



## DRILL STEM TEST REPORT

Prepared For: **McCoy Petroleum Corporation**

8080 E Central Ste 300  
Wichita KS 67206 + 2366

ATTN: Scott Hampel

**Hill "A" #2-23**

**23-30s-19w Kiowa,KS**

Start Date: 2013.03.13 @ 09:18:08

End Date: 2013.03.13 @ 19:15:38

Job Ticket #: 48506                      DST #: 1

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

Printed: 2013.03.19 @ 14:33:58



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

McCoy Petroleum Corporation

**23-30s-19w Kiowa,KS**

8080 E Central Ste 300  
Wichita KS 67206 + 2366

**Hill "A" #2-23**

Job Ticket: 48506

**DST#: 1**

ATTN: Scott Hampel

Test Start: 2013.03.13 @ 09:18:08

## GENERAL INFORMATION:

Formation: **Miss**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 11:38:08  
 Time Test Ended: 19:15:38  
 Interval: **5076.00 ft (KB) To 5128.00 ft (KB) (TVD)**  
 Total Depth: 5128.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Jeff Brown  
 Unit No: 44  
 Reference Elevations: 2248.00 ft (KB)  
 2237.00 ft (CF)  
 KB to GR/CF: 11.00 ft

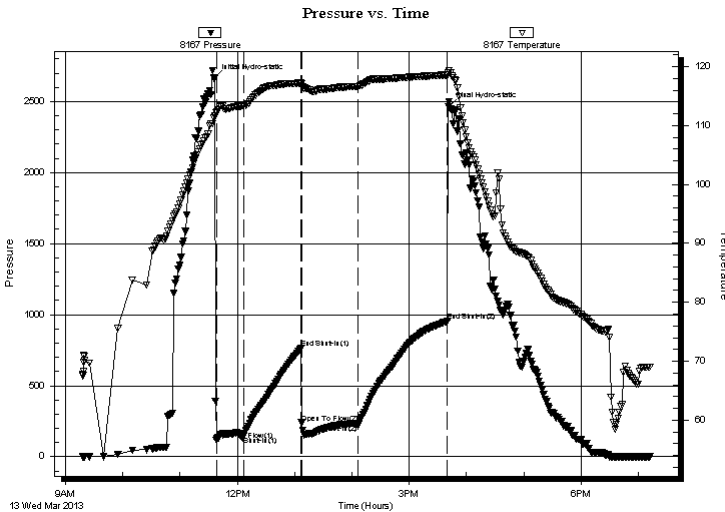
## Serial #: 8167

**Inside**

Press @ Run Depth: 227.76 psig @ 5112.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.03.13 End Date: 2013.03.13 Last Calib.: 2013.03.13  
 Start Time: 09:18:13 End Time: 19:12:38 Time On Btm: 2013.03.13 @ 11:36:08  
 Time Off Btm: 2013.03.13 @ 15:41:08

**TEST COMMENT:** IFP=Strong blow BOB in 15 sec Gas to surface in 18 min  
 ISI=Good Blow BOB in 52 min  
 FFP=Strong blow BOB in 30 sec  
 FSI=Strong blow BOB in 1 1/2 in

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2664.44	111.65	Initial Hydro-static
2	117.01	112.07	Open To Flow (1)
31	147.12	113.36	Shut-In(1)
91	761.96	117.22	End Shut-In(1)
91	239.65	117.10	Open To Flow (2)
151	227.76	116.66	Shut-In(2)
244	953.34	118.59	End Shut-In(2)
245	2463.48	119.02	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
248.00	GWMCO 20%G 10%M 5%W 65%O	1.22
66.00	SOCM 5%O 95%M	0.93
126.00	MCGO 20%G 15%M 65%O	1.77
0.00	4620-GIP	0.00

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.50	40.00	364.94
Last Gas Rate	0.50	2.00	108.61
Max. Gas Rate	0.50	40.00	364.94







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

McCoy Petroleum Corporation

**23-30s-19w Kiowa,KS**

8080 E Central Ste 300  
Wichita KS 67206 + 2366

**Hill "A" #2-23**

Job Ticket: 48506

**DST#: 1**

ATTN: Scott Hampel

Test Start: 2013.03.13 @ 09:18:08

## Tool Information

Drill Pipe:	Length: 4812.00 ft	Diameter: 3.80 inches	Volume: 67.50 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 248.00 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose: 88000.00 lb
			<u>Total Volume: 68.72 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	5076.00 ft			Final 83000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	52.00 ft			
Tool Length:	80.00 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			5049.00	
Shut In Tool	5.00			5054.00	
Hydraulic tool	5.00			5059.00	
Jars	5.00			5064.00	
Safety Joint	3.00			5067.00	
Packer	4.00			5071.00	28.00 Bottom Of Top Packer
Packer	5.00			5076.00	
Stubb	1.00			5077.00	
Perforations	2.00			5079.00	
Change Over Sub	1.00			5080.00	
Drill Pipe	31.00			5111.00	
Change Over Sub	1.00			5112.00	
Recorder	0.00	6625	Outside	5112.00	
Recorder	0.00	8167	Inside	5112.00	
Perforations	13.00			5125.00	
Bullnose	3.00			5128.00	52.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>80.00</b>				



