



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1107915
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: _____



1107915

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: 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> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Larson Engineering, Inc. dba Larson Operating Company
Well Name	Thomas-Paris 1-12
Doc ID	1107915

Tops

Name	Top	Datum
Anhydrite	2131	+672
Base Anhydrite	2164	+639
Heebner Sh	3950	-1147
Lansing-KC	3990	-1187
Stark Sh	4280	-1477
Base KC	4365	-1562
Altamont	4442	-1639
Pawnee	4482	-1679
Fort Scott	4532	-1729
Cherokee	4556	-1753
Mississippian	4622	-1819

Form	ACO1 - Well Completion
Operator	Larson Engineering, Inc. dba Larson Operating Company
Well Name	Thomas-Paris 1-12
Doc ID	1107915

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
4	4601-04, 4565-67	250 gal 15% RWR	4601-04
4	4443-45	250 gal 15% MCA	4443-45
4	4368-71	250 gal, 15% MCA	4368-71
4	4235-39	250 gal 15% MCA	4235-39
4	4191-97	250 gal 15% MCA	4191-97
	4302 CIBP		



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

TICKET No 23483

PAGE 1 OF

SERVICE LOCATIONS: 1. **NESS CITY, KS.**
 WELL/PROJECT NO.:
 LEASE: **THOMAS PARIS 1-2**
 COUNTY/PARISH: **LANE**
 STATE: **KS**
 CITY: **DIGHTON, KS.**
 DATE: **19 OCT 12**
 OWNER:
 TICKET TYPE: SERVICE SALES
 CONTRACTOR: **WILD WEST WELL SER.**
 RIG NAME/NO.:
 SHIPPED VIA:
 DELIVERED TO:
 ORDER NO.:
 WELL TYPE: **OIL**
 WELL CATEGORY: **DEVELOPMENT**
 JOB PURPOSE: **CEMENT PORT COLLAR**
 WELL PERMIT NO.:
 WELL LOCATION: **45, W/S INTO**
 REFERRAL LOCATION:
 INVOICE INSTRUCTIONS:

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.		U/M		UNIT PRICE	AMOUNT
		LOC	ACCT	DF							
575					MILEAGE #115	40		MI		6.00	240.00
576D					PUMP CHARGE					1250.00	1250.00
276					FLOCELE	45		lbs		2.00	90.00
290					D-AIR	1 1/2		gal		35.00	52.50
330					SWIFT MULTI DENSITY	180		sx		16.50	2970.00
581					CEMENT SERVICE CHARGE	235		sx		2.00	470.00
583					DRAYAGE	23320		lbs	466.40 TM	1.00	466.40

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: **19 OCT 12** TIME SIGNED: **1130** 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?								
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	5734.99

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!

JOB LOG

SWIFT Services, Inc.

DATE 9 OCT 12 PAGE NO.

CUSTOMER LARSON ENGINEERING

WELL NO.

LEASE THOMAS PARIS 1-2

JOB TYPE CEMENT PORT COLLAR

TICKET NO. 23483

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0950							ON LOCATION
								PORT COLLAR @ 2102
	1018				✓		1000	TEST - HELD
	1022	3			✓		400	OPEN PORT COLLAR - TAKE ILS. RATE.
	1026	4½	100	✓			600	MIX 180 sx SMD
		3	7	✓			400	DISPLACE CEMENT
								CIRCULATE 20sx TO PII
	1052				✓		1000	CLOSE PORT COLLAR - TEST - HELD
								RW 5 JTS.
	1102	4	20		✓		400	REVERSE CEMENT OUT OF TUBING
	1115							WASH TRUCK
	1130							JOB COMPLETE.
								THANKS #115
								JASON JEFF JEREMY



CHARGE TO: Loeson Engineering
 ADDRESS: _____
 CITY, STATE, ZIP CODE: _____

TICKET
 No 23364

PAGE 1 OF 2

SERVICE LOCATIONS: 1. Ness City KS WELL/PROJECT NO. 1-12 LEASE Thomas - Paris's COUNTY/PARISH Lore STATE KS CITY Dighton DATE 15 Oct 12 OWNER _____
 2. TICKET TYPE SERVICE SALES CONTRACTOR HD RIG NAME/NO. 3 SHIPPED DELIVERED TO location ORDER NO. _____
 3. WELL TYPE OF1 WELL CATEGORY Development JOB PURPOSE cement lining string WELL PERMIT NO. _____ WELL LOCATION 12-195-29W
 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 TRK 114	40	mi			6.00	240.00
578		1			Pump Charge	1	ea			1500.00	1500.00
419		1			Rotating head rental	52	hr	1	hr	200.00	200.00
325		1			STANDARD cements	155	sk			13.50	2092.50
284		1			calseal	70	lb	7	sk	35.00	245.00
283		1			salt	800	lb			0.20	160.00
292		1			water - 322	1085	lb			0.25	
277		1			Gilsonite (cool seal)	1085	lb			0.25	813.75
276		1			fixale	25	lb			2.00	50.00
290		1			DRAIN	2	gal			35.00	70.00
292		1			hole - 322	150	lb			7.25	1162.50
											6533

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 Delwyn Thomas
 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?				1	7735.75
WE UNDERSTOOD AND MET YOUR NEEDS?				2	19.10.00
OUR SERVICE WAS PERFORMED WITHOUT DELAY?				Subtotal	8443.95
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?				Lane TAX 6.3%	380.76
ARE YOU SATISFIED WITH OUR SERVICE? <input type="checkbox"/> YES <input type="checkbox"/> NO				TOTAL	8824.71
<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 ABell APPROVAL _____

Thank You!



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

TICKET CONTINUATION

TICKET No. **23364**

CUSTOMER **ARSON** WELLS **Thomas - Pers. 1-12** DATE **15 OCT 12** PAGE **2** OF **2**

PRICE REFERENCE	SECONDARY REFERENCE / PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	QTY.		UM		UNIT PRICE	AMOUNT
		LOG	ACCT	DF			QTY.	UM	QTY.	UM		
280		1				Floclmate 21	500	gal			2.50	1250.00
581		1				SERVICE CHARGE					2.00	310.00
583		1				MILEAGE CHARGE					1.00	350.00
						TOTAL WEIGHT	17510					
						LOADED MILES	40					
						TON MILES			350.2			

CONTINUATION TOTAL **1910.20**

JOB LOG

SWIFT Services, Inc.

DATE 15 Oct 12 PAGE NO.

CUSTOMER		WELL NO.		LEASE		JOB TYPE		TICKET NO.	
Larson Engineering		1-12		Thump-Parsis		cement long string			
CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS	
				T	C	TUBING	CASING		
									155 sks STD w/ 1% CFR - G. Isomite 5 1/2" 15.5# casing 4675 sheet 42' TD - 4676' ROTATING lead
	0500								on bc TRR 114
	0545								Drop ball - circulate - ROTATE
	0640	6 3/4	15				200		Pump 15 bbl KCL flush
		6 3/4	12				200		Pump 500 gal flocheck
		6 3/4	5				200		Pump 5 bbl KCL flush
		7	7						Plug RH 30 sks
	0650	4 1/4	30				200		mix cement @ 15.3ppg 125 sks
									Drop latch down plug
									wash out pump & line
	0700	6 3/4					200		Displace plug
		6 3/4	95				850		
	0717	6 3/4	110				1500		Land plug
	0720								Release pressure to truck - dried up
									wash truck
									Rack up
	0750								job complete
									Thanks Blair Davis / SLAC

ALLIED OIL & GAS SERVICES, LLC 059027

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT:
Crest Bend, KS

DATE <u>10-2-12</u>	SEC. <u>12</u>	TWP. <u>19S</u>	RANGE <u>29W</u>	CALLED OUT <u>2:30 PM</u>	ON LOCATION <u>5:50 PM</u>	JOB START <u>7:11 PM</u>	JOB FINISH <u>7:40 PM</u>
LEASE <u>Thomas Par's</u>		WELL # <u>1-12</u>		LOCATION <u>96 West to Dighton. Turn South on Hwy 23 for 4 1/2 miles. Turn West at Rig sign for 1/4 mile. South into location</u>		COUNTY <u>Linn</u>	STATE <u>KS</u>
OLD OR <input checked="" type="radio"/> NEW (Circle one)							

CONTRACTOR HD Rig 3
 TYPE OF JOB Surface Casing
 HOLE SIZE 12 1/4" T.D. 264 ft
 CASING SIZE 8 3/8" 20# DEPTH 252.47 ft
 TUBING SIZE _____ DEPTH _____
 DRILL PIPE _____ DEPTH _____
 TOOL _____ DEPTH _____
 PRES. MAX _____ MINIMUM _____
 MEAS. LINE _____ SHOE JOINT 20 ft
 CEMENT LEFT IN CSG. 20 ft. 11300 / 5.5 sy
 PERFS. _____
 DISPLACEMENT 16 bbls Fresh Water

OWNER Larson Engineering
 CEMENT AMOUNT ORDERED 175 sy Class "A" + 390 Coal + 290 Gel

EQUIPMENT
 PUMP TRUCK # 398 CEMENTER Charles E. Kins +
 HELPER Trint Hall
 BULK TRUCK # 482/112 DRIVER Don Casper
 BULK TRUCK # _____ DRIVER _____

COMMON	<u>175</u>	@ <u>17.90</u>	<u>3,132.50</u>
POZMIX		@	
GEL	<u>3</u>	@ <u>23.70</u>	<u>70.20</u>
CHLORIDE	<u>6</u>	@ <u>64.00</u>	<u>384.00</u>
ASC		@	
HANDLING	<u>188.74</u>	@ <u>2.48</u>	<u>468.02</u>
MILEAGE	<u>8.62 x 30 x</u>	<u>2.60</u>	<u>672.30</u>
			TOTAL <u>4,727.13</u>

REMARKS:
Per 5 bbls Fresh Water
Purch 42 bbls Cement (175 sy)
Displace w/ 16 bbls Fresh Water
1,360 (5.5 sy) Cement left in casing
11 bbls (46 sy) Cement to surface

SERVICE
 DEPTH OF JOB 252
 PUMP TRUCK CHARGE 1512.25
 EXTRA FOOTAGE @ _____
 MILEAGE Hum 30 @ 7.70 231.00
 MANIFOLD LUM 30 @ 4.40 132.00

CHARGE TO: Larson Engineering
 STREET _____
 CITY _____ STATE _____ ZIP _____

TOTAL 1,875.25

To: Allied Oil & Gas Services, LLC.
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PLUG & FLOAT EQUIPMENT
 _____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____

PRINTED NAME LEWIS TREWNER
 SIGNATURE [Signature]

TOTAL _____
 SALES TAX (If Any) 225.96
 TOTAL CHARGES 6,602.38
 DISCOUNT 35% 2,310.82 IF PAID IN 30 DAYS
4,291.56



DRILL STEM TEST REPORT

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

562 West State Rd 4
Olmitz, KS 67564

ATTN: Bob Lewellyn

Thomas-Paris #1-12

12-19s-29w Lane,KS

Start Date: 2012.10.08 @ 18:26:00

End Date: 2012.10.09 @ 00:28:15

Job Ticket #: 49803 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.10.17 @ 09:45:41

Larson Engineering, Inc.

12-19s-29w Lane,KS

Thomas-Paris #1-12

DST # 1

Lansing "E"

2012.10.08



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering, Inc.

12-19s-29w Lane, KS

562 West State Rd 4
Olmitz, KS 67564

Thomas-Paris #1-12

ATTN: Bob Lew ellyn

Job Ticket: 49803

DST#: 1

Test Start: 2012.10.08 @ 18:26:00

GENERAL INFORMATION:

Formation: **Lansing "E"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:35:00

Time Test Ended: 00:28:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Sam Esparza

Unit No: 64

Interval: **4074.00 ft (KB) To 4089.00 ft (KB) (TVD)**

Reference Elevations: 2803.00 ft (KB)

Total Depth: 4089.00 ft (KB) (TVD)

2796.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: **6772** Outside

Press @ Run Depth: 21.17 psig @ 4075.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.10.08

End Date:

2012.10.09

Last Calib.: 2012.10.09

Start Time: 18:26:05

End Time:

00:28:14

Time On Btm: 2012.10.08 @ 20:34:45

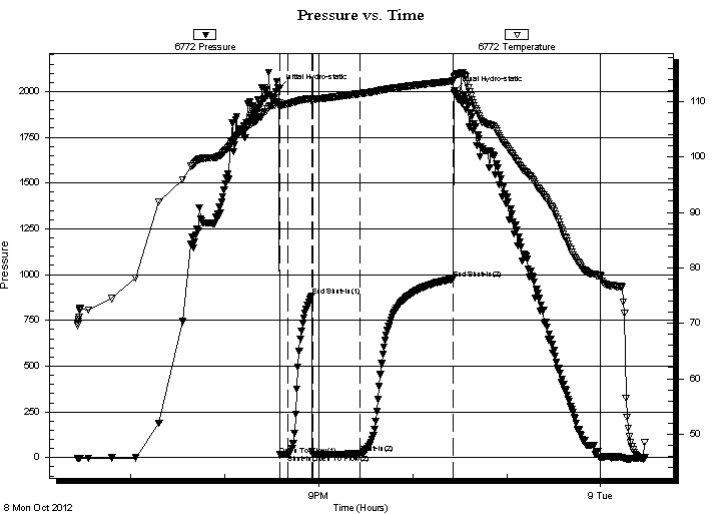
Time Off Btm: 2012.10.08 @ 22:26:45

TEST COMMENT: IF: Weak surface blow .

IS: No return.

FF: 1/4" blow .

FS: No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2016.93	109.80	Initial Hydro-static
1	15.56	108.92	Open To Flow (1)
6	16.49	109.55	Shut-In(1)
21	883.63	110.54	End Shut-In(1)
22	18.11	110.34	Open To Flow (2)
52	21.17	111.39	Shut-In(2)
111	976.23	113.68	End Shut-In(2)
112	2005.36	114.52	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	OCM 20o 80m	0.01

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering, Inc.

12-19s-29w Lane, KS

562 West State Rd 4
Olmitz, KS 67564

Thomas-Paris #1-12

Job Ticket: 49803

DST#: 1

ATTN: Bob Lew ellyn

Test Start: 2012.10.08 @ 18:26:00

Tool Information

Drill Pipe:	Length: 3921.00 ft	Diameter: 3.80 inches	Volume: 55.00 bbl	Tool Weight: 2000.00 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: 148.00 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 55.73 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 61000.00 lb
Depth to Top Packer:	4074.00 ft			Final 61000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	15.00 ft			
Tool Length:	44.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Change Over Sub	1.00			4046.00	
Shut In Tool	5.00			4051.00	
Hydraulic tool	5.00			4056.00	
Jars	5.00			4061.00	
Safety Joint	3.00			4064.00	
Packer	5.00			4069.00	29.00 Bottom Of Top Packer
Packer	5.00			4074.00	
Stubb	1.00			4075.00	
Recorder	0.00	6669	Outside	4075.00	
Recorder	0.00	6772	Outside	4075.00	
Perforations	10.00			4085.00	
Bullnose	4.00			4089.00	15.00 Bottom Packers & Anchor

Total Tool Length: 44.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc.

