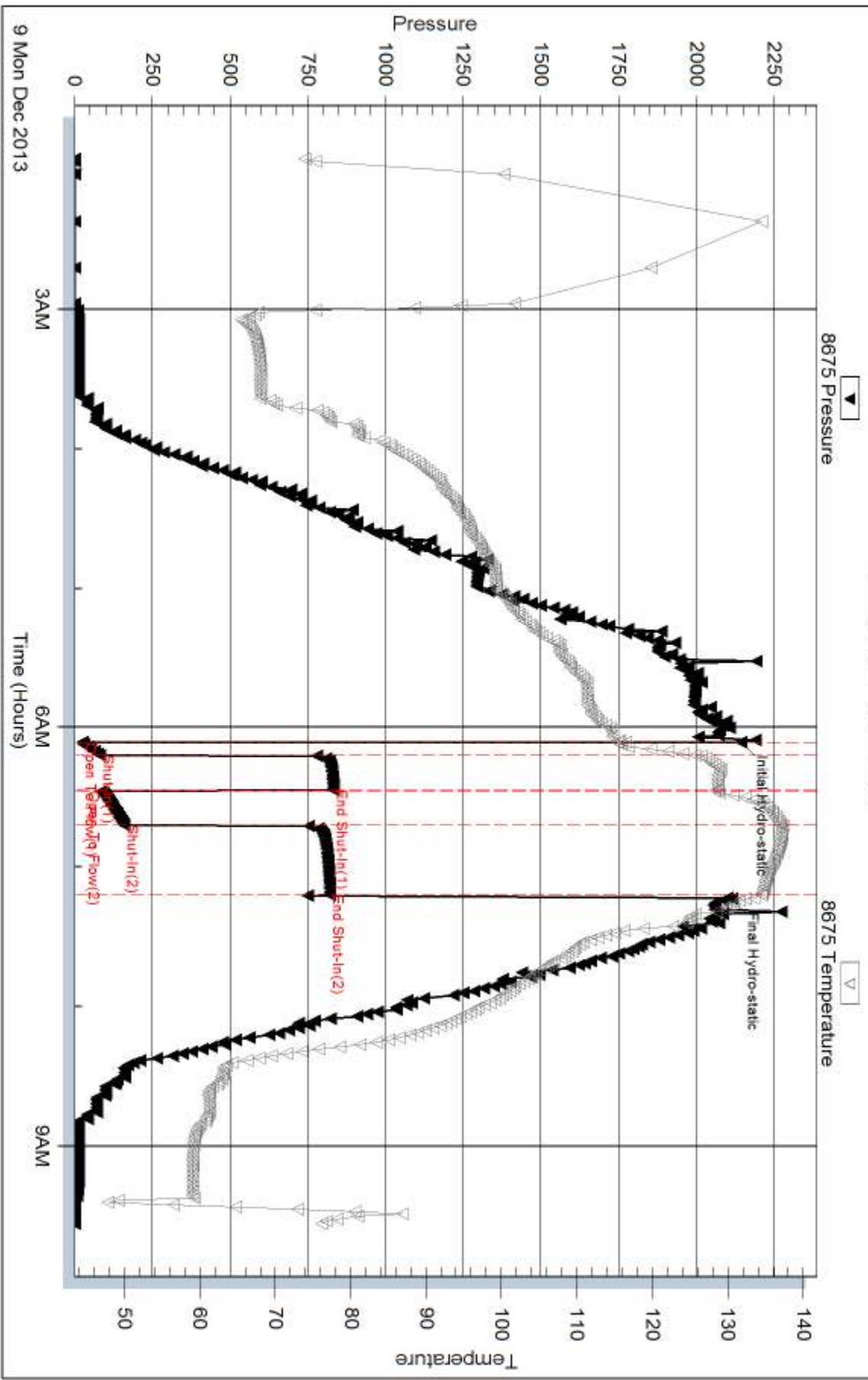
Serial #:

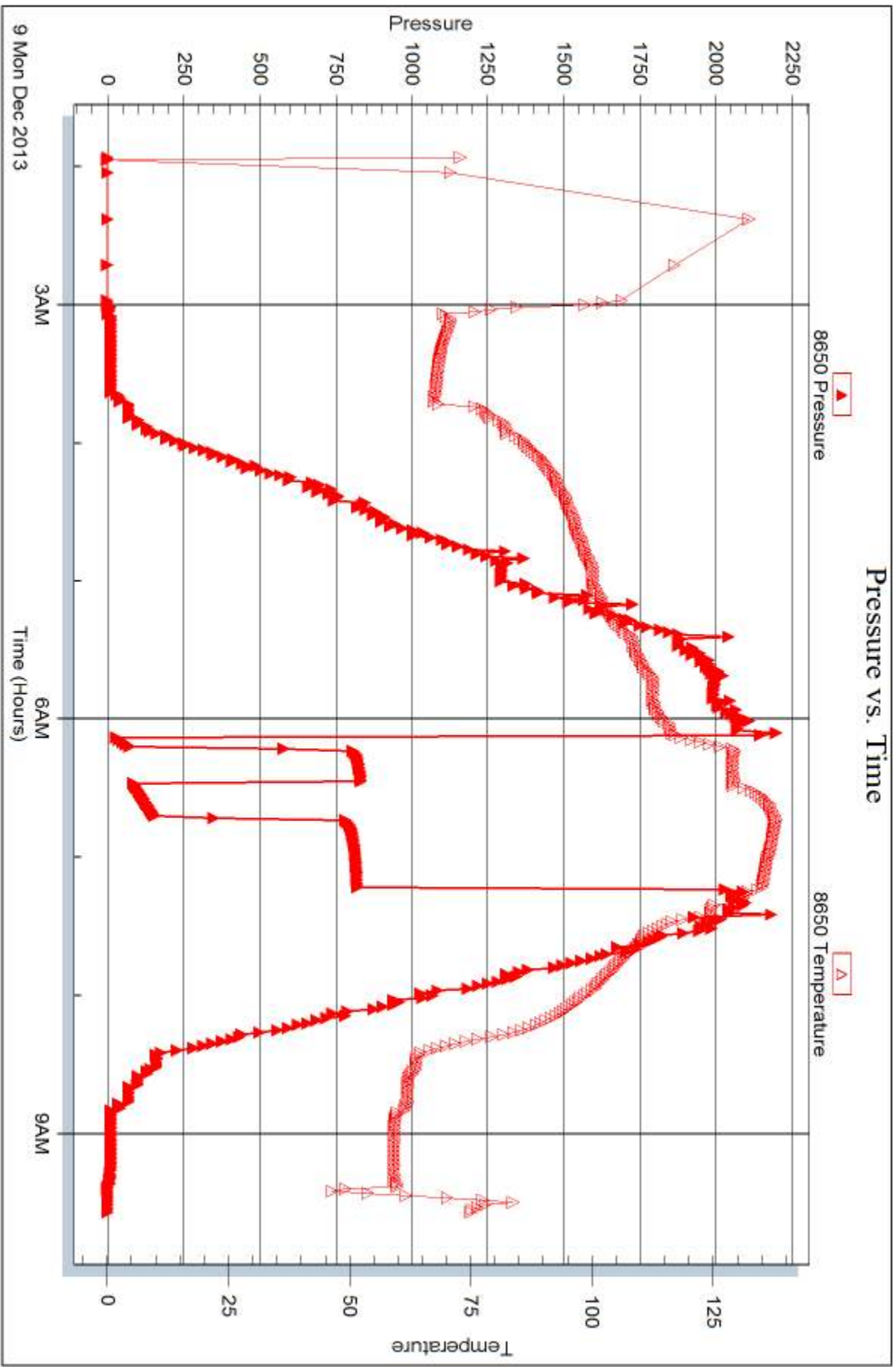
Laboratory Name:

Laboratory Location:

Recovery Comments: RW 1.0 @ 00 F = 20,000

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc.**

562 West State Rd 4
Olmitz, KS 67564-8561

ATTN: Vern Schrag

Eaton #1-36

36-18s-31w Scott,KS

Start Date: 2013.12.10 @ 02:00:00

End Date: 2013.12.10 @ 07:53:30

Job Ticket #: 54586 DST #: 2

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.12.13 @ 14:38:54



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Larson Engineering, Inc.

36-18s-31w Scott, KS

562 West State Rd 4
Olmitz, KS 67564-8561

Eaton #1-36

Job Ticket: 54586

DST#: 2

ATTN: Vern Schrag

Test Start: 2013.12.10 @ 02:00:00

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened:

Time Test Ended: 07:53:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 46

Interval: 4372.00 ft (KB) To 4390.00 ft (KB) (TVD)

Reference Elevations: 2922.00 ft (KB)

Total Depth: 4390.00 ft (KB) (TVD)

2915.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8675 Inside

Press@RunDepth: psig @ 4377.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.12.10

End Date:

2013.12.10

Last Calib.: 2013.12.10

Start Time: 02:00:15

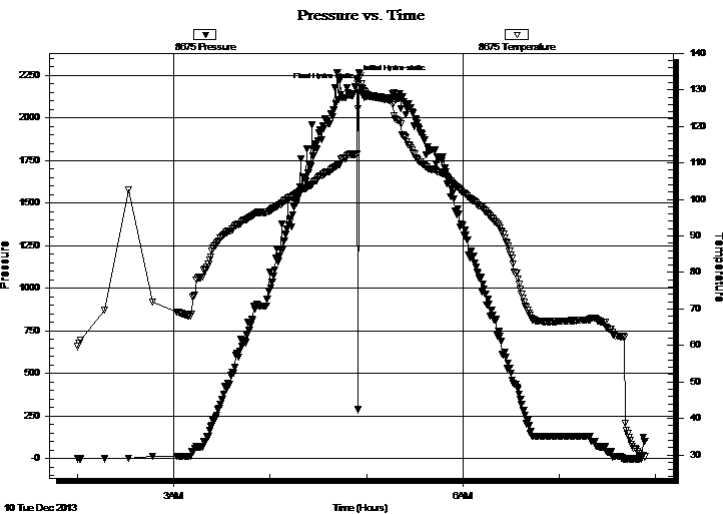
End Time:

07:53:30

Time On Btm: 2013.12.10 @ 04:53:45

Time Off Btm: 2013.12.10 @ 04:56:45

TEST COMMENT: PACKER FAILURE



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2226.12	112.43	Initial Hydro-static
3	2177.80	131.79	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
350.00	100% Mud	3.56

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering, Inc.