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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

McCoy Petroleum Corporation

**23-30s-19w Kiowa,KS**

8080 E Central Ste 300  
Wichita KS 67206 + 2366

**Hill "A" #2-23**

Job Ticket: 48506

**DST#: 1**

ATTN: Scott Hampel

Test Start: 2013.03.13 @ 09:18:08

## 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: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.56 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
248.00	GWMCO 20%G 10%M 5%W 65%O	1.220
66.00	SOCM 5%O 95%M	0.926
126.00	MCGO 20%G 15%M 65%O	1.767
0.00	4620-GIP	0.000

Total Length: 440.00 ft

Total Volume: 3.913 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**

McCoy Petroleum Corporation

**23-30s-19w Kiowa,KS**

8080 E Central Ste 300  
Wichita KS 67206 + 2366

**Hill "A" #2-23**

Job Ticket: 48506

**DST#: 1**

ATTN: Scott Hampel

Test Start: 2013.03.13 @ 09:18:08

### 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)
1	23	0.50	40.00	364.94
1	28	0.50	17.00	209.79
2	30	0.25	14.00	44.58
2	40	0.25	13.00	42.99
2	52	0.50	7.00	142.33
2	54	0.50	2.00	108.61

Serial #: 8167

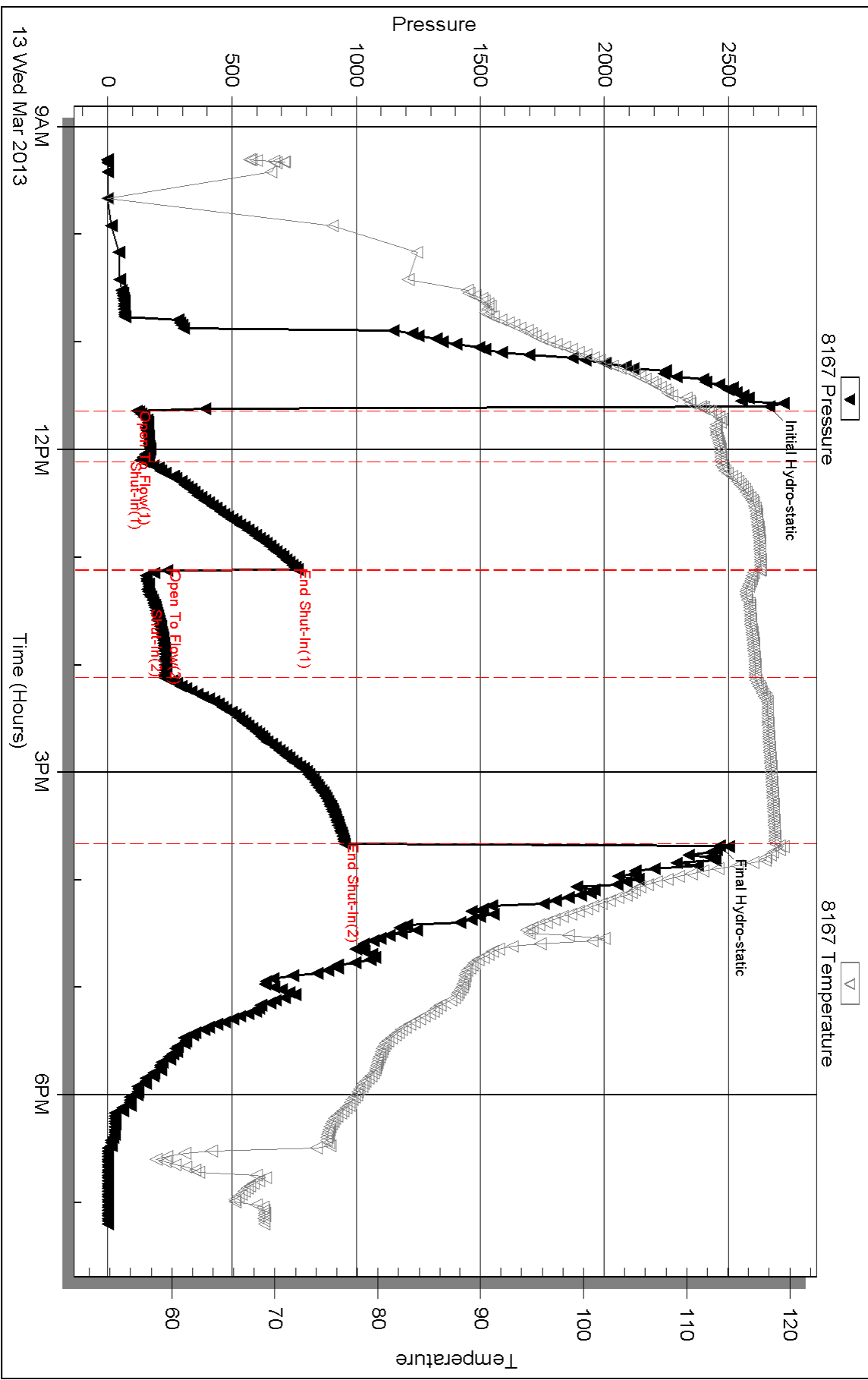
Inside

McCoy Petroleum Corporation

Hill "A" #2-23

DST Test Number: 1

### Pressure vs. Time



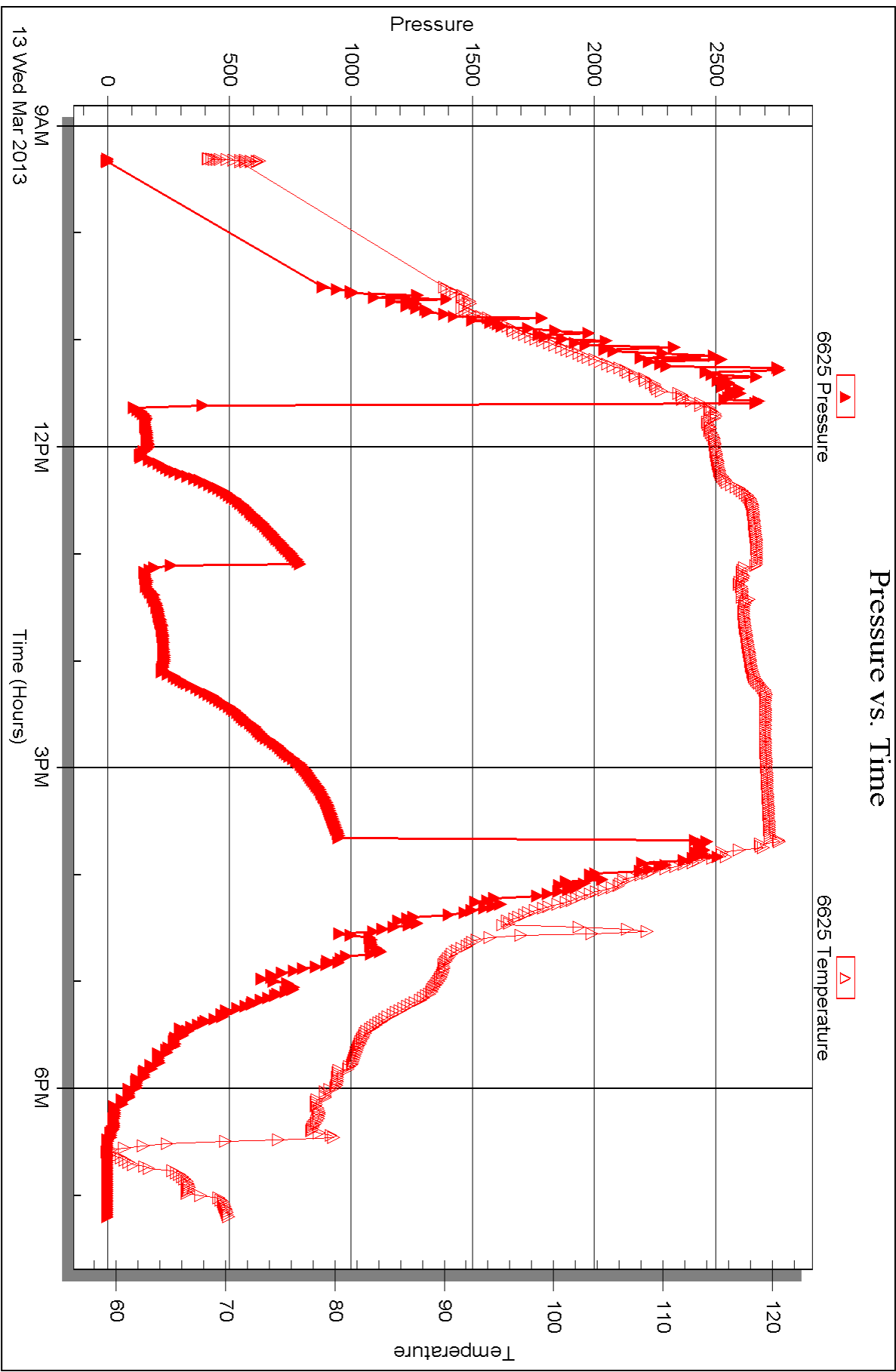


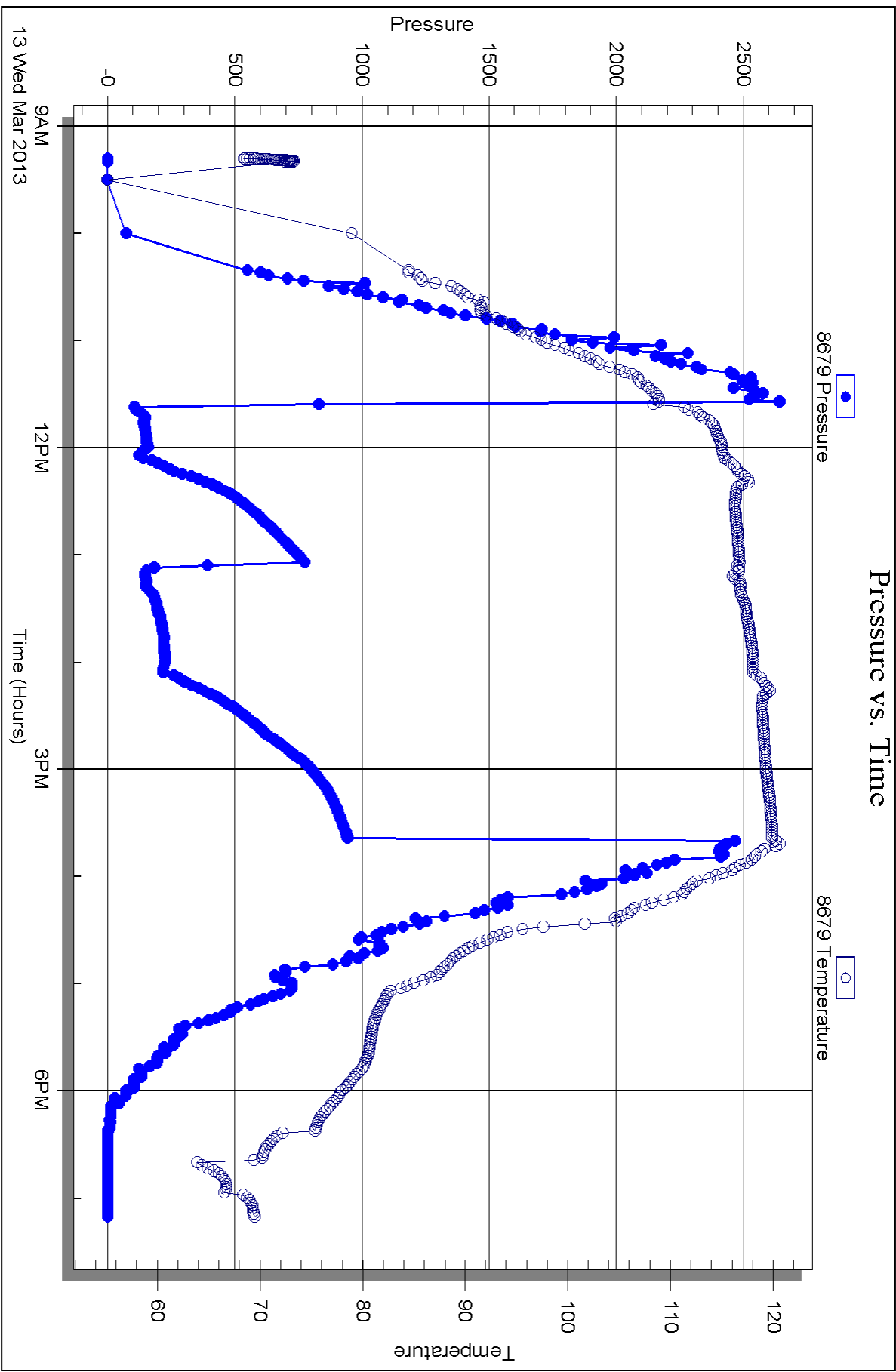
Serial #: 6625

Outside McCoy Petroleum Corporation

Hill "A" #2-23

DST Test Number: 1







## DRILL STEM TEST REPORT

Prepared For: **McCoy Petroleum Corporation**

8080 E Central Ste 300  
Wichita KS 67206 + 2366

ATTN: Scott Hampel

**Hill "A" #2-23**

**23-30s-19w Kiowa,KS**

Start Date: 2013.03.14 @ 04:22:01

End Date: 2013.03.14 @ 13:29:15

Job Ticket #: 50900                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.03.19 @ 14:50:31



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

McCoy Petroleum Corporation

**23-30s-19w Kiowa,KS**

8080 E Central Ste 300  
Wichita KS 67206 + 2366

**Hill "A" #2-23**

Job Ticket: 50900

**DST#: 2**

ATTN: Scott Hampel

Test Start: 2013.03.14 @ 04:22:01

## GENERAL INFORMATION:

Formation: **Mississippian**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:50:30

Time Test Ended: 13:29:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Jimmy Ricketts

Unit No: 45

**Interval: 5135.00 ft (KB) To 5145.00 ft (KB) (TVD)**

Reference Elevations: 2248.00 ft (KB)

