



DRILL STEM TEST REPORT

Prepared For: **Slawson Exploration Co Inc**

204 N Robinson Ave STE 2300
Oklahoma City OK 73102

ATTN: Pete Debenham

David Ketterl #1-30

30-1s-30w Decatur,KS

Start Date: 2015.07.24 @ 06:00:00

End Date: 2015.07.24 @ 13:08:00

Job Ticket #: 62803 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.07.28 @ 09:51:23



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Slawson Exploration Co Inc
 204 N Robinson Ave STE 2300
 Oklahoma City OK 73102
 ATTN: Pete Debenham

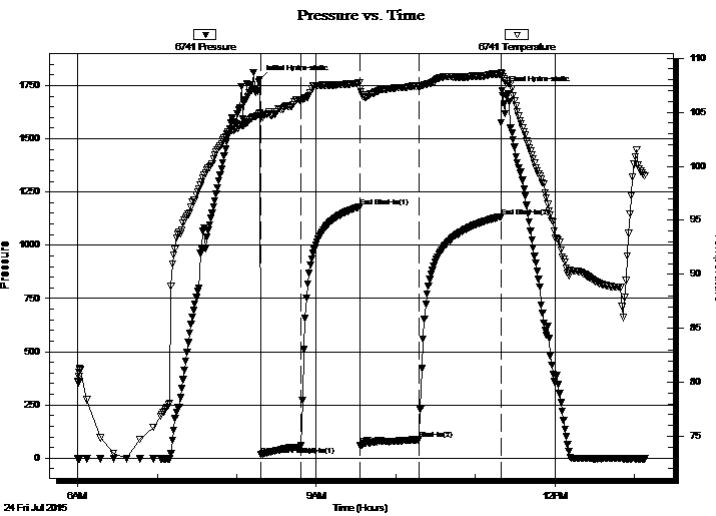
30-1s-30w Decatur, KS
David Ketterl #1-30
 Job Ticket: 62803 **DST#: 1**
 Test Start: 2015.07.24 @ 06:00:00

GENERAL INFORMATION:

Formation: **Oread**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 08:18:00
 Time Test Ended: 13:08:00
 Interval: **3656.00 ft (KB) To 3740.00 ft (KB) (TVD)**
 Total Depth: 3740.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Robert Zodrow
 Unit No: 66
 Reference Elevations: 2774.00 ft (KB)
 2766.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 6741 Inside
 Press@RunDepth: 87.52 psig @ 3657.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.07.24 End Date: 2015.07.24 Last Calib.: 2015.07.24
 Start Time: 06:00:05 End Time: 13:07:59 Time On Btm: 2015.07.24 @ 08:17:30
 Time Off Btm: 2015.07.24 @ 11:20:00

TEST COMMENT: 30-IF- Blow built to 3"
 45-ISI- No Return
 45-FF- Blow Built to 3"
 60-FSI- No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1779.35	104.92	Initial Hydro-static
1	15.90	104.47	Open To Flow (1)
31	57.40	106.08	Shut-In(1)
75	1180.60	107.75	End Shut-In(1)
76	60.00	107.15	Open To Flow (2)
120	87.52	107.34	Shut-In(2)
182	1134.37	108.54	End Shut-In(2)
183	1726.87	108.61	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
150.00	Mud 100%M	1.01

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Slaw son Exploration Co Inc
204 N Robinson Ave STE 2300
Oklahoma City OK 73102
ATTN: Pete Debenham

30-1s-30w Decatur,KS
David Ketterl #1-30
Job Ticket: 62803 **DST#: 1**
Test Start: 2015.07.24 @ 06:00:00

Tool Information

Drill Pipe:	Length: 3511.00 ft	Diameter: 3.80 inches	Volume: 49.25 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 49.84 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	2.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3656.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	84.00 ft			
Tool Length:	111.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3634.00	
Hydraulic tool	5.00			3639.00	
Jars	5.00			3644.00	
Safety Joint	3.00			3647.00	
Packer	5.00			3652.00	27.00 Bottom Of Top Packer
Packer	4.00			3656.00	
Stubb	1.00			3657.00	
Recorder	0.00	6741	Inside	3657.00	
Recorder	0.00	8521	Outside	3657.00	
Perforations	16.00			3673.00	
Change Over Sub	1.00			3674.00	
Drill Pipe	62.00			3736.00	
Change Over Sub	1.00			3737.00	
Bullnose	3.00			3740.00	84.00 Bottom Packers & Anchor

