



DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

115 S Belmont #12
Wichita, KS 67208

ATTN: Tim Lauer

Dawson Trust A #1-11

11-14s-37w Logan,KS

Start Date: 2017.07.11 @ 11:39:12

End Date: 2017.07.11 @ 19:33:42

Job Ticket #: 63853 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.07.17 @ 10:53:54



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Cobalt Energy LLC
 115 S Belmont #12
 Wichita, KS 67208
 ATTN: Tim Lauer

11-14s-37w Logan, KS
Dawson Trust A #1-11
 Job Ticket: 63853 **DST#: 1**
 Test Start: 2017.07.11 @ 11:39:12

GENERAL INFORMATION:

Formation: **Toronto - LKC A**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 13:46:42
 Time Test Ended: 19:33:42
 Interval: **4072.00 ft (KB) To 4141.00 ft (KB) (TVD)**
 Total Depth: 4141.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Brandon Turley
 Unit No: 79
 Reference Elevations: 3414.00 ft (KB)
 3408.00 ft (CF)
 KB to GR/CF: 6.00 ft

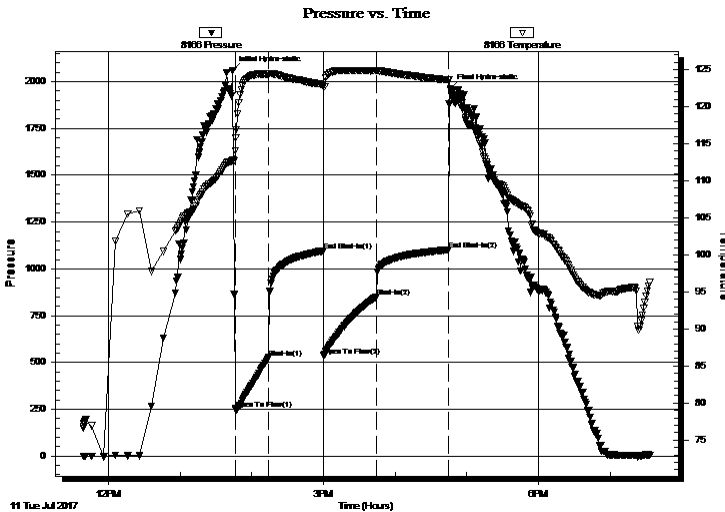
Serial #: 8166

Outside

Press@RunDepth: 849.35 psig @ 4073.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.07.11 End Date: 2017.07.11 Last Calib.: 2017.07.11
 Start Time: 11:39:17 End Time: 19:33:41 Time On Btm: 2017.07.11 @ 13:44:12
 Time Off Btm: 2017.07.11 @ 16:46:12

TEST COMMENT: IFP - BOB in 2 min.
 ISI - No return.
 FFP - BOB in 3 min.
 FSI - No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2060.10	112.80	Initial Hydro-static
3	249.24	115.83	Open To Flow (1)
30	525.08	124.42	Shut-In(1)
76	1096.18	123.00	End Shut-In(1)
76	536.53	122.73	Open To Flow (2)
120	849.35	124.84	Shut-In(2)
181	1101.05	123.62	End Shut-In(2)
182	1962.71	122.24	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1302.00	water 100%w	18.26
310.00	mcw 90%w 10%m	4.35
325.00	mcw 60%w 40%m	4.56

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Cobalt Energy LLC

11-14s-37w Logan,KS

115 S Belmont #12
Wichita, KS 67208

Dawson Trust A #1-11

Job Ticket: 63853

DST#: 1

ATTN: Tim Lauer

Test Start: 2017.07.11 @ 11:39:12

Tool Information

Drill Pipe:	Length: 4063.00 ft	Diameter: 3.80 inches	Volume: 56.99 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 56.99 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	4072.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	69.00 ft			
Tool Length:	89.00 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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Stubb	1.00			4053.00	
Shut In Tool	5.00			4058.00	
Hydraulic tool	5.00			4063.00	
Packer	5.00			4068.00	20.00 Bottom Of Top Packer
Packer	4.00			4072.00	
Stubb	1.00			4073.00	
Recorder	0.00	8875	Inside	4073.00	
Recorder	0.00	8166	Outside	4073.00	
Perforations	29.00			4102.00	
Change Over Sub	1.00			4103.00	
Drill Pipe	32.00			4135.00	
Change Over Sub	1.00			4136.00	
Bullnose	5.00			4141.00	69.00 Bottom Packers & Anchor

