



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

H & B Petroleum Corp.  
 PO Box 277  
 Ellinwood, KS 67526  
 ATTN: Jim Musgrove

**28-16s-26w Ness, KS**

**Horchem E**

Job Ticket: 48380

**DST#: 1**

Test Start: 2012.06.17 @ 02:24:00

## GENERAL INFORMATION:

Formation: **Lansing**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:35:15

Time Test Ended: 08:27:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Mike Roberts

Unit No: 48

Interval: **4102.00 ft (KB) To 4150.00 ft (KB) (TVD)**

Reference Elevations: 2655.00 ft (KB)

Total Depth: 4150.00 ft (KB) (TVD)

2645.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

**Serial #: 6668 Outside**

Press@RunDepth: 34.34 psig @ 4113.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.06.17

End Date: 2012.06.17

Last Calib.: 2012.06.17

Start Time: 02:24:15

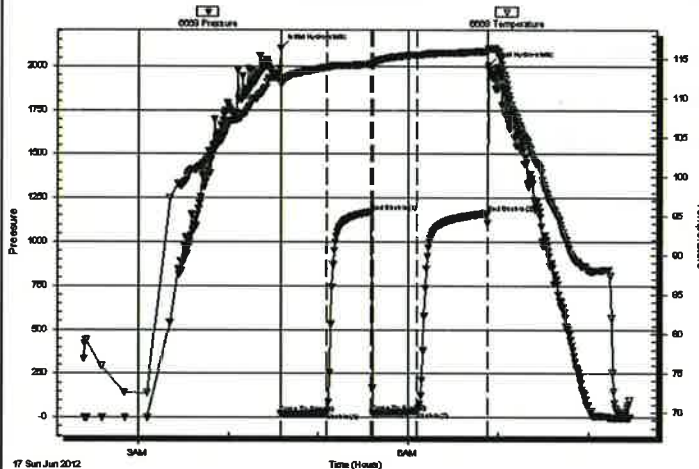
End Time: 08:27:30

Time On Btm: 2012.06.17 @ 04:35:00

Time Off Btm: 2012.06.17 @ 06:53:30

TEST COMMENT: IF: 1 1/2" Blow  
 IS: No Return  
 FF: 1/4" Blow  
 FSI: No Return

Pressure vs. Time



## PRESSURE SUMMARY

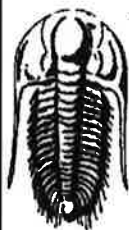
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2102.70	112.68	Initial Hydro-static
1	22.28	111.89	Open To Flow (1)
31	26.80	113.93	Shut-In(1)
61	1171.59	114.36	End Shut-In(1)
62	29.06	114.32	Open To Flow (2)
91	34.34	115.52	Shut-In(2)
138	1162.33	115.99	End Shut-In(2)
139	2003.82	116.40	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	M 100m	0.42

## Gas Rates

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



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## DRILL STEM TEST REPORT

TOOL DIAGRAM

H & B Petroleum Corp.

**28-16s-26w Ness, KS**

PO Box 277  
Ellinwood, KS 67526

**Horchem E**

Job Ticket: 48380

**DST#: 1**

ATTN: Jim Musgrove

Test Start: 2012.06.17 @ 02:24:00

### Tool Information

Drill Pipe:	Length: 4101.00 ft	Diameter: 3.80 inches	Volume: 57.53 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: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 57.53 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	4102.00 ft			Final 43000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	48.00 ft			
Tool Length:	76.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

### Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4075.00	
Shut In Tool	5.00			4080.00	
Hydraulic tool	5.00			4085.00	
Jars	5.00			4090.00	
Safety Joint	3.00			4093.00	
Packer	5.00			4098.00	28.00 Bottom Of Top Packer
Packer	4.00			4102.00	
Stubb	1.00			4103.00	
Perforations	10.00			4113.00	
Recorder	0.00	8736	Inside	4113.00	
Recorder	0.00	6668	Outside	4113.00	
Change Over Sub	1.00			4114.00	
Drill Pipe	30.00			4144.00	
Change Over Sub	1.00			4145.00	
Bullnose	5.00			4150.00	48.00 Bottom Packers & Anchor

**Total Tool Length: 76.00**



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## DRILL STEM TEST REPORT

**FLUID SUMMARY**

H & B Petroleum Corp.

