



DRILL STEM TEST REPORT

Prepared For: **Directional Drilling Systems**

5780 East Ida Circle
Greenwood Village, CO 80111

ATTN: Hi Lewis / Frank Miz

Benfer #7

9/26S/3E Butler,KS

Start Date: 2016.12.14 @ 05:15:00

End Date: 2016.12.14 @ 18:03:15

Job Ticket #: 63090 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2016.12.19 @ 13:21:54



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Directional Drilling Systems
 5780 East Ida Circle
 Greenwood Village, CO 80111
 ATTN: Hi Lew is / Frank Miz

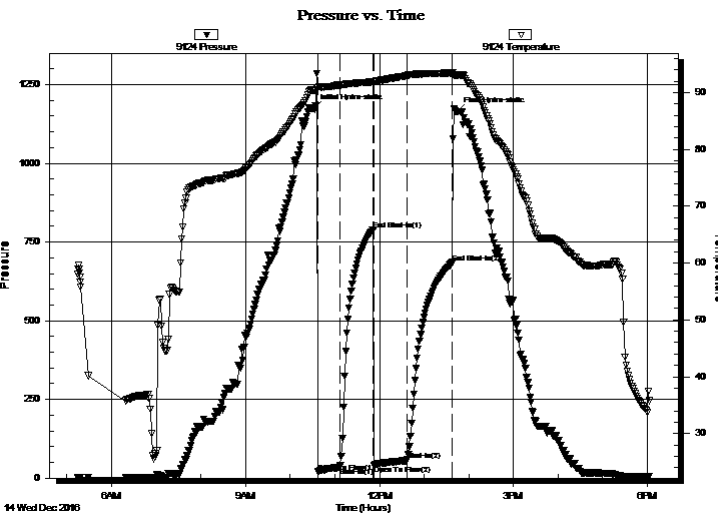
9/26S/3E Butler,KS
Benfer #7
 Job Ticket: 63090 **DST#: 1**
 Test Start: 2016.12.14 @ 05:15:00

GENERAL INFORMATION:

Formation: **Swope**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 10:37:15
 Time Test Ended: 18:03:15
 Interval: **2437.00 ft (KB) To 2462.00 ft (KB) (TVD)**
 Total Depth: 2462.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Jimmy Ricketts
 Unit No: 80
 Reference Elevations: 1359.00 ft (KB)
 1349.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 9124 Outside
 Press@RunDepth: 55.80 psig @ 2438.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2016.12.14 End Date: 2016.12.14 Last Calib.: 2016.12.14
 Start Time: 05:15:05 End Time: 18:03:15 Time On Btm: 2016.12.14 @ 10:32:00
 Time Off Btm: 2016.12.14 @ 13:44:00

TEST COMMENT: IF - Weak blow building to 4" initial flow period.
 FF - Weak blow building to 3" final flow period.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1172.47	90.40	Initial Hydro-static
6	20.05	90.81	Open To Flow (1)
35	34.29	91.33	Shut-In(1)
80	788.96	91.88	End Shut-In(1)
81	41.37	91.59	Open To Flow (2)
125	55.80	93.00	Shut-In(2)
187	684.85	93.45	End Shut-In(2)
192	1164.81	93.06	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
80.00	Oil & heavy mud cut water 3%O 50%W	40.391

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Directional Drilling Systems
5780 East Ida Circle
Greenwood Village, CO 80111
ATTN: Hi Lewis / Frank Miz

9/26S/3E Butler,KS
Benfer #7
Job Ticket: 63090 **DST#: 1**
Test Start: 2016.12.14 @ 05:15:00

Tool Information

Drill Pipe:	Length: 2102.00 ft	Diameter: 3.20 inches	Volume: 20.91 bbl	Tool Weight:	2300.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 313.00 ft	Diameter: 2.25 inches	Volume: 1.54 bbl	Weight to Pull Loose:	36000.00 lb
			<u>Total Volume: 22.45 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial	28000.00 lb
Depth to Top Packer:	2437.00 ft			Final	28000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	25.00 ft				
Tool Length:	53.00 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			2410.00	
Shut In Tool	5.00			2415.00	
Hydraulic tool	5.00			2420.00	
Jars	5.00			2425.00	
Safety Joint	3.00			2428.00	
Packer	4.00			2432.00	28.00 Bottom Of Top Packer
Packer	5.00			2437.00	
Stubb	1.00			2438.00	
Recorder	0.00	9124	Outside	2438.00	
Recorder	0.00	6798	Inside	2438.00	
Perforations	19.00			2457.00	
Bullnose	5.00			2462.00	25.00 Bottom Packers & Anchor

Total Tool Length: 53.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Directional Drilling Systems
5780 East Ida Circle
Greenwood Village, CO 80111
ATTN: Hi Lewis / Frank Miz

9/26S/3E Butler,KS
Benfer #7
Job Ticket: 63090 **DST#: 1**
Test Start: 2016.12.14 @ 05:15:00

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:	17000 ppm
Viscosity: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.57 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1900.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
80.00	Oil & heavy mud cut w ater 3%O 50%W 47%I	0.393