Total Tool Length: 89.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC

11-14s-37w Logan,KS

115 S Belmont #12
Wichita, KS 67208

Dawson Trust A #1-11

Job Ticket: 63853

DST#: 1

ATTN: Tim Lauer

Test Start: 2017.07.11 @ 11:39:12

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:

28000 ppm

Viscosity: 68.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1302.00	water 100%w	18.264
310.00	mcw 90%w 10%m	4.348
325.00	mcw 60%w 40%m	4.559

Total Length: 1937.00 ft Total Volume: 27.171 bbl

Num Fluid Samples: 0

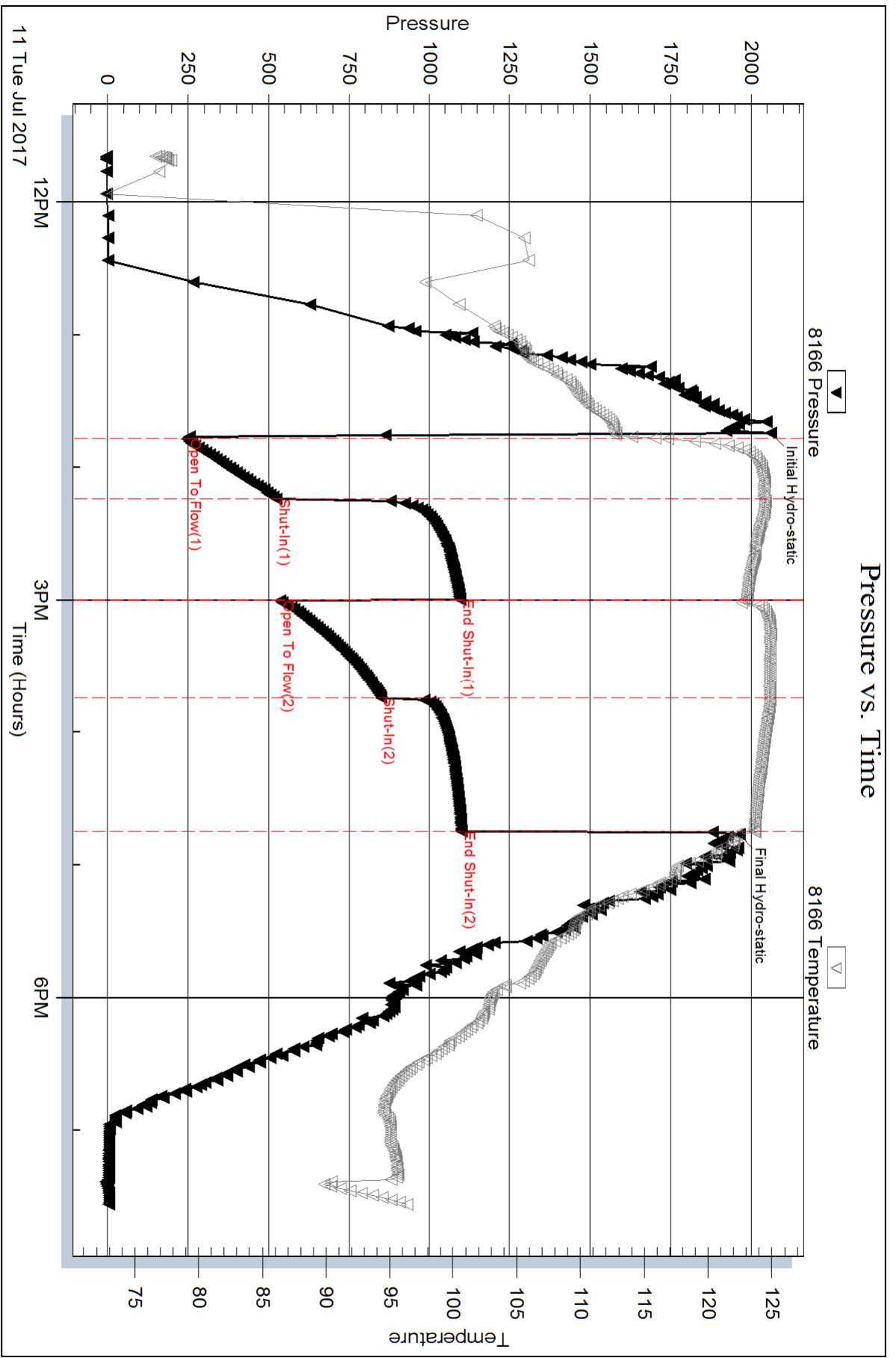
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .16@105=28000



