



DRILL STEM TEST REPORT

Prepared For: **Larson Engineering Inc.**

562 West State Rd. 4
Olmitz KS 67564

ATTN: Vern Schrag

Huck #2-6

6-18s-31w Scott,KS

Start Date: 2018.05.15 @ 08:37:15

End Date: 2018.05.15 @ 14:47:00

Job Ticket #: 63593 DST #: 1

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

Printed: 2018.05.21 @ 09:35:22



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Larson Engineering Inc.

6-18s-31w Scott,KS

562 West State Rd. 4
Olmitz KS 67564

Huck #2-6

Job Ticket: 63593

DST#: 1

ATTN: Vern Schrag

Test Start: 2018.05.15 @ 08:37:15

GENERAL INFORMATION:

Formation: **LKC K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:09:00

Time Test Ended: 14:47:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Mike Roberts

Unit No: 81

Interval: 4192.00 ft (KB) To 4227.00 ft (KB) (TVD)

Reference Elevations: 2968.00 ft (KB)

Total Depth: 4227.00 ft (KB) (TVD)

2958.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8374 Outside

Press@RunDepth: 28.22 psig @ 4193.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.05.15 End Date: 2018.05.15

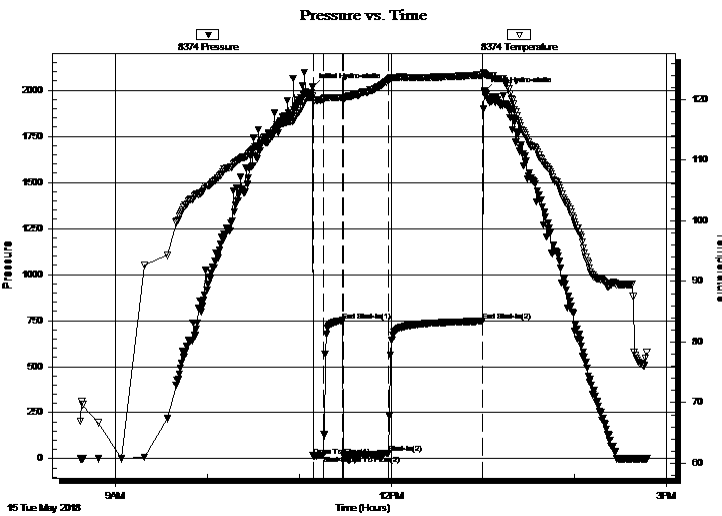
Last Calib.: 2018.05.15

Start Time: 08:37:15 End Time: 14:47:00

Time On Btm: 2018.05.15 @ 11:08:45

Time Off Btm: 2018.05.15 @ 13:01:00

TEST COMMENT: IF: Built to 1" blow
IS: No return blow
FF: Built to 1 3/4" blow
FS: No return blow



PRESSURE SUMMARY

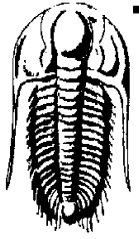
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2016.95	120.57	Initial Hydro-static
1	15.97	119.96	Open To Flow (1)
7	18.54	120.04	Shut-In(1)
20	749.58	120.33	End Shut-In(1)
20	20.67	119.83	Open To Flow (2)
50	28.22	123.23	Shut-In(2)
112	746.82	124.03	End Shut-In(2)
113	1995.07	124.21	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	mud w ith oil spots	0.42

Gas Rates

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



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DRILL STEM TEST REPORT

Larson Engineering Inc.

6-18s-31w Scott,KS

562 West State Rd. 4
Olmitz KS 67564

Huck #2-6

Job Ticket: 63593

DST#: 1

ATTN: Vern Schrag

Test Start: 2018.05.15 @ 08:37:15

GENERAL INFORMATION:

Formation: **LKC K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:09:00

Time Test Ended: 14:47:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Mike Roberts

Unit No: 81

Interval: 4192.00 ft (KB) To 4227.00 ft (KB) (TVD)

Reference Elevations: 2968.00 ft (KB)

Total Depth: 4227.00 ft (KB) (TVD)

2958.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8647

Inside

Press@RunDepth: psig @ 4193.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.05.15

End Date: 2018.05.15

Last Calib.: 2018.05.15

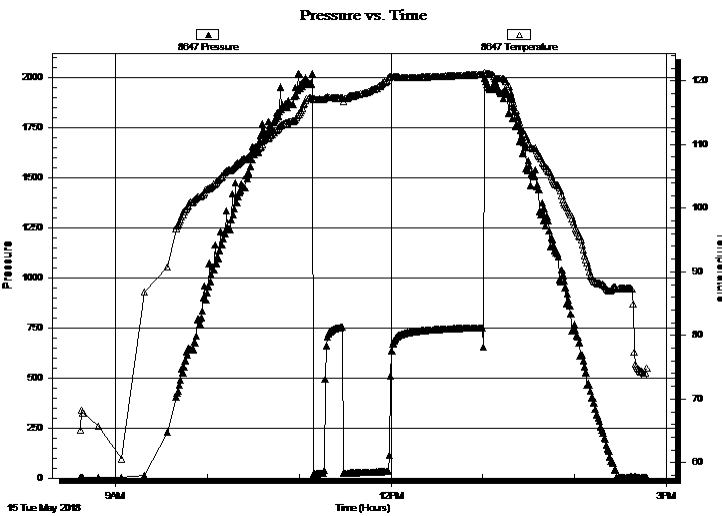
Start Time: 08:37:15

End Time: 14:47:15

Time On Btm:

Time Off Btm:

TEST COMMENT: IF:Built to 1" blow
IS:No return blow
FF:Built to 1 3/4" blow
FS:No return blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
30.00	mud w ith oil spots	0.42

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Engineering Inc.

6-18s-31w Scott,KS

562 West State Rd. 4
Olmitz KS 67564

Huck #2-6

Job Ticket: 63593

DST#: 1

ATTN: Vern Schrag

Test Start: 2018.05.15 @ 08:37:15

Tool Information

Drill Pipe:	Length: 4196.00 ft	Diameter: 3.80 inches	Volume: 58.86 bbl	Tool Weight: 1500.00 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 58.86 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4192.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	23.00 ft			
Tool Length:	46.00 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			4170.00	
Shut In Tool	5.00			4175.00	
Hydraulic tool	5.00			4180.00	
Safety Joint	3.00			4183.00	
Packer	5.00			4188.00	23.00 Bottom Of Top Packer
Packer	4.00			4192.00	
Stubb	1.00			4193.00	
Recorder	0.00	8647	Inside	4193.00	
Recorder	0.00	8374	Outside	4193.00	
Perforations	17.00			4210.00	
Bullnose	5.00			4215.00	23.00 Bottom Packers & Anchor

Total Tool Length: 46.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc.

6-18s-31w Scott,KS

562 West State Rd. 4
Olmitz KS 67564

Huck #2-6

Job Ticket: 63593

DST#: 1

ATTN: Vern Schrag

Test Start: 2018.05.15 @ 08:37:15

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.12 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	mud w ith oil spots	0.421

Total Length: 30.00 ft Total Volume: 0.421 bbl

Num Fluid Samples: 0

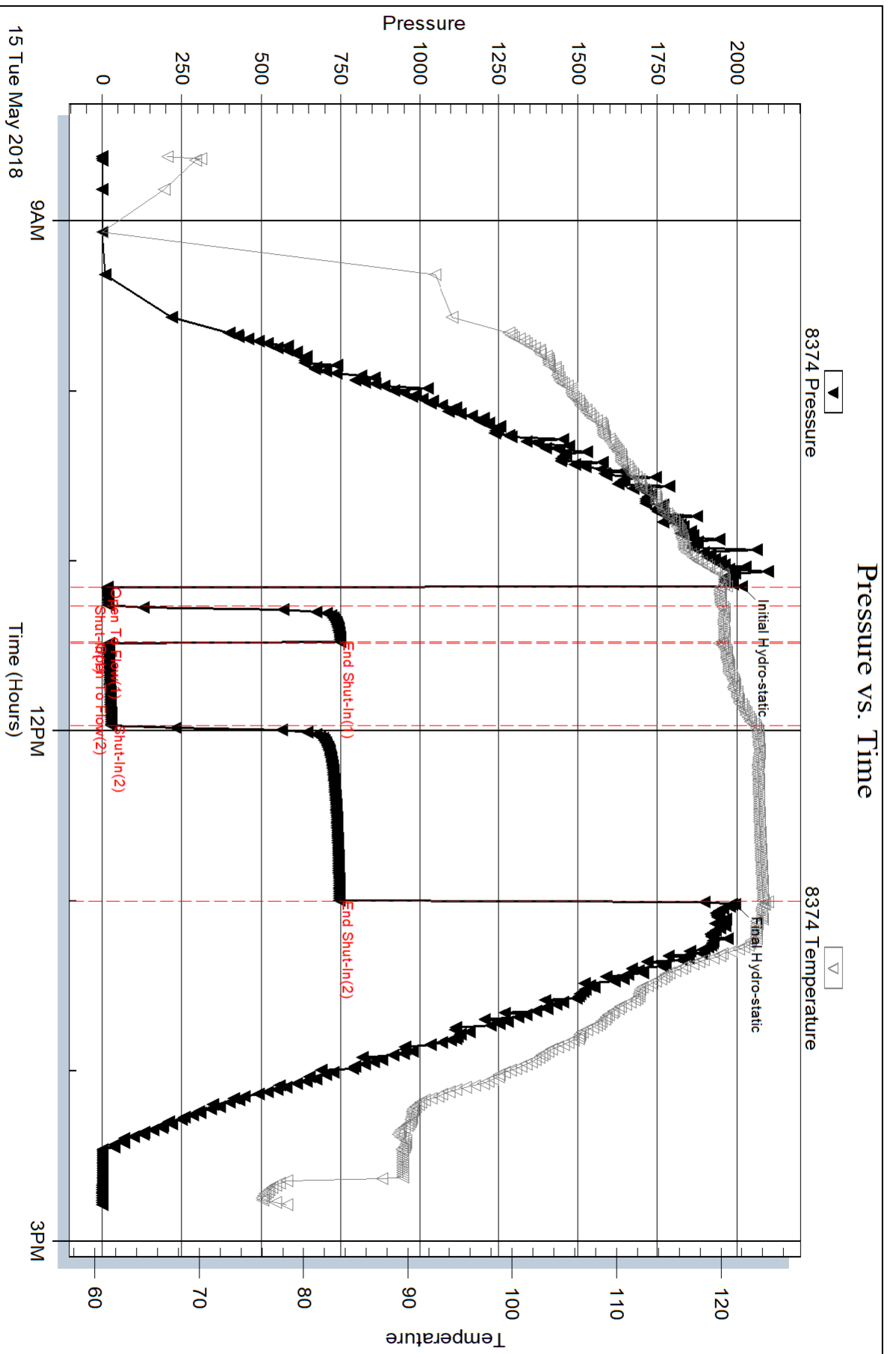
Num Gas Bombs: 0

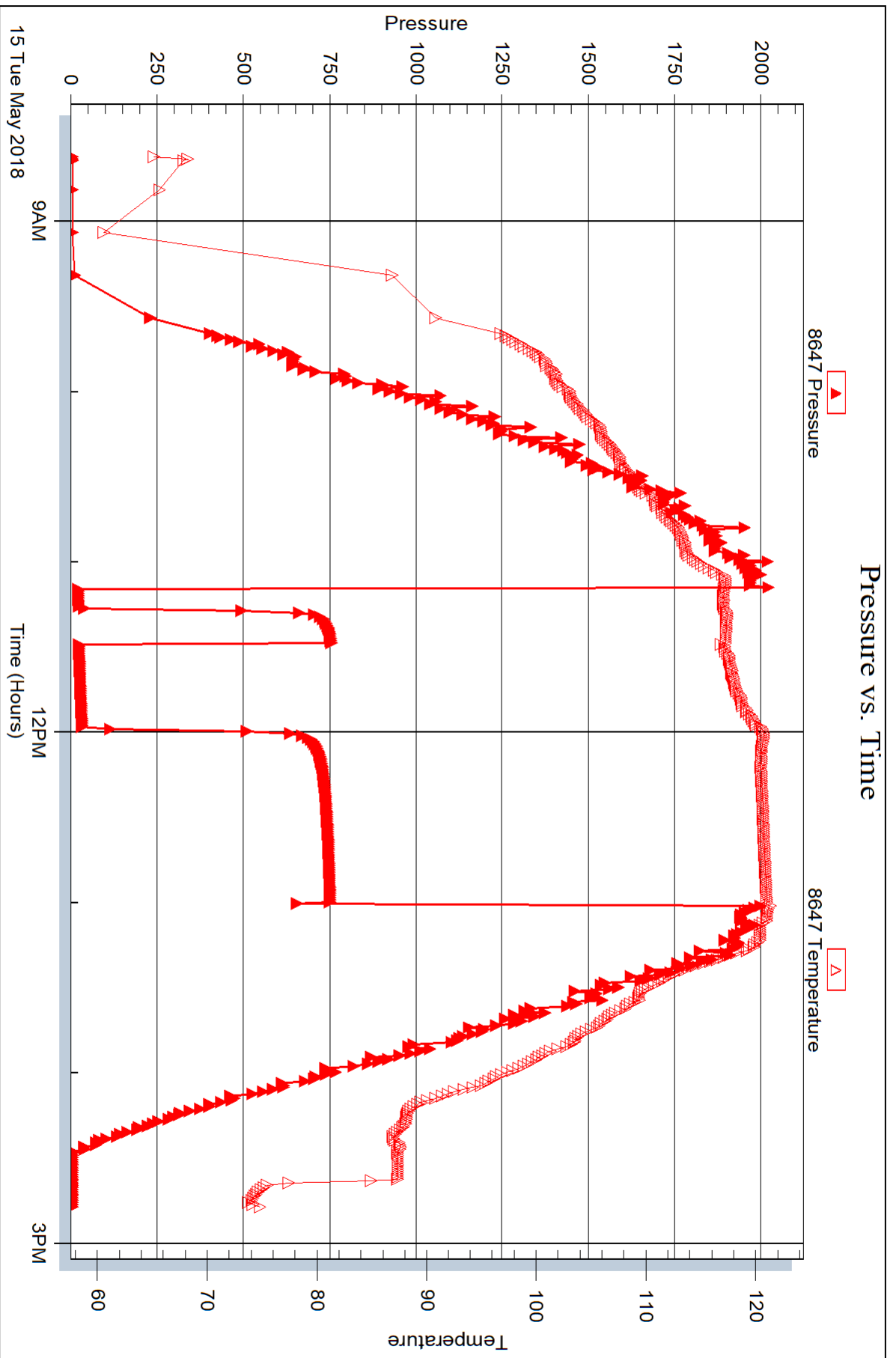
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Larson Engineering Inc.**

