



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Charles N. Griffin**

PO Box 347
Pratt, KS 67124-0347

ATTN: Bruce Reed

Moots #1

33-32s.-12w. Barber,KS

Start Date: 2013.07.23 @ 01:06:47

End Date: 2013.07.23 @ 08:49:02

Job Ticket #: 52339 DST #: 1



**TRILOBITE
TESTING INC.**

PO Box 362 Hays, KS 67601
Tel: 785-625-4778 Fax: 785-625-5620
www.trilobitesting.com

**Charles N Griffin
Moots #1**

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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DRILL STEM TEST REPORT

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ATTN: Bruce Reed

33-32s.-12w. Barber, KS

Moots #1

Job Ticket: 52339

DST#: 1

Test Start: 2013.07.23 @ 01:06:47

GENERAL INFORMATION:

Formation: **Sp. Sd.**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:08:17
Time Test Ended: 08:49:02

Test Type: Conventional Bottom Hole (Initial)
Tester: Ryan Reynolds
Unit No: 48

Interval: **4864.00 ft (KB) To 4920.00 ft (KB) (TVD)**
Total Depth: 4920.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1601.00 ft (KB)
1593.00 ft (CF)
KB to GR/CF: 8.00 ft

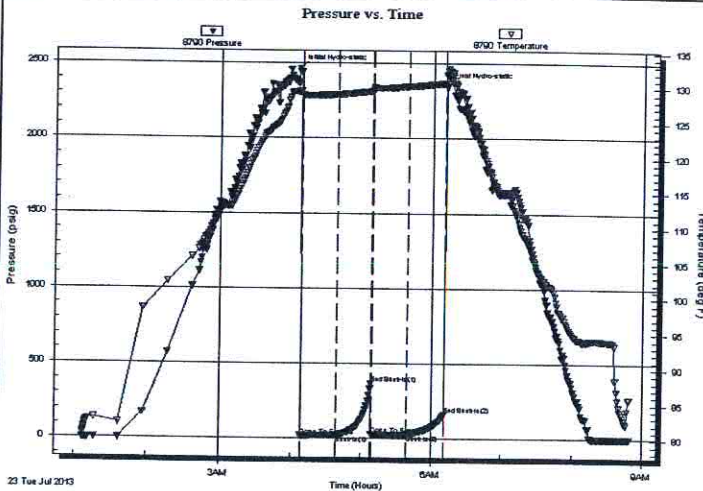
Serial #: 8790

Inside

Press@RunDepth: 29.06 psig @ 4865.00 ft (KB)
Start Date: 2013.07.23 End Date: 2013.07.23
Start Time: 01:06:52 End Time: 08:49:01

Capacity: 8000.00 psig
Last Calib.: 2013.07.23
Time On Btm: 2013.07.23 @ 04:06:02
Time Off Btm: 2013.07.23 @ 06:11:47

TEST COMMENT: IF: Weak blow . 1/4" - 1/2"
ISI: No blow
FF: No blow
FSI: No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2463.01	129.45	Initial Hydro-static
3	16.75	128.81	Open To Flow (1)
33	22.12	128.94	Shut-In(1)
63	366.91	129.47	End Shut-In(1)
63	25.86	129.68	Open To Flow (2)
93	29.06	130.12	Shut-In(2)
125	158.94	130.57	End Shut-In(2)
126	2347.85	131.84	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
25.00	OCM 10%oil, 90%mud	0.12

Gas Rates

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



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PO Box 347
Pratt, KS 67124-0347
ATTN: Bruce Reed

33-32s.-12w. Barber, KS
Moots #1
Job Ticket: 52339 DST#: 1
Test Start: 2013.07.23 @ 01:06:47

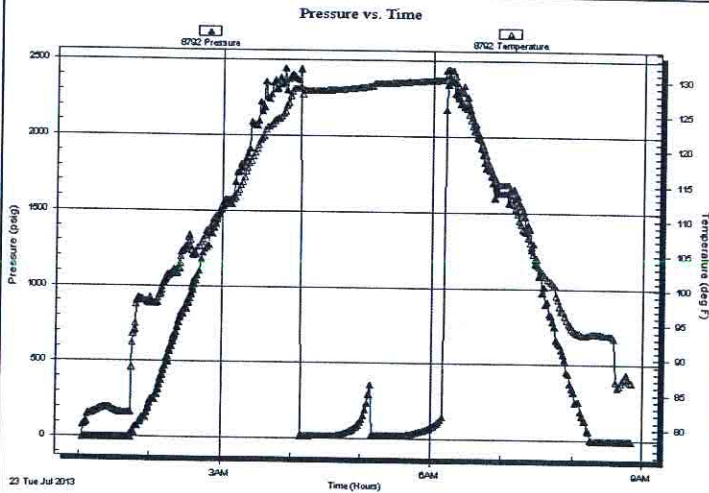
GENERAL INFORMATION:

Formation: **Sp. Sd.**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:08:17
Time Test Ended: 08:49:02
Interval: **4864.00 ft (KB) To 4920.00 ft (KB) (TVD)**
Total Depth: 4920.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)
Tester: Ryan Reynolds
Unit No: 48
Reference Elevations: 1601.00 ft (KB)
1593.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8792 Outside
Press@RunDepth: psig @ 4865.00 ft (KB)
Start Date: 2013.07.23 End Date: 2013.07.23
Start Time: 01:02:58 End Time: 08:50:52
Capacity: 8000.00 psig
Last Calib.: 2013.07.23
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: Weak blow . 1/4" - 1/2"
ISI: No blow
FF: No blow
FSI: No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
25.00	OCM 10%oil, 90%mud	0.12

Gas Rates

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



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DRILL STEM TEST REPORT

TOOL DIAGRAM

Charles N. Griffin
PO Box 347
Pratt, KS 67124-0347
ATTN: Bruce Reed

33-32s.-12w. Barber,KS
Moots #1
Job Ticket: 52339 DST#: 1
Test Start: 2013.07.23 @ 01:06:47

Tool Information

Drill Pipe:	Length: 4613.00 ft	Diameter: 3.80 inches	Volume: 64.71 bbl	Tool Weight: 2400.00 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: 245.00 ft	Diameter: 2.25 inches	Volume: 1.20 bbl	Weight to Pull Loose: 78000.00 lb
			<u>Total Volume: 65.91 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 63000.00 lb
Depth to Top Packer:	4864.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	56.00 ft			
Tool Length:	82.00 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			4843.00	
Hydraulic tool	5.00			4848.00	
Jars	5.00			4853.00	
Safety Joint	2.00			4855.00	
Packer	5.00			4860.00	26.00 Bottom Of Top Packer
Packer	4.00			4864.00	
Stubb	1.00			4865.00	
Recorder	0.00	8790	Inside	4865.00	
Recorder	0.00	8792	Outside	4865.00	
Perforations	16.00			4881.00	
Change Over Sub	1.00			4882.00	
Drill Pipe	32.00			4914.00	
Change Over Sub	1.00			4915.00	
Perforations	2.00			4917.00	
Bullnose	3.00			4920.00	56.00 Bottom Packers & Anchor

Total Tool Length: 82.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Charles N. Griffin

33-32s.-12w. Barber,KS

PO Box 347
Pratt, KS 67124-0347

Moots #1

Job Ticket: 52339

DST#: 1

ATTN: Bruce Reed

Test Start: 2013.07.23 @ 01:06:47

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:

5800 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.49 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5800.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
25.00	OCM 10%oil, 90%mud	0.123