**28-16s-26w Ness, KS**

PO Box 277  
Ellinwood, KS 67526

**Horchem E**

Job Ticket: 48380

**DST#: 1**

ATTN: Jim Musgrove

Test Start: 2012.06.17 @ 02:24:00

### 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: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.58 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2200.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	M 100m	0.421

Total Length: 30.00 ft

Total Volume: 0.421 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

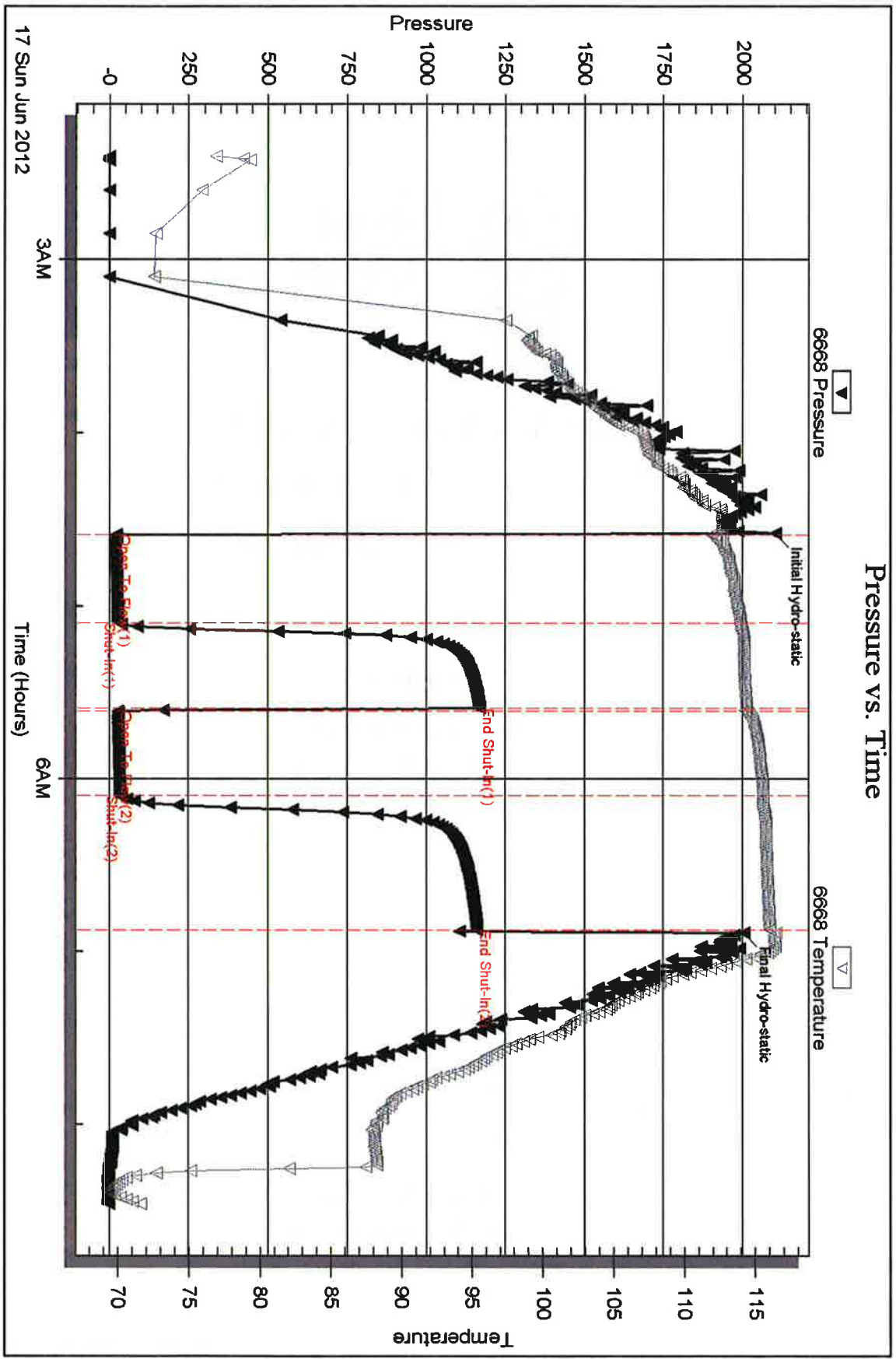
Serial #: 6668

Outside H & B Petroleum Corp.

Horchem E

DST Test Number: 1

### Pressure vs. Time





**TRILOBITE  
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## DRILL STEM TEST REPORT

H & B Petroleum Corp.

**28-16s-26w Ness,KS**

PO Box 277  
Ellinwood, KS 67526

**Horchem E**

Job Ticket: 48381

**DST#: 2**

ATTN: Jim Musgrove

Test Start: 2012.06.18 @ 00:23:15

### GENERAL INFORMATION:

Formation: **Miss**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:06:00

Time Test Ended: 06:58:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 48

Interval: **4559.00 ft (KB) To 4570.00 ft (KB) (TVD)**

Reference Elevations: 2655.00 ft (KB)

Total Depth: 4570.00 ft (KB) (TVD)