562 West State Rd. 4
Olmitz KS 67564

ATTN: Vern Schrag

Huck #2-6

6-18s-31w Scott,KS

Start Date: 2018.05.15 @ 23:04:15

End Date: 2018.05.16 @ 04:25:00

Job Ticket #: 63594 DST #: 2

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

Printed: 2018.05.21 @ 09:34:54



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Larson Engineering Inc.

6-18s-31w Scott,KS

562 West State Rd. 4
Olmitz KS 67564

Huck #2-6

Job Ticket: 63594

DST#: 2

ATTN: Vern Schrag

Test Start: 2018.05.15 @ 23:04:15

GENERAL INFORMATION:

Formation: **LKC L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:23:30

Time Test Ended: 04:25:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 81

Interval: 4228.00 ft (KB) To 4258.00 ft (KB) (TVD)

Reference Elevations: 2968.00 ft (KB)

Total Depth: 4258.00 ft (KB) (TVD)

2958.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8647

Inside

Press@RunDepth: 168.07 psig @ 4229.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.05.15

End Date:

2018.05.16

Last Calib.:

2018.05.16

Start Time: 23:04:15

End Time:

04:25:00

Time On Btm:

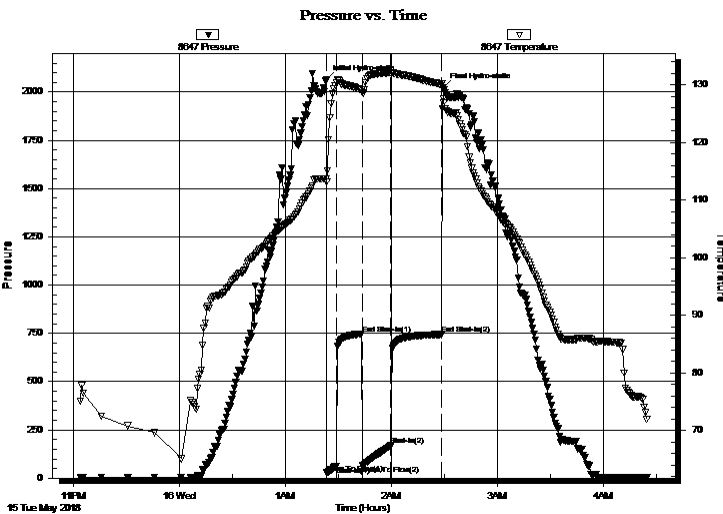
2018.05.16 @ 01:23:15

Time Off Btm:

2018.05.16 @ 02:29:30

TEST COMMENT: IF: Built to 8" blow (ipro)
IS: No return blow
FF: Built to 21" blow (ipro)
FS: No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2063.19	113.81	Initial Hydro-static
1	26.85	113.22	Open To Flow (1)
6	62.61	130.46	Shut-In(1)
21	745.92	129.13	End Shut-In(1)
21	67.85	128.65	Open To Flow (2)
37	168.07	132.18	Shut-In(2)
66	743.96	130.12	End Shut-In(2)
67	2023.60	127.70	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
67.00	w cm 3%w 97%m	0.94
124.00	mcw 20%m 80%w	1.74
124.00	sw 100% sw	1.74

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.

6-18s-31w Scott,KS

562 West State Rd. 4
Olmitz KS 67564

Huck #2-6

Job Ticket: 63594

DST#: 2

ATTN: Vern Schrag

Test Start: 2018.05.15 @ 23:04:15

Tool Information

Drill Pipe:	Length: 4232.00 ft	Diameter: 3.80 inches	Volume: 59.36 bbl	Tool Weight: 1500.00 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 59.36 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	4228.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	23.00 ft			
Tool Length:	46.00 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			4206.00	
Shut In Tool	5.00			4211.00	
Hydraulic tool	5.00			4216.00	
Safety Joint	3.00			4219.00	
Packer	5.00			4224.00	23.00 Bottom Of Top Packer
Packer	4.00			4228.00	
Stubb	1.00			4229.00	
Recorder	0.00	8647	Inside	4229.00	
Recorder	0.00	8374	Outside	4229.00	
Perforations	17.00			4246.00	
Bullnose	5.00			4251.00	23.00 Bottom Packers & Anchor

Total Tool Length: 46.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

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6-18s-31w Scott,KS

562 West State Rd. 4
Olmitz KS 67564

Huck #2-6

Job Ticket: 63594

DST#: 2

ATTN: Vern Schrag

Test Start: 2018.05.15 @ 23:04:15

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

16000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.93 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
67.00	w cm 3%w 97%m	0.940
124.00	mcw 20%m 80%w	1.739
124.00	sw 100% sw	1.739

Total Length: 315.00 ft Total Volume: 4.418 bbl

Num Fluid Samples: 0

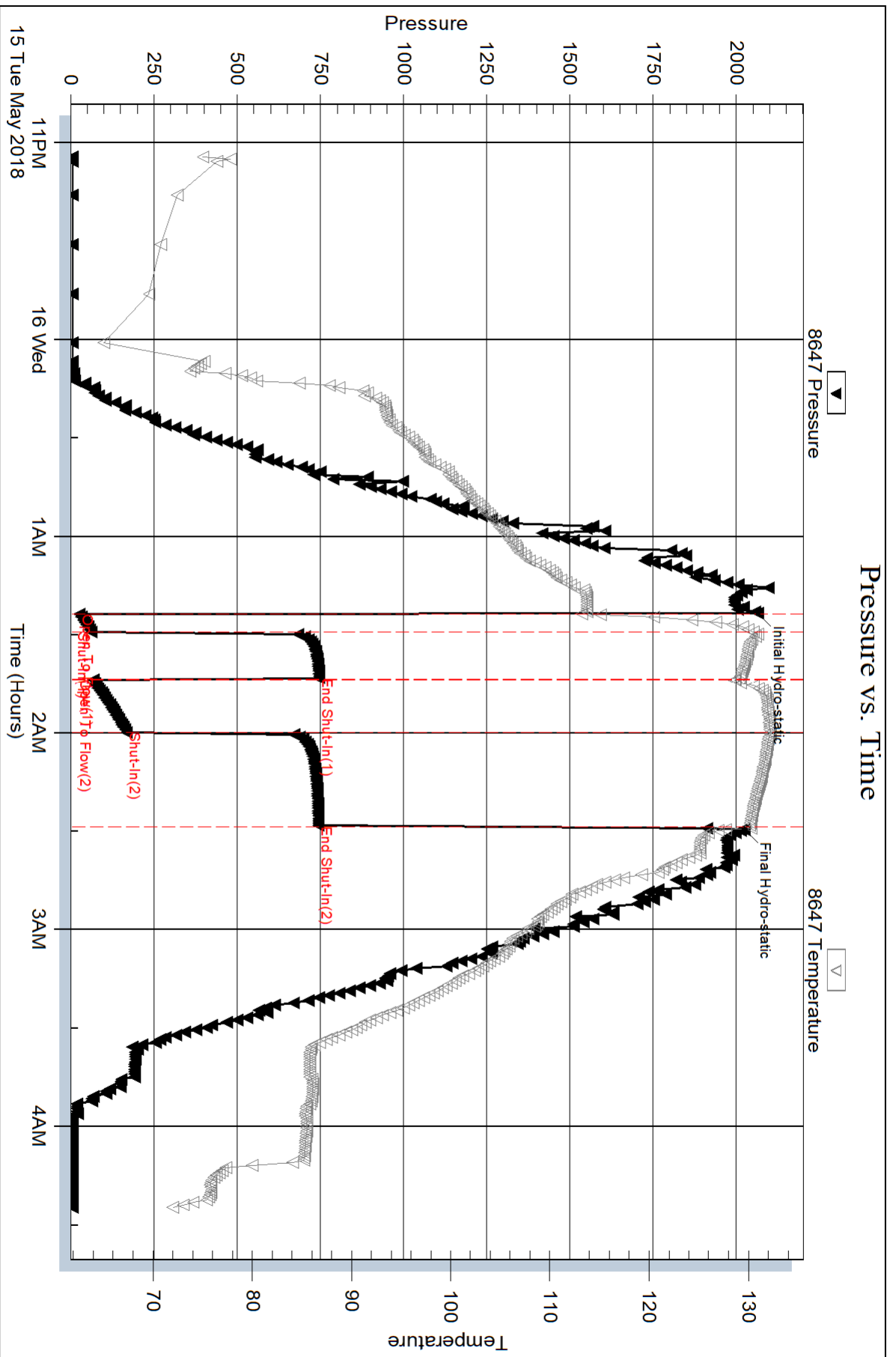
Num Gas Bombs: 0

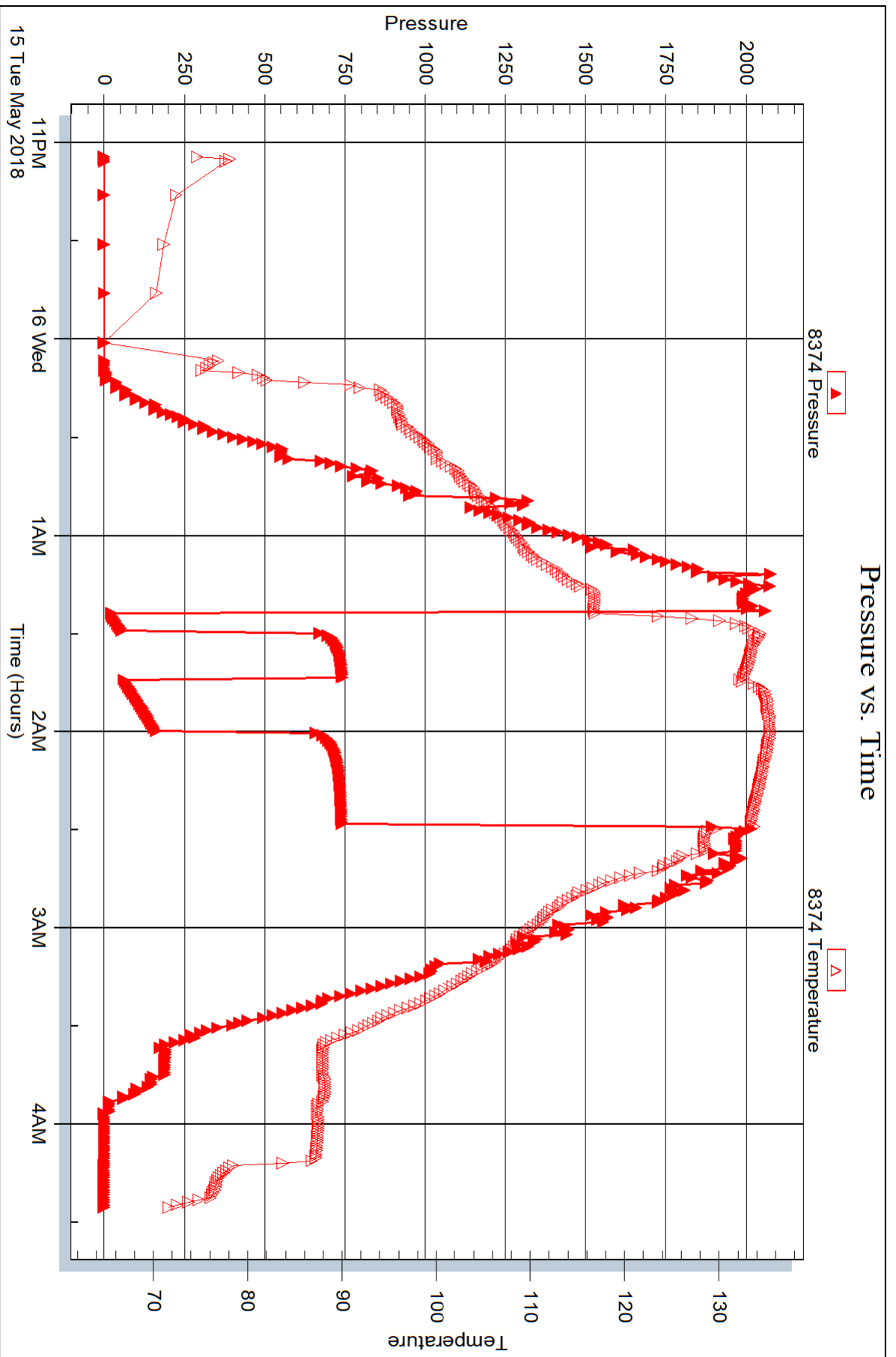
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW= .574@ 56.2 = 16,000 ppm







DRILL STEM TEST REPORT

Prepared For: **Larson Engineering Inc.**

562 West State Rd. 4
Olmitz KS 67564

ATTN: Vern Schrag

Huck #2-6

6-18s-31w Scott,KS

Start Date: 2018.05.16 @ 18:12:15

End Date: 2018.05.16 @ 22:53:30

Job Ticket #: 63595 DST #: 3

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

Printed: 2018.05.21 @ 09:34:11



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering Inc.