12-19s-29w Lane,KS

562 West State Rd 4
Olmitz, KS 67564

Thomas-Paris #1-12

Job Ticket: 49803

DST#: 1

ATTN: Bob Lew ellyn

Test Start: 2012.10.08 @ 18:26:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.17 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
2.00	OCM 20o 80m	0.010

Total Length: 2.00 ft Total Volume: 0.010 bbl

Num Fluid Samples: 0

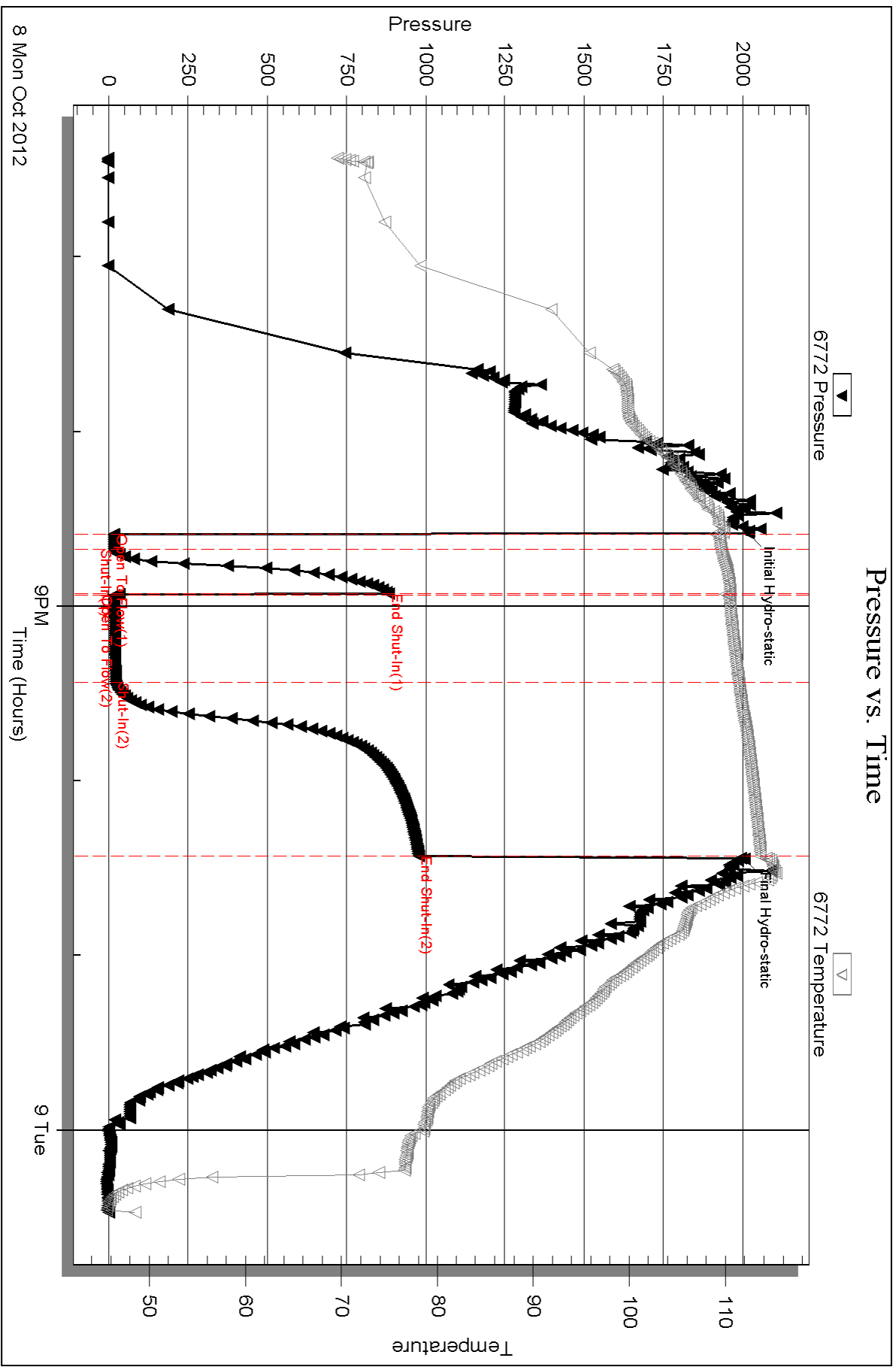
Num Gas Bombs: 0

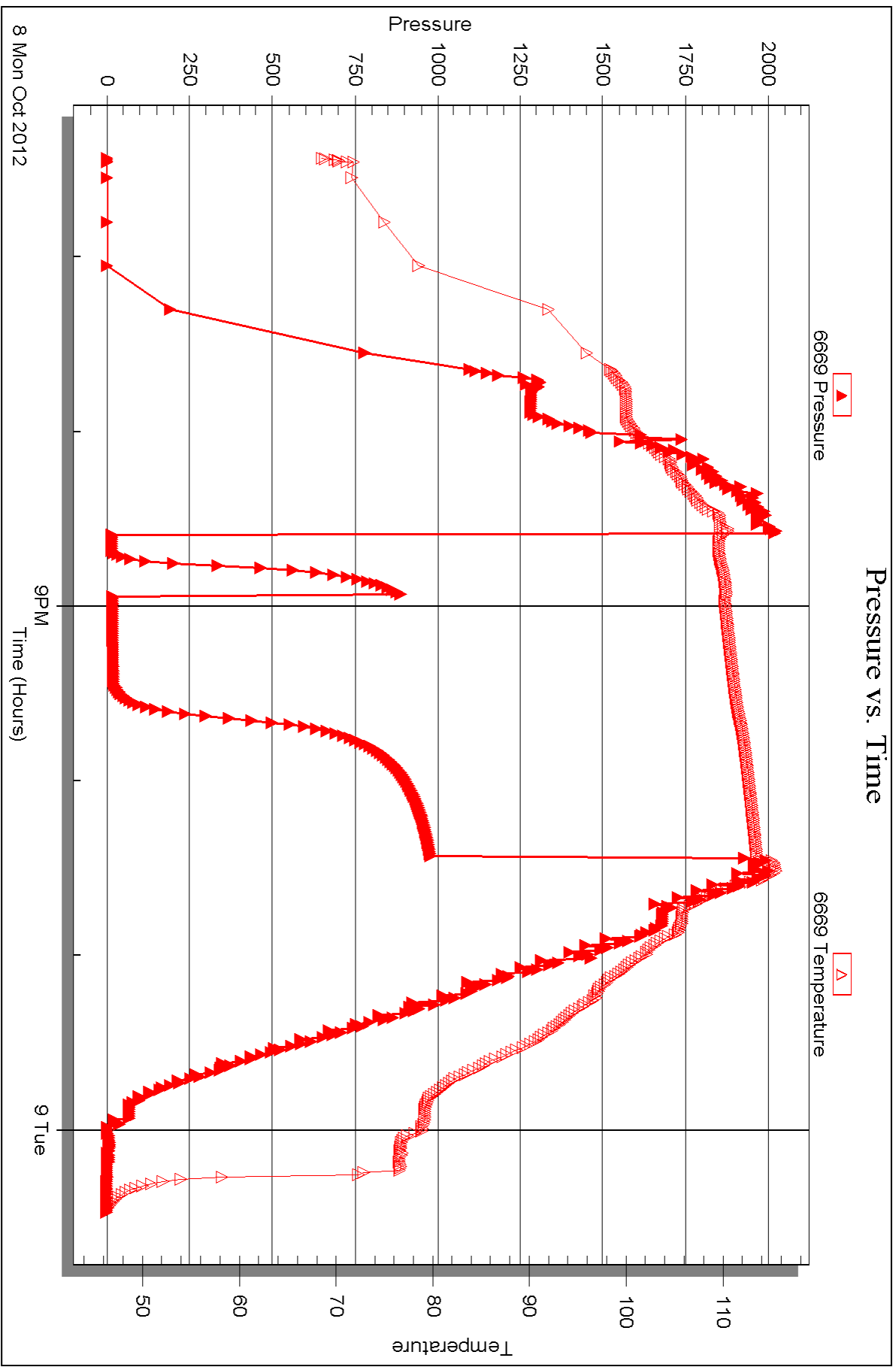
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

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

562 West State Rd 4
Olmitz, KS 67564

ATTN: Bob Lewellyn

Thomas-Paris #1-12

12-19s-29w Lane,KS

Start Date: 2012.10.09 @ 08:00:00

End Date: 2012.10.09 @ 12:22:30

Job Ticket #: 49804 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.10.17 @ 09:44:56

Larson Engineering, Inc.

12-19s-29w Lane,KS

Thomas-Paris #1-12

DST # 2

Lansing "F"

2012.10.09



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering, Inc.
 562 West State Rd 4
 Olmitz, KS 67564
 ATTN: Bob Lew ellyn

12-19s-29w Lane, KS
Thomas-Paris #1-12
 Job Ticket: 49804 **DST#: 2**
 Test Start: 2012.10.09 @ 08:00:00

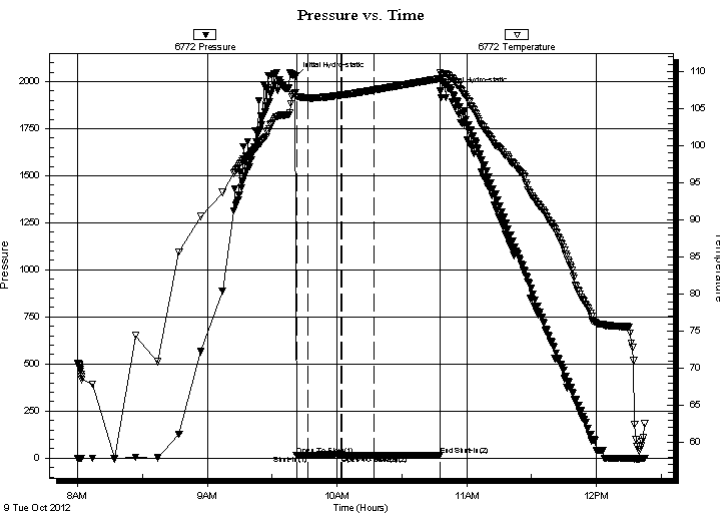
GENERAL INFORMATION:

Formation: **Lansing "F"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 09:41:15
 Time Test Ended: 12:22:30
 Interval: **4093.00 ft (KB) To 4100.00 ft (KB) (TVD)**
 Total Depth: 4100.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Sam Esparza
 Unit No: 64
 Reference Elevations: 2803.00 ft (KB)
 2796.00 ft (CF)
 KB to GR/CF: 7.00 ft

Serial #: 6772 Outside

Press @ Run Depth: 14.58 psig @ 4094.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.10.09 End Date: 2012.10.09 Last Calib.: 2012.10.09
 Start Time: 08:00:05 End Time: 12:22:29 Time On Btm: 2012.10.09 @ 09:40:45
 Time Off Btm: 2012.10.09 @ 10:47:45

TEST COMMENT: IF: Weak surface blow .
 IS: No return.
 FF: No blow .
 FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2029.00	107.09	Initial Hydro-static
1	14.00	106.65	Open To Flow (1)
6	14.19	106.45	Shut-In(1)
22	19.10	106.82	End Shut-In(1)
22	14.16	106.83	Open To Flow (2)
37	14.58	107.53	Shut-In(2)
67	16.56	109.05	End Shut-In(2)
67	1948.92	109.89	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	Mud 100m (Oil spots)	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.

12-19s-29w Lane, KS

562 West State Rd 4
Olmitz, KS 67564

Thomas-Paris #1-12

Job Ticket: 49804

DST#: 2

ATTN: Bob Lew ellyn

Test Start: 2012.10.09 @ 08:00:00

Tool Information

Drill Pipe:	Length: 3921.00 ft	Diameter: 3.80 inches	Volume: 55.00 bbl	Tool Weight: 2000.00 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: 148.00 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 55.73 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4093.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	7.00 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			4065.00	
Shut In Tool	5.00			4070.00	
Hydraulic tool	5.00			4075.00	
Jars	5.00			4080.00	
Safety Joint	3.00			4083.00	
Packer	5.00			4088.00	29.00 Bottom Of Top Packer
Packer	5.00			4093.00	
Stubb	1.00			4094.00	
Recorder	0.00	6669	Outside	4094.00	
Recorder	0.00	6772	Outside	4094.00	
Perforations	2.00			4096.00	
Bullnose	4.00			4100.00	7.00 Bottom Packers & Anchor

Total Tool Length: 36.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc.

12-19s-29w Lane, KS

562 West State Rd 4
Olmitz, KS 67564

Thomas-Paris #1-12

Job Ticket: 49804

DST#: 2

ATTN: Bob Lew ellyn

Test Start: 2012.10.09 @ 08:00:00

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: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 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
1.00	Mud 100m (Oil spots)	0.005

Total Length: 1.00 ft Total Volume: 0.005 bbl

Num Fluid Samples: 0

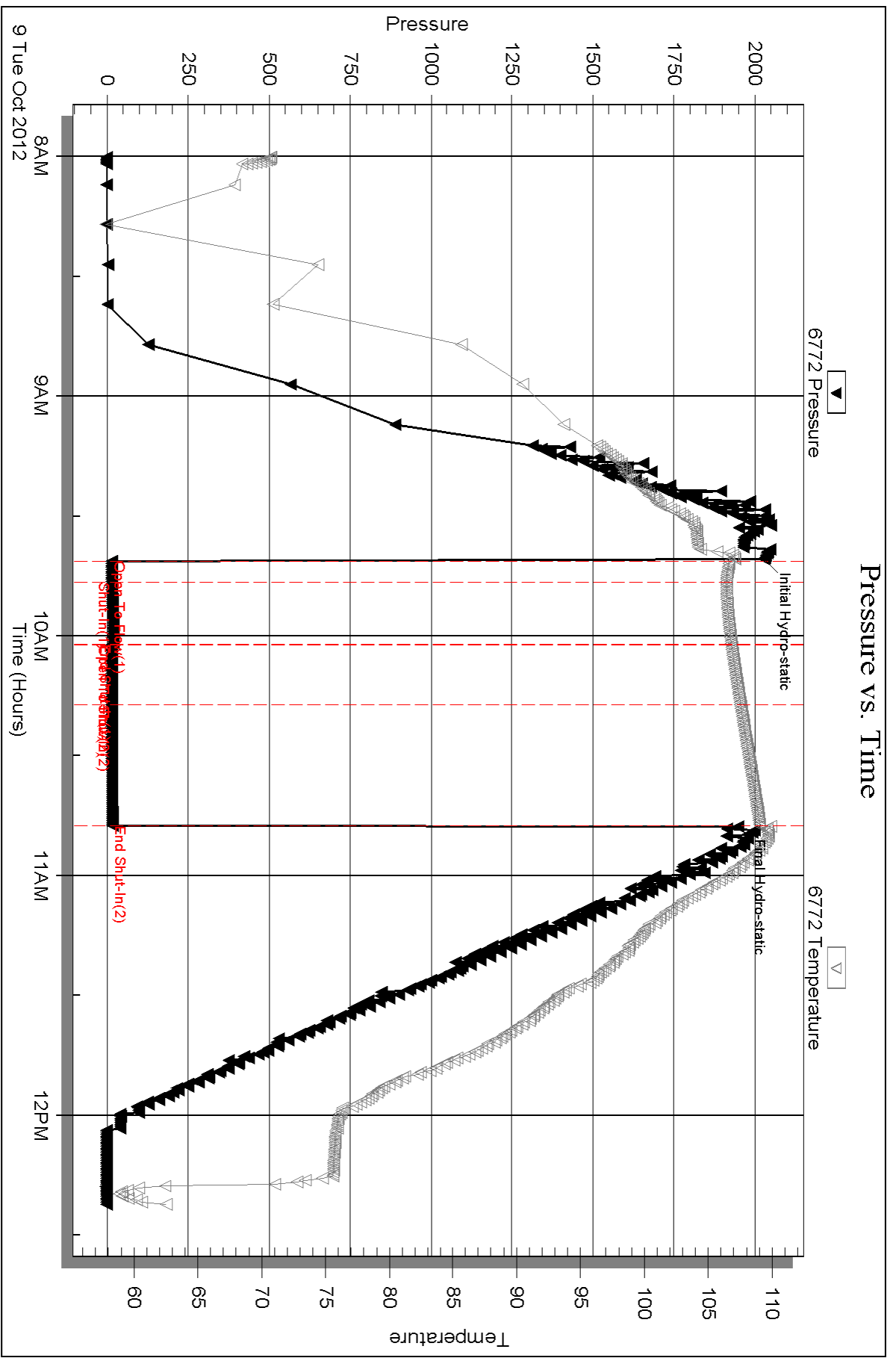
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

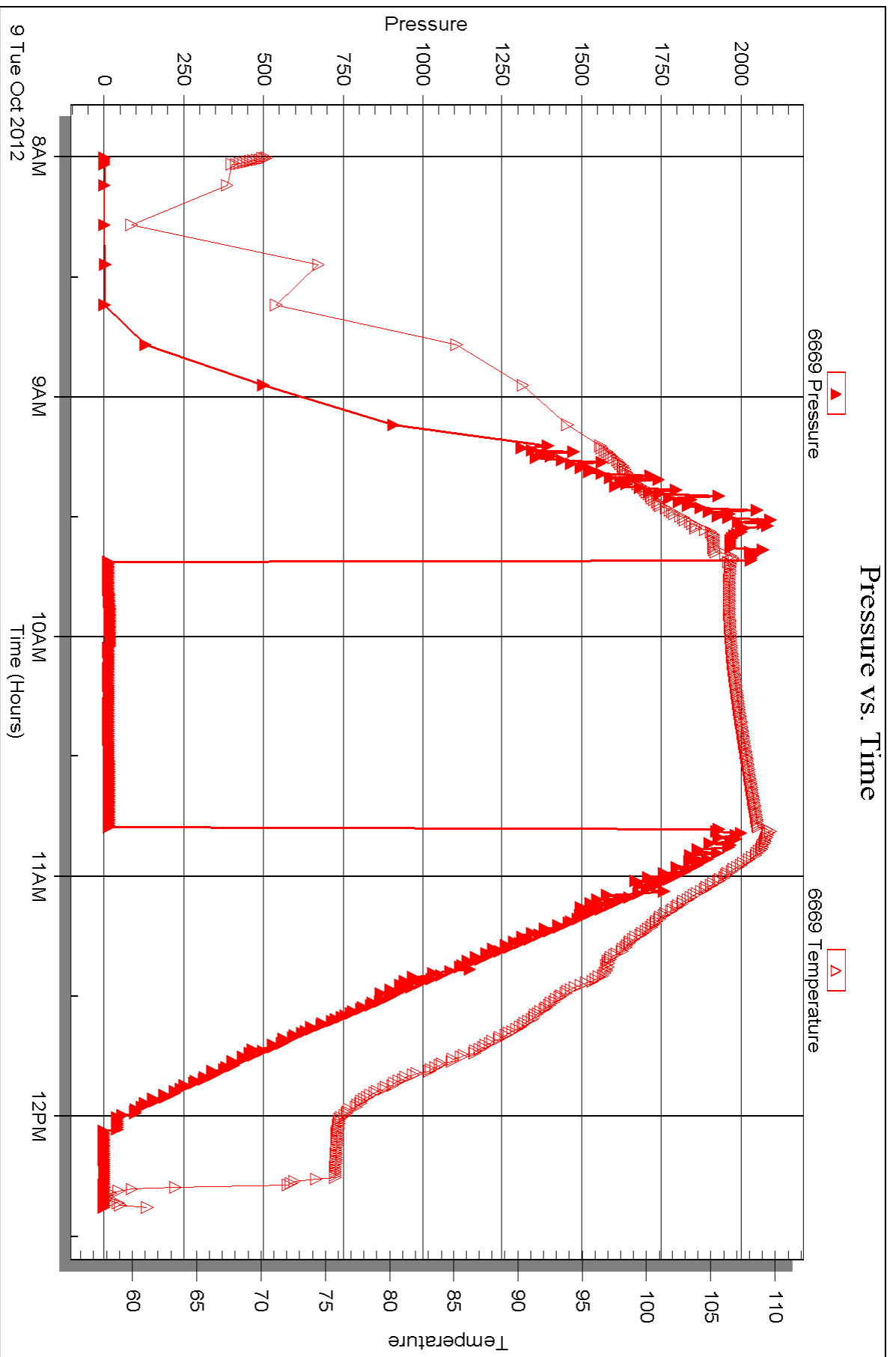


Serial #: 6669

Outside Larson Engineering, Inc.