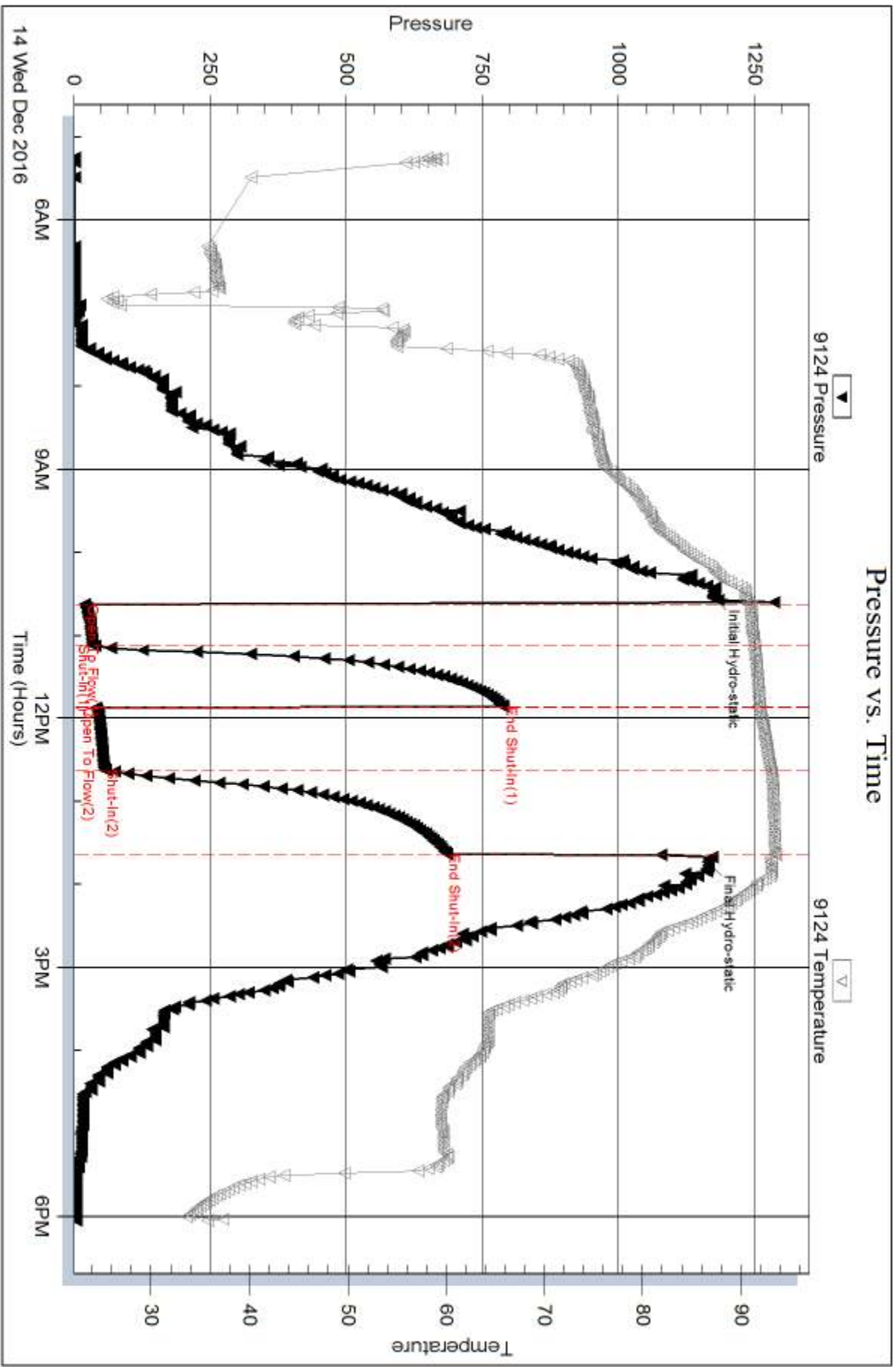
Total Length: 80.00 ft Total Volume: 0.393 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 9124

