

DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

PO Box 8037
Wichita KS 67208

ATTN: Mike Maune

Maier A #1-18

18-20s-21w Ness,KS

Start Date: 2012.09.23 @ 21:30:00

End Date: 2012.09.24 @ 05:33:30

Job Ticket #: 43578 DST #: 1

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

Printed: 2012.09.27 @ 15:07:55



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Cobalt Energy LLC

18-20s-21w Ness, KS

PO Box 8037
Wichita KS 67208

Maier A #1-18

Job Ticket: 43578

DST#: 1

ATTN: Mike Maune

Test Start: 2012.09.23 @ 21:30:00

GENERAL INFORMATION:

Formation: **Fort Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:54:30

Time Test Ended: 05:33:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Brett Dickinson

Unit No: 59

Interval: 4276.00 ft (KB) To 4290.00 ft (KB) (TVD)

Reference Elevations: 2213.00 ft (KB)

Total Depth: 4290.00 ft (KB) (TVD)

2205.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8319 Outside

Press @ Run Depth: 19.49 psig @ 4277.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.23

End Date:

2012.09.24

Last Calib.:

2012.09.24

Start Time: 21:30:05

End Time:

05:33:29

Time On Btm:

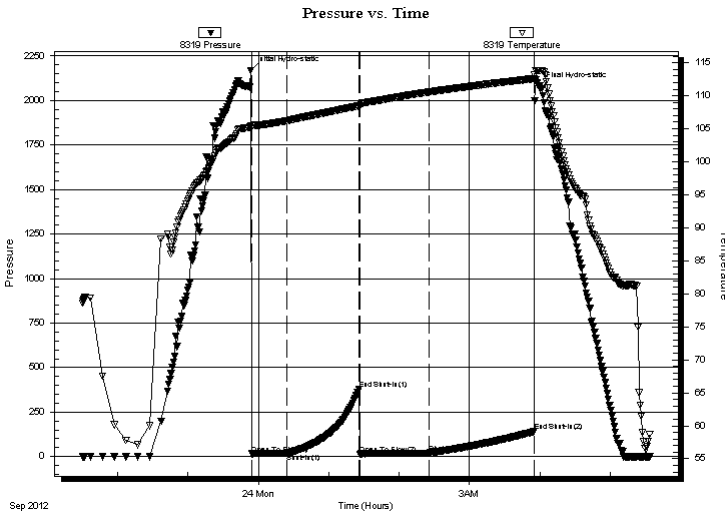
2012.09.23 @ 23:53:30

Time Off Btm:

2012.09.24 @ 03:59:00

TEST COMMENT: IF-1/8" blow
ISI-No blow
FF-1/2" blow
FSI-No blow

PRESSURE SUMMARY



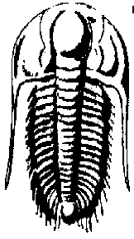
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2169.32	105.50	Initial Hydro-static
1	15.31	105.21	Open To Flow (1)
31	17.38	106.23	Shut-In(1)
92	377.56	108.48	End Shut-In(1)
93	11.76	108.48	Open To Flow (2)
152	19.49	110.57	Shut-In(2)
242	140.72	112.60	End Shut-In(2)
246	2080.56	113.84	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Oil spotted mud	0.14

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Cobalt Energy LLC

18-20s-21w Ness, KS

PO Box 8037
Wichita KS 67208

Maier A #1-18

Job Ticket: 43578

DST#: 1

ATTN: Mike Maune

Test Start: 2012.09.23 @ 21:30:00

Tool Information

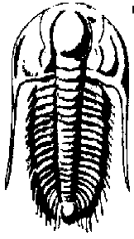
Drill Pipe:	Length: 4256.00 ft	Diameter: 3.80 inches	Volume: 59.70 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 40000.00 lb
			<u>Total Volume: 59.70 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 35000.00 lb
Depth to Top Packer:	4276.00 ft			Final 35000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	14.00 ft			
Tool Length:	42.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Change Over Sub	1.00			4249.00	
Shut In Tool	5.00			4254.00	
Hydraulic tool	5.00			4259.00	
Jars	5.00			4264.00	
Safety Joint	2.00			4266.00	
Packer	5.00			4271.00	28.00 Bottom Of Top Packer
Packer	5.00			4276.00	
Stubb	1.00			4277.00	
Recorder	0.00	8166	Inside	4277.00	
Recorder	0.00	8319	Outside	4277.00	
Perforations	10.00			4287.00	
Bullnose	3.00			4290.00	14.00 Bottom Packers & Anchor