36-18s-31w Scott,KS

562 West State Rd 4
Olmitz, KS 67564-8561

Eaton #1-36

Job Ticket: 54586

DST#: 2

ATTN: Vern Schrag

Test Start: 2013.12.10 @ 02:00:00

Tool Information

Drill Pipe:	Length: 4233.28 ft	Diameter: 3.80 inches	Volume: 59.38 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 147.95 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose: 56000.00 lb
			<u>Total Volume: 60.11 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.73 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4372.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	18.00 ft			
Tool Length:	41.50 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4349.50	
Shut In Tool	5.00			4354.50	
Hydraulic tool	5.00			4359.50	
Jars	5.00			4364.50	
Safety Joint	2.50			4367.00	
Packer	5.00			4372.00	23.50 Bottom Of Top Packer
Packer - Shale	4.00			4376.00	
Stubb	1.00			4377.00	
Recorder	0.00	8675	Inside	4377.00	
Recorder	0.00	8650	Outside	4377.00	
Perforations	10.00			4387.00	
Change Over Sub	0.00			4387.00	
Drill Pipe	0.00			4387.00	
Change Over Sub	0.00			4387.00	
Bullnose	3.00			4390.00	18.00 Anchor Tool

Total Tool Length: 41.50



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc.

36-18s-31w Scott,KS

562 West State Rd 4
Olmitz, KS 67564-8561

Eaton #1-36

Job Ticket: 54586

DST#: 2

ATTN: Vern Schrag

Test Start: 2013.12.10 @ 02:00:00

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: 46.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2100.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
350.00	100% Mud	3.562

Total Length: 350.00 ft Total Volume: 3.562 bbl

Num Fluid Samples: 0

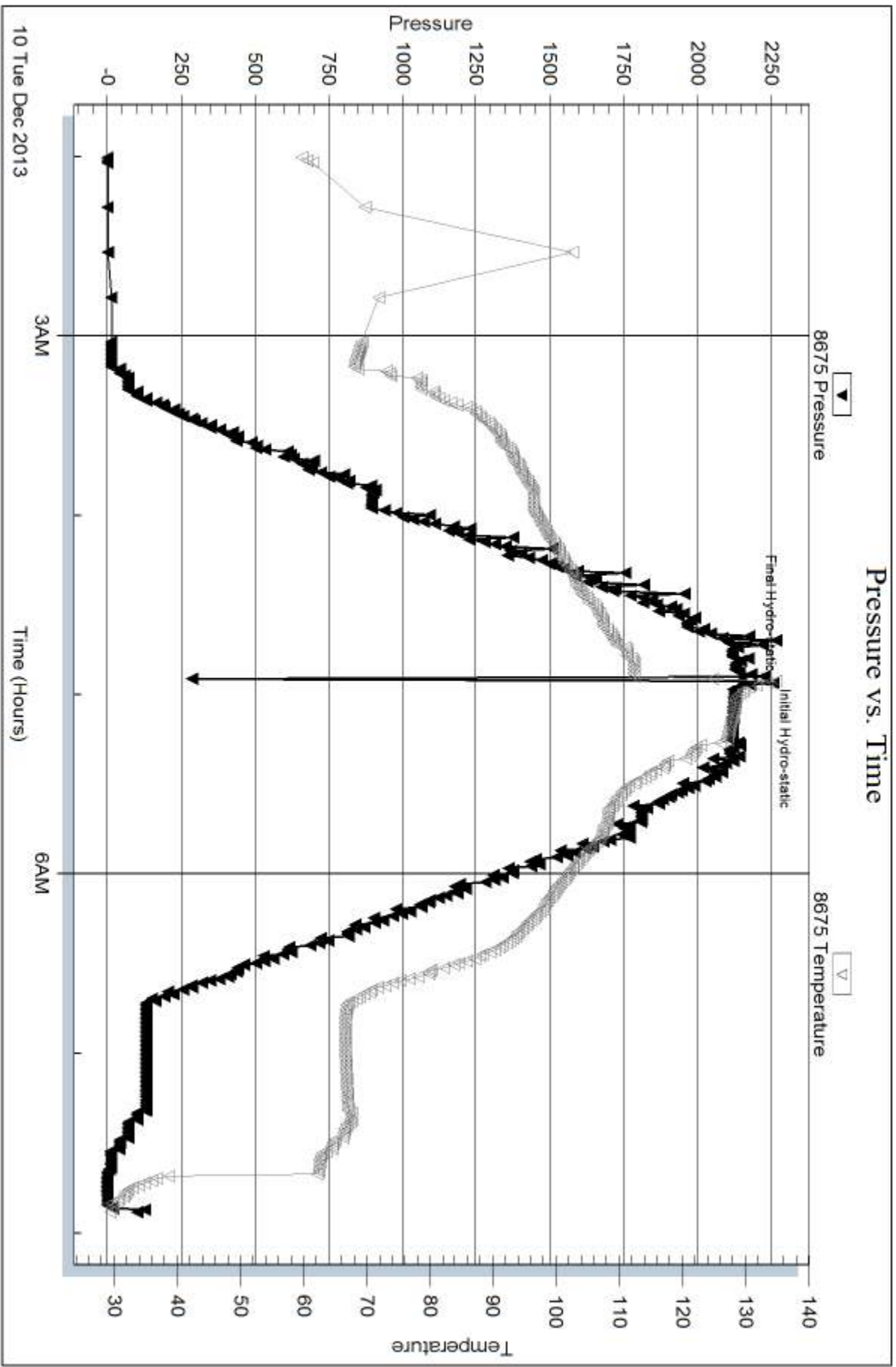
Num Gas Bombs: 0

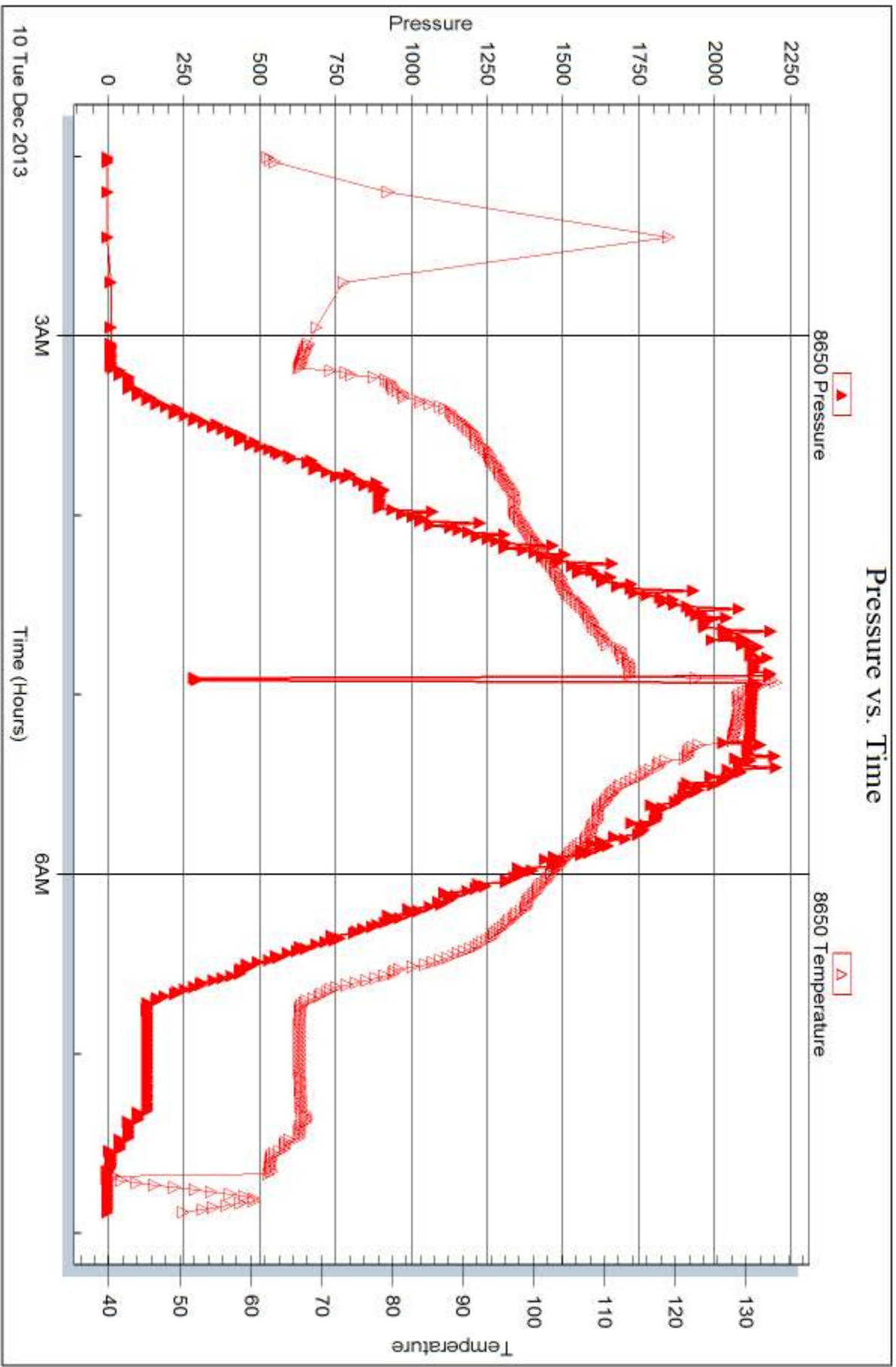
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc.**

562 West State Rd 4
Olmitz, KS 67564-8561

ATTN: Vern Schrag

Eaton #1-36

36-18s-31w Scott,KS

Start Date: 2013.12.10 @ 08:20:00

End Date: 2013.12.10 @ 14:05:00

Job Ticket #: 54587 DST #: 3

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.12.13 @ 14:38:25



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Larson Engineering, Inc.
 562 West State Rd 4
 Olmitz, KS 67564-8561
 ATTN: Vern Schrag

36-18s-31w Scott,KS
Eaton #1-36
 Job Ticket: 54587 **DST#: 3**
 Test Start: 2013.12.10 @ 08:20:00

GENERAL INFORMATION:

Formation: **Marmaton**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 10:03:45
 Time Test Ended: 14:05:00
 Interval: **4300.00 ft (KB) To 4390.00 ft (KB) (TVD)**
 Total Depth: 4390.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Jace McKinney
 Unit No: 46
 Reference Elevations: 2922.00 ft (KB)
 2915.00 ft (CF)
 KB to GR/CF: 7.00 ft

