



DRILL STEM TEST REPORT

Prepared For: **Roberts Resources**

2020 N Tyler Rd Ste 106
Wichita, KS 67212

ATTN: Kent Roberts

Thom A #2-28

28-31S-13W Barber,KS

Start Date: 2012.12.15 @ 12:27:34

End Date: 2012.12.15 @ 18:59:04

Job Ticket #: 49642 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.12.21 @ 15:54:12

Roberts Resources

28-31S-13W Barber,KS

Thom A #2-28

DST # 1

Indian Cave

2012.12.15



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Roberts Resources
2020 N Tyler Rd Ste 106
Wichita, KS 67212
ATTN: Kent Roberts

28-31S-13W Barber,KS

Thom A #2-28

Job Ticket: 49642

DST#: 1

Test Start: 2012.12.15 @ 12:27:34

GENERAL INFORMATION:

Formation: **Indian Cave**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 14:16:49
 Time Test Ended: 18:59:04
 Interval: **2614.00 ft (KB) To 2650.00 ft (KB) (TVD)**
 Total Depth: 2650.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Leal Cason
 Unit No: 45
 Reference Elevations: 1601.00 ft (KB)
 1592.00 ft (CF)
 KB to GR/CF: 9.00 ft

Serial #: 6798

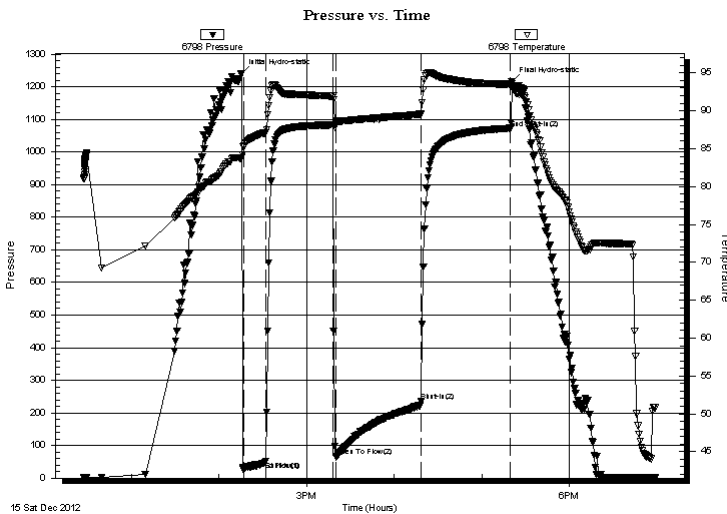
Inside

Press @RunDepth: 234.88 psig @ 2615.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.12.15 End Date: 2012.12.15 Last Calib.: 2012.12.15
 Start Time: 12:27:35 End Time: 18:59:04 Time On Btm: 2012.12.15 @ 14:15:34
 Time Off Btm: 2012.12.15 @ 17:20:34

TEST COMMENT: IF: Strong Blow , BOB in 30 seconds, GTS in 12 minutes, TSTM
 IS: No Blow Back
 FF: Strong Blow , BOB & GTS Immediate, Gauged Gas
 FS: No Blow Back

PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1241.09	83.77	Initial Hydro-static
2	25.60	85.18	Open To Flow (1)
17	51.22	87.10	Shut-In(1)
63	1082.66	91.93	End Shut-In(1)
65	65.58	88.47	Open To Flow (2)
123	234.88	89.57	Shut-In(2)
185	1072.63	93.49	End Shut-In(2)
185	1215.06	93.28	Final Hydro-static



Recovery

Length (ft)	Description	Volume (bbl)
0.00	2413 GIP	0.00
200.00	GCM 15%G 85%M	1.74

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	56.00	111.68
Last Gas Rate	0.25	140.00	244.94
Max. Gas Rate	0.25	140.00	244.94



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Roberts Resources

28-31S-13W Barber,KS

2020 N Tyler Rd Ste 106
Wichita, KS 67212

Thom A #2-28

Job Ticket: 49642

DST#: 1

ATTN: Kent Roberts

Test Start: 2012.12.15 @ 12:27:34

Tool Information

Drill Pipe:	Length: 2496.00 ft	Diameter: 3.80 inches	Volume: 35.01 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 42000.00 lb
			<u>Total Volume: 35.59 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	2614.00 ft			Final 40000.00 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
------------------	-------------	------------	----------	------------	----------------

Shut In Tool	5.00			2592.00	
Hydraulic tool	5.00			2597.00	
Jars	5.00			2602.00	
Safety Joint	2.00			2604.00	
Packer	5.00			2609.00	27.00 Bottom Of Top Packer
Packer	5.00			2614.00	
Stubb	1.00			2615.00	
Recorder	0.00	6798	Inside	2615.00	
Recorder	0.00	8367	Outside	2615.00	
Perforations	32.00			2647.00	
Bullnose	3.00			2650.00	36.00 Bottom Packers & Anchor

Total Tool Length: 63.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Roberts Resources

28-31S-13W Barber,KS

2020 N Tyler Rd Ste 106
Wichita, KS 67212

Thom A #2-28

Job Ticket: 49642

DST#: 1

ATTN: Kent Roberts

Test Start: 2012.12.15 @ 12:27:34

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: 44.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.57 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	2413 GIP	0.000
200.00	GCM 15%G 85%M	1.740

Total Length: 200.00 ft Total Volume: 1.740 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

