



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1200305
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: _____

1200305

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

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

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
---	--

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

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> _____ <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Larson Engineering, Inc. dba Larson Operating Company
Well Name	Geneva 1-28
Doc ID	1200305

Tops

Name	Top	Datum
Anhydrite	2056	+651
Base Anhydrite	2092	+615
Heebner	3893	-1186
Lansing	3931	-1224
Stark Sh	4205	-1498
Marmaton	4322	-1615
Ft. Scott	4452	-1745
Cherokee Sh	4477	-1770
Mississippi	4535	-1828

QUALITY WELL SERVICE, INC.

5977

Federal Tax I.D. # 481187368

Home Office 324 Simpson St., Pratt, KS 67124

Heath's Cell 620-727-3410

Office / Fax 620-672-3663

Rich's Cell 620-727-3409

Brady's Cell 620-727-6964

Date	2-11-14	Sec.	28	Twp.	18 ^S	Range	28 W	County	LANE	State	K.S.	On Location	1:30 PM	Finish	6:00 PM
Lease	GENEVA		Well No.	1-28		Location									
Contractor										Owner					
Type Job										To Quality Well Service, Inc.					
Hole Size										You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.					
Csg.										Charge To					
Tbg. Size										Street					
Tool										City					
Cement Left in Csg.										State					
Meas Line										The above was done to satisfaction and supervision of owner agent or contractor.					
EQUIPMENT										Cement Amount Ordered					
Pumptrk										175 SKS com 2% gal 3% cc					
Bulktrk										Common					
Bulktrk										Poz. Mix					
Pickup										Gel.					
JOB SERVICES & REMARKS										Hulls					
Rat Hole										Salt					
Mouse Hole										Flowseal					
Centralizers										Kol-Seal					
Baskets										Mud CLR 48					
D/V or Port Collar										CFL-117 or CD110 CAF 38					
pumped 175 SKS (Common 2% Gal 3% cc)										Sand					
circulated to surface										Handling					
11:15										Mileage					
10'										FLOAT EQUIPMENT					
										Guide Shoe					
										Centralizer					
										Baskets					
										AFU Inserts					
										Float Shoe					
										Latch Down					
										Pumptrk Charge					
										Mileage					
										Tax					
										Discount					
										Total Charge					
Signature															



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

TICKET CONTINUATION

TICKET No. 25822

CUSTOMER LARSON ENGINEERING WELL GENEVA 1-28 DATE 2-21-14 PAGE 2 OF 2

PRICE REFERENCE	SECONDARY REFERENCE / PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	QTY.		UNIT PRICE	AMOUNT	
		LOC	ACCT	DF			QTY.	UM			
325		1				STANDARD CEMENT EA2	155	SKS	14.50	2247.50	
276		1				FLOCELE	25	LBS	2.50	62.50	
277		1				GILSONITE	1100	LBS	.75	825.00	
283		1				SALT	800	LBS	.20	160.00	
284		1				CAUSEAL	7	SKS	35.00	245.00	
292		1				HALAD 322	150	LBS	8.00	1200.00	
290		1				D-AER	2	GAL	42.00	84.00	
581		1				SERVICE CHARGE		CUBIC FEET	155	2.00	310.00
583		1				MILEAGE CHARGE		TON MILES	303.54	1.00	303.54
							TOTAL WEIGHT		17345		
							LOADED MILES		35		

CONTINUATION TOTAL 5437.54

JOB LOG

SWIFT Services, Inc.

DATE 2-21-14 PAGE NO. 1

CUSTOMER LARSON ENGINEERING WELL NO. 1-28 LEASE GENEVA JOB TYPE 5 1/2 LONGSTAIRS TICKET NO. 25822

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0800							ON LOCATION - RUNNING CASING
								TD - 4580 SET @ 4579 TP - 4581 5 1/2" @ 15.5 ST - 42 PORT COLLAR - 2041
	0900							DROP BALL - CIRCULATE ROTATE
	1007	6	15		✓		450	PUMP 15 BBL KCL FLUSH
	1010	6	12		✓		450	PUMP 500 GAL FLOCHECK-21
	1012	6	5		✓		450	PUMP 5 BBL KCL FLUSH
	1017		7					PLUG RH (30SIS)
	1025	4 1/2	30		✓		250	MIX CEMENT - 125 SIS EA-2 @ 15.2 PPG
	1032							WASH OUT PUMP - LINES
	1032							RELEASE CATCH DOWN PLUG
	1035	7	0		✓			DISPLACE PLUG
		7	98				800	SHUT OFF ROTATE
	1050	6 1/2	108				1500	PLUG DOWN - PSE UP CATCH IN PLUG
	1055						OK	RELEASE PSE - HELD
								WASH TRUCK
	1200							JOB COMPLETE

THANK YOU
WAYNE, DAVID, JUAN, JOHN



DRILL STEM TEST REPORT

Prepared For: **Larson Engineering Inc.**

562 W. State Rd #4
Olmitz, KS 67564

ATTN: Vern Schrag

Geneva #1-28

28-18s-28w Lane, KS

Start Date: 2014.02.16 @ 16:09:00

End Date: 2014.02.16 @ 21:22:12

Job Ticket #: 55710 DST #: 1

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

Printed: 2014.02.21 @ 10:39:48



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Larson Engineering Inc.

28-18s-28w Lane, KS

562 W. State Rd #4
Olmitz, KS 67564

Geneva #1-28

Job Ticket: 55710

DST#: 1

ATTN: Vern Schrag

Test Start: 2014.02.16 @ 16:09:00

GENERAL INFORMATION:

Formation: **LKC H**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:15:24

Time Test Ended: 21:22:12

Test Type: Conventional Bottom Hole (Initial)

Tester: Cornelio Landa III

Unit No: 62

Interval: 4109.00 ft (KB) To 4135.00 ft (KB) (TVD)

Reference Elevations: 2707.00 ft (KB)

Total Depth: 4135.00 ft (KB) (TVD)

2700.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8645 Outside

Press@RunDepth: 87.88 psig @ 4112.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.02.16

End Date:

2014.02.16

Last Calib.:

2014.02.16

Start Time: 16:09:05

End Time:

21:22:12

Time On Btm:

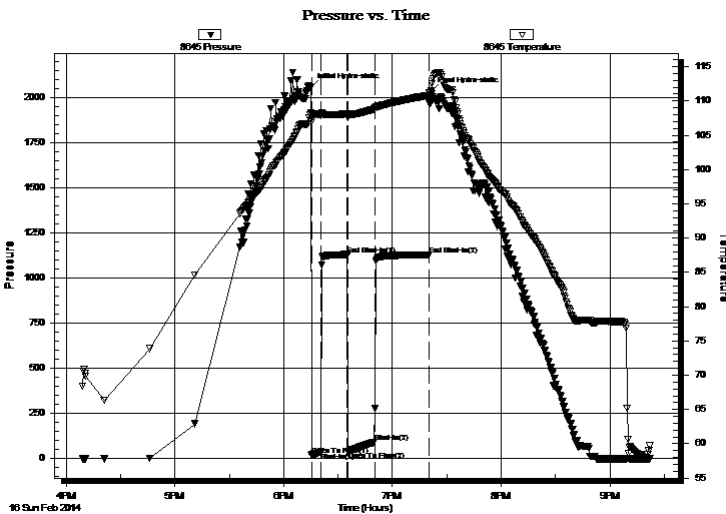
2014.02.16 @ 18:15:12

Time Off Btm:

2014.02.16 @ 19:21:18

TEST COMMENT: IF: 2" of blow
IS: No return
FF: 6" of blow
FS: Bled off in 1 1/2 min.- No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2057.63	108.26	Initial Hydro-static
1	17.48	107.05	Open To Flow (1)
6	35.49	107.95	Shut-In(1)
20	1127.55	108.14	End Shut-In(1)
21	38.77	107.54	Open To Flow (2)
35	87.88	108.83	Shut-In(2)
65	1129.26	110.84	End Shut-In(2)
67	2034.47	111.37	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	Mw 30m 70w	0.59

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering Inc.

28-18s-28w Lane, KS

562 W. State Rd #4
Olmitz, KS 67564

Geneva #1-28

Job Ticket: 55710

DST#: 1

ATTN: Vern Schrag

Test Start: 2014.02.16 @ 16:09:00

Tool Information

Drill Pipe:	Length: 3952.00 ft	Diameter: 3.80 inches	Volume: 55.44 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: 24000.00 lb
Drill Collar:	Length: 146.00 ft	Diameter: 2.25 inches	Volume: 0.72 bbl	Weight to Pull Loose: 10000.00 lb
			<u>Total Volume: 56.16 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4109.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.00 ft			
Tool Length:	53.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			4083.00	
Shut In Tool	5.00			4088.00	
Hydraulic tool	5.00			4093.00	
Jars	5.00			4098.00	
Safety Joint	2.00			4100.00	
Packer	5.00			4105.00	27.00 Bottom Of Top Packer
Packer	4.00			4109.00	
Stubb	1.00			4110.00	
Perforations	2.00			4112.00	
Recorder	0.00	8357	Inside	4112.00	
Recorder	0.00	8645	Outside	4112.00	
Perforations	20.00			4132.00	
Bullnose	3.00			4135.00	26.00 Bottom Packers & Anchor

Total Tool Length: 53.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc.

