



## DRILL STEM TEST REPORT

Prepared For: **H & C Oil Operating**

PO Box 86  
Plainville, KS 67663

ATTN: Mike Bair

### **Mighell #18-1**

#### **18-10s-25w Graham, KS**

Start Date: 2013.05.20 @ 09:15:20

End Date: 2013.05.20 @ 16:15:14

Job Ticket #: 49206                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.05.29 @ 13:54:08



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

H & C Oil Operating  
PO Box 86  
Plainville, KS 67663  
ATTN: Mike Bair

**18-10s-25w Graham, KS**

**Mighell #18-1**

Job Ticket: 49206

**DST#: 1**

Test Start: 2013.05.20 @ 09:15:20

## GENERAL INFORMATION:

Formation: **Toronto - C**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:12:15

Time Test Ended: 16:15:14

Test Type: Conventional Bottom Hole (Initial)

Tester: Shane McBride

Unit No: 55

**Interval: 3772.00 ft (KB) To 3850.00 ft (KB) (TVD)**

Reference Elevations: 2569.00 ft (KB)

Total Depth: 3850.00 ft (KB) (TVD)

2558.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8368 Outside**

Press @ Run Depth: 70.71 psig @ 3773.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.05.20 End Date: 2013.05.20

Last Calib.: 2013.05.20

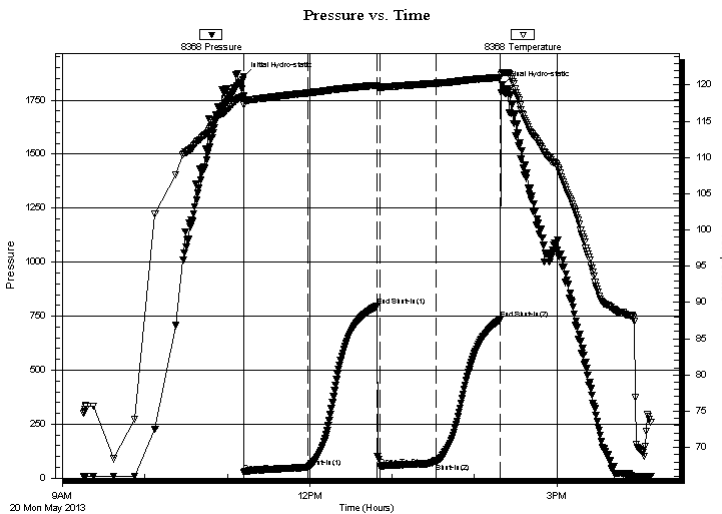
Start Time: 09:15:20 End Time: 16:08:14

Time On Btm: 2013.05.20 @ 11:12:00

Time Off Btm: 2013.05.20 @ 14:20:15

**TEST COMMENT:** 3 1/4" blow  
No return  
3" blow  
No return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1858.20	118.47	Initial Hydro-static
1	27.13	117.32	Open To Flow (1)
47	49.04	118.90	Shut-In(1)
97	796.53	119.95	End Shut-In(1)
99	53.39	119.71	Open To Flow (2)
140	70.71	120.24	Shut-In(2)
187	734.73	121.06	End Shut-In(2)
189	1818.97	121.65	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	h o c m 40%o 60%m	0.15
60.00	o c m 15%o 85%m	0.30

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

H & C Oil Operating  
PO Box 86  
Plainville, KS 67663  
ATTN: Mike Bair

**18-10s-25w Graham, KS**  
**Mighell #18-1**  
Job Ticket: 49206      **DST#: 1**  
Test Start: 2013.05.20 @ 09:15:20

**Tool Information**

Drill Pipe:	Length: 3518.00 ft	Diameter: 3.80 inches	Volume: 49.35 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 234.00 ft	Diameter: 2.25 inches	Volume: 1.15 bbl	Weight to Pull Loose: 100000.0 lb
			<u>Total Volume: 50.50 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 78000.00 lb
Depth to Top Packer:	3772.00 ft			Final 79000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	78.00 ft			
Tool Length:	106.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Change Over Sub	1.00			3745.00	
Shut In Tool	5.00			3750.00	
Hydraulic tool	5.00			3755.00	
Jars	5.00			3760.00	
Safety Joint	3.00			3763.00	
Packer	5.00			3768.00	28.00      Bottom Of Top Packer
Packer	4.00			3772.00	
Stubb	1.00			3773.00	
Recorder	0.00	6667	Inside	3773.00	
Recorder	0.00	8368	Outside	3773.00	
Perforations	6.00			3779.00	
Change Over Sub	1.00			3780.00	
Drill Pipe	64.00			3844.00	
Change Over Sub	1.00			3845.00	
Bullnose	5.00			3850.00	78.00      Bottom Packers & Anchor