Total Tool Length: 111.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Slaw son Exploration Co Inc
204 N Robinson Ave STE 2300
Oklahoma City OK 73102
ATTN: Pete Debenham

30-1s-30w Decatur,KS
David Ketterl #1-30
Job Ticket: 62803 **DST#: 1**
Test Start: 2015.07.24 @ 06:00:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 8.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.99 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 800.00 ppm			
Filter Cake: 1.00 inches			

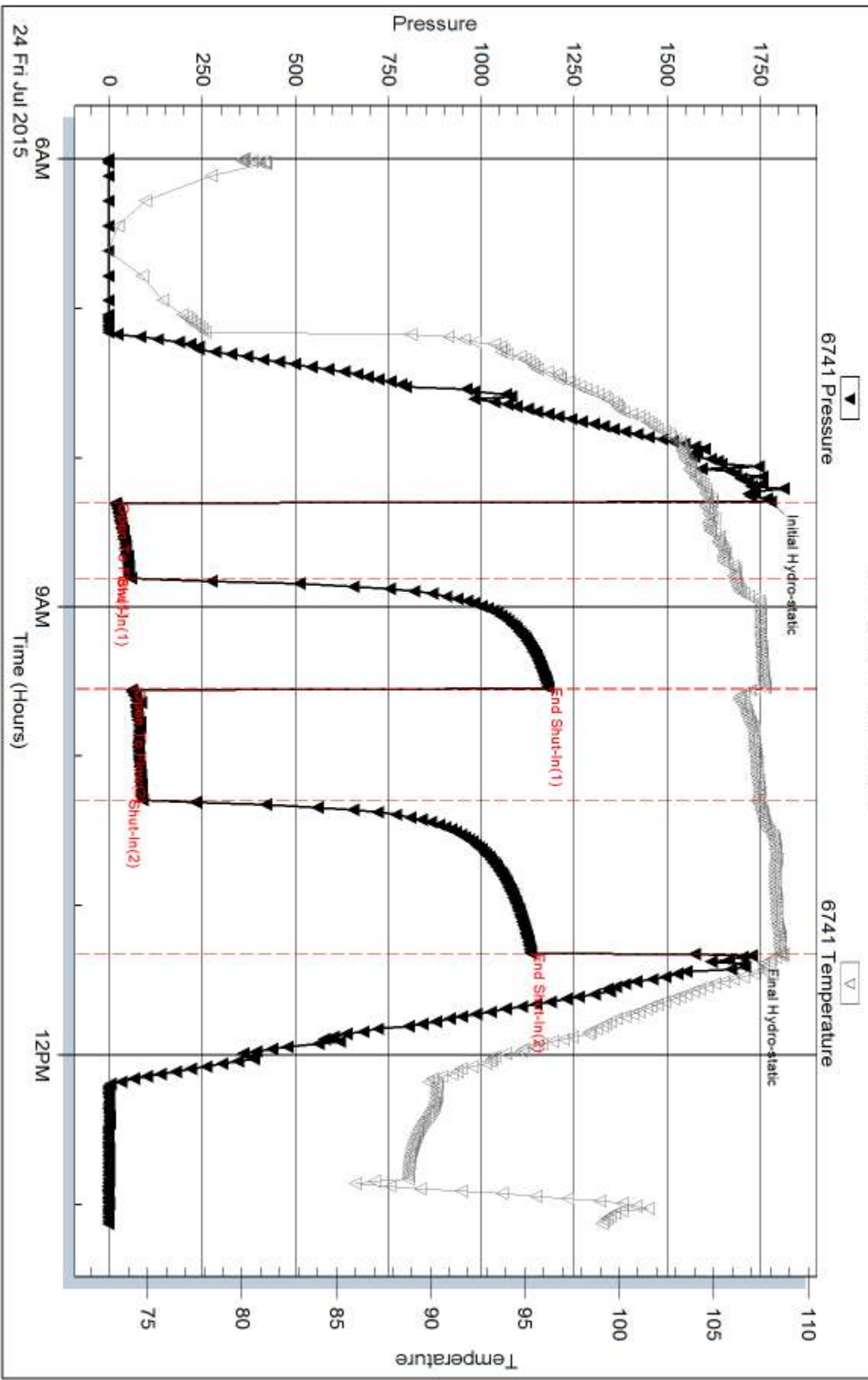
Recovery Information

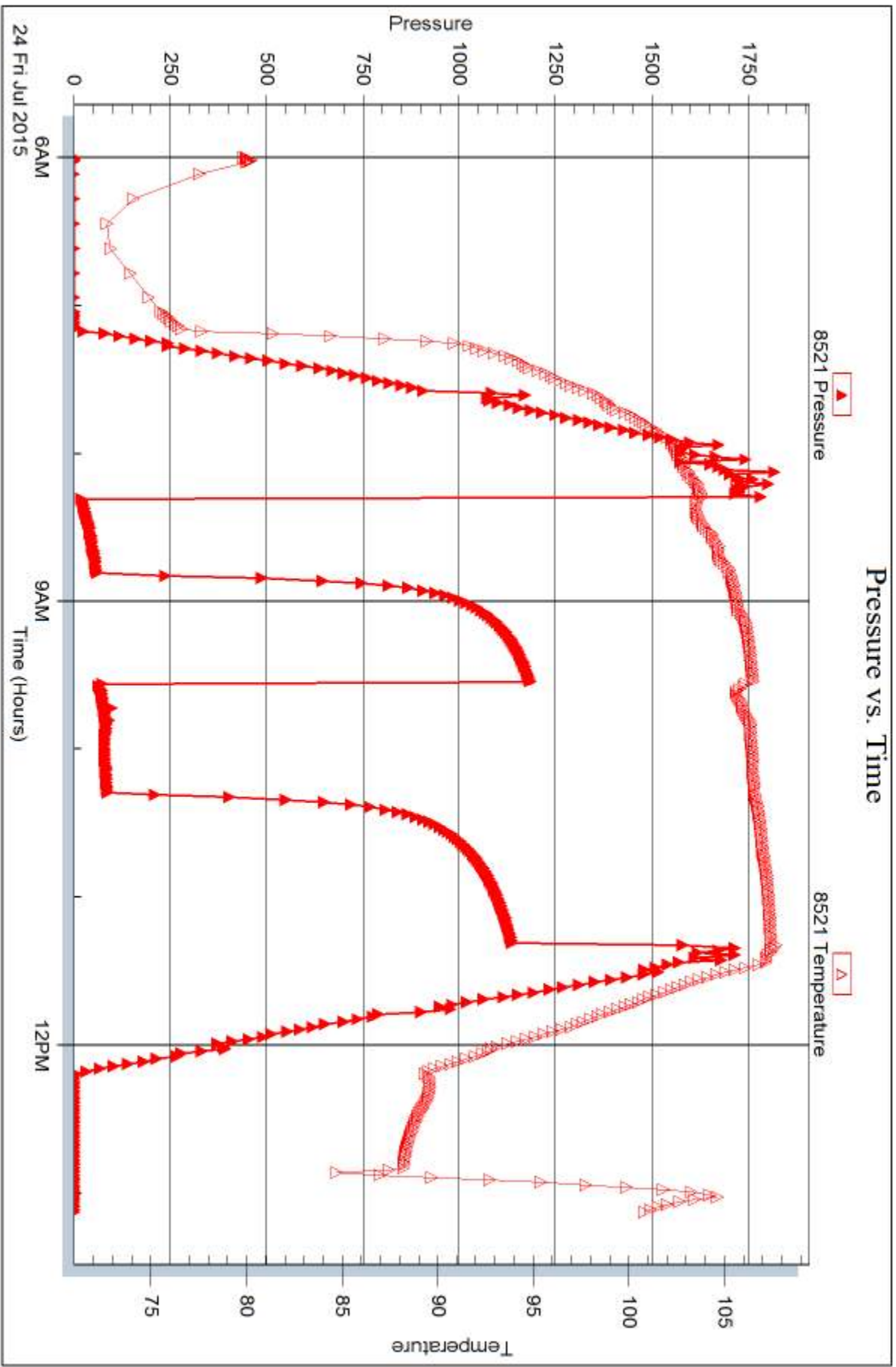
Recovery Table

Length ft	Description	Volume bbl
150.00	Mud 100%M	1.011

Total Length: 150.00 ft Total Volume: 1.011 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Slawson Exploration Co Inc**