28-18s-28w Lane, KS

562 W. State Rd #4
Olmitz, KS 67564

Geneva #1-28

Job Ticket: 55710

DST#: 1

ATTN: Vern Schrag

Test Start: 2014.02.16 @ 16:09:00

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:

74000 ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.37 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2300.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	Mw 30m 70w	0.590

Total Length: 120.00 ft Total Volume: 0.590 bbl

Num Fluid Samples: 0

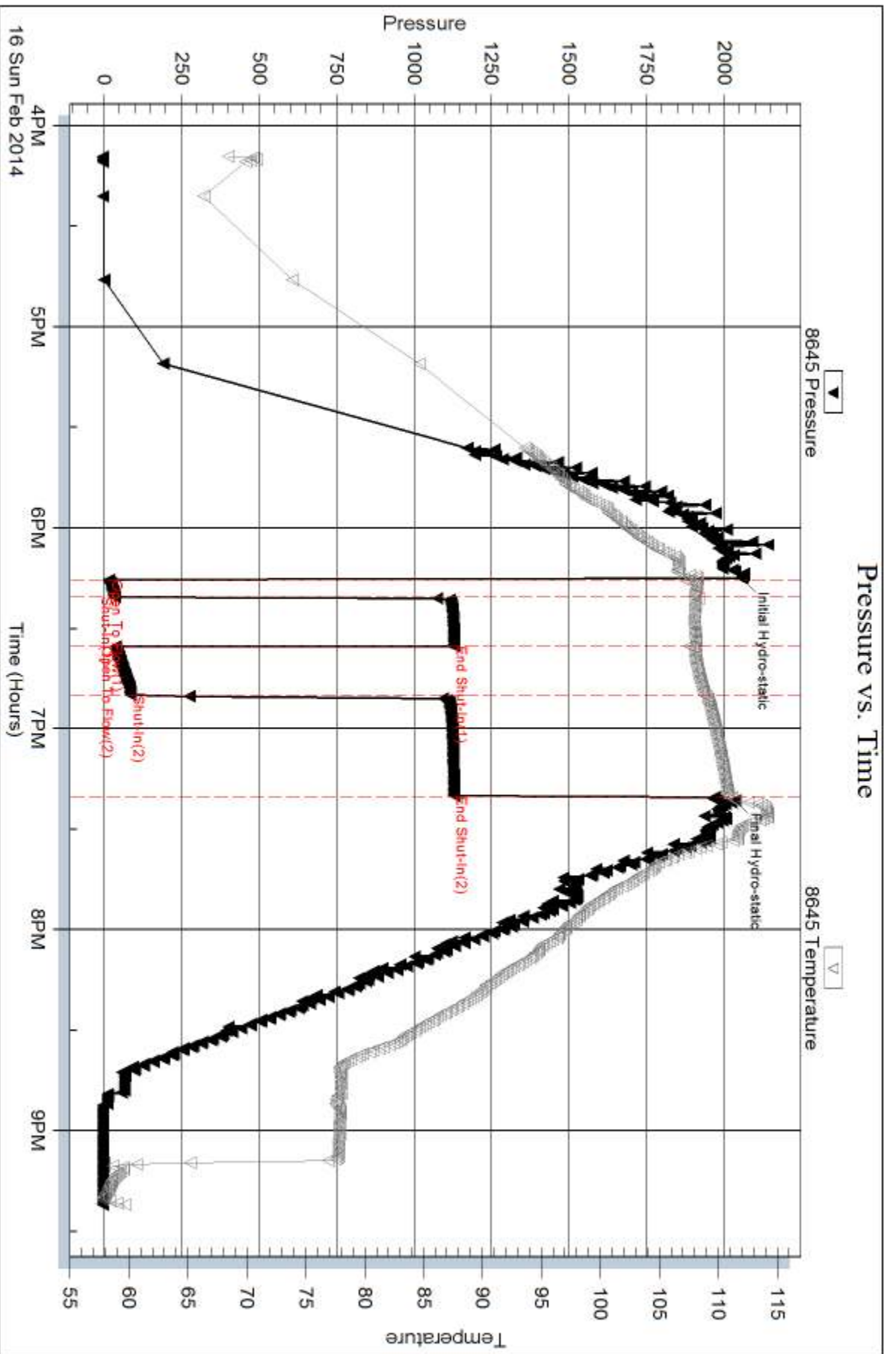
Num Gas Bombs: 0

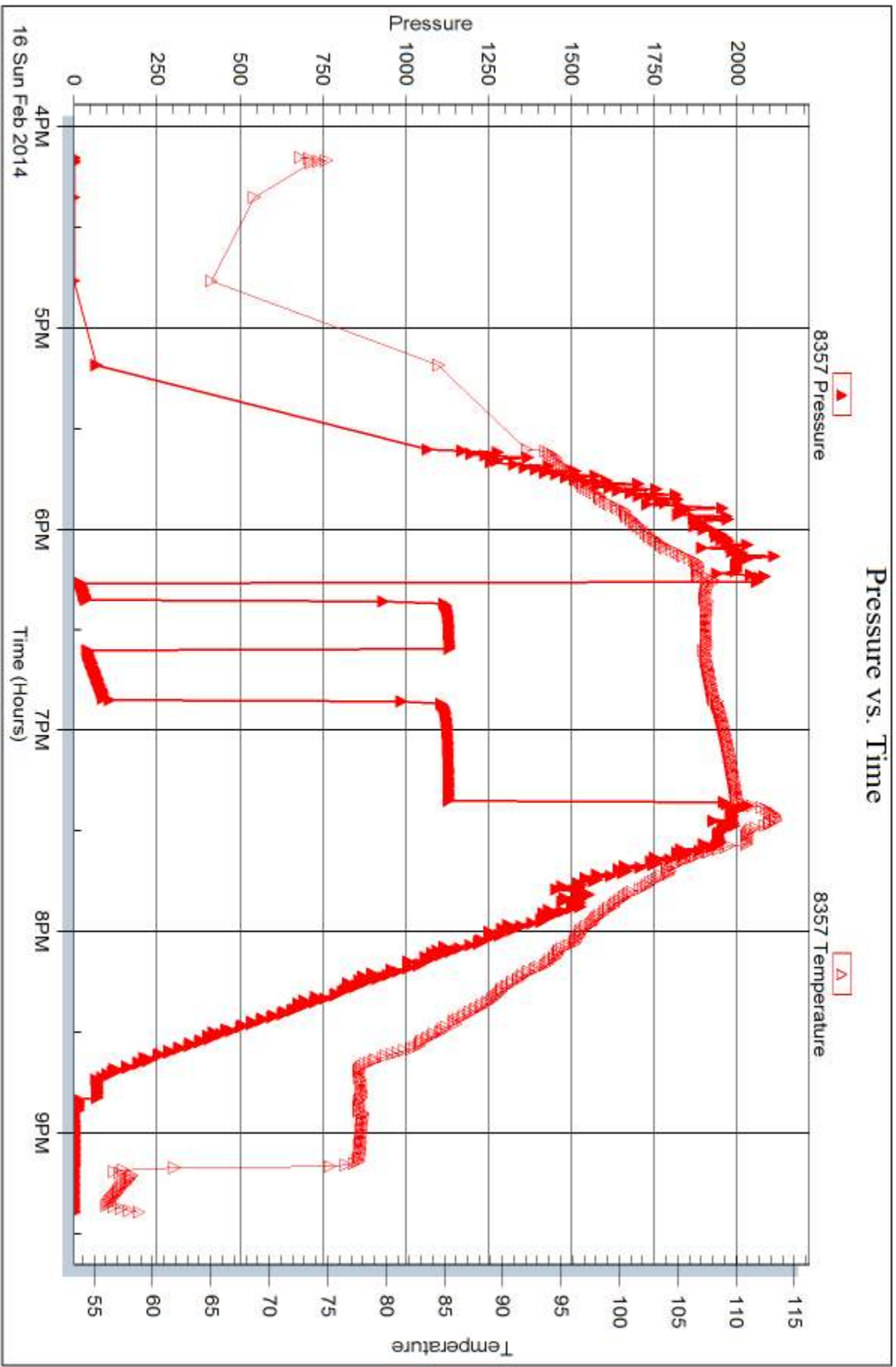
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .175@41=74000ppm







DRILL STEM TEST REPORT

Prepared For: **Larson Engineering Inc.**

562 W. State Rd #4
Olmitz, KS 67564

ATTN: Vern Schrag

Geneva #1-28

28-18s-28w Lane, KS

Start Date: 2014.02.17 @ 12:28:00

End Date: 2014.02.17 @ 18:06:36

Job Ticket #: 55711 DST #: 2

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

Printed: 2014.02.21 @ 10:39:24



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Larson Engineering Inc.

