

DRILL STEM TEST REPORT

Prepared For: **Jolen Operating Company**

100 N Broadway Ave ste 2460 Oklahoma city
OK 73102+8868

ATTN: Ken Leblonc

Philip Glen Trust1-3

03-33s-24w Clark,KS

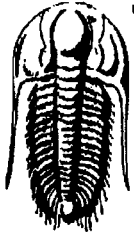
Start Date: 2019.07.03 @ 09:24:00

End Date: 2019.07.03 @ 18:30:40

Job Ticket #: 65798 DST #: 3

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

Printed: 2019.07.05 @ 11:41:04



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Jolen Operating Company

03-33s-24w Clark,KS

100 N Broadway Ave ste 2460 Oklahoma city OK
73102+8868

Philip Glen Trust1-3

Job Ticket: 65798

DST#: 3

ATTN: Ken Leblonc

Test Start: 2019.07.03 @ 09:24:00

GENERAL INFORMATION:

Formation: **Viola**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:27:50

Time Test Ended: 18:30:40

Test Type: Conventional Bottom Hole (Initial)

Tester: Benny Mulligan

Unit No: 66

Interval: 6735.00 ft (KB) To 6780.00 ft (KB) (TVD)

Total Depth: 6780.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2122.00 ft (KB)

2110.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 6772

Inside

Press@RunDepth: 31.41 psig @ 6742.00 ft (KB)

Start Date: 2019.07.03

End Date: 2019.07.03

Start Time: 09:24:01

End Time: 18:30:40

Capacity: 8000.00 psig

Last Calib.: 2019.07.03

Time On Btm: 2019.07.03 @ 12:14:20

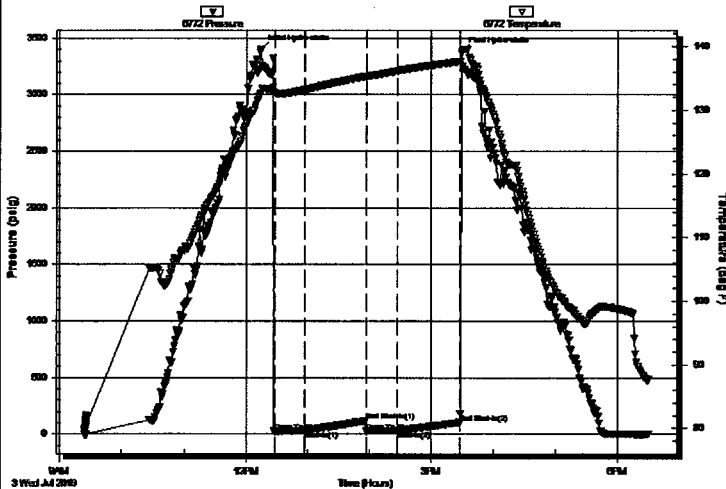
Time Off Btm: 2019.07.03 @ 15:29:30

TEST COMMENT: IF-30- built to 3"
ISI-60- no blow back
FF-30- dead
FSI-60- no blow back

PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	3402.95	132.64	Initial Hydro-static
14	24.88	132.70	Open To Flow (1)
43	30.42	133.20	Shut-In(1)
103	117.30	135.30	End Shut-In(1)
103	24.97	135.27	Open To Flow (2)
133	31.41	136.16	Shut-In(2)
194	104.46	137.68	End Shut-In(2)
196	3383.69	138.94	Final Hydro-static

Pressure vs. Time

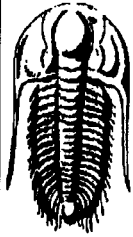


Recovery

Length (ft)	Description	Volume (bbl)
5.00	M 100%M	0.02
0.00	GIP 170'	0.00

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Jolen Operating Company

03-33s-24w Clark,KS

100 N Broadway Ave Ste 2460 Oklahoma City OK 73102+8868

Philip Glen Trust1-3

Job Ticket: 65798

DST#: 3

ATTN: Ken Leblonc

Test Start: 2019.07.03 @ 09:24:00

GENERAL INFORMATION:

Formation: **Viola**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:27:50

Time Test Ended: 18:30:40

Test Type: Conventional Bottom Hole (Initial)

Tester: Benny Mulligan

Unit No: 66

Interval: 6735.00 ft (KB) To 6780.00 ft (KB) (TVD)

Total Depth: 6780.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2122.00 ft (KB)

2110.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 6769 Outside

Press@RunDepth: psig @ 6742.00 ft (KB)

Start Date: 2019.07.03 End Date: 2019.07.03

Start Time: 09:24:01 End Time: 18:30:40

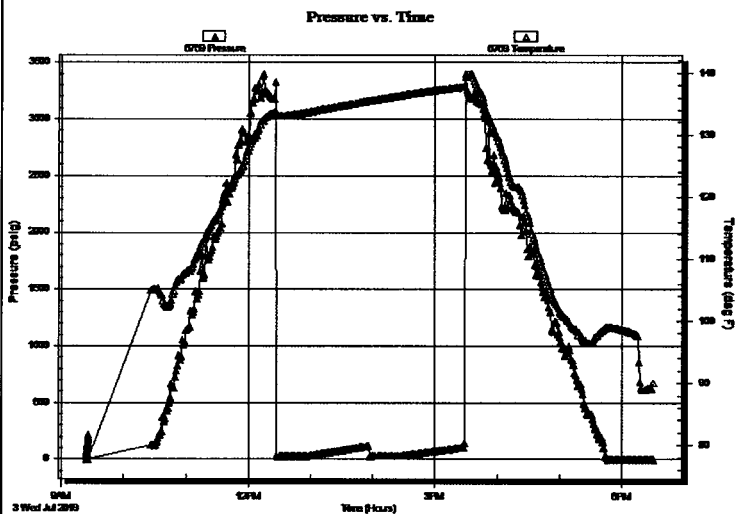
Capacity: 8000.00 psig

Last Calib.: 2019.07.03

Time On Btm:

Time Off Btm:

TEST COMMENT: IF-30- built to 3"
IS-60- no blow back
FF-30- dead
FSI-60- no blow back



PRESSURE SUMMARY

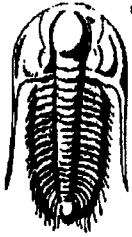
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
5.00	M 100%M	0.02
0.00	GIP 170'	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Jolen Operating Company