GAS RATES

Roberts Resources

28-31S-13W Barber,KS

2020 N Tyler Rd Ste 106
Wichita, KS 67212

Thom A #2-28

Job Ticket: 49642

DST#: 1

ATTN: Kent Roberts

Test Start: 2012.12.15 @ 12:27:34

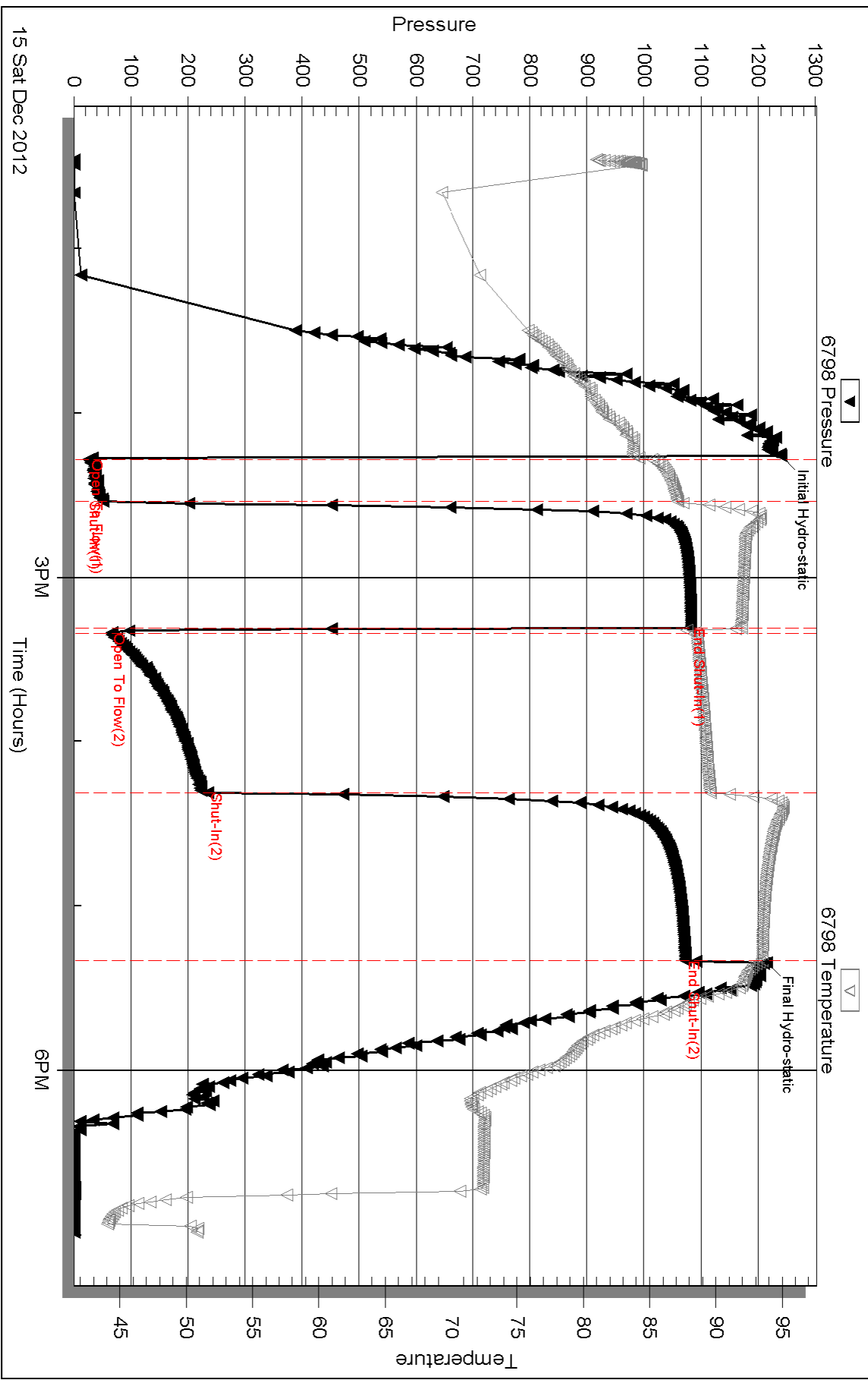
Gas Rates Information

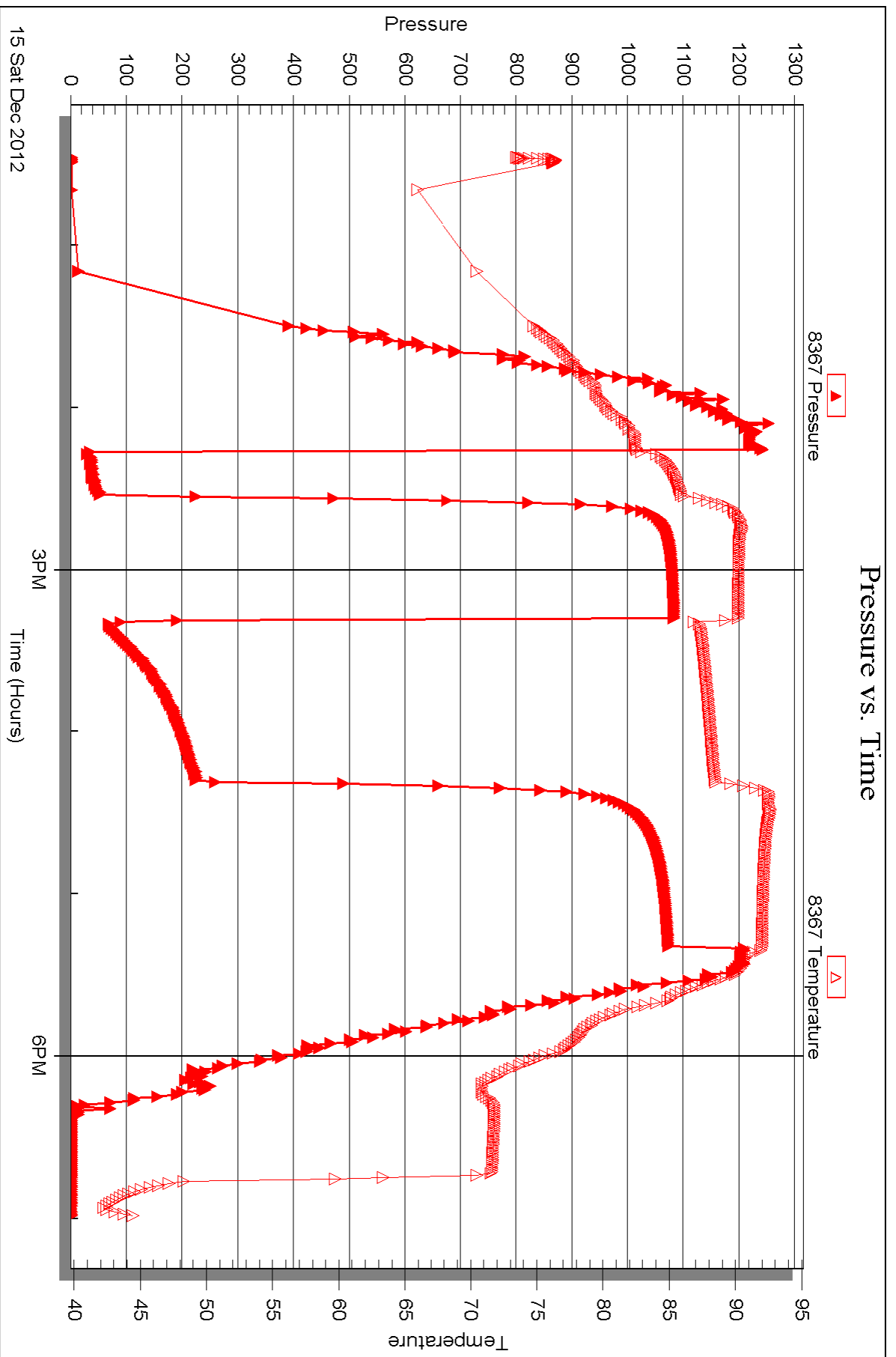
Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
2	10	0.25	56.00	111.68
2	10	0.25	56.00	111.68
2	20	0.25	82.00	152.93
2	30	0.25	110.00	197.35
2	40	0.25	130.00	229.08
2	50	0.25	140.00	244.94

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Roberts Resources**

2020 N Tyler Rd Ste 106
Wichita, KS 67212

ATTN: Kent Roberts

Thom A #2-28

28-31S-13W Barber,KS

Start Date: 2012.12.17 @ 11:17:24

End Date: 2012.12.17 @ 18:25:09

Job Ticket #: 49643 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.12.21 @ 15:53:31



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Roberts Resources
2020 N Tyler Rd Ste 106
Wichita, KS 67212
ATTN: Kent Roberts

28-31S-13W Barber,KS

Thom A #2-28

Job Ticket: 49643

DST#: 2

Test Start: 2012.12.17 @ 11:17:24

GENERAL INFORMATION:

Formation: **Topeka "Deer Creek"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:09:39

Time Test Ended: 18:25:09

Test Type: Conventional Bottom Hole (Reset)

Tester: Leal Cason

Unit No: 45

Interval: **3362.00 ft (KB) To 3392.00 ft (KB) (TVD)**

Total Depth: 3392.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1601.00 ft (KB)

1592.00 ft (CF)

KB to GR/CF: 9.00 ft

Serial #: 6798

Inside

Press @ Run Depth: 869.90 psig @ 3363.00 ft (KB)