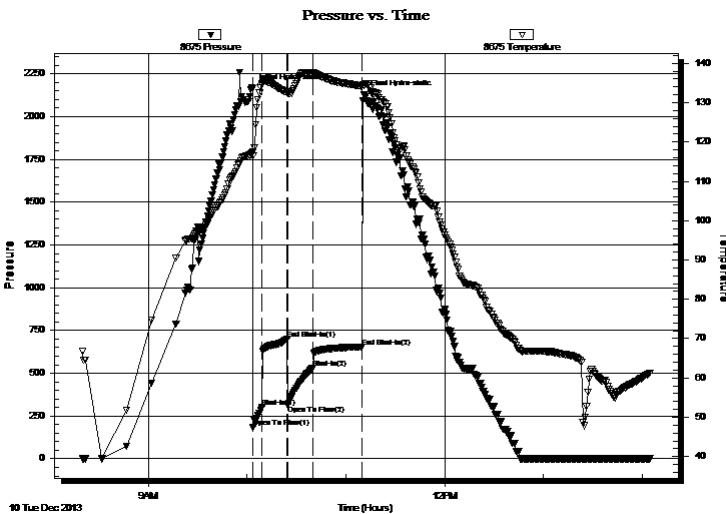
Serial #: 8675

Inside

Press@RunDepth: 528.30 psig @ 4301.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.12.10 End Date: 2013.12.10 Last Calib.: 2013.12.10
 Start Time: 08:20:15 End Time: 14:05:00 Time On Btm: 2013.12.10 @ 10:03:30
 Time Off Btm: 2013.12.10 @ 11:11:15

TEST COMMENT: B.O.B. in 1 min
 Bled off for 5 min. No return blow
 B.O.B. in 1 1/2 min.
 Bled off for 5 min. Built to 1" return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2163.16	117.37	Initial Hydro-static
1	183.01	116.46	Open To Flow (1)
6	302.88	134.69	Shut-In(1)
21	701.78	132.66	End Shut-In(1)
22	312.58	132.35	Open To Flow (2)
37	528.30	137.63	Shut-In(2)
67	655.14	134.13	End Shut-In(2)
68	2129.83	134.48	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
179.00	ocgmw 5%O 10%G 30%M 55%W	1.16
186.00	ocgw m 5%O 30%G 30%W 35%M	2.61
186.00	gcow m 10%G 10%O 20%W 60%M	2.61
248.00	ocgw m 5%O 10%G 35%W 50%M	3.48
236.00	gcow m 5%G 10%O 40%W 45%M	3.31
0.00	258 Feet Weak Gas	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

Larson Engineering, Inc.

36-18s-31w Scott,KS

562 West State Rd 4
Olmitz, KS 67564-8561

Eaton #1-36

Job Ticket: 54587

DST#: 3

ATTN: Vern Schrag

Test Start: 2013.12.10 @ 08:20:00

Tool Information

Drill Pipe:	Length: 4134.78 ft	Diameter: 3.80 inches	Volume: 58.00 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 147.95 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 58.73 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.23 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	4300.00 ft			Final 59000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	90.00 ft			
Tool Length:	117.50 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4273.50	
Shut In Tool	5.00			4278.50	
Hydraulic tool	5.00			4283.50	
Jars	5.00			4288.50	
Safety Joint	2.50			4291.00	
Packer	5.00			4296.00	27.50 Bottom Of Top Packer
Packer	4.00			4300.00	
Stubb	1.00			4301.00	
Recorder	0.00	8675	Inside	4301.00	
Recorder	0.00	8650	Outside	4301.00	
Perforations	21.00			4322.00	
Change Over Sub	1.00			4323.00	
Drill Pipe	63.00			4386.00	
Change Over Sub	1.00			4387.00	
Bullnose	3.00			4390.00	90.00 Bottom Packers & Anchor

Total Tool Length: 117.50



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc.

36-18s-31w Scott,KS

562 West State Rd 4
Olmitz, KS 67564-8561

Eaton #1-36

Job Ticket: 54587

DST#: 3

ATTN: Vern Schrag

Test Start: 2013.12.10 @ 08:20:00

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:

32000 ppm

Viscosity: 46.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2100.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
179.00	ocgmw 5%O 10%G 30%M 55%W	1.163
186.00	ocgw m 5%O 30%G 30%W 35%M	2.609
186.00	gcow m 10%G 10%O 20%W 60%M	2.609
248.00	ocgw m 5%O 10%G 35%W 50%M	3.479
236.00	gcow m 5%G 10%O 40%W 45%M	3.310
0.00	258 Feet Weak Gas	0.000