2645.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 10.00 ft

**Serial #: 8736** Inside

Press@RunDepth: 257.96 psig @ 4560.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.06.18

End Date: 2012.06.18

Last Calib.: 2012.06.19

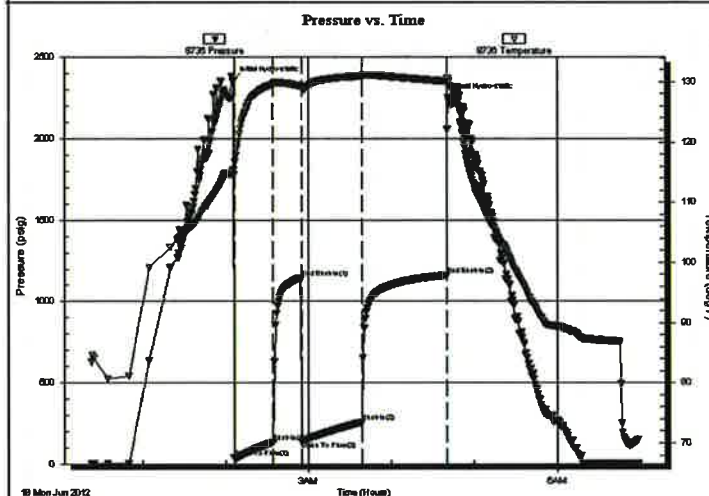
Start Time: 00:23:15

End Time: 06:58:15

Time On Btm: 2012.06.18 @ 02:05:45

Time Off Btm: 2012.06.18 @ 04:41:15

TEST COMMENT: IF:BOB in 7 min  
IS: Return blow built to 2"  
FF:BOB in 8 min.  
FS:Return blow built to 6"



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2358.81	115.38	Initial Hydro-static
1	39.25	114.61	Open To Flow (1)
29	134.38	129.58	Shut-In(1)
49	1145.16	129.31	End Shut-In(1)
50	140.83	128.92	Open To Flow (2)
94	257.96	130.94	Shut-In(2)
155	1161.64	130.09	End Shut-In(2)
156	2253.05	130.05	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
0.00	GIP=186	0.00
144.00	Free oil	2.02
62.00	gco 20%g 80%o	0.87
62.00	gcow m 5% g 5% o 5%w 85% m	0.87
124.00	ocw m 5% o 30% m 65% w	1.74
186.00	sw 100%sw	2.61

\* Recovery from multiple tests

### Gas Rates

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





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## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

H & B Petroleum Corp.