Total Length: 25.00 ft Total Volume: 0.123 bbf

Num Fluid Samples: 0

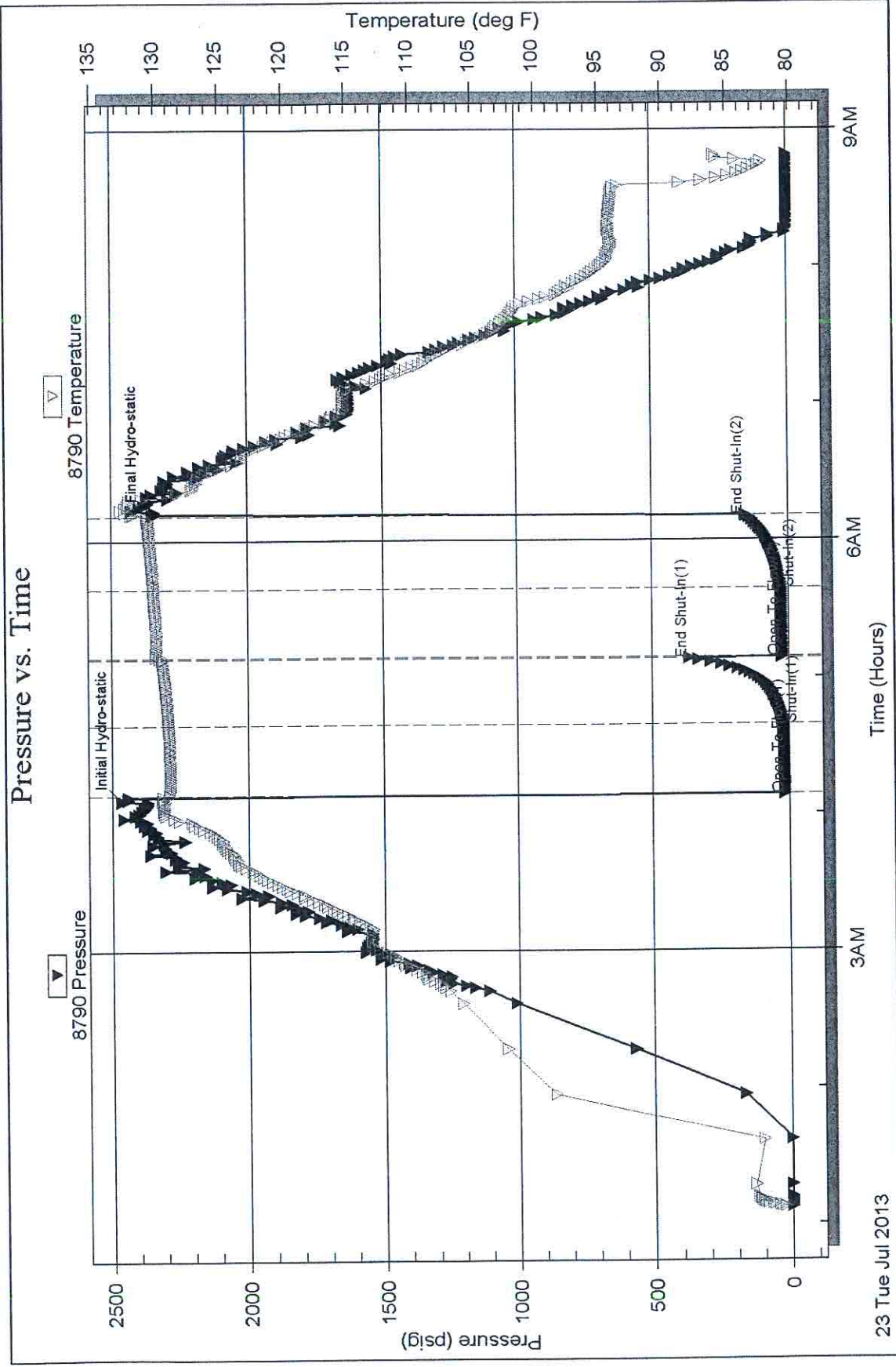
Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:



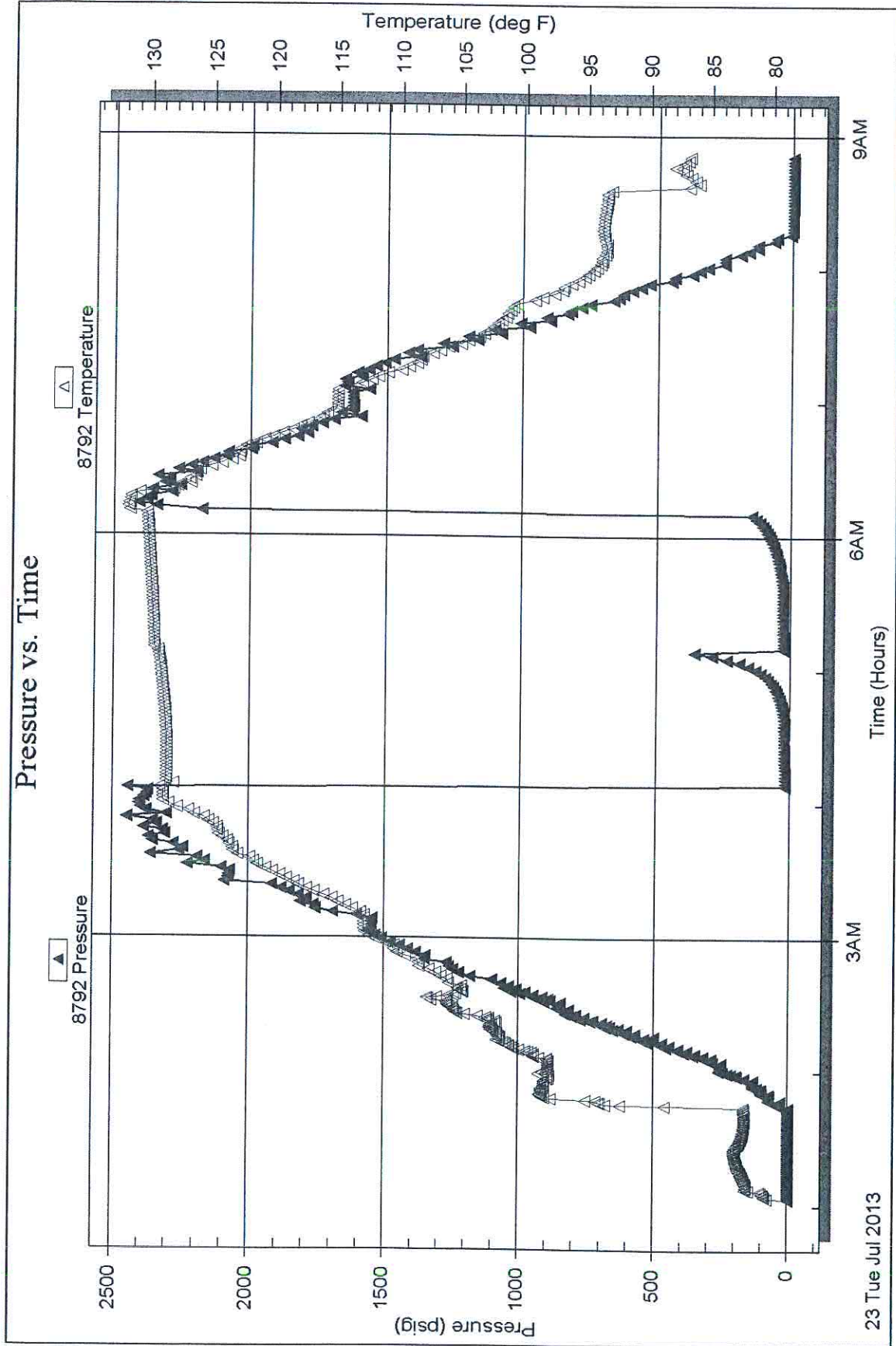
Serial #: 8792

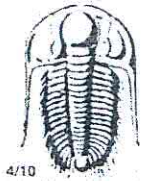
Outside Charles N. Griffin

Moots #1

DST Test Number: 1

Pressure vs. Time





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52339

Well Name & No. Moots #1 Test No. 1 Date 7-22-13
 Company Charles N. Griffin Elevation 1601' KB 1593 GL
 Address P.O. Box 347 Pratt, KS 67124-0347
 Co. Rep / Geo. Bruce Reed Rig Fossil #2
 Location: Sec. 33 Twp. 32s. Rge. 12w. Co. Barber State KS

Interval Tested 4864-4920 Zone Tested Sp. Sd.
 Anchor Length 56' Drill Pipe Run 4613 Mud Wt. 9.2
 Top Packer Depth 4859 Drill Collars Run 245 Vis 52
 Bottom Packer Depth 4864 Wt. Pipe Run Ø WL 7.5
 Total Depth 4920 Chlorides 5800 ppm System LCM 3#
 Blow Description IF: Weak blow. 1/4" - 1/2". ISI: No blow
FF: No blow. FSI: No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>25</u>	<u>06m</u>	<u>10</u>		<u>90</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 25 BHT 132 Gravity N/C API RW N/C @ N/C °F Chlorides 5800 ppm
 (A) Initial Hydrostatic 2463 Test 1250 T-On Location 1145
 (B) First Initial Flow 17 Jars 250 T-Started 0107
 (C) First Final Flow 22 Safety Joint 75 T-Open 0408
 (D) Initial Shut-In 367 Circ Sub T-Pulled 0610
 (E) Second Initial Flow 26 Hourly Standby T-Out 0849
 (F) Second Final Flow 29 Mileage 90 139.50 Comments _____
 (G) Final Shut-In 159 Sampler _____
 (H) Final Hydrostatic 2348 Straddle _____
 Shale Packer _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30
 Sub Total 1714.50
 Total 1714.50
 MP/DST Disc't _____

Approved By

Bruce Reed

Our Representative

Byron Reynolds

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