Total Length: 1035.00 ft Total Volume: 13.170 bbl

Num Fluid Samples: 0

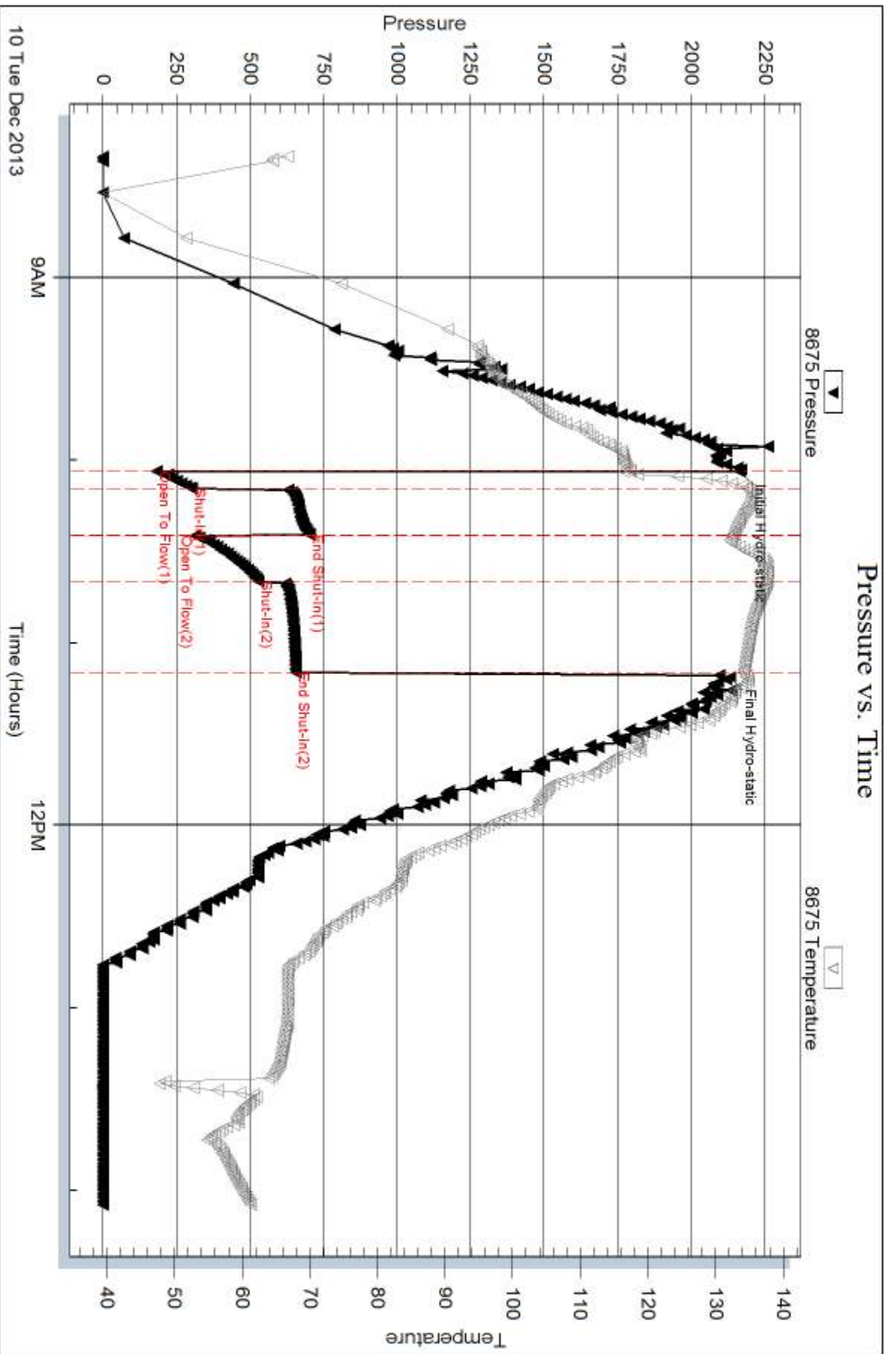
Num Gas Bombs: 0

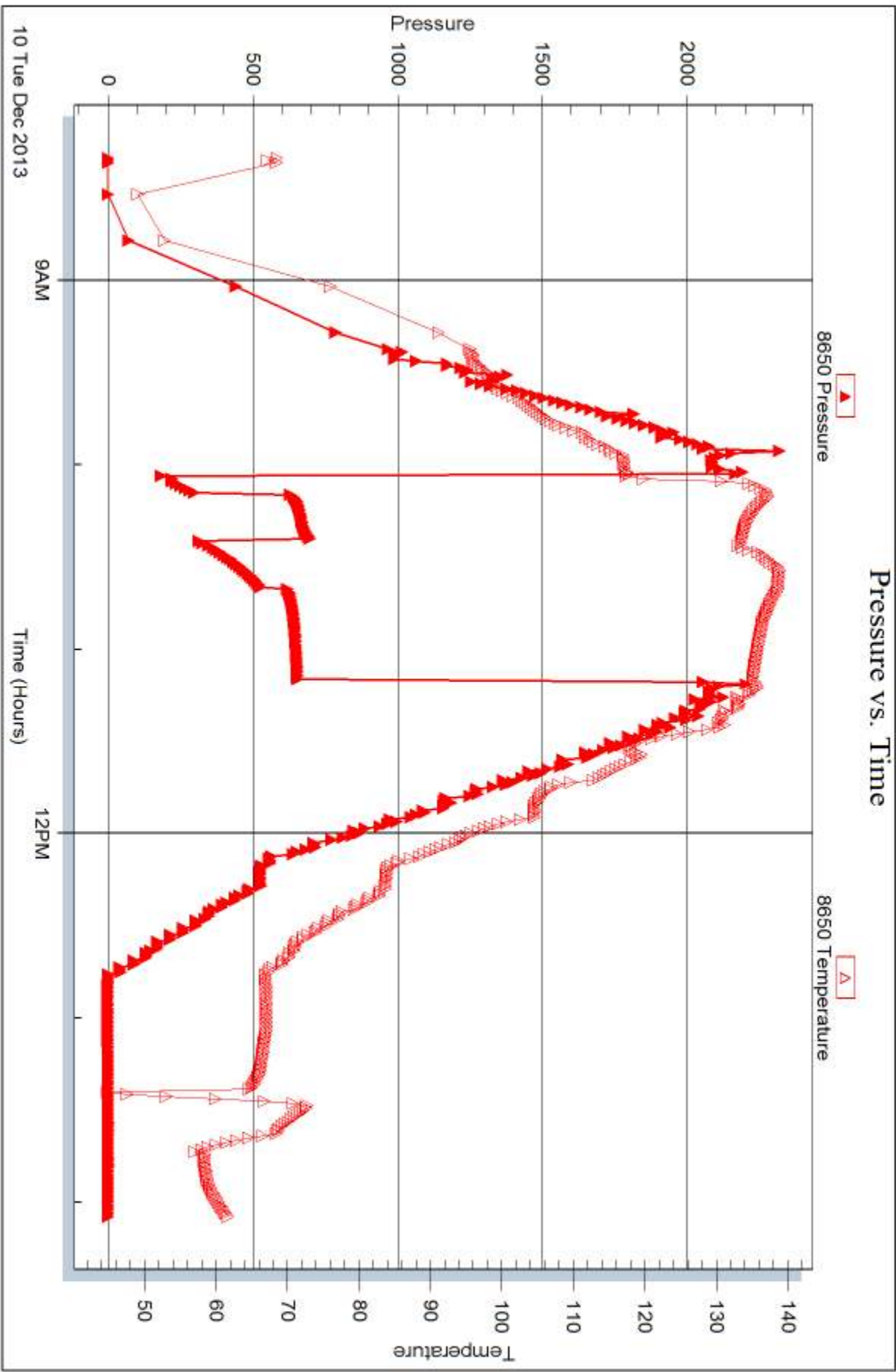
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .25 @ 60 F = 32,000







DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc.**

562 West State Rd 4
Olmitz, KS 67564-8561

ATTN: Vern Schrag

Eaton #1-36

36-18s-31w Scott,KS

Start Date: 2013.12.11 @ 06:40:00

End Date: 2013.12.11 @ 11:51:30

Job Ticket #: 54588 DST #: 4

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.12.13 @ 14:38:00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Larson Engineering, Inc.

36-18s-31w Scott,KS

562 West State Rd 4
Olmitz, KS 67564-8561

Eaton #1-36

Job Ticket: 54588

DST#: 4

ATTN: Vern Schrag

Test Start: 2013.12.11 @ 06:40:00

GENERAL INFORMATION:

Formation: **Pawnee - Fort Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:00:00

Time Test Ended: 11:51:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 46

Interval: **4427.00 ft (KB) To 4500.00 ft (KB) (TVD)**

Reference Elevations: 2922.00 ft (KB)

Total Depth: 4500.00 ft (KB) (TVD)

2915.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8675

Inside

Press@RunDepth: 56.67 psig @ 4428.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.12.11

End Date:

2013.12.11

Last Calib.: 2013.12.11

Start Time: 06:40:15

End Time:

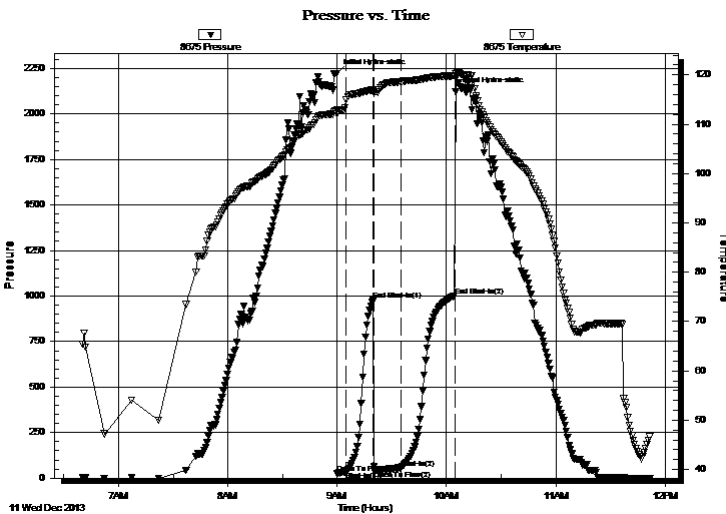
11:51:30

Time On Btm: 2013.12.11 @ 08:59:45

Time Off Btm: 2013.12.11 @ 10:05:00

TEST COMMENT: Built to 2 1/2" blow
No return blow
Built to 10" blow
No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2222.94	112.88	Initial Hydro-static
1	24.24	112.15	Open To Flow (1)
6	35.17	115.03	Shut-In(1)
20	976.14	116.96	End Shut-In(1)
21	41.12	116.65	Open To Flow (2)
35	56.67	118.64	Shut-In(2)
65	1002.42	119.84	End Shut-In(2)
66	2124.11	120.20	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	154 feet gas in pipe	0.00
60.00	ocgm 20%O 30%G 50%M	0.30
30.00	gcom 5%G 10%O 85%M	0.15

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering, Inc.

36-18s-31w Scott,KS

562 West State Rd 4
Olmitz, KS 67564-8561

Eaton #1-36

Job Ticket: 54588

DST#: 4

ATTN: Vern Schrag

Test Start: 2013.12.11 @ 06:40:00

Tool Information

Drill Pipe:	Length: 4260.61 ft	Diameter: 3.80 inches	Volume: 59.77 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length: 147.95 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume: 60.50 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	9.06 ft			String Weight: Initial	56000.00 lb
Depth to Top Packer:	4427.00 ft			Final	57000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	73.00 ft				
Tool Length:	100.50 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4400.50	
Shut In Tool	5.00			4405.50	
Hydraulic tool	5.00			4410.50	
Jars	5.00			4415.50	
Safety Joint	2.50			4418.00	
Packer	5.00			4423.00	27.50 Bottom Of Top Packer
Packer	4.00			4427.00	
Stubb	1.00			4428.00	
Recorder	0.00	8675	Inside	4428.00	
Recorder	0.00	8650	Outside	4428.00	
Perforations	36.00			4464.00	
Change Over Sub	1.00			4465.00	
Drill Pipe	31.00			4496.00	
Change Over Sub	1.00			4497.00	
Bullnose	3.00			4500.00	73.00 Bottom Packers & Anchor

Total Tool Length: 100.50



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc.

36-18s-31w Scott,KS

562 West State Rd 4
Olmitz, KS 67564-8561

Eaton #1-36

Job Ticket: 54588

DST#: 4

ATTN: Vern Schrag

Test Start: 2013.12.11 @ 06:40:00

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: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2200.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
0.00	154 feet gas in pipe	0.000
60.00	ocgm 20%O 30%G 50%M	0.295
30.00	gcom 5%G 10%O 85%M	0.148

Total Length: 90.00 ft Total Volume: 0.443 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