Start Date: 2012.12.17

End Date: 2012.12.17

Start Time: 11:17:25

End Time: 18:25:09

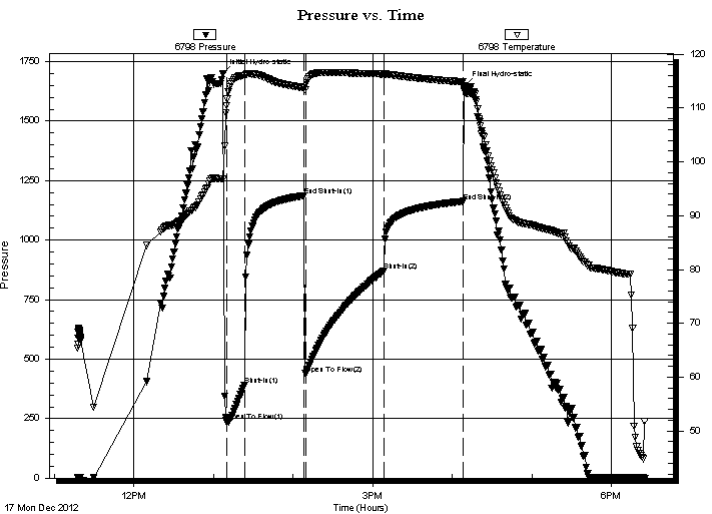
Capacity: 8000.00 psig

Last Calib.: 2012.12.17

Time On Btm: 2012.12.17 @ 13:07:09

Time Off Btm: 2012.12.17 @ 16:09:24

TEST COMMENT: IF: Strong Blow , BOB in 30 seconds
IS: BOB Blow Back in 9 minutes
FF: Strong Blow , BOB & GTS in 1 minute, TSTM
FS: BOB Blow Back in 7 minutes



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1700.86	96.84	Initial Hydro-static
3	240.55	110.50	Open To Flow (1)
16	390.40	116.05	Shut-In(1)
61	1186.63	113.77	End Shut-In(1)
62	439.19	113.48	Open To Flow (2)
121	869.90	116.32	Shut-In(2)
182	1163.05	114.88	End Shut-In(2)
183	1649.27	113.08	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	1501 GIP	0.00
930.00	Water	11.98
186.00	OMCW 5%O 5%M 90%W	2.61
434.00	GSY MOCW 30%G 10%M 28%O 32%W	6.09
310.00	GSY OMCW 30%G 12%O 24%M 34%W	4.35

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Roberts Resources

28-31S-13W Barber,KS

2020 N Tyler Rd Ste 106
Wichita, KS 67212

Thom A #2-28

Job Ticket: 49643

DST#: 2

ATTN: Kent Roberts

Test Start: 2012.12.17 @ 11:17:24

Tool Information

Drill Pipe:	Length: 3244.00 ft	Diameter: 3.80 inches	Volume: 45.50 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 56000.00 lb
			<u>Total Volume: 46.08 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3362.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	57.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3340.00	
Hydraulic tool	5.00			3345.00	
Jars	5.00			3350.00	
Safety Joint	2.00			3352.00	
Packer	5.00			3357.00	27.00 Bottom Of Top Packer
Packer	5.00			3362.00	
Stubb	1.00			3363.00	
Recorder	0.00	6798	Inside	3363.00	
Recorder	0.00	8367	Outside	3363.00	
Perforations	26.00			3389.00	
Bullnose	3.00			3392.00	30.00 Bottom Packers & Anchor

Total Tool Length: 57.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Roberts Resources

28-31S-13W Barber,KS

2020 N Tyler Rd Ste 106
Wichita, KS 67212

Thom A #2-28

Job Ticket: 49643

DST#: 2

ATTN: Kent Roberts

Test Start: 2012.12.17 @ 11:17:24

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: 165000 ppm

Viscosity: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 11.17 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 10000.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
0.00	1501 GIP	0.000
930.00	Water	11.980
186.00	OMCW 5%O 5%M 90%W	2.609
434.00	GSY MOCW 30%G 10%M 28%O 32%W	6.088
310.00	GSY OMCW 30%G 12%O 24%M 34%W	4.348