6-18s-31w Scott,KS

562 West State Rd. 4
Olmitz KS 67564

Huck #2-6

Job Ticket: 63595

DST#: 3

ATTN: Vern Schrag

Test Start: 2018.05.16 @ 18:12:15

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:04:00

Time Test Ended: 22:53:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 81

Interval: 4274.00 ft (KB) To 4347.00 ft (KB) (TVD)

Reference Elevations: 2968.00 ft (KB)

Total Depth: 4347.00 ft (KB) (TVD)

2958.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8647

Inside

Press@RunDepth: 39.07 psig @ 4313.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.05.16

End Date: 2018.05.16

Last Calib.: 2018.05.16

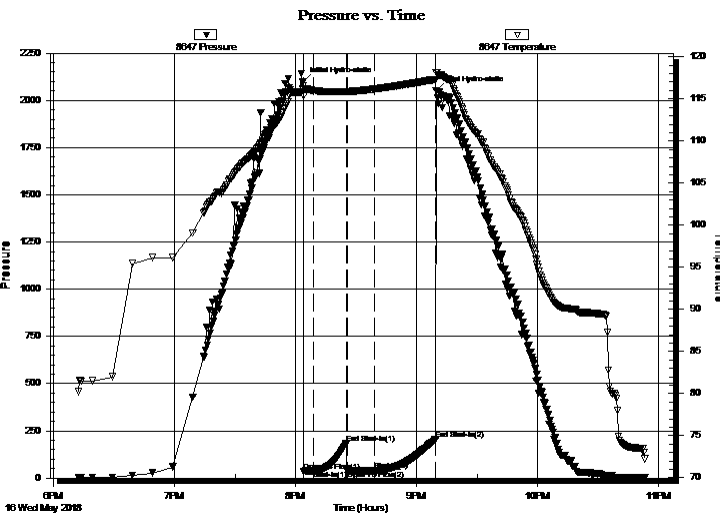
Start Time: 18:12:15

End Time: 22:53:30

Time On Btm: 2018.05.16 @ 20:03:45

Time Off Btm: 2018.05.16 @ 21:09:45

TEST COMMENT: IF: Built to 1" blow
IS: No return blow
FF: No blow
FS: No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2099.78	116.59	Initial Hydro-static
1	37.42	115.39	Open To Flow (1)
6	38.69	115.98	Shut-In(1)
22	181.87	115.91	End Shut-In(1)
22	38.64	115.88	Open To Flow (2)
36	39.07	116.17	Shut-In(2)
66	206.98	117.33	End Shut-In(2)
66	2051.64	118.10	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud w ith oil spots 100%m	0.07

* 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.

6-18s-31w Scott,KS

562 West State Rd. 4
Olmitz KS 67564

Huck #2-6

Job Ticket: 63595

DST#: 3

ATTN: Vern Schrag

Test Start: 2018.05.16 @ 18:12:15

Tool Information

Drill Pipe:	Length: 4252.00 ft	Diameter: 3.80 inches	Volume: 59.64 bbl	Tool Weight: 1500.00 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 59.64 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	4274.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	73.00 ft			
Tool Length:	101.00 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			4247.00	
Shut In Tool	5.00			4252.00	
Hydraulic tool	5.00			4257.00	
Jars	5.00			4262.00	
Safety Joint	3.00			4265.00	
Packer	5.00			4270.00	28.00 Bottom Of Top Packer
Packer	4.00			4274.00	
Stubb	1.00			4275.00	
Perforations	4.00			4279.00	
Change Over Sub	1.00			4280.00	
Drill Pipe	32.00			4312.00	
Change Over Sub	1.00			4313.00	
Recorder	0.00	8647	Inside	4313.00	
Recorder	0.00	8374	Outside	4313.00	
Perforations	29.00			4342.00	
Bullnose	5.00			4347.00	73.00 Bottom Packers & Anchor
Total Tool Length:	101.00				



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc.

6-18s-31w Scott,KS

562 West State Rd. 4
Olmitz KS 67564

Huck #2-6

Job Ticket: 63595

DST#: 3

ATTN: Vern Schrag

Test Start: 2018.05.16 @ 18:12:15

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.92 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2600.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mud w ith oil spots 100%m	0.070

Total Length: 5.00 ft Total Volume: 0.070 bbl

Num Fluid Samples: 0

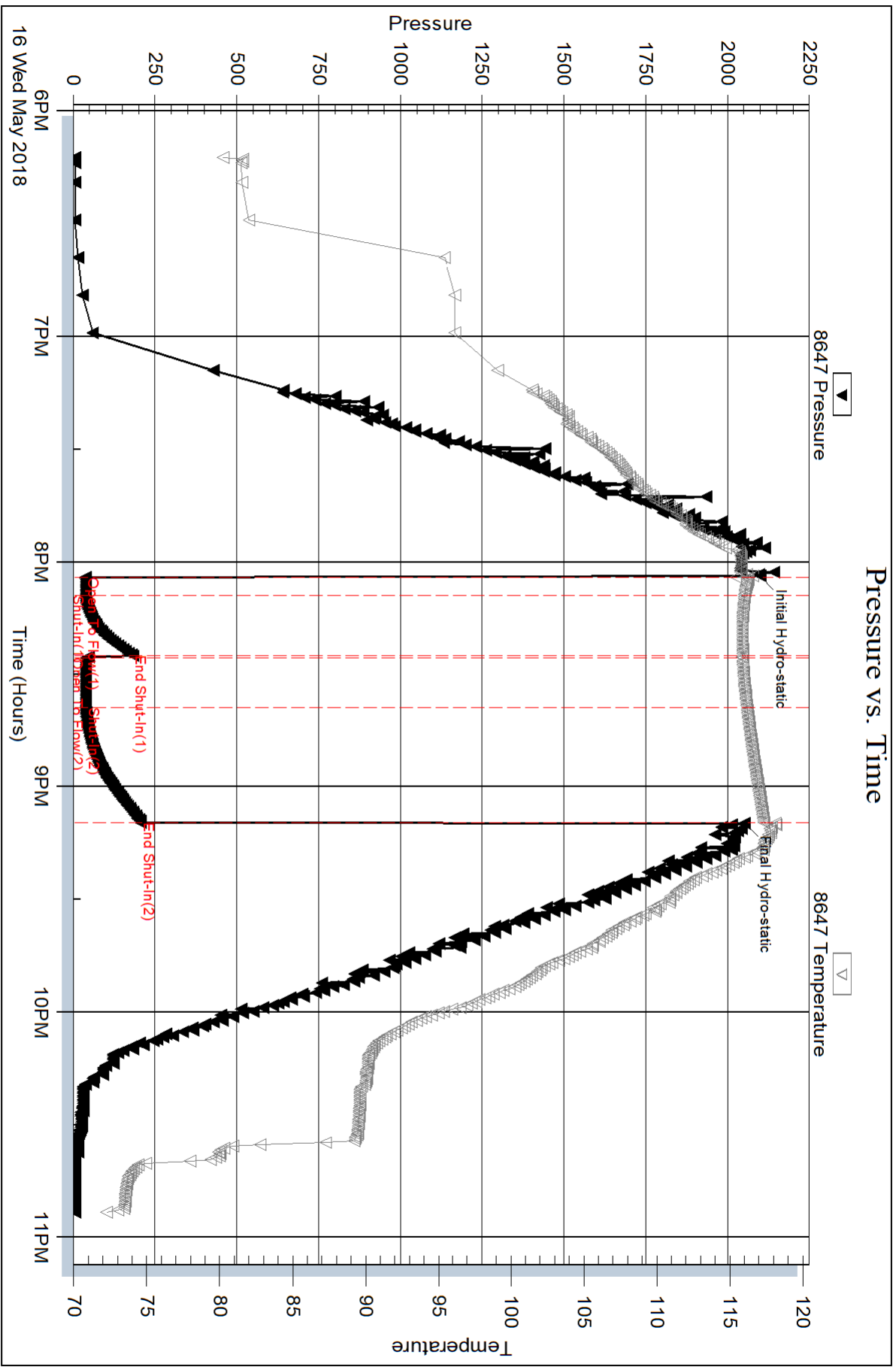
Num Gas Bombs: 0

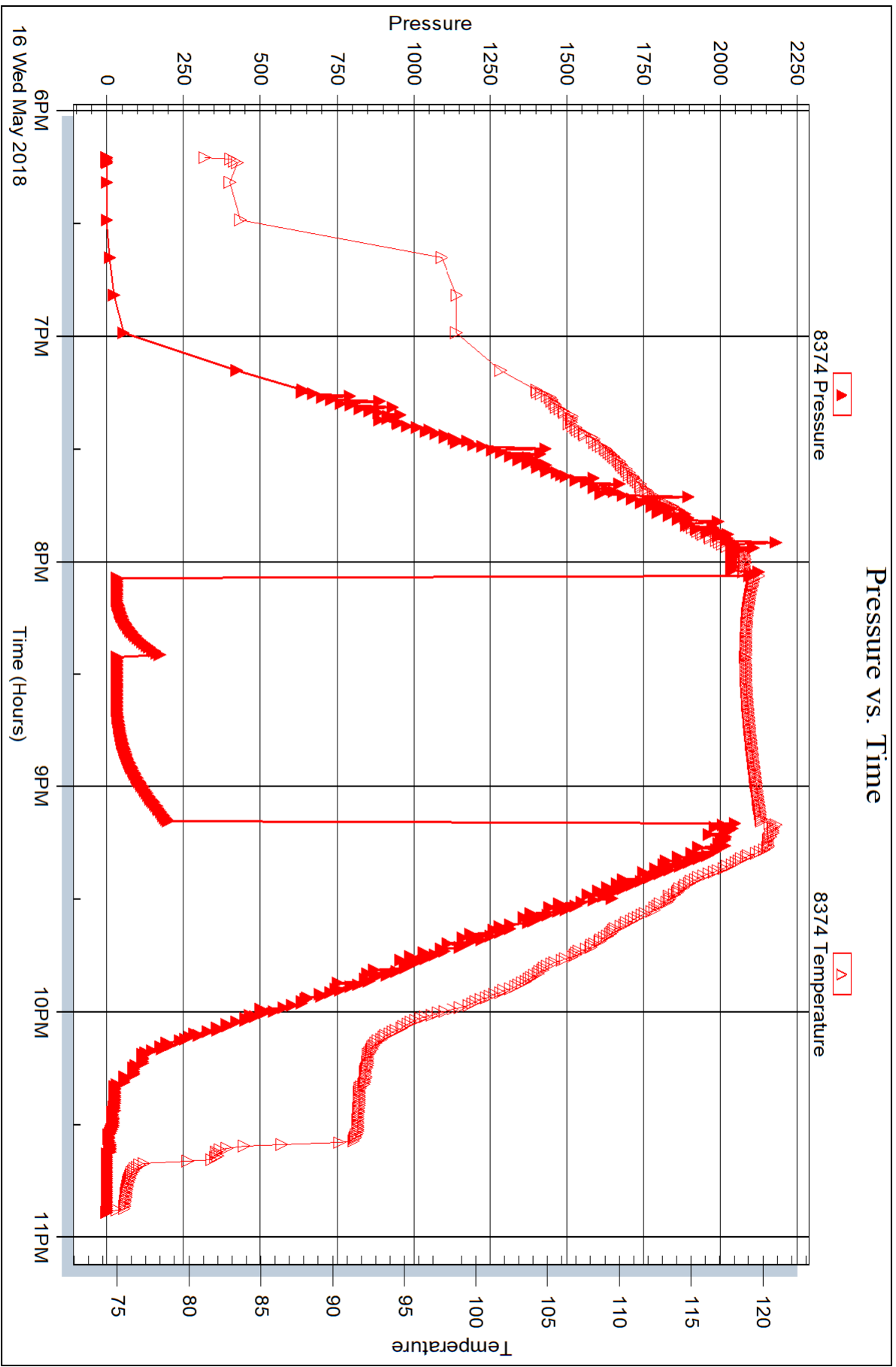
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Larson Engineering Inc.**

562 West State Rd. 4
Olmitz KS 67564

ATTN: Vern Schrag

Huck #2-6

6-18s-31w Scott,KS

Start Date: 2018.05.17 @ 07:51:15

End Date: 2018.05.17 @ 13:57:45

Job Ticket #: 63596 DST #: 4

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

Printed: 2018.05.21 @ 09:33:37



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Larson Engineering Inc.