Outside Directional Drilling Systems

Benfer #7

DST Test Number: 1



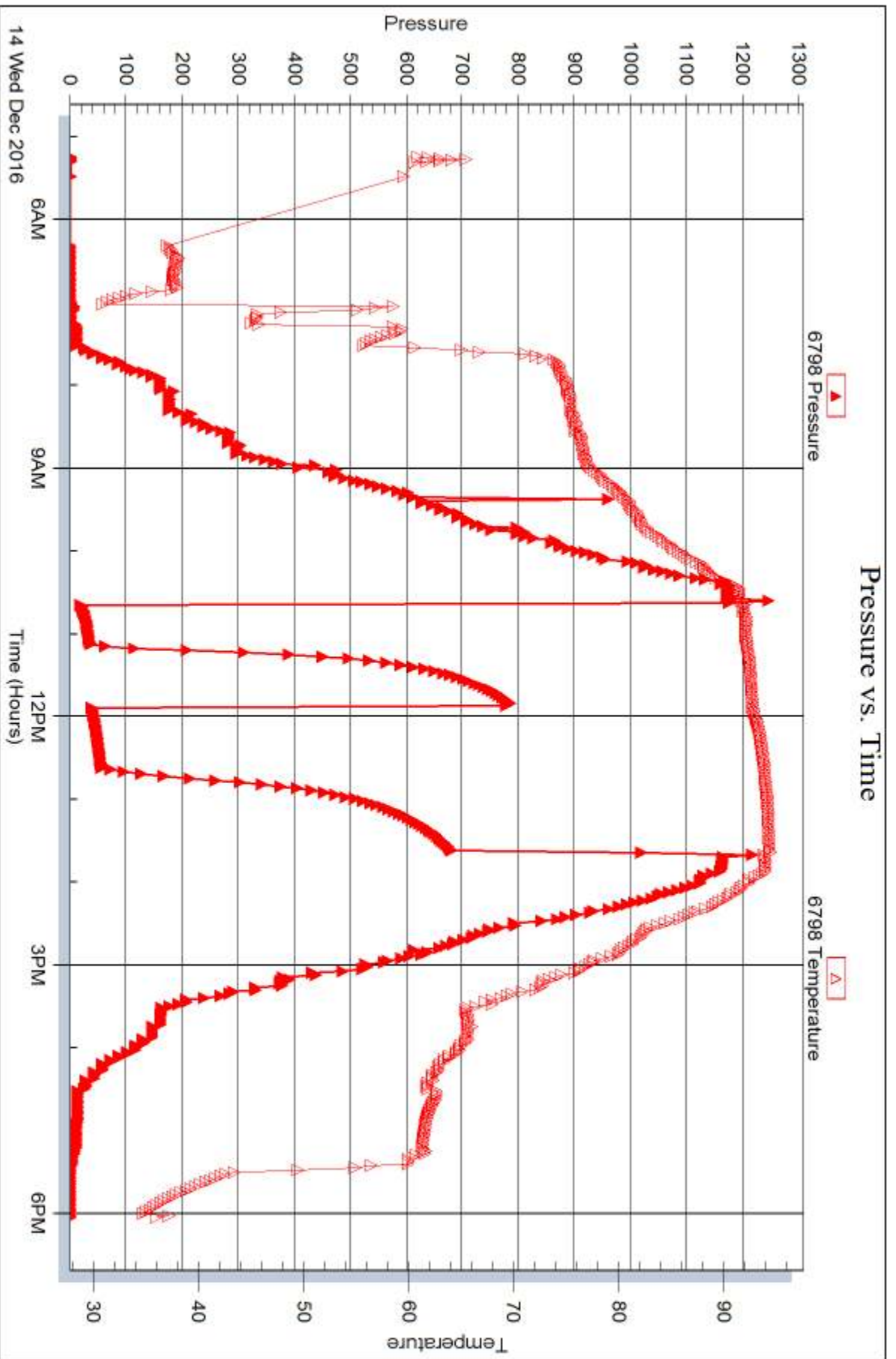
Serial #: 6798

Inside

Directional Drilling Systems

Benfer #7

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 63090

Printed: 2016.12.19 @ 13:21:54



DRILL STEM TEST REPORT

Prepared For: **Directional Drilling Systems**

5780 East Ida Circle
Greenwood Village, CO 80111

ATTN: Hi Lewis / Frank Miz

Benfer #7

9/26S/3E Butler,KS

Start Date: 2016.12.16 @ 06:31:00

End Date: 2016.12.16 @ 17:38:30

Job Ticket #: 63091 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2016.12.19 @ 13:21:31



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Directional Drilling Systems
 5780 East Ida Circle
 Greenwood Village, CO 80111
 ATTN: Hi Lew is / Frank Miz

9/26S/3E Butler,KS
Benfer #7
 Job Ticket: 63091 **DST#: 2**
 Test Start: 2016.12.16 @ 06:31:00

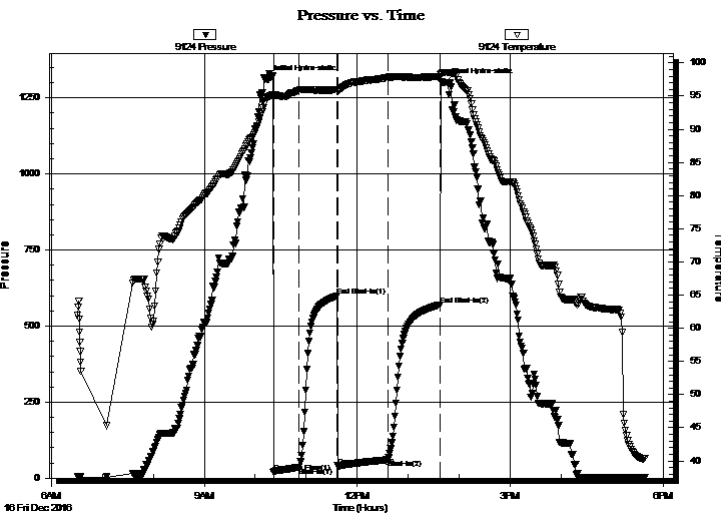
GENERAL INFORMATION:

Formation: **Mississippian**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 10:21:15
 Time Test Ended: 17:38:30
 Interval: **2747.00 ft (KB) To 2792.00 ft (KB) (TVD)**
 Total Depth: 2792.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Jimmy Ricketts
 Unit No: 80
 Reference Elevations: 1359.00 ft (KB)
 1349.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 9124 Outside

Press@RunDepth: 60.70 psig @ 2748.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2016.12.16 End Date: 2016.12.16 Last Calib.: 2016.12.16
 Start Time: 06:31:05 End Time: 17:38:30 Time On Btm: 2016.12.16 @ 10:14:15
 Time Off Btm: 2016.12.16 @ 13:43:45

TEST COMMENT: IF - Weak blow building to 6" intial flow period.
 FF - Weak blow building to 9" final flow period.
 FS - 1/4 inch blow back during final shut-in period.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1310.66	94.95	Initial Hydro-static
7	19.95	94.78	Open To Flow (1)
37	35.99	95.86	Shut-In(1)
82	598.45	95.97	End Shut-In(1)
83	40.07	95.82	Open To Flow (2)
142	60.70	97.82	Shut-In(2)
203	569.77	97.95	End Shut-In(2)
210	1299.94	98.56	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
100.00	Oil cut mud 13% O & 87% M	0.49
125.00	Gas in pipe 100% G	0.61

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Directional Drilling Systems
5780 East Ida Circle
Greenwood Village, CO 80111
ATTN: Hi Lewis / Frank Miz

9/26S/3E Butler,KS
Benfer #7
Job Ticket: 63091 **DST#: 2**
Test Start: 2016.12.16 @ 06:31:00

Tool Information

Drill Pipe:	Length: 2448.00 ft	Diameter: 3.20 inches	Volume: 24.35 bbl	Tool Weight: 2300.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 282.00 ft	Diameter: 2.25 inches	Volume: 1.39 bbl	Weight to Pull Loose: 30000.00 lb
			<u>Total Volume: 25.74 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 29000.00 lb
Depth to Top Packer:	2747.00 ft			Final 29000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	45.00 ft			
Tool Length:	73.00 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			2720.00	
Shut In Tool	5.00			2725.00	
Hydraulic tool	5.00			2730.00	
Jars	5.00			2735.00	
Safety Joint	3.00			2738.00	
Packer	4.00			2742.00	28.00 Bottom Of Top Packer
Packer	5.00			2747.00	
Stubb	1.00			2748.00	
Recorder	0.00	9124	Outside	2748.00	
Recorder	0.00	6798	Inside	2748.00	
Perforations	7.00			2755.00	
Change Over Sub	0.50			2755.50	
Blank Spacing	31.00			2786.50	
Change Over Sub	0.50			2787.00	
Bullnose	5.00			2792.00	45.00 Bottom Packers & Anchor