Thomas-Paris #1-12

DST Test Number: 2





DRILL STEM TEST REPORT

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

562 West State Rd 4
Olmitz, KS 67564

ATTN: Bob Lewellyn

Thomas-Paris #1-12

12-19s-29w Lane,KS

Start Date: 2012.10.10 @ 01:09:00

End Date: 2012.10.10 @ 07:52:00

Job Ticket #: 49805 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.10.17 @ 09:35:01

Larson Engineering, Inc.

12-19s-29w Lane,KS

Thomas-Paris #1-12

DST # 3

Lansing "H"

2012.10.10



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering, Inc.

12-19s-29w Lane, KS

562 West State Rd 4
Olmitz, KS 67564

Thomas-Paris #1-12

ATTN: Bob Lew ellyn

Job Ticket: 49805

DST#: 3

Test Start: 2012.10.10 @ 01:09:00

GENERAL INFORMATION:

Formation: **Lansing "H"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:28:45

Time Test Ended: 07:52:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Sam Esparza

Unit No: 64

Interval: **4178.00 ft (KB) To 4205.00 ft (KB) (TVD)**

Reference Elevations: 2803.00 ft (KB)

Total Depth: 4205.00 ft (KB) (TVD)

2796.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: **6772** Outside

Press @ Run Depth: 439.56 psig @ 4179.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.10.10

End Date:

2012.10.10

Last Calib.: 2012.10.10

Start Time: 01:09:05

End Time:

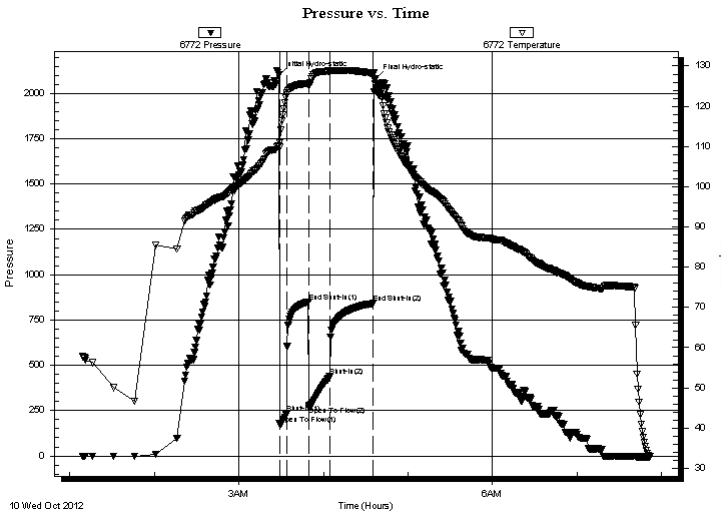
07:51:59

Time On Btm: 2012.10.10 @ 03:28:15

Time Off Btm: 2012.10.10 @ 04:37:15

TEST COMMENT: IF: BOB @ 1 min.
IS: 4 3/4" return.
FF: BOB @ 1 min.
FS: 3" return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2100.57	110.14	Initial Hydro-static
1	177.37	109.82	Open To Flow (1)
6	235.07	122.84	Shut-In(1)
22	847.88	125.56	End Shut-In(1)
22	276.66	125.33	Open To Flow (2)
37	439.56	128.75	Shut-In(2)
67	840.92	128.13	End Shut-In(2)
69	2081.75	123.93	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
400.00	GO 30g 70o	4.26
570.00	GO 40g 60o	8.00
160.00	GO 20g 80o	2.24
0.00	120' 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.

12-19s-29w Lane, KS

562 West State Rd 4
Olmitz, KS 67564

Thomas-Paris #1-12

Job Ticket: 49805

DST#: 3

ATTN: Bob Lew ellyn

Test Start: 2012.10.10 @ 01:09:00

Tool Information

Drill Pipe:	Length: 4015.00 ft	Diameter: 3.80 inches	Volume: 56.32 bbl	Tool Weight: 2000.00 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: 148.00 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 57.05 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 63000.00 lb
Depth to Top Packer:	4178.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	27.00 ft			
Tool Length:	56.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4150.00	
Shut In Tool	5.00			4155.00	
Hydraulic tool	5.00			4160.00	
Jars	5.00			4165.00	
Safety Joint	3.00			4168.00	
Packer	5.00			4173.00	29.00 Bottom Of Top Packer
Packer	5.00			4178.00	
Stubb	1.00			4179.00	
Recorder	0.00	6669	Outside	4179.00	
Recorder	0.00	6772	Outside	4179.00	
Perforations	22.00			4201.00	
Bullnose	4.00			4205.00	27.00 Bottom Packers & Anchor

Total Tool Length: 56.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc.

12-19s-29w Lane, KS

562 West State Rd 4
Olmitz, KS 67564

Thomas-Paris #1-12

Job Ticket: 49805

DST#: 3

ATTN: Bob Lew ellyn

Test Start: 2012.10.10 @ 01:09:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3600.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
400.00	GO 30g 70o	4.263
570.00	GO 40g 60o	7.996
160.00	GO 20g 80o	2.244
0.00	120' GIP	0.000

Total Length: 1130.00 ft Total Volume: 14.503 bbl

Num Fluid Samples: 0

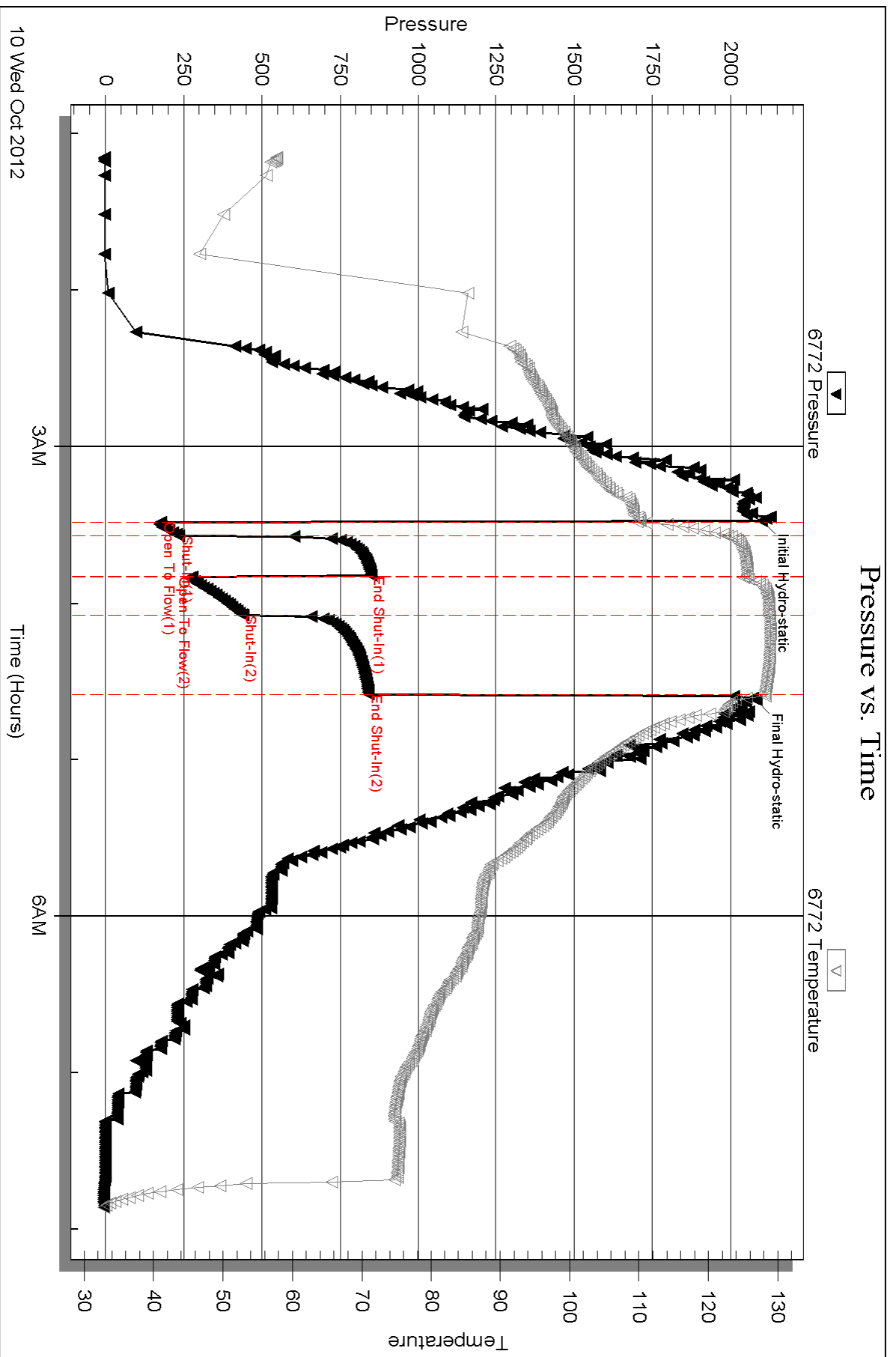
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Oil API: 29 @ 30 degrees= 32 API

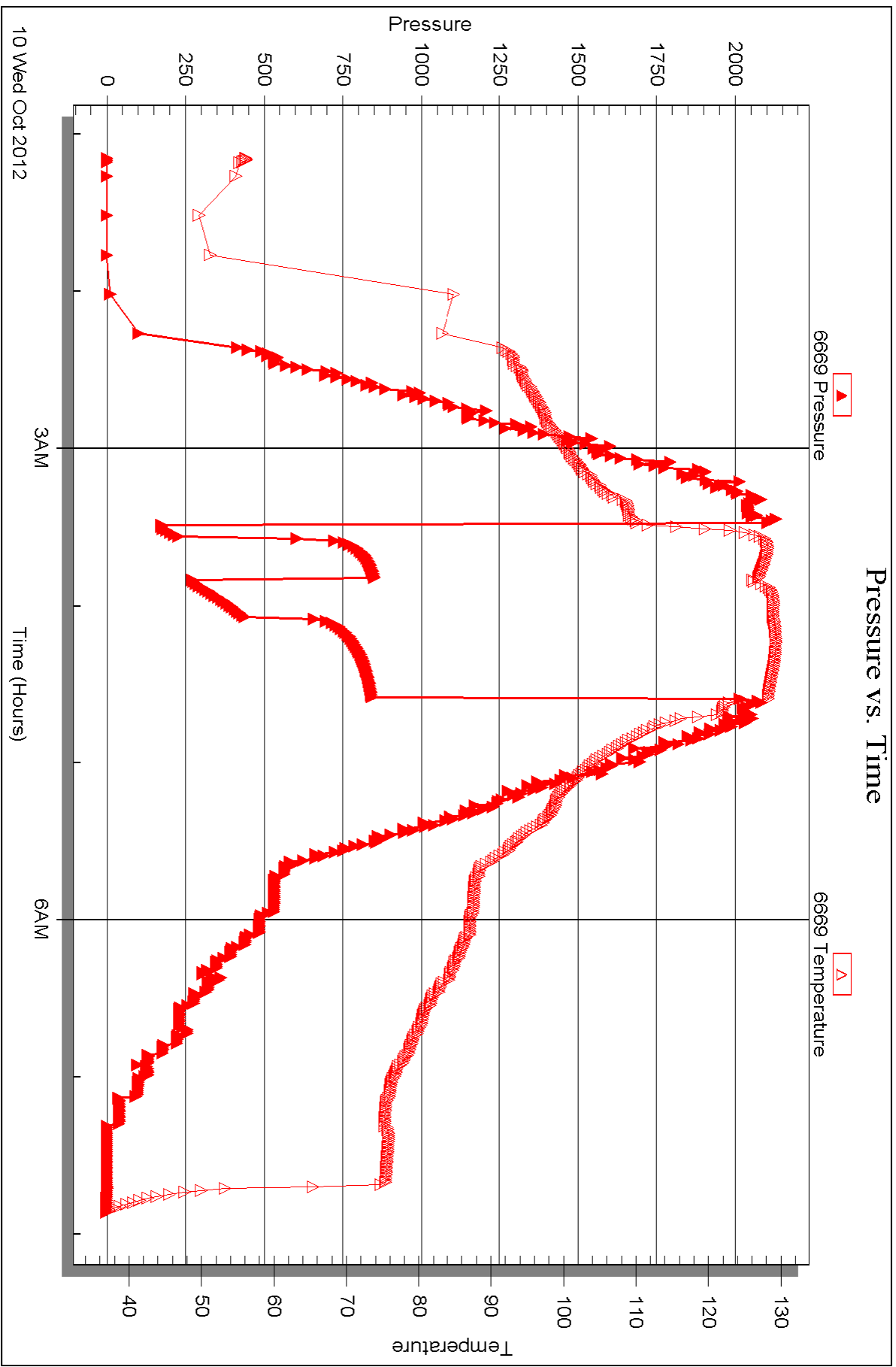


Serial #: 6669

Outside Larson Engineering, Inc.

Thomas-Paris #1-12

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 49805

Printed: 2012.10.17 @ 09:35:07



DRILL STEM TEST REPORT

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

562 West State Rd 4
Olmitz, KS 67564

ATTN: Bob Lewellyn

Thomas-Paris #1-12

12-19s-29w Lane,KS

Start Date: 2012.10.10 @ 17:12:00

End Date: 2012.10.10 @ 22:16:15

Job Ticket #: 49806 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.10.17 @ 09:33:38

Larson Engineering, Inc.

12-19s-29w Lane,KS

Thomas-Paris #1-12

DST # 4

Lansing "I"

2012.10.10



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering, Inc.
 562 West State Rd 4
 Olmitz, KS 67564
 ATTN: Bob Lew ellyn

12-19s-29w Lane, KS
Thomas-Paris #1-12
 Job Ticket: 49806 **DST#: 4**
 Test Start: 2012.10.10 @ 17:12:00

GENERAL INFORMATION:

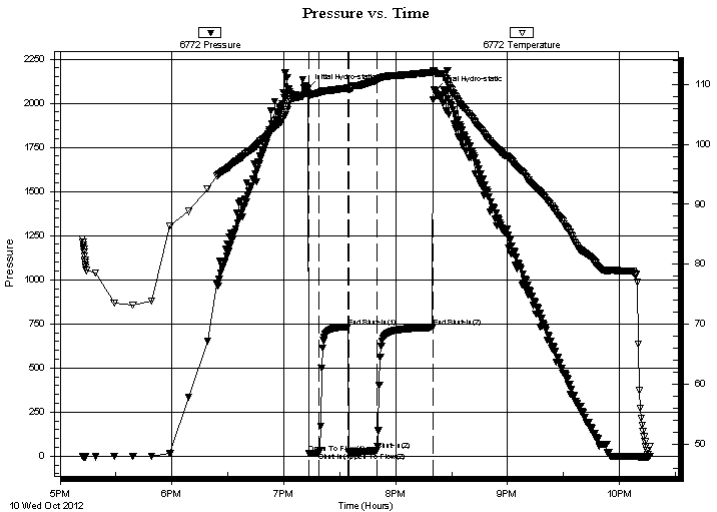
Formation: **Lansing "I"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 19:13:15
 Time Test Ended: 22:16:15
 Interval: **4215.00 ft (KB) To 4240.00 ft (KB) (TVD)**
 Total Depth: 4240.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Sam Esparza
 Unit No: 64
 Reference Elevations: 2803.00 ft (KB)
 2796.00 ft (CF)
 KB to GR/CF: 7.00 ft

Serial #: 6772 Outside

Press @ Run Depth: 32.51 psig @ 4216.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.10.10 End Date: 2012.10.10 Last Calib.: 2012.10.10
 Start Time: 17:12:05 End Time: 22:16:14 Time On Btm: 2012.10.10 @ 19:13:00
 Time Off Btm: 2012.10.10 @ 20:21:15

TEST COMMENT: IF: 1/4" blow.
 IS: No return.
 FF: Weak surface blow.
 FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2080.91	108.60	Initial Hydro-static
1	16.15	108.05	Open To Flow (1)
6	20.39	108.65	Shut-In(1)
22	733.42	109.41	End Shut-In(1)
22	21.50	109.22	Open To Flow (2)
37	32.51	110.70	Shut-In(2)
67	729.80	112.05	End Shut-In(2)
69	2073.34	111.93	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	Mud 100m (Oil spots)	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.