28-18s-28w Lane, KS

562 W. State Rd #4
Olmitz, KS 67564

Geneva #1-28

Job Ticket: 55711

DST#: 2

ATTN: Vern Schrag

Test Start: 2014.02.17 @ 12:28:00

GENERAL INFORMATION:

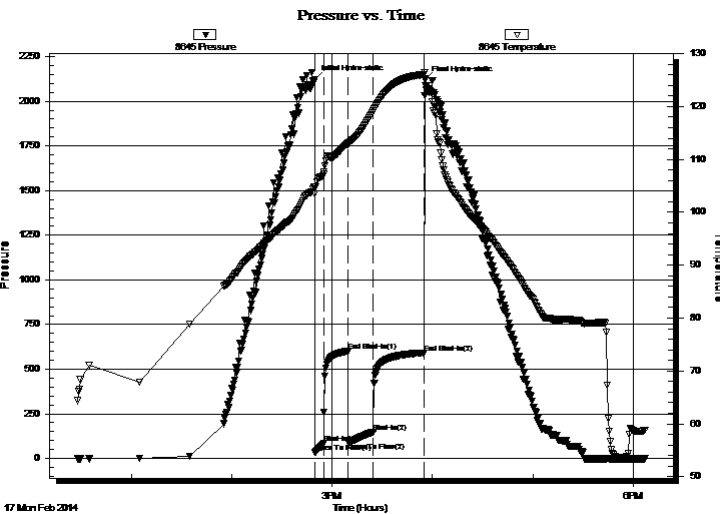
Formation: **Lkc K**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 14:49:48
 Time Test Ended: 18:06:36
 Interval: **4199.00 ft (KB) To 4220.00 ft (KB) (TVD)**
 Total Depth: 4220.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Cornelio Landa III
 Unit No: 62
 Reference Elevations: 2707.00 ft (KB)
 2700.00 ft (CF)
 KB to GR/CF: 7.00 ft

Serial #: 8645

Outside

Press@RunDepth: 148.04 psig @ 4202.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.02.17 End Date: 2014.02.17 Last Calib.: 2014.02.17
 Start Time: 12:28:05 End Time: 18:06:36 Time On Btm: 2014.02.17 @ 14:49:42
 Time Off Btm: 2014.02.17 @ 15:55:24

TEST COMMENT: IF: 7" of blow
 IS: Bled off in 2 min.-Surface blow back throughout shut-in
 FF: BOB in 9 min..
 FS: Bled off in 2 min.-Surfaceblow back-Built to 1" of Blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2120.78	104.85	Initial Hydro-static
1	32.74	103.52	Open To Flow (1)
6	83.19	107.17	Shut-In(1)
20	598.79	113.08	End Shut-In(1)
20	92.67	112.74	Open To Flow (2)
35	148.04	119.15	Shut-In(2)
65	591.68	126.01	End Shut-In(2)
66	2118.33	126.45	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
146.00	Gw m 5g 45w 50m	0.72
40.00	Gocmw 10g 10o 20m 60w	0.56
10.00	Cgo 10g 90o	0.14
0.00	70 GIP	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.

28-18s-28w Lane, KS

562 W. State Rd #4
Olmitz, KS 67564

Geneva #1-28

Job Ticket: 55711

DST#: 2

ATTN: Vern Schrag

Test Start: 2014.02.17 @ 12:28:00

Tool Information

Drill Pipe:	Length: 4048.00 ft	Diameter: 3.80 inches	Volume: 56.78 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: 20000.00 lb
Drill Collar:	Length: 146.00 ft	Diameter: 2.25 inches	Volume: 0.72 bbl	Weight to Pull Loose: 10000.00 lb
			<u>Total Volume: 57.50 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4199.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	21.00 ft			
Tool Length:	48.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			4173.00	
Shut In Tool	5.00			4178.00	
Hydraulic tool	5.00			4183.00	
Jars	5.00			4188.00	
Safety Joint	2.00			4190.00	
Packer	5.00			4195.00	27.00 Bottom Of Top Packer
Packer	4.00			4199.00	
Stubb	1.00			4200.00	
Perforations	2.00			4202.00	
Recorder	0.00	8357	Inside	4202.00	
Recorder	0.00	8645	Outside	4202.00	
Perforations	15.00			4217.00	
Bullnose	3.00			4220.00	21.00 Bottom Packers & Anchor

Total Tool Length: 48.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc.

28-18s-28w Lane, KS

562 W. State Rd #4
Olmitz, KS 67564

Geneva #1-28

Job Ticket: 55711

DST#: 2

ATTN: Vern Schrag

Test Start: 2014.02.17 @ 12:28:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

34 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

60000 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.57 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2900.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
146.00	Gw m 5g 45w 50m	0.718
40.00	Gocmw 10g 10o 20m 60w	0.561
10.00	Cgo 10g 90o	0.140
0.00	70 GIP	0.000

