



DRILL STEM TEST REPORT

Prepared For: **Prospect Oil & Gas**

PO Box 837
Russell KS 67665+0837

ATTN: Brad Hutchison

Orth-Altenbaumer1-12

12-19s-10w Rice,KS

Start Date: 2019.06.17 @ 07:31:00

End Date: 2019.06.17 @ 14:06:39

Job Ticket #: 65791 DST #: 1

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

Printed: 2019.06.21 @ 09:52:54



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prospect Oil & Gas
 PO Box 837
 Russell KS 67665+0837
 ATTN: Brad Hutchison

12-19s-10w Rice, KS
Orth-Altenbaumer1-12
 Job Ticket: 65791 **DST#: 1**
 Test Start: 2019.06.17 @ 07:31:00

GENERAL INFORMATION:

Formation: **Toronto - Douglas**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 09:30:40 Tester: Benny Mulligan
 Time Test Ended: 14:06:39 Unit No: 66
 Interval: **2745.00 ft (KB) To 2830.00 ft (KB) (TVD)** Reference Elevations: 1731.00 ft (KB)
 Total Depth: 2830.00 ft (KB) (TVD) 1723.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 8.00 ft

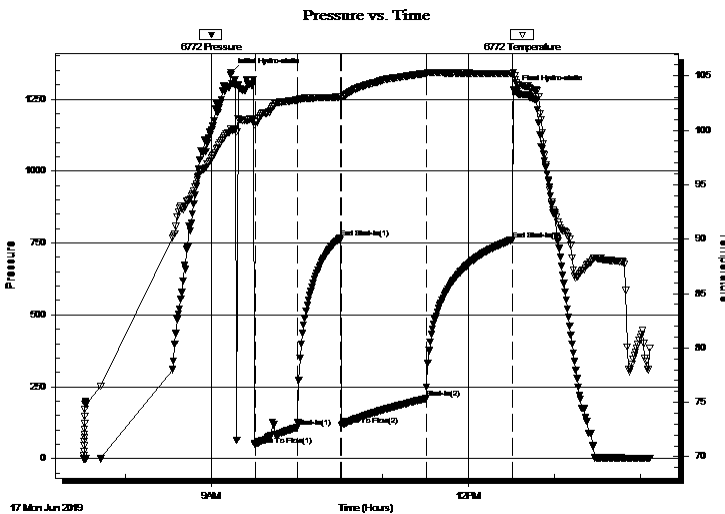
Serial #: 6772

Inside

Press@RunDepth: 209.24 psig @ 2746.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.06.17 End Date: 2019.06.17 Last Calib.: 2019.06.17
 Start Time: 07:31:01 End Time: 14:06:40 Time On Btm: 2019.06.17 @ 09:14:00
 Time Off Btm: 2019.06.17 @ 12:32:20

TEST COMMENT: IF-30-BOB 25 mins built to 14"
 ISI-30- no blow back
 FF-60- BOB 17 mins built to 31"
 FSI-60- no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1342.84	100.15	Initial Hydro-static
17	47.79	100.77	Open To Flow (1)
47	108.89	102.77	Shut-In(1)
77	767.89	103.07	End Shut-In(1)
78	117.17	102.94	Open To Flow (2)
137	209.24	105.22	Shut-In(2)
197	761.73	105.19	End Shut-In(2)
199	1281.45	104.63	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	W 100%W	1.40
120.00	M.W 30%M 70%W	1.68
120.00	W.M. 20%W 80%M	1.68
30.00	M 100%M	0.42

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Prospect Oil & Gas
PO Box 837
Russell KS 67665+0837
ATTN: Brad Hutchison

12-19s-10w Rice, KS
Orth-Altenbaumer1-12
Job Ticket: 65791 **DST#: 1**
Test Start: 2019.06.17 @ 07:31:00

Tool Information

Drill Pipe:	Length: 2727.00 ft	Diameter: 3.80 inches	Volume: 38.25 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 38.40 bbl</u>	Tool Chased 3.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	2745.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	85.00 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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Change Over Sub	1.00			2726.00	
Shut In Tool	5.00			2731.00	
Hydraulic tool	5.00			2736.00	
Packer	5.00			2741.00	20.00 Bottom Of Top Packer
Packer	4.00			2745.00	
Stubb	1.00			2746.00	
Recorder	0.00	6772	Inside	2746.00	
Recorder	0.00	6769	Outside	2746.00	
Perforations	16.00			2762.00	
Change Over Sub	1.00			2763.00	
Drill Pipe	63.00			2826.00	
Change Over Sub	1.00			2827.00	
Bullnose	3.00			2830.00	85.00 Bottom Packers & Anchor

Total Tool Length: 105.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Prospect Oil & Gas

12-19s-10w Rice,KS

PO Box 837
Russell KS 67665+0837

Orth-Altenbaumer1-12

Job Ticket: 65791 **DST#: 1**

ATTN: Brad Hutchison

Test Start: 2019.06.17 @ 07:31:00

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: 125000 ppm	
Viscosity: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.97 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3700.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

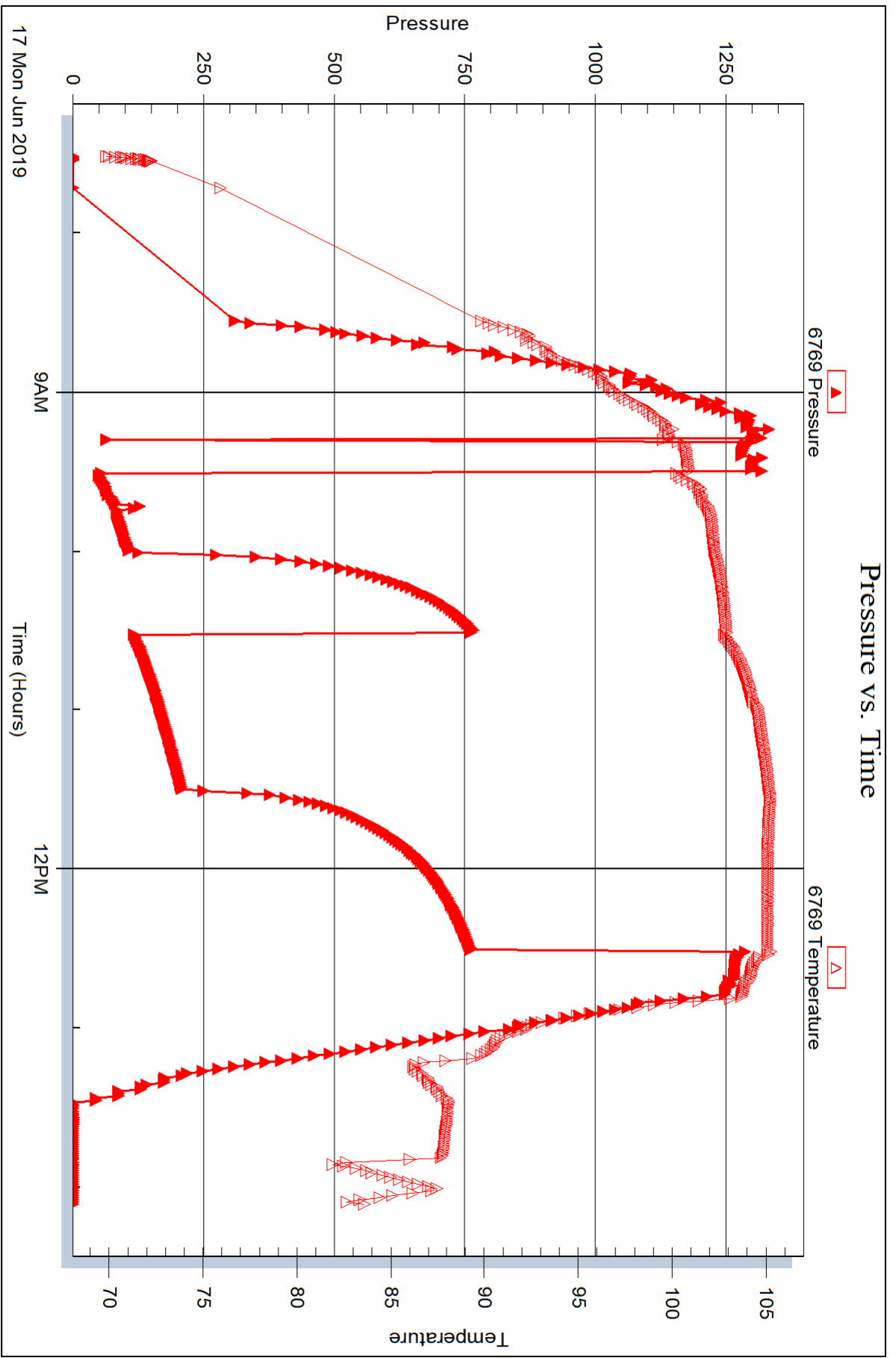
Length ft	Description	Volume bbl
120.00	W 100%W	1.401
120.00	M.W 30%M 70%W	1.683
120.00	W.M. 20%W 80%M	1.683
30.00	M 100%M	0.421

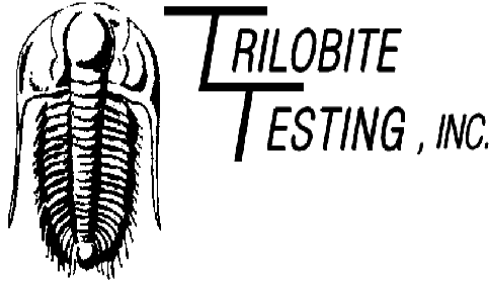
Total Length: 390.00 ft Total Volume: 5.188 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: 0.053@90.7