**Total Tool Length: 106.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

H & C Oil Operating  
PO Box 86  
Plainville, KS 67663  
ATTN: Mike Bair

**18-10s-25w Graham, KS**  
**Mighell #18-1**  
Job Ticket: 49206      **DST#: 1**  
Test Start: 2013.05.20 @ 09:15:20

## Mud and Cushion Information

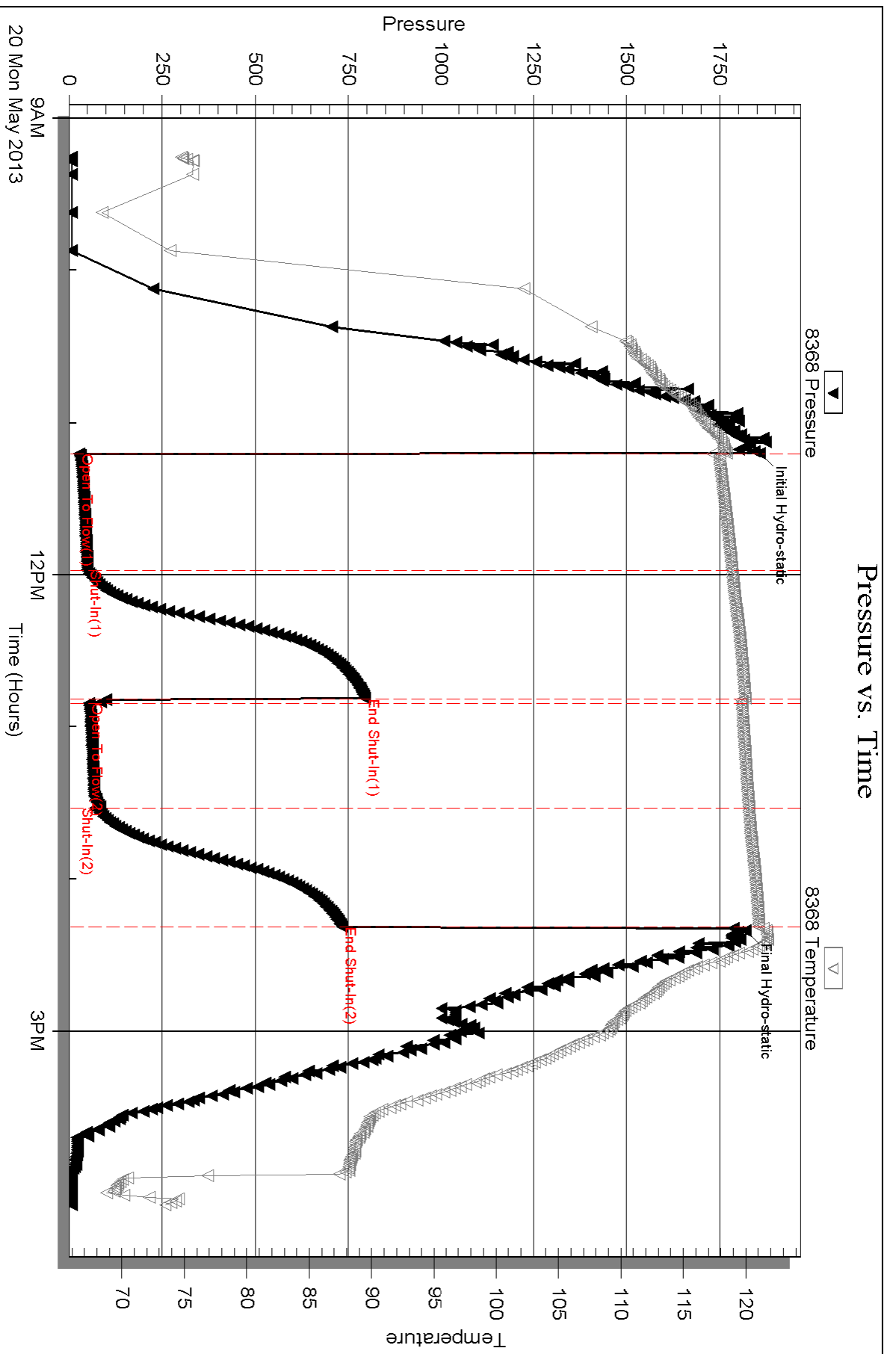
Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 60.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.59 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 500.00 ppm			
Filter Cake: 1.00 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	h o c m 40%o 60%m	0.148
60.00	o c m 15%o 85%m	0.295

Total Length: 90.00 ft      Total Volume: 0.443 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:



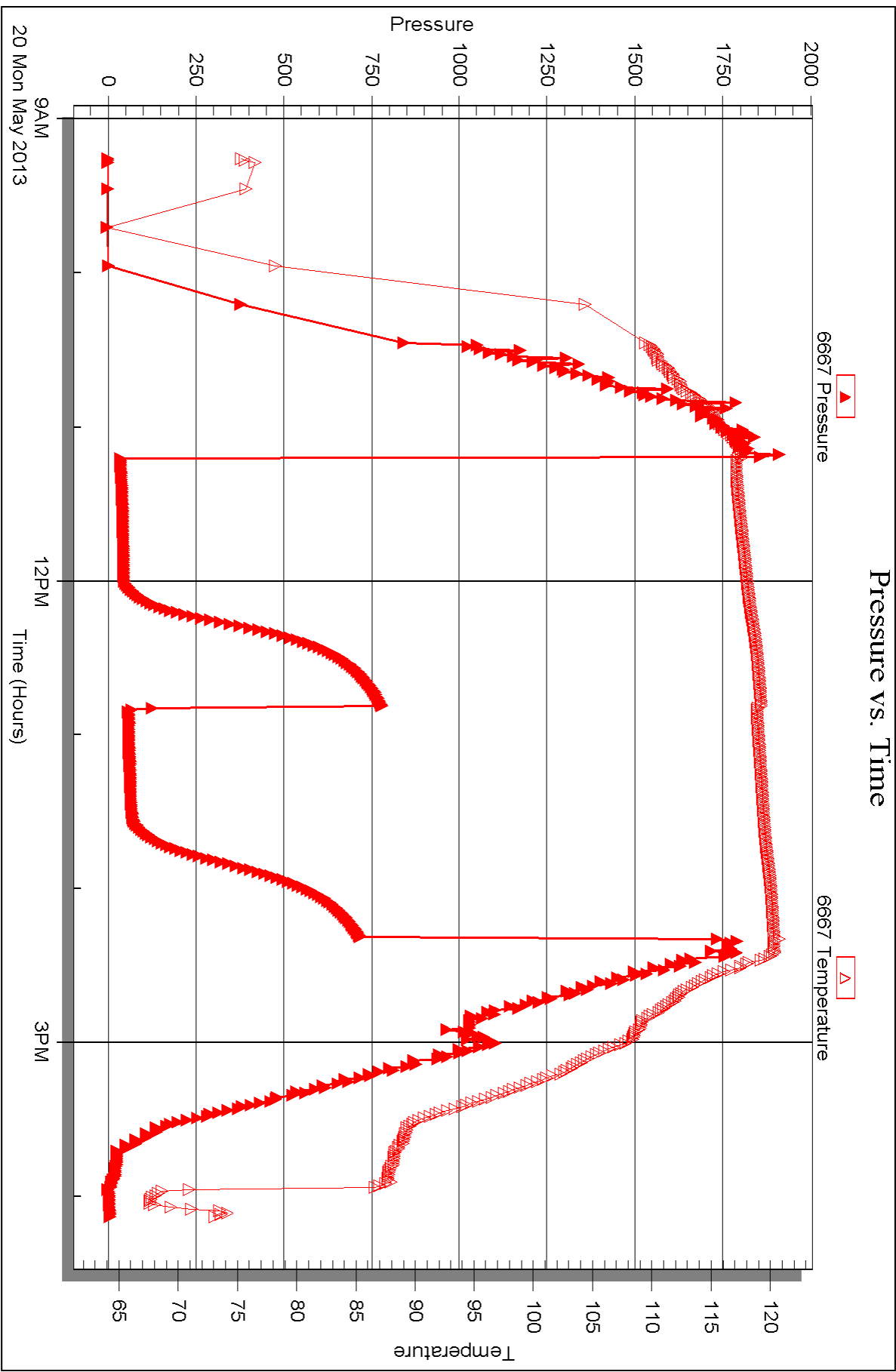
Serial #: 6667

Inside

H & C Oil Operating

Mghell #18-1

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **H & C Oil Operating**

PO Box 86  
Plainville, KS 67663

ATTN: Mike Bair

### **Mighell #18-1**

#### **18-10s-25w Graham, KS**

Start Date: 2013.05.20 @ 23:30:00

End Date: 2013.05.21 @ 06:24:00

Job Ticket #: 62631                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.05.29 @ 13:53:21





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

H & C Oil Operating  
PO Box 86  
Plainville, KS 67663  
ATTN: Mike Bair

**18-10s-25w Graham, KS**

**Mighell #18-1**

Job Ticket: 62631

**DST#: 2**

Test Start: 2013.05.20 @ 23:30:00

## GENERAL INFORMATION:

Formation: **LKC "D"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 01:25:10  
 Time Test Ended: 06:24:00  
 Interval: **3837.00 ft (KB) To 3868.00 ft (KB) (TVD)**  
 Total Depth: 3868.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Kevin Mack  
 Unit No: 66  
 Reference Elevations: 2569.00 ft (KB)  
 2558.00 ft (CF)  
 KB to GR/CF: 11.00 ft

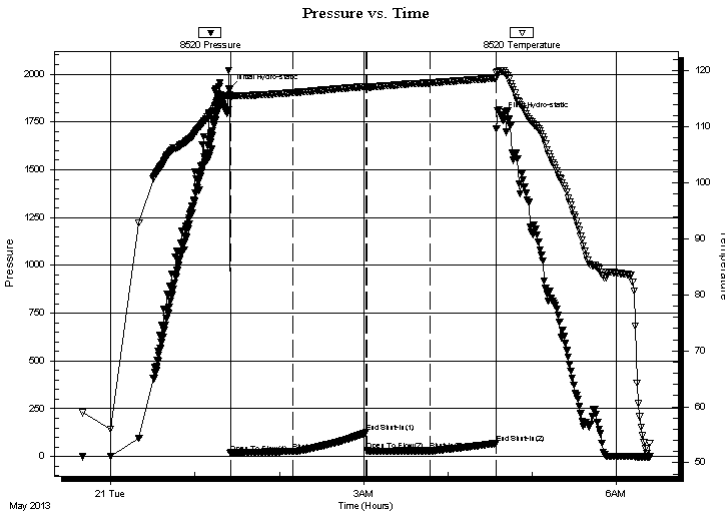
**Serial #: 8520**

**Outside**

Press @ Run Depth: 30.54 psig @ 3838.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.05.20 End Date: 2013.05.21 Last Calib.: 2013.05.21  
 Start Time: 23:40:00 End Time: 06:24:00 Time On Btm: 2013.05.21 @ 01:24:50  
 Time Off Btm: 2013.05.21 @ 04:38:00

**TEST COMMENT:** 45 - IF- 1/8" Blow built to 1"  
 45 - IS- No Return  
 30 - FF- Surface Blow built to 3/4"  
 30 - FS- No Return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1922.91	115.73	Initial Hydro-static
1	18.58	115.20	Open To Flow (1)
45	26.60	116.13	Shut-In(1)
97	125.83	117.23	End Shut-In(1)
98	30.74	117.10	Open To Flow (2)
143	30.54	117.87	Shut-In(2)
190	68.96	118.71	End Shut-In(2)
194	1777.94	120.07	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	OSM 100M (oil spots)	0.05

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

H & C Oil Operating  
PO Box 86  
Plainville, KS 67663  
ATTN: Mike Bair

**18-10s-25w Graham, KS**  
**Mighell #18-1**  
Job Ticket: 62631      **DST#: 2**  
Test Start: 2013.05.20 @ 23:30:00

**Tool Information**

Drill Pipe:	Length: 3582.00 ft	Diameter: 3.80 inches	Volume: 50.25 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: 234.00 ft	Diameter: 2.25 inches	Volume: 1.15 bbl	Weight to Pull Loose: 95000.00 lb
			<u>Total Volume: 51.40 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 75000.00 lb
Depth to Top Packer:	3837.00 ft			Final 75000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	31.00 ft			
Tool Length:	59.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Change Over Sub	1.00			3810.00	
Shut In Tool	5.00			3815.00	
Hydraulic tool	5.00			3820.00	
Jars	5.00			3825.00	
Safety Joint	3.00			3828.00	
Packer	5.00			3833.00	28.00      Bottom Of Top Packer
Packer	4.00			3837.00	
Stubb	1.00			3838.00	
Recorder	0.00	8354	Inside	3838.00	
Recorder	0.00	8520	Outside	3838.00	
Perforations	25.00			3863.00	
Bullnose	5.00			3868.00	31.00      Bottom Packers & Anchor