**28-16s-26w Ness, KS**

PO Box 277  
Ellinwood, KS 67526

**Horchem E**

Job Ticket: 48381

**DST#: 2**

ATTN: Jim Musgrove

Test Start: 2012.06.18 @ 00:23:15

### Tool Information

Drill Pipe:	Length: 4536.00 ft	Diameter: 3.80 inches	Volume: 63.63 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: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 63.63 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4559.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	11.00 ft			
Tool Length:	39.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

### Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4532.00	
Shut In Tool	5.00			4537.00	
Hydraulic tool	5.00			4542.00	
Jars	5.00			4547.00	
Safety Joint	3.00			4550.00	
Packer	5.00			4555.00	28.00 Bottom Of Top Packer
Packer	4.00			4559.00	
Stubb	1.00			4560.00	
Recorder	0.00	8736	Inside	4560.00	
Recorder	0.00	6668	Outside	4560.00	
Perforations	5.00			4565.00	
Bullnose	5.00			4570.00	11.00 Bottom Packers & Anchor

**Total Tool Length: 39.00**



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## DRILL STEM TEST REPORT

**FLUID SUMMARY**

H & B Petroleum Corp.

**28-16s-26w Ness,KS**

PO Box 277  
Ellinwood, KS 67526

**Horchem E**

Job Ticket: 48381

**DST#: 2**

ATTN: Jim Musgrove

Test Start: 2012.06.18 @ 00:23:15

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

17000 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbf

Water Loss: 9.17 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbf
0.00	GIP=186	0.000
144.00	Free oil	2.020
62.00	gco 20%g 80%o	0.870
62.00	gcow m 5% g 5% o 5%w 85% m	0.870
124.00	ocw m 5% o 30% m 65% w	1.739
186.00	sw 100%sw	2.609

Total Length: 578.00 ft      Total Volume: 8.108 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API= 37@70 corrected to 36@ 60