03-33s-24w Clark,KS

100 N Broadway Ave ste 2460 Oklahoma city OK
73102+8868

Philip Glen Trust1-3

Job Ticket: 65798

DST#: 3

ATTN: Ken Leblonc

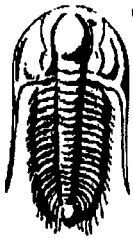
Test Start: 2019.07.03 @ 09:24:00

Tool Information

Drill Pipe:	Length: 6478.00 ft	Diameter: 3.80 inches	Volume: 90.87 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: 240.00 ft	Diameter: 2.25 inches	Volume: 1.18 bbl	Weight to Pull Loose: 110000.0 lb
			Total Volume: 92.05 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 100000.0 lb
Depth to Top Packer:	6735.00 ft			Final 100000.0 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	45.00 ft			
Tool Length:	72.00 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			6709.00	
Shut In Tool	5.00			6714.00	
Hydraulic tool	5.00			6719.00	
Jars	5.00			6724.00	
Safety Joint	2.00			6726.00	
Packer	5.00			6731.00	27.00 Bottom Of Top Packer
Packer	4.00			6735.00	
Stubb	1.00			6736.00	
Perforations	5.00			6741.00	
Change Over Sub	1.00			6742.00	
Recorder	0.00	6772	Inside	6742.00	
Recorder	0.00	6769	Outside	6742.00	
Drill Pipe	32.00			6774.00	
Change Over Sub	1.00			6775.00	
Perforations	2.00			6777.00	
Bullnose	3.00			6780.00	45.00 Bottom Packers & Anchor
Total Tool Length:	72.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Jolen Operating Company

03-33s-24w Clark,KS

100 N Broadway Ave ste 2460 Oklahoma city OK
73102+8868

Philip Glen Trust1-3

Job Ticket: 65798

DST#: 3

ATTN: Ken Leblonc

Test Start: 2019.07.03 @ 09:24:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3600.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	M 100%M	0.025
0.00	GIP 170'	0.000