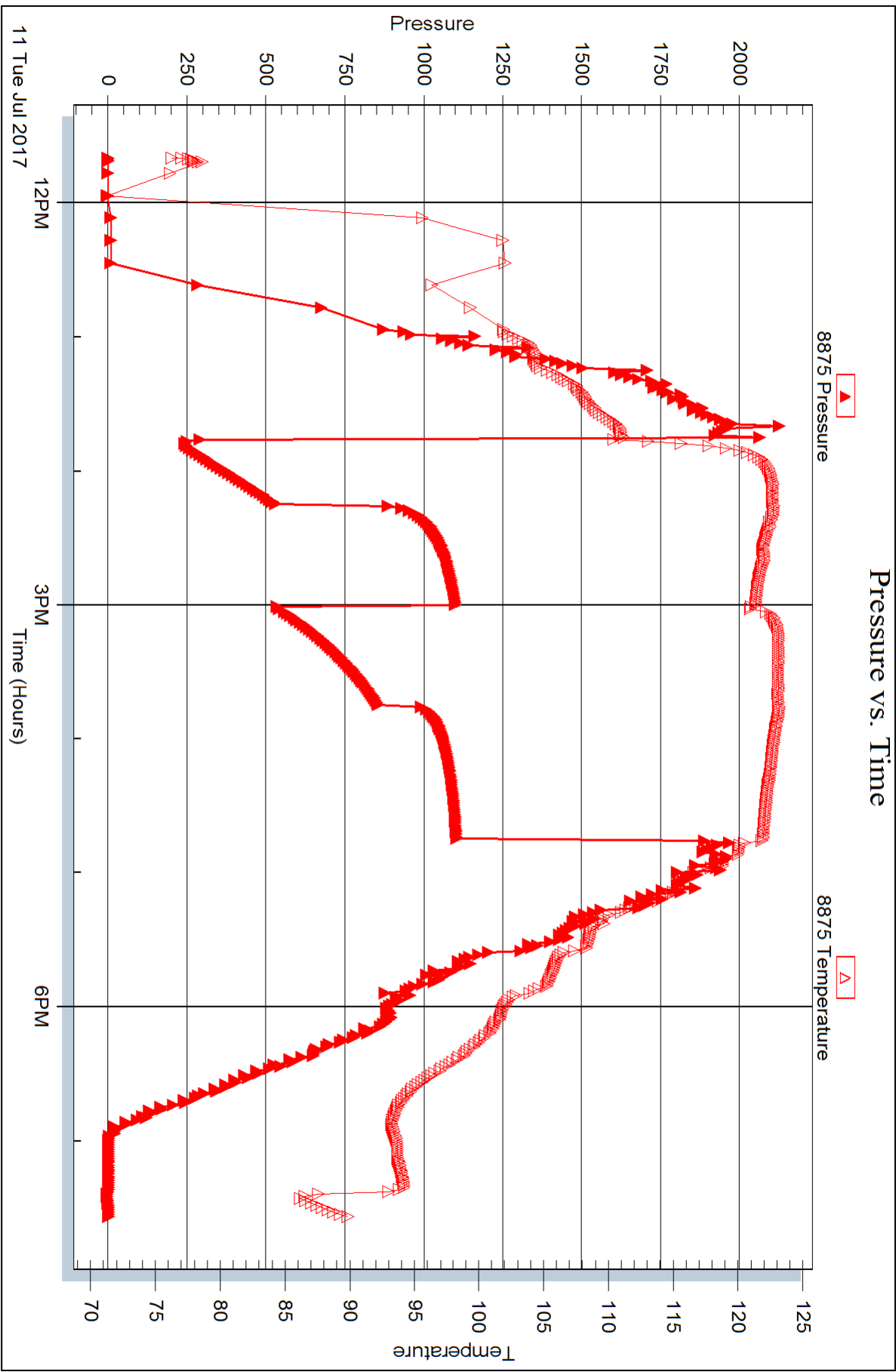
Serial #: 8875

Inside

Cobalt Energy LLC

Dawson Trust A #1-11

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 63853

Printed: 2017.07.17 @ 10:53:55



DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

115 S Belmont #12
Wichita, KS 67208

ATTN: Tim Lauer

Dawson Trust A #1-11

11-14s-37w Logan,KS

Start Date: 2017.07.12 @ 14:55:33

End Date: 2017.07.12 @ 21:47:33

Job Ticket #: 63854 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.07.17 @ 10:52:48