Total Tool Length: 42.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC

18-20s-21w Ness,KS

PO Box 8037
Wichita KS 67208

Maier A #1-18

Job Ticket: 43578

DST#: 1

ATTN: Mike Maune

Test Start: 2012.09.23 @ 21:30:00

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: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.38 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4300.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Oil spotted mud	0.140

Total Length: 10.00 ft Total Volume: 0.140 bbl

Num Fluid Samples: 0

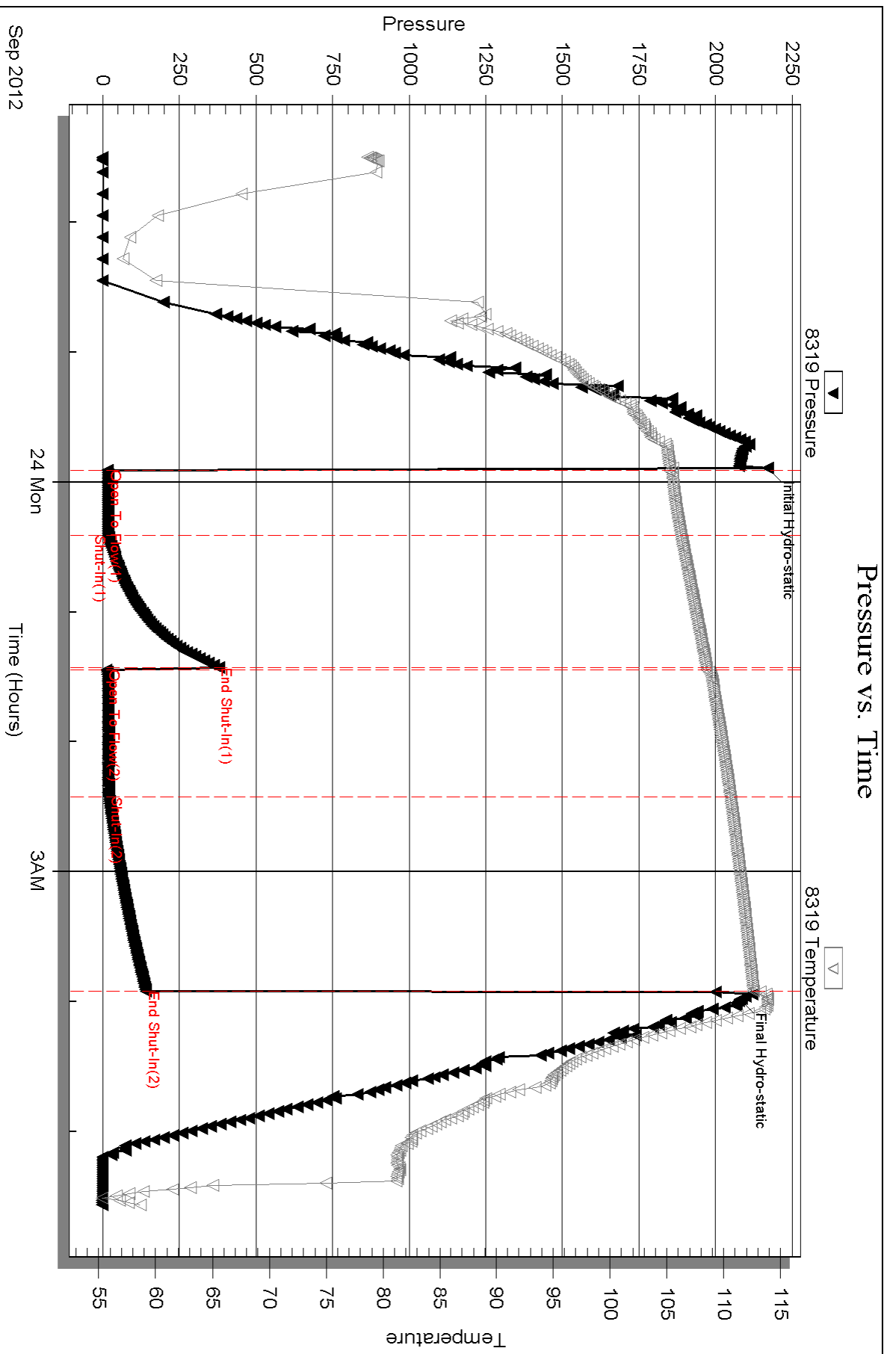
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