DRILL STEM TEST REPORT

Prepared For: **Prospect Oil & Gas**

PO Box 837
Russell KS 67665+0837

ATTN: Brad Hutchison

Orth-Altenbaumer1-12

12-19s-10w Rice,KS

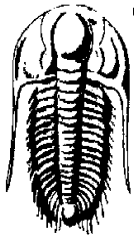
Start Date: 2019.06.18 @ 12:10:00

End Date: 2019.06.18 @ 18:17:39

Job Ticket #: 65792 DST #: 2

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

Printed: 2019.06.21 @ 09:52:03



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prospect Oil & Gas
PO Box 837
Russell KS 67665+0837
ATTN: Brad Hutchison

12-19s-10w Rice, KS
Orth-Altenbaumer1-12
Job Ticket: 65792 **DST#: 2**
Test Start: 2019.06.18 @ 12:10:00

GENERAL INFORMATION:

Formation: **BKC**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 14:17:40
Time Test Ended: 18:17:39
Test Type: Conventional Bottom Hole (Initial)
Tester: Benny Mulligan
Unit No: 66
Interval: **3115.00 ft (KB) To 3180.00 ft (KB) (TVD)**
Reference Elevations: 1731.00 ft (KB)
Total Depth: 3180.00 ft (KB) (TVD) 1723.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 8.00 ft

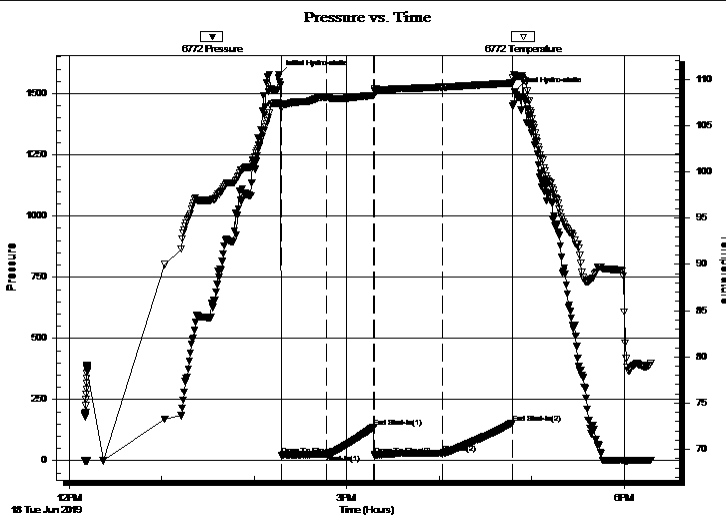
Serial #: 6772

Inside

Press@RunDepth: 31.51 psig @ 3116.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2019.06.18 End Date: 2019.06.18 Last Calib.: 2019.06.18
Start Time: 12:10:01 End Time: 18:17:40 Time On Btm: 2019.06.18 @ 14:16:10
Time Off Btm: 2019.06.18 @ 16:49:00

TEST COMMENT: IF-30- built to 9"
ISI-30- no blow back
FF-45- built to 10 1/2"
FSI-45- no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1577.63	107.37	Initial Hydro-static
2	20.34	106.86	Open To Flow (1)
31	26.65	108.04	Shut-In(1)
62	137.98	108.25	End Shut-In(1)
62	20.31	109.01	Open To Flow (2)
106	31.51	109.15	Shut-In(2)
152	153.75	109.59	End Shut-In(2)
153	1509.18	110.42	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
45.00	G.S.O.C.M. 10%O 20%G 70%M	0.35
0.00	G.I.P 200'	0.00

Gas Rates

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



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DRILL STEM TEST REPORT

TOOL DIAGRAM

Prospect Oil & Gas
PO Box 837
Russell KS 67665+0837
ATTN: Brad Hutchison

12-19s-10w Rice, KS
Orth-Altenbaumer1-12
Job Ticket: 65792 **DST#: 2**
Test Start: 2019.06.18 @ 12:10:00

Tool Information

Drill Pipe:	Length: 3076.00 ft	Diameter: 3.80 inches	Volume: 43.15 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: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 56000.00 lb
			<u>Total Volume: 43.30 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 51000.00 lb
Depth to Top Packer:	3115.00 ft			Final 51000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	65.00 ft			
Tool Length:	85.00 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			3096.00	
Shut In Tool	5.00			3101.00	
Hydraulic tool	5.00			3106.00	
Packer	5.00			3111.00	20.00 Bottom Of Top Packer
Packer	4.00			3115.00	
Stubb	1.00			3116.00	
Recorder	0.00	6772	Inside	3116.00	
Recorder	0.00	6769	Outside	3116.00	
Perforations	27.00			3143.00	
Change Over Sub	1.00			3144.00	
Drill Pipe	32.00			3176.00	
Change Over Sub	1.00			3177.00	
Bullnose	3.00			3180.00	65.00 Bottom Packers & Anchor

Total Tool Length: 85.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Prospect Oil & Gas
PO Box 837
Russell KS 67665+0837
ATTN: Brad Hutchison

12-19s-10w Rice,KS
Orth-Altenbaumer1-12
Job Ticket: 65792 **DST#: 2**
Test Start: 2019.06.18 @ 12:10:00

Mud and Cushion Information

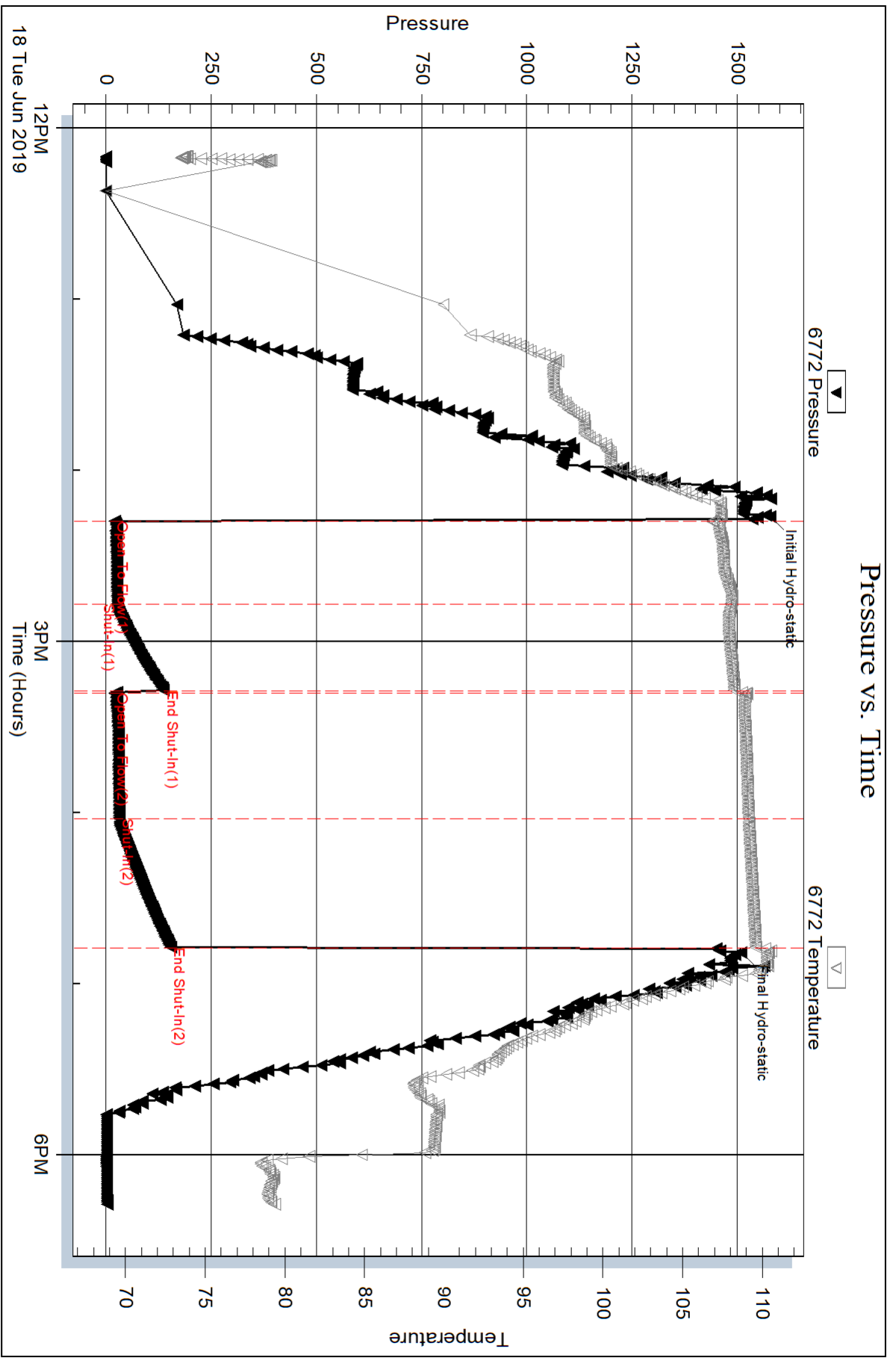
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.78 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6400.00 ppm			
Filter Cake: 1.00 inches			