RW= .431@72.5=17,000 ppm



Serial #: 8736

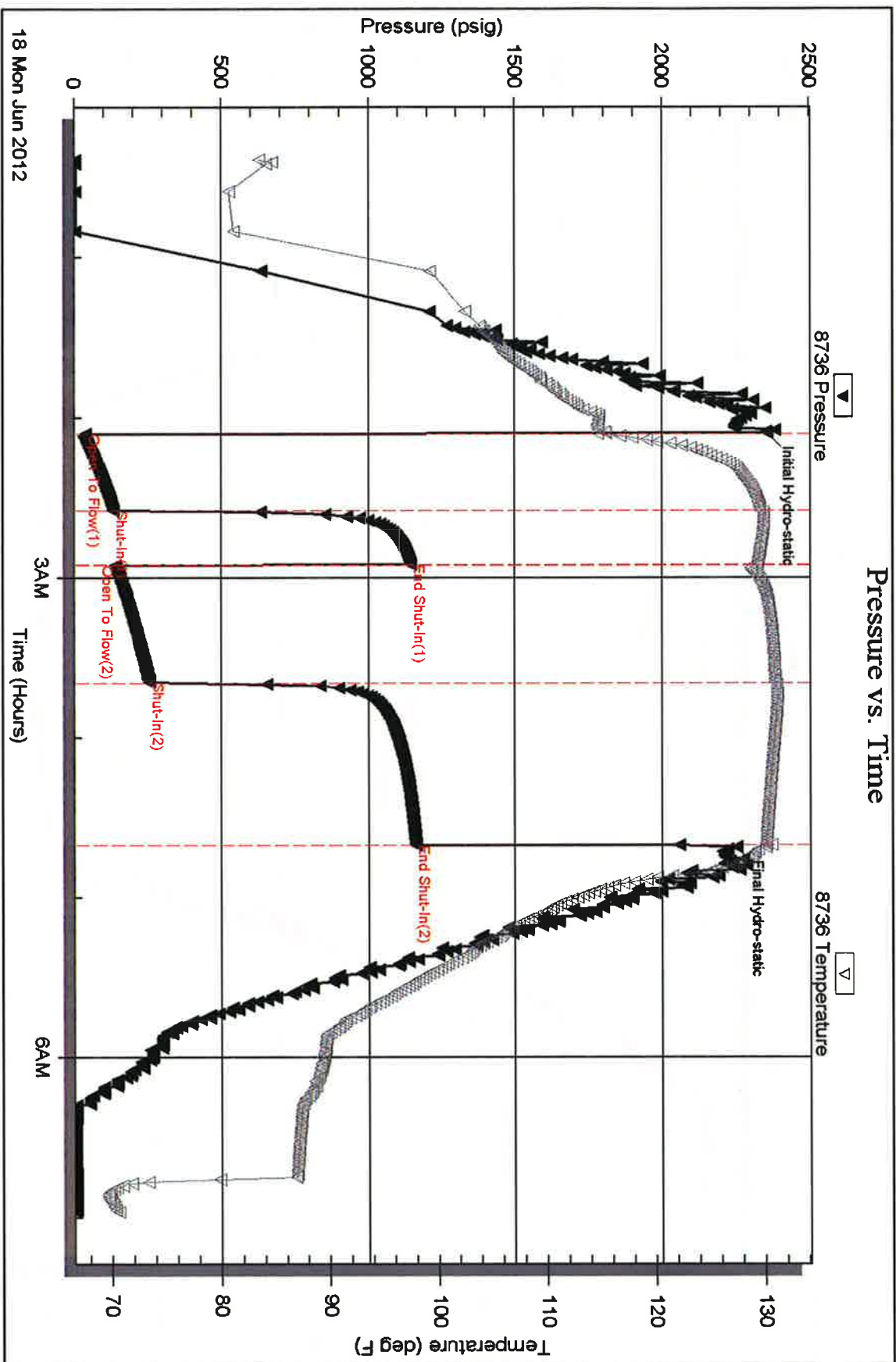
Inside

H & B Petroleum Corp.