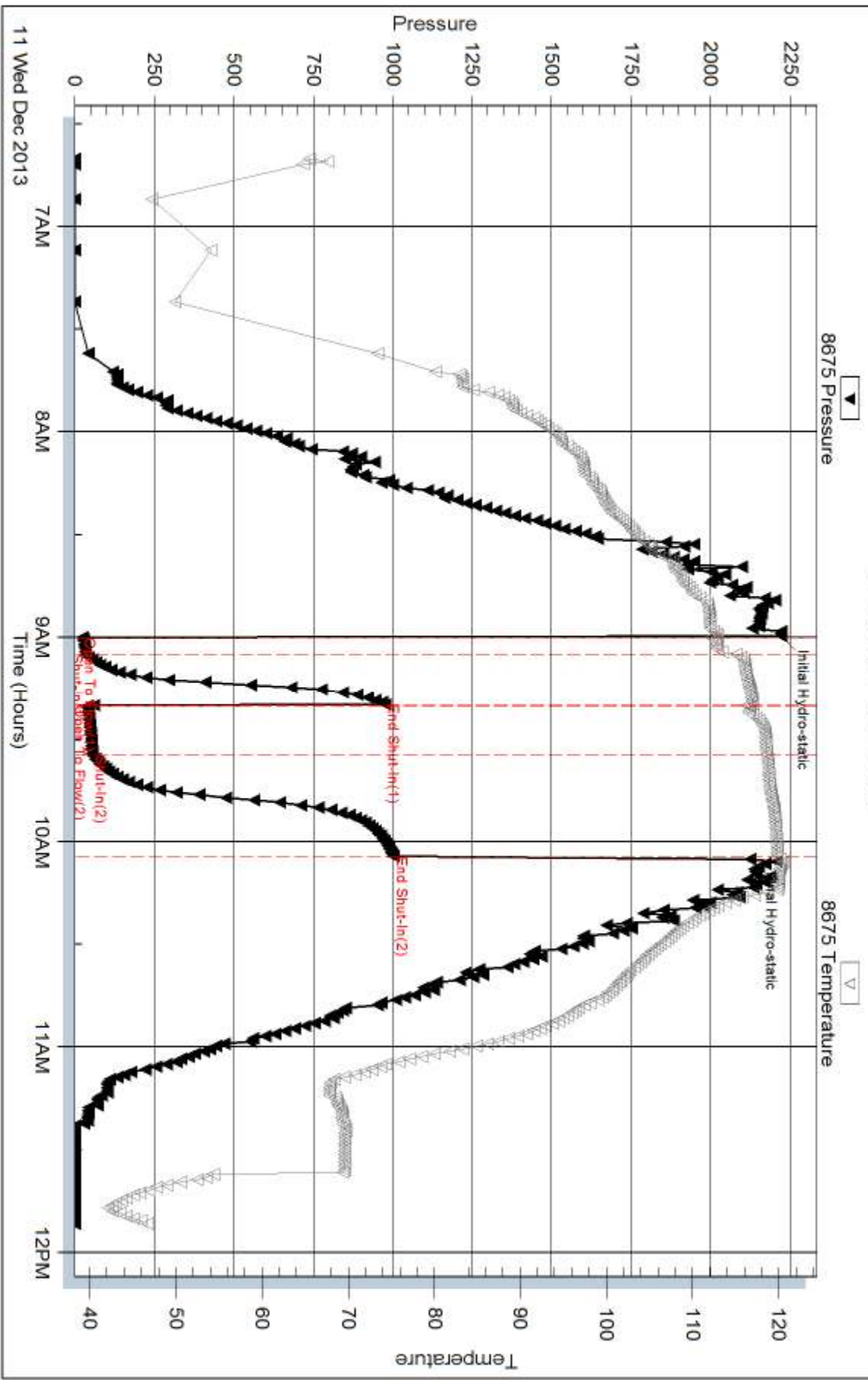
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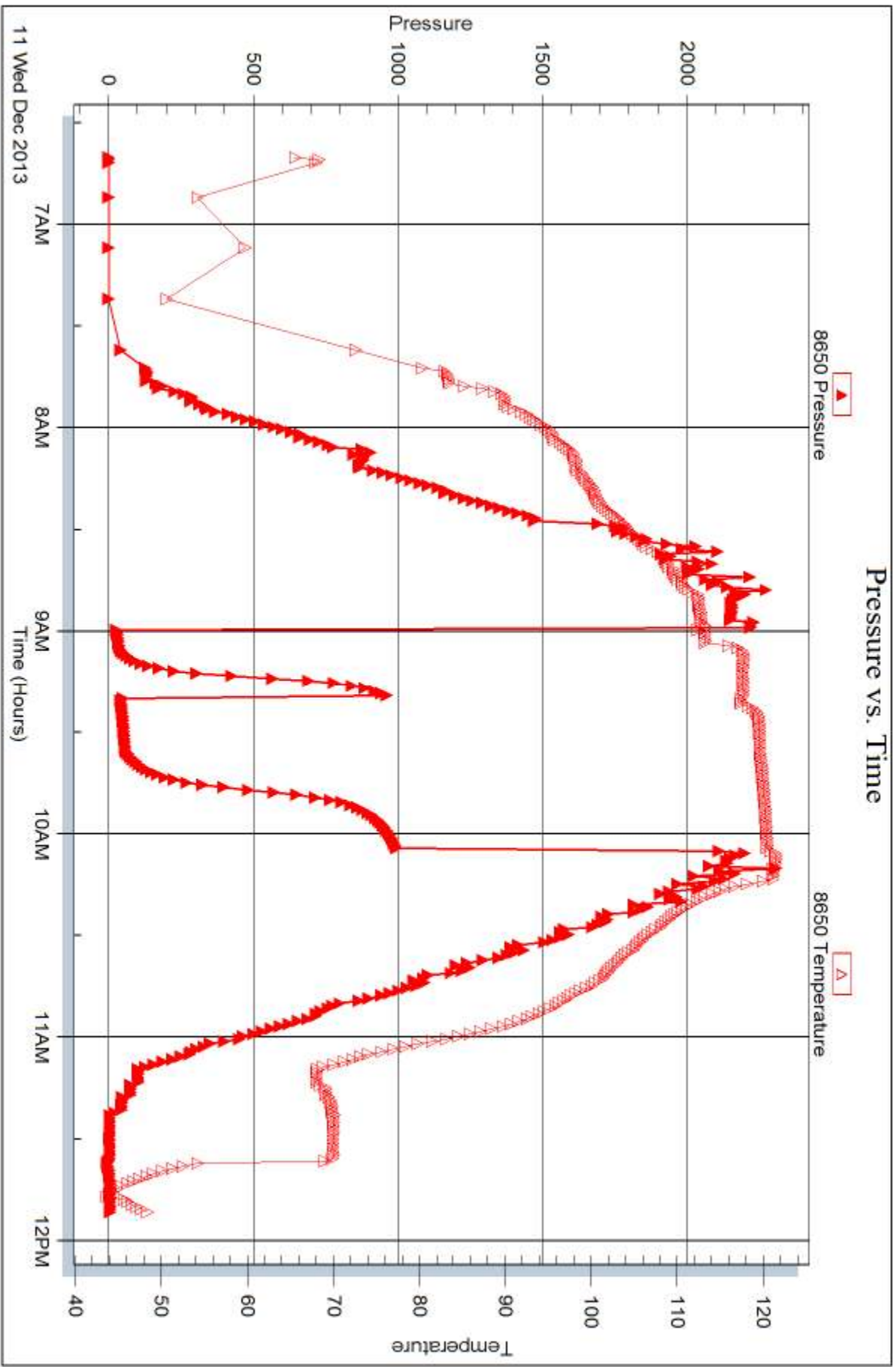
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Larson Engineering, Inc.**

562 West State Rd 4
Olmitz, KS 67564-8561

ATTN: Vern Schrag

Eaton #1-36

36-18s-31w Scott,KS

Start Date: 2013.12.12 @ 00:05:00

End Date: 2013.12.12 @ 07:33:30

Job Ticket #: 54589 DST #: 5

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.12.13 @ 14:37:20



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Larson Engineering, Inc.

36-18s-31w Scott,KS

562 West State Rd 4
Olmitz, KS 67564-8561

Eaton #1-36

Job Ticket: 54589

DST#: 5

ATTN: Vern Schrag

Test Start: 2013.12.12 @ 00:05:00

GENERAL INFORMATION:

Formation: **Cherokee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:06:45

Time Test Ended: 07:33:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Jace McKinney

Unit No: 46

Interval: 4498.00 ft (KB) To 4565.00 ft (KB) (TVD)

Reference Elevations: 2922.00 ft (KB)

Total Depth: 4565.00 ft (KB) (TVD)

2915.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8675 Inside

Press@RunDepth: 22.77 psig @ 4499.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.12.12

End Date:

2013.12.12

Last Calib.:

2013.12.12

Start Time: 00:05:15

End Time:

07:33:30

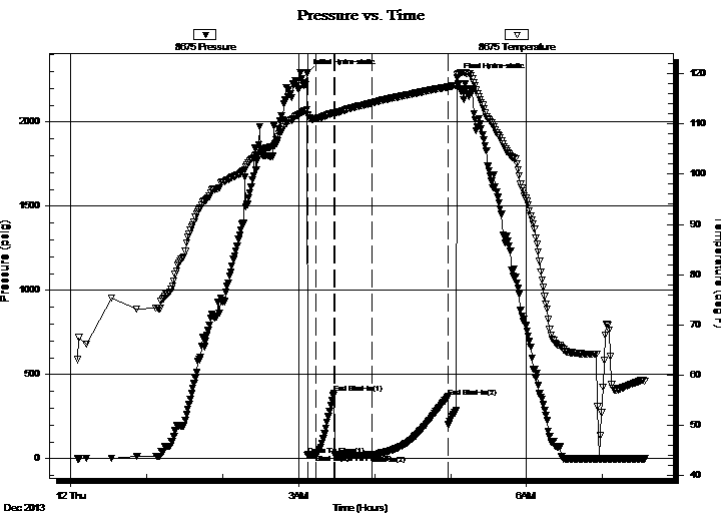
Time On Btm:

2013.12.12 @ 03:06:30

Time Off Btm:

2013.12.12 @ 05:05:15

TEST COMMENT: Built to 1/2" blow
No return blow
Built to 3/4" blow
No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2289.89	112.90	Initial Hydro-static
1	22.08	111.80	Open To Flow (1)
7	23.75	111.08	Shut-In(1)
22	388.08	112.29	End Shut-In(1)
22	23.35	112.16	Open To Flow (2)
52	22.77	114.23	Shut-In(2)
112	368.38	117.43	End Shut-In(2)
119	2265.01	119.76	Final Hydro-static

Recovery

Gas Rates

Length (ft)	Description	Volume (bbl)
15.00	100% Mud with oil scum	0.07

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering, Inc.

36-18s-31w Scott,KS

562 West State Rd 4
Olmitz, KS 67564-8561

Eaton #1-36

Job Ticket: 54589

DST#: 5

ATTN: Vern Schrag

Test Start: 2013.12.12 @ 00:05:00

Tool Information

Drill Pipe:	Length: 4354.55 ft	Diameter: 3.80 inches	Volume: 61.08 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 147.95 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 61.81 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4498.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	67.00 ft			
Tool Length:	94.50 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4471.50	
Shut In Tool	5.00			4476.50	
Hydraulic tool	5.00			4481.50	
Jars	5.00			4486.50	
Safety Joint	2.50			4489.00	
Packer	5.00			4494.00	27.50 Bottom Of Top Packer
Packer	4.00			4498.00	
Stubb	1.00			4499.00	
Recorder	0.00	8675	Inside	4499.00	
Recorder	0.00	8650	Outside	4499.00	
Perforations	30.00			4529.00	
Change Over Sub	1.00			4530.00	
Drill Pipe	31.00			4561.00	
Change Over Sub	1.00			4562.00	
Bullnose	3.00			4565.00	67.00 Bottom Packers & Anchor

Total Tool Length: 94.50



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc.

36-18s-31w Scott,KS

562 West State Rd 4
Olmitz, KS 67564-8561

Eaton #1-36

Job Ticket: 54589

DST#: 5

ATTN: Vern Schrag

Test Start: 2013.12.12 @ 00:05:00

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: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	100% Mud w ith oil scum	0.074