204 N Robinson Ave STE 2300
Oklahoma City OK 73102

ATTN: Pete Debenham

David Ketterl #1-30

30-1s-30w Decatur,KS

Start Date: 2015.07.25 @ 14:35:00

End Date: 2015.07.25 @ 22:04:00

Job Ticket #: 62804 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.07.28 @ 09:50:26



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Slawson Exploration Co Inc
 204 N Robinson Ave STE 2300
 Oklahoma City OK 73102
 ATTN: Pete Debenham

30-1s-30w Decatur, KS

David Ketterl #1-30

Job Ticket: 62804

DST#: 2

Test Start: 2015.07.25 @ 14:35:00

GENERAL INFORMATION:

Formation: **LKC "D-E"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 16:39:30
 Time Test Ended: 22:04:00
 Interval: **3882.00 ft (KB) To 3960.00 ft (KB) (TVD)**
 Total Depth: 3960.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Robert Zodrow
 Unit No: 66
 Reference Elevations: 2774.00 ft (KB)
 2766.00 ft (CF)
 KB to GR/CF: 8.00 ft

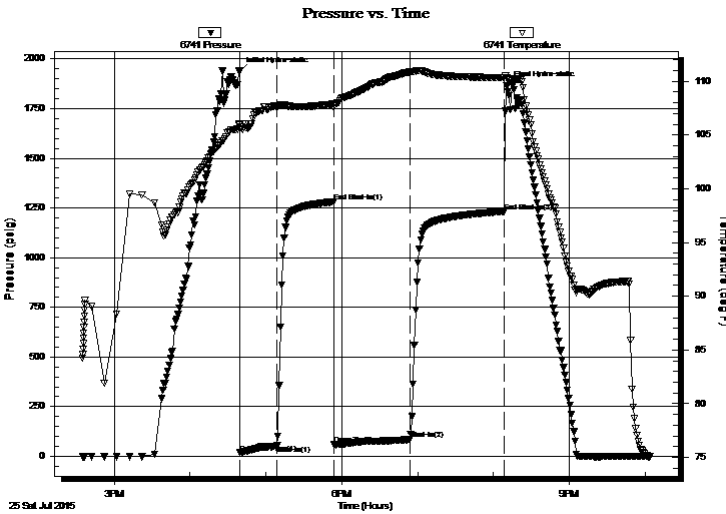
Serial #: 6741

Inside

Press@RunDepth: 83.98 psig @ 3883.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.07.25 End Date: 2015.07.25 Last Calib.: 2015.07.25
 Start Time: 14:35:05 End Time: 22:03:59 Time On Btm: 2015.07.25 @ 16:39:00
 Time Off Btm: 2015.07.25 @ 20:10:30

TEST COMMENT: 30-IF- Blow built to 2 1/4"
 45-ISI- No return
 60-FF- Blow built to 3 3/4"
 75-FSI- No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1938.55	106.00	Initial Hydro-static
1	16.85	105.58	Open To Flow (1)
30	52.85	107.68	Shut-In(1)
75	1280.84	107.88	End Shut-In(1)
75	58.74	107.54	Open To Flow (2)
135	83.98	110.90	Shut-In(2)
210	1232.99	110.36	End Shut-In(2)
212	1863.51	110.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
150.00	WM with oil spots 30%W 70%M	1.01

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Slawson Exploration Co Inc
204 N Robinson Ave STE 2300
Oklahoma City OK 73102
ATTN: Pete Debenham

30-1s-30w Decatur,KS
David Ketterl #1-30
Job Ticket: 62804 **DST#: 2**
Test Start: 2015.07.25 @ 14:35:00

Tool Information

Drill Pipe:	Length: 3761.00 ft	Diameter: 3.80 inches	Volume: 52.76 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 66000.00 lb
			<u>Total Volume: 53.35 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	3882.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	78.00 ft			
Tool Length:	105.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3860.00	
Hydraulic tool	5.00			3865.00	
Jars	5.00			3870.00	
Safety Joint	3.00			3873.00	
Packer	5.00			3878.00	27.00 Bottom Of Top Packer
Packer	4.00			3882.00	
Stubb	1.00			3883.00	
Recorder	0.00	6741	Inside	3883.00	
Recorder	0.00	8521	Outside	3883.00	
Perforations	10.00			3893.00	
Change Over Sub	1.00			3894.00	
Drill Pipe	62.00			3956.00	
Change Over Sub	1.00			3957.00	
Bullnose	3.00			3960.00	78.00 Bottom Packers & Anchor