Total Length: 5.00 ft

Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6772

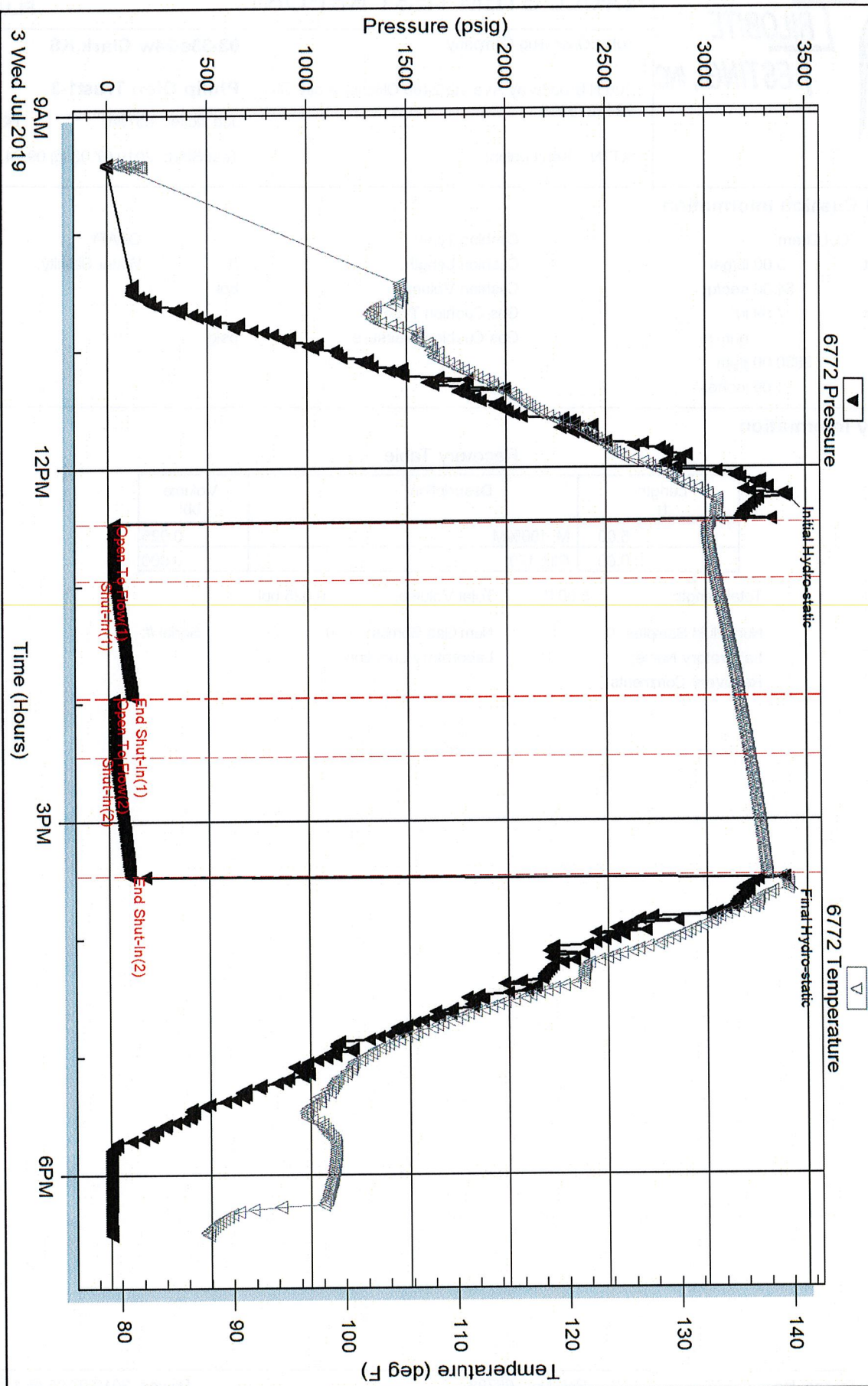
Inside

Jolen Operating Company

Philip Gen Trust1-3

DST Test Number: 3

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 65798

Printed: 2019.07.05 @ 11:41:05

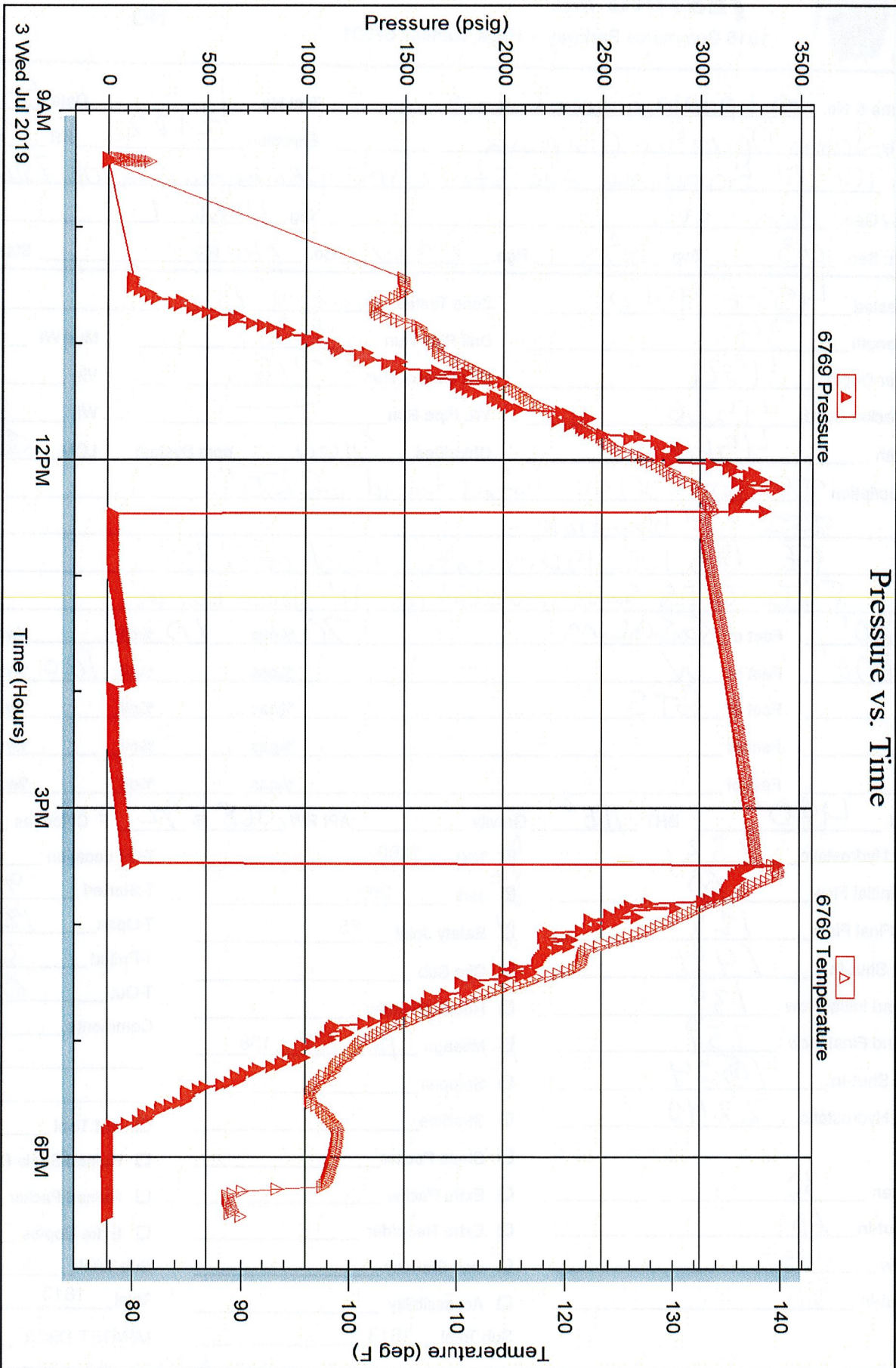
Serial #: 6769

Outside Jolen Operating Company

Phillip Glen Trust1-3

DST Test Number: 3

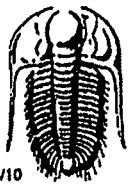
Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 65798

Printed: 2019.07.05 @ 11:41:05



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket 65796

NO.

Well Name & No. Philip Glen Trust 1-3 Test No. 1 Date 6-26-2019
 Company Jolen Operating Company Elevation 2122 KB 2110 GL
 Address 100 N Broadway Ave Ste 2460 Oklahoma City, OK 73102-8868
 Co. Rep / Geo. Ken Leblanc Rig Duke 9
 Location: Sec. 03 Twp 33S Rge. 24 W Co. Clarke State KS

Interval Tested 4526-4560 Zone Tested Lansing B
 Anchor Length 34' Drill Pipe Run 4298 Mud Wt. 9.2
 Top Packer Depth 4521 Drill Collars Run 218 Vls 48
 Bottom Packer Depth 4526 Wt. Pipe Run _____ WL 8.8
 Total Depth 4560 Chlorides 5100 ppm System LCM ~~34~~ 34
 Blow Description IF-BOB-50 sec total build of 235"
ISF-7" blow back
FE-BOB 1 min 15 secs total build of 173"
FST-GTS 5 mins into shut in 11" blow back

Rec	Feet of	%gas	%oil	%water	%mud
180'	G.S.O.C.M.	70	10		20
300'	W		100		
	GTS				
Rec Total	480'				

BHT 116° Gravity _____ API RW 068 @ 92 °F Chlorides 89,000 ppm
 Test 1300
 Jars 250
 Safety Joint 75
 Circ Sub
 Hourly Standby
 Mileage 188 RT 188
 Sampler
 Straddle
 Shale Packer
 Extra Packer
 Extra Recorder
 Day Standby
 Accessibility
 Sub Total 1813

(A) Initial Hydrostatic 2331 T-On Location 900
 (B) First Initial Flow 60 T-Started 9:52 AM
 (C) First Final Flow 129 T-Open 12:09
 (D) Initial Shut-In 1491 T-Pulled 3:54
 (E) Second Initial Flow 139 T-Out 6:46
 (F) Second Final Flow 239
 (G) Final Shut-In 1504
 (H) Final Hydrostatic 2240
 Comments _____

 Sub Total 0
 Total 1813
 MP/DST Disc't _____

Initial Open 30
 Initial Shut-In 60
 Final Flow 45
 Final Shut-In 90
 Approved By _____ Our Representative Benny Mulligan

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 65797

NO.

Well Name & No. Philip Glen Trust 1-3 Test No. 2 Date 6-28-2019
 Company Jolen Operating Company Elevation 2122 KB 2110 GL
 Address 100 N. Broadway Ave ste 2460 Oklahoma City OK 73102 +8868
 Co. Rep / Geo. Ken Leblanc Rig Duke 9
 Location: Sec. 03 Twp 33s Rge. 24w Co. Clark State KS

Interval Tested 5144-5180 Zone Tested Palmer
 Anchor Length 36' Drill Pipe Run 4957 Mud Wt. 8.9
 Top Packer Depth 5139 Drill Collars Run ~~180~~ 180 Vls 48
 Bottom Packer Depth 5144 Wt. Pipe Run --- WL 8.8
 Total Depth 5180 Chlorides 3300 ppm System LCM 3#

Blow Description IF - built to 2"
ISI - no blow back
FF - dead
FST - no blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>65</u>	<u>W-M,</u>		<u>40</u>	<u>60</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

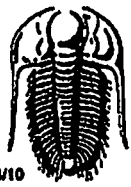
Rec Total 65 BHT 119° Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2552 Test 1400 T-On Location 2:38 AM
 (B) First Initial Flow 22 Jars 250 T-Started 3:24
 (C) First Final Flow 45 Safety Joint 75 T-Open 5:49
 (D) Initial Shut-In 1806 Circ Sub _____ T-Pulled 8:19
 (E) Second Initial Flow 48 Hourly Standby _____ T-Out 11:08
 (F) Second Final Flow 64 Mileage 188RT 188 Comments Ruined bottom packer rubber
 (G) Final Shut-In 1685 Sampler _____
 (H) Final Hydrostatic 2479 Straddle _____

Initial Open 30 Shale Packer _____
 Initial Shut-In 60 Extra Packer _____
 Final Flow 30 Extra Recorder _____
 Final Shut-In 30 Day Standby 1.5d 8.75h
 Sub Total 1913 Accessibility _____
 MP/DST Disc't _____

Approved By _____ Our Representative Benny Mulligan

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket 65798

NO.