Total Length: 1860.00 ft Total Volume: 25.025 bbl

Num Fluid Samples: 0

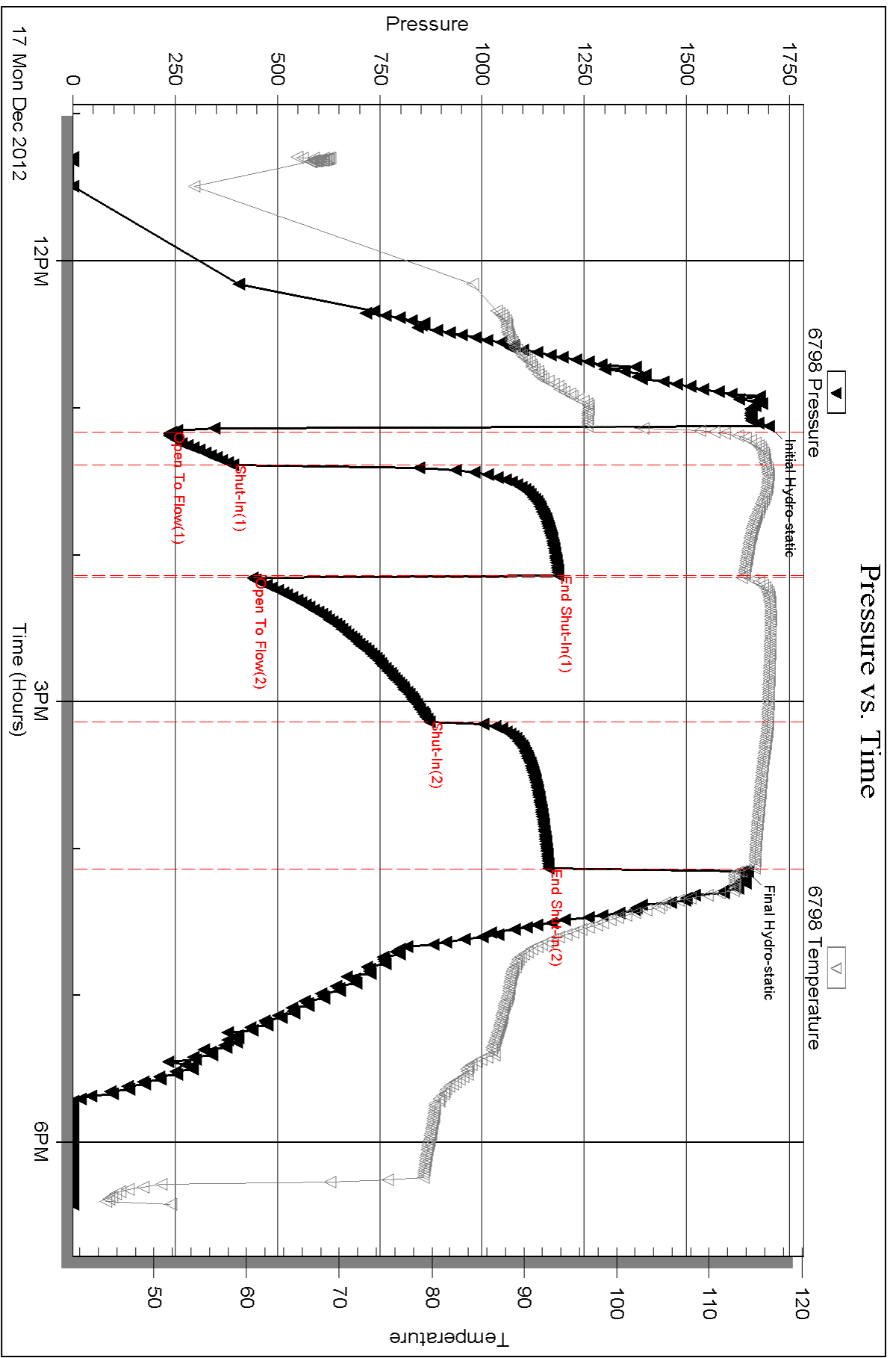
Num Gas Bombs: 0

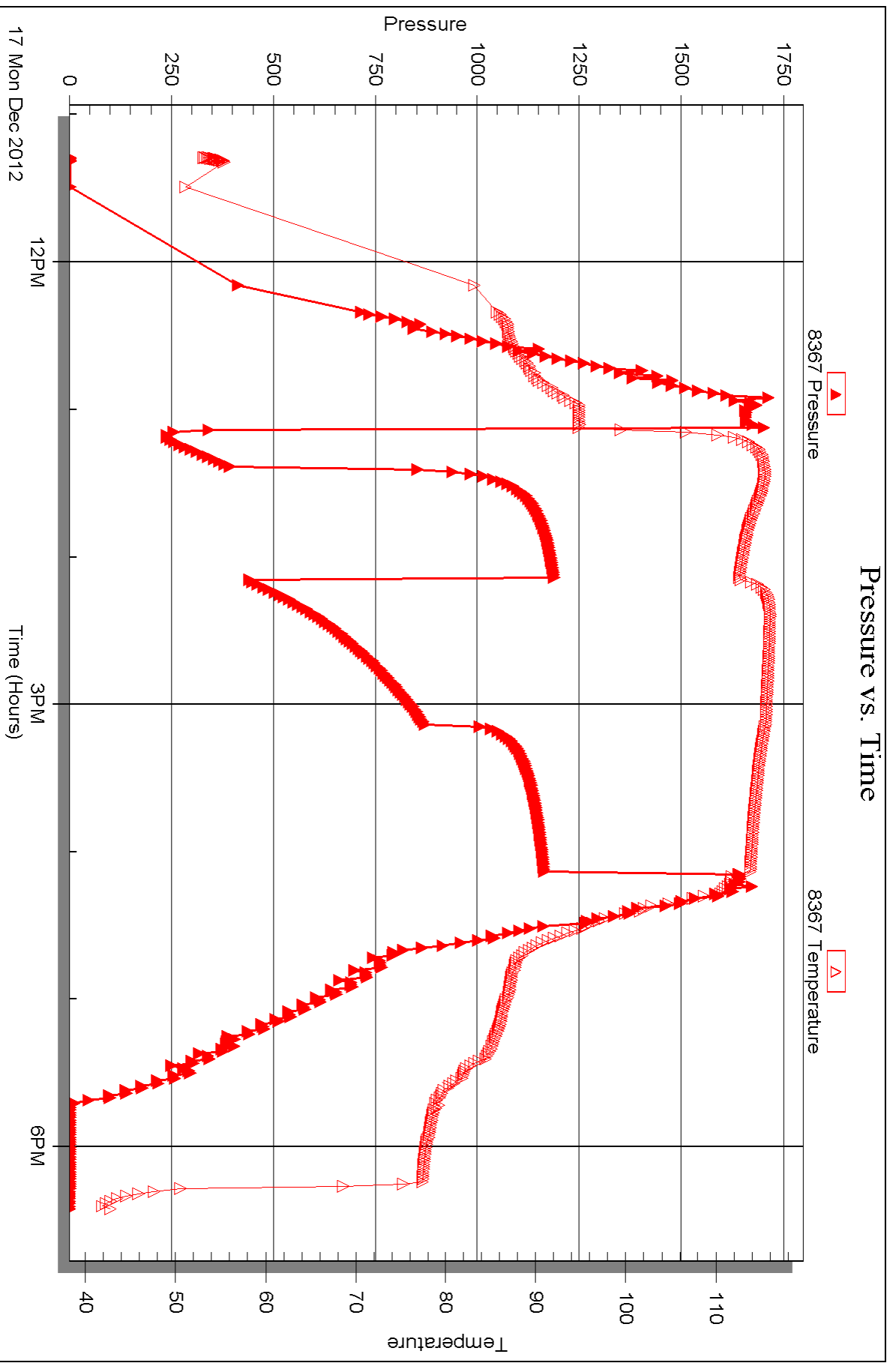
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW w as .075 @ 55 degrees







DRILL STEM TEST REPORT

Prepared For: **Roberts Resources**

2020 N Tyler Rd Ste 106
Wichita, KS 67212

ATTN: Kent Roberts

Thom A #2-28

28-31S-13W Barber,KS

Start Date: 2012.12.18 @ 12:02:49

End Date: 2012.12.18 @ 16:47:19

Job Ticket #: 49644 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.12.21 @ 15:52:54

Roberts Resources

28-31S-13W Barber,KS

Thom A #2-28

DST # 3

Upper Douglas Sand

2012.12.18



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Roberts Resources
 2020 N Tyler Rd Ste 106
 Wichita, KS 67212
 ATTN: Kent Roberts

28-31S-13W Barber,KS
Thom A #2-28
 Job Ticket: 49644 **DST#: 3**
 Test Start: 2012.12.18 @ 12:02:49

GENERAL INFORMATION:

Formation: **Upper Douglas Sand**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 13:46:49
 Time Test Ended: 16:47:19
 Interval: **3604.00 ft (KB) To 3642.00 ft (KB) (TVD)**
 Total Depth: 3642.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Leal Cason
 Unit No: 45
 Reference Elevations: 1601.00 ft (KB)
 1592.00 ft (CF)
 KB to GR/CF: 9.00 ft

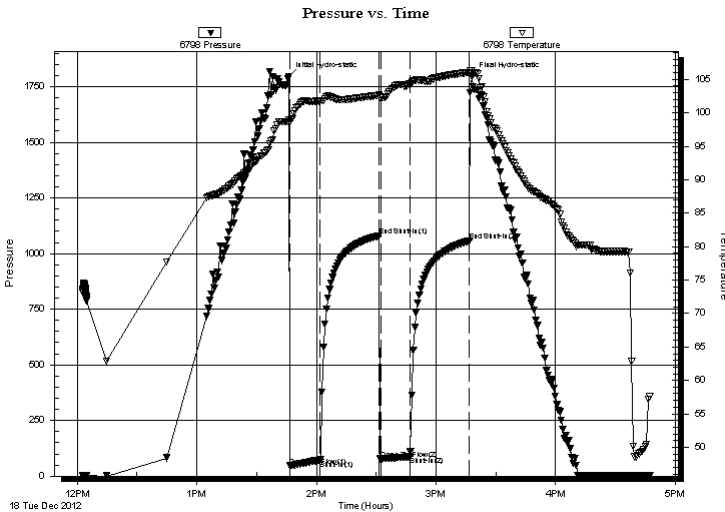
Serial #: 6798

Inside

Press @ Run Depth: 86.81 psig @ 3605.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.12.18 End Date: 2012.12.18 Last Calib.: 2012.12.18
 Start Time: 12:02:50 End Time: 16:47:19 Time On Btm: 2012.12.18 @ 13:46:19
 Time Off Btm: 2012.12.18 @ 15:17:49

TEST COMMENT: IF: Weak Blow , Built to 3 inches
 IS: No Blow Back
 FF: Weak 1/2 inch Blow
 FS: No Blow Back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1796.99	98.97	Initial Hydro-static
1	46.22	98.73	Open To Flow (1)
16	71.89	101.70	Shut-In(1)
46	1080.10	102.64	End Shut-In(1)
46	77.20	102.34	Open To Flow (2)
61	86.81	104.34	Shut-In(2)
91	1057.35	106.06	End Shut-In(2)
92	1796.26	106.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	Mud	0.62

