

DRILL STEM TEST REPORT

Prepared For: **Larson Operating Co**

562 West Highway 4
Olmitz Ks 67564-8561

ATTN: Tom Fertal

21-18s-9w Rice Ks

Schoonover Trust #1-21

Start Date: 2004.10.04 @ 01:30:55

End Date: 2004.10.04 @ 09:40:24

Job Ticket #: 18517 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



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TESTING, INC.

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Test Start: 2004.10.04 @ 01:30:55

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:27:54

Time Test Ended: 09:40:24

Test Type: Conventional Bottom Hole

Tester: Ray Schwager

Unit No: 28

Interval: **3221.00 ft (KB) To 3265.00 ft (KB) (TVD)**

Total Depth: 3265.00 ft (KB) (TVD)

Hole Diameter: 7.85 inches Hole Condition: Poor

Reference Elevations: 1729.00 ft (KB)

1724.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6668

Inside

Press@RunDepth: 121.29 psig @ 3232.01 ft (KB)

Start Date: 2004.10.04

End Date:

2004.10.04

Capacity: 7000.00 psig

Last Calib.: 2004.10.04

Start Time: 01:30:55

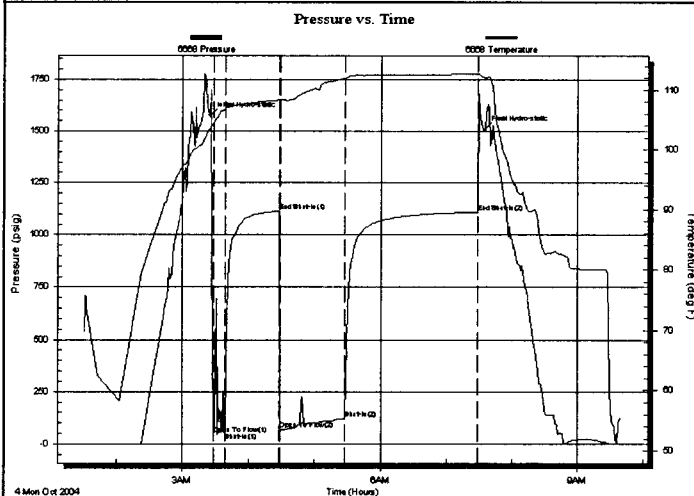
End Time:

09:40:24

Time On Btm: 2004.10.04 @ 03:24:24

Time Off Btm: 2004.10.04 @ 07:34:24

TEST COMMENT: IFP-w k to a fr bl 1/2" to 4" bl Sampler Data: PSI 1000 2500 ML oil
FFP-w k to strg in 40 min 500 ML mud 1000 ML gas
Times 15-45-60-120
no bl on sh



PRESSURE SUMMARY

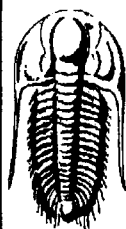
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1576.76	103.42	Initial Hydro-static
4	45.19	104.29	Open To Flow (1)
14	57.01	106.77	Shut-In(1)
64	1114.20	108.30	End Shut-In(1)
64	67.61	108.10	Open To Flow (2)
124	121.29	111.88	Shut-In(2)
244	1109.45	112.66	End Shut-In(2)
250	1509.37	112.06	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
100.00	clean oil	1.40
170.00	MGO 30%gas 54%oil 16%mud	2.38
0.00	360' GIP	0.00

Gas Rates

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

Larson Operating Co

562 West Highway 4
Olmitz Ks 67564-8561

ATTN: Tom Fertal

Schoonover Trust #1-21

21-18s-9w Rice Ks

Job Ticket: 18517

DST#: 1

Test Start: 2004.10.04 @ 01:30:55

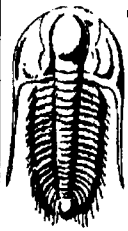
Tool Information

Drill Pipe:	Length: 3206.00 ft	Diameter: 3.80 inches	Volume: 44.97 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: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 45000.00 lb
			<u>Total Volume: 44.97 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 36000.00 lb
Depth to Top Packer:	3221.00 ft			Final 36000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	44.02 ft			
Tool Length:	74.02 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			3192.00	
Shut In Tool	5.00			3197.00	
Sampler	2.00			3199.00	
Hydraulic tool	5.00			3204.00	
Jars	5.00			3209.00	
Safety Joint	2.00			3211.00	
Packer	5.00			3216.00	30.00 Bottom Of Top Packer
Packer	5.00			3221.00	
Stubb	1.00			3222.00	
Perforations	10.00			3232.00	
Recorder	0.01	6668	Inside	3232.01	
Perforations	30.00			3262.01	
Recorder	0.01	13534	Outside	3262.02	
Bullnose	3.00			3265.02	44.02 Bottom Packers & Anchor