Horchem E

DST Test Number: 2

### Pressure vs. Time



Trickle Testing, Inc

Ref. No: 48381

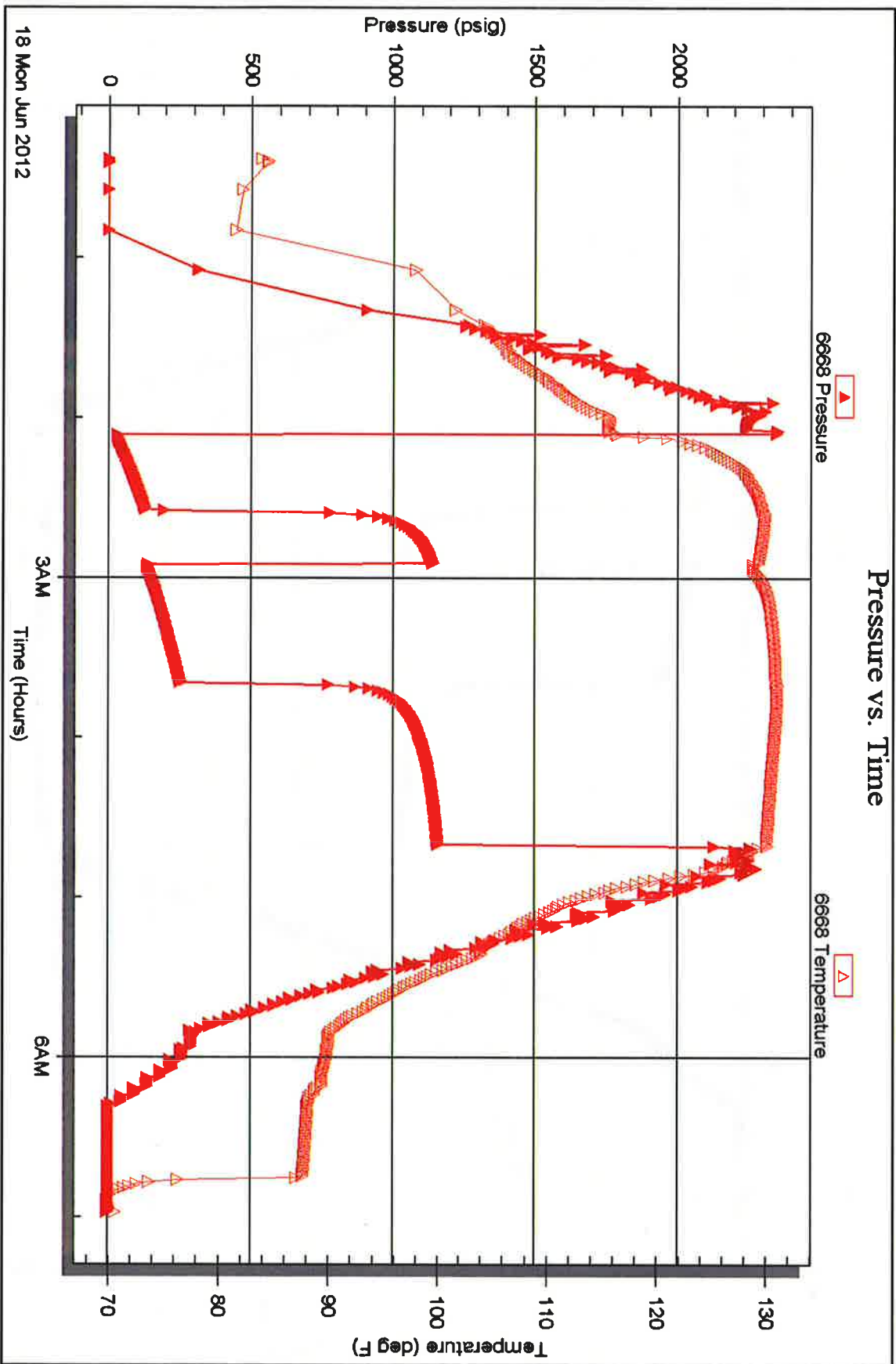
Printed: 2012.06.20 @ 11:44:00

Serial #: 6668

Outside H & B Petroleum Corp.

Horchem E

DST Test Number: 2



Triotech Testing, Inc

Ref. No: 48381

Printed: 2012.06.20 @ 11:44:00



# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48380

Well Name & No. Horchem E Test No. 1 Date 6/16/12  
 Company H&B Petroleum Corp. Elevation 2645 2655 KB 2645 GL  
 Address PO Box 277 Ellinwood, Ks 67526  
 Co. Rep / Geo. Jim Musgrove Rig Southwind #2  
 Location: Sec. 28 Twp. 16S Rge. 26W Co. Ness State Ks

Interval Tested 4102-4150 Zone Tested Lansing  
 Anchor Length 48 Drill Pipe Run 4101 Mud Wt. 9.2  
 Top Packer Depth 4098 Drill Collars Run 0 Vis 52  
 Bottom Packer Depth 4102 Wt. Pipe Run 0 WL 7.6  
 Total Depth 4150 Chlorides 2200 ppm System LCM 2  
 Blow Description 1 1/2" Blow  
No Return  
1/4" Blow  
No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>M</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	Feet of	%gas	%oil	%water	%mud