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Roberts Resources

28-31S-13W Barber,KS

2020 N Tyler Rd Ste 106
Wichita, KS 67212

Thom A #2-28

Job Ticket: 49644

DST#: 3

ATTN: Kent Roberts

Test Start: 2012.12.18 @ 12:02:49

Tool Information

Drill Pipe:	Length: 3465.00 ft	Diameter: 3.80 inches	Volume: 48.60 bbl	Tool Weight:	2100.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose:	48000.00 lb
			<u>Total Volume: 49.18 bbl</u>	Tool Chased	2.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial	48000.00 lb
Depth to Top Packer:	3604.00 ft			Final	48000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	38.00 ft				
Tool Length:	65.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3582.00	
Hydraulic tool	5.00			3587.00	
Jars	5.00			3592.00	
Safety Joint	2.00			3594.00	
Packer	5.00			3599.00	27.00 Bottom Of Top Packer
Packer	5.00			3604.00	
Stubb	1.00			3605.00	
Recorder	0.00	6798	Inside	3605.00	
Recorder	0.00	8367	Outside	3605.00	
Perforations	34.00			3639.00	
Bullnose	3.00			3642.00	38.00 Bottom Packers & Anchor

Total Tool Length: 65.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Roberts Resources

28-31S-13W Barber,KS

2020 N Tyler Rd Ste 106
Wichita, KS 67212

Thom A #2-28

Job Ticket: 49644

DST#: 3

ATTN: Kent Roberts

Test Start: 2012.12.18 @ 12:02:49

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: 43.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 12.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 11000.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	Mud	0.617

Total Length: 120.00 ft Total Volume: 0.617 bbl

Num Fluid Samples: 0

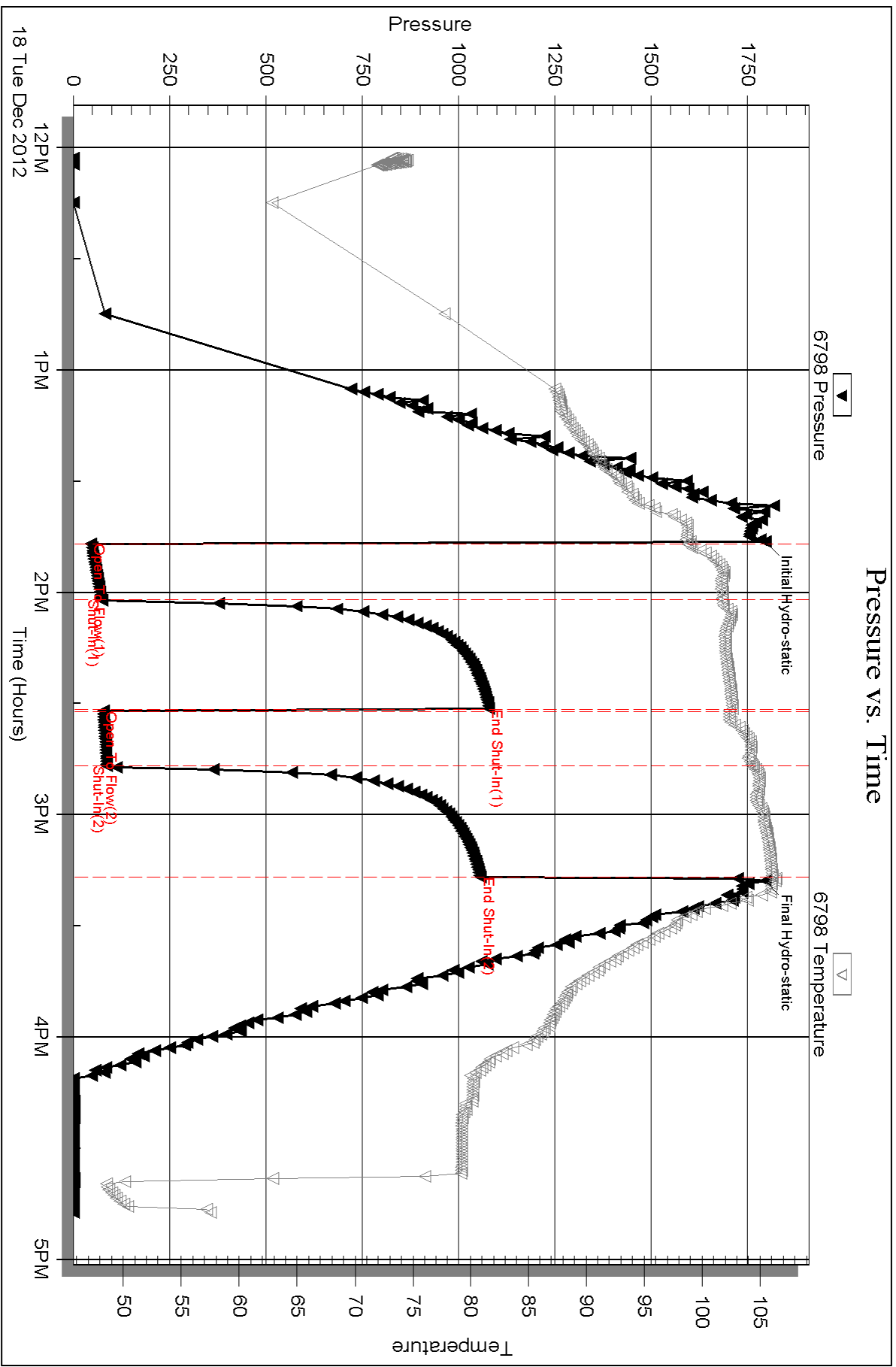
Num Gas Bombs: 0

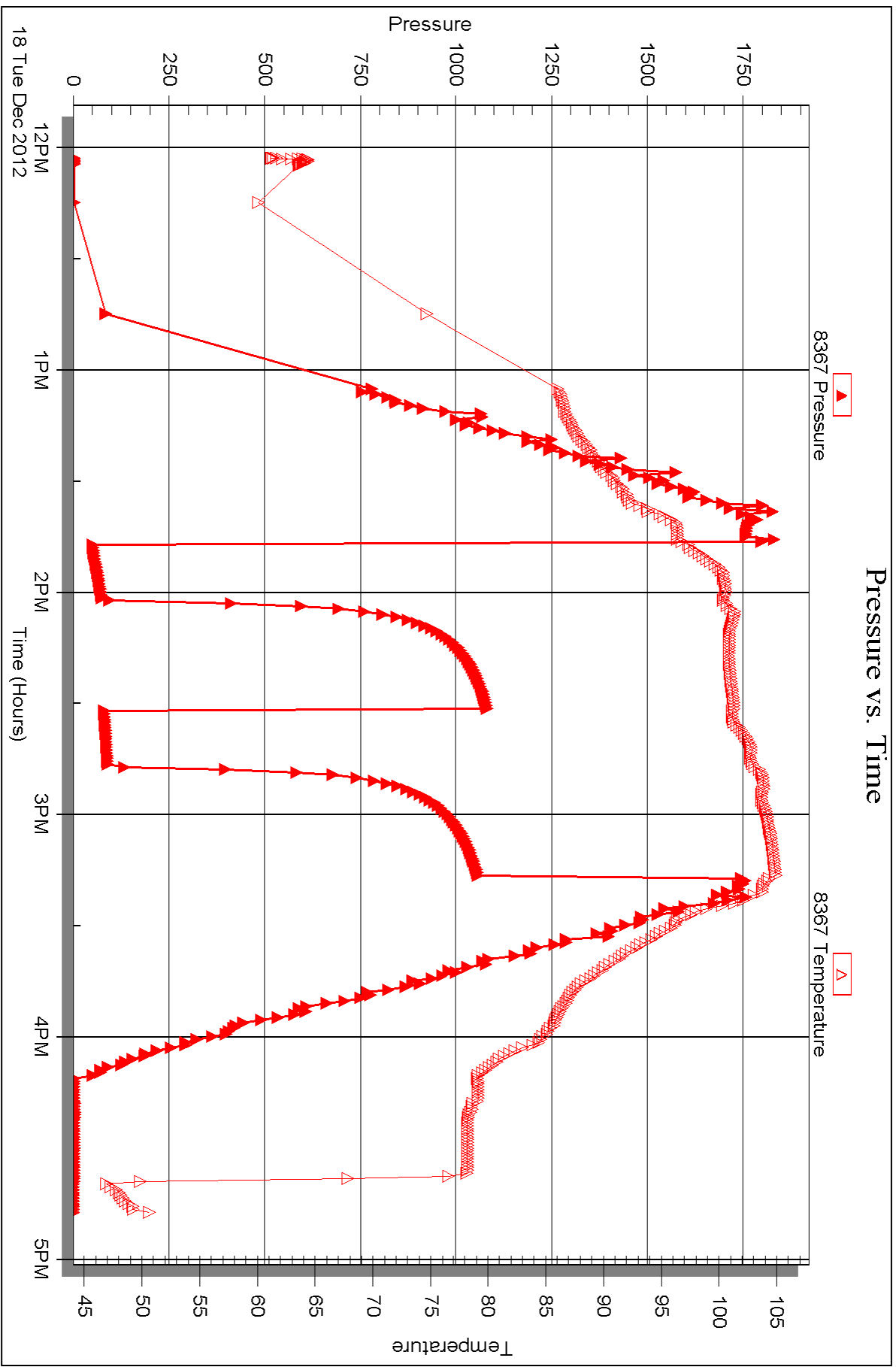
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Roberts Resources**