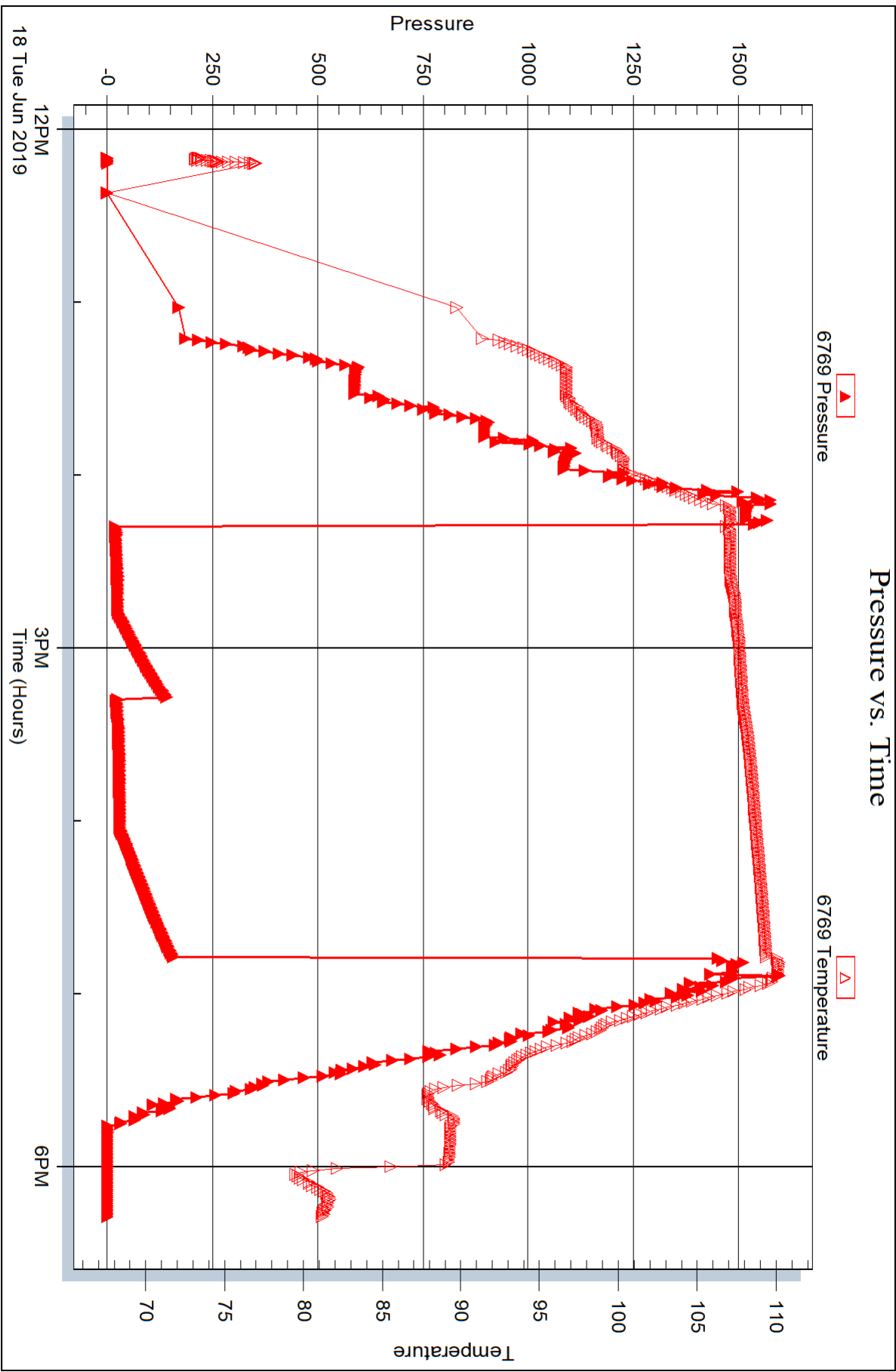
Recovery Information

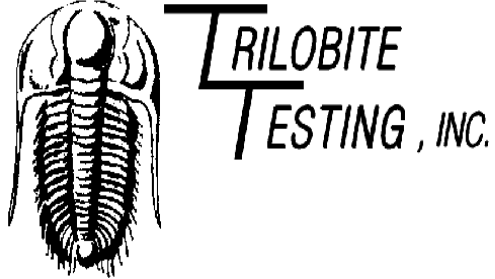
Recovery Table

Length ft	Description	Volume bbl
45.00	G.S.O.C.M. 10%O 20%G 70%M	0.349
0.00	G.I.P 200'	0.000

Total Length: 45.00 ft Total Volume: 0.349 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Prospect Oil & Gas**

PO Box 837
Russell KS 67665+0837

ATTN: Brad Hutchison

Orth-Altenbaumer1-12

12-19s-10w Rice,KS

Start Date: 2019.06.19 @ 03:50:00

End Date: 2019.06.19 @ 08:57:39

Job Ticket #: 65793 DST #: 3

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

Printed: 2019.06.21 @ 09:50:30



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prospect Oil & Gas
 PO Box 837
 Russell KS 67665+0837
 ATTN: Brad Hutchison

12-19s-10w Rice, KS
Orth-Altenbaumer1-12
 Job Ticket: 65793 **DST#: 3**
 Test Start: 2019.06.19 @ 03:50:00

GENERAL INFORMATION:

Formation: **Conglomerate**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 05:31:10
 Time Test Ended: 08:57:39
 Interval: **3175.00 ft (KB) To 3265.00 ft (KB) (TVD)**
 Total Depth: 3265.00 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: 1731.00 ft (KB)
 1723.00 ft (CF)
 KB to GR/CF: 8.00 ft

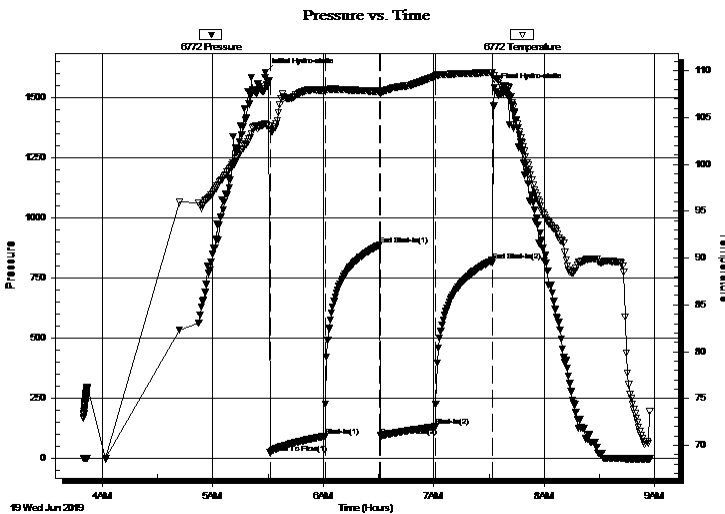
Serial #: 6772

Inside

Press@RunDepth: 132.41 psig @ 3176.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.06.19 End Date: 2019.06.19 Last Calib.: 2019.06.19
 Start Time: 03:50:01 End Time: 08:57:40 Time On Btm: 2019.06.19 @ 05:28:40
 Time Off Btm: 2019.06.19 @ 07:33:00

TEST COMMENT: IF-30- BOB 17 mins total build of 19"
 ISI-30- no blow back
 FF-30- built to 11 1/2"
 FSI-30- no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1603.48	104.33	Initial Hydro-static
3	23.47	103.67	Open To Flow (1)
33	93.10	107.88	Shut-In(1)
62	886.01	107.79	End Shut-In(1)
63	94.72	107.50	Open To Flow (2)
93	132.41	109.38	Shut-In(2)
123	822.49	109.81	End Shut-In(2)
125	1541.96	109.05	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
64.00	W.M. 20%W 80%M	0.62
200.00	M. 100%M	2.81

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Prospect Oil & Gas
PO Box 837
Russell KS 67665+0837
ATTN: Brad Hutchison

12-19s-10w Rice,KS
Orth-Altenbaumer1-12
Job Ticket: 65793 **DST#: 3**
Test Start: 2019.06.19 @ 03:50:00

Tool Information

Drill Pipe:	Length: 3138.00 ft	Diameter: 3.80 inches	Volume: 44.02 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: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 56000.00 lb
			<u>Total Volume: 44.17 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3175.00 ft			Final 53000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	90.00 ft			
Tool Length:	110.00 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			3156.00	
Shut In Tool	5.00			3161.00	
Hydraulic tool	5.00			3166.00	
Packer	5.00			3171.00	20.00 Bottom Of Top Packer
Packer	4.00			3175.00	
Stubb	1.00			3176.00	
Recorder	0.00	6772	Inside	3176.00	
Recorder	0.00	6769	Outside	3176.00	
Perforations	20.00			3196.00	
Change Over Sub	1.00			3197.00	
Drill Pipe	64.00			3261.00	
Change Over Sub	1.00			3262.00	
Bullnose	3.00			3265.00	90.00 Bottom Packers & Anchor

Total Tool Length: 110.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Prospect Oil & Gas
PO Box 837
Russell KS 67665+0837
ATTN: Brad Hutchison

12-19s-10w Rice,KS
Orth-Altenbaumer1-12
Job Ticket: 65793 **DST#: 3**
Test Start: 2019.06.19 @ 03:50:00