Well Name & No. Philip Glen Trust 1-3 Test No. 3 Date 7-3-2019
 Company Tolen Operating Company Elevation 2122 KB 2110 GL
 Address 100 N Broadway Ave Ste 2460 Oklahoma City OK 73102 + 8868
 Co. Rep / Geo. Ken Leblanc Rig Duke 9
 Location: Sec. 03 Twp 33s Rge. 24w Co. clark State KS

Interval Tested 6735-6780 Zone Tested Viola
 Anchor Length 45' Drill Pipe Run 6478 Mud Wt. 8.95
 Top Packer Depth 6730 Drill Collars Run ~~1500~~ 240 Vls 54
 Bottom Packer Depth 6735 Wt. Pipe Run _____ WL 7.6
 Total Depth 6780 Chlorides 3600 ppm System LCM 8#

Blow Description IS - built to 3"
FSI - no blow back
FE - dead
FSI - no blow back

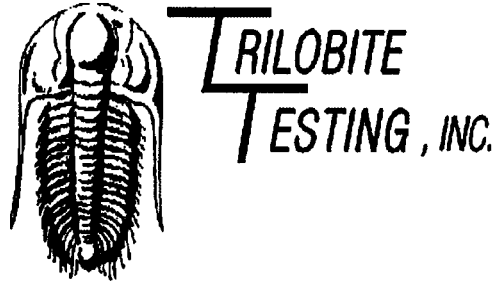
Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>M.</u>			<u>100</u>	
	<u>GIP 170'</u>				

Rec Total 5 BHT 138 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 3402 Test 1500 T-On Location 6:20 AM
 (B) First Initial Flow 24 Jars 250 T-Started 9:24
 (C) First Final Flow 30 Safety Joint 75 T-Open 12:27
 (D) Initial Shut-In 117 Circ Sub T-Pulled 3:28
 (E) Second Initial Flow 24 Hourly Standby T-Out 6:31 PM
 (F) Second Final Flow 31 Mileage 188 RT 188 Comments Damaged shale
 (G) Final Shut-In 104 Sampler _____ packer rubber
 (H) Final Hydrostatic 3383 Straddle _____
 Shale Packer 250 EM Tool _____
 Extra Packer. _____ Ruined Shale Packer 350
 Extra Recorder _____ Ruined Packer _____
 Day Standby 3.5d 20h Extra Copies _____
 Accessibility _____ Sub Total 2266.67 + 350
 Sub Total 2263 Total 4879.67 MP/DST Disc't _____

Approved By _____ Our Representative Benny Mulligan

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DRILL STEM TEST REPORT

Prepared For: **Jolen Operating Company**

100 N Broadway Ave ste 2460 Oklahoma city
OK 73102+8868

ATTN: Ken Leblonc

Philip Glen Trust1-3

03-33s-24w Clark,KS

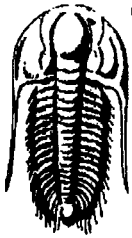
Start Date: 2019.06.26 @ 09:52:00

End Date: 2019.06.26 @ 18:47:00

Job Ticket #: 65796 DST #: 1

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

Printed: 2019.07.05 @ 11:48:01



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Jolen Operating Company

03-33s-24w Clark,KS

100 N Broadway Ave ste 2460 Oklahoma city OK 73102+8868

Philip Glen Trust1-3

Job Ticket: 65796

DST#: 1

ATTN: Ken Leblonc

Test Start: 2019.06.26 @ 09:52:00

GENERAL INFORMATION:

Formation: **LKC B**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:10:30

Time Test Ended: 18:47:00

Interval: **4526.00 ft (KB) To 4560.00 ft (KB) (TVD)**

Total Depth: 4560.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)

Tester: Benny Mulligan

Unit No: 66

Reference Elevations: 2122.00 ft (KB)

2110.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 6772

Inside

Press@RunDepth: 239.48 psig @ 4527.00 ft (KB)

Start Date: 2019.06.26

End Date: 2019.06.26

Start Time: 09:52:01

End Time: 18:47:00

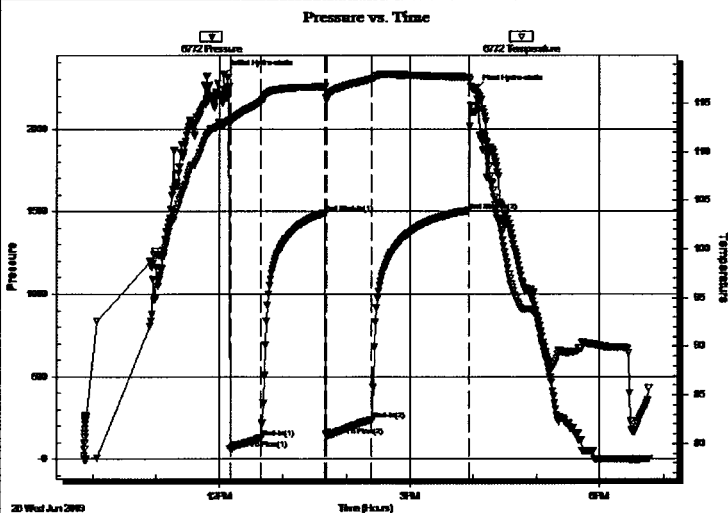
Capacity: 8000.00 psig

Last Calib.: 2019.06.26

Time On Btm: 2019.06.26 @ 12:04:20

Time Off Btm: 2019.06.26 @ 16:02:39

TEST COMMENT: IF-30- BOB 50 sec total build of 235"
 ISI-60- 7" blow back
 FF-45-BOB 1 min 15 sec total build of 173"
 FSI-90-GTS 5 mins into shut in 11" blow back



PRESSURE SUMMARY

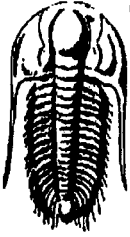
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2331.22	112.67	Initial Hydro-static
7	60.88	113.22	Open To Flow (1)
35	129.86	115.15	Shut-In(1)
96	1491.77	116.68	End Shut-In(1)
97	139.53	115.29	Open To Flow (2)
140	239.48	117.49	Shut-In(2)
233	1504.94	117.66	End Shut-In(2)
239	2240.03	116.57	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
300.00	W 100%W	2.22
180.00	VGOCM 70%G 10%O 20%M	2.52
0.00	GTS	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Jolen Operating Company

03-33s-24w Clark,KS

100 N Broadway Ave ste 2460 Oklahoma city OK
73102+8868

Philip Glen Trust1-3

Job Ticket: 65796

DST#: 1

ATTN: Ken Leblonc

Test Start: 2019.06.26 @ 09:52:00

GENERAL INFORMATION:

Formation: **LKC B**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:10:30

Time Test Ended: 18:47:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Benny Mulligan

Unit No: 66

Interval: **4526.00 ft (KB) To 4560.00 ft (KB) (TVD)**

Reference Elevations: 2122.00 ft (KB)

Total Depth: 4560.00 ft (KB) (TVD)

2110.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

Serial #: 6769 Outside

Press@RunDepth: psig @ 4527.00 ft (KB)

Start Date: 2019.06.26

End Date:

2019.06.26

Start Time: 09:52:01

End Time:

18:47:00

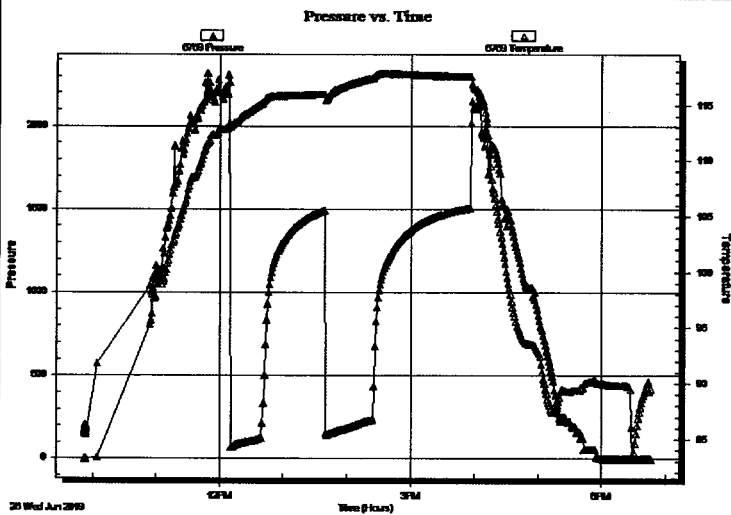
Capacity: 8000.00 psig

Last Calib.: 2019.06.26

Time On Btm:

Time Off Btm:

TEST COMMENT: IF-30- BOB 50 sec total build of 235"
ISI-60- 7" blow back
FF-45-BOB 1 min 15 sec total build of 173"
FSI-90-GTS 5 mins into shut in 11" blow back



PRESSURE SUMMARY

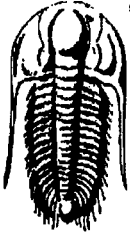
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
300.00	W 100%W	2.22
180.00	VGOCM 70%G 10%O 20%M	2.52
0.00	GTS	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Jolen Operating Company

03-33s-24w Clark,KS

100 N Broadway Ave ste 2460 Oklahoma city OK
73102+8868

Philip Glen Trust1-3

Job Ticket: 65796

DST#: 1

ATTN: Ken Leblonc

Test Start: 2019.06.26 @ 09:52:00

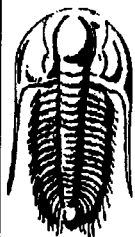
Tool Information

Drill Pipe:	Length: 4298.00 ft	Diameter: 3.80 inches	Volume: 60.29 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: 218.00 ft	Diameter: 2.25 inches	Volume: 1.07 bbl	Weight to Pull Loose: 78000.00 lb
			<u>Total Volume: 61.36 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 71000.00 lb
Depth to Top Packer:	4526.00 ft			Final 71000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	34.00 ft			
Tool Length:	61.00 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			4500.00	
Shut In Tool	5.00			4505.00	
Hydraulic tool	5.00			4510.00	
Jars	5.00			4515.00	
Safety Joint	2.00			4517.00	
Packer	5.00			4522.00	27.00 Bottom Of Top Packer
Packer	4.00			4526.00	
Stubb	1.00			4527.00	
Recorder	0.00	6772	Inside	4527.00	
Recorder	0.00	6769	Outside	4527.00	
Perforations	30.00			4557.00	
Bullnose	3.00			4560.00	34.00 Bottom Packers & Anchor

Total Tool Length: 61.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Jolen Operating Company

03-33s-24w Clark,KS

100 N Broadway Ave ste 2460 Oklahoma city OK
73102+8868

Philip Glen Trust1-3

Job Ticket: 65796

DST#: 1

ATTN: Ken Leblonc

Test Start: 2019.06.26 @ 09:52:00

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:

89000 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5100.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
300.00	W 100%W	2.222
180.00	VGOCM 70%G 10%O 20%M	2.525
0.00	GTS	0.000

Total Length: 480.00 ft

Total Volume: 4.747 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 0.068@92