Total Tool Length: 105.00



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204 N Robinson Ave STE 2300
Oklahoma City OK 73102
ATTN: Pete Debenham

30-1s-30w Decatur,KS
David Ketterl #1-30
Job Ticket: 62804 **DST#: 2**
Test Start: 2015.07.25 @ 14:35:00

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:	14000 ppm
Viscosity: 63.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.79 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 2000.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

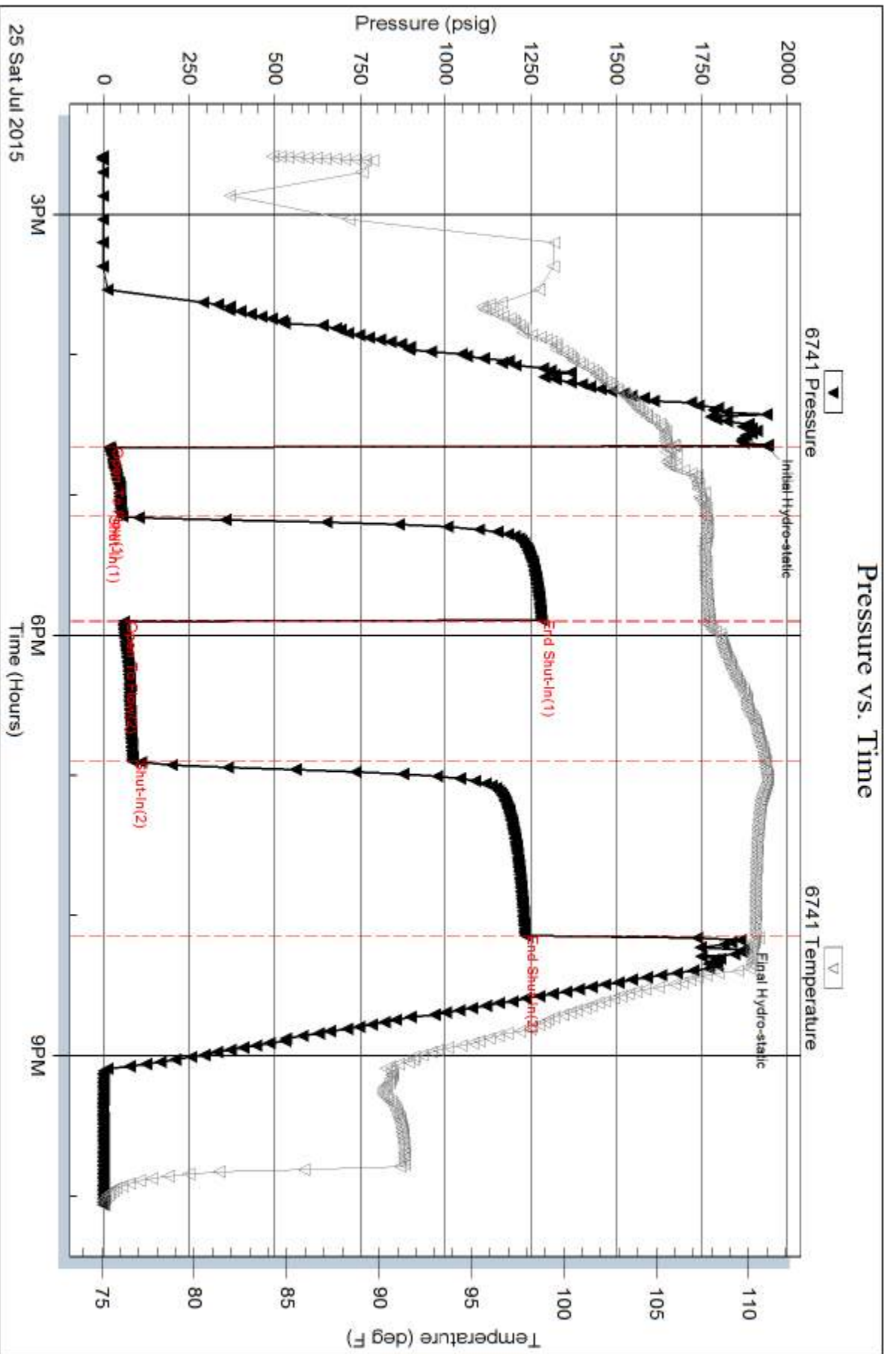
Length ft	Description	Volume bbl
150.00	WM with oil spots 30%W 70%M	1.011