Mud and Cushion Information

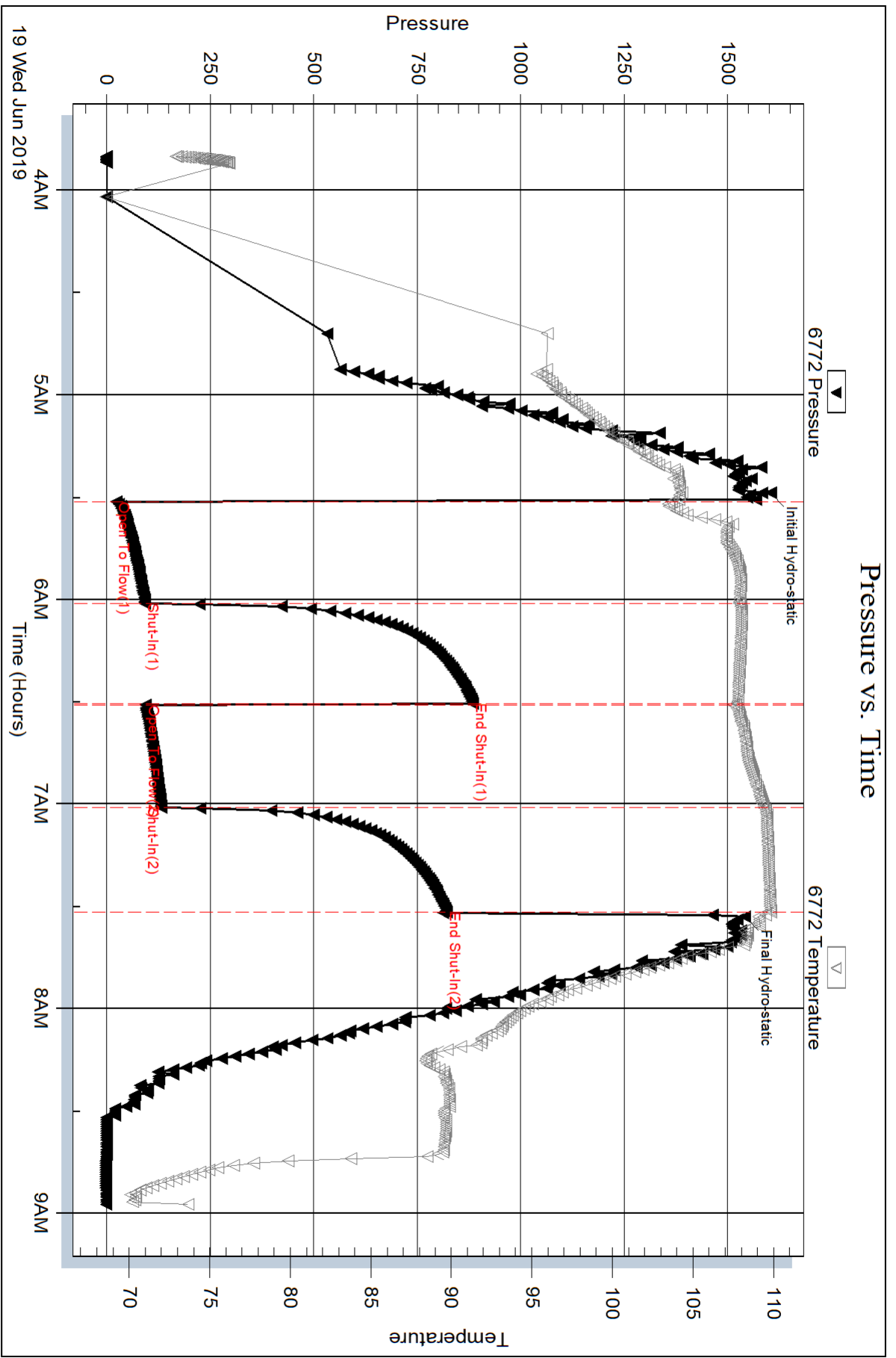
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.78 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6400.00 ppm			
Filter Cake: 1.00 inches			

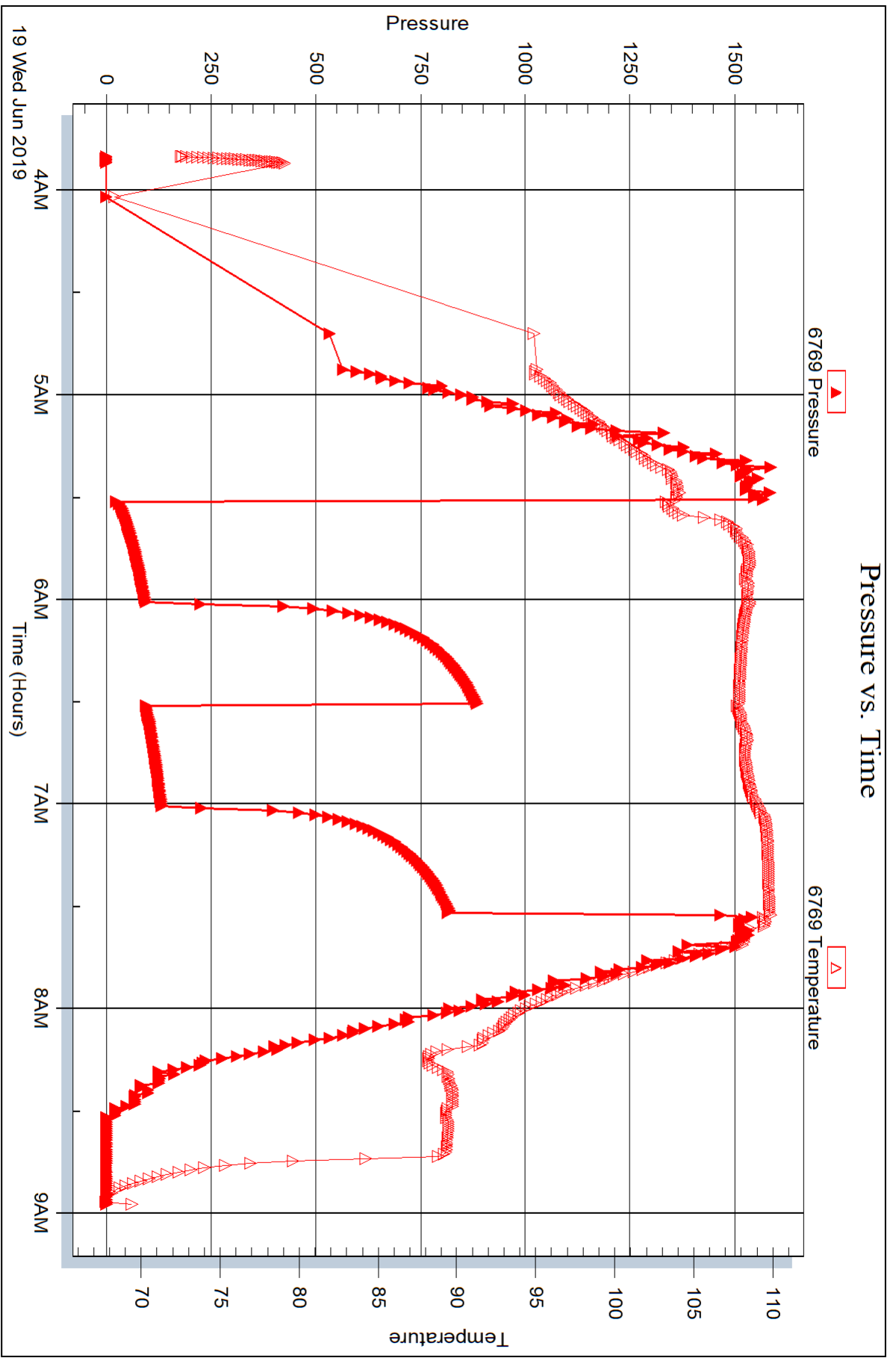
Recovery Information

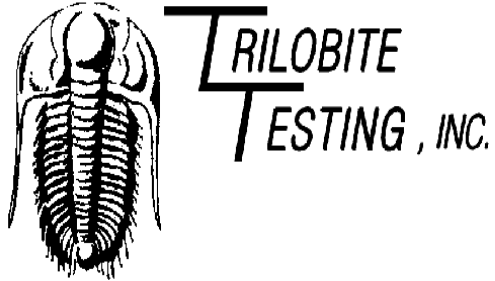
Recovery Table

Length ft	Description	Volume bbl
64.00	W.M. 20%W 80%M	0.615
200.00	M. 100%M	2.805

Total Length: 264.00 ft Total Volume: 3.420 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Prospect Oil & Gas**

PO Box 837
Russell KS 67665+0837

ATTN: Brad Hutchison

Orth-Altenbaumer1-12

12-19s-10w Rice,KS

Start Date: 2019.06.19 @ 16:28:00

End Date: 2019.06.19 @ 22:26:39

Job Ticket #: 65794 DST #: 4

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

Printed: 2019.06.21 @ 09:50:05



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prospect Oil & Gas
 PO Box 837
 Russell KS 67665+0837
 ATTN: Brad Hutchison

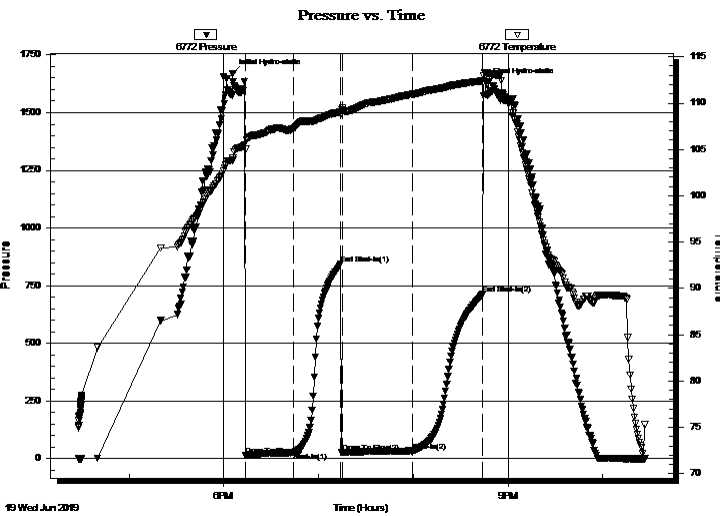
12-19s-10w Rice, KS
Orth-Altenbaumer1-12
 Job Ticket: 65794 **DST#: 4**
 Test Start: 2019.06.19 @ 16:28:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 18:13:50
 Time Test Ended: 22:26:39
 Interval: **3287.00 ft (KB) To 3300.00 ft (KB) (TVD)**
 Total Depth: 3300.00 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: 1731.00 ft (KB)
 1723.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 6772 Inside
 Press@RunDepth: 33.56 psig @ 3288.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.06.19 End Date: 2019.06.19 Last Calib.: 2019.06.19
 Start Time: 16:28:01 End Time: 22:26:40 Time On Btm: 2019.06.19 @ 18:05:40
 Time Off Btm: 2019.06.19 @ 20:46:09