Total Depth: 5145.00 ft (KB) (TVD)

2237.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 6798 Inside**

Press @ Run Depth: 52.50 psig @ 5142.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.03.14

End Date:

2013.03.14

Last Calib.: 2013.03.14

Start Time: 04:22:01

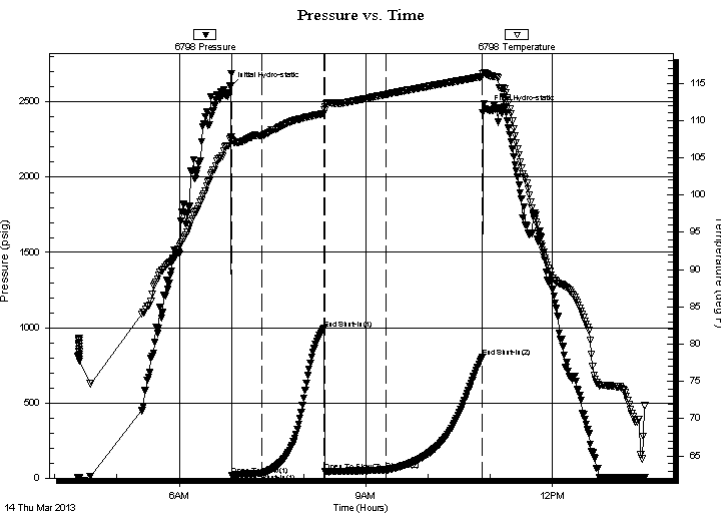
End Time:

13:29:15

Time On Btm: 2013.03.14 @ 06:49:30

Time Off Btm: 2013.03.14 @ 10:56:45

**TEST COMMENT:** IFP - Very weak blow building to 1/4 inch  
FFP - Very weak blow building to 1/2 inch



## PRESSURE SUMMARY

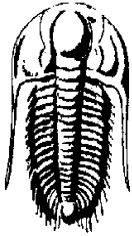
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2600.56	107.65	Initial Hydro-static
1	19.05	107.35	Open To Flow (1)
31	31.96	108.00	Shut-In(1)
91	994.00	110.95	End Shut-In(1)
91	44.64	111.90	Open To Flow (2)
151	52.50	113.51	Shut-In(2)
243	801.82	115.86	End Shut-In(2)
248	2448.67	116.18	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
25.00	O&WCM 5%O 1%W 94%M	0.12
60.00	O&HWCM 4%O 39%w 57%M	0.30

## Gas Rates

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



# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

McCoy Petroleum Corporation

23-30s-19w Kiowa, KS

8080 E Central Ste 300  
Wichita KS 67206 + 2366

Hill "A" #2-23

Job Ticket: 50900

DST#: 2

ATTN: Scott Hampel

Test Start: 2013.03.14 @ 04:22:01

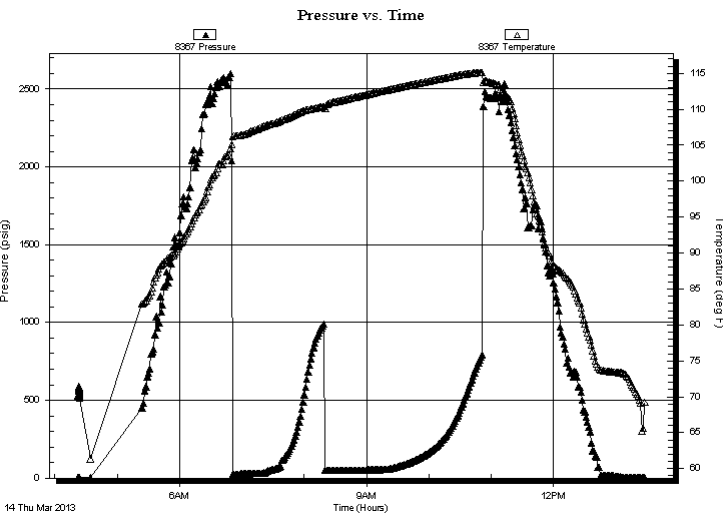
### GENERAL INFORMATION:

Formation: **Mississippian**  
 Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 06:50:30 Tester: Jimmy Ricketts  
 Time Test Ended: 13:29:15 Unit No: 45  
**Interval: 5135.00 ft (KB) To 5145.00 ft (KB) (TVD)** Reference Elevations: 2248.00 ft (KB)  
 Total Depth: 5145.00 ft (KB) (TVD) 2237.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 11.00 ft

### Serial #: 8367 Outside

Press @ Run Depth: psig @ 5142.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.03.14 End Date: 2013.03.14 Last Calib.: 1899.12.30  
 Start Time: 04:22:01 End Time: 13:28:30 Time On Btm:  
 Time Off Btm:

TEST COMMENT: IFP - Very weak blow building to 1/4 inch  
 FFP - Very weak blow building to 1/2 inch