Total Length: 150.00 ft Total Volume: 1.011 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: RW .405 @ 85 Deg =14000

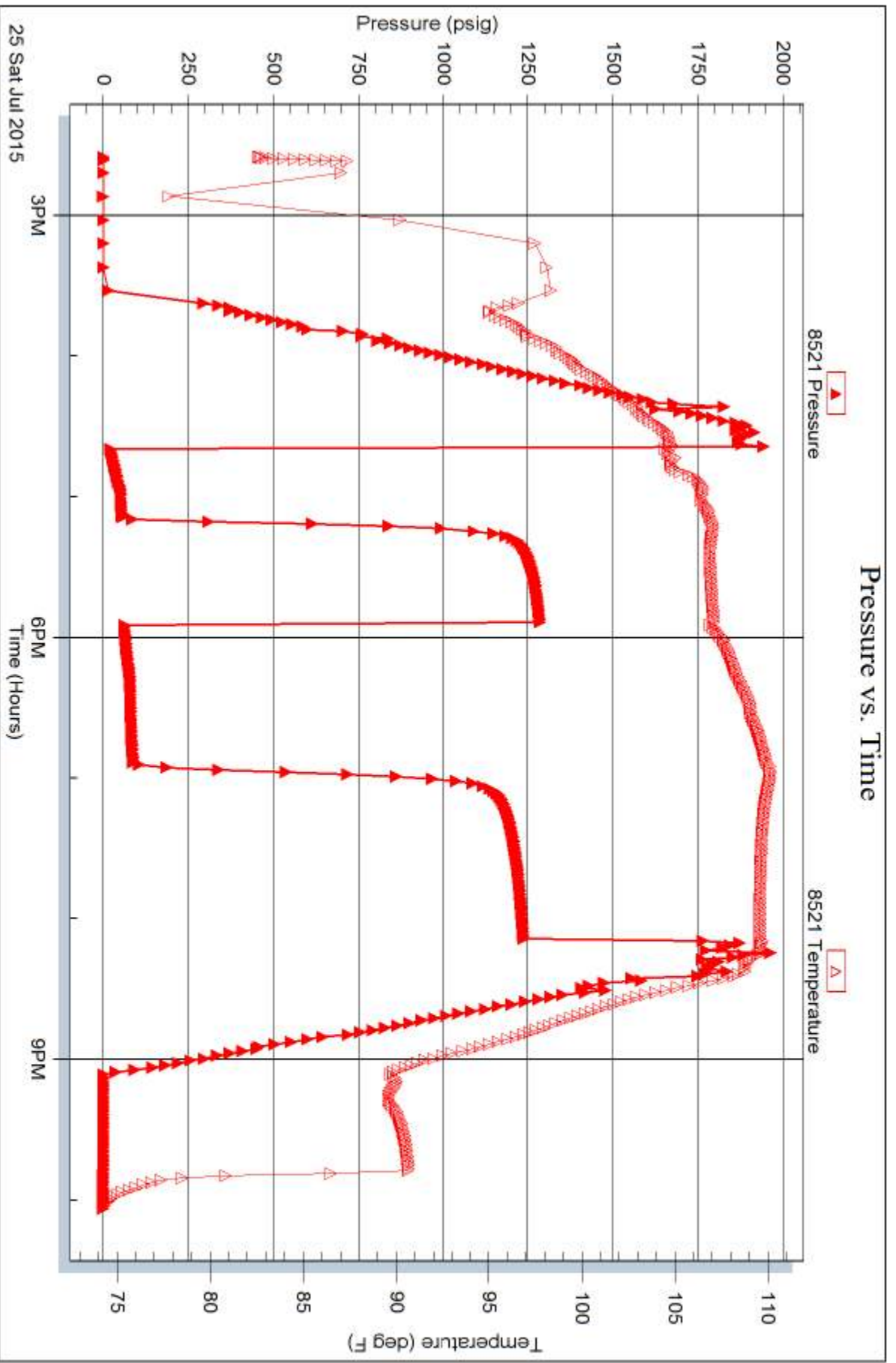


Serial #: 8521

Outside Saw son Exploration Co Inc

David Ketterl #1-30

DST Test Number: 2





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 62803

Well Name & No. David Ketterl #1-30 Test No. 1 Date 7-24-2015
 Company Slawson Exploration CO. Inc Elevation 2774 KB 2766 GL
 Address 204 N Robinson Ave STE 2300 Oklahoma city OK, 73102
 Co. Rep / Geo. Pete Debenham Rig WW #12
 Location: Sec. 30 Twp. 15 Rge. 30W Co. Decatur State K5