Total Length: 15.00 ft Total Volume: 0.074 bbl

Num Fluid Samples: 0

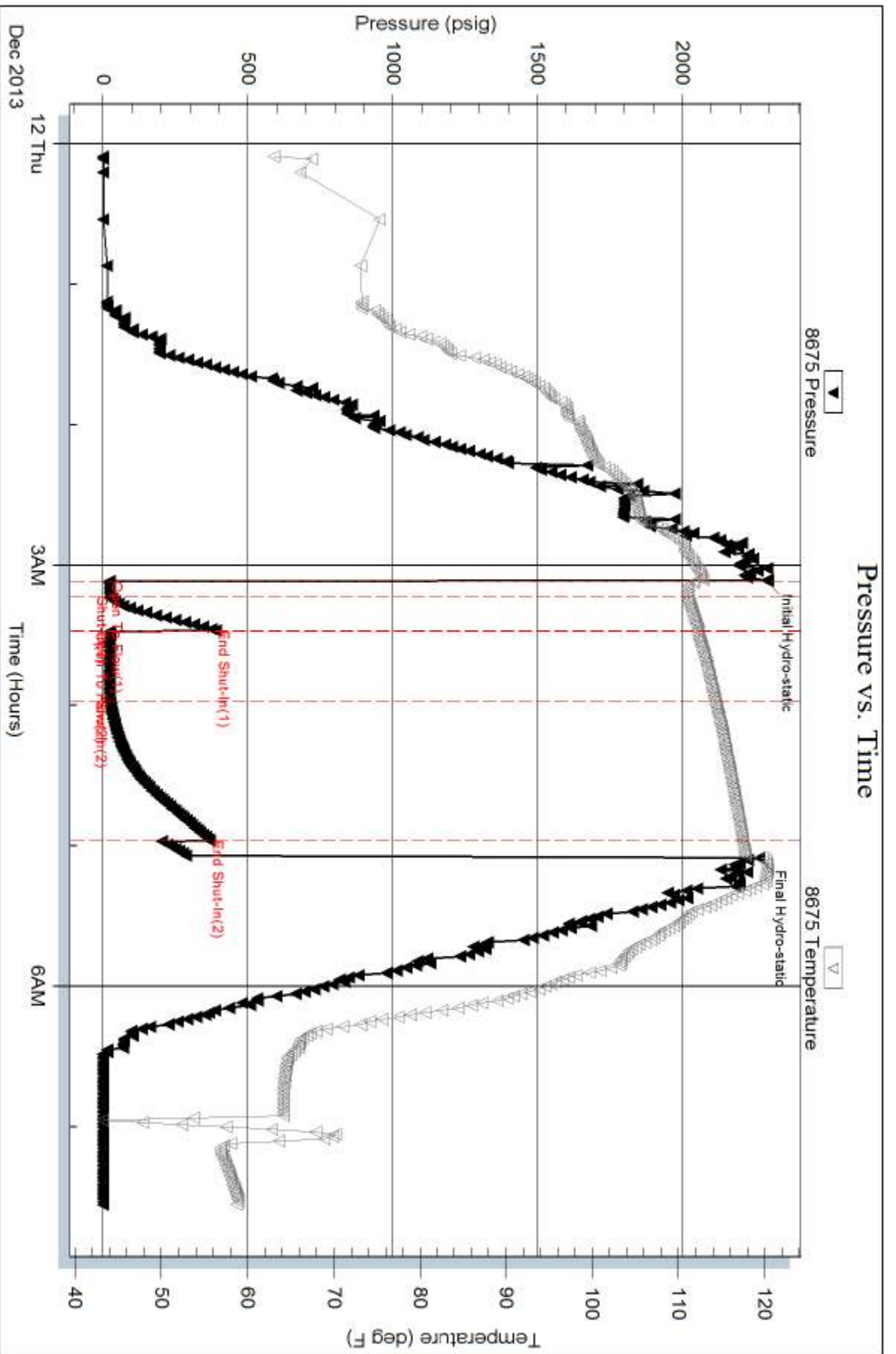
Num Gas Bombs: 0

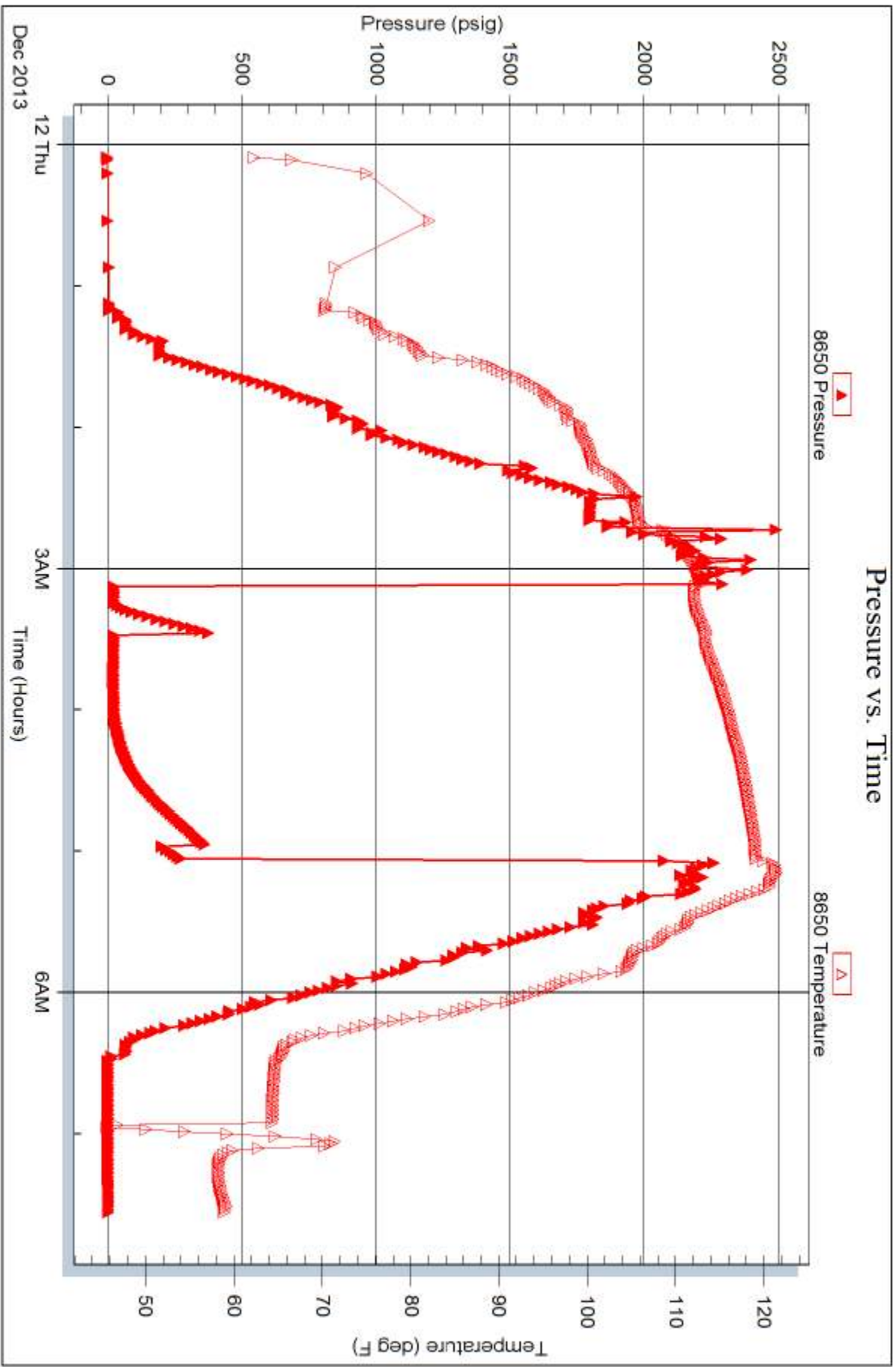
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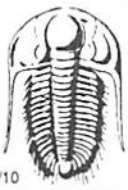
Laboratory Name:

Laboratory Location:

Recovery Comments:







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54585

Well Name & No. Eaton # 1-36 Test No. 1 Date 12/8/13 12/9/13
 Company Larson Engineering Inc Elevation 2922 KB 2915 GL
 Address 562 West State Rd 4 Olmitz, KS 67564-8561
 Co. Rep / Geo. Vern Schwag Rig HD Rig 3
 Location: Sec. 36 Twp. 78s Rge. 31w Co. Scott County State KS

Interval Tested 4269 - 4283 Zone Tested Kansas City "L" Zone
 Anchor Length 14 Drill Pipe Run 4103.51 Mud Wt. 9.0
 Top Packer Depth 4265 Drill Collars Run 147.95 Vis 53
 Bottom Packer Depth 4269 Wt. Pipe Run _____ WL 6.8
 Total Depth 4283 Chlorides 1,800 ppm System LCM 2#

Blow Description Built to 7" below
Bled off for 3 min. No return below
B.O.B. in 9 1/2 min.

Bled off for 5 min. No return below

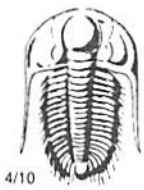
Rec	Feet of	%gas	%oil	%water	%mud
<u>131</u>	<u>WCM with few oil spots</u>		<u>20</u>		<u>80</u>
<u>179</u>	<u>MCM</u>		<u>80</u>		<u>20</u>
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____
Rec _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____

Rec Total 310 BHT 117 Gravity _____ API RW 1.0 @ 00 ° F Chlorides 20,000 ppm

(A) Initial Hydrostatic <u>2,144</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>23:00</u>
(B) First Initial Flow <u>25</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>01:55</u>
(C) First Final Flow <u>82</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>06:06</u>
(D) Initial Shut-In <u>832</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>07:11</u>
(E) Second Initial Flow <u>87</u>	<input checked="" type="checkbox"/> Hourly Standby <u>1 hour</u>	T-Out <u>09:34</u>
(F) Second Final Flow <u>160</u>	<input checked="" type="checkbox"/> Mileage <u>30 RT</u> <u>46.50</u>	Comments _____
(G) Final Shut-In <u>821</u>	<input type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>2,114</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Open <u>5</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Shut-In <u>15</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Final Flow <u>15</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby _____	Total <u>1621.50</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1621.50</u>	

Approved By Vern Schwag Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54586

Well Name & No. Eaton # 1-36 Test No. 2 Date 12/10/13
 Company Larson Engineering, Inc Elevation 2922 KB 2915 GL
 Address 562 West State Rd 4 Olmitz, KS 67564 - 8561
 Co. Rep / Geo. Vern Schrag Rig H/O Rig 3
 Location: Sec. 36 Twp. 18s Rge. 3lw Co. Scott County State KS

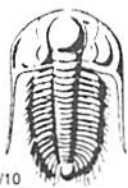
Interval Tested 4372-4390 Zone Tested Marmaton
 Anchor Length 18 Drill Pipe Run 4233.28 Mud Wt. 9.1
 Top Packer Depth 4368 Drill Collars Run 147.95 Vis 46
 Bottom Packer Depth 4372 Wt. Pipe Run _____ WL 6.8
 Total Depth 4390 Chlorides 2100 ppm System LCM 2#
 Blow Description Packer Failure

Rec	Feet of	%gas	%oil	%water	%mud
<u>350</u>	<u>100% Mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 350 BHT 2,226 Gravity _____ API RW _____ @ _____ ° F Chlorides _____ ppm