6-18s-31w Scott,KS

562 West State Rd. 4
Olmitz KS 67564

Huck #2-6

Job Ticket: 63596

DST#: 4

ATTN: Vern Schrag

Test Start: 2018.05.17 @ 07:51:15

GENERAL INFORMATION:

Formation: **Altamont**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:11:45

Time Test Ended: 13:57:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 81

Interval: 4358.00 ft (KB) To 4385.00 ft (KB) (TVD)

Reference Elevations: 2968.00 ft (KB)

Total Depth: 4385.00 ft (KB) (TVD)

2958.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8647

Inside

Press@RunDepth: 88.18 psig @ 4359.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.05.17

End Date:

2018.05.17

Last Calib.:

2018.05.17

Start Time:

07:51:15

End Time:

13:57:45

Time On Btm:

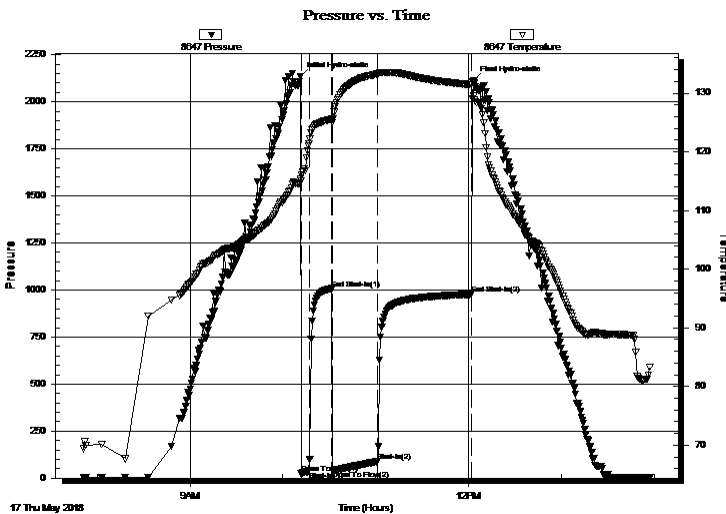
2018.05.17 @ 10:11:30

Time Off Btm:

2018.05.17 @ 12:03:30

TEST COMMENT: IF: Built to 3" blow
IS: No return blow
FF: Built to 11 1/2" blow
FS: No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2135.54	115.39	Initial Hydro-static
1	23.71	115.04	Open To Flow (1)
6	35.71	121.39	Shut-In(1)
21	1008.08	125.53	End Shut-In(1)
21	39.41	124.96	Open To Flow (2)
50	88.18	133.22	Shut-In(2)
111	977.33	131.40	End Shut-In(2)
112	2113.36	129.48	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	free oil	0.14
82.00	ocm 20%o 80%m	1.15
62.00	ocw m 10%o 40%w 50%m	0.87

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering Inc.

6-18s-31w Scott,KS

562 West State Rd. 4
Olmitz KS 67564

Huck #2-6

Job Ticket: 63596

DST#: 4

ATTN: Vern Schrag

Test Start: 2018.05.17 @ 07:51:15

GENERAL INFORMATION:

Formation: **Altamont**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:11:45

Time Test Ended: 13:57:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 81

Interval: 4358.00 ft (KB) To 4385.00 ft (KB) (TVD)

Reference Elevations: 2968.00 ft (KB)

Total Depth: 4385.00 ft (KB) (TVD)

2958.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8374 Outside

Press@RunDepth: psig @ 4359.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.05.17

End Date:

2018.05.17

Last Calib.:

2018.05.17

Start Time: 07:51:15

End Time:

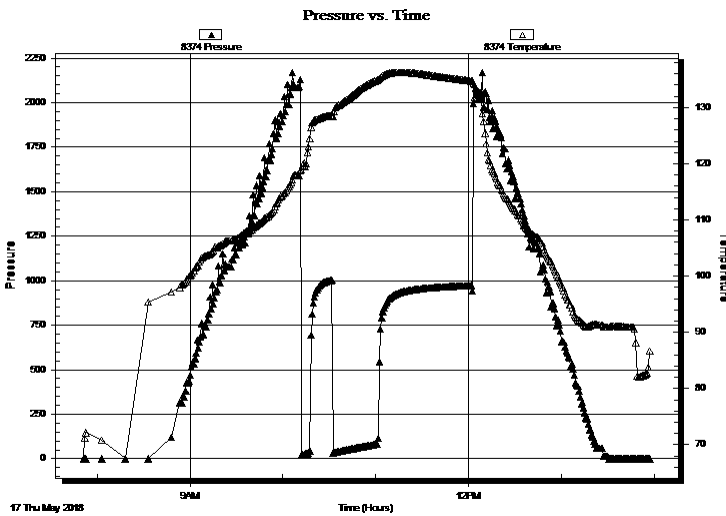
13:57:45

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: Built to 3" blow
IS: No return blow
FF: Built to 11 1/2" blow
FS: No return blow

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	free oil	0.14
82.00	ocm 20%o 80%m	1.15
62.00	ocw m 10%o 40%w 50%m	0.87

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.

6-18s-31w Scott,KS

562 West State Rd. 4
Olmitz KS 67564

Huck #2-6

Job Ticket: 63596

DST#: 4

ATTN: Vern Schrag

Test Start: 2018.05.17 @ 07:51:15

Tool Information

Drill Pipe:	Length: 4356.00 ft	Diameter: 3.80 inches	Volume: 61.10 bbl	Tool Weight: 1500.00 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 61.10 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 53000.00 lb
Depth to Top Packer:	4358.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	27.00 ft			
Tool Length:	50.00 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			4336.00	
Shut In Tool	5.00			4341.00	
Hydraulic tool	5.00			4346.00	
Safety Joint	3.00			4349.00	
Packer	5.00			4354.00	23.00 Bottom Of Top Packer
Packer	4.00			4358.00	
Stubb	1.00			4359.00	
Recorder	0.00	8647	Inside	4359.00	
Recorder	0.00	8374	Outside	4359.00	
Perforations	21.00			4380.00	
Bullnose	5.00			4385.00	27.00 Bottom Packers & Anchor

Total Tool Length: 50.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc.

6-18s-31w Scott,KS

562 West State Rd. 4
Olmitz KS 67564

Huck #2-6

Job Ticket: 63596

DST#: 4

ATTN: Vern Schrag

Test Start: 2018.05.17 @ 07:51:15

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:

16000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.96 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2600.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	free oil	0.140
82.00	ocm 20%o 80%m	1.150
62.00	ocw m 10%o 40%w 50%m	0.870

Total Length: 154.00 ft Total Volume: 2.160 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

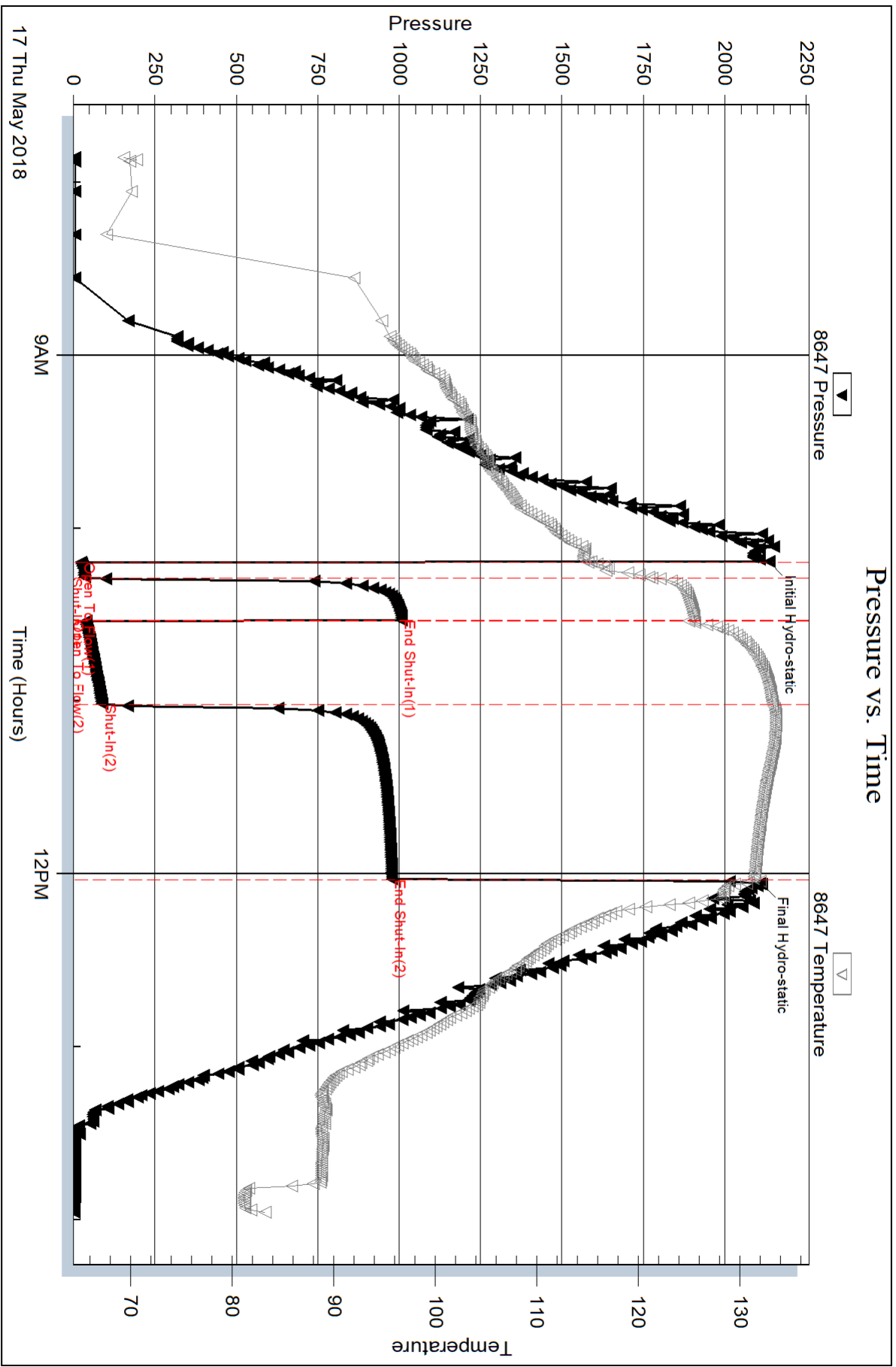
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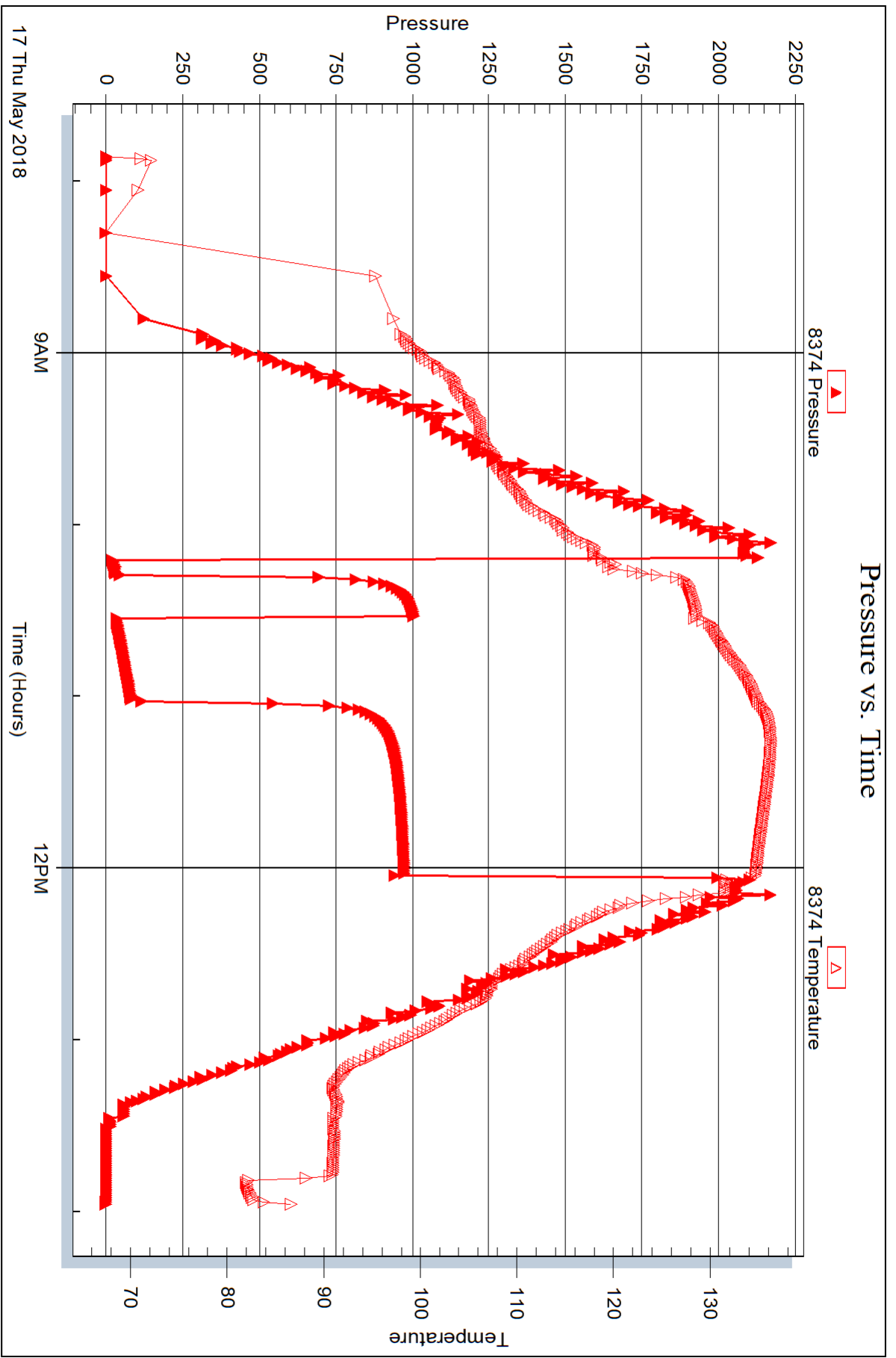
Laboratory Name:

Laboratory Location:

Recovery Comments: API= 32 @ 60

RW= .422@ 85.9=16,000 ppm







DRILL STEM TEST REPORT

Prepared For: **Larson Engineering Inc.**

562 West State Rd. 4
Olmitz KS 67564

ATTN: Vern Schrag

Huck #2-6

6-18s-31w Scott,KS

Start Date: 2018.05.18 @ 13:56:15

End Date: 2018.05.18 @ 19:03:15

Job Ticket #: 63597 DST #: 5

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

Printed: 2018.05.21 @ 09:33:10



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering Inc.

6-18s-31w Scott,KS

562 West State Rd. 4
Olmitz KS 67564

Huck #2-6

Job Ticket: 63597

DST#: 5

ATTN: Vern Schrag

Test Start: 2018.05.18 @ 13:56:15

GENERAL INFORMATION:

Formation: **Cherokee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:56:15

Time Test Ended: 19:03:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 81

Interval: 4547.00 ft (KB) To 4576.00 ft (KB) (TVD)

Reference Elevations: 2968.00 ft (KB)

Total Depth: 4576.00 ft (KB) (TVD)

2958.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8647

Inside

Press@RunDepth: 57.67 psig @ 4548.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.05.18 End Date: 2018.05.18

Last Calib.: 2018.05.18

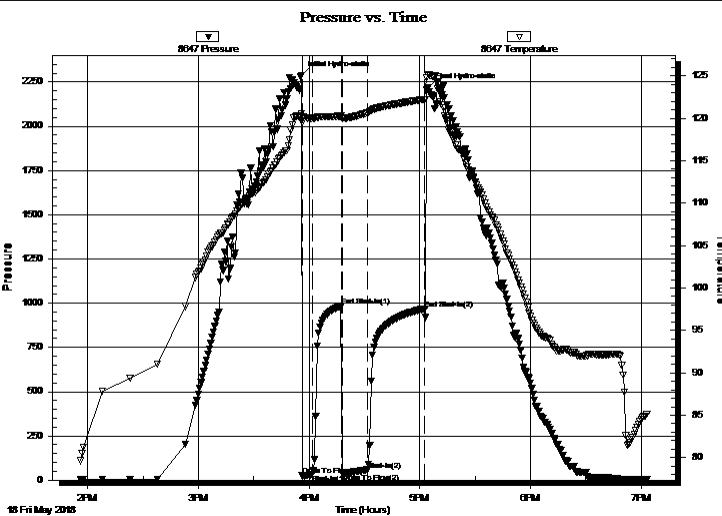
Start Time: 13:56:15 End Time: 19:03:15

Time On Btm: 2018.05.18 @ 15:56:00

Time Off Btm: 2018.05.18 @ 17:04:30

TEST COMMENT: IF:Built to 11 3/4" blow (ipro)
IS:No return blow
FF:Built to 30" (lpro)
FS:Built from 14 1/2" to 20 3/4"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2287.74	120.58	Initial Hydro-static
1	25.22	119.52	Open To Flow (1)
6	31.19	119.97	Shut-In(1)
22	984.51	120.26	End Shut-In(1)
22	39.24	120.01	Open To Flow (2)
36	57.67	120.64	Shut-In(2)
67	969.05	122.24	End Shut-In(2)
69	2219.35	125.17	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	GIP= 620 Ft.	0.00
92.00	Free Oil	1.29
32.00	gcom 5%g 25%o 70%m	0.45

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering Inc.

6-18s-31w Scott,KS

562 West State Rd. 4
Olmitz KS 67564

Huck #2-6

Job Ticket: 63597

DST#: 5

ATTN: Vern Schrag

Test Start: 2018.05.18 @ 13:56:15

GENERAL INFORMATION:

Formation: **Cherokee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:56:15

Time Test Ended: 19:03:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 81

Interval: 4547.00 ft (KB) To 4576.00 ft (KB) (TVD)

Reference Elevations: 2968.00 ft (KB)

Total Depth: 4576.00 ft (KB) (TVD)

2958.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8374 Outside

Press@RunDepth: psig @ 4548.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.05.18 End Date: 2018.05.18

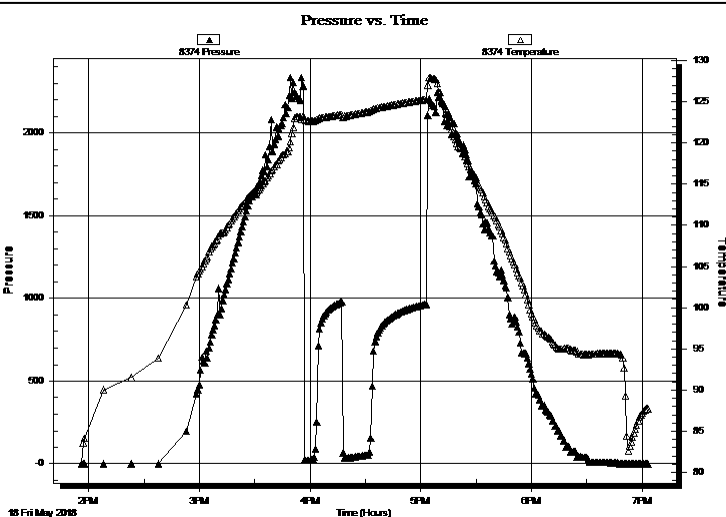
Last Calib.: 2018.05.18

Start Time: 13:56:15 End Time: 19:03:30

Time On Btm:

Time Off Btm:

TEST COMMENT: IF:Built to 11 3/4" blow (ipro)
IS:No return blow
FF:Built to 30" (ipro)
FS:Built from 14 1/2" to 20 3/4"



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
0.00	GIP= 620 Ft.	0.00
92.00	Free Oil	1.29
32.00	gcom 5%g 25%o 70%m	0.45

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.

6-18s-31w Scott,KS

562 West State Rd. 4
Olmitz KS 67564

Huck #2-6

Job Ticket: 63597

DST#: 5

ATTN: Vern Schrag

Test Start: 2018.05.18 @ 13:56:15

Tool Information

Drill Pipe:	Length: 4545.00 ft	Diameter: 3.80 inches	Volume: 63.75 bbl	Tool Weight: 1500.00 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 63.75 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4547.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	29.00 ft			
Tool Length:	52.00 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			4525.00	
Shut In Tool	5.00			4530.00	
Hydraulic tool	5.00			4535.00	
Safety Joint	3.00			4538.00	
Packer	5.00			4543.00	23.00 Bottom Of Top Packer
Packer	4.00			4547.00	
Stubb	1.00			4548.00	
Recorder	0.00	8647	Inside	4548.00	
Recorder	0.00	8374	Outside	4548.00	
Perforations	23.00			4571.00	
Bullnose	5.00			4576.00	29.00 Bottom Packers & Anchor

Total Tool Length: 52.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc.

6-18s-31w Scott,KS

562 West State Rd. 4
Olmitz KS 67564

Huck #2-6

Job Ticket: 63597

DST#: 5

ATTN: Vern Schrag

Test Start: 2018.05.18 @ 13:56:15

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:

0 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.76 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2700.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	GIP= 620 Ft.	0.000
92.00	Free Oil	1.291
32.00	gcom 5%g 25%o 70%m	0.449

Total Length: 124.00 ft Total Volume: 1.740 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