12-19s-29w Lane, KS

562 West State Rd 4
Olmitz, KS 67564

Thomas-Paris #1-12

Job Ticket: 49806

DST#: 4

ATTN: Bob Lew ellyn

Test Start: 2012.10.10 @ 17:12:00

Tool Information

Drill Pipe:	Length: 4047.00 ft	Diameter: 3.80 inches	Volume: 56.77 bbl	Tool Weight: 2000.00 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: 148.00 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 57.50 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4215.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	25.00 ft			
Tool Length:	54.00 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			4187.00	
Shut In Tool	5.00			4192.00	
Hydraulic tool	5.00			4197.00	
Jars	5.00			4202.00	
Safety Joint	3.00			4205.00	
Packer	5.00			4210.00	29.00 Bottom Of Top Packer
Packer	5.00			4215.00	
Stubb	1.00			4216.00	
Recorder	0.00	6669	Outside	4216.00	
Recorder	0.00	6772	Outside	4216.00	
Perforations	20.00			4236.00	
Bullnose	4.00			4240.00	25.00 Bottom Packers & Anchor

Total Tool Length: 54.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc.

12-19s-29w Lane, KS

562 West State Rd 4
Olmitz, KS 67564

Thomas-Paris #1-12

Job Ticket: 49806

DST#: 4

ATTN: Bob Lew ellyn

Test Start: 2012.10.10 @ 17:12:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.58 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	Mud 100m (Oil spots)	0.148

Total Length: 30.00 ft Total Volume: 0.148 bbl

Num Fluid Samples: 0

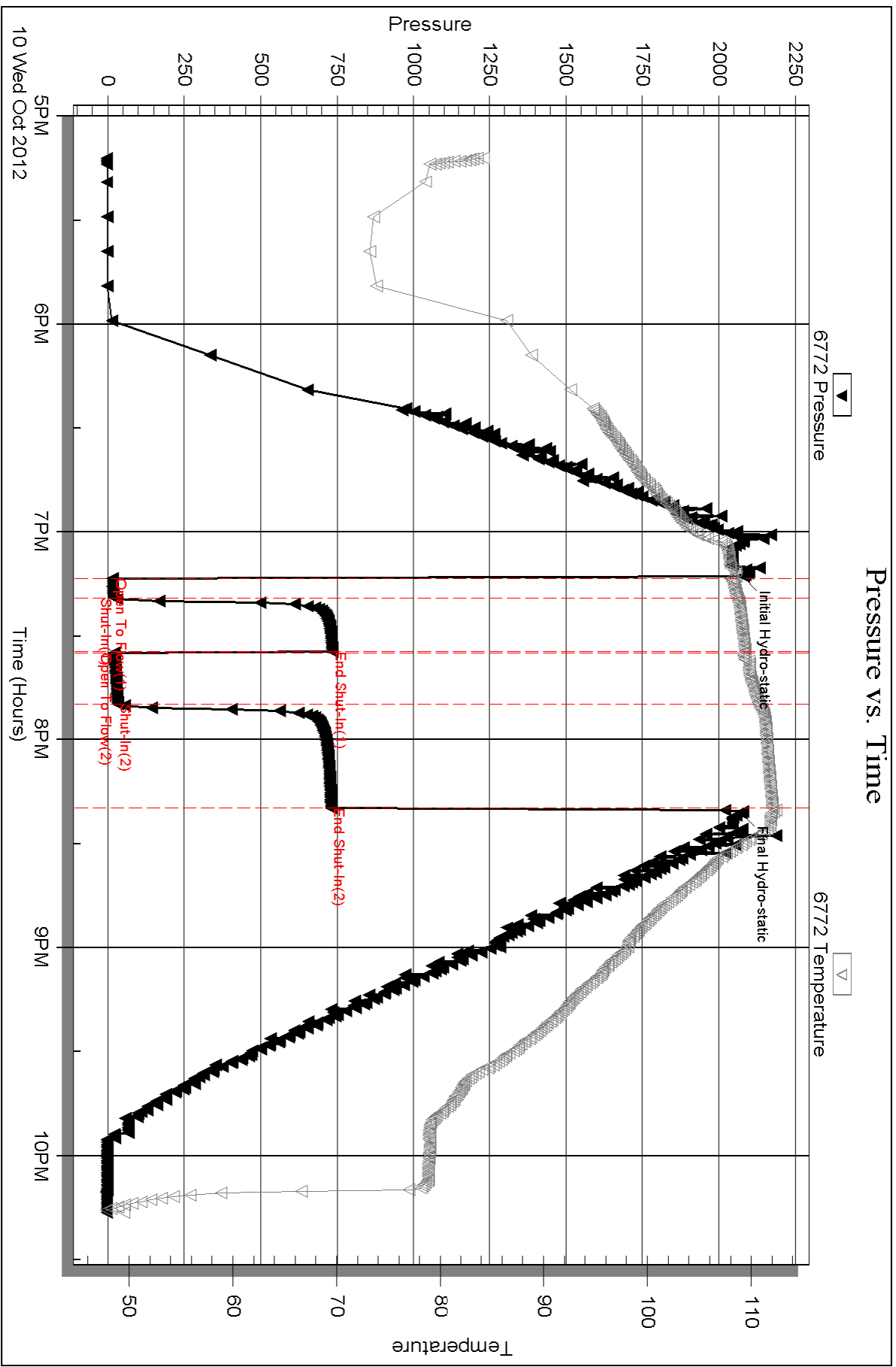
Num Gas Bombs: 0

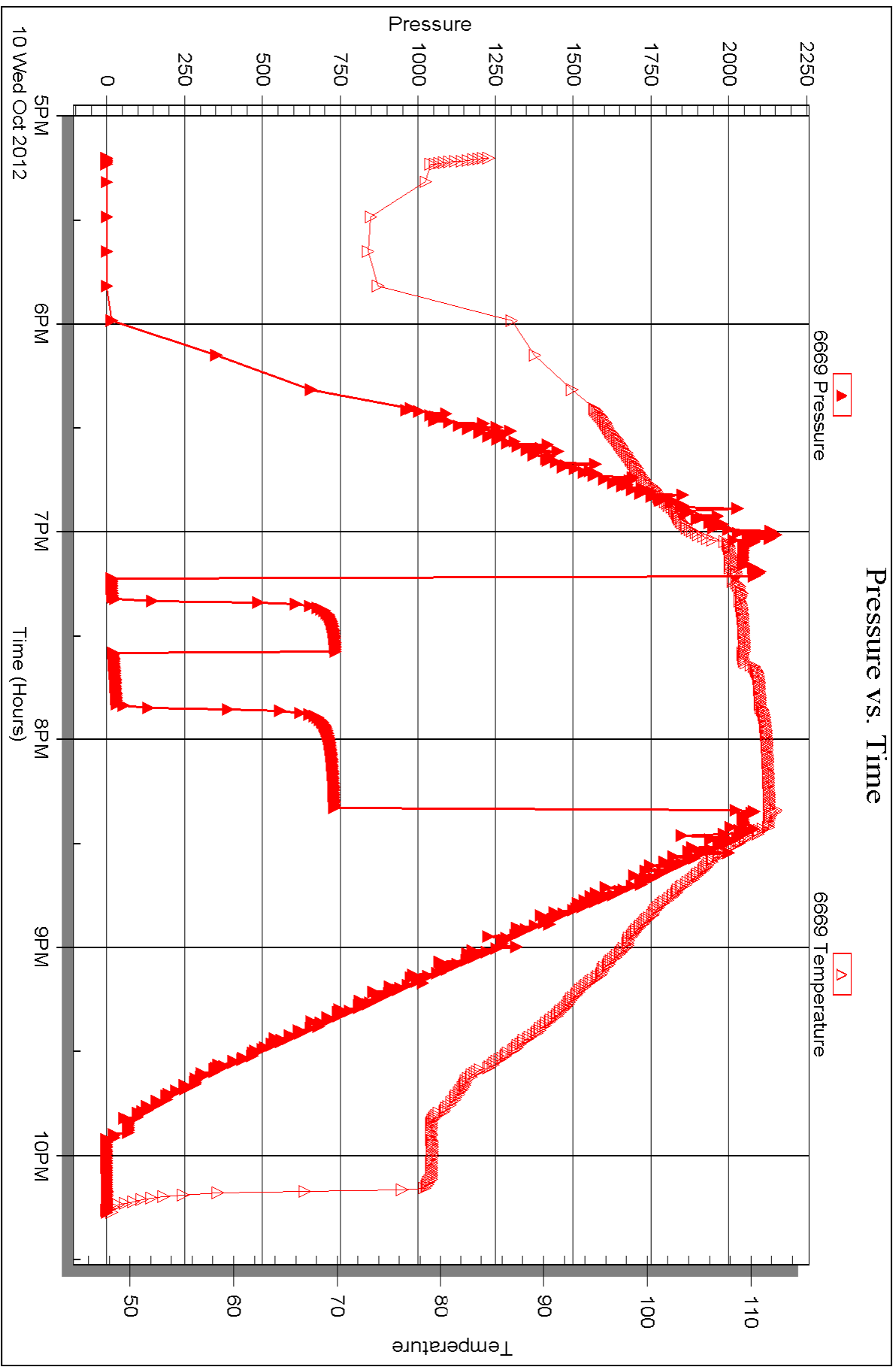
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

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

562 West State Rd 4
Olmitz, KS 67564

ATTN: Bob Lewellyn

Thomas-Paris #1-12

12-19s-29w Lane,KS

Start Date: 2012.10.11 @ 14:19:00

End Date: 2012.10.11 @ 19:40:45

Job Ticket #: 49807 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.10.17 @ 09:32:51

Larson Engineering, Inc.

12-19s-29w Lane,KS

Thomas-Paris #1-12

DST # 5

Lansing "L"

2012.10.11



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering, Inc.

12-19s-29w Lane, KS

562 West State Rd 4
Olmitz, KS 67564

Thomas-Paris #1-12

ATTN: Bob Lew ellyn

Job Ticket: 49807

DST#: 5

Test Start: 2012.10.11 @ 14:19:00

GENERAL INFORMATION:

Formation: **Lansing "L"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:27:00

Time Test Ended: 19:40:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Sam Esparza

Unit No: 64

Interval: **4318.00 ft (KB) To 4331.00 ft (KB) (TVD)**

Reference Elevations: 2803.00 ft (KB)

Total Depth: 4331.00 ft (KB) (TVD)

2796.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: **6772** Outside

Press @ Run Depth: 15.79 psig @ 4319.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.10.11

End Date:

2012.10.11

Last Calib.: 2012.10.11

Start Time: 14:19:05

End Time:

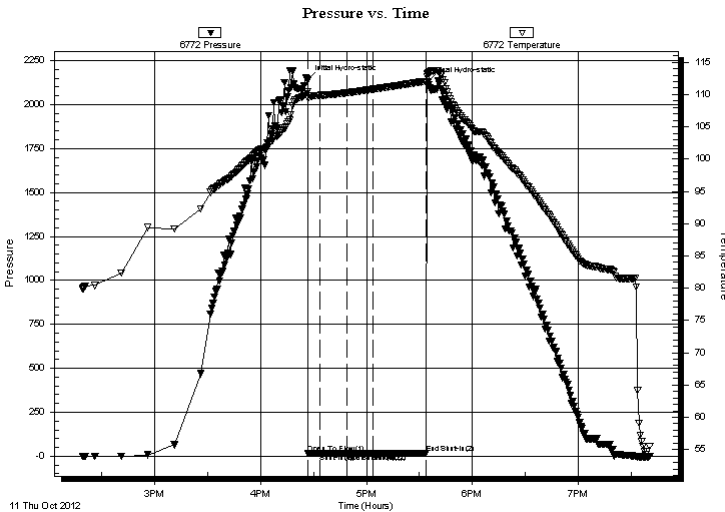
19:40:44

Time On Btm: 2012.10.11 @ 16:26:45

Time Off Btm: 2012.10.11 @ 17:35:00

TEST COMMENT: IF: Weak surface blow .
IS: No return.
FF: No blow .
FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2139.32	110.41	Initial Hydro-static
1	14.30	109.43	Open To Flow (1)
7	15.85	109.85	Shut-In(1)
22	17.20	110.25	End Shut-In(1)
23	15.69	110.26	Open To Flow (2)
37	15.79	110.81	Shut-In(2)
68	16.78	112.06	End Shut-In(2)
69	2128.29	113.34	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	Mud 100m	0.00

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering, Inc.
562 West State Rd 4
Olmitz, KS 67564
ATTN: Bob Lew ellyn

12-19s-29w Lane, KS
Thomas-Paris #1-12
Job Ticket: 49807 **DST#: 5**
Test Start: 2012.10.11 @ 14:19:00

GENERAL INFORMATION:

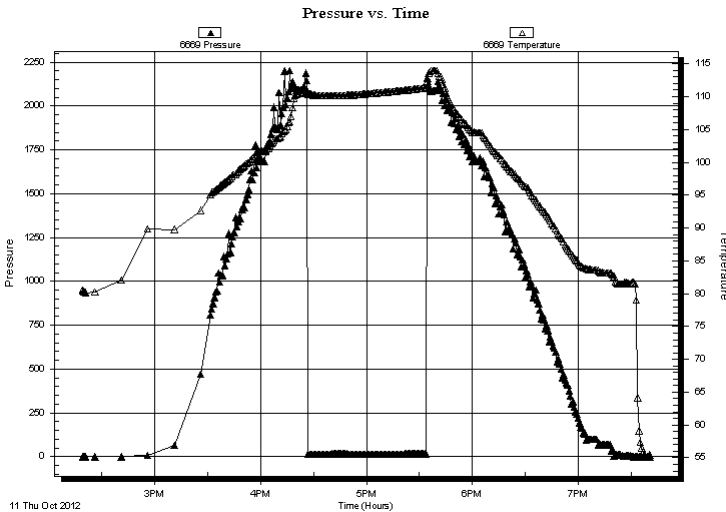
Formation: **Lansing "L"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:27:00
Time Test Ended: 19:40:45
Interval: **4318.00 ft (KB) To 4331.00 ft (KB) (TVD)**
Total Depth: 4331.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Reference Elevations: 2803.00 ft (KB)
2796.00 ft (CF)
KB to GR/CF: 7.00 ft
Test Type: Conventional Bottom Hole (Reset)
Tester: Sam Esparza
Unit No: 64

Serial #: 6669 Outside

Press @ Run Depth: psig @ 4319.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2012.10.11 End Date: 2012.10.11 Last Calib.: 2012.10.11
Start Time: 14:19:05 End Time: 19:40:44 Time On Btm:
Time Off Btm:

TEST COMMENT: IF: Weak surface blow .
IS: No return.
FF: No blow .
FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
1.00	Mud 100m	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.

12-19s-29w Lane, KS

562 West State Rd 4
Olmitz, KS 67564

Thomas-Paris #1-12

Job Ticket: 49807

DST#: 5

ATTN: Bob Lew ellyn

Test Start: 2012.10.11 @ 14:19:00

Tool Information

Drill Pipe:	Length: 4172.00 ft	Diameter: 3.80 inches	Volume: 58.52 bbl	Tool Weight: 2000.00 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: 148.00 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 59.25 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 65000.00 lb
Depth to Top Packer:	4318.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	13.00 ft			
Tool Length:	42.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Change Over Sub	1.00			4290.00	
Shut In Tool	5.00			4295.00	
Hydraulic tool	5.00			4300.00	
Jars	5.00			4305.00	
Safety Joint	3.00			4308.00	
Packer	5.00			4313.00	29.00 Bottom Of Top Packer
Packer	5.00			4318.00	
Stubb	1.00			4319.00	
Recorder	0.00	6669	Outside	4319.00	
Recorder	0.00	6772	Outside	4319.00	
Perforations	8.00			4327.00	
Bullnose	4.00			4331.00	13.00 Bottom Packers & Anchor

Total Tool Length: 42.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc.