(A) Initial Hydrostatic 2,226 Test 1050 T-On Location 01:00
 (B) First Initial Flow _____ Jars 250 T-Started 02:00
 (C) First Final Flow _____ Safety Joint 75 T-Open _____
 (D) Initial Shut-In _____ Circ Sub N/C T-Pulled _____
 (E) Second Initial Flow _____ Hourly Standby _____ T-Out 07:53
 (F) Second Final Flow _____ Mileage 30 RT 46.50 Comments _____
 (G) Final Shut-In _____ Sampler _____
 (H) Final Hydrostatic 2,178 Straddle _____ Ruined Shale Packer _____
 Shale Packer 250 Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 5 Extra Recorder _____ Sub Total 0
 Initial Shut-In 15 Day Standby _____ Total 1671.50
 Final Flow _____ Accessibility _____ MP/DST Disc't _____
 Final Shut-In _____ Sub Total 1671.50

Approved By Vern Schrag Our Representative [Signature]
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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54587

Well Name & No. Eaton # 1-36 Test No. 3 Date 12/10/13
 Company Carbon Engineering, Inc. Elevation 2922 KB 2915 GL
 Address 562 West State Rd 4 Olmitz, KS 67564-8561
 Co. Rep / Geo. Vern Schrag Rig 40 Rig 3
 Location: Sec. 36 Twp. 185 Rge. 3W Co. Scott County State KS

Interval Tested 4300-4390 Zone Tested Marmaton
 Anchor Length 90 Drill Pipe Run 4134.78 Mud Wt. 9.1
 Top Packer Depth 4296 Drill Collars Run 147.95 Vis 4/6
 Bottom Packer Depth 4300 Wt. Pipe Run _____ WL 6.8
 Total Depth 4390 Chlorides 2,100 ppm System LCM 2#

Blow Description B.O.B. in 1 min.
Bled off for 5 min. No return below
B.O.B. in 1 1/2 min.
Bled off for 5 min. Built to 1" return below

Rec	Feet of	%gas	%oil	%water	%mud
179	OCGmw	10	5	55	30
186	OCGwm	30	5	30	35
186	GCOWm	10	10	20	60
248	OCGwm	10	5	35	50
236	GCOWm	5	10	40	45

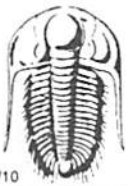
Rec Total 1035 BHT 135 Gravity _____ API RW 025 @ 60 °F Chlorides 32,000 ppm

(A) Initial Hydrostatic 2,163 Test 1250 T-On Location 08:00
 (B) First Initial Flow 183 Jars 250 T-Started 08:20
 (C) First Final Flow 303 Safety Joint 75 T-Open 10:03
 (D) Initial Shut-In 762 Circ Sub N/C T-Pulled 11:08
 (E) Second Initial Flow 313 Hourly Standby _____ T-Out 14:05
 (F) Second Final Flow 520 Mileage 30 RT Comments 258 Feet
 (G) Final Shut-In 655 Sampler _____ Wear Gas
 (H) Final Hydrostatic 2,130 Straddle _____ Ruined Shale Packer _____
 Shale Packer 250 Ruined Packer _____

Initial Open 5 Extra Packer _____ Extra Copies _____
 Initial Shut-In 15 Extra Recorder _____ Sub Total 0
 Final Flow 15 Day Standby _____ Total 1825
 Final Shut-In 30 Accessibility _____ MP/DST Disc't _____
 Sub Total 1825

Approved By Vern Schrag Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54588

Well Name & No. Eaton # 1-36 Test No. 4 Date 12/11/13
 Company Larson Engineering, Inc Elevation 2922 KB 2915 GL
 Address 562 West State Rd 4 Olmitz, KS 67564-8561
 Co. Rep / Geo. Vern Schrag Rig HD Rig 3
 Location: Sec. 36 Twp. 185 Rge. 31w Co. Scott County State KS

Interval Tested 4427-4500 Zone Tested Pawnee - Fort Scott
 Anchor Length 73 Drill Pipe Run 4260.61 Mud Wt. 9.1
 Top Packer Depth 4423 Drill Collars Run 142.95 Vis 49
 Bottom Packer Depth 4427 Wt. Pipe Run _____ WL 6.8
 Total Depth 4500 Chlorides 2,200 ppm System LCM 2#

Blow Description Built to 2 1/2" below
No return below
Built to 10" below
No return below

Rec	Feet of	%gas	%oil	%water	%mud
<u>0</u>	<u>164 Feet Gas In Pipe</u>				
<u>30</u>	<u>600M</u>	<u>5</u>	<u>10</u>	<u>85</u>	
<u>60</u>	<u>000M</u>	<u>30</u>	<u>20</u>	<u>50</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

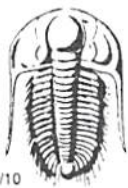
Rec Total 90 BHT 120 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2,223 Test 1250 T-On Location 05:45
 (B) First Initial Flow 24 Jars 250 T-Started 06:40
 (C) First Final Flow 35 Safety Joint 75 T-Open 09:00
 (D) Initial Shut-In 976 Circ Sub N/C T-Pulled 10:05
 (E) Second Initial Flow 41 Hourly Standby _____ T-Out 11:51
 (F) Second Final Flow 57 Mileage 30 RT 46.50
 (G) Final Shut-In 1,002 Sampler _____
 (H) Final Hydrostatic 2,124 Straddle _____

Initial Open 5 Shale Packer _____ Ruined Shale Packer _____
 Initial Shut-In 15 Extra Packer _____ Ruined Packer _____
 Final Flow 15 Extra Recorder _____ Sub Total 0
 Final Shut-In 30 Day Standby _____ Total 1621.50
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1621.50

Approved By Vern Schrag Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54589

Well Name & No. Eaton #1-36 Test No. 5 Date 12/11/13 12/12/13
 Company Larson Engineering, Inc Elevation 2922 KB 2915 GL
 Address 562 West State Rd 4 Olmitz, 155 67564 - 8561
 Co. Rep / Geo. Vern Schrag Rig HD Rig 3
 Location: Sec. 36 Twp. 18S Rge. 31W Co. Scott County State KS

Interval Tested 4498-4565 Zone Tested Cherokee
 Anchor Length 67 Drill Pipe Run 4354.55 Mud Wt. 9.2
 Top Packer Depth 4494 Drill Collars Run 147.95 Vis 54
 Bottom Packer Depth 4498 Wt. Pipe Run _____ WL 7.2
 Total Depth 4565 Chlorides 2,500 ppm System LCM 2 #

Blow Description Built to 1/2" below
No return below
Built to 3/4" below
No return below

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>Mud with oil scum</u>			<u>10</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 15 BHT 120 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2,290 Test 1250 T-On Location 23:10
 (B) First Initial Flow 22 Jars 250 T-Started 00:05
 (C) First Final Flow 24 Safety Joint 75 T-Open 03:07
 (D) Initial Shut-In 388 Circ Sub N/C T-Pulled 04:57
 (E) Second Initial Flow 23 Hourly Standby _____ T-Out 07:33
 (F) Second Final Flow 23 Mileage 30 RT 46.50 Comments _____
 (G) Final Shut-In 368 Sampler _____
 (H) Final Hydrostatic 2,265 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1621.50
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1621.50

Approved By Vern Schrag Our Representative [Signature]
 Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



CHARGE TO: **LARSON ENGINEERING**
 ADDRESS:
 CITY, STATE, ZIP CODE:

TICKET 25909

PAGE 1 OF 2

SERVICE LOCATIONS: 1. **NESS CITY, KS**
 WELL/PROJECT NO.:
 LEASE: **EATON 1-36**
 COUNTY: **WASHE**
 STATE: **KS**
 CITY: **GRIFFIN, KS**
 DATE: **13 DEC 13**
 OWNER:
 TICKET TYPE: SERVICE SALES
 CONTRACTOR: **HD DRILLING RIG #3**
 RIG NAME/NO.:
 SHIPPED VIA:
 DELIVERED TO:
 ORDER NO.:
 WELL TYPE: **OIL**
 WELL CATEGORY: **DEVELOPMENT**
 JOB PURPOSE: **S'2 LONGSTRING**
 WELL PERMIT NO.:
 WELL LOCATION: **1E, 35S, E1W10**
 REFERRAL LOCATION:
 INVOICE INSTRUCTIONS:

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.		U/M		UNIT PRICE	AMOUNT
		LOG	ACCT	DF							
575					MILEAGE #115	50	m	1		60.00	3000.00
578					Pump CHARGE					1500.00	1500.00
280					FLOCHECK 21	500	ft	2		3.00	1500.00
221					LIQUID KCL	2	gal			25.00	50.00
419					ROTATING HEAD RENTAL					200.00	200.00

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS.

DATE SIGNED: **13 DEC 13** TIME SIGNED: **1200** A.M. P.M.

REMIT PAYMENT TO:
 SWIFT SERVICES, INC.
 P.O. BOX 466
 NESS CITY, KS 67560
 785-798-2300

SURVEY	AGREE	UN-DECIDED	DIS-AGREE	
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?				PAGE TOTAL 1 3550
WE UNDERSTOOD AND MET YOUR NEEDS?				2 5584.50
OUR SERVICE WAS PERFORMED WITHOUT DELAY?				subtotal 9134.50
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?				Scott TAX 8.15% 537.13
ARE YOU SATISFIED WITH OUR SERVICE? <input type="checkbox"/> YES <input type="checkbox"/> NO				TOTAL 9671.63
<input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND				

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES. The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR: *[Signature]*

APPROVAL: *[Signature]* Thank You!