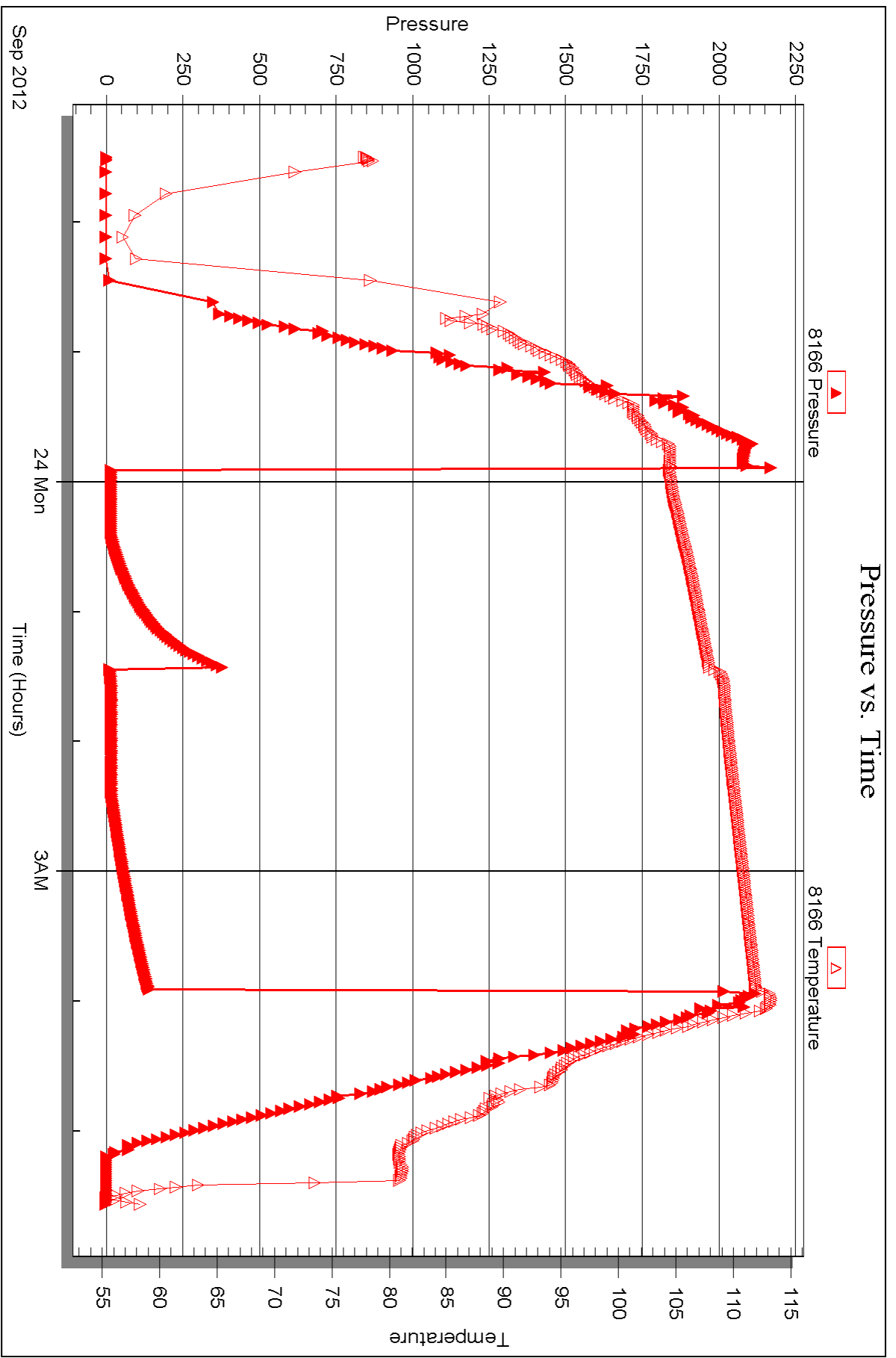
Serial #: 8166

Inside

Cobalt Energy LLC

Maier A #1-18

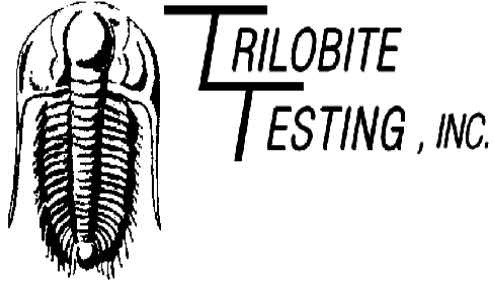
DST Test Number: 1



Triobite Testing, Inc

Ref. No: 43578

Printed: 2012.09.27 @ 15:08:00



DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

PO Box 8037
Wichita KS 67208

ATTN: Mike Maune

Maier A #1-18

18-20s-21w Ness,KS

Start Date: 2012.09.24 @ 18:55:00

End Date: 2012.09.25 @ 02:58:00

Job Ticket #: 43579 DST #: 2

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

Printed: 2012.09.27 @ 15:07:12



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Cobalt Energy LLC

18-20s-21w Ness, KS

PO Box 8037
Wichita KS 67208

Maier A #1-18

Job Ticket: 43579

DST#: 2

ATTN: Mike Maune

Test Start: 2012.09.24 @ 18:55:00

GENERAL INFORMATION:

Formation: **Miss.**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:58:00

Time Test Ended: 02:58:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: 4310.00 ft (KB) To 4378.00 ft (KB) (TVD)