Total Tool Length: 73.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Directional Drilling Systems

9/26S/3E Butler,KS

5780 East Ida Circle
Greenwood Village, CO 80111

Benfer #7

Job Ticket: 63091

DST#: 2

ATTN: Hi Lewis / Frank Miz

Test Start: 2016.12.16 @ 06:31:00

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:

ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1900.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
100.00	Oil cut mud 13% O & 87% M	0.492
125.00	Gas in pipe 100% G	0.615

Total Length: 225.00 ft

Total Volume: 1.107 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

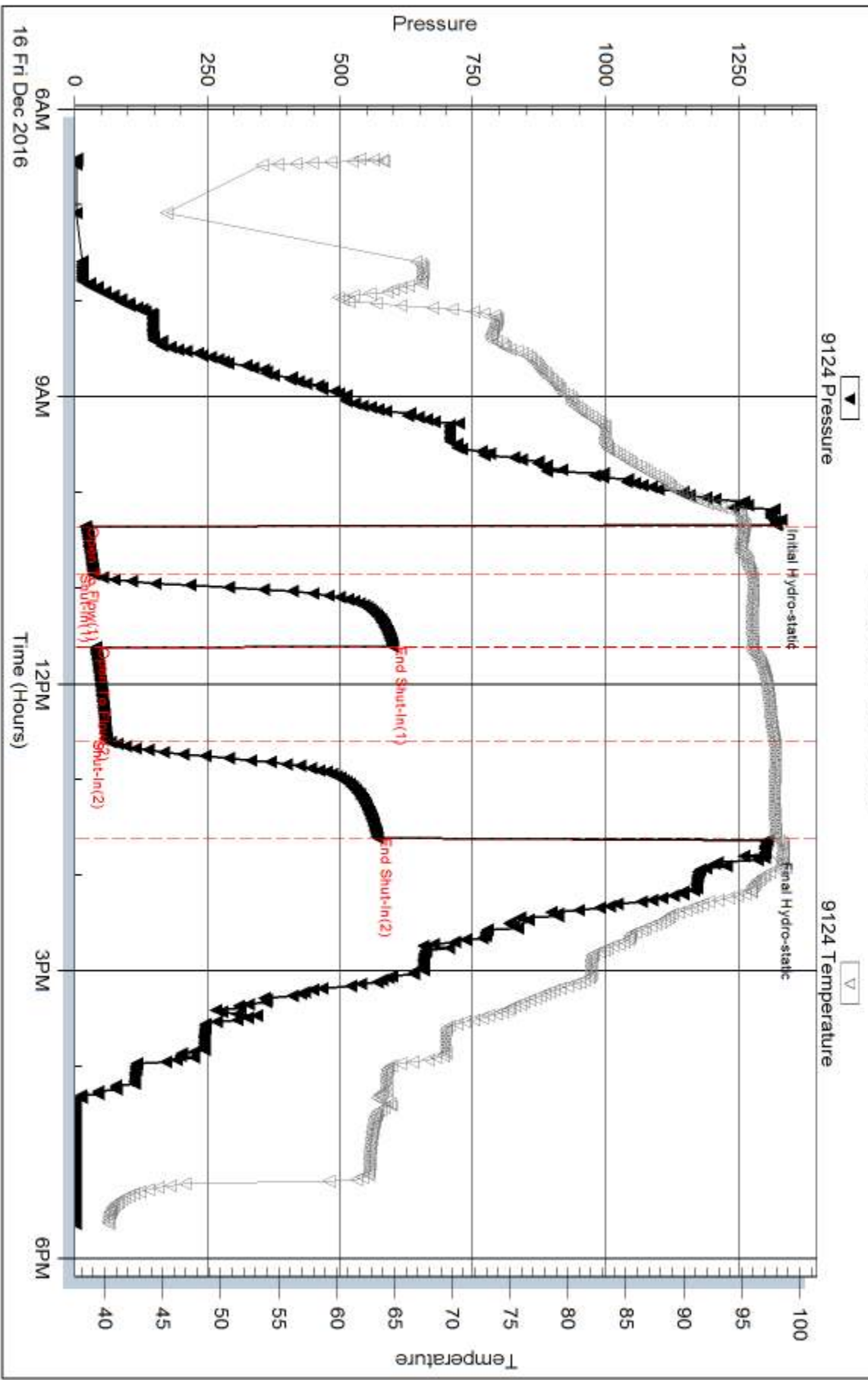
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