2020 N Tyler Rd Ste 106
Wichita, KS 67212

ATTN: Kent Roberts

Thom A #2-28

28-31S-13W Barber,KS

Start Date: 2012.12.20 @ 08:23:33

End Date: 2012.12.20 @ 15:59:33

Job Ticket #: 49645 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.12.21 @ 15:52:00



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Roberts Resources
 2020 N Tyler Rd Ste 106
 Wichita, KS 67212
 ATTN: Kent Roberts

28-31S-13W Barber,KS

Thom A #2-28

Job Ticket: 49645

DST#: 4

Test Start: 2012.12.20 @ 08:23:33

GENERAL INFORMATION:

Formation: **Mississippi**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 10:51:18
 Tester: Leal Cason
 Time Test Ended: 15:59:33
 Unit No: 45
 Interval: **4250.00 ft (KB) To 4264.00 ft (KB) (TVD)**
 Reference Elevations: 1601.00 ft (KB)
 Total Depth: 4264.00 ft (KB) (TVD)
 1592.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Good
 KB to GR/CF: 9.00 ft

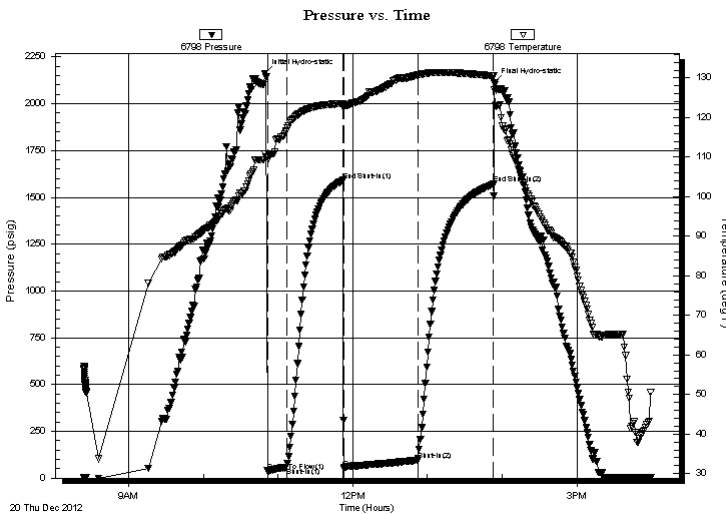
Serial #: 6798

Inside

Press @ Run Depth: 94.55 psig @ 4251.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.12.20 End Date: 2012.12.20 Last Calib.: 2012.12.20
 Start Time: 08:23:34 End Time: 15:59:33 Time On Btm: 2012.12.20 @ 10:49:18
 Time Off Btm: 2012.12.20 @ 13:53:48

TEST COMMENT: IF: Strong Blow , BOB in 1 minute
 IS: No Blow back
 FF: Strong Blow , BOB in 2 minutes
 FS: No Blow Back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2162.25	110.89	Initial Hydro-static
2	38.32	109.96	Open To Flow (1)
18	57.18	116.64	Shut-In(1)
63	1590.97	123.56	End Shut-In(1)
64	50.77	123.05	Open To Flow (2)
123	94.55	130.78	Shut-In(2)
184	1570.17	130.51	End Shut-In(2)
185	2111.71	127.00	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	2052 GIP	0.00
59.00	Water	0.29
58.00	SOMCW 5%O 37%M 58%W	0.29
63.00	OWCM 12%O 34%W 54%M	0.88

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Roberts Resources

28-31S-13W Barber,KS

2020 N Tyler Rd Ste 106
Wichita, KS 67212

Thom A #2-28

Job Ticket: 49645

DST#: 4

ATTN: Kent Roberts

Test Start: 2012.12.20 @ 08:23:33

Tool Information

Drill Pipe:	Length: 4118.00 ft	Diameter: 3.80 inches	Volume: 57.76 bbl	Tool Weight:	2100.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose:	50000.00 lb
			<u>Total Volume: 58.34 bbl</u>	Tool Chased	ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial	48000.00 lb
Depth to Top Packer:	4250.00 ft			Final	48000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	14.00 ft				
Tool Length:	41.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

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

Shut In Tool	5.00			4228.00	
Hydraulic tool	5.00			4233.00	
Jars	5.00			4238.00	
Safety Joint	2.00			4240.00	
Packer	5.00			4245.00	27.00 Bottom Of Top Packer
Packer	5.00			4250.00	
Stubb	1.00			4251.00	
Recorder	0.00	6798	Inside	4251.00	
Recorder	0.00	8367	Outside	4251.00	
Perforations	10.00			4261.00	
Bullnose	3.00			4264.00	14.00 Bottom Packers & Anchor

Total Tool Length: 41.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Roberts Resources

28-31S-13W Barber,KS

2020 N Tyler Rd Ste 106
Wichita, KS 67212

Thom A #2-28

Job Ticket: 49645

DST#: 4

ATTN: Kent Roberts

Test Start: 2012.12.20 @ 08:23:33

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity: 105000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 10000.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
0.00	2052 GIP	0.000
59.00	Water	0.290
58.00	SOMCW 5%O 37%M 58%W	0.285
63.00	OWCM 12%O 34%W 54%M	0.884