Serial #: 6772

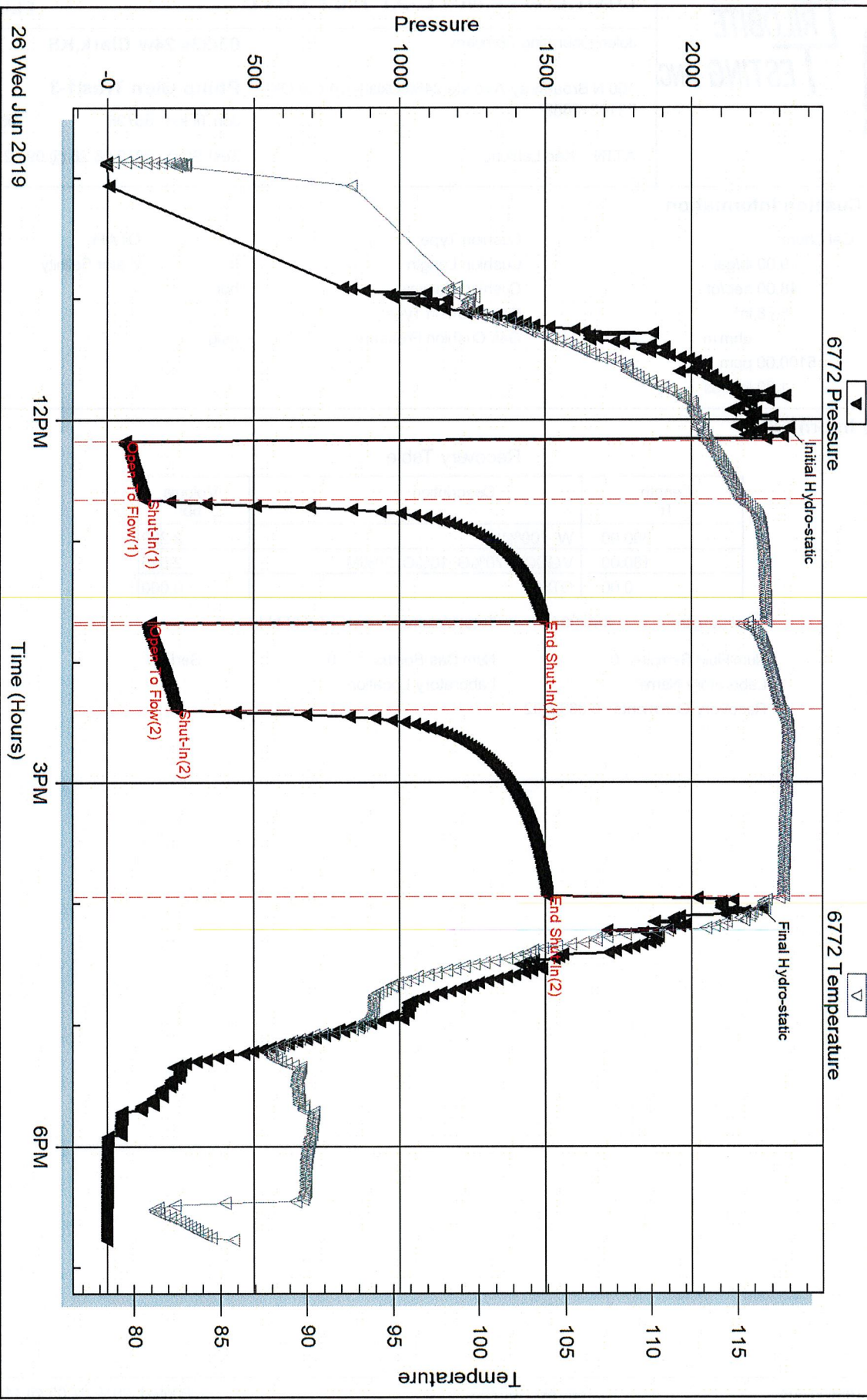
Inside

Jolen Operating Company

Philip Glen Trust1-3

DST Test Number: 1

Pressure vs. Time



26 Wed Jun 2019

12PM

3PM

6PM

Triobite Testing, Inc

Ref. No: 65796

Printed: 2019.07.05 @ 11:48:02

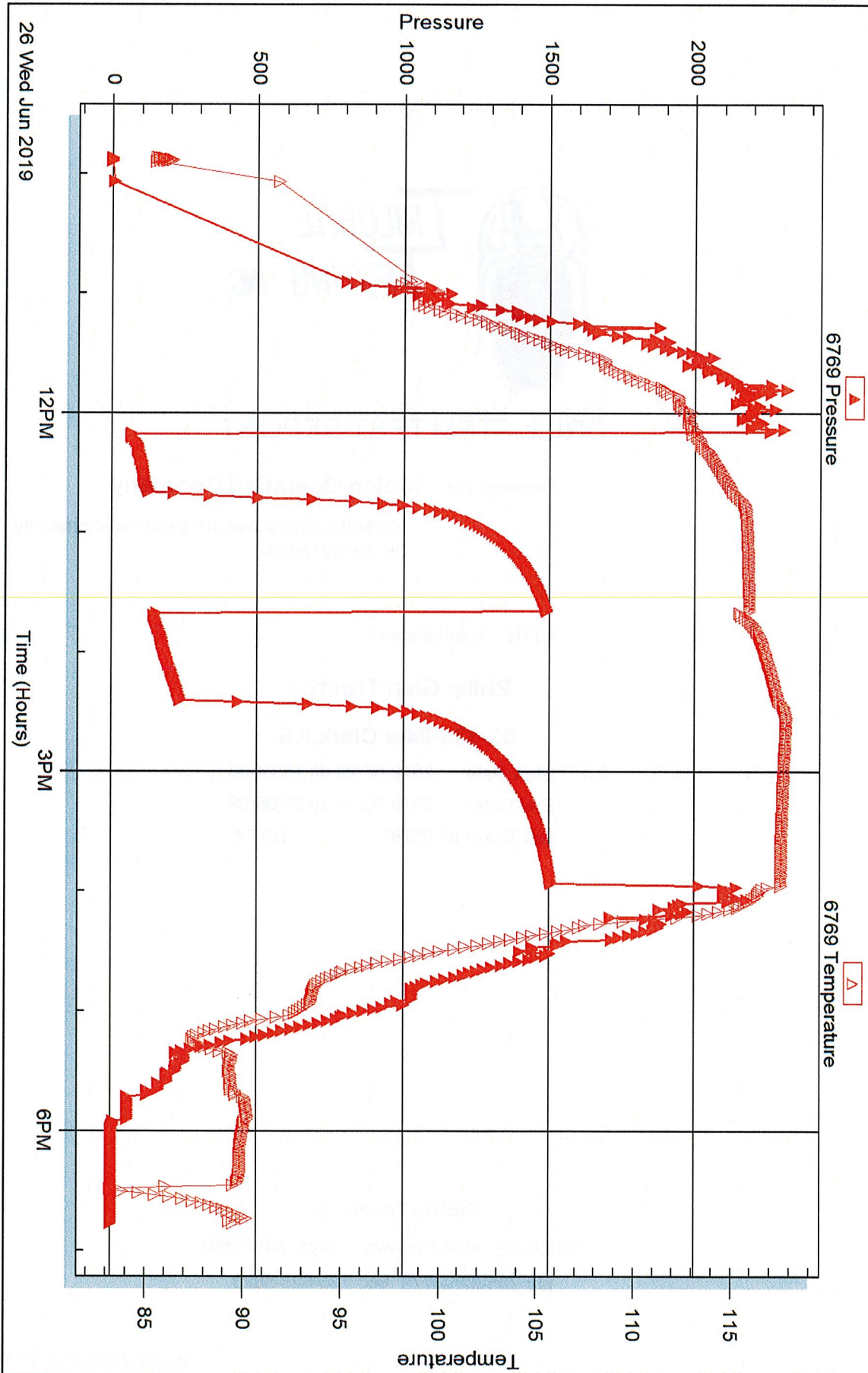
Serial #: 6769

Outside Jolen Operating Company

Philip Glen Trust1-3

DST Test Number: 1

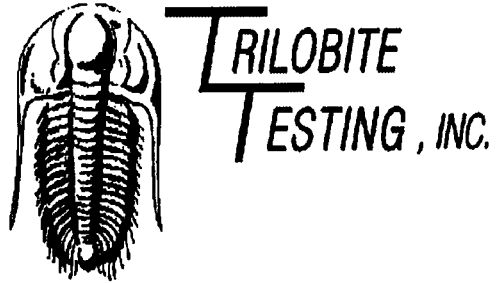
Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 65796

Printed: 2019.07.05 @ 11:48:02



DRILL STEM TEST REPORT

Prepared For: **Jolen Operating Company**

100 N Broadway Ave ste 2460 Oklahoma city
OK 73102+8868

ATTN: Ken Leblonc

Philip Glen Trust1-3

03-33s-24w Clark,KS

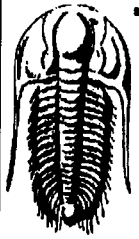
Start Date: 2019.06.28 @ 15:24:00

End Date: 2019.06.28 @ 23:08:09

Job Ticket #: 65797 DST #: 2

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

Printed: 2019.07.05 @ 11:41:35



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Jolen Operating Company

03-33s-24w Clark,KS

100 N Broadway Ave ste 2460 Oklahoma city OK
73102+8868

Philip Glen Trust1-3

Job Ticket: 65797

DST#: 2

ATTN: Ken Leblonc

Test Start: 2019.06.28 @ 15:24:00

GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:50:00

Time Test Ended: 23:08:09

Test Type: Conventional Bottom Hole (Initial)

Tester: Benny Mulligan

Unit No: 66

Interval: **5144.00 ft (KB) To 5180.00 ft (KB) (TVD)**

Total Depth: 5180.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2122.00 ft (KB)

2110.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 6772

Inside

Press@RunDepth: 64.51 psig @ 5145.00 ft (KB)