Total Length: 196.00 ft Total Volume: 1.419 bbl

Num Fluid Samples: 0

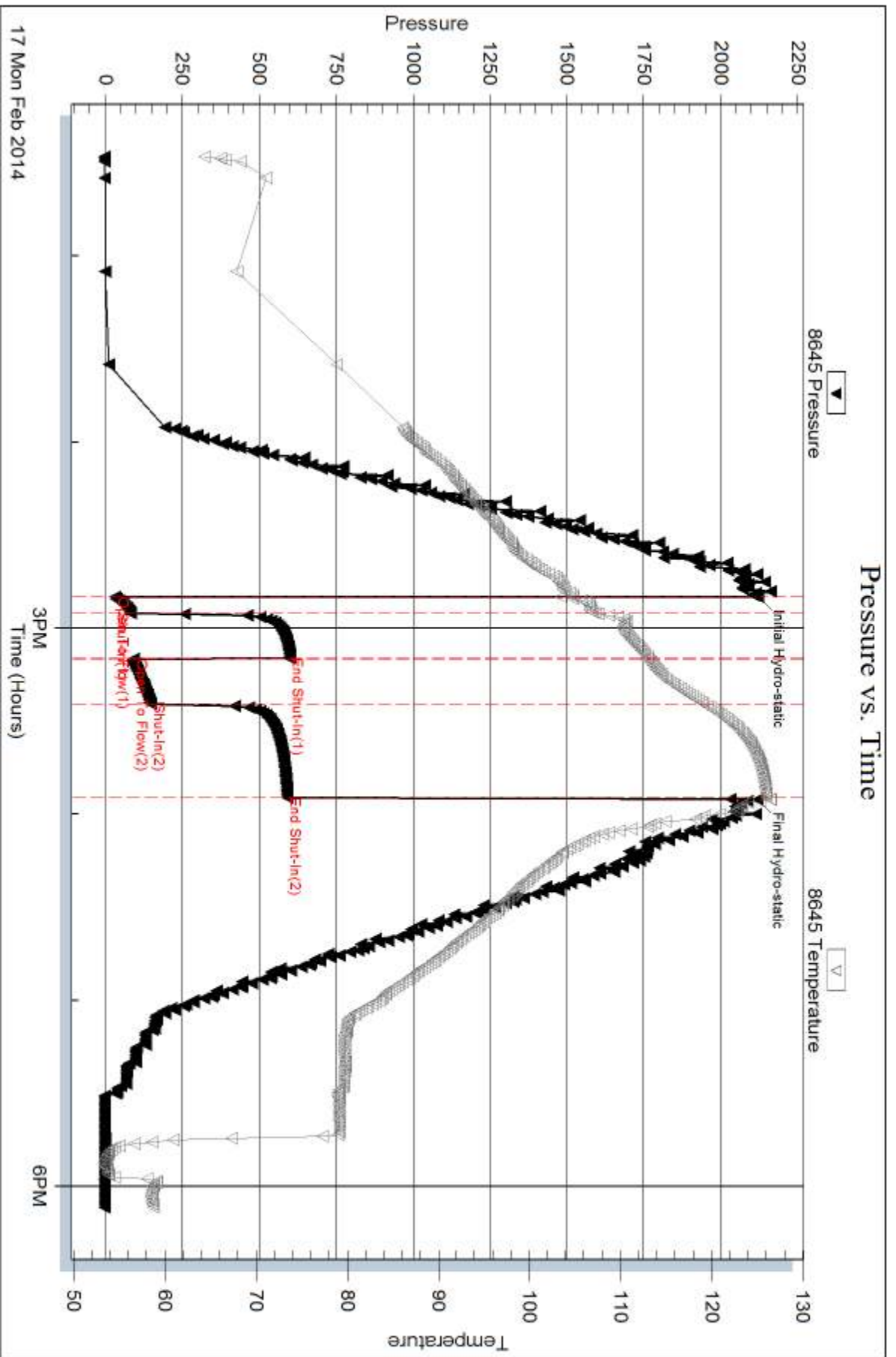
Num Gas Bombs: 0

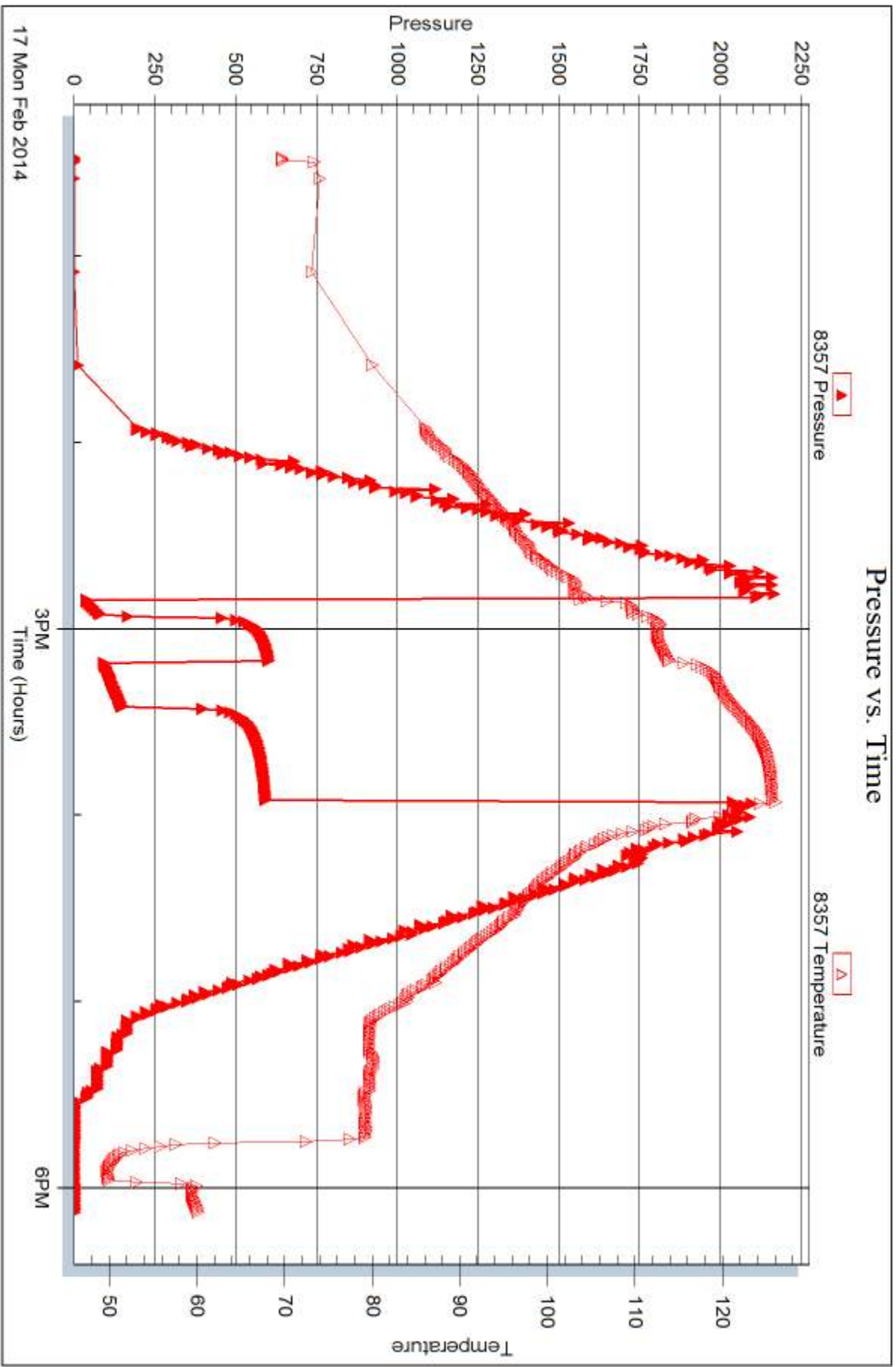
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .175@49=60000 Gravity=34







DRILL STEM TEST REPORT

Prepared For: **Larson Engineering Inc.**

562 W. State Rd #4
Olmitz, KS 67564

ATTN: Vern Schrag

Geneva #1-28

28-18s-28w Lane, KS

Start Date: 2014.02.18 @ 01:37:00

End Date: 2014.02.18 @ 07:29:30

Job Ticket #: 55712 DST #: 3

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

Printed: 2014.02.21 @ 10:38:57



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Larson Engineering Inc.

28-18s-28w Lane, KS

562 W. State Rd #4
Olmitz, KS 67564

Geneva #1-28

Job Ticket: 55712

DST#: 3

ATTN: Vern Schrag

Test Start: 2014.02.18 @ 01:37:00

GENERAL INFORMATION:

Formation: **Mid-Creek**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:48:00

Time Test Ended: 07:29:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Cornelio Landa III

Unit No: 62

Interval: 4239.00 ft (KB) To 4248.00 ft (KB) (TVD)

Reference Elevations: 2707.00 ft (KB)

Total Depth: 4248.00 ft (KB) (TVD)

2700.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8645 Outside

Press@RunDepth: 162.73 psig @ 4240.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.02.18

End Date: 2014.02.18

Last Calib.: 2014.02.18

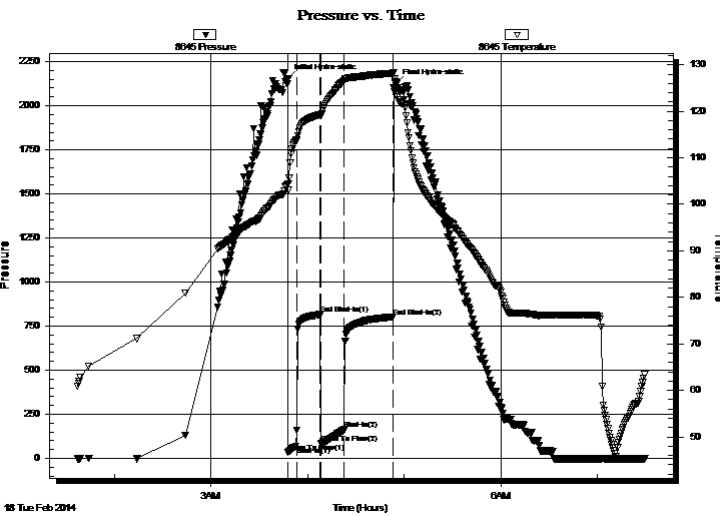
Start Time: 01:37:05

End Time: 07:29:29

Time On Btm: 2014.02.18 @ 03:47:54

Time Off Btm: 2014.02.18 @ 04:54:42

TEST COMMENT: IF: BOB in 3 min.
IS: Bled off in 2 min.- Surface blow back-Built to 8" Blow back
FF: BOB in 30 seconds
FS: Bled off in 2 min.- Surface blow back-Built to BOB in 24 1/2 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2153.16	104.38	Initial Hydro-static
1	32.96	102.99	Open To Flow (1)
6	69.14	113.79	Shut-In(1)
20	816.07	119.33	End Shut-In(1)
21	86.32	119.00	Open To Flow (2)
35	162.73	126.58	Shut-In(2)
65	802.74	128.14	End Shut-In(2)
67	2128.07	126.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
58.00	G & Ocm 20g 30o 50m	0.29
370.00	Cocg 45o 55g	4.39
0.00	GIP= 819	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.

28-18s-28w Lane, KS

562 W. State Rd #4
Olmitz, KS 67564

Geneva #1-28

Job Ticket: 55712

DST#: 3

ATTN: Vern Schrag

Test Start: 2014.02.18 @ 01:37:00

Tool Information

Drill Pipe:	Length: 4081.00 ft	Diameter: 3.80 inches	Volume: 57.25 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: 20000.00 lb
Drill Collar:	Length: 146.00 ft	Diameter: 2.25 inches	Volume: 0.72 bbl	Weight to Pull Loose: 10000.00 lb
			<u>Total Volume: 57.97 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	4239.00 ft			Final 57000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	9.00 ft			
Tool Length:	36.00 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			4213.00	
Shut In Tool	5.00			4218.00	
Hydraulic tool	5.00			4223.00	
Jars	5.00			4228.00	
Safety Joint	2.00			4230.00	
Packer	5.00			4235.00	27.00 Bottom Of Top Packer
Packer	4.00			4239.00	
Stubb	1.00			4240.00	
Recorder	0.00	8357	Inside	4240.00	
Recorder	0.00	8645	Outside	4240.00	
Perforations	5.00			4245.00	
Bullnose	3.00			4248.00	9.00 Bottom Packers & Anchor

Total Tool Length: 36.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc.

28-18s-28w Lane, KS

562 W. State Rd #4
Olmitz, KS 67564

Geneva #1-28

Job Ticket: 55712

DST#: 3

ATTN: Vern Schrag

Test Start: 2014.02.18 @ 01:37:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

38 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.58 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2900.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
58.00	G & Ocm 20g 30o 50m	0.285
370.00	Cocg 45o 55g	4.388
0.00	GIP= 819	0.000