Total Length: 180.00 ft Total Volume: 1.459 bbl

Num Fluid Samples: 0

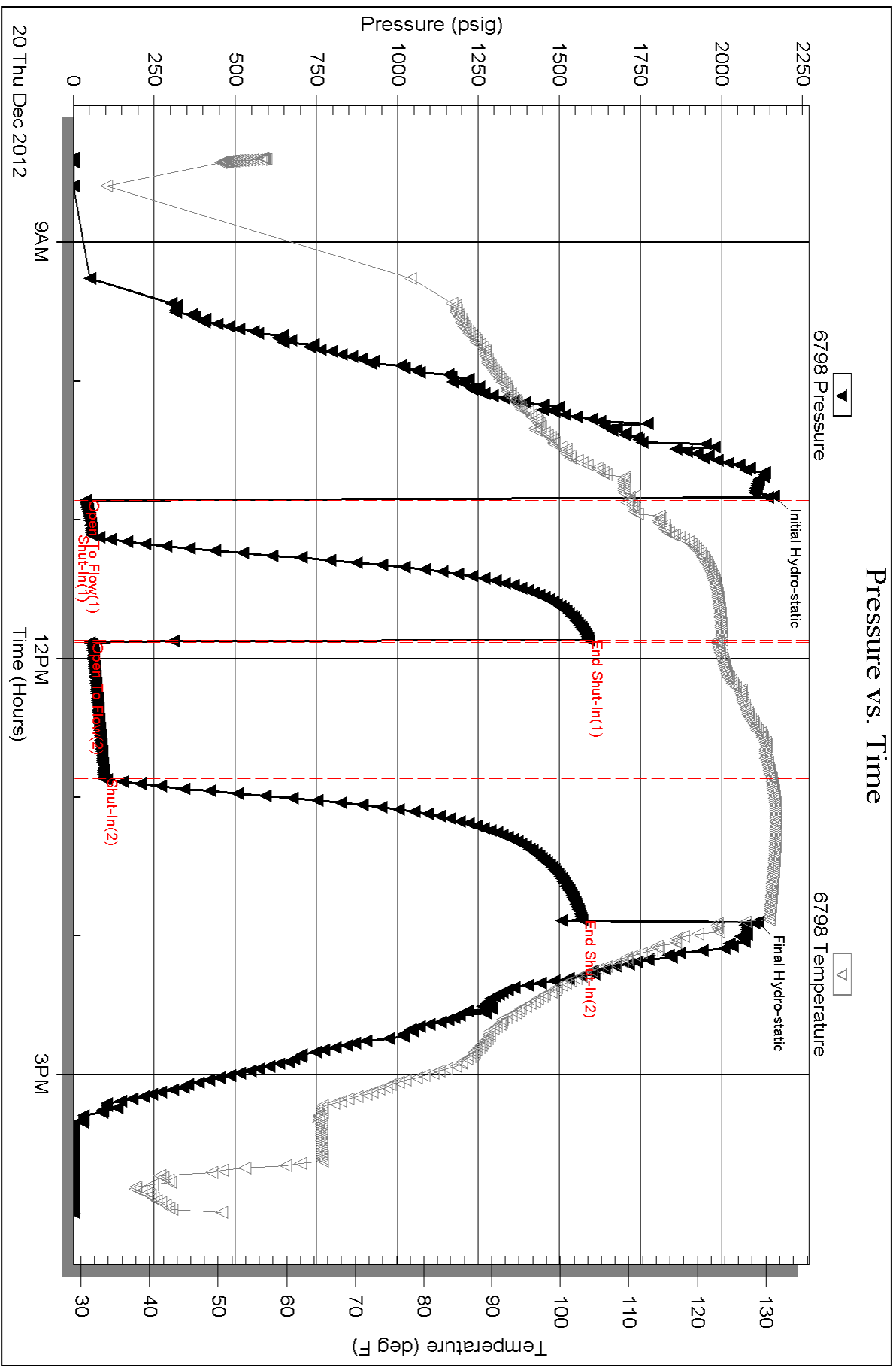
Num Gas Bombs: 0

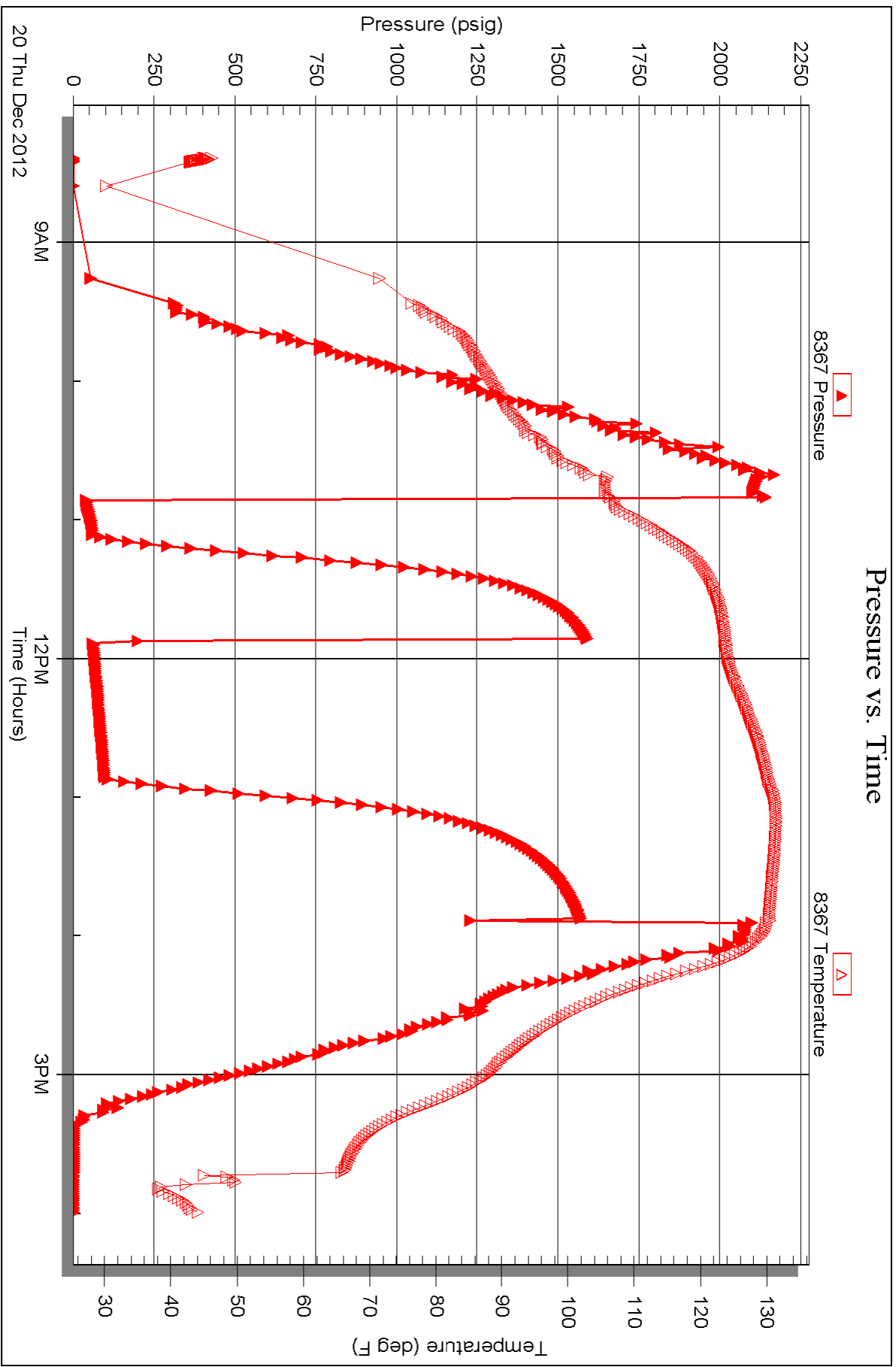
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW w as .12 @ 44 degrees







TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. **49642**

4/10

Well Name & No. Thom A 2-28 Test No. 1 Date 12/15/12
 Company ROBERTS RESOURCES Elevation 1601 KB 1592 GL
 Address 2020 N. Tyler Rd Ste 106 Wichita, KS 67212
 Co. Rep / Geo. Kent Roberts Rig Landmark 6
 Location: Sec. 28 Twp. 31S Rge. 13W Co. Barber State KS

Interval Tested 2614 - 2650 Zone Tested Indian Cave
 Anchor Length 36 Drill Pipe Run 2496 Mud Wt. 9.0
 Top Packer Depth 2609 Drill Collars Run 117 Vis 44
 Bottom Packer Depth 2614 Wt. Pipe Run 0 WL 9.6
 Total Depth 2650 Chlorides 6000 ppm System LCM