PO Box 466
Ness City, KS 67560
Off: 785-798-2300

TICKET CONTINUATION

TICKET No. 25909

CUSTOMER: LARSON ENGINEERING WELL: DATE: 13 DEC 13 PAGE 2 OF 2

PRICE REFERENCE	SECONDARY REFERENCE / PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	QTY		UM		UNIT PRICE	AMOUNT
		LOC	ACCT	DF			QTY	UM	QTY	UM		
276						FLOCELE	40	lbs			2 ⁵⁰	100 ⁰⁰
283						SALT	800	lbs			20	160 ⁰⁰
284						CALSEAL	7	bx			35 ⁰⁰	245 ⁰⁰
292						HALAD-322	150	lbs			8 ⁰⁰	1200 ⁰⁰
277						GILSONITE	1100	lbs			75	825 ⁰⁰
290						D-AIR	1 1/2	sq ft			42 ⁰⁰	63 ⁰⁰
325						STANDARD CEMENT FA-2	155	sq			14 ⁵⁰	2247 ⁵⁰
581						SERVICE CHARGE					2 ⁰⁰	310 ⁰⁰
583						MILEAGE CHARGE	1.3	MI			1 ⁰⁰	434 ⁰⁰
						TOTAL MILEAGE CHARGE	1.3	MI				
						LOADED MILES	50					
						TON MILES	434					

CONTINUATION TOTAL: 5584⁵⁰



CHARGE TO: Lardon Engineering
 ADDRESS:
 CITY, STATE, ZIP CODE:

TICKET 25770

PAGE 1 OF 1

SERVICE LOCATIONS 1. Am City KS WELL/PROJECT NO. 1-36 LEASE Eaton COUNTY/PARISH Scott STATE KS CITY Grigston DATE 18 Dec 13 OWNER
 2. TICKET TYPE SERVICE SALES CONTRACTOR RIG NAME/NO. SHIPPED YCT DELIVERED TO Location ORDER NO.
 3. WELL TYPE oil WELL CATEGORY Development JOB PURPOSE cheyenne cement post collar WELL PERMIT NO. WELL LOCATION
 4. REFERRAL LOCATION INVOICE INSTRUCTIONS

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.		U/M		UNIT PRICE	AMOUNT
		LOC	ACCT	DF							
575		1			MILEAGE	50	mi			6.00	300.00
576D		1			Pump Charge	1	ea			1500.00	1500.00
330		1			SMD cement	175	sk			18.150	3237.150
276		1			Flocele	50	lb			2.50	125.00
290		1			DAIR	2	gal			42.00	84.00
581		1			flexic charge	235	sk			2.00	470.00
583		1			Drayage	23385	lb		584.62 TM	1.00	584.62

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

X [Signature]
 DATE SIGNED TIME SIGNED A.M. P.M.

REMIT PAYMENT TO:
 SWIFT SERVICES, INC.
 P.O. BOX 466
 NESS CITY, KS 67560
 785-798-2300

SURVEY	AGREE	UN-DECIDED	DIS-AGREE	PAGE TOTAL	AMOUNT
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?				6308.12	
WE UNDERSTOOD AND MET YOUR NEEDS?					
OUR SERVICE WAS PERFORMED WITHOUT DELAY?					
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?					
ARE YOU SATISFIED WITH OUR SERVICE?	<input type="checkbox"/> YES	<input type="checkbox"/> NO			
<input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND				TOTAL	6582.01

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR [Signature] APPROVAL

Thank You!

JOB LOG

SWIFT Services, Inc.

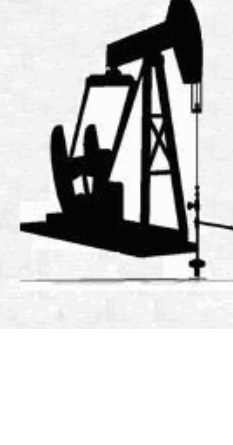
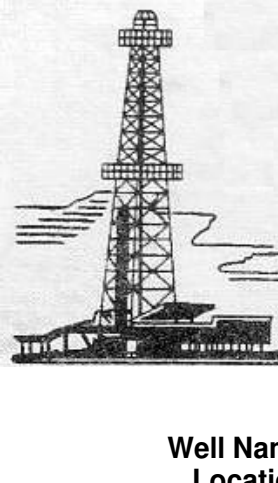
DATE 18 Dec 13 PAGE NO.

CUSTOMER *Lardon Engineering* WELL NO. 1-36 LEASE Eaton JOB TYPE cement port collar TICKET NO. 25770

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
								235 sk SMD w/ 1/2" floccle 2 3/8 x 5 1/2 port collar - 2195'
	1130							on loc TRK IT
	1150					1000	1000	test to 1000 psi - hold open port collar
	1155	3 1/2	2			300		inj rate 3 1/2 @ 300
	1200	3 1/2				400		mix SMD cement @ 11/2 ppg
		3 1/2	16			400		fluid to surface.
								- cement to surface -
		3 1/2	92			600		{ 175 sk mixed } 20 topit
	1225	3 1/2	8			600		DR place 8 bbl H ₂ O
								close port collar
	1235							test to 1000 psi - hold run 5 joints
			50					Reverse hole clean - 2 cement plugs wash truck Kick up
	1330							job complete Thank Blair Plant & rec

WELLSITE GEOLOGIST'S REPORT

VERNON C. SCHRAG
CONSULTANT GEOLOGIST



Scale 1:240 (5"=100') Imperial

Well Name: **Eaton #1-36**
 Location: **SW NW NE SW SEC. 36-18s-31w**
 Licence Number: **API: 15-171-20999**
 Spud Date: **December 3, 2013**
 Surface Coordinates: **2265' FSL & 1641' FWL**
Y= 655016, X= 1370431

Region: **Scott Co., KS**
 Drilling Completed: **December 12, 2013**

Bottom Hole Coordinates:
 Ground Elevation (ft): **2915'**
 Logged Interval (ft): **3800'**
 Formation: **Mississippi**
 Type of Drilling Fluid: **Chemical Premix (Displaced)**

K.B. Elevation (ft): **2922'**
 To: **RTD** Total Depth (ft): **4610'**
 Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR:

Company: **Larson Engineering Inc.**
 Address: **562 West State Road 4**
Olmits, KS 67564-8561

DRILLING CONTRACTOR:

H. D. Drilling, LLC, Rig #3

DP 4.5" XH (16.6#); DC 6.25" x 2.25" x 560', Kelly 40.30', Tool Joint 5.5" ; Bit: JZ-HA20-Q, 7-7/8", standard jets 15-15-15; rpm 80, WOB 35k; Kelly Bushing 7' above ground level; LeWayne "Lew" Tresner (tool pusher).

CASING:

Set 8-5/8" casing at 279'
 Set 5-1/2" production casing

CIRCULATION SYSTEM:

Continental EMSCO D-300, duplex, 6 x 14, 60-62 spm, Chemical, premix, displaced 3262 to 3275'; earth pits, Morgan Mud, Inc., Cade Lines.

OPEN HOLE LOGS:

DN, DI (SP) (Run-1); ML (Run-2); No Sonic; 5" detail LTD-3600; 2" DI to surface casing; LogTech-Pioneer Wireline, Hays, KS, D. Schmidt, Log total depth (4613') was three feet long to rotary total depth (4610').

DRILL STEM TEST #1:

LKC "Middle Creek", "L-zone": Interval: 4269-4283 (14)'; Blow: weak incr to 7" IFP, no RB, weak incr to 9.5" FFP, no RB; Times: 5-15-15-30; Recovery: 310' TF: 131' WM (20%W, 80%M), 179' MW (80%W, 20%M, Rw 1.0 at 0 F, chlorides 20k); Pressures: HP: 2144-2114, SIP: 832-821, FP: 25-82, 87-160; BHT: 117 F; Trilobite Testing, Inc., Scott City, KS, Jace McKinney.

DRILL STEM TEST #2:

Marmaton: Interval: 4372-4390 (18)'; Missrun due to packer seat failure, Trilobite Testing, Inc., Scott City, KS, Jace McKinney.

DRILL STEM TEST #3:

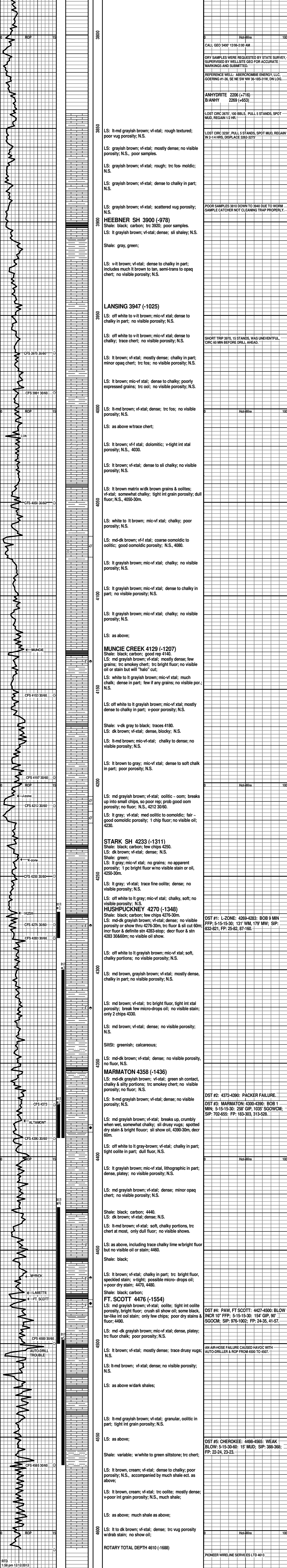
Marmaton: Interval: 4300-4390 (90)'; Blow: BOB in 1 min IFP, no RB, BOB in 1.5 min FFP, RB 1" FSIP; Times: 5-15-15-30; Recovery: 258' GIP, 1035' TF: 179' OGCWM (10%G, 5%O, 55%W, 30%M, Rw 0.25 at 60F, chlorides 32k), 186' OGCWM (30%G, 5%O, 20%W, 35%M), 186' OGCWM (10%G, 10%O, 20%W, 60%M), 248' OGCWM (10%G, 5%O, 35%W, 50%M), 236' GOCWM (5%G, 10%O, 40%W, 45%M); Pressures: HP: 2163-2130, SIP: 702-655, FP: 183-303, 313-528; BHT: 135 F; Trilobite Testing, Inc., Scott City, KS, Jace McKinney.

DRILL STEM TEST #4:

Pawnee, Ft. Scott: Interval: 4427-4500 (73)'; Blow: weak incr 2.5" IFP, no RB, weak incr 10" FFP, no RB; Times: 5-15-15-30; Recovery: 154' GIP, 90' TF: 30' GOCM (5%G, 10%O, 85%M), 90' GOCM (30%G, 20%O, 50%M); Pressures: HP: 2223-2124, SIP: 976-1002, FP: 24-35, 41-57, BHT: 120 F; Trilobite Testing, Inc., Scott City, KS, Jace McKinney.

DRILL STEM TEST #5:

Cherokee: Interval: 4498-4565 (67)'; Blow: weak 1/2" IFP, no RB, weak 3/4" FFP, no RB; Times: 5-15-30-60; Recovery: 15' mud w/oil scum (100%M); Pressures: HP: 2290-2265, SIP: 388-368, FP: 22-24, 23-23; BHT: 120 F; Trilobite Testing, Inc., Scott City, KS, Jace McKinney.



RTD
1:58 pm 12/12/2013

PIONEER WIRELINE SERVICES LTD 4613