**Total Tool Length: 59.00**



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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

H & C Oil Operating  
PO Box 86  
Plainville, KS 67663  
ATTN: Mike Bair

**18-10s-25w Graham, KS**  
**Mighell #18-1**  
Job Ticket: 62631      **DST#: 2**  
Test Start: 2013.05.20 @ 23:30:00

## Mud and Cushion Information

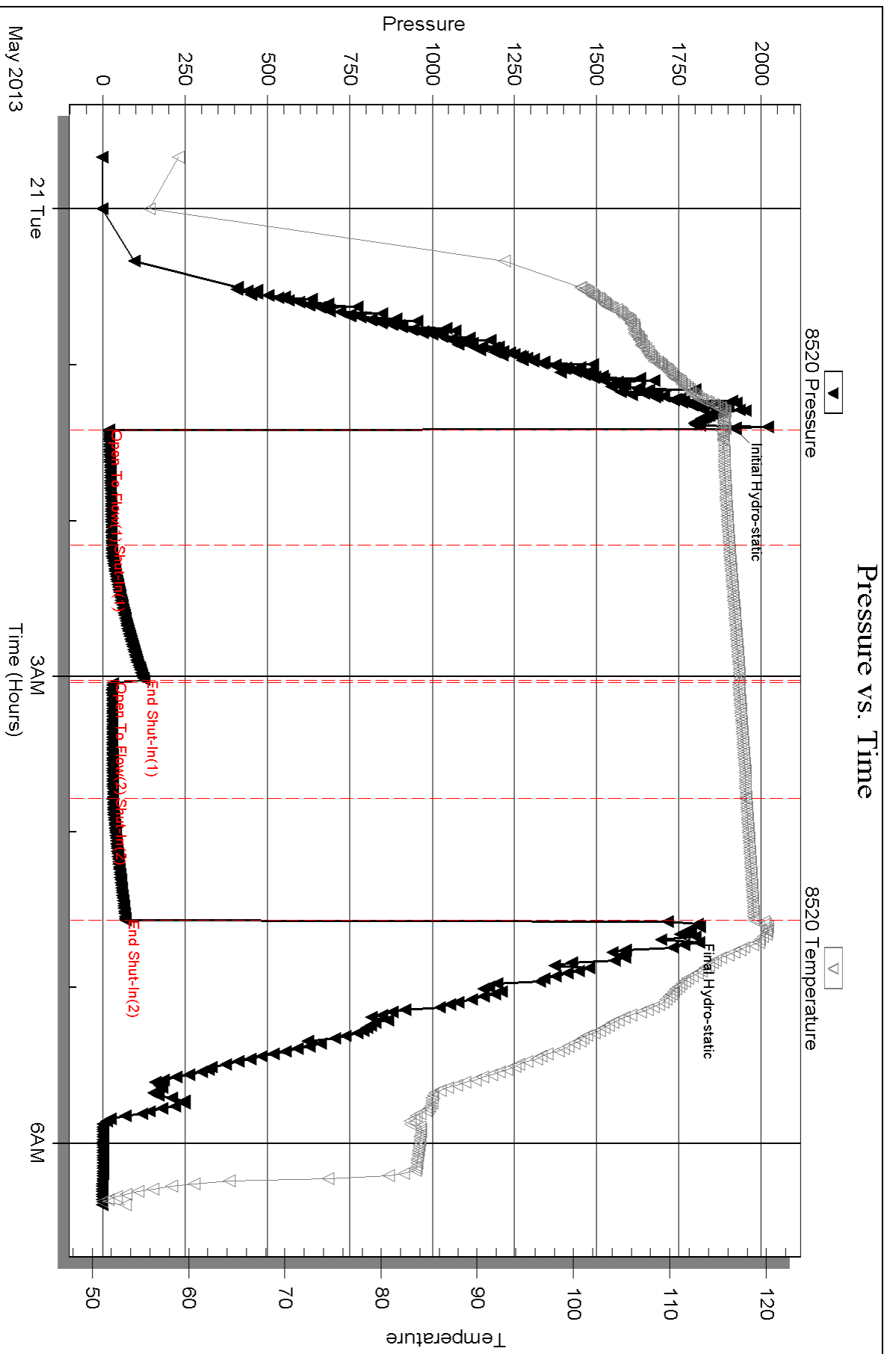
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 60.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.59 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 500.00 ppm			
Filter Cake: 1.00 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	OSM 100M (oil spots)	0.049

Total Length: 10.00 ft      Total Volume: 0.049 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:



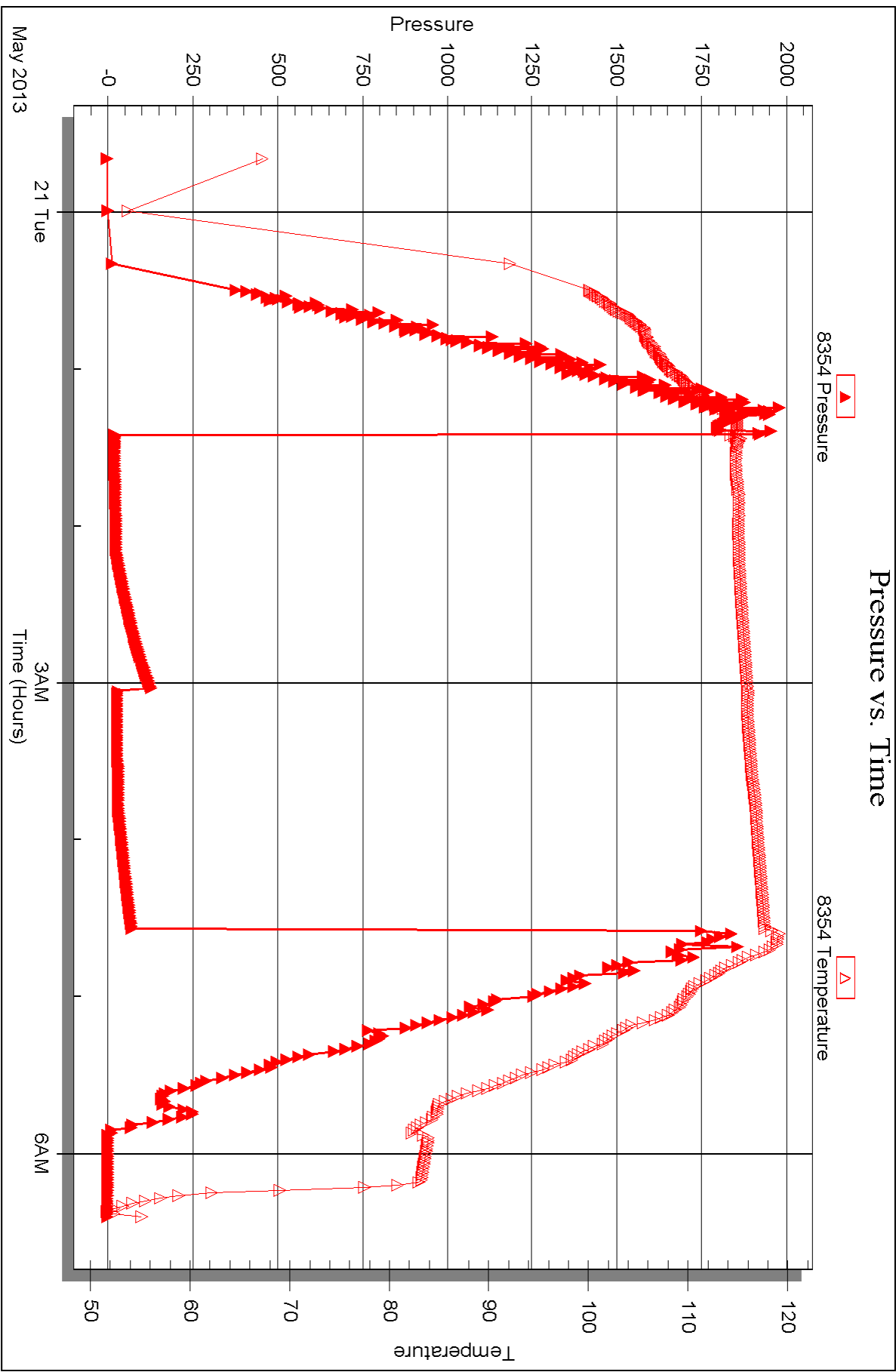
Serial #: 8354

Inside

H & C Oil Operating

Mghell #18-1

DST Test Number: 2





## DRILL STEM TEST REPORT

Prepared For: **H & C Oil Operating**

PO Box 86  
Plainville, KS 67663

ATTN: Mike Bair

### **Mighell #18-1**

#### **18-10s-25w Graham, KS**

Start Date: 2013.05.22 @ 12:00:00

End Date: 2013.05.22 @ 18:37:30

Job Ticket #: 52633                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.05.29 @ 13:52:41

H & C Oil Operating

18-10s-25w Graham, KS

Mighell #18-1

DST # 3

LKC "H-J"

2013.05.22



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

H & C Oil Operating  
PO Box 86  
Plainville, KS 67663  
ATTN: Mike Bair

**18-10s-25w Graham, KS**

**Mighell #18-1**

Job Ticket: 52633

**DST#: 3**

Test Start: 2013.05.22 @ 12:00:00

## GENERAL INFORMATION:

Formation: **LKC "H-J"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 14:16:30  
 Time Test Ended: 18:37:30  
 Interval: **3934.00 ft (KB) To 4008.00 ft (KB) (TVD)**  
 Total Depth: 4008.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Kevin Mack  
 Unit No: 66  
 Reference Elevations: 2569.00 ft (KB)  
 2558.00 ft (CF)  
 KB to GR/CF: 11.00 ft

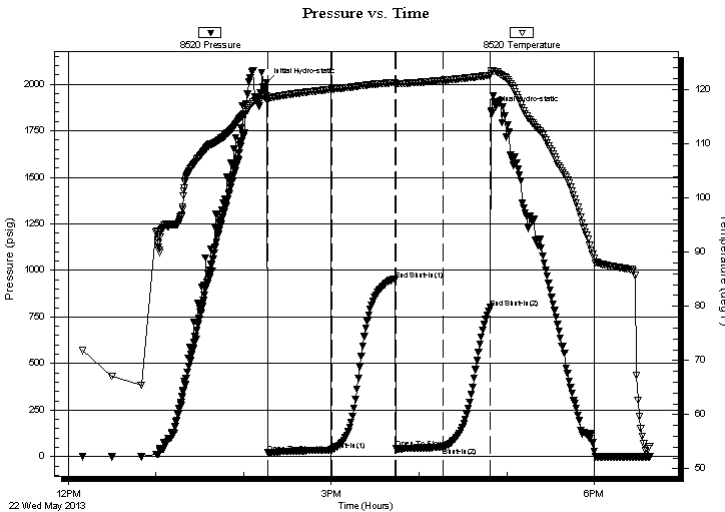
**Serial #: 8520**

**Outside**

Press @ Run Depth: 50.12 psig @ 3935.00 ft (KB)  
 Start Date: 2013.05.22 End Date: 2013.05.22  
 Start Time: 12:10:00 End Time: 18:37:30  
 Capacity: 8000.00 psig  
 Last Calib.: 2013.05.22  
 Time On Btm: 2013.05.22 @ 14:16:00  
 Time Off Btm: 2013.05.22 @ 16:49:00