Start Date: 2019.06.28

End Date: 2019.06.28

Start Time: 15:24:01

End Time: 23:08:10

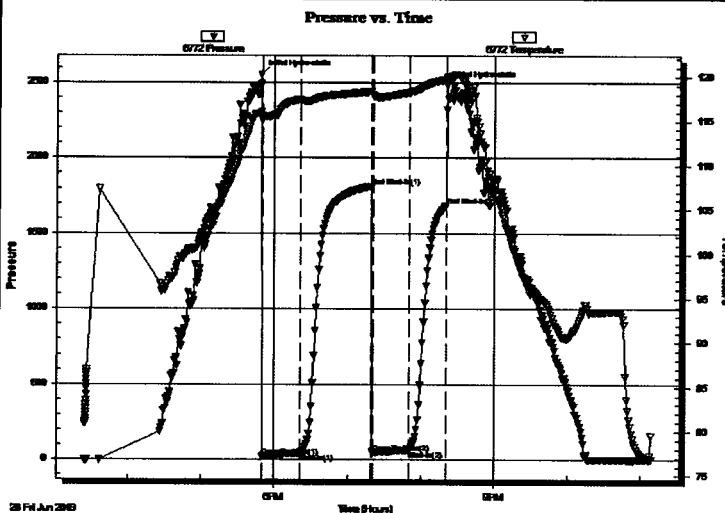
Capacity: 8000.00 psig

Last Calib.: 2019.06.28

Time On Btm: 2019.06.28 @ 17:48:50

Time Off Btm: 2019.06.28 @ 20:21:30

TEST COMMENT: IF-30- built to 2"
ISI-60- no blow back
FF-30- dead
FSI-30-no blow back



PRESSURE SUMMARY

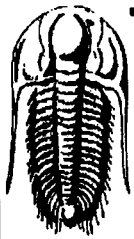
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2552.44	116.01	Initial Hydro-static
2	22.16	115.07	Open To Flow (1)
32	45.04	117.46	Shut-In(1)
91	1806.91	118.34	End Shut-In(1)
92	48.83	117.90	Open To Flow (2)
122	64.51	118.23	Shut-In(2)
152	1685.57	119.72	End Shut-In(2)
153	2479.51	119.95	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
65.00	WM 40%W 60%M	0.32

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Jolen Operating Company

03-33s-24w Clark,KS

100 N Broadway Ave ste 2460 Oklahoma city OK
73102+8868

Philip Glen Trust1-3

Job Ticket: 65797

DST#: 2

ATTN: Ken Leblonc

Test Start: 2019.06.28 @ 15:24:00

GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:50:00

Time Test Ended: 23:08:09

Test Type: Conventional Bottom Hole (Initial)

Tester: Benny Mulligan

Unit No: 66

Interval: **5144.00 ft (KB) To 5180.00 ft (KB) (TVD)**

Reference Elevations: 2122.00 ft (KB)

Total Depth: 5180.00 ft (KB) (TVD)

2110.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

Serial #: **6769**

Outside

Press@RunDepth: psig @ 5145.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2019.06.28

End Date:

2019.06.28

Last Calib.:

1899.12.30

Start Time: 15:24:01

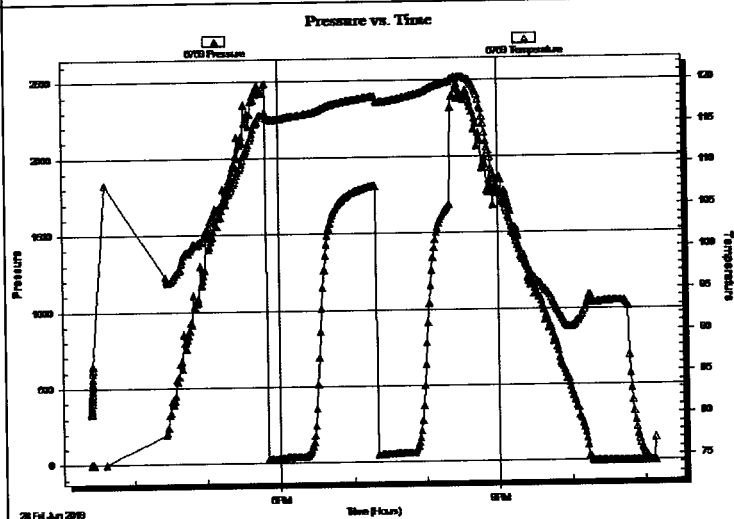
End Time:

23:08:10

Time On Btm:

Time Off Btm:

TEST COMMENT: IF-30- built to 2"
ISI-60- no blow back
FF-30- dead
FSI-30-no blow back



PRESSURE SUMMARY

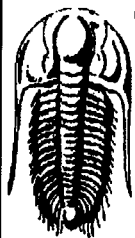
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
65.00	WM 40%W 60%M	0.32

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Jolen Operating Company

03-33s-24w Clark,KS

100 N Broadway Ave ste 2460 Oklahoma city OK
73102+8868

Philip Glen Trust1-3

Job Ticket: 65797

DST#: 2

ATTN: Ken Leblonc

Test Start: 2019.06.28 @ 15:24:00

Tool Information

Drill Pipe:	Length: 4957.00 ft	Diameter: 3.80 inches	Volume: 69.53 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: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 95000.00 lb
			Total Volume: 70.42 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 75000.00 lb
Depth to Top Packer:	5144.00 ft			Final 75000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	36.00 ft			
Tool Length:	63.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

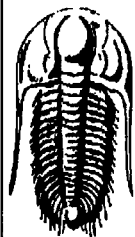
Tool Comments:

Tool Description

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

Change Over Sub	1.00			5118.00	
Shut In Tool	5.00			5123.00	
Hydraulic tool	5.00			5128.00	
Jars	5.00			5133.00	
Safety Joint	2.00			5135.00	
Packer	5.00			5140.00	27.00 Bottom Of Top Packer
Packer	4.00			5144.00	
Stubb	1.00			5145.00	
Recorder	0.00	6772	Inside	5145.00	
Recorder	0.00	6769	Outside	5145.00	
Perforations	32.00			5177.00	
Bullnose	3.00			5180.00	36.00 Bottom Packers & Anchor

Total Tool Length: 63.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Jolen Operating Company

03-33s-24w Clark,KS

100 N Broadway Ave ste 2460 Oklahoma city OK
73102+8868

Philip Glen Trust1-3

Job Ticket: 65797

DST#: 2

ATTN: Ken Leblonc

Test Start: 2019.06.28 @ 15:24:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 48.00 sec/qt

Water Loss: 8.78 in³

Resistivity: ohm.m

Salinity: 3300.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: ppm

deg API

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
65.00	WM 40%W 60%M	0.320

Total Length: 65.00 ft Total Volume: 0.320 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