TEST COMMENT: IF-30- built to 4 1/2"
 ISI-30- no blow back
 FF-45- built to 9"
 FSI-45- 1" blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1668.26	104.05	Initial Hydro-static
9	15.56	105.02	Open To Flow (1)
39	26.74	107.27	Shut-In(1)
69	844.91	109.04	End Shut-In(1)
70	27.30	109.31	Open To Flow (2)
114	33.56	110.94	Shut-In(2)
159	713.06	112.40	End Shut-In(2)
161	1630.02	113.30	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	G.O.C.M. 10%G 30%O 60%M	0.42
0.00	G.I.P. 140'	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Prospect Oil & Gas
PO Box 837
Russell KS 67665+0837
ATTN: Brad Hutchison

12-19s-10w Rice,KS
Orth-Altenbaumer1-12
Job Ticket: 65794 **DST#: 4**
Test Start: 2019.06.19 @ 16:28:00

Tool Information

Drill Pipe:	Length: 3265.00 ft	Diameter: 3.80 inches	Volume: 45.80 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: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 74000.00 lb
			<u>Total Volume: 45.95 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 51000.00 lb
Depth to Top Packer:	3287.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	13.00 ft			
Tool Length:	33.00 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			3268.00	
Shut In Tool	5.00			3273.00	
Hydraulic tool	5.00			3278.00	
Packer	5.00			3283.00	20.00 Bottom Of Top Packer
Packer	4.00			3287.00	
Stubb	1.00			3288.00	
Recorder	0.00	6772	Inside	3288.00	
Recorder	0.00	6769	Outside	3288.00	
Perforations	9.00			3297.00	
Bullnose	3.00			3300.00	13.00 Bottom Packers & Anchor
Total Tool Length:	33.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Prospect Oil & Gas
 PO Box 837
 Russell KS 67665+0837
 ATTN: Brad Hutchison

12-19s-10w Rice,KS
Orth-Altenbaumer1-12
 Job Ticket: 65794 **DST#: 4**
 Test Start: 2019.06.19 @ 16:28:00

Mud and Cushion Information

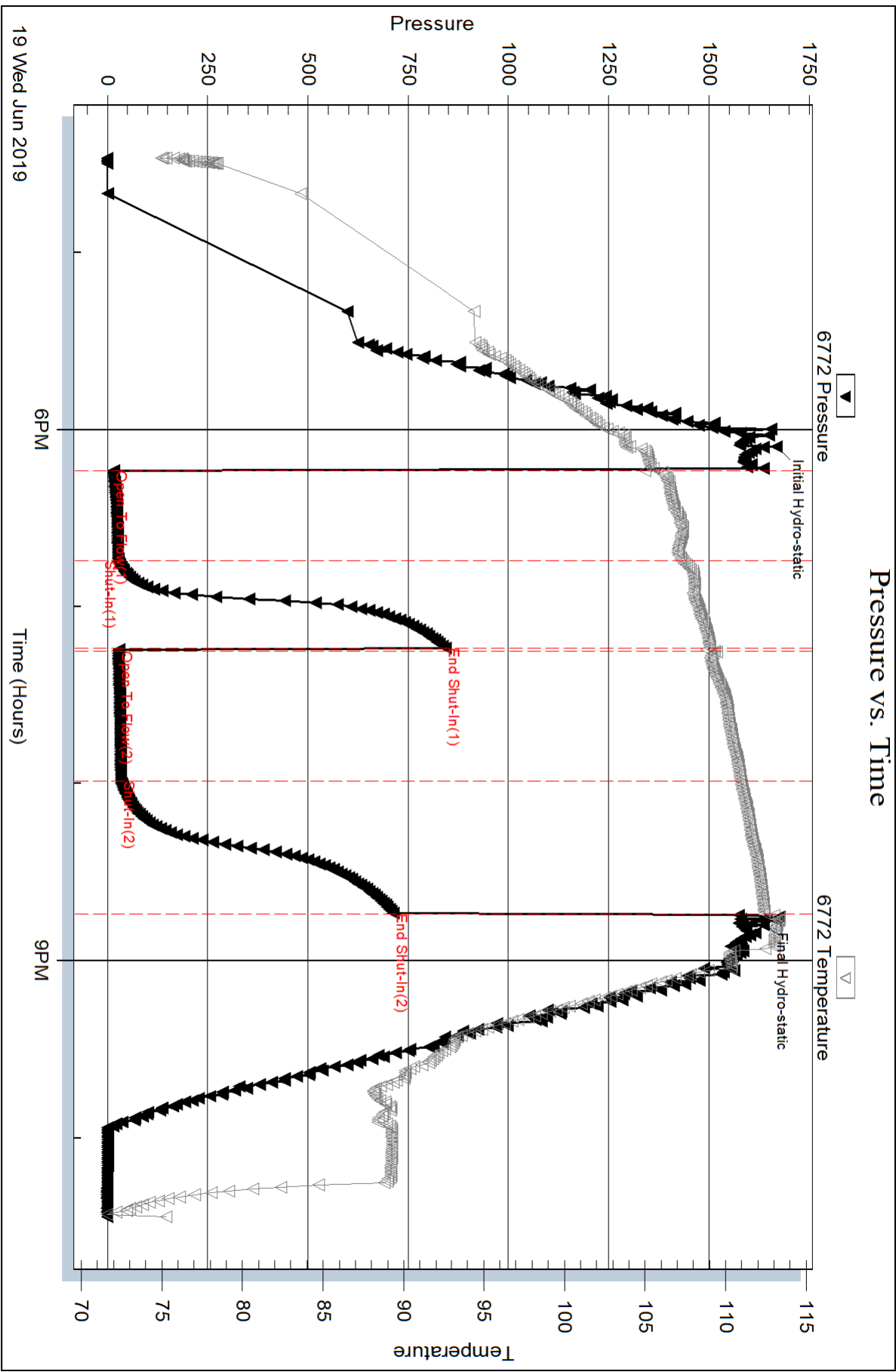
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 60.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.38 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6000.00 ppm			
Filter Cake: 1.00 inches			

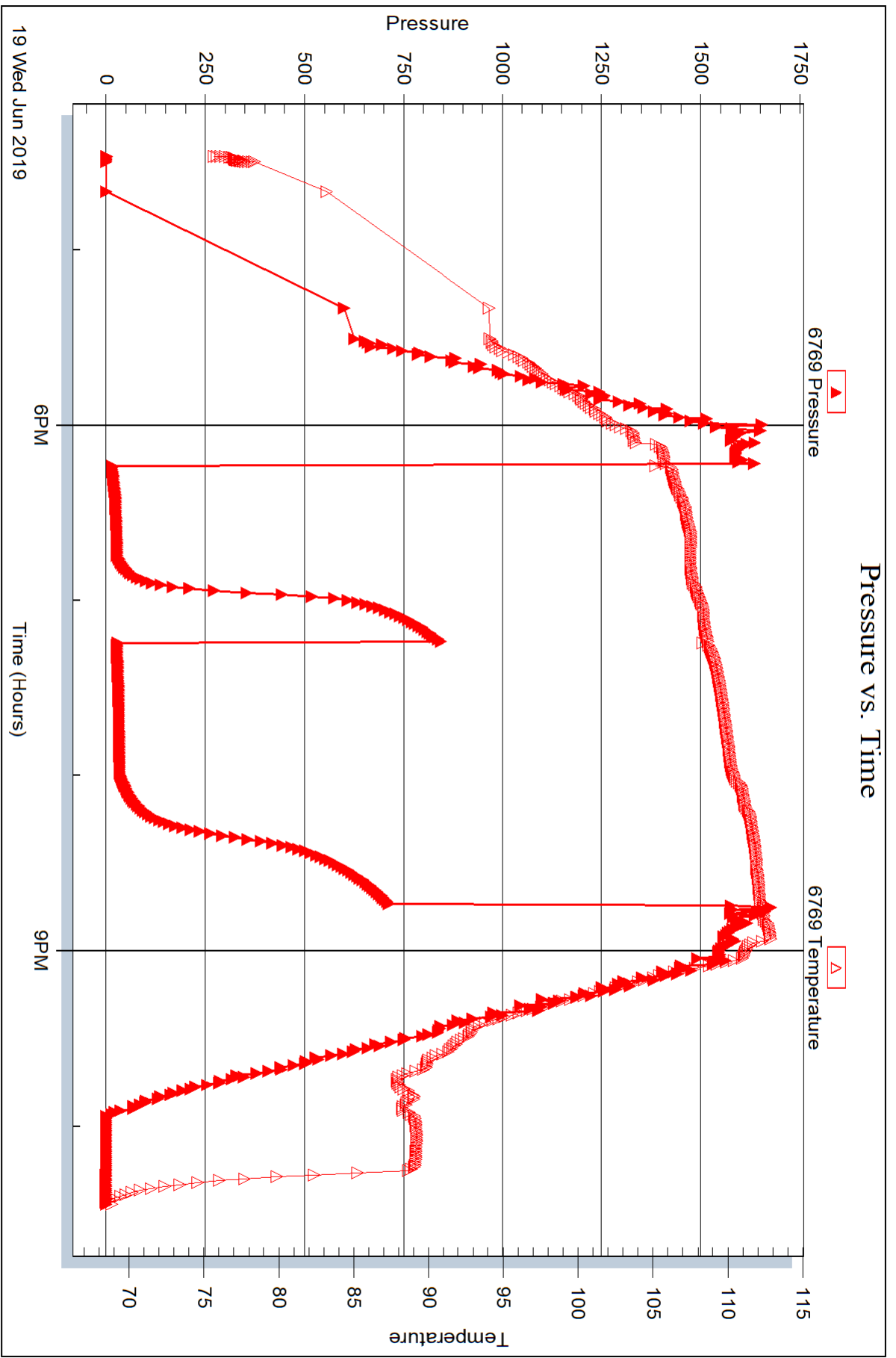
Recovery Information

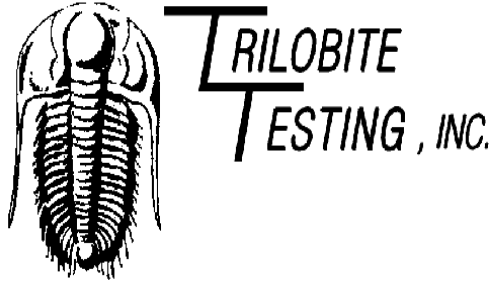
Recovery Table

Length ft	Description	Volume bbl
50.00	G.O.C.M. 10%G 30%O 60%M	0.419
0.00	G.I.P. 140'	0.000