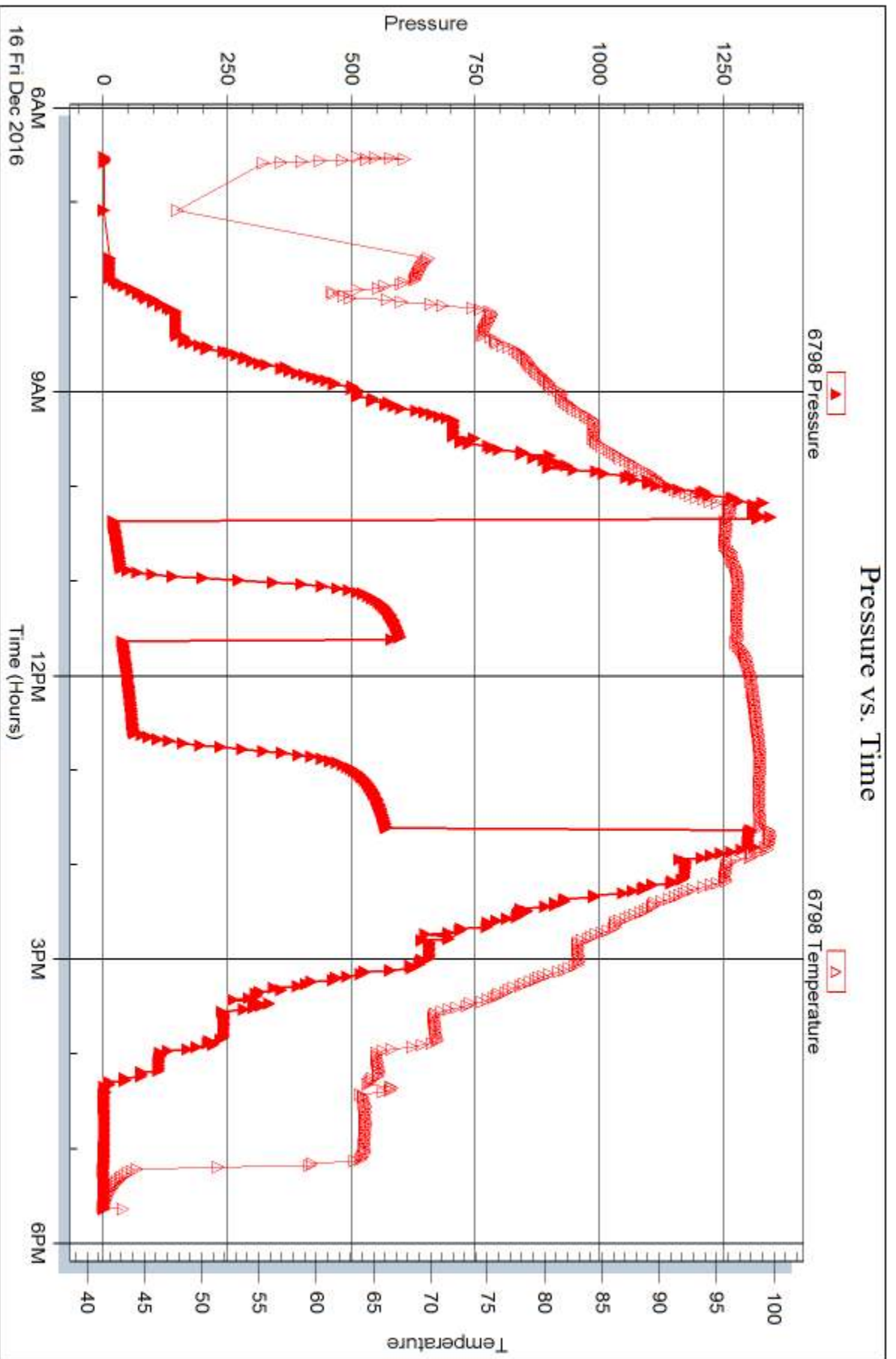
Serial #: 6798

Inside

Directional Drilling Systems

Benfer #7

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 63091

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DRILL STEM TEST REPORT

Prepared For: **Directional Drilling Systems**

5780 East Ida Circle
Greenwood Village, CO 80111

ATTN: Hi Lewis / Frank Miz

Benfer #7

9/26S/3E Butler,KS

Start Date: 2016.12.17 @ 02:06:00

End Date: 2016.12.17 @ 13:55:45

Job Ticket #: 63092 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2016.12.19 @ 13:20:54

Directional Drilling Systems
9/26S/3E Butler,KS
Benfer #7
DST # 3
Mississippi
2016.12.17



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Directional Drilling Systems
 5780 East Ida Circle
 Greenwood Village, CO 80111
 ATTN: Hi Lewis / Frank Miz

9/26S/3E Butler,KS
Benfer #7
 Job Ticket: 63092 **DST#: 3**
 Test Start: 2016.12.17 @ 02:06:00

GENERAL INFORMATION:

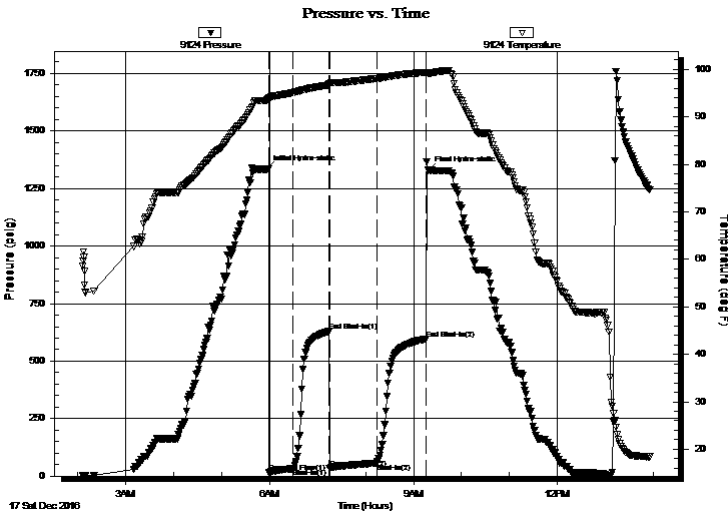
Formation: **Mississippin**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 05:59:15 Tester: Jimmy Ricketts
 Time Test Ended: 13:55:45 Unit No: 80
 Interval: **2792.00 ft (KB) To 2810.00 ft (KB) (TVD)** Reference Elevations: 1359.00 ft (KB)
 Total Depth: 2810.00 ft (KB) (TVD) 1349.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 10.00 ft

Serial #: 9124 Outside

Press@RunDepth: 56.77 psig @ 2793.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2016.12.17 End Date: 2016.12.17 Last Calib.: 2016.12.17
 Start Time: 02:06:05 End Time: 13:55:45 Time On Btm: 2016.12.17 @ 05:55:45
 Time Off Btm: 2016.12.17 @ 09:18:30