Total Length: 428.00 ft

Total Volume: 4.673 bbl

Num Fluid Samples: 0

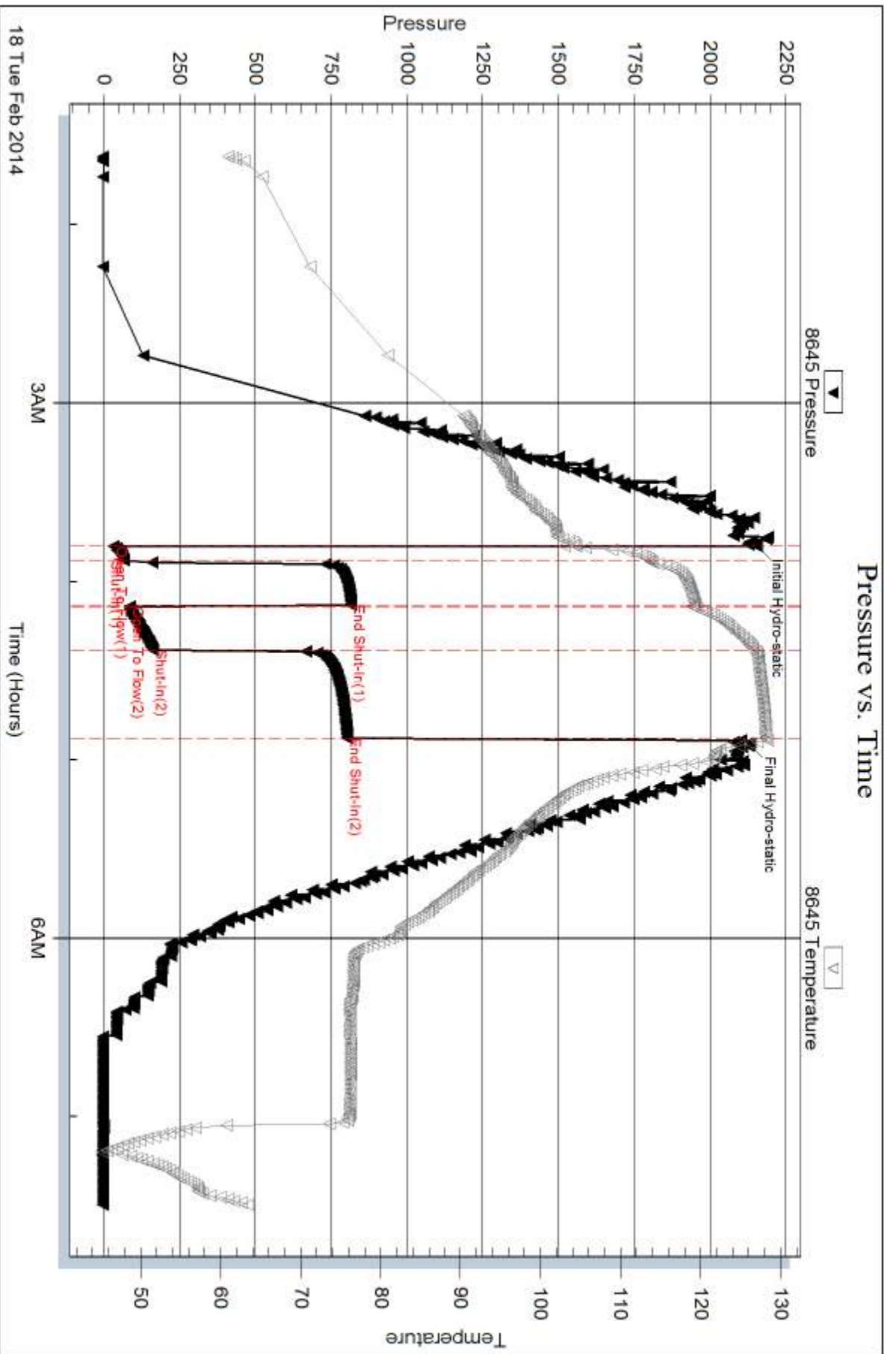
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



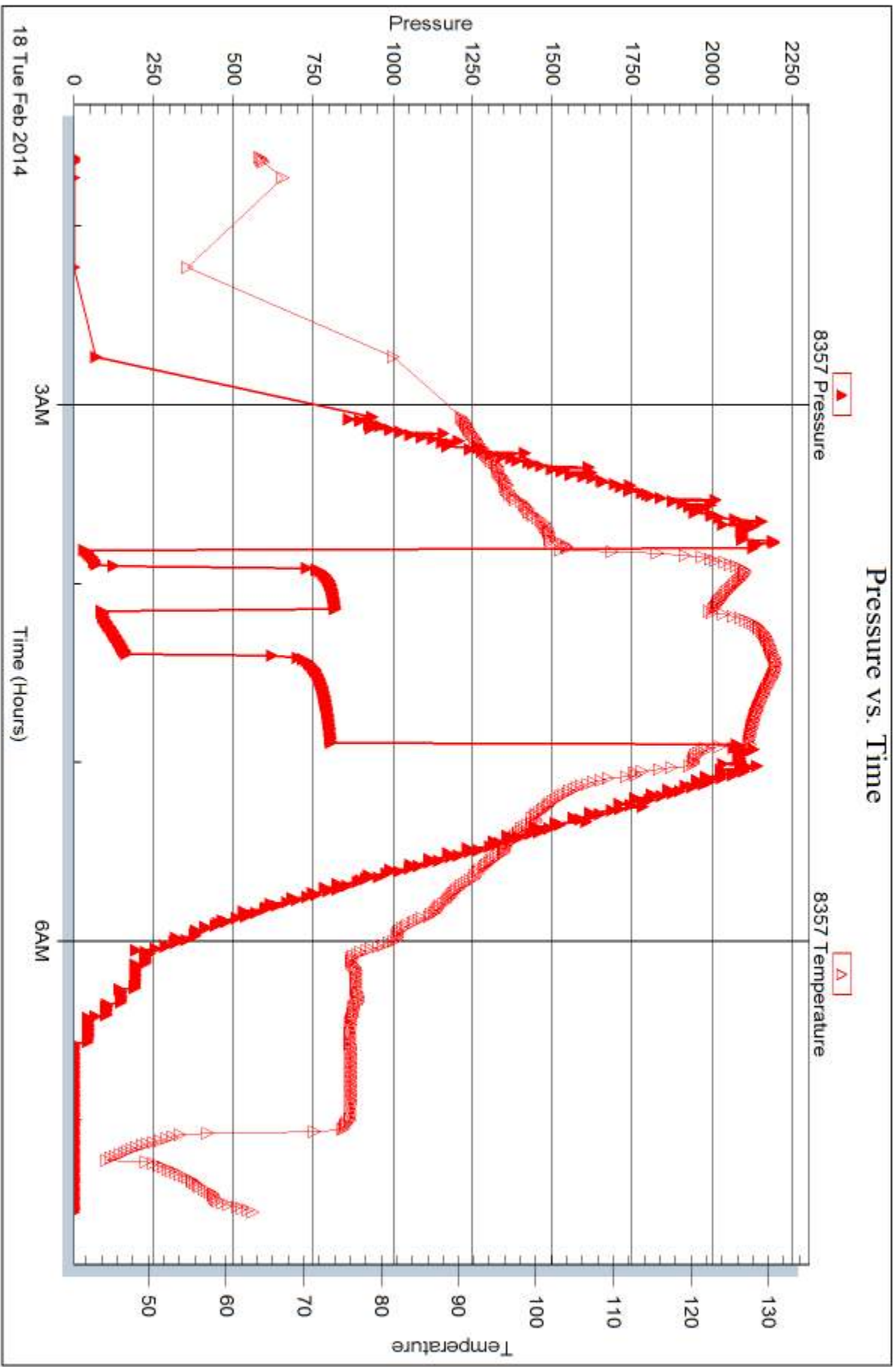
Serial #: 8357

Inside

Larson Engineering Inc.

Geneva #1-28

DST Test Number: 3



Tribble Testing, Inc

Ref. No: 55712

Printed: 2014.02.21 @ 10:39:00



DRILL STEM TEST REPORT

Prepared For: **Larson Engineering Inc.**

562 W. State Rd #4
Olmitz, KS 67564

ATTN: Vern Schrag

Geneva #1-28

28-18s-28w Lane, KS

Start Date: 2014.02.19 @ 07:59:01

End Date: 2014.02.19 @ 14:46:43

Job Ticket #: 56639 DST #: 4

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

Printed: 2014.02.21 @ 10:38:24



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Larson Engineering Inc.

28-18s-28w Lane, KS

562 W. State Rd #4
Olmitz, KS 67564

Geneva #1-28

Job Ticket: 56639

DST#: 4

ATTN: Vern Schrag

Test Start: 2014.02.19 @ 07:59:01

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:14:13

Time Test Ended: 14:46:43

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Smith

Unit No: 62

Interval: 4314.00 ft (KB) To 4389.00 ft (KB) (TVD)

Reference Elevations: 2707.00 ft (KB)

Total Depth: 4389.00 ft (KB) (TVD)

2700.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: 8357

Inside

Press@RunDepth: 25.58 psig @ 4316.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.02.19

End Date:

2014.02.19

Last Calib.:

2014.02.19

Start Time: 07:59:06

End Time:

14:46:43

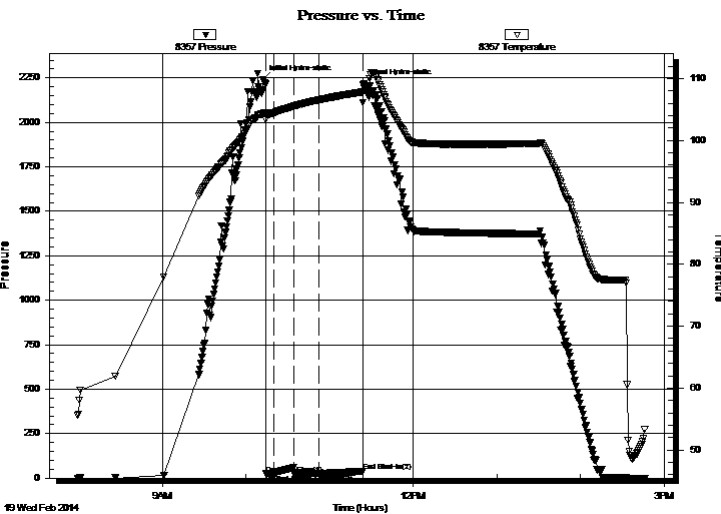
Time On Btm:

2014.02.19 @ 10:12:01

Time Off Btm:

2014.02.19 @ 11:24:25

TEST COMMENT: 1/2" Blow .
No return.
Surface blow .
No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2237.90	104.35	Initial Hydro-static
3	23.37	103.37	Open To Flow (1)
8	23.71	104.42	Shut-In(1)
23	59.61	105.55	End Shut-In(1)
23	24.35	105.54	Open To Flow (2)
41	25.58	106.55	Shut-In(2)
72	38.41	107.83	End Shut-In(2)
73	2218.04	108.55	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	OSM 100m	0.02

* 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.