12-19s-29w Lane, KS

562 West State Rd 4
Olmitz, KS 67564

Thomas-Paris #1-12

Job Ticket: 49807

DST#: 5

ATTN: Bob Lew ellyn

Test Start: 2012.10.11 @ 14:19:00

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: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 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
1.00	Mud 100m	0.005

Total Length: 1.00 ft Total Volume: 0.005 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

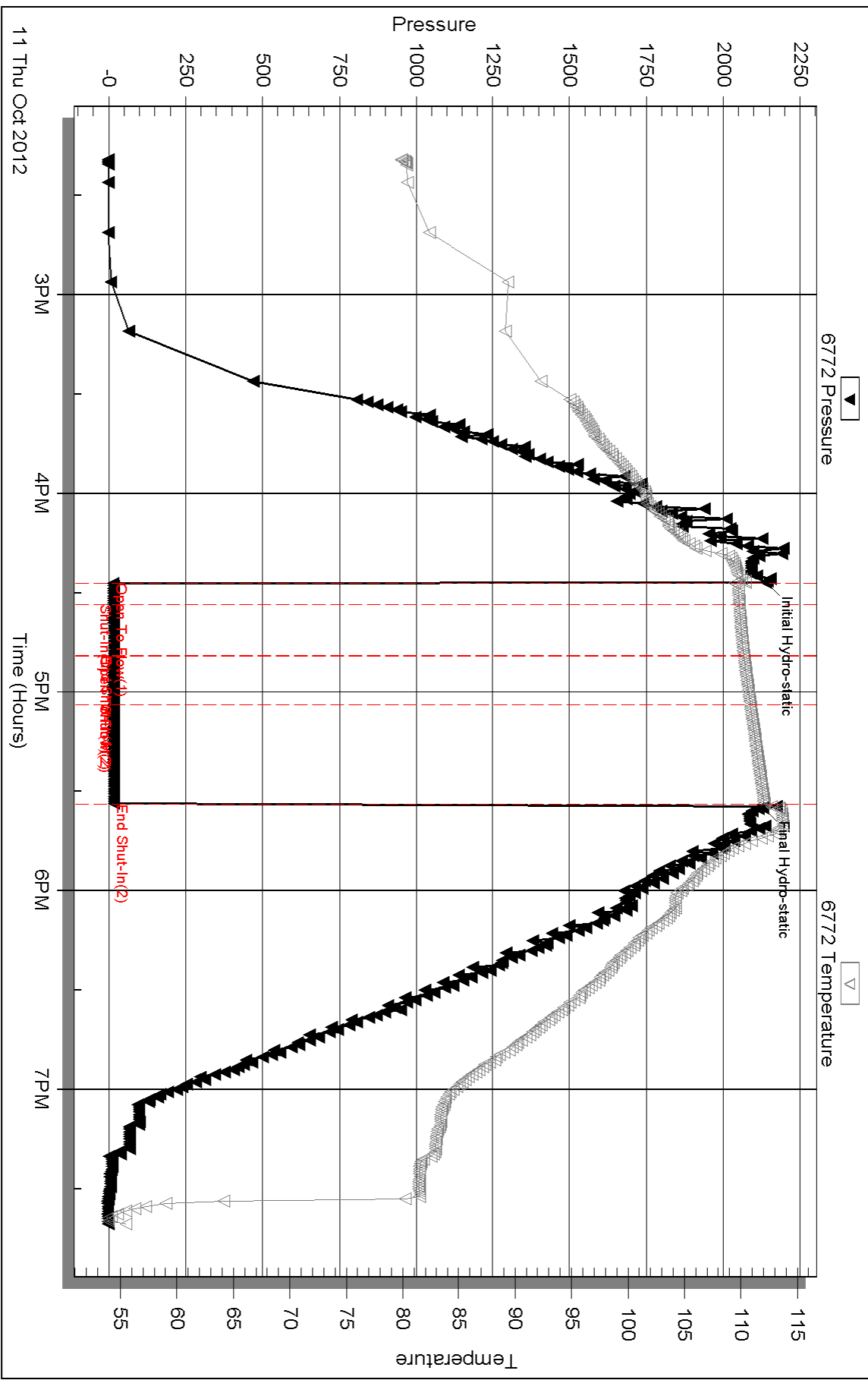
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

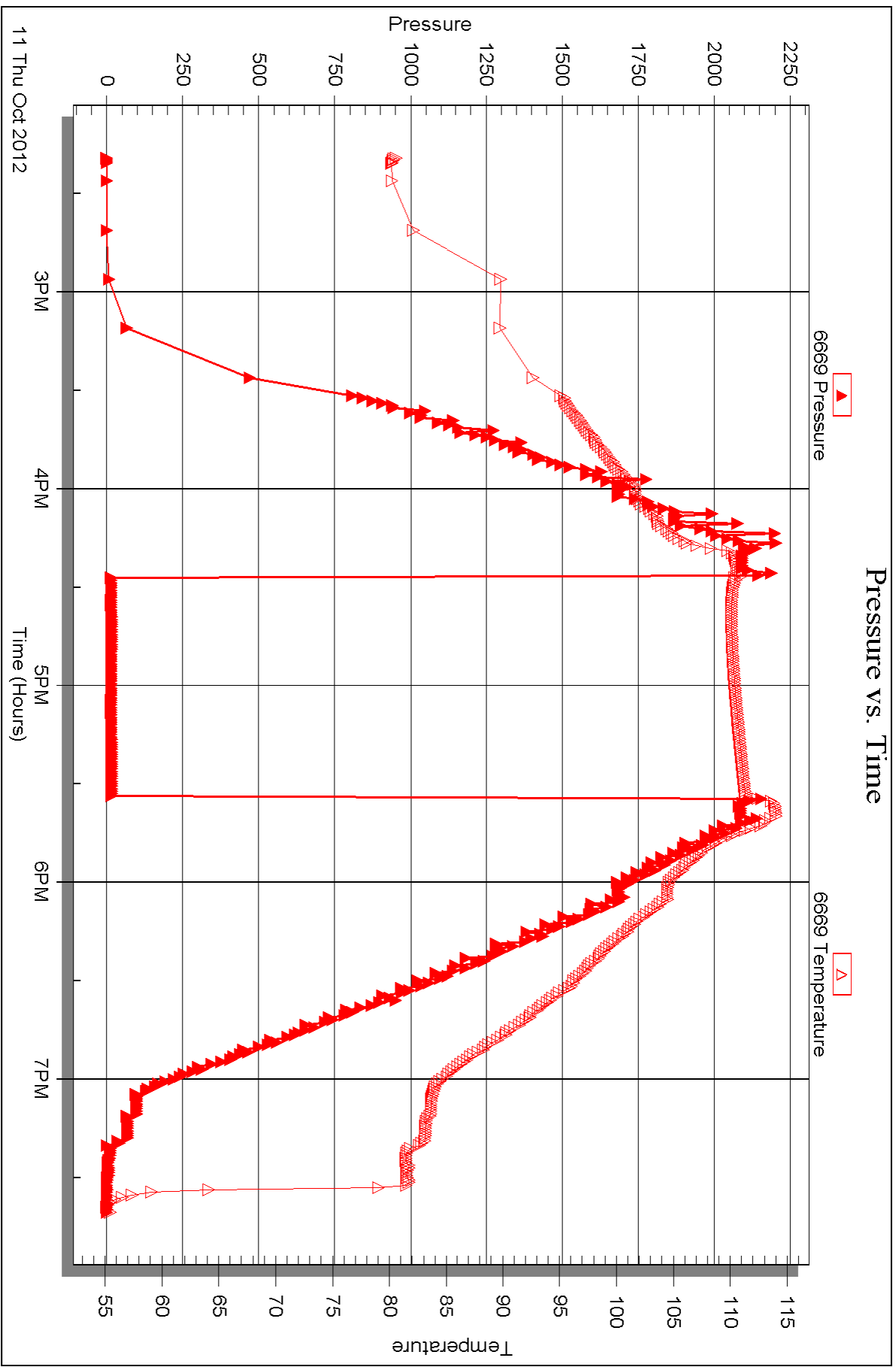


Serial #: 6669

Outside Larson Engineering, Inc.

Thomas-Paris #1-12

DST Test Number: 5





DRILL STEM TEST REPORT

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

562 West State Rd 4
Olmitz, KS 67564

ATTN: Bob Lewellyn

Thomas-Paris #1-12

12-19s-29w Lane,KS

Start Date: 2012.10.12 @ 05:40:00

End Date: 2012.10.12 @ 11:46:15

Job Ticket #: 49808 DST #: 6

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

Printed: 2012.10.17 @ 09:32:01



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering, Inc.

12-19s-29w Lane, KS

562 West State Rd 4
Olmitz, KS 67564

Thomas-Paris #1-12

ATTN: Bob Lew ellyn

Job Ticket: 49808

DST#: 6

Test Start: 2012.10.12 @ 05:40:00

GENERAL INFORMATION:

Formation: **Pleasanton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:58:00

Time Test Ended: 11:46:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Sam Esparza

Unit No: 64

Interval: 4352.00 ft (KB) To 4380.00 ft (KB) (TVD)

Reference Elevations: 2803.00 ft (KB)

Total Depth: 4380.00 ft (KB) (TVD)

2796.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: 6772 Outside

Press @ RunDepth: 168.86 psig @ 4353.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.10.12 End Date: 2012.10.12

Last Calib.: 2012.10.12

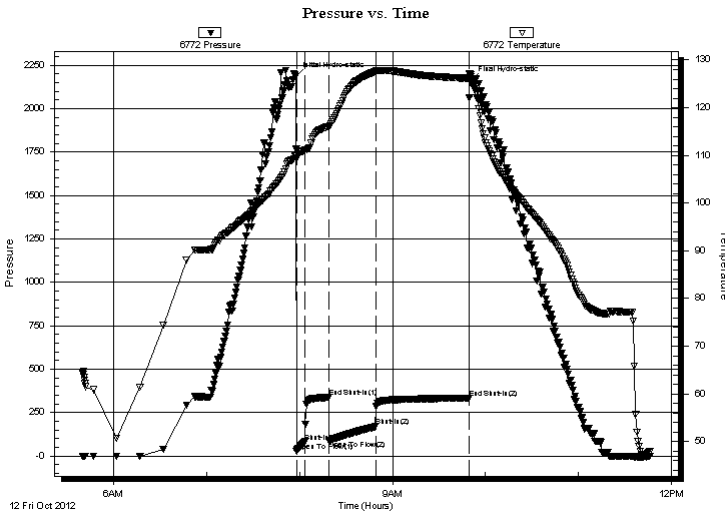
Start Time: 05:40:05 End Time: 11:46:14

Time On Btm: 2012.10.12 @ 07:57:30

Time Off Btm: 2012.10.12 @ 09:50:45

TEST COMMENT: IF: 5" blow.
IS: Weak surface return.
FF: BOB @ 17 min.
FS: Weak surface return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2184.00	109.90	Initial Hydro-static
1	29.14	109.32	Open To Flow (1)
6	82.36	111.04	Shut-In(1)
22	337.25	116.08	End Shut-In(1)
22	89.74	116.00	Open To Flow (2)
52	168.86	127.56	Shut-In(2)
112	333.08	126.13	End Shut-In(2)
114	2160.82	126.15	Final Hydro-static

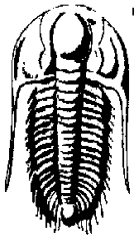
Recovery

Length (ft)	Description	Volume (bbl)
135.00	GOMCW 5g 5o 60w 30m	0.66
60.00	GOWCM 5g 5o 20w 70m	0.72
149.00	GOWCM 5g 5o 40w 50m	2.09
1.00	Oil 100o	0.01

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering, Inc.

12-19s-29w Lane, KS

562 West State Rd 4
Olmitz, KS 67564

Thomas-Paris #1-12

ATTN: Bob Lew ellyn

Job Ticket: 49808

DST#: 6

Test Start: 2012.10.12 @ 05:40:00

GENERAL INFORMATION:

Formation: **Pleasanton**

Deviated: No Whipstock: ft (KB)

Test Type: Conventional Bottom Hole (Reset)

Time Tool Opened: 07:58:00

Tester: Sam Esparza

Time Test Ended: 11:46:15

Unit No: 64

Interval: 4352.00 ft (KB) To 4380.00 ft (KB) (TVD)

Reference Elevations: 2803.00 ft (KB)

Total Depth: 4380.00 ft (KB) (TVD)

2796.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: 6669 Outside

Press@RunDepth: psig @ 4353.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.10.12

End Date:

2012.10.12

Last Calib.:

2012.10.12

Start Time: 05:40:05

End Time:

11:46:14

Time On Btm:

Time Off Btm:

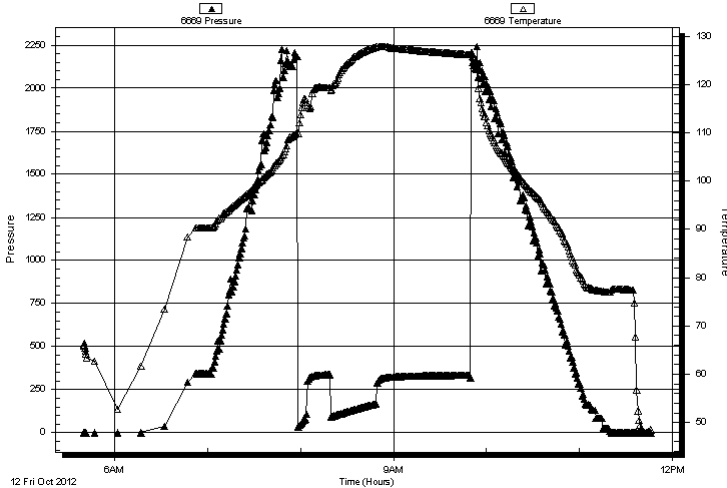
TEST COMMENT: IF: 5" blow .

IS: Weak surface return.

FF: BOB @ 17 min.

FS: Weak surface return.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
135.00	GOMCW 5g 5o 60w 30m	0.66
60.00	GOWCM 5g 5o 20w 70m	0.72
149.00	GOWCM 5g 5o 40w 50m	2.09
1.00	Oil 100o	0.01

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering, Inc.

12-19s-29w Lane, KS

562 West State Rd 4
Olmitz, KS 67564

Thomas-Paris #1-12

Job Ticket: 49808

DST#: 6

ATTN: Bob Lew ellyn

Test Start: 2012.10.12 @ 05:40:00

Tool Information

Drill Pipe:	Length: 4202.00 ft	Diameter: 3.80 inches	Volume: 58.94 bbl	Tool Weight: 2000.00 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: 148.00 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 59.67 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 65000.00 lb
Depth to Top Packer:	4352.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	28.00 ft			
Tool Length:	57.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Change Over Sub	1.00			4324.00	
Shut In Tool	5.00			4329.00	
Hydraulic tool	5.00			4334.00	
Jars	5.00			4339.00	
Safety Joint	3.00			4342.00	
Packer	5.00			4347.00	29.00 Bottom Of Top Packer
Packer	5.00			4352.00	
Stubb	1.00			4353.00	
Recorder	0.00	6669	Outside	4353.00	
Recorder	0.00	6772	Outside	4353.00	
Perforations	23.00			4376.00	
Bullnose	4.00			4380.00	28.00 Bottom Packers & Anchor

Total Tool Length: 57.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc.