TEST COMMENT: IF - Weak blow building to 4" initial flow period.
 FF - Weak blow building to 10" final flow period.
 FS - Surface blow back during final shut-in period.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1333.63	93.52	Initial Hydro-static
4	17.41	93.57	Open To Flow (1)
34	33.02	95.12	Shut-In(1)
79	628.67	96.72	End Shut-In(1)
80	34.01	97.05	Open To Flow (2)
139	56.77	98.09	Shut-In(2)
200	596.69	99.41	End Shut-In(2)
203	1329.30	99.24	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	Oil & heavy water cut mud 5%O 41%W	50.151
50.00	Oil & water cut mud 16%O 14%W 70%M	0.25
13.00	Clean oil 100%O	0.06
125.00	Gas in pipe 100%G	0.61

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Directional Drilling Systems
5780 East Ida Circle
Greenwood Village, CO 80111
ATTN: Hi Lewis / Frank Miz

9/26S/3E Butler,KS
Benfer #7
Job Ticket: 63092 **DST#: 3**
Test Start: 2016.12.17 @ 02:06:00

Tool Information

Drill Pipe:	Length: 2479.00 ft	Diameter: 3.20 inches	Volume: 24.66 bbl	Tool Weight:	2300.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 313.00 ft	Diameter: 2.25 inches	Volume: 1.54 bbl	Weight to Pull Loose:	39000.00 lb
			<u>Total Volume: 26.20 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial	30000.00 lb
Depth to Top Packer:	2792.00 ft			Final	32000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	18.00 ft				
Tool Length:	46.00 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			2765.00	
Shut In Tool	5.00			2770.00	
Hydraulic tool	5.00			2775.00	
Jars	5.00			2780.00	
Safety Joint	3.00			2783.00	
Packer	4.00			2787.00	28.00 Bottom Of Top Packer
Packer	5.00			2792.00	
Stubb	1.00			2793.00	
Recorder	0.00	9124	Outside	2793.00	
Recorder	0.00	6798	Inside	2793.00	
Perforations	12.00			2805.00	
Bullnose	5.00			2810.00	18.00 Bottom Packers & Anchor

Total Tool Length: 46.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Directional Drilling Systems
5780 East Ida Circle
Greenwood Village, CO 80111
ATTN: Hi Lewis / Frank Miz

9/26S/3E Butler,KS
Benfer #7
Job Ticket: 63092 **DST#: 3**
Test Start: 2016.12.17 @ 02:06:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 41.5 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 49000 ppm
Viscosity: 51.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.79 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 1200.00 ppm		
Filter Cake: inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	Oil & heavy water cut mud 5%O 41%W 54%I	0.148
50.00	Oil & water cut mud 16%O 14%W 70%M	0.246
13.00	Clean oil 100%O	0.064
125.00	Gas in pipe 100%G	0.615

Total Length: 218.00 ft Total Volume: 1.073 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

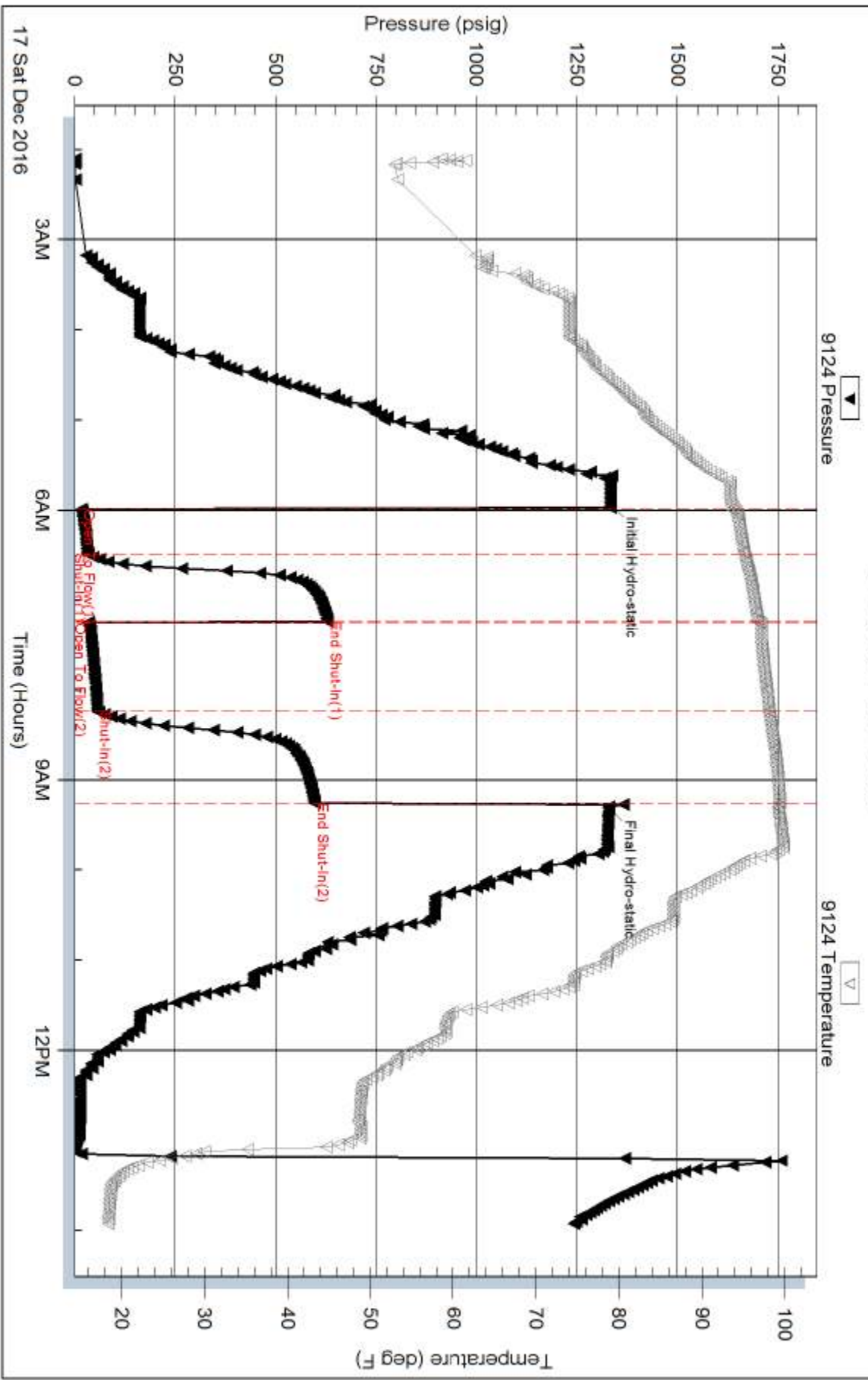
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Outside Directional Drilling Systems