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
25.00	O&WCM 5%O 1%W 94%M	0.12
60.00	O&HWCM 4%O 39%w 57%M	0.30

### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

McCoy Petroleum Corporation

**23-30s-19w Kiowa,KS**

8080 E Central Ste 300  
Wichita KS 67206 + 2366

**Hill "A" #2-23**

Job Ticket: 50900

**DST#: 2**

ATTN: Scott Hampel

Test Start: 2013.03.14 @ 04:22:01

### Tool Information

Drill Pipe:	Length: 4907.00 ft	Diameter: 3.80 inches	Volume: 68.83 bbl	Tool Weight:	2100.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer:	21000.00 lb
Drill Collar:	Length: 217.00 ft	Diameter: 2.25 inches	Volume: 1.07 bbl	Weight to Pull Loose:	86000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
			- bbl	String Weight: Initial	79000.00 lb
Drill Pipe Above KB:	16.00 ft			Final	81000.00 lb
Depth to Top Packer:	5135.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	10.00 ft				
Tool Length:	37.00 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			5113.00	
Hydraulic tool	5.00			5118.00	
Jars	5.00			5123.00	
Safety Joint	2.00			5125.00	
Packer	5.00			5130.00	27.00 Bottom Of Top Packer
Packer	5.00			5135.00	
Stubb	1.00			5136.00	
Perforations	6.00			5142.00	
Recorder	0.00	6798	Inside	5142.00	
Recorder	0.00	8367	Outside	5142.00	
Bullnose	3.00			5145.00	10.00 Bottom Packers & Anchor

**Total Tool Length: 37.00**



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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

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**23-30s-19w Kiowa,KS**

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Wichita KS 67206 + 2366

**Hill "A" #2-23**

Job Ticket: 50900

**DST#: 2**

ATTN: Scott Hampel

Test Start: 2013.03.14 @ 04:22:01

## 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:

22000 ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.58 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
25.00	O&WCM 5%O 1%W 94%M	0.123
60.00	O&HWCM 4%O 39%w 57%M	0.295