28-18s-28w Lane, KS

562 W. State Rd #4
Olmitz, KS 67564

Geneva #1-28

Job Ticket: 56639

DST#: 4

ATTN: Vern Schrag

Test Start: 2014.02.19 @ 07:59:01

Tool Information

Drill Pipe:	Length: 4174.00 ft	Diameter: 3.80 inches	Volume: 58.55 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:	20000.00 lb
Drill Collar:	Length: 146.00 ft	Diameter: 2.25 inches	Volume: 0.72 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 59.27 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	4314.00 ft			Final	60000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	75.00 ft				
Tool Length:	102.00 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			4288.00	
Shut In Tool	5.00			4293.00	
Hydraulic tool	5.00			4298.00	
Jars	5.00			4303.00	
Safety Joint	2.00			4305.00	
Packer	5.00			4310.00	27.00 Bottom Of Top Packer
Packer	4.00			4314.00	
Stubb	1.00			4315.00	
Perforations	1.00			4316.00	
Recorder	0.00	8357	Inside	4316.00	
Recorder	0.00	8645	Outside	4316.00	
Change Over Sub	1.00			4317.00	
Drill Pipe	63.00			4380.00	
Change Over Sub	1.00			4381.00	
Perforations	5.00			4386.00	
Bullnose	3.00			4389.00	75.00 Bottom Packers & Anchor
Total Tool Length:	102.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc.

28-18s-28w Lane, KS

562 W. State Rd #4
Olmitz, KS 67564

Geneva #1-28

Job Ticket: 56639

DST#: 4

ATTN: Vern Schrag

Test Start: 2014.02.19 @ 07:59:01

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:

bbf

Water Loss: 7.20 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
5.00	OSM 100m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbf

Num Fluid Samples: 0

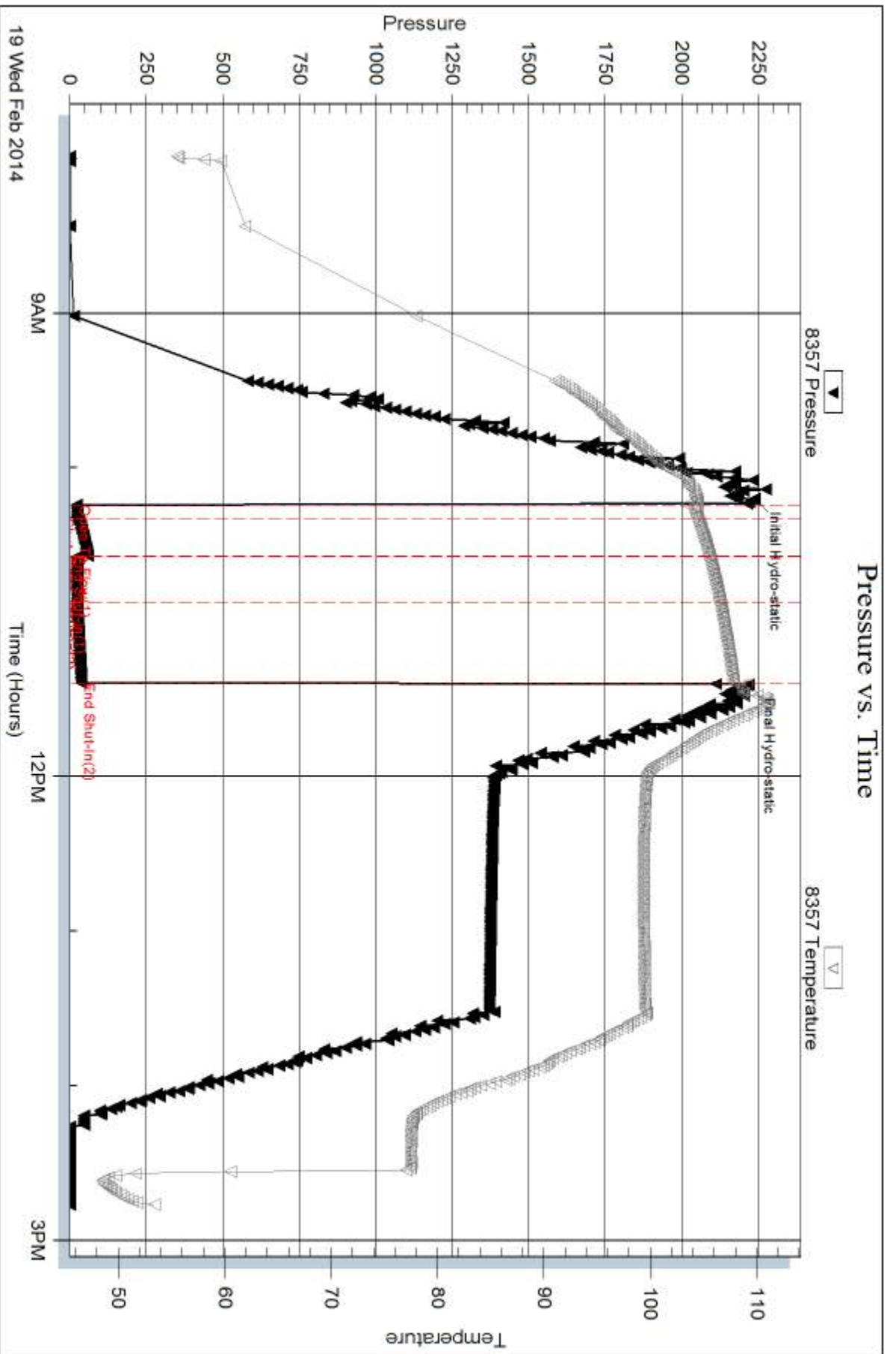
Num Gas Bombs: 0

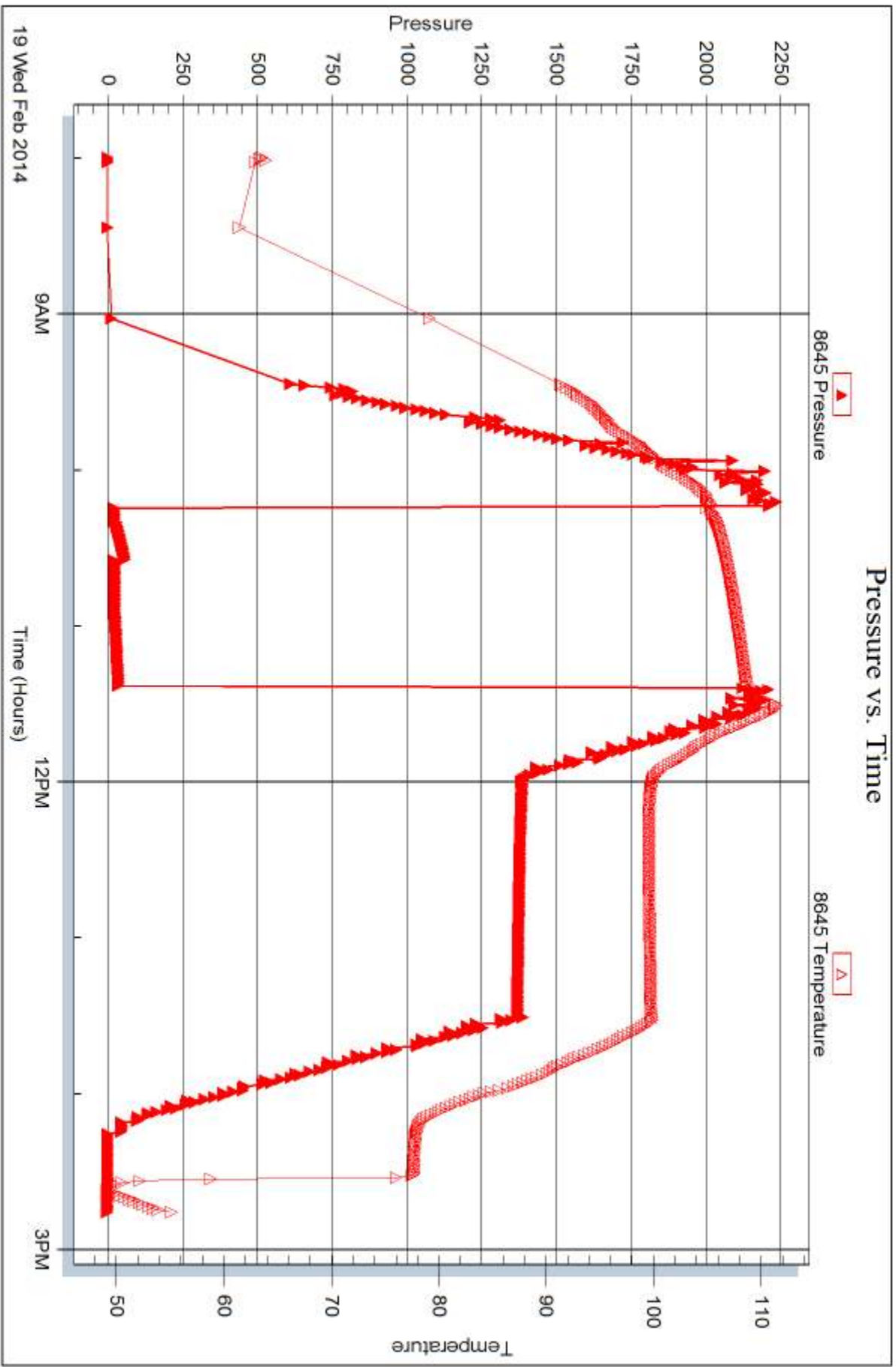
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **55710**