Benfer #7

DST Test Number: 3

Pressure vs. Time



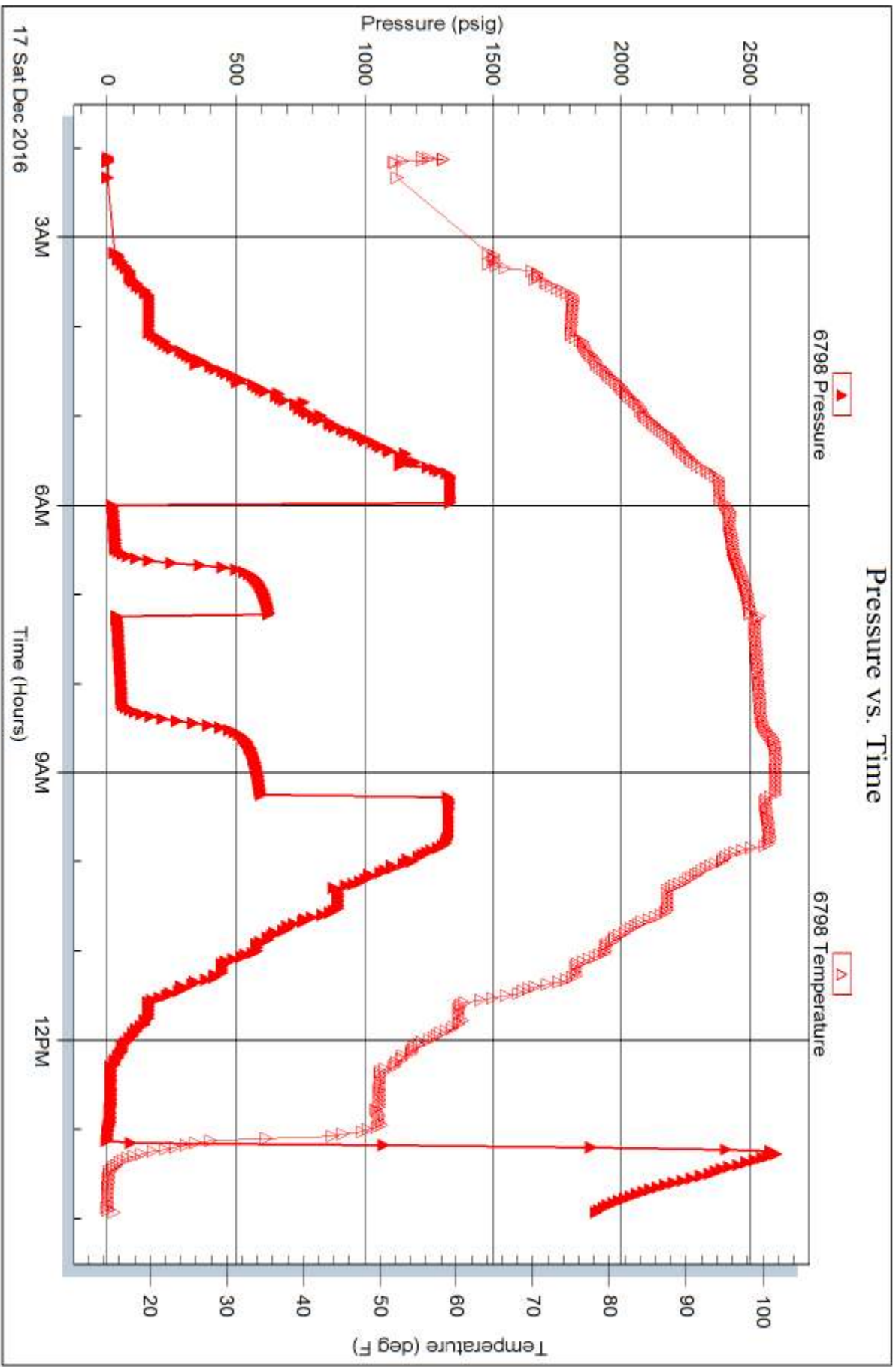
Serial #: 6798

Inside

Directional Drilling Systems

Benfer #7

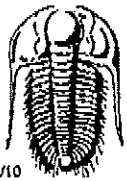
DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 63092

Printed: 2016.12.19 @ 13:20:55



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63090

Well Name & No. Benfer #7 Test No. 1 Date 12-14-16
 Company Directional Drilling Systems Elevation 1359 KB 1349 GL
 Address 5780 East Ida Circle Greenwood Village, CO 80111
 Co. Rep / Geo. Frank Mize / Hi Lewis Rig Summit Drilling #1
 Location: Sec. 9 Twp. 26S Rge. 3E Co. Butler State Ks

Interval Tasted 2437-2462 Zone Tested Swope
 Anchor Length 25' Drill Pipe Run 2102 Mud Wt. 9.2
 Top Packer Depth 2432 Drill Collars Run 313 Vls 54
 Bottom Packer Depth 2437 Wt. Pipe Run 0 WL 9.6
 Total Depth 2462 Chlorides 1900 ppm System LCM

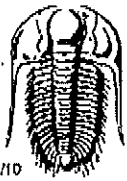
Blow Description EF- weak blow building to 4 inches IFP
FF- weak blow building to 3 inches FFP