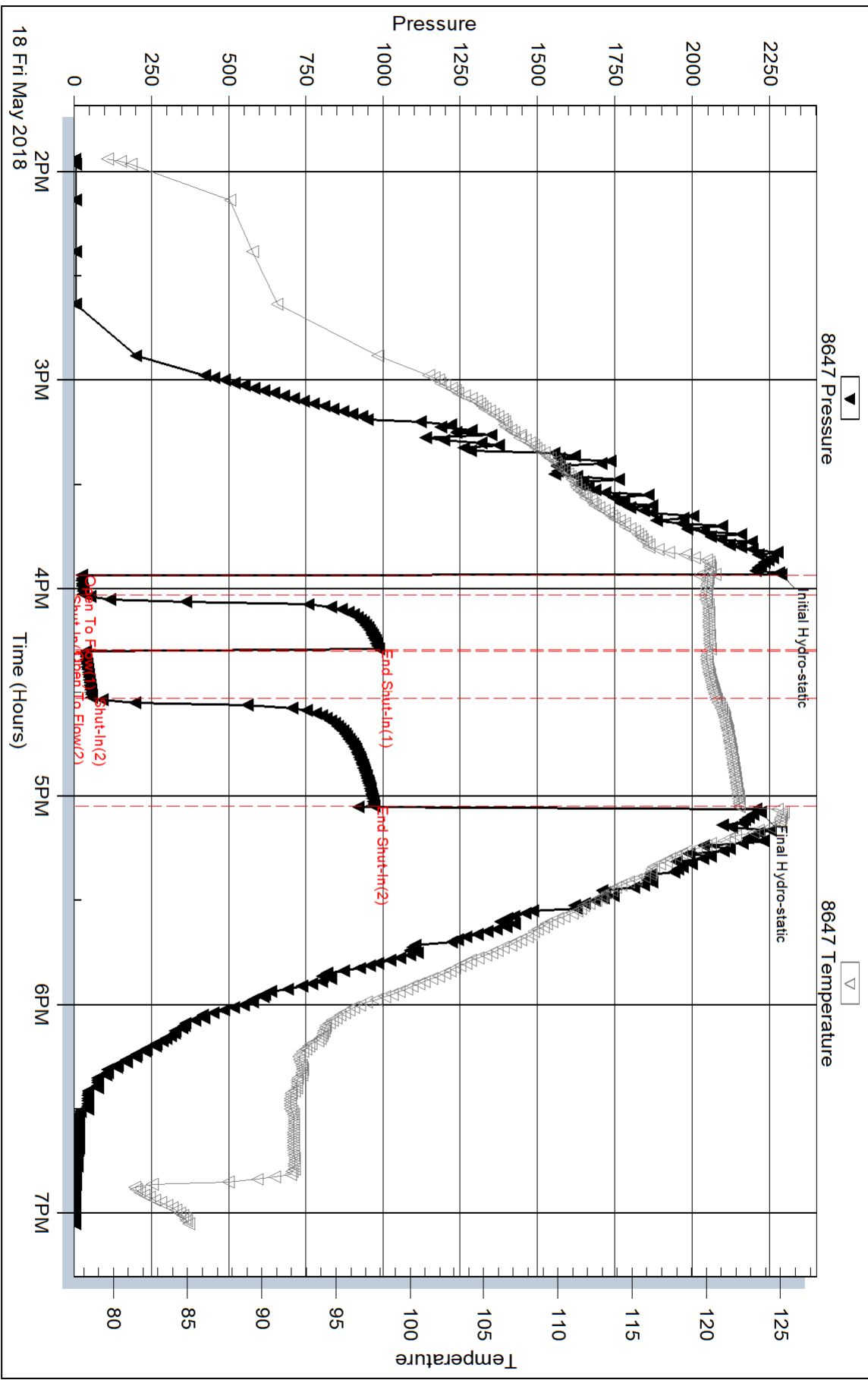
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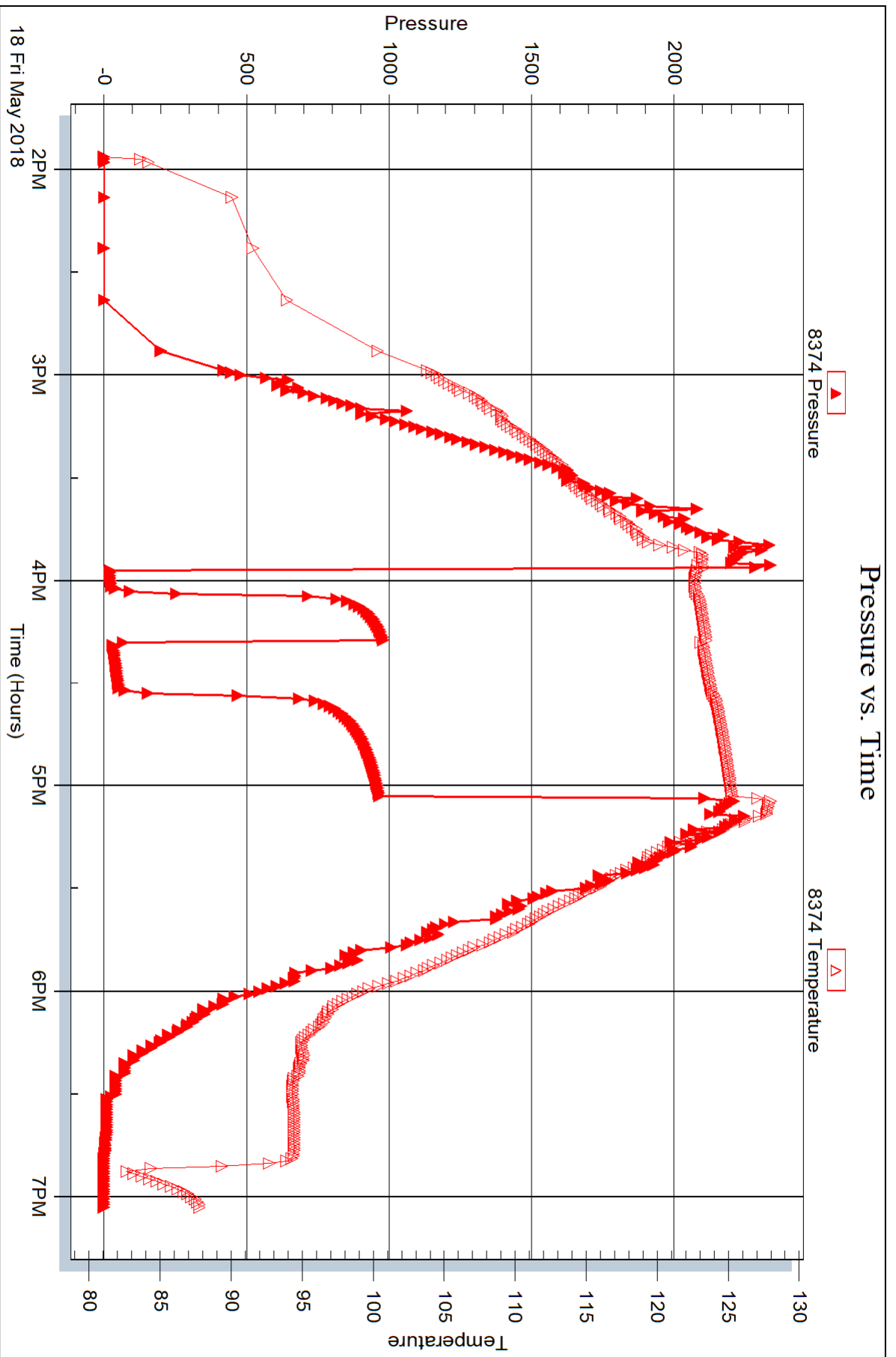
Laboratory Name:

Laboratory Location:

Recovery Comments: API= 29@ 90 corrected to 32@ 60

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Larson Engineering Inc.**

562 West State Rd. 4
Olmitz KS 67564

ATTN: Vern Schrag

Huck #2-6

6-18s-31w Scott,KS

Start Date: 2018.05.19 @ 23:34:15

End Date: 2018.05.20 @ 05:38:45

Job Ticket #: 63598 DST #: 6

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

Printed: 2018.05.21 @ 09:32:42



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Larson Engineering Inc.
 562 West State Rd. 4
 Olmitz KS 67564
 ATTN: Vern Schrag

6-18s-31w Scott,KS

Huck #2-6

Job Ticket: 63598

DST#: 6

Test Start: 2018.05.19 @ 23:34:15

GENERAL INFORMATION:

Formation: **Altamont**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 01:37:15
 Time Test Ended: 05:38:45
 Interval: **4385.00 ft (KB) To 4411.00 ft (KB) (TVD)**
 Total Depth: 4640.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Mike Roberts
 Unit No: 81
 Reference Elevations: 2968.00 ft (KB)
 2958.00 ft (CF)
 KB to GR/CF: 10.00 ft

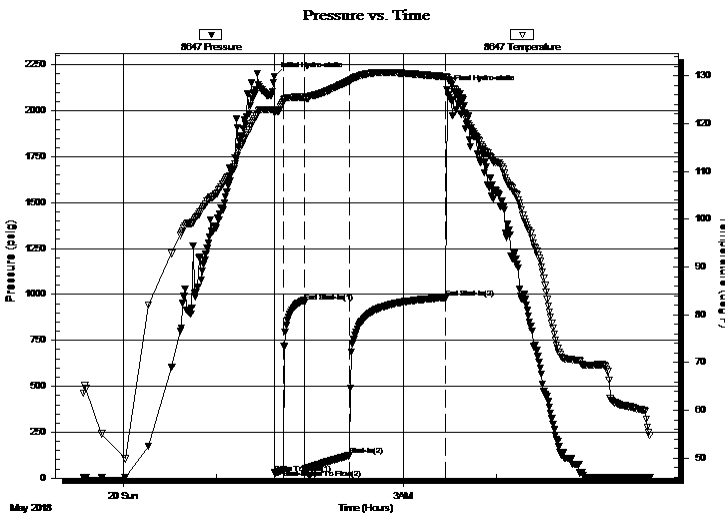
Serial #: 8647

Inside

Press@RunDepth: 123.67 psig @ 4407.00 ft (KB)
 Start Date: 2018.05.19 End Date: 2018.05.20
 Start Time: 23:34:15 End Time: 05:38:45
 Capacity: 8000.00 psig
 Last Calib.: 2018.05.20
 Time On Btm: 2018.05.20 @ 01:37:00
 Time Off Btm: 2018.05.20 @ 03:28:15

TEST COMMENT: IF: Built to 4" blow (lpro)
 IS: No return blow
 FF: Built to 15" blow (lpro)
 FS: No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2187.43	122.96	Initial Hydro-static
1	27.90	122.23	Open To Flow (1)
6	47.91	124.51	Shut-In(1)
20	956.47	125.51	End Shut-In(1)
20	47.23	125.21	Open To Flow (2)
49	123.67	128.91	Shut-In(2)
111	982.99	129.82	End Shut-In(2)
112	2115.10	129.67	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	free oil 100%o	0.07
97.00	ocm 20%o 80%m	1.36
124.00	mcw 5%m 95%w	1.74

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Larson Engineering Inc.

6-18s-31w Scott,KS

562 West State Rd. 4
Olmitz KS 67564

Huck #2-6

Job Ticket: 63598

DST#: 6

ATTN: Vern Schrag

Test Start: 2018.05.19 @ 23:34:15

GENERAL INFORMATION:

Formation: **Altamont**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:37:15

Time Test Ended: 05:38:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 81

Interval: 4385.00 ft (KB) To 4411.00 ft (KB) (TVD)

Reference Elevations: 2968.00 ft (KB)

Total Depth: 4640.00 ft (KB) (TVD)

2958.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8374 Outside

Press@RunDepth: psig @ 4407.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.05.19 End Date: 2018.05.20

Last Calib.: 2018.05.20

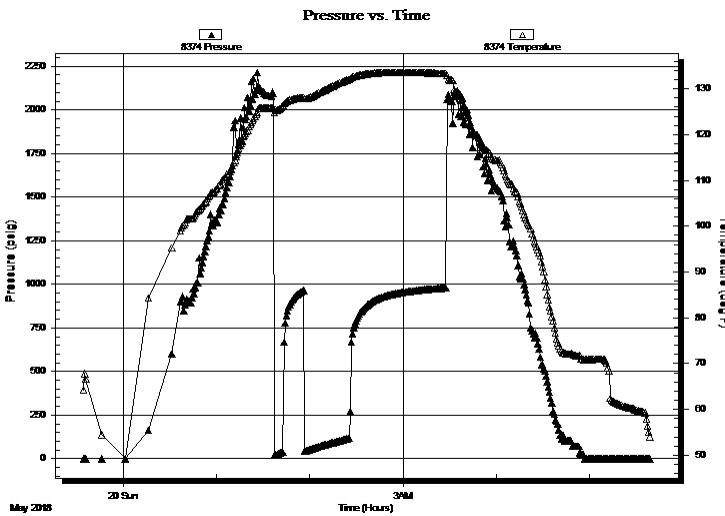
Start Time: 23:34:15 End Time: 05:38:45

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: Built to 4" blow (lpro)
IS: No return blow
FF: Built to 15" blow (lpro)
FS: No return blow

PRESSURE SUMMARY



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

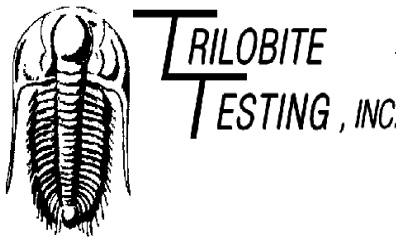
Recovery

Length (ft)	Description	Volume (bbl)
5.00	free oil 100%o	0.07
97.00	ocm 20%o 80%m	1.36
124.00	mcw 5%m 95%w	1.74

Gas Rates

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

* Recovery from multiple tests



DRILL STEM TEST REPORT

Larson Engineering Inc.

562 West State Rd. 4
Olmitz KS 67564

ATTN: Vern Schrag

6-18s-31w Scott,KS

Huck #2-6

Job Ticket: 63598

DST#: 6

Test Start: 2018.05.19 @ 23:34:15

GENERAL INFORMATION:

Formation: **Altamont**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:37:15

Time Test Ended: 05:38:45

Interval: 4385.00 ft (KB) To 4411.00 ft (KB) (TVD)

Total Depth: 4640.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 81

Reference Elevations: 2968.00 ft (KB)

2958.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8968 Below (Straddle)

Press@RunDepth: psig @ 4420.00 ft (KB)

Start Date: 2018.05.19 End Date: 2018.05.20

Start Time: 23:34:15 End Time: 05:38:15

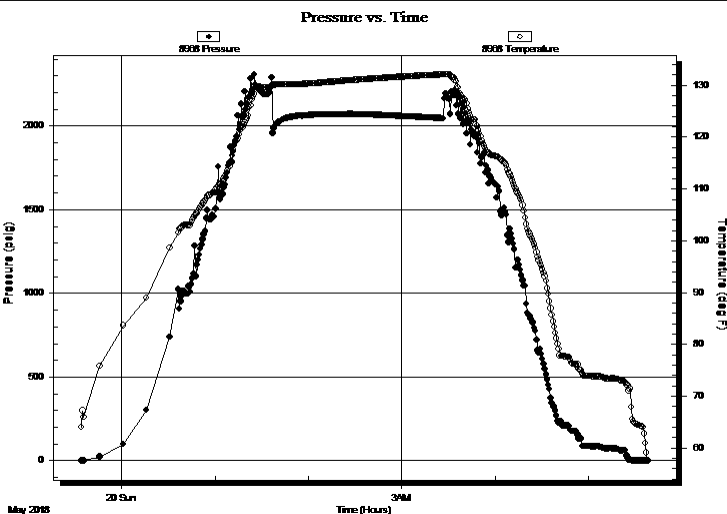
Capacity: 8000.00 psig

Last Calib.: 2018.05.20

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: Built to 4" blow (lpro)
IS: No return blow
FF: Built to 15" blow (lpro)
FS: No return blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	free oil 100%o	0.07
97.00	ocm 20%o 80%m	1.36
124.00	mcw 5%m 95%w	1.74

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.