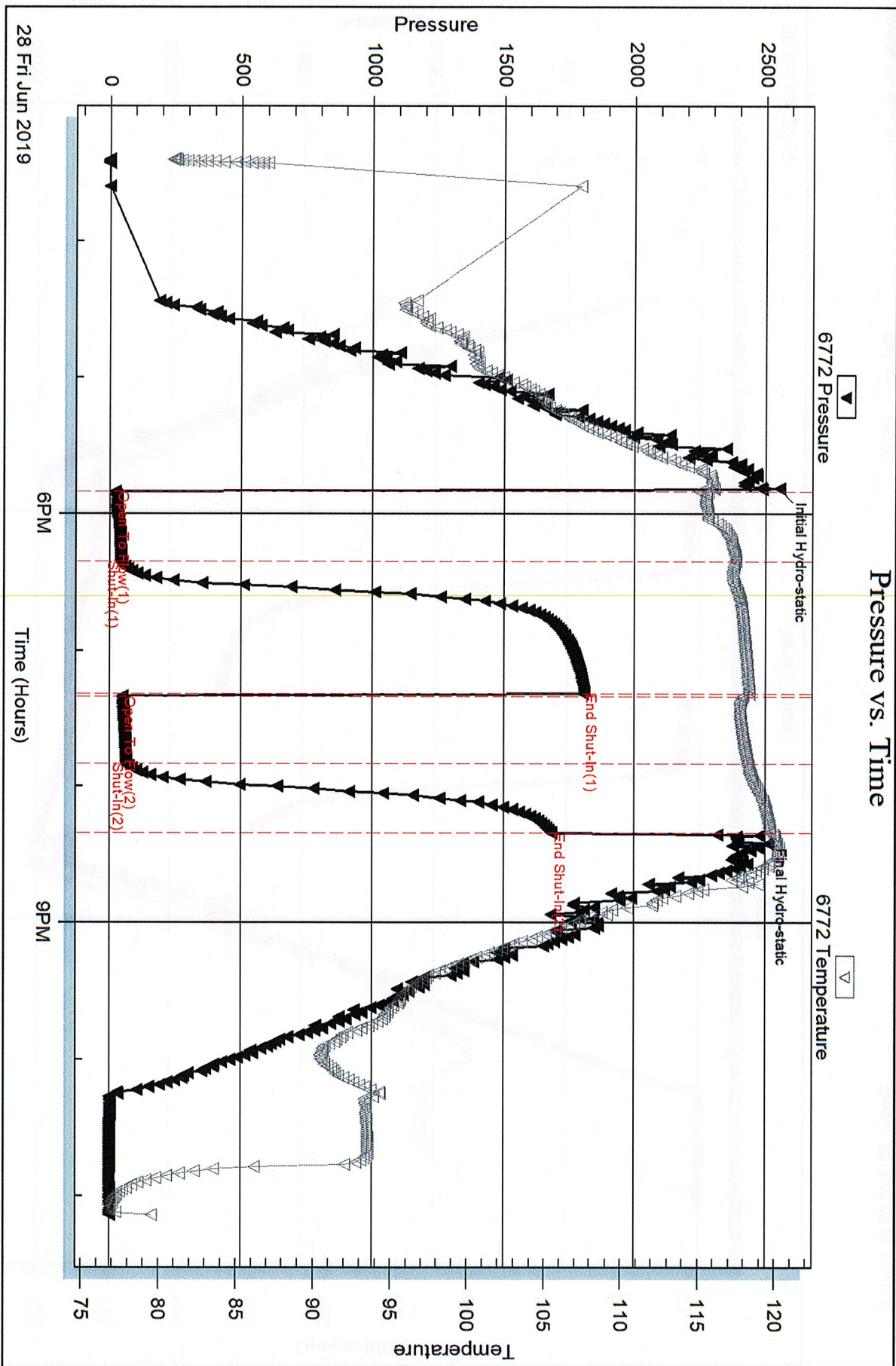
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

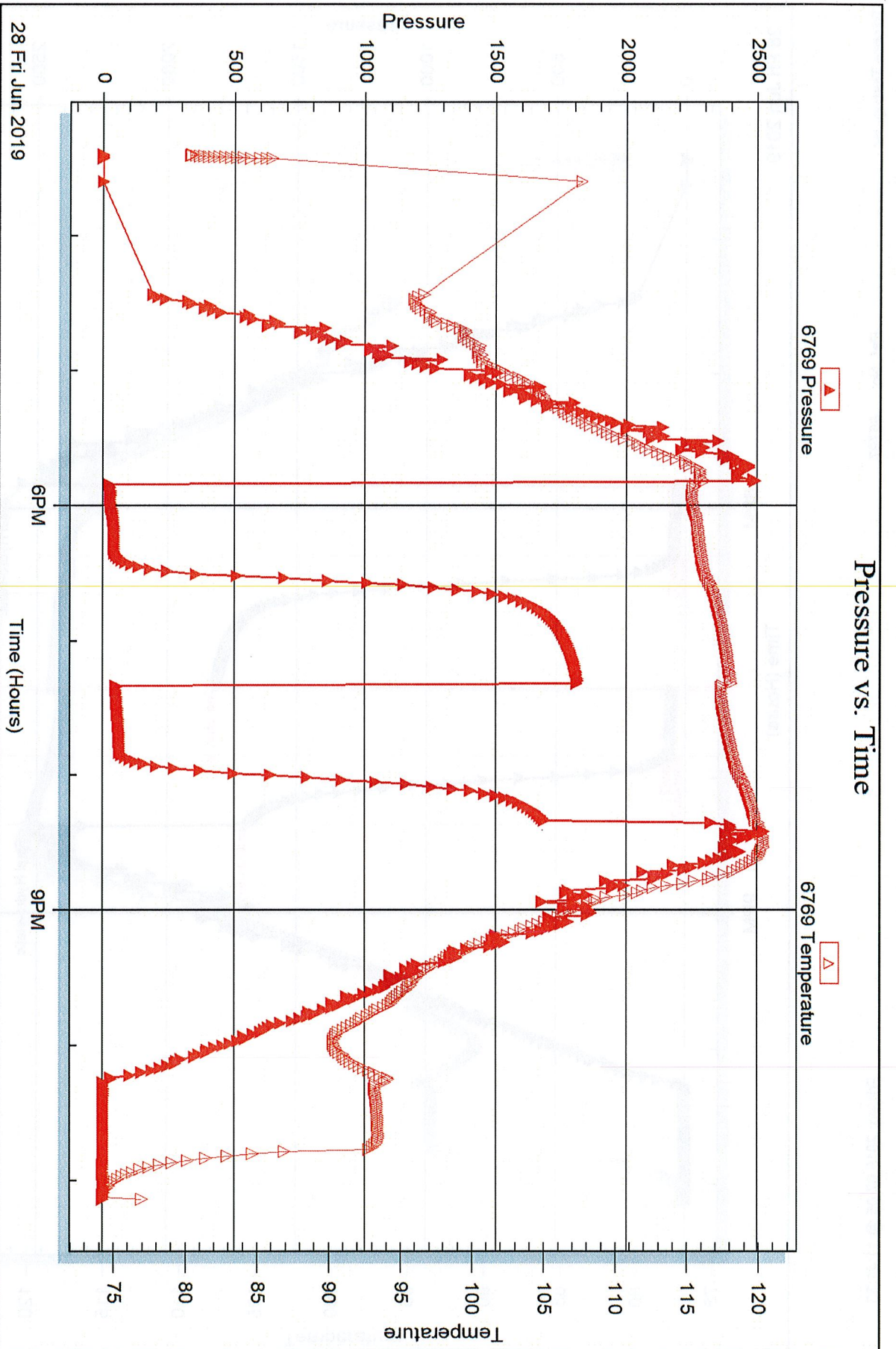


Serial #: 6769

Outside Jolen Operating Company

Filip Glen Trust1-3

DST Test Number: 2



Trilobe Testing, Inc

Ref. No: 65797

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