12-19s-29w Lane,KS

562 West State Rd 4
Olmitz, KS 67564

Thomas-Paris #1-12

Job Ticket: 49808

DST#: 6

ATTN: Bob Lew ellyn

Test Start: 2012.10.12 @ 05:40:00

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: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 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 bbbl
135.00	GOMCW 5g 5o 60w 30m	0.664
60.00	GOWCM 5g 5o 20w 70m	0.723
149.00	GOWCM 5g 5o 40w 50m	2.090
1.00	Oil 100o	0.014

Total Length: 345.00 ft

Total Volume: 3.491 bbl

Num Fluid Samples: 0

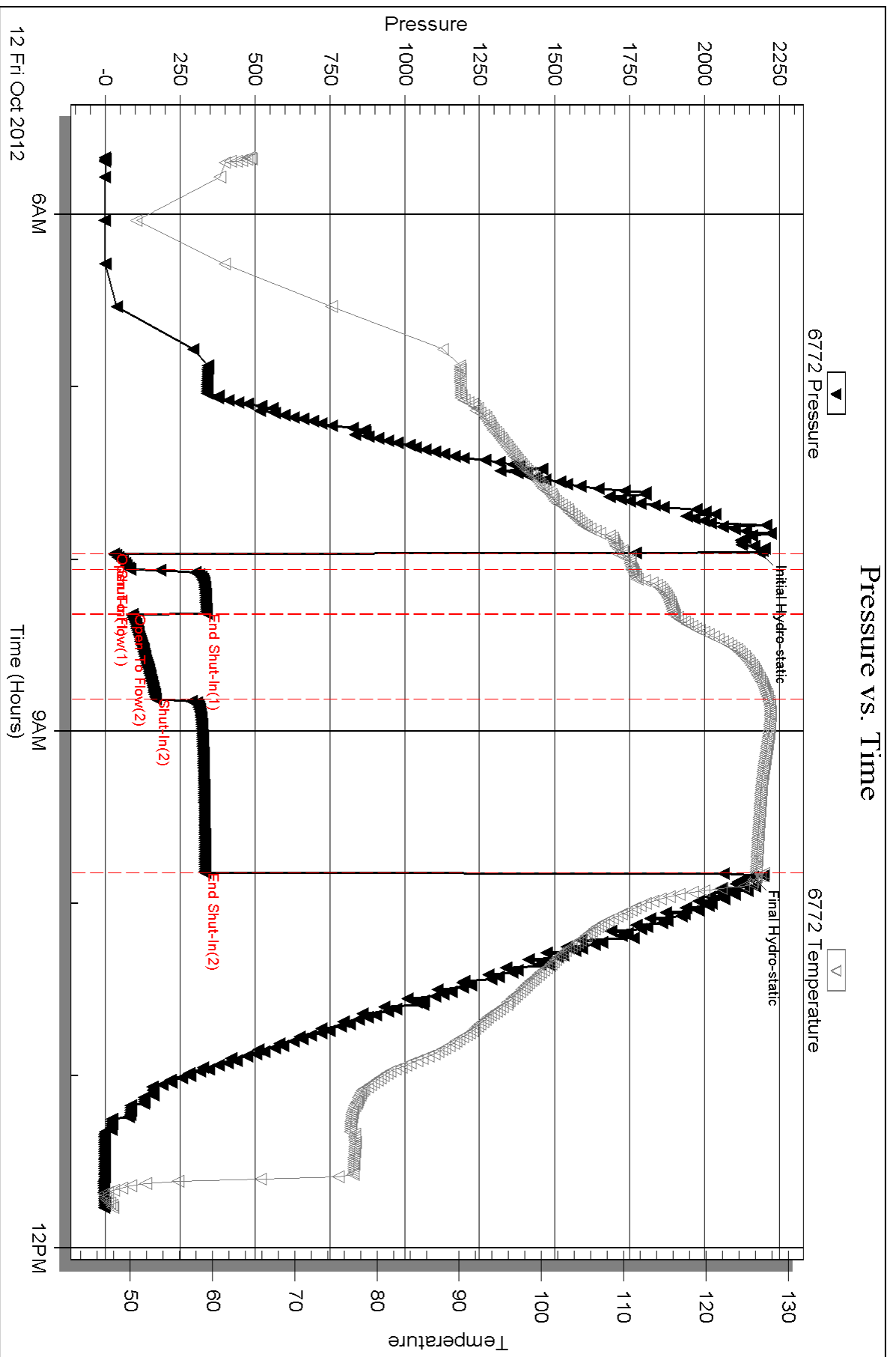
Num Gas Bombs: 0

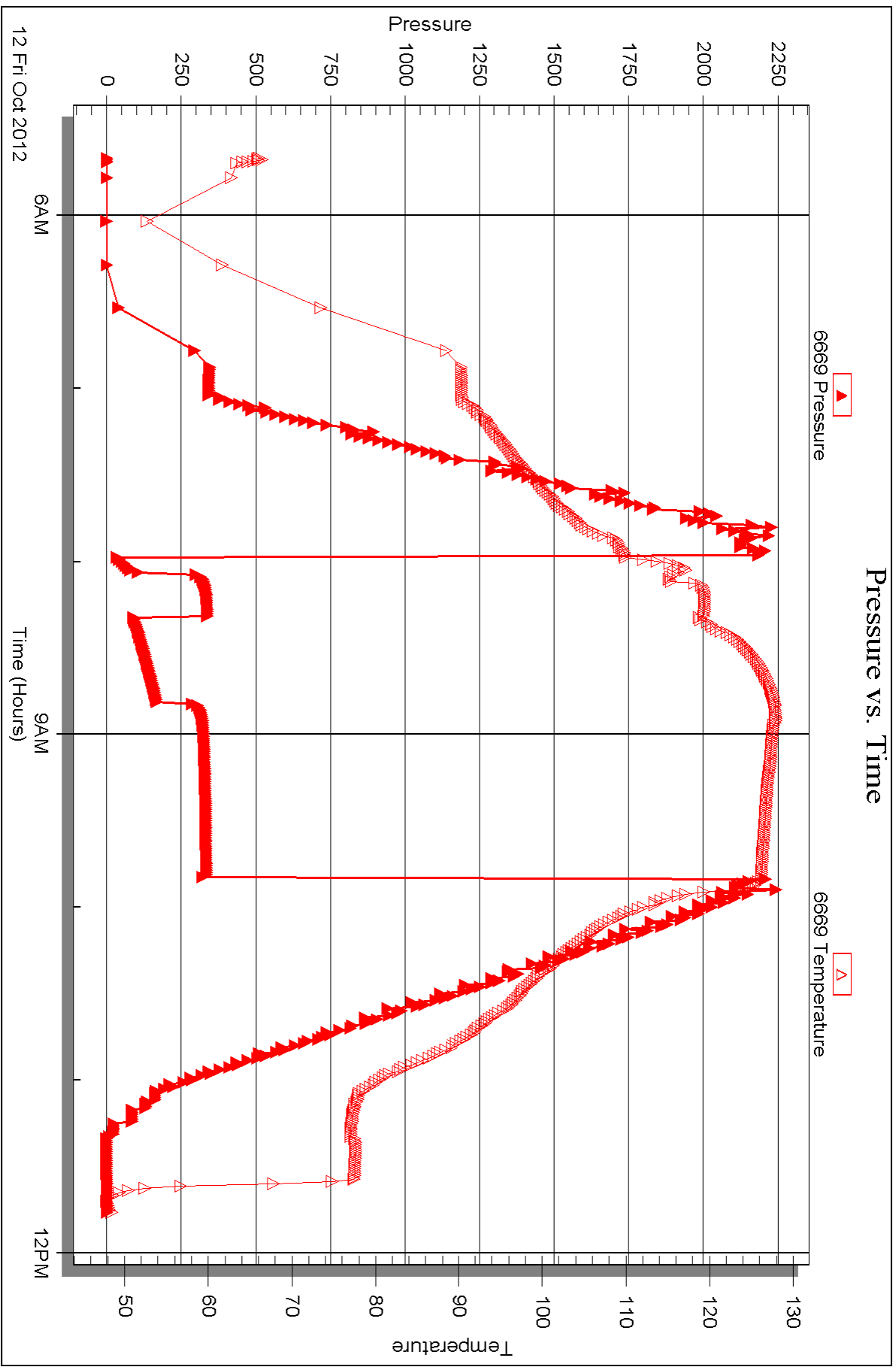
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

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

562 West State Rd 4
Olmitz, KS 67564

ATTN: Bob Lewellyn

Thomas-Paris #1-12

12-19s-29w Lane,KS

Start Date: 2012.10.13 @ 06:13:00

End Date: 2012.10.13 @ 11:27:45

Job Ticket #: 49809 DST #: 7

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.10.17 @ 09:31:11



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering, Inc.

12-19s-29w Lane, KS

562 West State Rd 4
Olmitz, KS 67564

Thomas-Paris #1-12

ATTN: Bob Lew ellyn

Job Ticket: 49809

DST#: 7

Test Start: 2012.10.13 @ 06:13:00

GENERAL INFORMATION:

Formation: **Altamont**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:37:00

Time Test Ended: 11:27:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Sam Esparza

Unit No: 64

Interval: **4381.00 ft (KB) To 4455.00 ft (KB) (TVD)**

Reference Elevations: 2803.00 ft (KB)

Total Depth: 4455.00 ft (KB) (TVD)

2796.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: **6772** Outside

Press @ Run Depth: 22.24 psig @ 4382.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.10.13

End Date: 2012.10.13

Last Calib.: 2012.10.13

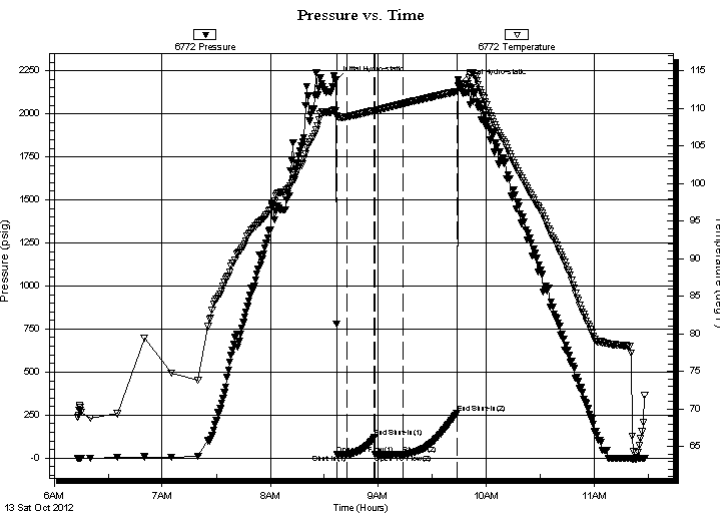
Start Time: 06:13:05

End Time: 11:27:44

Time On Btm: 2012.10.13 @ 08:36:30

Time Off Btm: 2012.10.13 @ 09:44:45

TEST COMMENT: IF: Weak surface blow .
IS: No return.
FF: No blow .
FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2195.23	109.67	Initial Hydro-static
1	20.84	109.06	Open To Flow (1)
6	21.30	108.90	Shut-In(1)
22	119.59	109.75	End Shut-In(1)
22	21.44	109.75	Open To Flow (2)
37	22.24	110.62	Shut-In(2)
67	261.59	112.26	End Shut-In(2)
69	2177.32	113.07	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud 100m	0.01

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering, Inc.

12-19s-29w Lane, KS

562 West State Rd 4
Olmitz, KS 67564

Thomas-Paris #1-12

ATTN: Bob Lew ellyn

Job Ticket: 49809

DST#: 7

Test Start: 2012.10.13 @ 06:13:00

GENERAL INFORMATION:

Formation: **Altamont**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:37:00

Time Test Ended: 11:27:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Sam Esparza

Unit No: 64

Interval: **4381.00 ft (KB) To 4455.00 ft (KB) (TVD)**

Reference Elevations: 2803.00 ft (KB)

Total Depth: 4455.00 ft (KB) (TVD)

2796.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: **6669** Outside

Press @ Run Depth: psig @ 4382.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.10.13

End Date: 2012.10.13

Last Calib.: 2012.10.13

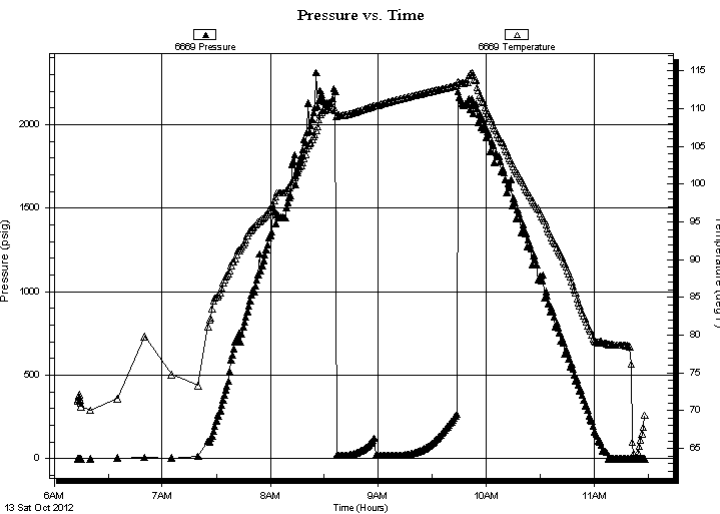
Start Time: 06:13:05

End Time: 11:27:44

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: Weak surface blow.
IS: No return.
FF: No blow.
FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud 100m	0.01

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering, Inc.

12-19s-29w Lane, KS

562 West State Rd 4
Olmitz, KS 67564

Thomas-Paris #1-12

Job Ticket: 49809

DST#: 7

ATTN: Bob Lew ellyn

Test Start: 2012.10.13 @ 06:13:00

Tool Information

Drill Pipe:	Length: 4234.00 ft	Diameter: 3.80 inches	Volume: 59.39 bbl	Tool Weight: 2000.00 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: 148.00 ft	Diameter: 2.25 inches	Volume: 0.73 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 60.12 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 65000.00 lb
Depth to Top Packer:	4381.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	74.00 ft			
Tool Length:	103.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4353.00	
Shut In Tool	5.00			4358.00	
Hydraulic tool	5.00			4363.00	
Jars	5.00			4368.00	
Safety Joint	3.00			4371.00	
Packer	5.00			4376.00	29.00 Bottom Of Top Packer
Packer	5.00			4381.00	
Stubb	1.00			4382.00	
Recorder	0.00	6669	Outside	4382.00	
Recorder	0.00	6772	Outside	4382.00	
Perforations	4.00			4386.00	
Change Over Sub	1.00			4387.00	
Drill Pipe	63.00			4450.00	
Change Over Sub	1.00			4451.00	
Bullnose	4.00			4455.00	74.00 Bottom Packers & Anchor

Total Tool Length: 103.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering, Inc.

12-19s-29w Lane, KS

562 West State Rd 4
Olmitz, KS 67564

Thomas-Paris #1-12

Job Ticket: 49809

DST#: 7

ATTN: Bob Lew ellyn

Test Start: 2012.10.13 @ 06:13:00

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: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2200.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	Mud 100m	0.010

Total Length: 2.00 ft Total Volume: 0.010 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

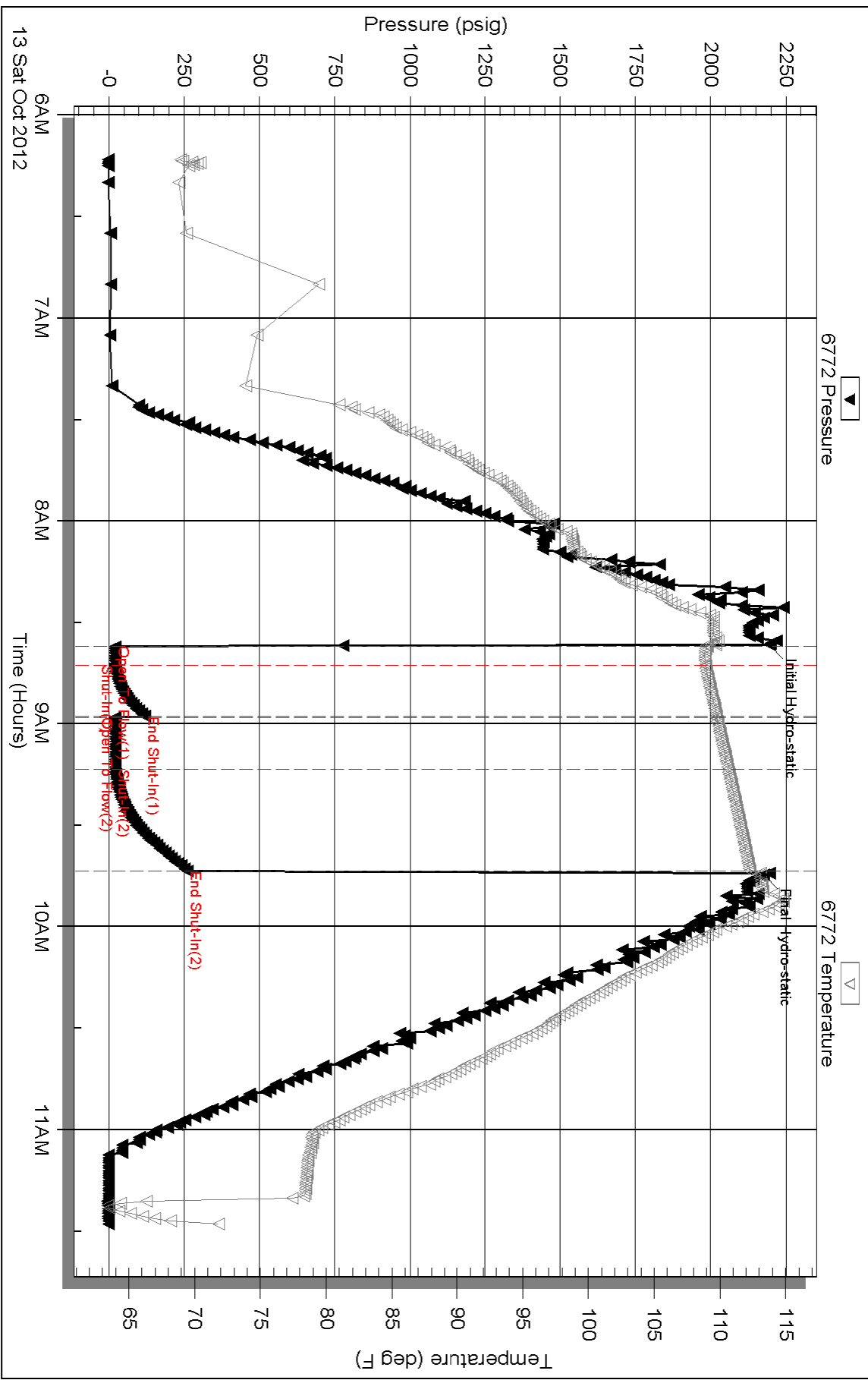
Serial #: 6772

Outside Larson Engineering, Inc.