Well Name & No. Geneva #1-28 Test No. 1 Date 2-16-14
 Company Larson Engineering Inc. Elevation 2707 KB 2700 GL
 Address 562 W. State Rd #4 - 01mi E 2, KS 67564
 Co. Rep / Geo. Vern Schrag Rig HD#3
 Location: Sec. 28 Twp. 18-s Rge. 28-w Co. Lane State KS

Interval Tested 4109-4135 Zone Tested Lansing H
 Anchor Length 26' Drill Pipe Run 3952 Mud Wt. 9.1
 Top Packer Depth 4105 Drill Collars Run 146. Vis 59
 Bottom Packer Depth 4109 Wt. Pipe Run 0 WL 6.4
 Total Depth 4135 Chlorides 2300 ppm System LCM #1

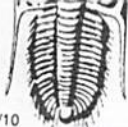
Blow Description IF: 2 in of Blow
~~EST: No Return~~
FF: 6 in of Blow
~~FSE Bled off in 1/2 min - No Return~~

Rec	Feet of	%gas	%oil	%water	%mud
<u>120</u>	<u>MW</u>			<u>70</u>	<u>30</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 120 BHT 111 Gravity — API RW .175 @ 41 °F Chlorides 74,000 ppm
 (A) Initial Hydrostatic 2058 Test 15:45
 (B) First Initial Flow 17 Jars 16:09
 (C) First Final Flow 35 Safety Joint 18:16
 (D) Initial Shut-In 1128 Circ Sub N/C T-Pulled 19:21
 (E) Second Initial Flow 39 Hourly Standby 21:22
 (F) Second Final Flow 88 Mileage 54 R-T
 (G) Final Shut-In 1129 Sampler
 (H) Final Hydrostatic 2034 Straddle
 Shale Packer Ruined Shale Packer
 Extra Packer Ruined Packer
 Extra Recorder Extra Copies
 Day Standby Sub Total
 Accessibility Total
 Sub Total MP/DST Disc't

Initial Open 5
 Initial Shut-In 15
 Final Flow 15
 Final Shut-In 30

Approved By Vern Schrag Our Representative [Signature]
 Trilobite Testing Inc. shall not be liable for damaged or 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. **55711**

Well Name & No. Geneva #1-28 Test No. 2 Date 2-17-14
 Company Larson Engineering Inc. Elevation 2707 KB 2700
 Address 562 W. State Rd #4 - Olmitz, KS 67564
 Co. Rep / Geo. Vern Schragg Rig HD #3
 Location: Sec. 28 Twp. 18-5 Rge. 28-W Co. Lane State KS

Interval Tested 4199-4220 Zone Tested LKC K
 Anchor Length 21 Drill Pipe Run 4048 Mud Wt. 9.1
 Top Packer Depth 4195 Drill Collars Run 146 Vis 57
 Bottom Packer Depth 4199 Wt. Pipe Run 0 WL 7.6
 Total Depth 4220 Chlorides 2900 ppm System LCM # 1

Blow Description IF. 7 in of Blow
ISF. Bled off in 2 min. - Surface blowback throughout shut-in
FF. B.O.B. in 9 min.

FSF. Bled off in 2 min. - Surface blowback - Built to 1 in of Blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>146</u>	<u>G + wrm</u>	<u>5</u>		<u>45</u>	<u>50</u>
<u>40</u>	<u>G + GCMW</u>	<u>10</u>	<u>10</u>	<u>60</u>	<u>20</u>
<u>10</u>	<u>CGO</u>	<u>10</u>	<u>90</u>		
<u>-</u>	<u>70 GIP</u>				

Rec Total 196 BHT 126 Gravity 34 API RW .175 @ 49 °F Chlorides 60,000 ppm

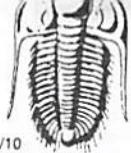
(A) Initial Hydrostatic 2121
 (B) First Initial Flow 33
 (C) First Final Flow 83
 (D) Initial Shut-In 599
 (E) Second Initial Flow 93
 (F) Second Final Flow 148
 (G) Final Shut-In 592
 (H) Final Hydrostatic 2118

- Test
- Jars
- Safety Joint
- Circ Sub MLC
- Hourly Standby
- Mileage
- Sampler
- Straddle
- Shale Packer
- Extra Packer
- Extra Recorder
- Day Standby
- Accessibility
- Sub Total

T-On Location 12:20
 T-Started 12:28
 T-Open 14:49
 T-Pulled 15:54
 T-Out 18:06
 Comments _____
 Ruined Shale Packer
 Ruined Packer
 Extra Copies
 Sub Total _____
 Total _____
 MP/DST Disc't _____

Initial Open 5
 Initial Shut-In 15
 Final Flow 15
 Final Shut-In 30

Approved By Vern C. Schragg Our Representative [Signature]
 Trilobite Testing Inc. shall not be liable for damaged or destroyed 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. 55712

Well Name & No. Geneva #1-28 Test No. 3 Date 2-18-14
 Company Lawson Engineering Inc. Elevation 2707 KB 2700 GL
 Address St 2 W State Rd #4 - Olmitz, KS 67564
 Co. Rep / Geo. Vern Schrag Rig HD #3
 Location: Sec. 28 Twp. 18-5 Rge. 28-w Co. Lane State KS

Interval Tested 4239-4248 Zone Tested mid-creek
 Anchor Length 9' Drill Pipe Run 4081 Mud Wt. 9.1
 Top Packer Depth 4235 Drill Collars Run 146 Vis 54
 Bottom Packer Depth 4239 Wt. Pipe Run Ø WL 7.6
 Total Depth 4248 Chlorides 2900 ppm System LCM #1

Blow Description FF: B.O.B. in 3 min.
ISE: Bled off in 2 min. - Surface Blowback - Built to 8 in of Blowback

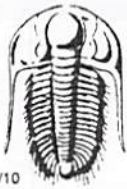
FF: B.O.B. in 30 seconds.
FSE: Bled off in 2 min. - Surface Blowback - Built to B.O.B. in 24 1/2 min.

Rec	Feet of	%gas	%oil	%water	%mud
<u>58</u>	<u>G + Ocm</u>	<u>20%</u>	<u>30%</u>	<u>50%</u>	<u>0%</u>
<u>370</u>	<u>COCG</u>	<u>55%</u>	<u>45%</u>	<u>0%</u>	<u>0%</u>
<u> </u>	<u>GIP = 819</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Rec Total 428 BHT 126 Gravity 38 API RW @ F Chlorides ppm

(A) Initial Hydrostatic 2153 Test T-On Location 1:30
 (B) First Initial Flow 33 Jars T-Started 1:37
 (C) First Final Flow 69 Safety Joint T-Open 3:48
 (D) Initial Shut-In 816 Circ Sub n/c T-Pulled 4:53
 (E) Second Initial Flow 86 Hourly Standby T-Out 7:29
 (F) Second Final Flow 163 Mileage Comments
 (G) Final Shut-In 803 Sampler
 (H) Final Hydrostatic 2128 Straddle Ruined Shale Packer
 Shale Packer Ruined Packer
 Extra Packer Extra Copies
 Extra Recorder Sub Total
 Day Standby Total
 Accessibility MP/DST Disc't
 Sub Total

Initial Open 5
 Initial Shut-In 15
 Final Flow 15
 Final Shut-In 30
 Approved By Vern Schrag Our Representative
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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **56639**

4/10

Well Name & No. Geneva #1-28 Test No. 4 Date 2-19-4
 Company Larson Engineering Inc Elevation 2707 KB 2700 GL
 Address 562 W. State R4 Olmitz, KS 67564
 Co. Rep / Geo. Vern Schrag Rig HD#3
 Location: Sec. 28 Twp. 18s Rge. 28w Co. Lane State Ks

Interval Tested 4314-4389 Zone Tested Marmaton
 Anchor Length 75 Drill Pipe Run 4174 Mud Wt. 9.1
 Top Packer Depth 4310 Drill Collars Run 146 Vis 54
 Bottom Packer Depth 4314 Wt. Pipe Run 0 WL 7.2
 Total Depth 4389 Chlorides 3500 ppm System LCM 1#
 Blow Description 1/2" Blow.
No return.
Surface blow.
No return.

Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>5</u>	Feet of <u>0.5M</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 Total 5 BHT 108 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2238</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>7:25</u>
(B) First Initial Flow <u>23</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>7:59</u>
(C) First Final Flow <u>24</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>10:14</u>
(D) Initial Shut-In <u>60</u>	<input checked="" type="checkbox"/> Circ Sub <u>NIC</u>	T-Pulled <u>11:24</u>
(E) Second Initial Flow <u>24</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>14:47</u>
(F) Second Final Flow <u>26</u>	<input checked="" type="checkbox"/> Mileage <u>54RT</u> 83.70	Comments
(G) Final Shut-In <u>38</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2218</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>5</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>15</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>17</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1908.70</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1908.70</u>	

Approved By

Vern Schrag

Our Representative

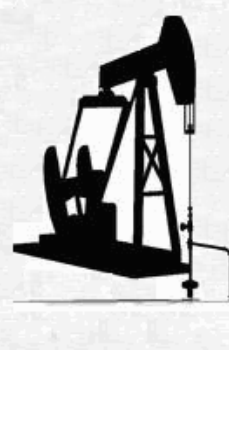
Chuck Smith

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WELLSITE GEOLOGIST'S REPORT

VERNON C. SCHRAG
CONSULTANT GEOLOGIST



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

Well Name: Geneva #1-28
 Location: S2 SE NE NW SEC. 28-18S-28W
 Licence Number: API: 15-101-22492
 Spud Date: February 11, 2014
 Surface Coordinates: 1103' FNL & 2310' FWL (PLAT)
 Y= 660184, X= 1449739

Region: Lane Co., KS
 Drilling Completed: February 20, 2014

Bottom Hole Coordinates:
 Ground Elevation (ft): 2700' K.B. Elevation (ft): 2707'
 Logged Interval (ft): 3800' To: RTD Total Depth (ft): 4585'
 Formation: Mississippi
 Type of Drilling Fluid: Chemical Premix (Displaced)

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
 Olmitz, KS 67564-8561

DRILLING CONTRACTOR:

H. D. Drilling, LLC, Rig #3 (Co. Tools)

DP 4.5" XH (16.6#); DC 6.25" x 2.25" x 553' (9 of 19 joints are hardbanded), Kelly 40.30', Tool Joint 5.5" ; Bit: JZ-HA20-Q, 7-7/8", standard jets 15-15-15; downhole rpm 80, WOB 35k; Kelly Bushing 7' above ground level; LeWayne "Lew" Tresner (tool pusher).

CASING:

Set 8-5/8" casing at 274'
 Set 5-1/2" production casing

CIRCULATION SYSTEM:

Continental EMSCO D-300, duplex, 6 x 14, 62 spm adjusted to 56 spm 3889 and below , Chemical, premix, displaced 3389 to 3407'; 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. Kerr, Log total depth (4580') was five feet short to rotary total depth (4585').

DRILL STEM TEST #1:

LKC "H-zone": Interval: 4109-4135 (26'): Blow: weak incr to 2" IFP, no RB, weak incr to 6" FFP, no RB; Times: 5-15-30; Recovery: 120' MW (70%W, 30%M, Rw 0.175 at 41 F, Chlorides 74k); Pressures: HP: 2058-2034, SIP: 1128-1129; FP: 17-35, 39-88; BHT: 111 F; Trilobite Testing, Inc., Scott City, KS, Cornelio "Corndog" Landa III.

DRILL STEM TEST #2:

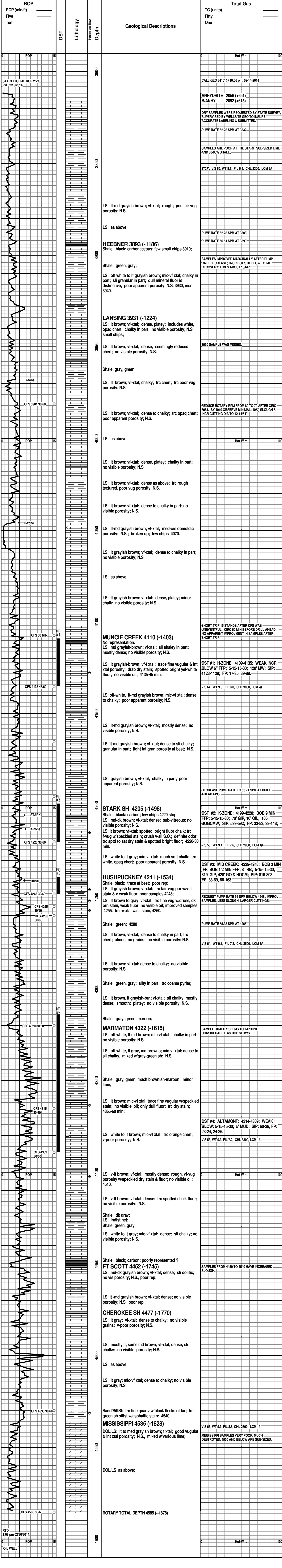
LKC: "K-zone": Interval: 4199-4220 (21'): Blow: weak incr to 7" IFP, surf RB ISIP, BOB 9 min FFP, 1" RB FSIP; Times: 5-15-30; Recovery: 70' GIP, 196' TF; Grindouts: 10' CGO (10%G, 90%O, 34 grav), 40' GOCMW (10%G, 10%O, 60%W, 20%M), 146' MW (5%G, 45%W, 50%M, Rw 0.175 at 49 F, chlorides 60k); Pressures: HP: 2121-2118, SIP: 599-592, FP 33-83, 93-148; BHT: 126 F; Trilobite Testing, Inc., Scott City, KS, Cornelio "Corndog" Landa III.

DRILL STEM TEST #3:

Middle Creek: Interval: 4239-4248 (9'): Blow: BOB 3 min IFP, RB 8" ISIP, BOB 1/2 min FFP, RB BOB 24 min FSIP; Times: 5-15-30; Recovery: 819' GIP & 428' TF; Grindouts: 370' GO (55%G, 45%O, 38 grav), 58' HGOCM (20%G, 30%O, 50%M), no water; Pressures: HP: 2153-2128, SIP: 816-803, FP: 33-69, 86-163; BHT: 126 F; Trilobite Testing, Inc., Scott City, KS, Cornelio "Corndog" Landa III.

DRILL STEM TEST #4:

Marmaton (Altamont): Interval: 4314-4389 (75'): Blow: weak incr 1/2" IFP, no RB, weak surf blow FFP, no RB; Times: 5-15-30; Recovery: 5' mud w/oil spots (100%M); Pressures: HP: 2238-2218; SIP: 60-38; FP: 23-24, 24-26; BHT: 108 F; Trilobite Testing, Inc., Scott City, KS, Chuck Smith.





CHARGE TO: *Larson Engineering*
 ADDRESS:
 CITY, STATE, ZIP CODE:

TICKET 25873

PAGE 1 OF 1

SERVICE LOCATIONS: *Ness City KS*
 WELL/PROJECT NO.:
 LEASE: *Geneva*
 COUNTY/PARISH: *Lane*
 STATE: *KS*
 CITY: *Dighton*
 DATE: *25 Feb 14*
 OWNER:
 TICKET TYPE: SERVICE SALES
 CONTRACTOR:
 RIG NAME/NO.:
 SHIPPED VIA: *ET*
 DELIVERED TO: *location*
 ORDER NO.:
 WELL TYPE: *o:1*
 WELL CATEGORY: *Development*
 JOB PURPOSE: *cement part collar*
 WELL PERMIT NO.:
 WELL LOCATION: *28-18-28*
 REFERRAL LOCATION:
 INVOICE INSTRUCTIONS:

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.		U/M		UNIT PRICE	AMOUNT
		LOC	ACCT	DF							
575		1			MILEAGE	30	mi			6.00	180.00
576D		1			Pump Charge	1	ea			1500.00	1500.00
330		1			SMD cement	150	sk			18.50	2775.00
276		1			flange	50	lb			2.50	125.00
290		1			D-AIR	2	gal			42.00	84.00
583		1			Drayage	23.385	lb	320.77	TTM	1.00	350.77
581		1			service charge	235	sk			2.00	470.00

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
 X
 DATE SIGNED: _____ TIME SIGNED: _____ A.M. P.M.
1530

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
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?				5484.77
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				
				Lane TAX 7.15%
				213.36
TOTAL				5698.13

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 25 Feb 14 PAGE NO. 4

CUSTOMER		WELL NO.		LEASE		JOB TYPE		TICKET NO.	
Lewon Engineering				Geneva		cement pit collar		25873	
CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS	
				T	C	TUBING	CASING		
									235 sk 5MD cement w/ 4# Floccule 2 3/8" x 5 1/2" Port collar @ 2041'
	1326								on loc TRK 114
	1350					1000	1000		test to 1000 psi - held open port collar
	1356	3 3/4	2			350			inj rate 3 3/4 bpm @ 350 psi
	1408	3 3/4				350			mix 5MD cement @ 11.2 ppq fluid to surface cement to surface 150 sk mixed 20 to pit
		3 3/4	12			400			
		3 1/2	80			600			
		3	6			600			Displace 6 bbl H ₂ O close port collar
	1430								test to 1000 psi - held RUN 5 joints
	1442		20						Reverse hole clean - 2 cement plugs unroll truck Rack up
	1530								job complete Thanks Blair, Flint & John