Reference Elevations: 2213.00 ft (KB)

Total Depth: 4378.00 ft (KB) (TVD)

2205.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8319 Outside

Press @ Run Depth: 117.25 psig @ 4311.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.24

End Date:

2012.09.25

Last Calib.:

2012.09.25

Start Time: 18:55:05

End Time:

02:57:59

Time On Btm:

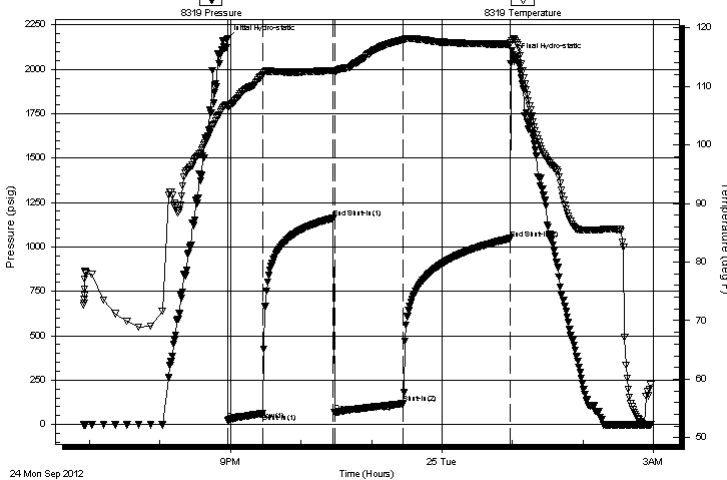
2012.09.24 @ 20:57:00

Time Off Btm:

2012.09.25 @ 01:01:00

TEST COMMENT: IF-7.25" blow
ISI-No blow
FF-7.5" blow
FSI-No blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2169.18	106.86	Initial Hydro-static
1	24.81	106.45	Open To Flow (1)
31	61.81	112.02	Shut-In(1)
91	1161.67	112.73	End Shut-In(1)
92	67.61	112.48	Open To Flow (2)
150	117.25	117.95	Shut-In(2)
241	1047.56	117.20	End Shut-In(2)
244	2064.66	118.07	Final Hydro-static

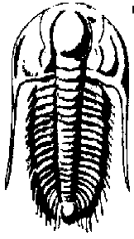
Recovery

Length (ft)	Description	Volume (bbl)
80.00	Oil spotted SWCM 10%W 90%M	1.12
120.00	MCW 60%W 40%M	1.68