**TEST COMMENT:** 45 - IF- 1/4" Blow built to 1 1/4"  
 45 - IS- No Return  
 30 - FF- No Blow  
 30 - FS- No Return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2009.73	118.86	Initial Hydro-static
1	20.06	118.33	Open To Flow (1)
44	35.65	120.06	Shut-In(1)
88	950.46	121.31	End Shut-In(1)
88	42.80	121.07	Open To Flow (2)
121	50.12	121.73	Shut-In(2)
153	799.96	122.63	End Shut-In(2)
153	1858.94	123.00	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
59.00	OSM 100M (Oil Spots)	0.29
1.00	Free Oil 100o	0.00

## Gas Rates

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







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

H & C Oil Operating  
PO Box 86  
Plainville, KS 67663  
ATTN: Mike Bair

**18-10s-25w Graham, KS**

**Mighell #18-1**

Job Ticket: 52633

**DST#: 3**

Test Start: 2013.05.22 @ 12:00:00

## Tool Information

Drill Pipe:	Length: 3685.00 ft	Diameter: 3.80 inches	Volume: 51.69 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: 234.00 ft	Diameter: 2.25 inches	Volume: 1.15 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 52.84 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 76000.00 lb
Depth to Top Packer:	3934.00 ft			Final 76000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	74.00 ft			
Tool Length:	94.00 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			3915.00	
Shut In Tool	5.00			3920.00	
Hydraulic tool	5.00			3925.00	
Packer	5.00			3930.00	20.00 Bottom Of Top Packer
Packer	4.00			3934.00	
Stubb	1.00			3935.00	
Recorder	0.00	8354	Inside	3935.00	
Recorder	0.00	8520	Outside	3935.00	
Perforations	3.00			3938.00	
Change Over Sub	1.00			3939.00	
Drill Pipe	63.00			4002.00	
Change Over Sub	1.00			4003.00	
Bullnose	5.00			4008.00	74.00 Bottom Packers & Anchor

**Total Tool Length: 94.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

H & C Oil Operating  
PO Box 86  
Plainville, KS 67663  
ATTN: Mike Bair

**18-10s-25w Graham, KS**  
**Mighell #18-1**  
Job Ticket: 52633      **DST#: 3**  
Test Start: 2013.05.22 @ 12:00:00

## Mud and Cushion Information

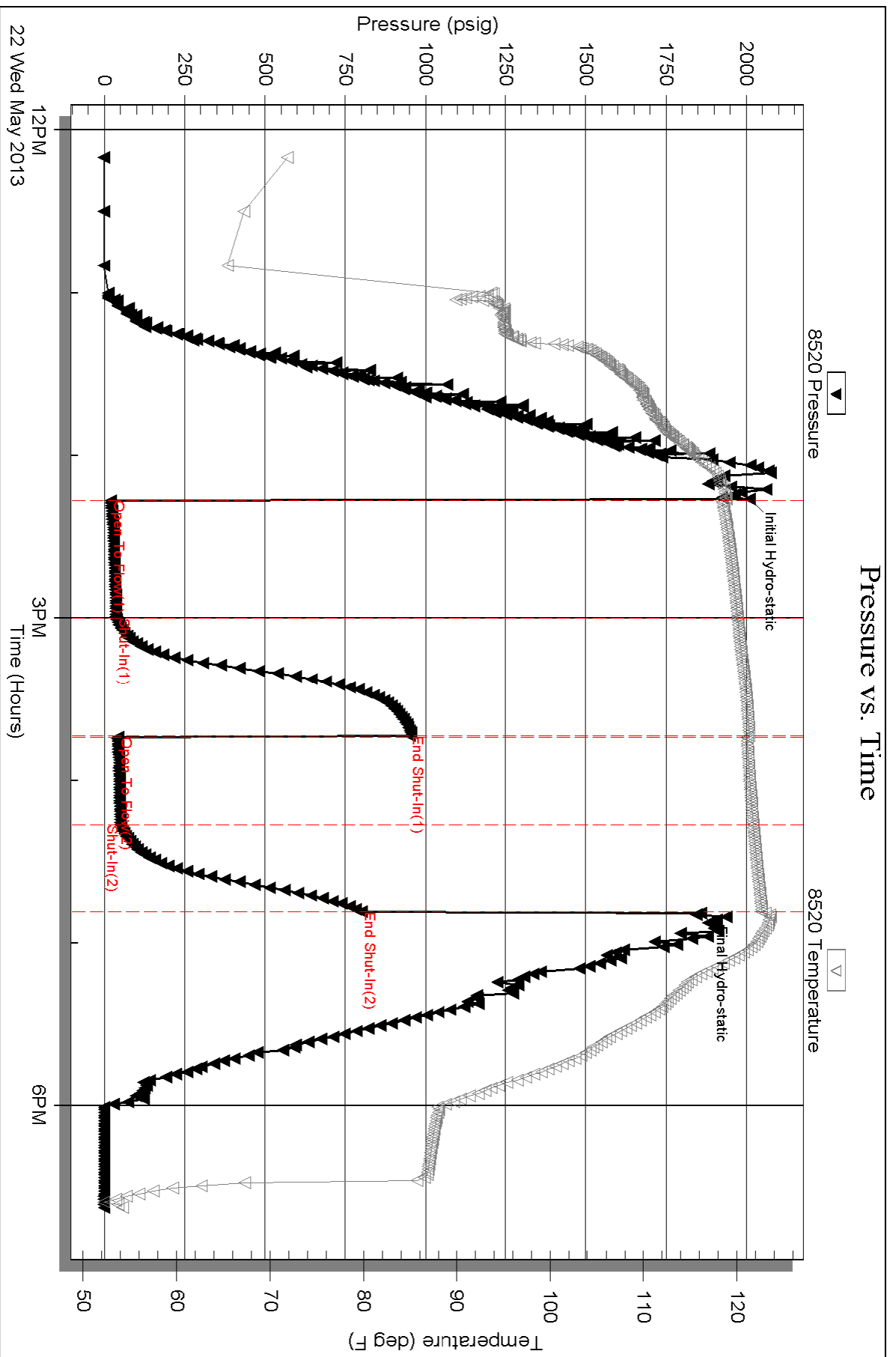
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 63.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.59 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 800.00 ppm			
Filter Cake: 1.00 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
59.00	OSM 100M (Oil Spots)	0.290
1.00	Free Oil 100o	0.005