Thomas-Paris #1-12

DST Test Number: 7

Pressure vs. Time

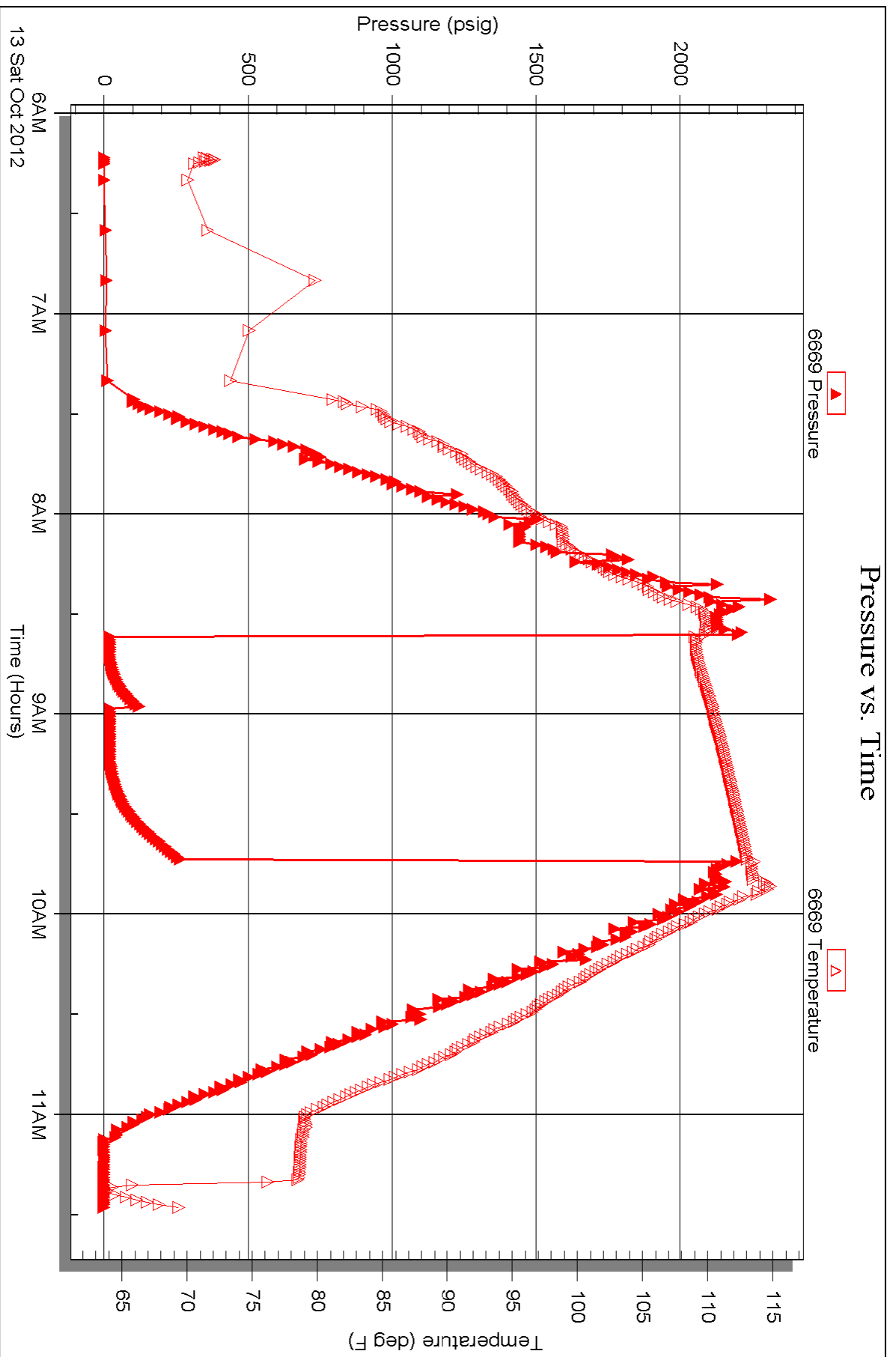


Serial #: 6669

Outside Larson Engineering, Inc.

Thomas-Paris #1-12

DST Test Number: 7





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 49803

4/10

Well Name & No. Thomas - Paris #1-12 Test No. 1 Date 10/8/12
 Company Lorson Engineering, Inc. Elevation 2803 KB 2796 GL
 Address 562 West State Rd 4 Olmitz, KS 67564
 Co. Rep / Geo. Bob Lewellyn Rig HD #3
 Location: Sec. 12 Twp. 19S Rge. 29W Co. Lane State Ks

Interval Tested 4074 - 4089 Zone Tested Lansing "E"
 Anchor Length 15' Drill Pipe Run 3921 Mud Wt. 9.1
 Top Packer Depth 4070 Drill Collars Run 148 Vis 57
 Bottom Packer Depth 4074 Wt. Pipe Run Ø WL 7.2
 Total Depth 4089 Chlorides 2900 ppm System LCM 2
 Blow Description Weak surface blow.
No return.
4" blow.
No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	<u>OM</u>	<u>20</u>		<u>80</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 2 BHT 114 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2017</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>17:15</u>
(B) First Initial Flow <u>16</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>18:26</u>
(C) First Final Flow <u>16</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>20:35</u>
(D) Initial Shut-In <u>884</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>22:26</u>
(E) Second Initial Flow <u>18</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0028</u>
(F) Second Final Flow <u>21</u>	<input checked="" type="checkbox"/> Mileage <u>64 R/T</u> 99.20	Comments
(G) Final Shut-In <u>976</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2005</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>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	Total <u>1674.20</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1674.20</u>	

Approved By [Signature] Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **49804**

4/10

Well Name & No. Thomas-Paris #1-12 Test No. 2 Date 10/9/12
 Company Larsen Engineering, Inc Elevation 2803 KB 2796 GL
 Address 562 west state Rd 4 Olmitz, KS 67564
 Co. Rep / Geo. Bob Lewellyn Rig HD #3
 Location: Sec. 12 Twp. 19S Rge. 29W Co. Lane State KS

Interval Tested 4093-4100 Zone Tested Lensing "F"
 Anchor Length 7' Drill Pipe Run 3921 Mud Wt. 9.2
 Top Packer Depth 4089 Drill Collars Run 148 Vis 55
 Bottom Packer Depth 4093 Wt. Pipe Run Ø WL 7.2
 Total Depth 4100 Chlorides 2900 ppm System LCM 2

Blow Description Weak surface blow.
No return.
No blow.
No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>M (oil spots)</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 1 BHT 109 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2029 Test 1250 T-On Location 7:15
 (B) First Initial Flow 14 Jars 250 T-Started 8:00
 (C) First Final Flow 14 Safety Joint 75 T-Open 9:41
 (D) Initial Shut-In 19 Circ Sub N/C T-Pulled 10:47
 (E) Second Initial Flow 14 Hourly Standby T-Out 12:22
 (F) Second Final Flow 15 Mileage 64 R/T 99.20 Comments
 (G) Final Shut-In 17 Sampler
 (H) Final Hydrostatic 1949 Straddle Ruined Shale Packer

Initial Open 5 Shale Packer Ruined Packer
 Initial Shut-In 15 Extra Packer Extra Copies
 Final Flow 15 Extra Recorder Sub Total 0
 Final Shut-In 30 Day Standby Total 1674.20
 Accessibility MP/DS/ Disc't
 Sub Total 1674.20

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 49805

Well Name & No. Thomas-Paris #1-12 Test No. 3 Date 10/10/12
 Company Lorson Engineering, Inc Elevation 2803 KB 2796 GL
 Address 562 West State Rd 4 Omitz, Ks 67564
 Co. Rep / Geo. Bob Lewellyn Rig HD #3
 Location: Sec. 12 Twp. 19S Rge. 29W Co. Lane State Ks

Interval Tested 4178 - 4205 Zone Tested Lansing "H"
 Anchor Length 27' Drill Pipe Run 4015 Mud Wt. 9.3
 Top Packer Depth 4174 Drill Collars Run 148 Vis 53
 Bottom Packer Depth 4178 Wt. Pipe Run Ø WL 8.0
 Total Depth 4205 Chlorides 3600 ppm System LCM 2
 Blow Description Bob @ 1 min.
4 3/4" return.
Bob @ 1 min.
3" return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>160</u>	<u>GO</u>	<u>20</u>	<u>80</u>		
<u>570</u>	<u>GO</u>	<u>40</u>	<u>60</u>		
<u>400</u>	<u>GO</u>	<u>30</u>	<u>70</u>		
Rec	Feet of <u>120 GIP</u>	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

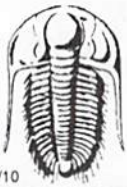
Rec Total 1130 BHT 128 Gravity 32 API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic	<u>2101</u>	<input checked="" type="checkbox"/> Test	<u>1250</u>	T-On Location	<u>00:10</u>
(B) First Initial Flow	<u>177</u>	<input checked="" type="checkbox"/> Jars	<u>250</u>	T-Started	<u>1:09</u>
(C) First Final Flow	<u>235</u>	<input checked="" type="checkbox"/> Safety Joint	<u>75</u>	T-Open	<u>3:28</u>
(D) Initial Shut-In	<u>848</u>	<input checked="" type="checkbox"/> Circ Sub	<u>N/C</u>	T-Pulled	<u>4:35</u>
(E) Second Initial Flow	<u>277</u>	<input type="checkbox"/> Hourly Standby		T-Out	<u>7:52</u>
(F) Second Final Flow	<u>440</u>	<input checked="" type="checkbox"/> Mileage	<u>64 K/T</u> 99.20	Comments	
(G) Final Shut-In	<u>841</u>	<input type="checkbox"/> Sampler			
(H) Final Hydrostatic	<u>2082</u>	<input type="checkbox"/> Straddle		<input type="checkbox"/> Ruined Shale Packer	
		<input type="checkbox"/> Shale Packer		<input type="checkbox"/> Ruined Packer	
Initial Open	<u>5</u>	<input type="checkbox"/> Extra Packer		<input type="checkbox"/> Extra Copies	
Initial Shut-In	<u>15</u>	<input type="checkbox"/> Extra Recorder		Sub Total	<u>0</u>
Final Flow	<u>15</u>	<input type="checkbox"/> Day Standby		Total	<u>1674.20</u>
Final Shut-In	<u>30</u>	<input type="checkbox"/> Accessibility		MP/DST Disc't	
		Sub Total	<u>1674.20</u>		

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 49806

4/10

Well Name & No. Thomas - Paris #1-12 Test No. 4 Date 10/10/12
 Company Larson Engineering, Inc Elevation 2803 KB 2796 GL
 Address 562 West State Rd 4 Olinitz, Ks 67564
 Co. Rep / Geo. Bob Jewellyn Rig HD #3
 Location: Sec. 12 Twp. 19S Rge. 29W Co. Lane State Ks

Interval Tested ~~4218~~ 4215-4240 Zone Tested Lansing "I"
 Anchor Length 25' Drill Pipe Run 4047 Mud Wt. 9.2
 Top Packer Depth 4211 Drill Collars Run 148 Vis 59
 Bottom Packer Depth 4215 Wt. Pipe Run Ø WL 7.6
 Total Depth 4240 Chlorides 2500 ppm System LCM 2
 Blow Description 1/4" blow.
No return.
Weak surface blow.
No return.

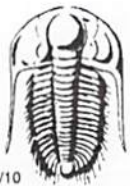
Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>Mud (oil spots)</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 30 BHT 112 Gravity — API RW — @ — F Chlorides — ppm

(A) Initial Hydrostatic <u>2081</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>17:00</u>
(B) First Initial Flow <u>16</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>17:12</u>
(C) First Final Flow <u>20</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>19:13</u>
(D) Initial Shut-In <u>733</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>20:19</u>
(E) Second Initial Flow <u>22</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>22:16</u>
(F) Second Final Flow <u>33</u>	<input checked="" type="checkbox"/> Mileage <u>64 RT</u> 99.20	Comments
(G) Final Shut-In <u>730</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2073</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>1674.20</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1674.20</u>	

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 49807

4/10

Well Name & No. Thomas-Paris #1-12 Test No. 5 Date 10/11/12
 Company Lorson Engineering, Inc Elevation 2803 KB 2796 GL
 Address 562 west State Rd 4 Olinite, KS 67564
 Co. Rep / Geo. Bob Lewellen Rig HD#3
 Location: Sec. 12 Twp. 19S Rge. 29W Co. Lane State KS

Interval Tested 4318-4331 Zone Tested Lansing "L"
 Anchor Length 13 Drill Pipe Run 4172 Mud Wt. 9.2
 Top Packer Depth 4314 Drill Collars Run 148 Vis 50
 Bottom Packer Depth 4318 Wt. Pipe Run Ø WL 8.0
 Total Depth 4331 Chlorides 2300 ppm System LCM 2

Blow Description Weak surface blow.
No return.
No blow.
No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>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 1 BHT 112 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2139</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>14:00</u>
(B) First Initial Flow <u>14</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>14:19</u>
(C) First Final Flow <u>16</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>16:27</u>
(D) Initial Shut-In <u>17</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>17:33</u>
(E) Second Initial Flow <u>16</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>19:40</u>
(F) Second Final Flow <u>16</u>	<input checked="" type="checkbox"/> Mileage <u>64 R/T</u> 99.20	Comments
(G) Final Shut-In <u>17</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2128</u>	<input type="checkbox"/> Straddle	

Initial Open <u>5</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Shale Packer
Initial Shut-In <u>15</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
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>1924.20</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1924.20</u>	

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 49808

Well Name & No. Thomas-Paris #1-12 Test No. 6 Date 10/12/12
 Company Larsen Engineering, Inc Elevation 2803 KB 2796 GL
 Address 562 west state Rd 4 Olmitz, KS 67564
 Co. Rep / Geo. Bob Levellyn Rig HD#3
 Location: Sec. 12 Twp. 19S Rge. 2W Co. Lane State KS

Interval Tested 4352 - 4380 Zone Tested Pleasanton
 Anchor Length 28' Drill Pipe Run 4202 Mud Wt. 9.1
 Top Packer Depth 4348 Drill Collars Run 148 Vis 55
 Bottom Packer Depth 4352 Wt. Pipe Run Ø WL 8.0
 Total Depth 4380 Chlorides 2300 ppm System LCM 2
 Blow Description 5'6lw.

Weak surface return.
BoB @ 17min.
Weak surface return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>Oil</u>		<u>100</u>		
<u>149</u>	<u>GOWCM</u>	<u>5</u>	<u>5</u>	<u>40</u>	<u>50</u>
<u>60</u>	<u>GOWCM</u>	<u>5</u>	<u>5</u>	<u>20</u>	<u>70</u>
<u>135</u>	<u>GOMCW</u>	<u>5</u>	<u>5</u>	<u>60</u>	<u>30</u>
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 345 BHT 126 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2184</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>5:20</u>
(B) First Initial Flow <u>29</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>5:40</u>
(C) First Final Flow <u>82</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>7:58</u>
(D) Initial Shut-In <u>337</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>9:49</u>
(E) Second Initial Flow <u>90</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>11:46</u>
(F) Second Final Flow <u>169</u>	<input checked="" type="checkbox"/> Mileage <u>64 RT</u> 99.20	Comments
(G) Final Shut-In <u>333</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2161</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>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	Total <u>1924.20</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1924.20</u>	

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 49809

Well Name & No. Thomas-Paris #1-12 Test No. 7 Date 10/13/12
 Company Larsen Engineering, Inc Elevation 2803 KB 2796 GL
 Address 562 West State Rd 4 Olmitz, KS 67564
 Co. Rep / Geo. Bob Levellyn Rig HD #3
 Location: Sec. 12 Twp. 19S Rge. 29W Co. Lane State KS

Interval Tested 4381-4455 Zone Tested Altamont
 Anchor Length 74' Drill Pipe Run 4234 Mud Wt. 9.3
 Top Packer Depth 4377 Drill Collars Run 148 Vis 48
 Bottom Packer Depth 4381 Wt. Pipe Run Ø WL 7.2
 Total Depth 4455 Chlorides 2200 ppm System LCM 1.5

Blow Description Weak surface blow.
No return.
No blow.
No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	<u>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 2 BHT 112 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2195</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>3:20</u>
(B) First Initial Flow <u>21</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>6:13</u>
(C) First Final Flow <u>21</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>8:37</u>
(D) Initial Shut-In <u>20</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>9:43</u>
(E) Second Initial Flow <u>21</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>11:27</u>
(F) Second Final Flow <u>22</u>	<input checked="" type="checkbox"/> Mileage <u>64 R/T</u> 99.20	Comments <u>Loaded Tools</u>
(G) Final Shut-In <u>262</u>	<input type="checkbox"/> Sampler	<u>Wait on cut stuck in mud</u>
(H) Final Hydrostatic <u>2177</u>	<input type="checkbox"/> Straddle	<input checked="" type="checkbox"/> Ruined Shale Packer 350

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

Shale Packer 250
 Extra Packer
 Extra Recorder
 Day Standby
 Accessibility

Sub Total 1924.20

MP/DST Disc't —

Total 2274.20

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Robert C. Lewellyn

Consulting Petroleum Geologist

P. O. Box 375
Kechi, Kansas 67067-0375
316-518-0495
boblewellyn@yahoo.com

GEOLOGICAL REPORT

Larson Engineering, Inc.