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Cobalt Energy LLC

18-20s-21w Ness, KS

PO Box 8037
Wichita KS 67208

Maier A #1-18

Job Ticket: 43579

DST#: 2

ATTN: Mike Maune

Test Start: 2012.09.24 @ 18:55:00

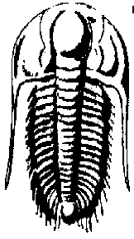
Tool Information

Drill Pipe:	Length: 4290.00 ft	Diameter: 3.80 inches	Volume: 60.18 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 40000.00 lb
			<u>Total Volume: 60.18 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 35000.00 lb
Depth to Top Packer:	4310.00 ft			Final 35000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	68.00 ft			
Tool Length:	96.00 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			4283.00	
Shut In Tool	5.00			4288.00	
Hydraulic tool	5.00			4293.00	
Jars	5.00			4298.00	
Safety Joint	2.00			4300.00	
Packer	5.00			4305.00	28.00 Bottom Of Top Packer
Packer	5.00			4310.00	
Stubb	1.00			4311.00	
Recorder	0.00	8166	Inside	4311.00	
Recorder	0.00	8319	Outside	4311.00	
Perforations	10.00			4321.00	
Blank Off Sub	1.00			4322.00	
Blank Spacing	32.00			4354.00	
Change Over Sub	1.00			4355.00	
Perforations	20.00			4375.00	
Bullnose	3.00			4378.00	68.00 Bottom Packers & Anchor
Total Tool Length:	96.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC

18-20s-21w Ness,KS

PO Box 8037
Wichita KS 67208

Maier A #1-18

Job Ticket: 43579

DST#: 2

ATTN: Mike Maune

Test Start: 2012.09.24 @ 18:55:00

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:

23000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.38 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4300.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
80.00	Oil spotted SWCM 10%W 90%M	1.122
120.00	MCW 60%W 40%M	1.683

Total Length: 200.00 ft Total Volume: 2.805 bbl

Num Fluid Samples: 0

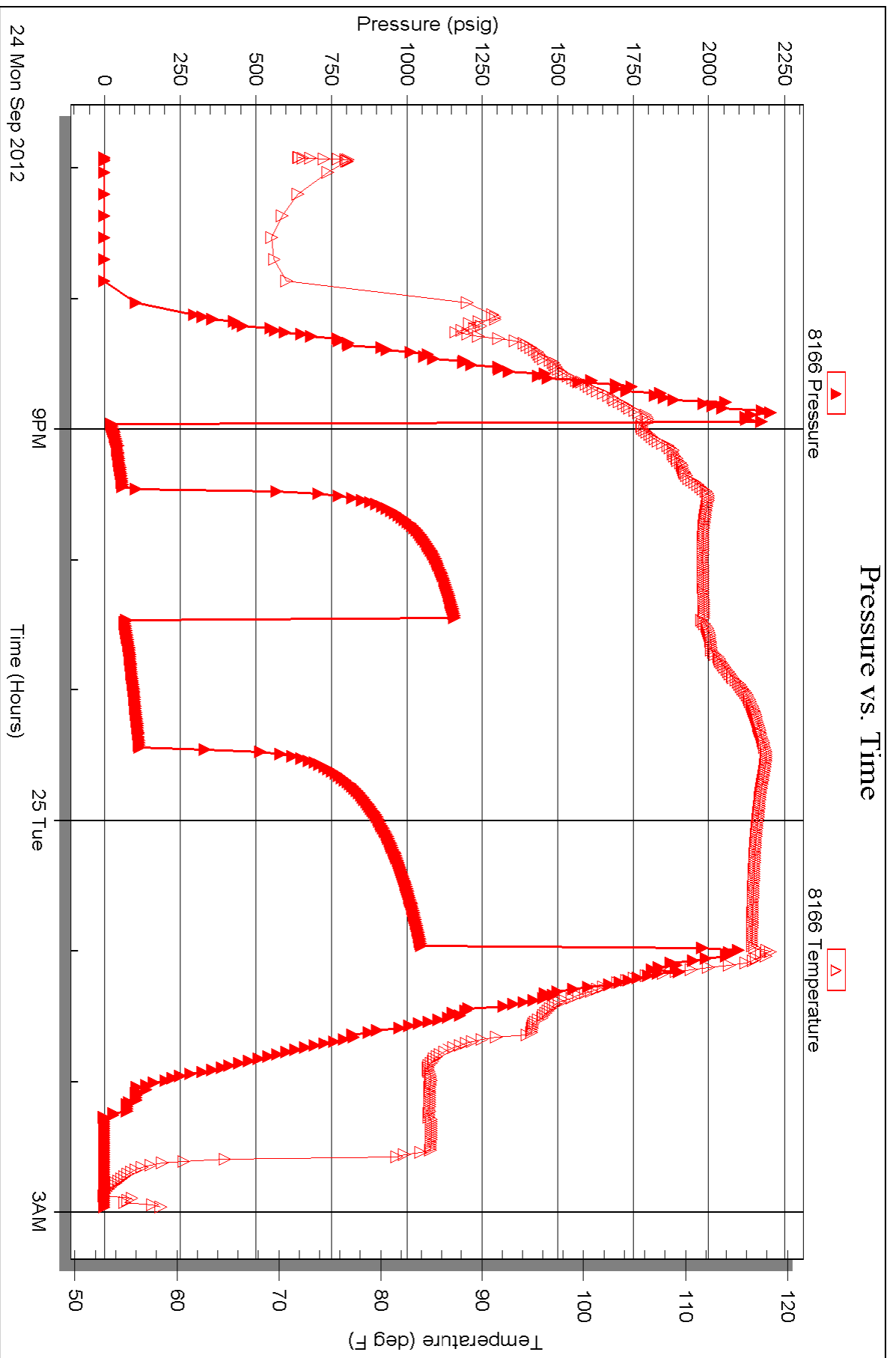
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .37 @55