Total Length: 85.00 ft

Total Volume: 0.418 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6798

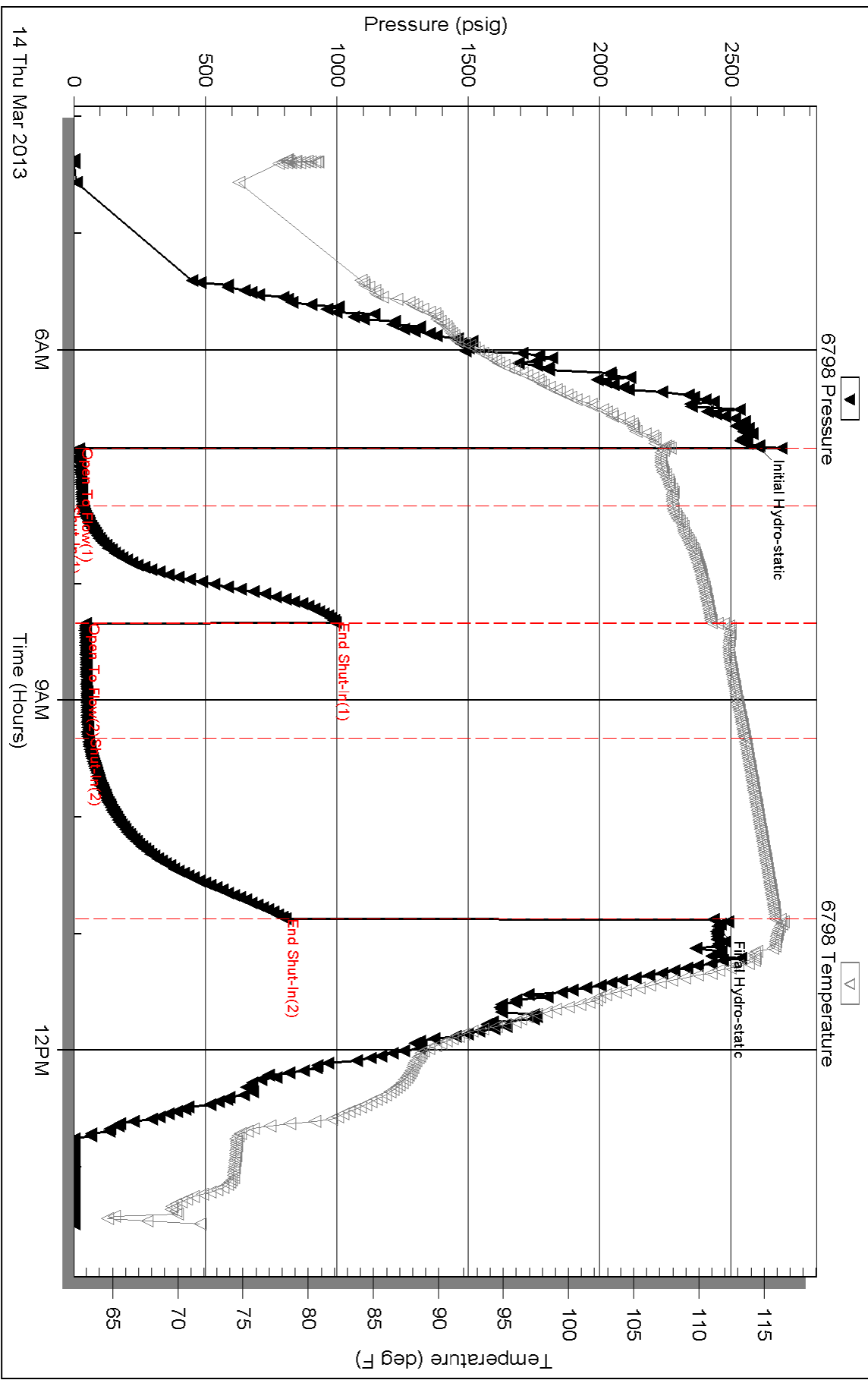
Inside

McCoy Petroleum Corporation

Hill "A" #2-23

DST Test Number: 2

### Pressure vs. Time



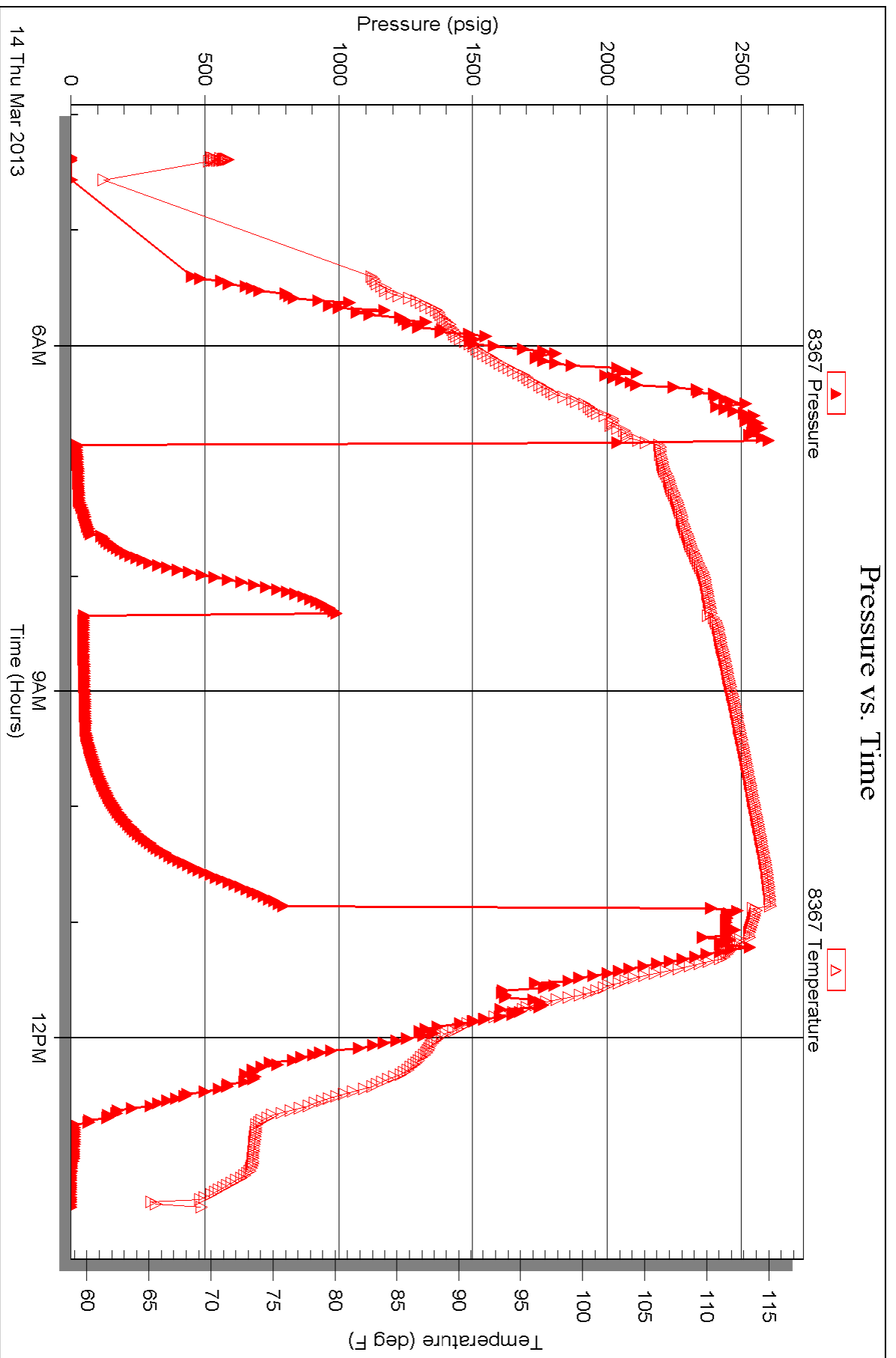


Serial #: 8367

Outside McCoy Petroleum Corporation

Hill "A" #2-23

DST Test Number: 2





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48506

Well Name & No. HILL 'A' #2-23 Test No. 1 Date 3-13-13  
 Company McCoy Petroleum Corporation Elevation 2248 KB 2237 GL  
 Address 8080 E CENTRAL STE 300 WICHITA KS 67206-2326  
 Co. Rep / Geo. Evan Stone Rig Sterling Rig #2  
 Location: Sec. 23 Twp. 30S Rge. 19W Co. Kiowa State KS

Interval Tested 5076-5128 Zone Tested MISS  
 Anchor Length 52 Drill Pipe Run 4812 Mud Wt. 9.4  
 Top Packer Depth 5071 Drill Collars Run 248 Vis 59  
 Bottom Packer Depth 5076 Wt. Pipe Run 0 WL 9.6  
 Total Depth 5128 Chlorides 8000 ppm System LCM 3

Blow Description: FAST Strong Blow BOB in 15 sec GAS TO SURFACE IN 18 min  
1st - Good Blow BOB AND GAS TO SURFACE IN 52 min  
FP - Strong Blow BOB AND GAS TO SURFACE IN 30 sec  
FSE - Strong Blow BOB AND GAS TO SURFACE IN 1 1/2 min

Rec	Feet of	%gas	%oil	%water	%mud
<u>248</u>	<u>6WMC0</u>	<u>20</u>	<u>65</u>	<u>5</u>	<u>10</u>
<u>460</u>	<u>SOCM</u>		<u>5</u>		<u>95</u>
<u>126</u>	<u>MCGO</u>	<u>20</u>	<u>65</u>		<u>15</u>
	<u>4620-GIP</u>				

Rec Total 440 BHT 119 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>2464</u>	<input checked="" type="checkbox"/> Test 1350	T-On Location <u>8:20</u>
(B) First Initial Flow <u>117</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>9:18</u>
(C) First Final Flow <u>147</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>11:37</u>
(D) Initial Shut-In <u>762</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>15:37</u>
(E) Second Initial Flow <u>240</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>19:15</u>
(F) Second Final Flow <u>228</u>	<input checked="" type="checkbox"/> Mileage 170.50	Comments _____