Total Tool Length: 74.02



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FLUID SUMMARY

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Job Ticket: 18517

DST#: 1

ATTN: Tom Fertal

Test Start: 2004.10.04 @ 01:30:55

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

46 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbl

Water Loss: 10.75 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6600.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
100.00	clean oil	1.403
170.00	MGO 30%gas 54%oil 16%mud	2.385
0.00	360' GIP	0.000

Total Length: 270.00 ft

Total Volume: 3.788 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6668

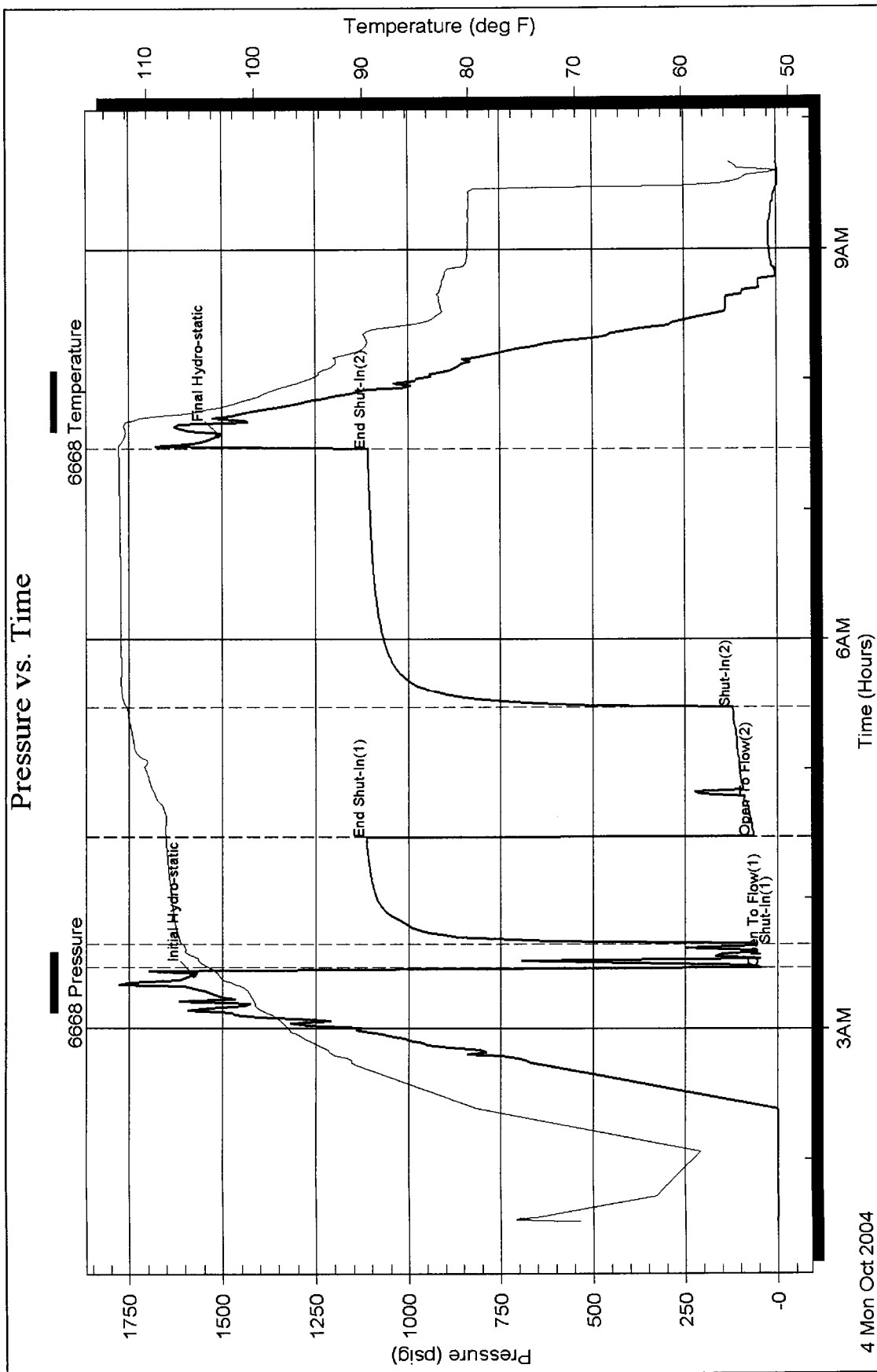
Inside

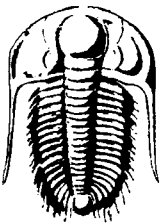
Larson Operating Co

21-18s-9w Rice Ks

DST Test Number: 1

Pressure vs. Time





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

700
6810

Nº 18517 ✓

05/03

Test Ticket

Well Name & No. Schoonover Trust #1-21 Test No. 1 Date 10-4-04
 Company LARSON OPERATING COMPANY Zone Tested ARBuckle
 Address 562 West Highway 4 Olmitz, KS 67564-8561 Elevation 1729 KB 1724 GL
 Co. Rep / Geo. Tom Cont. PETROMARK rig 1 Est. Ft. of Pay — Por. — %
 Location: Sec. 21 Twp. 18^s Rge. 9^w Co. Rice State Ko
 No. of Copies Req Distribution Sheet (Y, N) — Turnkey (Y, N) — Evaluation (Y, N) —