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 43578

4/10

Well Name & No. Maier 'A' # 1-18 Test No. 1 Date 9/23/12
 Company Cobalt Energy LLC Elevation 2213 KB 2205 GL
 Address PO Box 8037 Wichita KS 67208
 Co. Rep / Geo. Mike Maune Rig Southwind #2
 Location: Sec. 18 Twp. 20 Rge. 21 Co. Ness State KS

Interval Tested 4276 - 4290 Zone Tested For Scott
 Anchor Length 14 Drill Pipe Run 42.56 Mud Wt. 9.3
 Top Packer Depth 4271 Drill Collars Run — Vis 53
 Bottom Packer Depth 4276 Wt. Pipe Run — WL 8.4
 Total Depth 4290 Chlorides 4,300 ppm System LCM
 Blow Description IF - 1/8 in blow
ISI - No blow
FF - 1/2 in blow
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>Oil spotted mud</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 10 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>2,169</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>21:00</u>
(B) First Initial Flow <u>15</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>21:30</u>
(C) First Final Flow <u>17</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>23:45</u>
(D) Initial Shut-In <u>378</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>3:45</u>
(E) Second Initial Flow <u>12</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>5:30</u>
(F) Second Final Flow <u>19</u>	<input checked="" type="checkbox"/> Mileage 127.8 <u>127.8</u> 196.85	Comments _____
(G) Final Shut-In <u>141</u>	<input type="checkbox"/> Sampler	<input type="checkbox"/> Ruined Shale Packer
(H) Final Hydrostatic <u>2,081</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	Sub Total <u>0</u>
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder	Total <u>1771.85</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility	
	Sub Total <u>1771.85</u>	

Approved By _____ Our Representative Butt

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. 43579

Well Name & No. Maier 'A' #1-18 Test No. 2 Date 9/24/12
 Company Cobalt Energy LLC Elevation 2213 KB 2205 GL
 Address PO Box 8037 Wichita KS 67208
 Co. Rep / Geo. Mike Mayne Rig Southwind #2
 Location: Sec. 18 Twp. 20 Rge. 21 Co. Ness State KS

Interval Tested 4310-4378 Zone Tested MIS
 Anchor Length 68 Drill Pipe Run 4290 Mud Wt. 9.3
 Top Packer Depth 4305 Drill Collars Run — Vis 53
 Bottom Packer Depth 4310 Wt. Pipe Run — WL 8.4
 Total Depth 4378 Chlorides 4,300 ppm System LCM —
 Blow Description IF - 7 1/4 in blow
FSI - No blow
FF - 7 1/2 in blow
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>80</u>	<u>Oil spotted SWCM</u>		<u>10</u>	<u>70</u>	
<u>120</u>	<u>MCW</u>		<u>60</u>	<u>40</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 200 BHT 117 Gravity _____ API RW .37 @ 55 °F Chlorides 23000 ppm

(A) Initial Hydrostatic <u>2169</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>18:35</u>
(B) First Initial Flow <u>25</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>18:55</u>
(C) First Final Flow <u>62</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>21:00</u>
(D) Initial Shut-In <u>1,162</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>1:00</u>
(E) Second Initial Flow <u>68</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>2:55</u>
(F) Second Final Flow <u>117</u>	<input checked="" type="checkbox"/> Mileage <u>127rt</u> 196.85	Comments _____
(G) Final Shut-In <u>1,048</u>	<input type="checkbox"/> Sampler	<input type="checkbox"/> Ruined Shale Packer
(H) Final Hydrostatic <u>2,065</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	Sub Total <u>0</u>
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder	Total <u>1771.85</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility	
Sub Total <u>1771.85</u>		

Approved By _____

Our Representative Butt Dier

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.