Rec	Feet of	%gas	%oil	%water	%mud
<u>80</u>	<u>Heavy mud + oil cut water</u>		<u>3%</u>	<u>58%</u>	<u>47%</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 80 BH-T 93 Gravity API RW .73 @ 38° F Chlorides 17000 ppm

(A) Initial Hydrostatic <u>1172</u>	<input checked="" type="checkbox"/> Test 1050	T-On Location <u>2330</u>
(B) First Initial Flow <u>20</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>0515</u>
(C) First Final Flow <u>34</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>1037</u>
(D) Initial Shut-In <u>789</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>1337</u>
(E) Second Initial Flow <u>41</u>	<input checked="" type="checkbox"/> Hourly Standby <u>9 hrs</u> 720	T-Out <u>1800</u>
(F) Second Final Flow <u>56</u>	<input checked="" type="checkbox"/> Mileage <u>RT 50</u>	Comments _____
(G) Final Shut-In <u>685</u>	<input type="checkbox"/> Sampler 202rt 151.50	_____
(H) Final Hydrostatic <u>1165</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies _____
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	Total <u>2246.50</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't _____
	Sub Total <u>2246.50</u>	

Approved By [Signature] Our Representative [Signature]
 Trilobite Testing Inc. shall not be liable for damaged or 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. 63091

Well Name & No. Bentley #7 Test No. 2 Date 12-16-16
 Company Directional Drilling Systems Elevation 1359 KB 1399 GL
 Address 5780 East Ida Circle, Greenwood Village, CO 80111
 Co. Rep / Geo. Hi Lewis / Frank Mize Rig Summit Drilling #1
 Location: Sec. 9 Twp. 26 S Rge. 3 E Co. Butler State KS

Interval Tested 2747-2793 Zone Tested Mississippian
 Anchor Length 45' Drill Pipe Run 2448 Mud Wt. 9.2
 Top Packer Depth 2742 Drill Collars Run 282 Vis 48
 Bottom Packer Depth 2747 Wt. Pipe Run 0 WL 9.6
 Total Depth 2793 Chlorides 1900 ppm System LCM
 Blow Description EF- weak blow building to 6 inches I FP
EF- weak blow building to 9 inches FFP
1/4 inch blow back during RSP

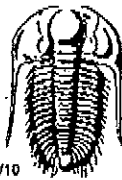
Rec	Feet of	%gas	%oil	%water	%mud
100	Oil cut mud	13		87	
125	Gas in pipe	100			

Rec Total 100 BHT 99 Gravity API RW @ °F Chlorides ppm

(A) Initial Hydrostatic <u>1311</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>0420</u>
(B) First Initial Flow <u>20</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0631</u>
(C) First Final Flow <u>36</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1021</u>
(D) Initial Shut-In <u>598</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>1336</u>
(E) Second Initial Flow <u>40</u>	<input type="checkbox"/> Hourly Standby <u>1.5h 120</u>	T-Out <u>1700</u>
(F) Second Final Flow <u>61</u>	<input checked="" type="checkbox"/> Mileage <u>37.50 RT 50</u>	Comments
(G) Final Shut-In <u>570</u>	<input type="checkbox"/> Sampler	<input type="checkbox"/> Ruined Shale Packer
(H) Final Hydrostatic <u>1300</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Extra Copies
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer	Sub Total <u>0</u>
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Recorder	Total <u>1545</u>
Final Flow <u>650</u>	<input type="checkbox"/> Day Standby	MP/DST Disc't
Final Shut-In <u>60</u>	<input type="checkbox"/> Accessibility	
	Sub Total <u>1545</u>	

Approved By [Signature] Our Representative Jimmy Ricketts

Trilobite Testing Inc. shall not be liable for damaged or any kind of the property or personal 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 opinions 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.



TRILORITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63092

Well Name & No. Bentley #7 Test No. 3 Date 12-17-16
 Company Directional Drilling Systems, LLC Elevation 1359 KB 1349 GL
 Address 5780 East Ida Circle, Greenwood Village CO 80111
 Co. Rep / Geo. Hi Lewis / Frank Nize Rtg Summit Drilling #1
 Location: Sec. 9 Twp. 26S Rge. 3E Co. Butler State KS

Interval Tested 2792 - 2810 Zone Tested Mississippian
 Anchor Length 181 Drill Pipe Run 2479 Mud Wt. 9.1
 Top Packer Depth 2787 Drill Collars Run 313 Vis 51
 Bottom Packer Depth 2792 Wt. Pipe Run 0 WL 7.8
 Total Depth 2810 Chlorides 1200 ppm System LCM
 Blow Description FF - weak blow building to 4 inches FFP
FF - weak blow building to 10 inches FFP
Surface blow back during FSP

Rec	Feet of	%gas	%oil	%water	%mud
125	Gas in pipe	100			
13	Clean oil	100			
50	oil + water cut mud	16	14	70	
30	oil + heavy water cut mud	5	41	54	

Rec Total 93 BH# 79 Gravity 41.5 API RW .28 @ 38 °F Chlorides 4900 ppm

(A) Initial Hydrostatic 1334 Test 1050 T-On Location 0030
 (B) First Initial Flow 17 Jars 250 T-Started 0306
 (C) First Final Flow 33 Safety Joint 75 T-Open 0559
 (D) Initial Shut-In 629 Circ Sub T-Pulled 0915
 (E) Second Initial Flow 34 Hourly Standby 2.75h 220 T-Out 1330
 (F) Second Final Flow 57 Mileage 37.50 RT 50 Comments _____
 (G) Final Shut-In 597 Sampler _____
 (H) Final Hydrostatic 1329 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open 30
 Initial Shut-In 45
 Final Flow 60
 Final Shut-In 61

Sub Total 1632.50

MP/DST Disc't _____

Approved By [Signature] Our Representative [Signature]

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