Total Length: 50.00 ft Total Volume: 0.419 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Prospect Oil & Gas**

PO Box 837
Russell KS 67665+0837

ATTN: Brad Hutchison

Orth-Altenbaumer1-12

12-19s-10w Rice,KS

Start Date: 2019.06.20 @ 11:55:00

End Date: 2019.06.20 @ 18:22:30

Job Ticket #: 65795 DST #: 5

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

Printed: 2019.06.21 @ 09:49:39



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prospect Oil & Gas
 PO Box 837
 Russell KS 67665+0837
 ATTN: Brad Hutchison

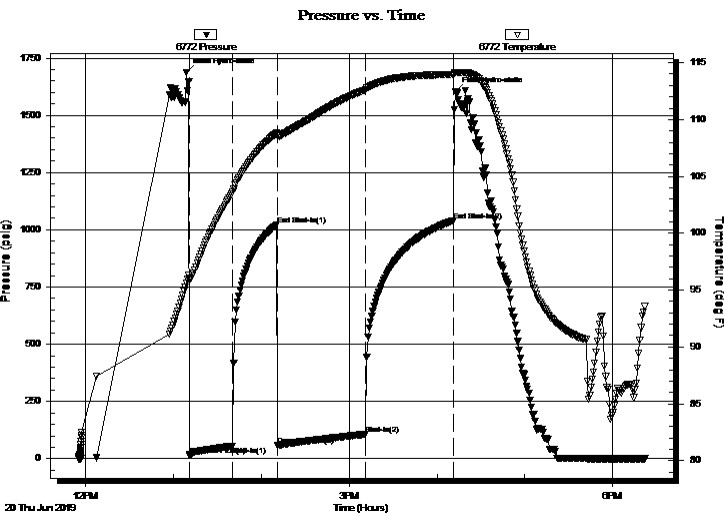
12-19s-10w Rice, KS
Orth-Altenbaumer1-12
 Job Ticket: 65795 **DST#: 5**
 Test Start: 2019.06.20 @ 11:55:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 13:10:40
 Time Test Ended: 18:22:30
 Interval: **3270.00 ft (KB) To 3310.00 ft (KB) (TVD)**
 Total Depth: 3370.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Straddle (Initial)
 Tester: Benny Mulligan
 Unit No: 66
 Reference Elevations: 1731.00 ft (KB)
 1723.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 6772 Inside
 Press@RunDepth: 106.93 psig @ 3271.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2019.06.20 End Date: 2019.06.20 Last Calib.: 2019.06.20
 Start Time: 11:55:01 End Time: 18:22:30 Time On Btm: 2019.06.20 @ 13:08:40
 Time Off Btm: 2019.06.20 @ 16:12:50

TEST COMMENT: IF-30- built to 7 1/2"
 IS-30- no blow back
 FF-60- 10" built but had loose connection so not accurate
 FSI-60- 1/2' blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1687.27	95.64	Initial Hydro-static
2	15.94	95.85	Open To Flow (1)
32	54.72	103.62	Shut-In(1)
62	1020.86	108.82	End Shut-In(1)
63	59.13	108.57	Open To Flow (2)
123	106.93	112.61	Shut-In(2)
183	1040.10	113.96	End Shut-In(2)
185	1604.97	114.14	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	M.W. 20%M 80%W	1.40
80.00	W.M w / oil spots. 20%W 80%M	1.12
0.00	GIP 100'	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Prospect Oil & Gas
PO Box 837
Russell KS 67665+0837
ATTN: Brad Hutchison

12-19s-10w Rice, KS
Orth-Altenbaumer1-12
Job Ticket: 65795 **DST#: 5**
Test Start: 2019.06.20 @ 11:55:00

Tool Information

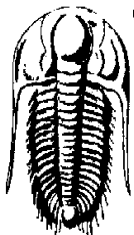
Drill Pipe:	Length: 3233.00 ft	Diameter: 3.80 inches	Volume: 45.35 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 56000.00 lb
			Total Volume: 45.50 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3270.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	3309.00 ft			
Interval between Packers:	39.00 ft			
Tool Length:	123.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

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

Change Over Sub	1.00			3251.00	
Shut In Tool	5.00			3256.00	
Hydraulic tool	5.00			3261.00	
Packer	5.00			3266.00	20.00 Bottom Of Top Packer
Packer	4.00			3270.00	
Stubb	1.00			3271.00	
Recorder	0.00	6772	Inside	3271.00	
Recorder	0.00	6769	Outside	3271.00	
Perforations	1.00			3272.00	
Change Over Sub	1.00			3273.00	
Drill Pipe	32.00			3305.00	
Change Over Sub	1.00			3306.00	
Blank Off Sub	1.00			3307.00	
Stubb	2.00			3309.00	39.00 Tool Interval
Packer	5.00			3314.00	
Stubb	1.00			3315.00	
Recorder	0.00	9058	Below	3315.00	
Perforations	21.00			3336.00	
Change Over Sub	1.00			3337.00	
Drill Pipe	32.00			3369.00	
Change Over Sub	1.00			3370.00	
Bullnose	3.00			3373.00	64.00 Bottom Packers & Anchor

Total Tool Length: 123.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Prospect Oil & Gas
PO Box 837
Russell KS 67665+0837
ATTN: Brad Hutchison

12-19s-10w Rice,KS
Orth-Altenbaumer1-12
Job Ticket: 65795 **DST#: 5**
Test Start: 2019.06.20 @ 11:55:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 59.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.79 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6300.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

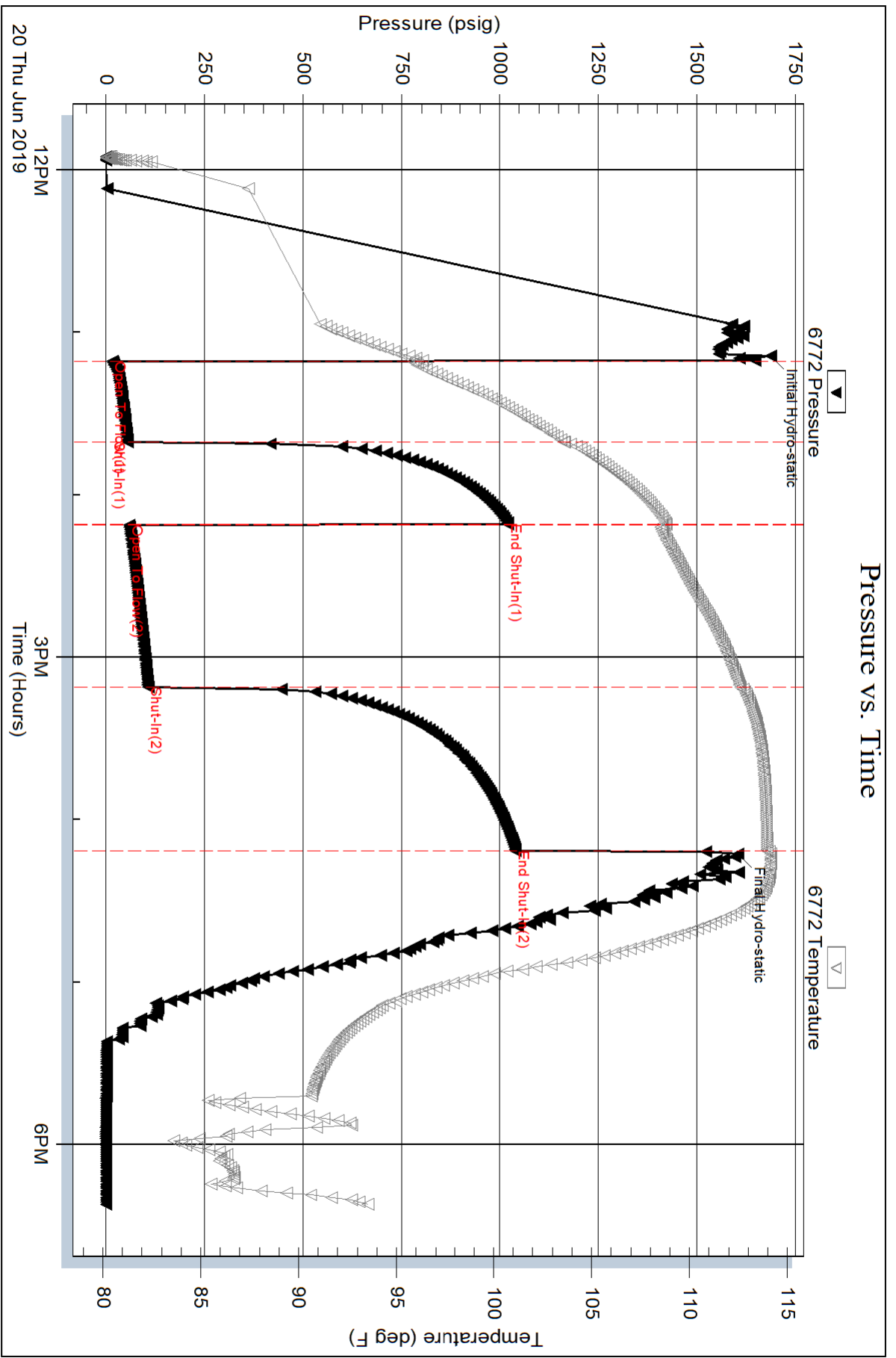
Length ft	Description	Volume bbl
120.00	M.W. 20%M 80%W	1.401
80.00	W.M w / oil spots. 20%W 80%M	1.122
0.00	GIP 100'	0.000