Total Length: 60.00 ft      Total Volume: 0.295 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:



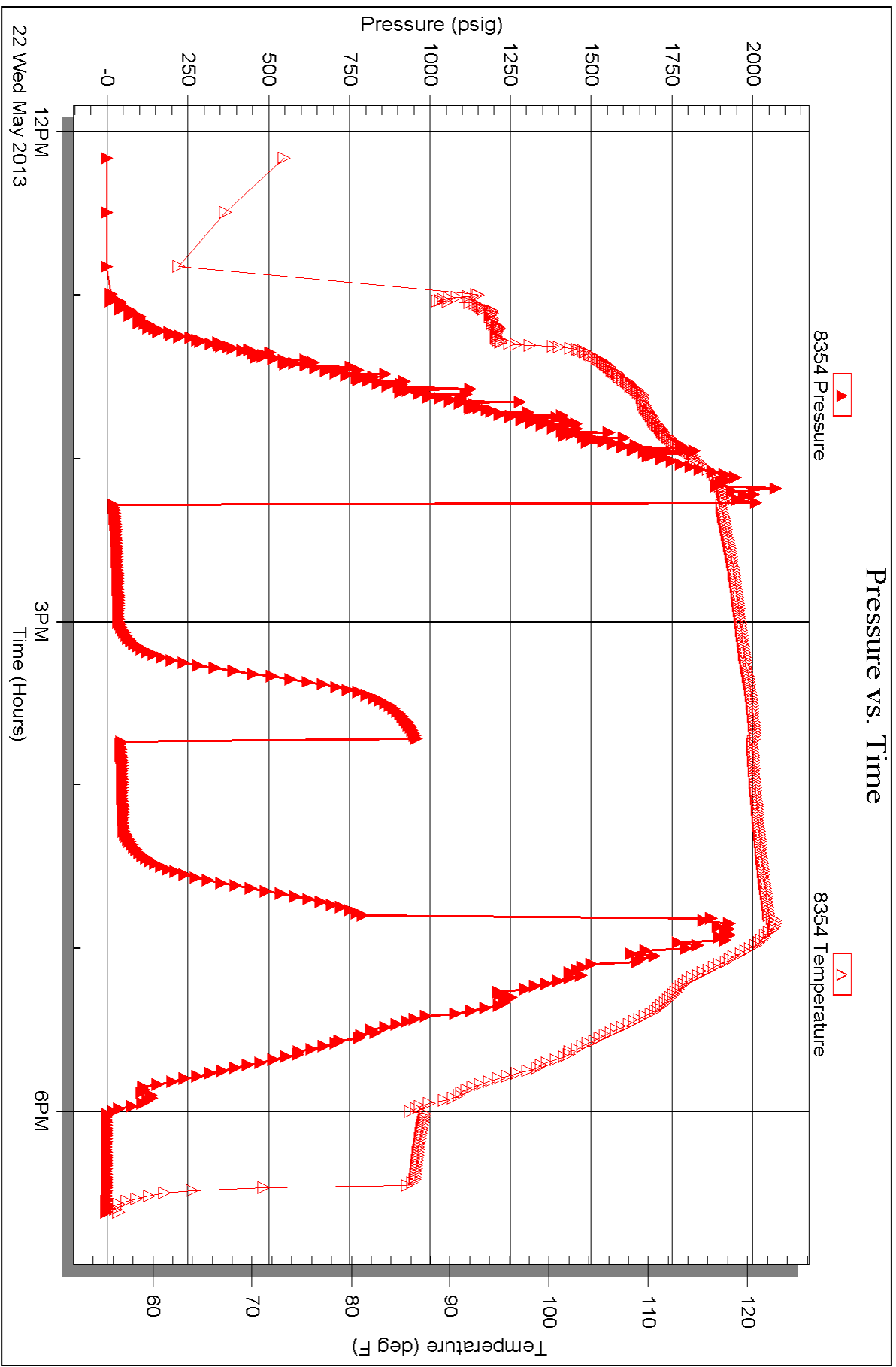
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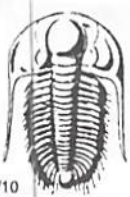
Inside

H & C Oil Operating

Mghell #18-1

DST Test Number: 3





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 49206

4/10

Well Name & No. Wighell #18-1 Test No. #1 Date 5/20/13  
 Company H3C Oil Operating Elevation 2569 KB 2558 GL  
 Address P.O. Box 86 Plainville, Ks 67663  
 Co. Rep / Geo. Mike Bair Rig Mudwin #21  
 Location: Sec. 18 Twp. 10 Rge. 25 Co. Graham State Ks