Interval Tested 3221-3265 Initial Str Wt./Lbs. 36000 Unseated Str Wt./Lbs. 36000
 Anchor Length 44 Wt. Set Lbs. 25000 Wt. Pulled Loose/Lbs. 45000
 Top Packer Depth 3216 Tool Weight 2500
 Bottom Packer Depth 3221 Hole Size 7 7/8" — Rubber Size 6 3/4" —
 Total Depth 3265 Wt. Pipe Run — Drill Collar Run —
 Mud Wt. 9.1 LCM — Vis. 59 WL 10.8 Drill Pipe Size 4 1/2 XH Ft. Run 3206
 Blow Description IFP - WEAK TO A FAIR BLOW 1/2" TO 4" BLOW
FFP - WEAK TO STRONG IN 40 MIN
ISIP - NO BLOW
FSIP - NO BLOW

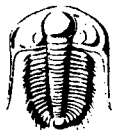
Recovery - Total Feet 270 GIP 360 Ft. in DC — Ft. in DP 270
 Rec. 100 Feet of CLEAN O.I.L %gas — %oil — %water — %mud —
 Rec. 170 Feet of GMO 30 %gas 54 %oil — %water 16 %mud —
 Rec. — Feet of — %gas — %oil — %water — %mud —
 Rec. — Feet of — %gas — %oil — %water — %mud —
 Rec. — Feet of — %gas — %oil — %water — %mud —
 BHT 112 °F Gravity 46 °API D @ 60 °F Corrected Gravity 46 °API
 RW — @ — °F Chlorides — ppm Recovery — Chlorides 6600 ppm System

	AK-1	Alpine			
(A) Initial Hydrostatic Mud	<u>1576</u>	PSI	Recorder No.	<u>6668</u>	Test ✓ <u>900</u>
(B) First Initial Flow Pressure	<u>45</u>	PSI	(depth)	<u>3232</u>	Elec. Rec. ✓ <u>—</u>
(C) First Final Flow Pressure	<u>57</u>	PSI	Recorder No.	<u>13534</u>	Jars ✓ <u>200</u>
(D) Initial Shut-In Pressure	<u>1114</u>	PSI	(depth)	<u>3262</u>	Safety Jt. ✓ <u>5^b</u>
(E) Second Initial Flow Pressure	<u>67</u>	PSI	Recorder No.	<u>—</u>	Circ Sub <u>—</u>
(F) Second Final Flow Pressure	<u>121</u>	PSI	(depth)	<u>—</u>	Sampler <u>—</u>
(G) Final Shut-In Pressure	<u>1109</u>	PSI	Initial Opening	<u>15</u>	Straddle <u>—</u>
(Q) Final Hydrostatic Mud	<u>1509</u>	PSI	Initial Shut-In	<u>45</u>	Ext. Packer <u>—</u>
			Final Flow	<u>60</u>	Shale Packer <u>—</u>
			Final Shut-In	<u>120</u>	Mileage ✓ <u>162 RT</u> <u>137.70</u>
			T-On Location	<u>0000</u>	Sub Total: <u>1287.70</u>
			T-Started	<u>0130</u>	Std. By <u>1.5</u> <u>45</u>
			T-Open	<u>0330</u>	Other <u>—</u>
			T-Pulled	<u>0730</u>	Total: <u>1332.70</u>
			T-Out	<u>9:40</u>	

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Approved By [Signature]

Our Representative RAY SCHWAGER THANK YOU



TRILOBITE TESTING, INC.

P.O. Box 362 • Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 18517 Date 10-4-04
Company Name LARSON OPERATING COMPANY
Lease SCHWARTZ TRUST #1-21 Test No. 1
County Rice Sec. 21 Twp. 18^s Rng. 9^w

SAMPLER RECOVERY

Gas 1000 ML Chlorides 6600 ppm.
Oil 2500 ML Resistivity .56 ohms @ 70 F
Mud 500 ML Viscosity 59
Water _____ ML Mud Weight 9.1
Other _____ ML Filtrate 10.8
Pressure 1000 ML Other _____
Total _____ ML

PIT MUD ANALYSIS

SAMPLER ANALYSIS

Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.
Gravity _____ corrected @60F

PIPE RECOVERY

TOP
Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.

MIDDLE
Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.

BOTTOM
Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.

CHART PAGE

This is a photocopy of the actual AK-1 recorder chart