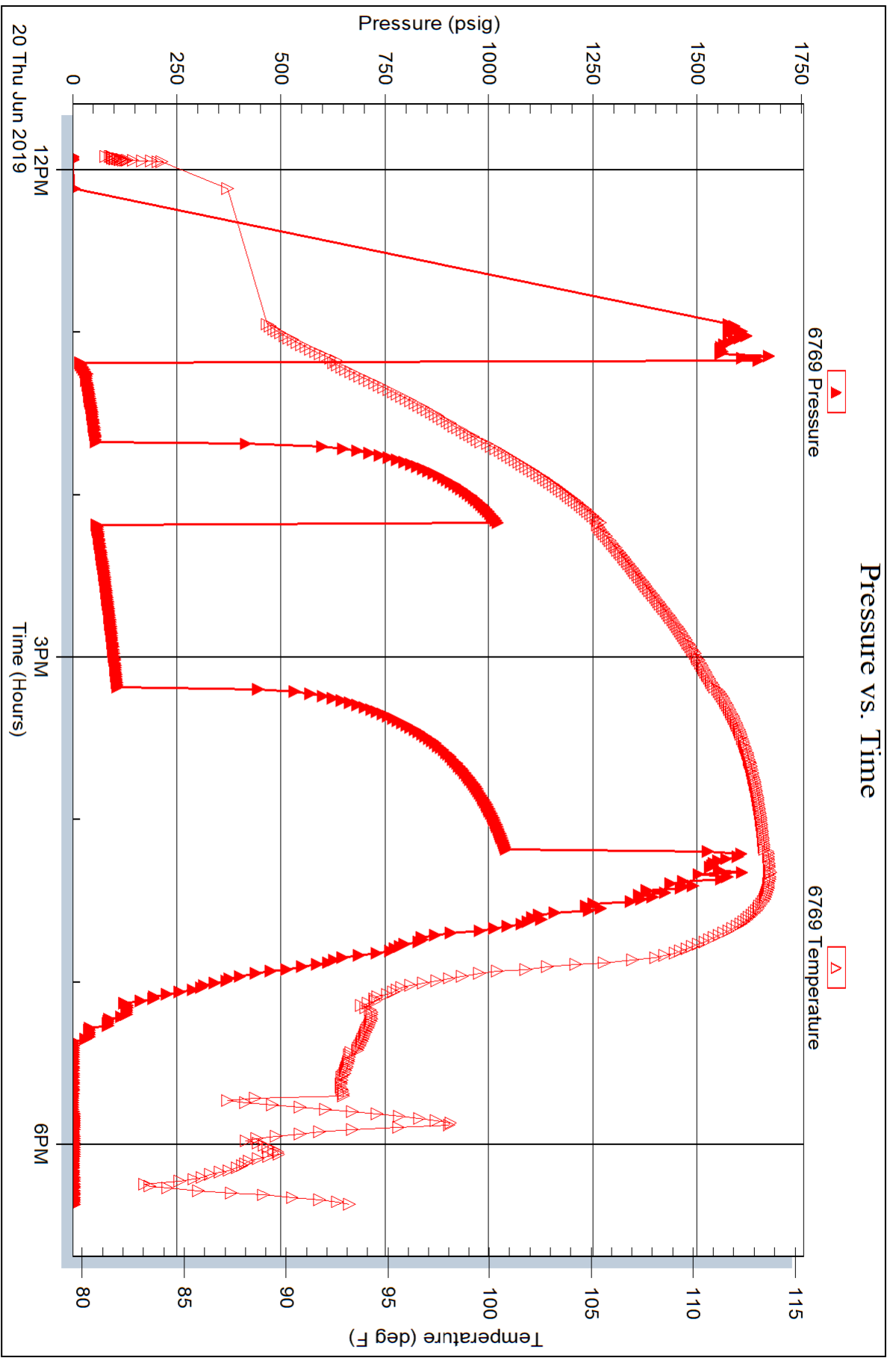
Total Length: 200.00 ft Total Volume: 2.523 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:



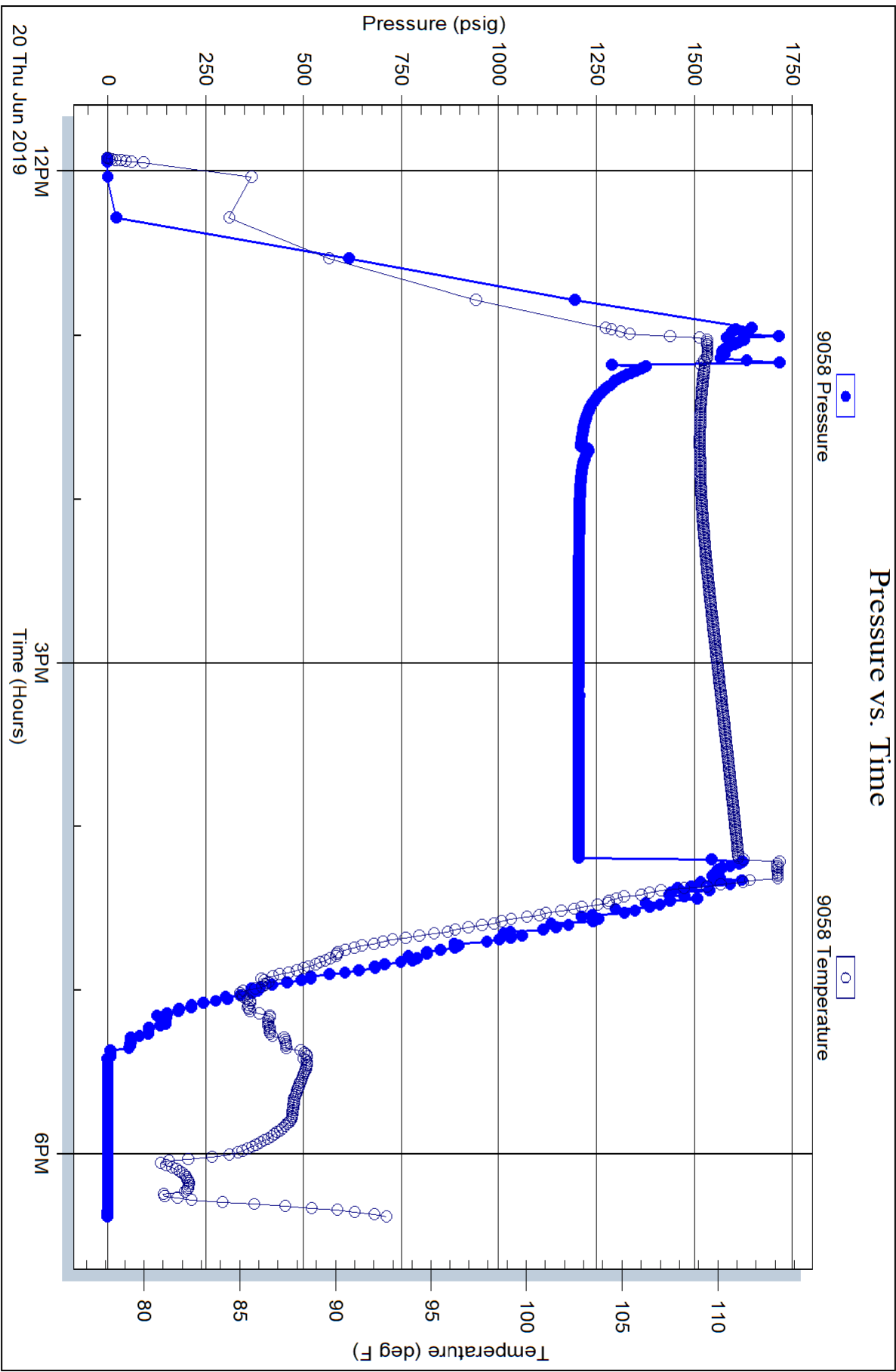


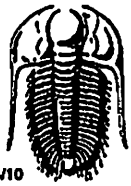
Serial #: 9058

Below (Strat) Spect Oil & Gas

Orth-Allenbauer1-12

DST Test Number: 5





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket 65791

NO.