Interval Tested 3772 3850 Zone Tested Toronto - C  
 Anchor Length 78 Drill Pipe Run 3518 Mud Wt. 9.1  
 Top Packer Depth 3767 Drill Collars Run 234 Vis 60  
 Bottom Packer Depth 3772 Wt. Pipe Run --- WL 7.4  
 Total Depth 3850 Chlorides 500 ppm System LCM #2 1/2  
 Blow Description 3 1/4" in blow  
No return  
3' in blow  
No return

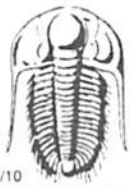
Rec	Feet of	%gas	%oil	%water	%mud
<u>30'</u>	<u>HOCM</u>	<u>40</u>	<u>---</u>	<u>60</u>	<u>---</u>
<u>60'</u>	<u>OCM</u>	<u>15</u>	<u>---</u>	<u>85</u>	<u>---</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 90' BHT 122° Gravity --- API RW --- @ --- °F Chlorides --- ppm

(A) Initial Hydrostatic <u>1858</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>07:50</u>
(B) First Initial Flow <u>27</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>09:15</u>
(C) First Final Flow <u>49</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>11:12</u>
(D) Initial Shut-In <u>796</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/E</u>	T-Pulled <u>14:12</u>
(E) Second Initial Flow <u>53</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>16:15</u>
(F) Second Final Flow <u>70</u>	<input checked="" type="checkbox"/> Mileage <u>180 RT</u> 124rt 192.20	Comments
(G) Final Shut-In <u>734</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1818</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Open <u>45</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Initial Shut-In <u>45</u>	<input type="checkbox"/> Day Standby	Total <u>1667.20</u>
Final Flow <u>45</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
Final Shut-In <u>45</u>	Sub Total <u>1667.20</u>	

Approved By \_\_\_\_\_ 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.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 52631

Well Name & No. Mighell # 18-1 Test No. 2 Date 5-20-13  
 Company Hac Oil Operating Elevation 2569 KB 2558 GL  
 Address PO Box 86 Plainville, KS 67663  
 Co. Rep / Geo. Mike Bair Rig Murfin 21  
 Location: Sec. 18 Twp. 10 Rge. 25 Co. Graham State KS

Interval Tested 3837-3868 Zone Tested LKC "D"  
 Anchor Length 31' Drill Pipe Run 3582 Mud Wt. 9.1  
 Top Packer Depth 3833 Drill Collars Run 234' Vis 60  
 Bottom Packer Depth 3837 Wt. Pipe Run Ø WL 7.6  
 Total Depth 3868 Chlorides 5000 ppm System LCM 2.5#

Blow Description IF - 1/8" Blow built to 1"  
ISI - No Return  
FF - Surface Blow built to 3/4"  
FSL - No Return

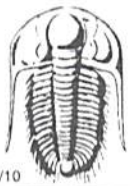
Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>OSM</u>	<u>SPOTS</u>		<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 10 BHT 119 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic <u>1922</u>	<input checked="" type="checkbox"/> Test 1150	T-On Location <u>9:50 PM</u>
(B) First Initial Flow <u>18</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>11:30 PM</u>
(C) First Final Flow <u>26</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>1:25 AM</u>
(D) Initial Shut-In <u>135</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>4:25 AM</u>
(E) Second Initial Flow <u>30</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>6:30 AM</u>
(F) Second Final Flow <u>30</u>	<input checked="" type="checkbox"/> Mileage <u>132 RT</u> 192.20	Comments _____
(G) Final Shut-In <u>68</u>	<input type="checkbox"/> Sampler	<input type="checkbox"/> Ruined Shale Packer
(H) Final Hydrostatic <u>1777</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Packer
Initial Open <u>45</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer	Sub Total <u>0</u>
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder	Total <u>1667.20</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Day Standby	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility	
	Sub Total <u>1667.20</u>	

Approved By \_\_\_\_\_ 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.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 52633

Well Name & No. Mighell # 18-1 Test No. 3 Date 5-21-13  
 Company H & C Oil Operating Elevation 2569 KB 2558 GL  
 Address PO Box 86 Plainville, KS 67663  
 Co. Rep / Geo. Mike Burr Rig MURKIN #21  
 Location: Sec. 18 Twp. 10 Rge. 25 Co. Graham State KS

Interval Tested 3934-4008 Zone Tested LKC "H, I, J"  
 Anchor Length 74' Drill Pipe Run 3685 Mud Wt. 9.2  
 Top Packer Depth 3930 Drill Collars Run 234' Vis 63  
 Bottom Packer Depth 3934 Wt. Pipe Run 0 WL 7.6  
 Total Depth 4008 Chlorides 8000 ppm System LCM 2#

Blow Description IF - 1/4" Blow built to 1 1/4"  
ISD - No Return  
FF - No Blow  
FSD - No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>Free oil</u>	<u>100</u>			
<u>59</u>	<u>OSM</u>	<u>Spots</u>		<u>100</u>	

Rec Total 60 BHT 123 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ ° F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>20009</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>9:25 PM</u>
(B) First Initial Flow <u>20</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>12:00 AM</u>
(C) First Final Flow <u>35</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>2:15 AM</u>
(D) Initial Shut-In <u>950</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>4:45 AM</u>
(E) Second Initial Flow <u>42</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>6:50 AM</u>
(F) Second Final Flow <u>50</u>	<input checked="" type="checkbox"/> Mileage <u>132 RT X2</u>	Comments <u>loaded tools</u>
(G) Final Shut-In <u>799</u>	<input type="checkbox"/> Sampler _____	<u>1:30 AM 5-22-13</u>
(H) Final Hydrostatic <u>1858</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____

Initial Open <u>45</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>300</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>300</u>	<input type="checkbox"/> Day Standby _____	Total <u>1959.40</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1959.40</u>	

Approved By \_\_\_\_\_ Our Representative

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.