Interval Tested 3656 — 3740 Zone Tested Oread
 Anchor Length 84 Drill Pipe Run 3511 Mud Wt. 8.4
 Top Packer Depth 3652 Drill Collars Run 120 Vis 50
 Bottom Packer Depth 3654 (shale) Wt. Pipe Run 0 WL 8
 Total Depth 3740 Chlorides 800 ppm System LCM 2.5
 Blow Description IF - Blow built to 3"
ISI - NO return
FF - Blow built to 3"
FSI - NO return

Rec	Feet of	%gas	%oil	%water	%mud
<u>150</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 150 BHT 108 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1779 Test 1050 T-On Location ~~04:30~~ 04:30 7-24
 (B) First Initial Flow 16 Jars 250 T-Started 06:00 7-24
 (C) First Final Flow 57 Safety Joint 75 T-Open 08:18 7-24
 (D) Initial Shut-In 1180 Circ Sub — T-Pulled 11:19 7-24
 (E) Second Initial Flow 60 Hourly Standby — T-Out 13:08 7-24
 (F) Second Final Flow 87 Mileage 48 RT 48 Comments —
 (G) Final Shut-In 1134 Sampler —
 (H) Final Hydrostatic 1726 Straddle — Ruined Shale Packer —
 Shale Packer 250 Ruined Packer —
 Extra Packer — Extra Copies —
 Initial Open 30 Extra Recorder — Sub Total 0
 Initial Shut-In 45 Day Standby — Total 1673
 Final Flow 45 Accessibility — MP/DST Disc't —
 Final Shut-In 60 Sub Total 1673

Approved By _____

Our Representative Robert Zolner

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 62804

Well Name & No. David Ketterl #1-30 Test No. 2 Date 7-25-2015
 Company SLawson Exploration CO Inc Elevation 2774 KB 2766 GL
 Address 204 N Robinson Ave STE. 2300 Oklahoma city OK, 73102
 Co. Rep / Geo. Pete Debenham Rig WW #12
 Location: Sec. 30 Twp. 1S Rge. 30 W Co. Decatur State K5

Interval Tested 3882 — 3960 Zone Tested LKC "D-E"
 Anchor Length 78 Drill Pipe Run 3761 Mud Wt. 8.9
 Top Packer Depth 3878 Drill Collars Run 120 Vis 63
 Bottom Packer Depth 3882 Wt. Pipe Run 0 WL 8.8
 Total Depth 3960 Chlorides 2000 ppm System LCM 1.5

Blow Description IF - Blow built to 2 1/4"
ISI - NO return
FF - Blow built to 3 3/4"
FSL - NO return

Rec	Feet of	%gas	%oil	%water	%mud
<u>150</u>	<u>uwm with oil spots</u>	<u>spotted</u>	<u>30</u>	<u>70</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 150 BHT 110 Gravity — API RW 405 @ 85° F Chlorides 14,000 ppm

(A) Initial Hydrostatic 1938
 (B) First Initial Flow 17
 (C) First Final Flow 53
 (D) Initial Shut-In 1280
 (E) Second Initial Flow 59
 (F) Second Final Flow 84
 (G) Final Shut-In 1232
 (H) Final Hydrostatic 1863

Test 1050
 Jars 250
 Safety Joint 75
 Circ Sub
 Hourly Standby
 Mileage 48 RT X2 48
 Sampler
 Straddle
 Shale Packer
 Extra Packer
 Extra Recorder
 Day Standby
 Accessibility
 Sub Total 1423

T-On Location 14:00 7-25
 T-Started 14:35 7-25
 T-Open 16:39 7-25
 T-Pulled 20:08 7-25
 T-Out 22:04 7-25
 Comments Drove out Loaded
tool 12:00 on
7-26-2015
 Ruined Shale Packer
 Ruined Packer
 Extra Copies
 Sub Total 0
 Total 1423
 MP/DST Disc't

Initial Open 30
 Initial Shut-In 45
 Final Flow 60
 Final Shut-In 75

Approved By _____ Our Representative Robert Zedler

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