Well Name & No. Orth-Altenbaumer #1-12 Test No. 1 Date 6/7-19
 Company Prospect Oil & Gas Elevation 1731 KB 1723 GL
 Address P.O. box 837 Russell KS 67665+0837
 Co. Rep / Geo. Brad Hutchison Rig Disco Rig 4
 Location: Sec. 12 Twp 19s Rge. 10w Co. Rice State KS

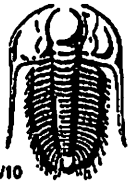
Interval Tested 2745-2830 Zone Tested Toronto-douglas
 Anchor Length ~~220~~ 85' Drill Pipe Run _____ Mud Wt. 9.1
 Top Packer Depth 2740 Drill Collars Run 31 Vis 55
 Bottom Packer Depth 2745 Wt. Pipe Run _____ WL 8.0
 Total Depth 2830 Chlorides 3,700 ppm System LCM ~~3700~~ 1#
 Blow Description IF - Bob 25 mins built to 14"
ISF - no blow back
FF - Bob 17 mins built to 31"
FST - no blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>mud</u>			<u>100</u>	
<u>120'</u>	<u>w.m.</u>		<u>20</u>	<u>80</u>	
<u>120'</u>	<u>m.w.</u>		<u>70</u>	<u>30</u>	
<u>120'</u>	<u>w</u>		<u>100</u>		

Rec Total 390' BHT 104° Gravity _____ API RW 0.053 @ 90.7°F Chlorides 125,000 ppm
 (A) Initial Hydrostatic 1342 Test 1200 T-On Location 6:45 am
 (B) First Initial Flow 47 Jars _____ T-Started 7:31
 (C) First Final Flow 108 Safety Joint _____ T-Open 9:31
 (D) Initial Shut-In 767 Circ Sub _____ T-Pulled 12:31 pm
 (E) Second Initial Flow 117 Hourly Standby _____ T-Out 2:07
 (F) Second Final Flow 209 Mileage 52 RT ⁵² Comments _____
 (G) Final Shut-In 761 Sampler _____
 (H) Final Hydrostatic 1281 Straddle _____ EM Tool _____
 Initial Open 30 Shale Packer _____ Ruined Shale Packer _____
 Initial Shut-In 30 Extra Packer _____ Ruined Packer _____
 Final Flow 60 Extra Recorder _____ Extra Copies _____
 Final Shut-In 60 Day Standby _____ Sub Total 0
 Accessibility _____ Total 1252
 Sub Total 1252 MP/DST Disc't _____

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 65792

NO.

Well Name & No. Orth-Athenbaumer #1-12 Test No. 2 Date 6-18-2019
 Company Prospect oil & Gas Elevation 1731 KB 1723 GL
 Address P.O. box 837 Russell KS 67665+0837
 Co. Rep / Geo. Brad Hutchison Rig Disco Rig 4
 Location: Sec. 12 Twp 19S Rge. 10W Co. Rice State KS

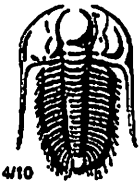
Interval Tested 3115-3180 Zone Tested Lower Kansas City
 Anchor Length 65 Drill Pipe Run 3076 Mud Wt. 9.2
 Top Packer Depth 3110 Drill Collars Run 31 Vls 54
 Bottom Packer Depth 3115 Wt. Pipe Run _____ WL 8.8
 Total Depth 3180 Chlorides 6400 ppm System LCM 1#
 Blow Description IF - built to 9"
IST - no blow back
FF - built to 10 1/2"
FST - no blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>45</u>	<u>650 G.M.</u>	<u>20</u>	<u>10</u>	<u>70</u>	<u>0</u>
Rec	Feet of <u>200' GIP</u>	%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 45' BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1577 Test 1200 T-On Location 11:05 PM
 (B) First Initial Flow 20 Jars _____ T-Started 12:10
 (C) First Final Flow 26 Safety Joint _____ T-Open 2:17
 (D) Initial Shut-In 137 Circ Sub _____ T-Pulled 4:47
 (E) Second Initial Flow 20 Hourly Standby _____ T-Out 6:18
 (F) Second Final Flow 31 Mileage 52 RT 52 Comments _____
 (G) Final Shut-In 153 Sampler _____
 (H) Final Hydrostatic 1509 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1252 EM Tool _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1252 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 65793

NO.

Well Name & No. Orth-Altenbaumer #1-12 Test No. 3 Date 6-19-2019
 Company Prospect oil & coas Elevation 1731 KB 1723 GL
 Address P.O. box 837 Russell KS 67665+0837
 Co. Rep / Geo. Brad Hutchison Rig Disco Rig 4
 Location: Sec. 12 Twp 19s Rge. 10w Co. Rice State KS

Interval Tested 3175-3265 Zone Tested Conglomerate
 Anchor Length 90' Drill Pipe Run _____ Mud Wt. 9.2
 Top Packer Depth 3170 Drill Collars Run 31' Vls 54
 Bottom Packer Depth 3175 Wt. Pipe Run _____ WL 8.8
 Total Depth 3265 Chlorides 8400 ppm System LCM 1#

Blow Description IF - BOP 17 mins total build of 19"
ISI - no blow back
FF - built to 1 1/2"
FST - no blow back

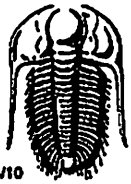
Rec	Feet of	%gas	%oil	%water	%mud
<u>200</u>	<u>M</u>			<u>100</u>	
<u>64</u>	<u>W.M.</u>		<u>20</u>	<u>80</u>	
____	____				
____	____				
____	____				

Rec Total 264 BHT 109 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1603 Test 1200 T-On Location 2:20 AM
 (B) First Initial Flow 23 Jars _____ T-Started 3:50
 (C) First Final Flow 93 Safety Joint _____ T-Open 5:32
 (D) Initial Shut-In 886 Circ Sub _____ T-Pulled 7:32
 (E) Second Initial Flow 94 Hourly Standby _____ T-Out 8:58
 (F) Second Final Flow 132 Mileage 52 RT 52 Comments _____
 (G) Final Shut-In 822 Sampler _____
 (H) Final Hydrostatic 1541 Straddle _____
 EM Tool _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____

Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1252 Sub Total 0
 Total 1252 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 65794

NO.

Well Name & No. Orth-Altenbaumer #1-12 Test No. 4 Date 6-19-2019
 Company Prospect Oil & Gas Elevation 1731 KB 1723 GL
 Address P.O. box 837 Russell KS 67665 + 0837
 Co. Rep / Geo. Brad Hutchison Rig Disco Rig 4
 Location: Sec. 12 Twp 19s Rge. 10w Co. Rice State KS

Interval Tested 3287-3300 Zone Tested Arbuckle
 Anchor Length 13' Drill Pipe Run _____ Mud Wt. 9.3
 Top Packer Depth 3282 Drill Collars Run 31 Vis 60
 Bottom Packer Depth 3287 Wt. Pipe Run _____ WL 8.4
 Total Depth 3300 Chlorides 6000 ppm System LCM 1#

Blow Description IF - built to 4 1/2"
IST - no blow back
FF - built to 9"
FST - 1" blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>50'</u>	<u>G.O.C.M.</u>	<u>10</u>	<u>30</u>	<u>60</u>	
Rec _____	Feet of <u>GIP 140'</u>	%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 50' BHT 113 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1668</u>	<input checked="" type="checkbox"/> Test <u>1200</u>	T-On Location <u>3:30 PM</u>
(B) First Initial Flow <u>15</u>	<input type="checkbox"/> Jars _____	T-Started <u>4:28</u>
(C) First Final Flow <u>26</u>	<input type="checkbox"/> Safety Joint _____	T-Open <u>6:14</u>
(D) Initial Shut-In <u>844</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>8:44</u>
(E) Second Initial Flow <u>27</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>10:27</u>
(F) Second Final Flow <u>33</u>	<input checked="" type="checkbox"/> Mileage <u>52 RT</u> ⁵²	Comments _____
(G) Final Shut-In <u>713</u>	<input type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>1630</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> EM Tool _____
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Ruined Packer _____
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder _____	<input type="checkbox"/> Extra Copies _____
Final Shut-In <u>45</u>	<input type="checkbox"/> Day Standby _____	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility _____	Total <u>1252</u>
	Sub Total <u>1252</u>	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 65795

NO.

Well Name & No. Orth-Affenbauer #1-12 Test No. 5 Date 6-20-2019
 Company Prospect Oil & Gas Elevation 1731 KB 1723 GL
 Address PO box 837 Russell KS 67665+0837
 Co. Rep / Geo. Bruce Hutchison Rig Disco Rig 4
 Location: Sec. 12 Twp 19S Rge. 10W Co. Rice State KS

Interval Tested 3270-3310 Zone Tested Arbuckle
 Anchor Length 40' Drill Pipe Run 3233 Mud Wt. 9.4
 Top Packer Depth 3265 Drill Collars Run 31' Vis 59
 Bottom Packer Depth 3270 Wt. Pipe Run _____ WL 8.8
 Total Depth 3370 Chlorides 6300 ppm System LCM 1#

Blow Description IF - built to 7 1/2"
IS ± - ~~no blow back~~ no blow back
FF - 10" build but had loose connection so not accurate
FS ± - 1/2" blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>80</u>	<u>05' W.M.</u>		<u>20</u>	<u>80</u>	
<u>120</u>	<u>M.W.</u>		<u>80</u>	<u>20</u>	
	<u>100' GIP</u>				

Rec Total BHT 114 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1687 1687</u>	<input checked="" type="checkbox"/> Test <u>1200</u>	T-On Location <u>10:30 AM</u>
(B) First Initial Flow <u>15</u>	<input type="checkbox"/> Jars <u>_____</u>	T-Started <u>11:55</u>
(C) First Final Flow <u>54</u>	<input type="checkbox"/> Safety Joint <u>_____</u>	T-Open <u>1:12</u>
(D) Initial Shut-In <u>1020</u>	<input type="checkbox"/> Circ Sub <u>_____</u>	T-Pulled <u>4:12</u>
(E) Second Initial Flow <u>59</u>	<input type="checkbox"/> Hourly Standby <u>_____</u>	T-Out <u>6:23</u>
(F) Second Final Flow <u>106</u>	<input checked="" type="checkbox"/> Mileage <u>52 Rt 52</u>	Comments <u>Load tool after test</u>
(G) Final Shut-In <u>1040</u>	<input type="checkbox"/> Sampler <u>_____</u>	
(H) Final Hydrostatic <u>1604</u>	<input checked="" type="checkbox"/> Straddle <u>600</u>	

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

Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1652

EM Tool _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1652
 MP/DST Disc't _____

Approved By _____ Our Representative Benny Mulligan

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