No. 1-12 Thomas-Paris
2048' FSL & 2439' FEL Sec. 12-19S-29W
Lane County, Kansas

CONTRACTOR: H D Drilling, LLC Rig 3
SPUDDED: October 02, 2012
DRILLING COMPLETED: October 14, 2012
SURFACE CASING: 8 5/8" @ 261 KBM/175 sx.
ELECTRIC LOGS: DIL CNL/CDL MEL
ELEVATIONS: 2803 KB 2796 GL

FORMATION TOPS: (Electric Log)

Anhydrite	2131 (+ 672)
Base Anhydrite	2164 (+ 639)
Heebner Shale	3950 (-1147)
Lansing-Kansas City Group	3990 (-1187)
Muncie Creek Shale	4177 (-1374)
Stark Shale	4280 (-1477)
Hushpuckney Shale	4318 (-1515)
Base Kansas City	4365 (-1562)
Marmaton	4382 (-1579)
Altamont "A"	4442 (-1639)
Pawnee	4482 (-1679)
Myrick Station	4507 (-1704)
Fort Scott	4532 (-1729)
Cherokee	4556 (-1753)
Mississippian	4622 (-1819)
Electric Log Total Depth	4676 (-1873)

Samples were examined microscopically from 3800 to Rotary Total Depth. Samples were examined wet and dry and samples from potentially productive zones were viewed under a fluoroscope and checked for oil cut. Following is a description of zones of interest, Drill Stem Tests, etc. For a complete lithologic description of all formations refer to the sample log in the back pages of this report.

Lansing-Kansas City Zones:

3990-4008 (A Zone)

Limestone, buff to tan, dense to finely crystalline and chalky, some oolitic, poor to fair intercrystalline and interoolitic porosity, abundant dead stain, no show of live oil, considerable chert, medium gray, fresh, opaque.

4029-4038 (B Zone)

Limestone, cream to buff, dense to finely crystalline with much chalky, slightly fossiliferous, scattered poor intercrystalline porosity, scattered dead stain, no show of live oil.

4064-4069 (C/D Zone)

Limestone, cream to buff to tan, some brown, dense to finely crystalline, partly oolitic, partly chalky, poor intercrystalline porosity, trace of poor ooliticastic porosity, trace of scattered dead stain, no show of live oil.

4086-4090 (E Zone)

Limestone, cream to buff, finely crystalline, partly oolitic and fossiliferous, partly friable, some dense, fair intercrystalline and vugular porosity, scattered fair spotted stain, some stain on fracture faces, fair show of free oil, good odor, fair fluorescence, good cut, trace of scattered dead stain.

Drill Stem Test No. 1 4074-4089

5-15-30-60; weak surface blow, no blowback; quarter inch blow on second flow, no blowback. Recovered two feet of oily mud (20% oil, 80% mud). ISIP 884# FSIP 976# IFP 16-16# FFP 18-21# IHP 2017# FHP 2005# BHT 114 degrees F.

4092-4096 (F Zone)

Limestone, buff to tan, some gray, dense to finely crystalline, fossiliferous in part, fair intercrystalline and vugular porosity, some scattered interfossil porosity, fair spotted stain, fair show of free oil, good odor, fair fluorescence, fair to good cut, some scattered chalky.

Drill Stem Test No. 2 4093-4100

5-15-15-30; weak surface blow on first flow, no blowback; blow did not return on second flow. Recovered one foot of mud with oil spots. ISIP 19# FSIP 17# IFP 14-14# FFP 14-15# IHP 2029# FHP 1949# BHT 109 degrees F.

4111-4134 (G Zone)

Limestone, tan, finely crystalline and oolitic, good ooliticastic porosity, no show of oil. Lower portion is mostly cream dense and chalky limestone.

4192-4196 (H Zone)

Limestone, cream to buff to tan, some brown, dense to finely crystalline and partly fossiliferous,

scattered poor to fair vugular and intercrystalline porosity, fair spotted stain, fair show of free oil, fair to good odor, poor fluorescence, fair to good cut, trace of dead stain, some chalky limestone.

Drill Stem Test No. 3 4178-4205

5-15-15-30; blow off bottom of bucket in one minute, 4 ¾ inch blowback; blow off bottom in one minute, 3 inch blowback. Recovered 120 feet of gas in drill pipe, 160 feet of clean gassy oil (20% gas, 80% oil), 570 feet of clean gassy oil (40% gas, 60% oil), 400 feet of clean gassy oil (30% gas, 70% oil). ISIP 848# FSIP 841# IFP 177-235# FFP 277-440# IHP 2101# FHP 2082# BHT 128 degrees F. 32 gravity API.

4217-4240 (I Zone)

Limestone, buff to tan to brown, dense to finely crystalline, very slightly oolitic, partly fossiliferous, fair vugular and interfossil porosity, fair to good spotted stain, good show of free oil, fair to good odor, fair fluorescence, good cut, trace of brown fossiliferous chert.

Drill Stem Test No. 4 4215-4240

5-15-15-30; quarter inch blow on first flow, no blowback; weak surface blow on second flow, no blowback. Recovered 30 feet of mud with oil spots. ISIP 733# FSIP 730# IFP 16-20# FFP 22-33# IHP 2081# FHP 2073# BHT 112 degrees F.

4254-4261 (J Zone)

Limestone, cream to buff to tan, finely crystalline and oolitic, good ooliticastic porosity, trace of very poor spotted stain, very slight show of free oil, faint to fair odor, poor fluorescence, poor cut.

4264-4268 (J-2 Zone)

Limestone, buff to tan, dense to finely crystalline, partly oolitic, scattered poor intercrystalline porosity, some vugular and "edge" porosity, poor spotted stain, very slight show of free oil, faint to fair odor, poor fluorescence, poor to fair cut, considerable cream chalky limestone, tight with no show of oil.

4289-4302 (K Zone)

Limestone, cream to buff, some tan, dense to finely crystalline and fossiliferous, some chalky, fair intercrystalline and interfossil porosity, trace of poor to fair vugular porosity, very poor spotted stain, very slight show of free oil, faint to fair odor, poor fluorescence, poor to fair cut.

4321-4323 (Middle Creek Zone)

Limestone, buff to tan, some gray, dense to finely crystalline and partly fossiliferous, poor to fair scattered vugular and intercrystalline porosity, some interfossil porosity, poor to fair spotted stain, slight show of free oil, fair odor, poor fluorescence, poor to fair cut

4325-4330 (L Zone)

Limestone, buff to tan, some brown, dense to finely crystalline, partly fossiliferous, partly oolitic, scattered poor intercrystalline porosity with some poor to fair vugular porosity, fair spotted stain, slight show of free oil, fair odor, poor fluorescence, fair cut, abundant oolitic limestone with dark oolites.

Drill Stem Test No. 5 4318-4331

5-15-15-30; weak surface blow, no blowback; blow did not return on second flow, no blowback.
Recovered 1 foot of mud. ISIP 17# FSIP 17# IFP 14-16# FFP 16-16# IHP 2139# FHP 2128# BHT
112 degrees F.

4370-4376 (Pleasanton Zone)

Limestone, buff to tan, some brown, dense to finely crystalline, slightly fossiliferous, fair vugular and intercrystalline porosity, poor to fair spotted stain, fair show of free oil, fair odor, poor fluorescence, poor to fair cut, some scattered dead stain, some slightly chalky.

Drill Stem Test No. 6 4352-4380

5-15-30-60; five inch blow on first flow, weak surface blowback; blow off bottom of bucket in 17 minutes on second flow, weak surface blowback. Recovered one foot of oil, 149 feet of gas, oil, and water cut mud (5% gas, 5% oil, 40% water, 50% mud), 60 feet of oil, gas, and water cut mud (5% gas, 5% oil, 20% water, 70% mud), 135 feet of gas, oil, and mud cut water (5% gas, 5% oil, 60% water, 30% mud). ISIP 337# FSIP 333# IFP 29-82# FFP 90-169# IHP 2184# FHP 2161# BHT 126 degrees F.

4382-4394 (Marmaton Zone)

Limestone, buff to tan, some brown, finely crystalline and partly fossiliferous, some dense, poor intercrystalline and scattered vugular porosity, trace of poor spotted stain with some dark tarry stain, very slight show of free oil, faint fleeting odor, poor fluorescence, poor cut.

4442-4448 (Altamont "A" Zone)

Limestone, cream to buff to tan, dense to finely crystalline and slightly fossiliferous, scattered poor to fair intercrystalline and vugular porosity, fair spotted stain, fair show of free oil, fair odor, poor to fair fluorescence, fair cut.

Drill Stem Test No. 7 4381-4455

5-15-15-30; weak surface blow on first flow, no blowback; blow did not return on second flow.
Recovered two feet of mud. ISIP 120# FSIP 282# IFP 21-21# FFP 21-22# IHP 2195# FHP 2177#
BHT 112 degrees F.

4482-4504 (Pawnee Zone)

Limestone, buff to tan, dense to finely crystalline, fossiliferous and slightly oolitic, zone is mostly tight with poor spotted stain in one or two pieces, no free oil, no odor, no fluorescence, no cut. Some dense-oolitic with dark oolites.

4507-4526 (Myrick Station Zone)

Limestone, cream to buff, dense to finely crystalline, fossiliferous and partly oolitic, chalky in part, mostly tight with a rare trace of dead stain, no show of live oil. Lower portion contains limestone, gray, dense, with chert, gray, fresh, opaque

4532-4556 (Fort Scott Zone)

Limestone, buff to tan, dense and chalky, some scattered finely crystalline, trace oolitic, zone is mostly tight with rare trace of scattered dead stain, some medium gray chert as above.

4556-4588 (Cherokee Lime Zones)

Limestone, tan to brown, mostly dense, some finely crystalline, interval is mostly tight with no shows of oil, trace of chert.

4588-4622 (Johnson Zone)

Limestone, tan to brown, trace of gray, dense to finely crystalline, slightly fossiliferous, interval is mostly tight, few pieces with very poor spotted stain, questionable odor, no free oil, no fluorescence, no cut.

4622-4640 (Mississippi Zone)

Limestone, cream to buff to tan, dense to finely crystalline and partly chalky, soft and friable in part, zone is mostly tight with no shows of oil.

4640-4676 (Mississippi Dolomite)

Dolomite, tan, fine to medium crystalline, scattered fair intercrystalline porosity, no shows of oil, some scattered chert, light gray, opaque, fresh.

Electric Log Total Depth 4676

Conclusions and Recommendations:

Several zones in the Thomas-Paris No. 1-12 appear capable of producing oil in commercial quantities. Production casing was cemented in the well and completion operations should be commenced in accordance with Tom Larson and Kyle Carter.

Respectfully Submitted,

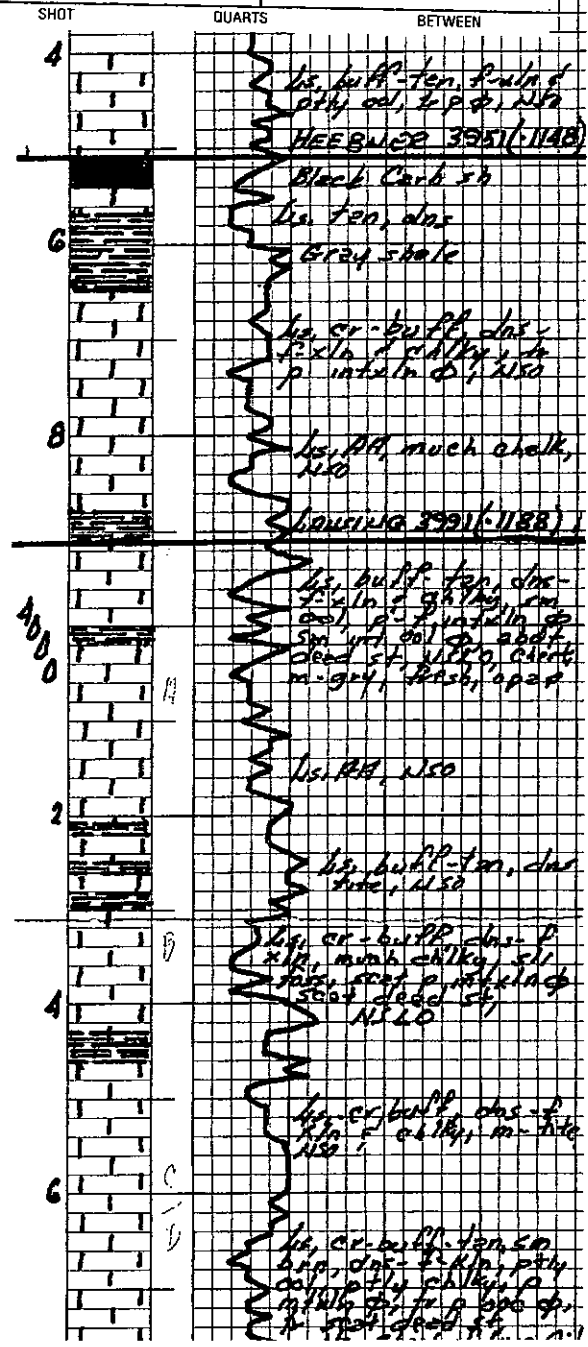
Robert C. Lewellyn
Consulting Petroleum Geologist

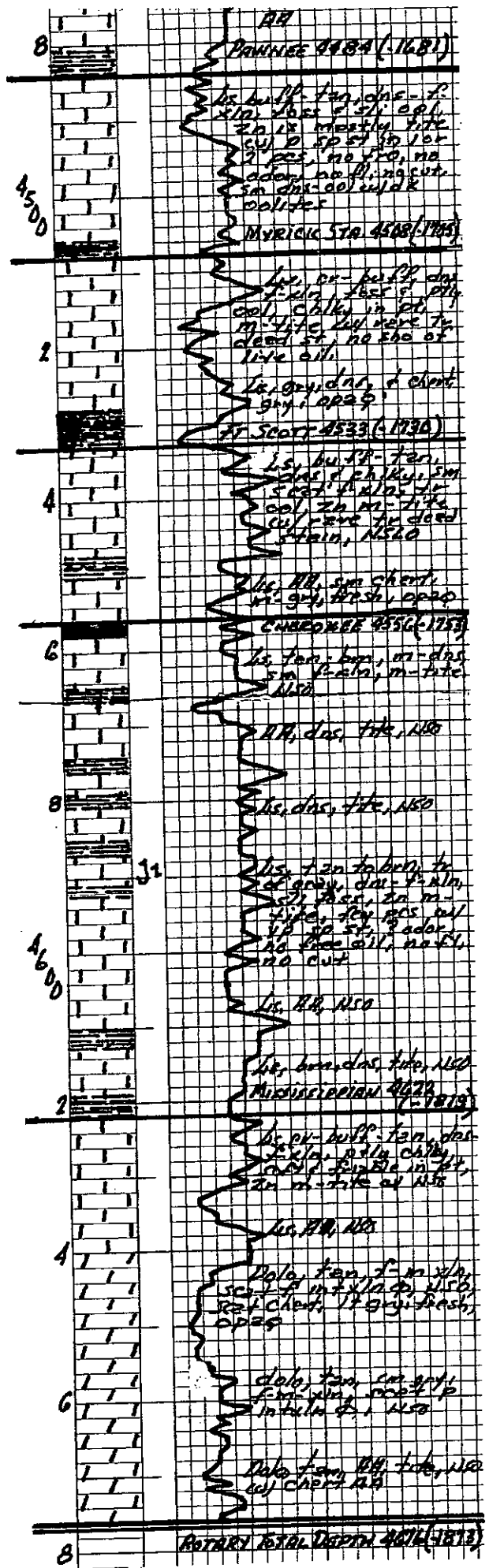
RCL:me

STATE **KANSAS**
 COUNTY **LANE**
 BLOCK **LANE**
 SEC. **12**
 T. **19S** R. **29W**
 ALTITUDE **2803 KB**
 PRODUCTION **Oil**

COMPANY **LARSON ENGINEERING, Inc.**
 FARM **THOMAS-PARIS** WELL NO. **1-12**
 SURVEY **2048' FSL E 2439' FEL**
 TOTAL DEPTH **4676**
 CONTRACTOR **HD Drilling, LLC #3**
 COMMENCED **10-02-12**
 COMPLETED **10-14-12**
 REMARKS **Robert C. Sewallyn - Geologist**

CASING RECORD
8 5/8" @ 261/KBW / 175.5K





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



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

Sam Brownback, Governor

January 29, 2013

Thomas Larson
Larson Engineering, Inc. dba Larson Operating
Company
562 W STATE RD 4
OLMITZ, KS 67564-8561

Re: ACO1
API 15-101-22402-00-00
Thomas-Paris 1-12
SE/4 Sec.12-19S-29W
Lane County, Kansas

Dear Production Department:

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

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

Respectfully,
Thomas Larson