6-18s-31w Scott,KS

562 West State Rd. 4
Olmitz KS 67564

Huck #2-6

Job Ticket: 63598

DST#: 6

ATTN: Vern Schrag

Test Start: 2018.05.19 @ 23:34:15

Tool Information

Drill Pipe:	Length: 4394.00 ft	Diameter: 3.80 inches	Volume: 61.64 bbl	Tool Weight: 1500.00 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: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 61.64 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	4385.00 ft			Final 57000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	264.00 ft			
Tool Length:	287.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			4363.00	
Shut In Tool	5.00			4368.00	
Hydraulic tool	5.00			4373.00	
Safety Joint	3.00			4376.00	
Packer	5.00			4381.00	23.00 Bottom Of Top Packer
Packer	4.00			4385.00	
Stubb	1.00			4386.00	
Perforations	21.00			4407.00	
Recorder	0.00	8647	Inside	4407.00	
Recorder	0.00	8374	Outside	4407.00	
Blank Off Sub	1.00			4408.00	264.00 Tool Interval
Packer	3.00			4411.00	
Stubb	1.00			4412.00	
Perforations	7.00			4419.00	
Change Over Sub	1.00			4420.00	
Recorder	0.00	8968	Below	4420.00	
Drill Pipe	223.00			4643.00	
Change Over Sub	1.00			4644.00	
Bullnose	5.00			4649.00	1000286.00 Bottom Packers & Anchor

Total Tool Length: 287.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Engineering Inc.

6-18s-31w Scott,KS

562 West State Rd. 4
Olmitz KS 67564

Huck #2-6

Job Ticket: 63598

DST#: 6

ATTN: Vern Schrag

Test Start: 2018.05.19 @ 23:34:15

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:

17000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.38 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2700.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	free oil 100%o	0.070
97.00	ocm 20%o 80%m	1.361
124.00	mcw 5%m 95%w	1.739

Total Length: 226.00 ft Total Volume: 3.170 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

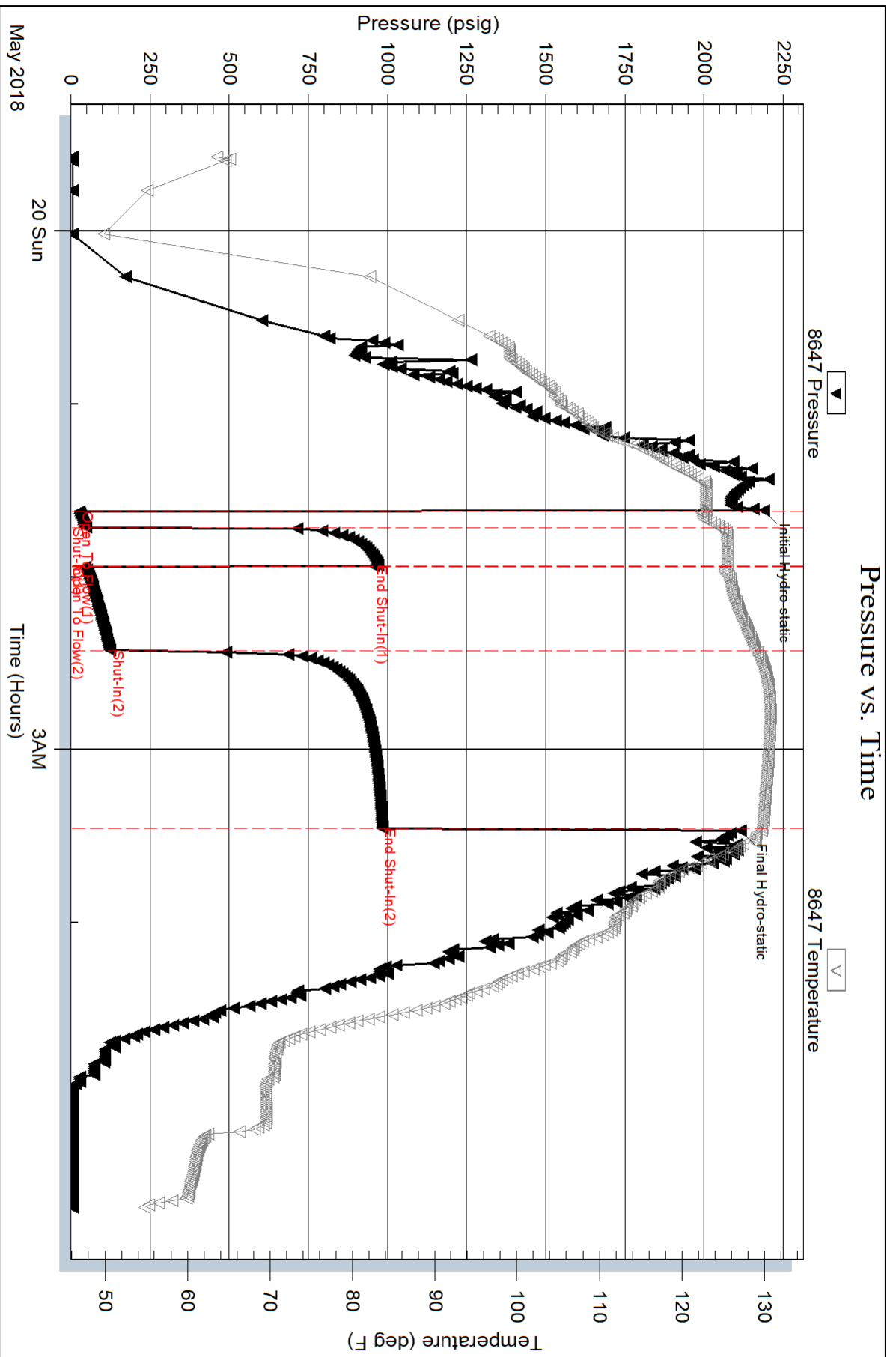
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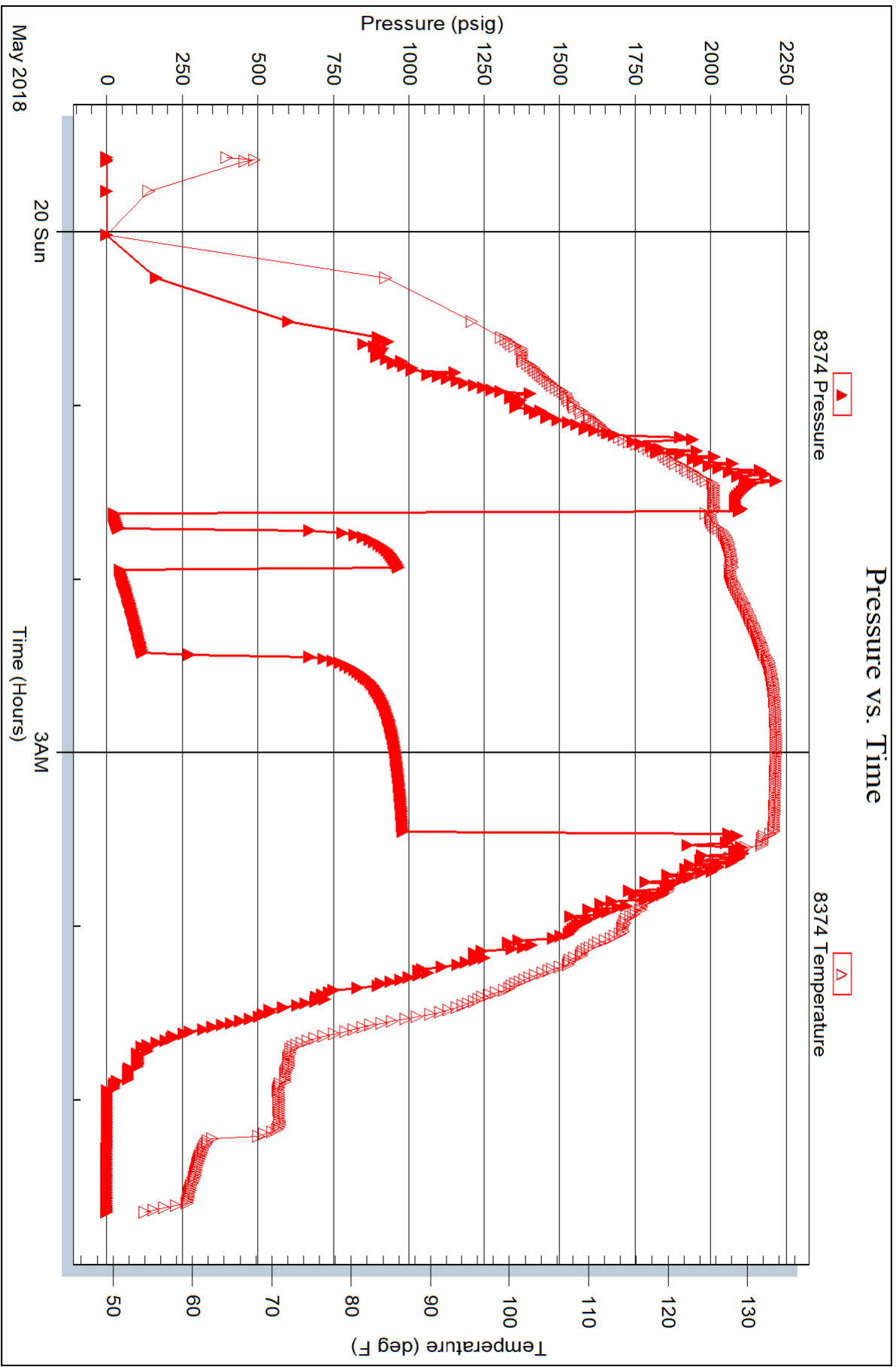
Laboratory Name:

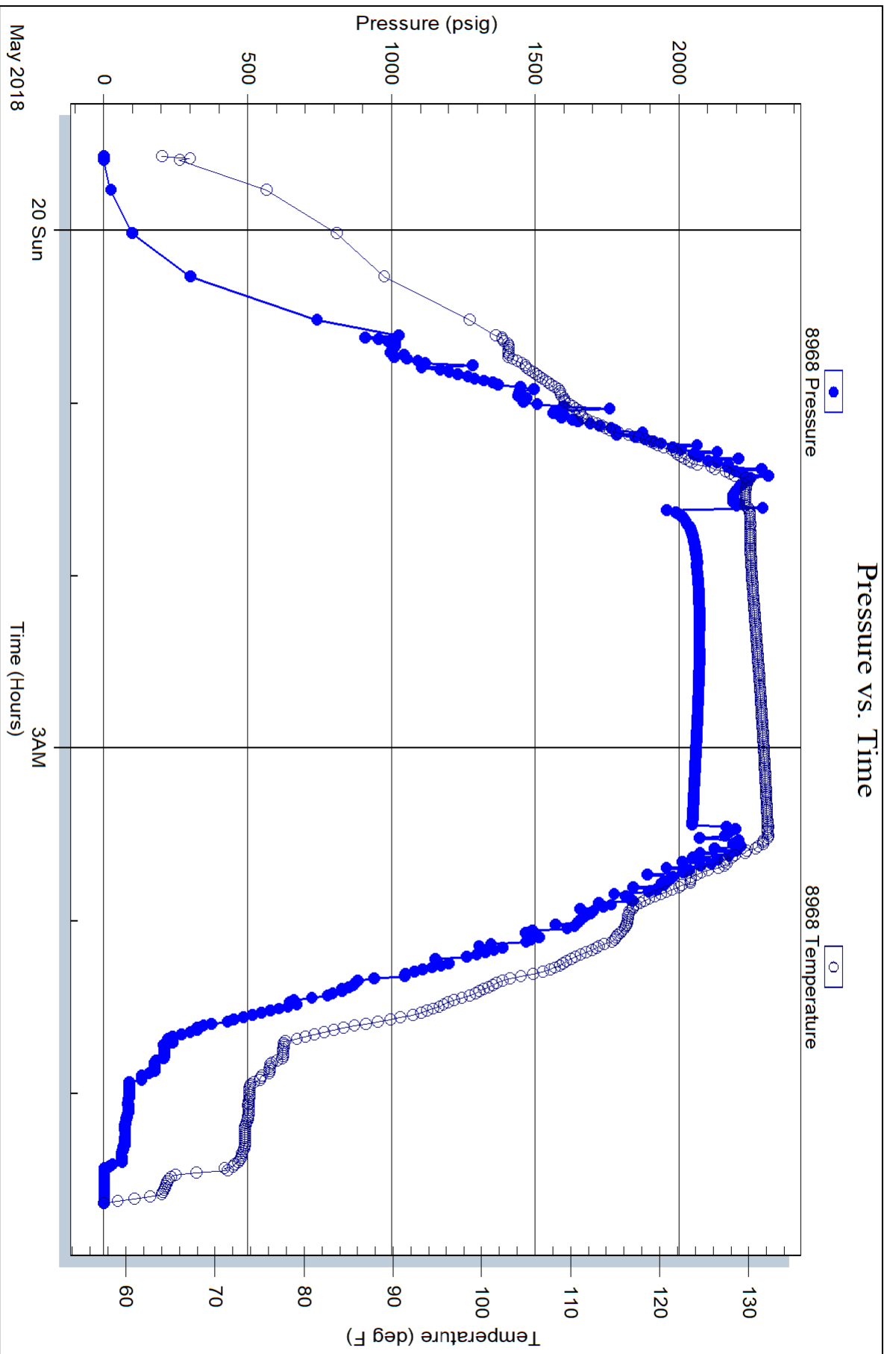
Laboratory Location:

Recovery Comments: API= 30@80 corrected to 32 @ 60

RW= .517@82.7*= 17,000 ppm









TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63593

Well Name & No. Huck 2-6 Test No. 1 Date 5-15-18
 Company Larson Engineering Inc Elevation 2958 KB 2968 GL
 Address 562 West State Rd 4 Olmitz KS 67564
 Co. Rep / Geo. Vern Schrag Rig Southwind 8
 Location: Sec. 6 Twp 18s Rge. 31w Co. Scott State KS

Interval Tested 4192-4227 Zone Tested K
 Anchor Length 35 Drill Pipe Run 4196 Mud Wt. 8.7
 Top Packer Depth 4187 Drill Collars Run 0 Vis 51
 Bottom Packer Depth 4192 Wt. Pipe Run 0 WL 7.2
 Total Depth 4227 Chlorides 2500 ppm System LCM 2

Blow Description IF: Built to 1"
IS: No Return Blow
FF: Built to 1 3/4"
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>MUD with 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 124 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2016 Test 1150 T-On Location 07:00
 (B) First Initial Flow 15 Jars _____ T-Started 08:37
 (C) First Final Flow 18 Safety Joint 75 T-Open 11:09
 (D) Initial Shut-In 749 Circ Sub NC T-Pulled 12:59
 (E) Second Initial Flow 20 Hourly Standby _____ T-Out 14:47
 (F) Second Final Flow 28 Mileage RT 16 Comments _____
 (G) Final Shut-In 746 Sampler _____
 (H) Final Hydrostatic 1995 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1241
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1241

Initial Open 5
 Initial Shut-In 15
 Final Flow 30
 Final Shut-In 60

Approved By Vern Schrag Our Representative Mike Bolato

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

785-650-5123
Mike

Test Ticket

NO. 63594

Well Name & No. Huck 2-6 Test No. 2 Date 5-15-18
 Company Larson Engineering Inc Elevation 2958 KB 2968 GL
 Address 562 West State Rd 4 Olmitz KS 67564
 Co. Rep / Geo. Vern Schrag Rig Southwind 8
 Location: Sec. 6 Twp 18s Rge. 31w Co. Scott State KS

Interval Tested 4228-4258 Zone Tested L
 Anchor Length 30 Drill Pipe Run 4232 Mud Wt. 9.0
 Top Packer Depth 4223 Drill Collars Run 0 Vis 50
 Bottom Packer Depth 4228 Wt. Pipe Run 0 WL 8.0
 Total Depth 4258 Chlorides 3000 ppm System LCM 3

Blow Description IF: Built to 8" Blow (ipro)
IS: NO Return Blow
FF: Built to 21" Blow (ipro)
FS: NO Return Blow

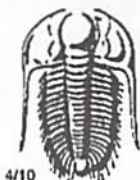
Rec	Feet of	%gas	%oil	%water	%mud
<u>67</u>	<u>WCM</u>		<u>3</u>	<u>97</u>	
<u>124</u>	<u>MCW</u>		<u>80</u>	<u>20</u>	
<u>124</u>	<u>SW</u>		<u>100</u>		

Rec Total 315 BHT 130 Gravity 1.074 @ 70.2 API RW 50.7 @ 1.877 F Chlorides 16000 ppm
 (A) Initial Hydrostatic 2063 Test 1150 T-On Location 22:10
 (B) First Initial Flow 26 Jars T-Started 23:04
 (C) First Final Flow 62 Safety Joint 75 T-Open 01:24
 (D) Initial Shut-In 745 Circ Sub NC T-Pulled 02:29
 (E) Second Initial Flow 67 Hourly Standby T-Out 04:25
 (F) Second Final Flow 168 Mileage 16 RT 16 Comments _____
 (G) Final Shut-In 743 Sampler _____
 (H) Final Hydrostatic 2023 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open 5 Ruined Shale Packer _____
 Initial Shut-In 15 Ruined Packer _____
 Final Flow 15 Extra Copies _____
 Final Shut-In 30 Sub Total 0
 Total 1241
 MP/DST Disc't _____
 Sub Total 1241

Approved By Vernon C Schrag Our Representative Mike Roberts

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63595

Well Name & No. Huck 2-6 Test No. 3 Date 5-16-18
 Company Larson Engineering Inc. Elevation 2958 KB 2968 GL
 Address 562 West State Rd 4 Olmitz 67564
 Co. Rep / Geo. Vern Schrag Rig Southwind 8
 Location: Sec. 6 Twp 18S Rge. 3W Co. Scott State KS

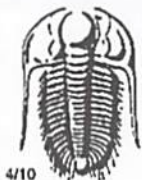
Interval Tested 4274-4347 Zone Tested Marmaton
 Anchor Length 73 Drill Pipe Run 4252 Mud Wt. 9.0
 Top Packer Depth 4269 Drill Collars Run 0 Vis 51
 Bottom Packer Depth 4274 Wt. Pipe Run 0 WL 8.0
 Total Depth 4347 Chlorides 2600 ppm System LCM 1
 Blow Description IF: Built to 1" Blow
TS: No Return Blow
FF: No Blow
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>mud with 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 5 BHT 118 Gravity _____ API RW _____ @ _____ F Chlorides _____ ppm
 (A) Initial Hydrostatic 2099 Test 1150 T-On Location 17:15
 (B) First Initial Flow 37 Jars _____ T-Started 18:12
 (C) First Final Flow 38 Safety Joint 75 T-Open 20:04
 (D) Initial Shut-In 181 Circ Sub NC T-Pulled 21:09
 (E) Second Initial Flow 38 Hourly Standby _____ T-Out 22:53
 (F) Second Final Flow 39 Mileage 16RT 16 Comments _____
 (G) Final Shut-In 206 Sampler _____
 (H) Final Hydrostatic 2057 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 1241
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1241

Approved By [Signature] Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63596

Well Name & No. Huck 2-6 Test No. 4 Date 5-17-188
 Company Larson Engineering Inc Elevation 2958 KB 2968 GL
 Address 562 West State Rd 4 Olmitz KS 67564
 Co. Rep / Geo. Vern Schrag Rig Southwind 8
 Location: Sec. 6 Twp 18S Rge. 31w Co. Scott State KS

Interval Tested 4358-4385 Zone Tested Altamont
 Anchor Length 27 Drill Pipe Run 4356 Mud Wt. 9.0
 Top Packer Depth 4353 Drill Collars Run 0 Vis 51
 Bottom Packer Depth 4358 Wt. Pipe Run 0 WL 8.0
 Total Depth 4385 Chlorides 2600 ppm System LCM 1
 Blow Description IF: Built to 3" Blow
IS: NO Return Blow
FF: Built to 1 1/2 Blow
FS: NO Return Blow

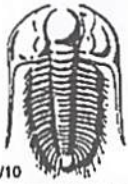
Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>Free Oil</u>				
<u>82</u>	<u>DCM</u>		<u>20</u>		<u>80</u>
<u>62</u>	<u>OCWM</u>		<u>10</u>	<u>40</u>	<u>50</u>

Rec Total 154 BHT 132 Gravity 132 API RW .922 @ 85.9° F Chlorides 16000 ppm
 (A) Initial Hydrostatic 2135 Test 1150 T-On Location 06:40
 (B) First Initial Flow 23 Jars T-Started 07:51
 (C) First Final Flow 35 Safety Joint 75 T-Open 10:12
 (D) Initial Shut-In 1008 Circ Sub NC T-Pulled 12:02
 (E) Second Initial Flow 39 Hourly Standby T-Out 13:57
 (F) Second Final Flow 88 Mileage 10RT Comments _____
 (G) Final Shut-In 977 Sampler _____
 (H) Final Hydrostatic 2133 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1241
 Accessibility _____ MP/DST Disc't _____

Initial Open 5
 Initial Shut-In 15
 Final Flow 30
 Final Shut-In 60
 Sub Total 1241

Approved By Vern Schrag Our Representative Mike Roberts

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TRIBOLITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63597

Well Name & No. Huck 2-6 Test No. 5 Date 5-18-18
 Company Larson Engineering Inc. Elevation 2958 KB 2968 GL
 Address 562 West St. Rd #4 Omitz KS 67564
 Co. Rep / Geo. Vern Schrag Rig Southwind 8
 Location: Sec. 6 Twp 18S Rge. 31W Co. Scott State KS

Interval Tested 4547-4576 Zone Tested Cherokee
 Anchor Length 29 Drill Pipe Run 4545 Mud Wt. 9.1
 Top Packer Depth 4542 Drill Collars Run Ø Vis 53
 Bottom Packer Depth 4547 Wt. Pipe Run Ø WL 8.8
 Total Depth 4576 Chlorides 2700 ppm System LCM 1
 Blow Description IF: Built to 11 3/4" Blow (Ipro)
IS: ~~Build~~ No Return Blow
FF: Built to 30" Blow (Ipro)
FS: Built from 14 1/2" to 20 3/4" Blow 6 1/4" Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>Ø</u>	<u>GIP = 620'</u>	<u>100</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>92</u>	<u>Free Oil</u>	<u>0</u>	<u>100</u>	<u>0</u>	<u>0</u>
<u>32</u>	<u>gcom</u>	<u>5</u>	<u>25</u>	<u>70</u>	<u>0</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 124 BHT 125 Gravity 32 API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2287 Test 1150 T-On Location 12:35
 (B) First Initial Flow 25 Jars T-Started 13:56
 (C) First Final Flow 31 Safety Joint 75 T-Open 15:56
 (D) Initial Shut-In 984 Circ Sub NC T-Pulled 17:01
 (E) Second Initial Flow 39 Hourly Standby T-Out 19:03
 (F) Second Final Flow 57 Mileage 16 RT Comments _____
 (G) Final Shut-In 969 Sampler _____
 (H) Final Hydrostatic 2219 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

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

Sub Total 1241 MP/DST Disc't _____

Approved By Vern Schrag Our Representative Mike Bolats
 Tribolite 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. **63598**

Well Name & No. Huck 2-6 Test No. 6 Date 5-19-18
 Company Larson Engineering Inc Elevation 2958 KB 2968 GL
 Address 562 West St. Rd. 4 Olmitz KS 67564
 Co. Rep / Geo. Vern Schrag Rig Southwind 8
 Location: Sec. 6 Twp 18S Rge. 31W Co. Scott State KS

Interval Tested 4385-4411 Zone Tested Altamont
 Anchor Length 26 Drill Pipe Run 4394 Mud Wt. 9.2
 Top Packer Depth 4380 Drill Collars Run 0 Vis 56
 Bottom Packer Depth 4385 Wt. Pipe Run 0 WL 8.4
 Total Depth 4640 Chlorides 2700 ppm System LCM 1
 Blow Description IF: Built to 4"
IS: No Return Blow
FF: Built to 15"
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	Feet of <u>Free Oil</u>	<u>100</u>	<u>0</u>	<u>0</u>	<u>0</u>
<u>97</u>	Feet of <u>OCM</u>	<u>20</u>	<u>0</u>	<u>80</u>	<u>0</u>
<u>124</u>	Feet of <u>MCW</u>	<u>95</u>	<u>5</u>	<u>0</u>	<u>0</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 226 BHT 130 Gravity — API RW 517 @ 82.7°F Chlorides 17000 ppm
 (A) Initial Hydrostatic 2187 Test 1150 T-On Location 22:30
 (B) First Initial Flow 27 Jars _____ T-Started 23:34
 (C) First Final Flow 47 Safety Joint 75 T-Open 01:36
 (D) Initial Shut-In 956 Circ Sub NC T-Pulled 03:25
 (E) Second Initial Flow 47 Hourly Standby _____ T-Out 05:38
 (F) Second Final Flow 123 Mileage 16 RT 16 Comments _____
 (G) Final Shut-In 982 Sampler _____
 (H) Final Hydrostatic 2115 Straddle 600 Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1841
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1841

Initial Open 5
 Initial Shut-In 15
 Final Flow 30
 Final Shut-In 60
 Approved By Vern Schrag Our Representative Mike Rode

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