Blow Description IF: strong Blow, BOB in 30 seconds, GTS in 12 minutes, TSTM

ISI: NO Blow Back

FT: strong Blow, BOB + GTS immediate, gauged Gas

FSI: NO Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>2413</u>	<u>GIP</u>				
<u>200</u>	<u>GCM</u>	<u>15</u>			<u>85</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 200 BHT 93° Gravity N/C API RW N/C @ N/C °F Chlorides N/C ppm

(A) Initial Hydrostatic 1241 Test 1150 T-On Location 11:15
 (B) First Initial Flow 26 Jars 250 T-Started 12:37
 (C) First Final Flow 51 Safety Joint 75 T-Open 14:16
 (D) Initial Shut-In 1083 Circ Sub _____ T-Pulled 17:19
 (E) Second Initial Flow 66 Hourly Standby _____ T-Out 18:59
 (F) Second Final Flow 235 Mileage 60 93 Comments _____
 (G) Final Shut-In 1073 Sampler _____
 (H) Final Hydrostatic 1215 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1718
 Accessibility 150 MP/DST Disc't _____
 Sub Total 1718

Approved By Kent Roberts Our Representative [Signature]

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.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 49643

Well Name & No. Thom A 2-28 Test No. 2 Date 12/17/12
 Company ROBERTS RESOURCES Elevation 1601 KB 1592 GL
 Address 2020 N. Tyler Rd Ste 106 Wichita, KS 67212
 Co. Rep / Geo. Kent Roberts Rig Landmark 6
 Location: Sec. 28 Twp. 31S Rge. 13W Co. Barber State KS

Interval Tested 3362 - 3392 Zone Tested Topeka "Dear Creek"
 Anchor Length 30 Drill Pipe Run 3244 Mud Wt. 9.4
 Top Packer Depth 3357 Drill Collars Run 117 Vis 47
 Bottom Packer Depth 3362 Wt. Pipe Run 0 WL 11.2
 Total Depth 3392 Chlorides 10,000 ppm System LCM

Blow Description IF: Strong Blow, BOB in 30 seconds

IST: BOB Blow Back in 9 minutes

FF: Strong Blow, BOB + GTS in 1 minute, TSTM

FST: BOB Blow Back in 7 minutes

Rec	Feet of	%gas	%oil	%water	%mud
<u>1501</u>	<u>GIP</u>				
<u>310</u>	<u>GSY OMCW</u>	<u>30</u>	<u>12</u>	<u>34</u>	<u>24</u>
<u>434</u>	<u>GSY OMCW</u>	<u>30</u>	<u>28</u>	<u>32</u>	<u>10</u>
<u>186</u>	<u>OMCW</u>		<u>5</u>	<u>90</u>	<u>5</u>
<u>930</u>	<u>WATER</u>				

Rec Total 1860 BHT 115° Gravity NIC API RW 0.75@ 55 °F Chlorides 165000 ppm

(A) Initial Hydrostatic 1701 Test 1150 T-On Location 10:45

(B) First Initial Flow 291 Jars 250 T-Started 11:17

(C) First Final Flow 390 Safety Joint 75 T-Open 13:09

(D) Initial Shut-In 1187 Circ Sub T-Pulled 16:08

(E) Second Initial Flow 439 Hourly Standby T-Out 18:25

(F) Second Final Flow 870 Mileage 60 93 Comments

(G) Final Shut-In 1163 Sampler

(H) Final Hydrostatic 1649 Straddle Ruined Shale Packer

Shale Packer Ruined Packer

Extra Packer Extra Copies

Extra Recorder Sub Total 0

Day Standby Total 1718

Accessibility 150 MP/DST Disc't

Sub Total 1718

Approved By _____ Our Representative _____

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 49644

4/10

Well Name & No. Thom A 2-28 Test No. 3 Date 12/18/12
 Company Roberts Resources Elevation 1601 KB 1592 GL
 Address 2020 N. Tyler Rd Ste 106 Wichita, KS 67212
 Co. Rep / Geo. Kent Roberts Rig Landmark 6
 Location: Sec. 28 Twp. 31S Rge. 13W Co. Barber State KS

Interval Tested 3604 - 3642 Zone Tested Upper Douglas sand
 Anchor Length 38 Drill Pipe Run 3465 Mud Wt. 9.3
 Top Packer Depth 3599 Drill Collars Run 117 Vis 43
 Bottom Packer Depth 3604 Wt. Pipe Run 6 WL 12.8
 Total Depth 3642 Chlorides 11,000 ppm System LCM

Blow Description IF: weak Blow, Built to 3 inches
ISI: NO Blow Back
PF: weak 1/2 inch Blow
FSI: NO Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>120</u>	<u>Mud</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 120 BHT 106 Gravity N/C API RW N/C @ N/C °F Chlorides N/C ppm

(A) Initial Hydrostatic <u>1797</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>11:30</u>
(B) First Initial Flow <u>46</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>12:02</u>
(C) First Final Flow <u>72</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>13:46</u>
(D) Initial Shut-In <u>1080</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>15:16</u>
(E) Second Initial Flow <u>77</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>16:47</u>
(F) Second Final Flow <u>87</u>	<input checked="" type="checkbox"/> Mileage <u>(60)</u> 93	Comments
(G) Final Shut-In <u>1057</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1796</u>	<input type="checkbox"/> Straddle	
Initial Open <u>15</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>15</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1718</u>
	<input checked="" type="checkbox"/> Accessibility <u>150</u>	MP/DST Disc't
	Sub Total <u>1718</u>	

Approved By Kent Roberts Our Representative [Signature]

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 49645

4/10

Well Name & No. Thom A 2-28 Test No. 4 Date 12/20/12
 Company Roberts Resources Elevation 1601 KB 1592 GL
 Address 2020 N. Tyler Rd Ste 106 Wichita, KS 67212
 Co. Rep / Geo. Kent Roberts Rig Landmark 6
 Location: Sec. 28 Twp. 31S Rge. 13W Co. Barber State KS

Interval Tested 4250 - 4264 Zone Tested Mississippi
 Anchor Length 14 Drill Pipe Run _____ Mud Wt. 9.5
 Top Packer Depth 4245 Drill Collars Run 117 Vis 51
 Bottom Packer Depth 4250 Wt. Pipe Run 0 WL 10.8
 Total Depth 4264 Chlorides 10,000 ppm System LCM _____

Blow Description IF: Strong Blow, BOB in 1 minute
ISI: NO Blow Back
FF: Strong Blow, BOB in 2 minutes
FSI: NO Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>2052</u>	<u>GIP</u>				
<u>63</u>	<u>OWCM</u>	<u>12</u>	<u>34</u>	<u>54</u>	
<u>58</u>	<u>SOMCW</u>	<u>5</u>	<u>58</u>	<u>37</u>	
<u>59</u>	<u>WATER</u>				

Rec Total 180 BHT 130 Gravity N/C API RW .12 @ 44 ° F Chlorides 105,000 ppm

(A) Initial Hydrostatic <u>2162</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>08:00</u>
(B) First Initial Flow <u>38</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>08:23</u>
(C) First Final Flow <u>57</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>10:51</u>
(D) Initial Shut-In <u>1591</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>13:53</u>
(E) Second Initial Flow <u>51</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>15:59</u>
(F) Second Final Flow <u>95</u>	<input checked="" type="checkbox"/> Mileage <u>60</u> <u>93</u>	Comments _____
(G) Final Shut-In <u>1570</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>2112</u>	<input type="checkbox"/> Straddle _____	

Initial Open <u>15</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Ruined Packer _____
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>508.33</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby <u>1d 15.25h</u>	Total <u>2326.33</u>
	<input checked="" type="checkbox"/> Accessibility <u>150</u>	MP/DST Disc't _____
	Sub Total <u>1818</u>	

Approved By Kent Roberts Our Representative _____

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