(G) Final Shut-In <u>953</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2463</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer

Initial Open 30  
 Initial Shut-In 60  
 Final Flow 60  
 Final Shut-In 90

Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_

Sub Total 1845.50

Approved By \_\_\_\_\_ Our Representative Jeff Brown

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. 50900

4/10

Well Name & No. Hill "A" 2-23 Test No. 2 Date 3-14-13  
 Company McCoy Petroleum Corp. Elevation 2248 KB 2237 GL  
 Address 8080 E. Central Suite 300 Wichita, KS. 67206-2366  
 Co. Rep / Geo. Scott Hampel / Evan Stone Rig Sterling #2  
 Location: Sec. 23 Twp. 30s Rge. 19w Co. Kiowa State KS

Interval Tested S135 - S145 Zone Tested Mississippian  
 Anchor Length 10' Drill Pipe Run 4907 Mud Wt. 9.4  
 Top Packer Depth S130 Drill Collars Run 217 Vis 59  
 Bottom Packer Depth S135 Wt. Pipe Run — WL 9.6  
 Total Depth S145 Chlorides 5000 ppm System LCM 3  
 Blow Description UWDBT 1/4"  
UWDBT 1/2"

Rec	Feet of	%gas	%oil	%water	%mud
<u>25</u>	<u>0+WCN</u>	<u>0</u>	<u>5</u>	<u>1</u>	<u>94</u>
<u>60</u>	<u>0+HCN</u>		<u>4</u>	<u>39</u>	<u>57</u>

Rec Total 85 BHT 116 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides 22000 ppm

(A) Initial Hydrostatic 2601  Test 1350 T-On Location 0110  
 (B) First Initial Flow 19  Jars 250 T-Started 0430  
 (C) First Final Flow 32  Safety Joint 75 T-Open 0650  
 (D) Initial Shut-In 994  Circ Sub \_\_\_\_\_ T-Pulled 1052  
 (E) Second Initial Flow 45  Hourly Standby \_\_\_\_\_ T-Out 1300  
 (F) Second Final Flow 52  Mileage 110 RT 170.50 Comments RT 0422  
 (G) Final Shut-In 802  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2449  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total \_\_\_\_\_  
 Day Standby \_\_\_\_\_ Total \$1845.50 1845.50  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total \$1845.50

Approved By [Signature] Our Representative Jimmy [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 of 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.