Rec Total 30 BHT 116 Gravity — API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic	<u>2103</u>	<input checked="" type="checkbox"/> Test	<u>1250.00</u>	T-On Location	<u>4:16 23.15</u>
(B) First Initial Flow	<u>22</u>	<input checked="" type="checkbox"/> Jars	<u>250.00</u>	T-Started	<u>2:24</u>
(C) First Final Flow	<u>27</u>	<input checked="" type="checkbox"/> Safety Joint	<u>75.00</u>	T-Open	<u>4:35</u>
(D) Initial Shut-In	<u>1172</u>	<input checked="" type="checkbox"/> Circ Sub	<u>N/C</u>	T-Pulled	<u>6:50</u>
(E) Second Initial Flow	<u>29</u>	<input type="checkbox"/> Hourly Standby		T-Out	<u>8:28</u>
(F) Second Final Flow	<u>34</u>	<input checked="" type="checkbox"/> Mileage	<u>100 RT = 155.00</u>	Comments	<u>No Steps</u>
(G) Final Shut-In	<u>1162</u>	<input type="checkbox"/> Sampler			<u>up U-Door. Hit</u>
(H) Final Hydrostatic	<u>2004</u>	<input type="checkbox"/> Straddle			<u>a Bridge on Stand #34</u>
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>30</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 checked="" type="checkbox"/> Accessibility	<u>150.00</u>	Total	<u>1880</u>
		Sub Total	<u>1880.00</u>	MP/DST Disc't	

Approved By \_\_\_\_\_ Our Representative Mike Roberts  
 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. 48381

Well Name & No. Horchem E Test No. 2 Date 6-18-12  
 Company H+B Petroleum Corp Elevation 2655 KB 2645 GL  
 Address P.O. Box 277 Ellinwood KS 67526  
 Co. Rep / Geo. Jim Musgrave Rig Southwind #2  
 Location: Sec. 28 Twp. 76S Rge. 26W Co. Ness State KS

Interval Tested 4559-4570 Zone Tested Miss  
 Anchor Length 11 Drill Pipe Run 4536 Mud Wt. 9.3  
 Top Packer Depth 4554 Drill Collars Run 0 Vis 55  
 Bottom Packer Depth 4559 Wt. Pipe Run 0 WL 9.2  
 Total Depth 4570 Chlorides 2500 ppm System LCM 2

Blow Description IF: BOB in 7 Min.  
IS: Return Blow Built to 2"  
FF: BOB in 8 Min  
FS: Return Blow Built to 6"

Rec	Feet of	%gas	%oil	%water	%mud
<u>0</u>	Feet of <u>GIP = 186</u>				
<u>144</u>	Feet of <u>Free Oil</u>				
<u>62</u>	Feet of <u>900</u>	<u>20</u>	<u>80</u>		
<u>62</u>	Feet of <u>900m</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>85</u>
<u>134</u> <u>186</u>	Feet of <u>900m SW</u>	<u>5</u>	<u>5</u>	<u>65</u>	<u>30</u>
Rec Total	<u>578</u> BHT <u>130</u>	Gravity <u>36</u>	API RW <u>431</u> @ <u>72.9</u> °F	Chlorides <u>17,000</u> ppm	

(A) Initial Hydrostatic  Test 1250.00 T-On Location 22:15  
 (B) First Initial Flow  Jars 250.00 T-Started 12:23  
 (C) First Final Flow  Safety Joint 75.00 T-Open 02:05  
 (D) Initial Shut-In  Circ Sub NC T-Pulled 04:40  
 (E) Second Initial Flow  Hourly Standby \_\_\_\_\_ T-Out 06:58  
 (F) Second Final Flow  Mileage 100 RT = \$155.00 Comments \_\_\_\_\_  
 (G) Final Shut-In  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility 150.00  
 Sub Total 1880.00

Initial Open 30  
 Initial Shut-In 20  
 Final Flow 45  
 Final Shut-In 60

Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Sub Total 0  
 Total 1880  
 MP/DST Disc't \_\_\_\_\_

Our Representative M. Roberts