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Cobalt Energy LLC

11-14s-37w Logan,KS

115 S Belmont #12
Wichita, KS 67208

Dawson Trust A #1-11

ATTN: Tim Lauer

Job Ticket: 63854

DST#: 2

Test Start: 2017.07.12 @ 14:55:33

GENERAL INFORMATION:

Formation: **LKC C-G**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:32:03

Time Test Ended: 21:47:33

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 79

Interval: 4141.00 ft (KB) To 4278.00 ft (KB) (TVD)

Reference Elevations: 3414.00 ft (KB)

Total Depth: 4278.00 ft (KB) (TVD)

3408.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 6.00 ft

Serial #: 8166

Outside

Press@RunDepth: 1183.10 psig @ 4142.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.07.12

End Date:

2017.07.12

Last Calib.:

2017.07.12

Start Time: 14:55:38

End Time:

21:47:32

Time On Btm:

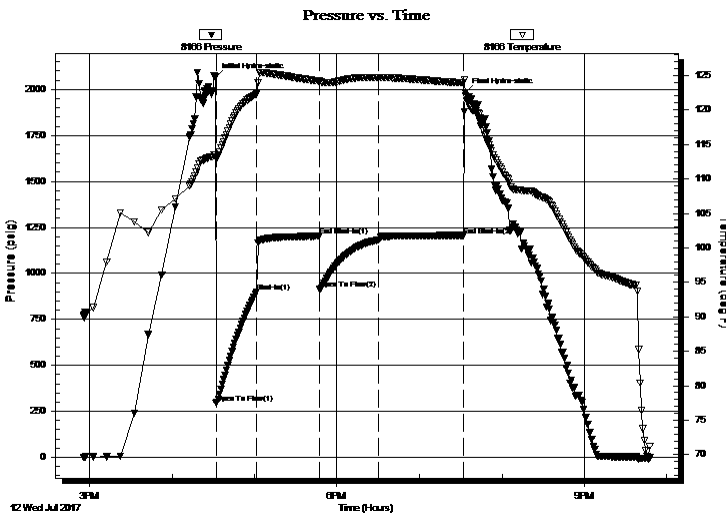
2017.07.12 @ 16:31:33

Time Off Btm:

2017.07.12 @ 19:33:33

TEST COMMENT: IF: BOB in 1 min.
IS: No return.
FF: BOB in 2 min.
FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2066.65	113.55	Initial Hydro-static
1	295.20	113.09	Open To Flow (1)
30	900.69	122.30	Shut-In(1)
76	1202.57	124.17	End Shut-In(1)
76	912.77	124.06	Open To Flow (2)
119	1183.10	124.71	Shut-In(2)
181	1206.60	123.91	End Shut-In(2)
182	1983.63	122.00	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1488.00	water 100%w	20.87
310.00	mcw 90%w 10%m	4.35
310.00	mcw 50%w 50%m	4.35
434.00	w cm 40%w 60%m	6.09

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

11-14s-37w Logan,KS

115 S Belmont #12
Wichita, KS 67208

Dawson Trust A #1-11

Job Ticket: 63854

DST#: 2

ATTN: Tim Lauer

Test Start: 2017.07.12 @ 14:55:33

Tool Information

Drill Pipe:	Length: 4126.00 ft	Diameter: 3.80 inches	Volume: 57.88 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 57.88 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	4141.00 ft			Final 66000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	137.00 ft			
Tool Length:	157.00 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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Stubb	1.00			4122.00	
Shut In Tool	5.00			4127.00	
Hydraulic tool	5.00			4132.00	
Packer	5.00			4137.00	20.00 Bottom Of Top Packer
Packer	4.00			4141.00	
Stubb	1.00			4142.00	
Recorder	0.00	8875	Inside	4142.00	
Recorder	0.00	8166	Outside	4142.00	
Perforations	4.00			4146.00	
Change Over Sub	1.00			4147.00	
Drill Pipe	125.00			4272.00	
Change Over Sub	1.00			4273.00	
Bullnose	5.00			4278.00	137.00 Bottom Packers & Anchor

Total Tool Length: 157.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC

11-14s-37w Logan,KS

115 S Belmont #12
Wichita, KS 67208

Dawson Trust A #1-11

Job Ticket: 63854

DST#: 2

ATTN: Tim Lauer

Test Start: 2017.07.12 @ 14:55:33

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:

27000 ppm

Viscosity: 66.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
1488.00	water 100%w	20.873
310.00	mcw 90%w 10%m	4.348
310.00	mcw 50%w 50%m	4.348
434.00	w cm 40%w 60%m	6.088

Total Length: 2542.00 ft Total Volume: 35.657 bbl

Num Fluid Samples: 0

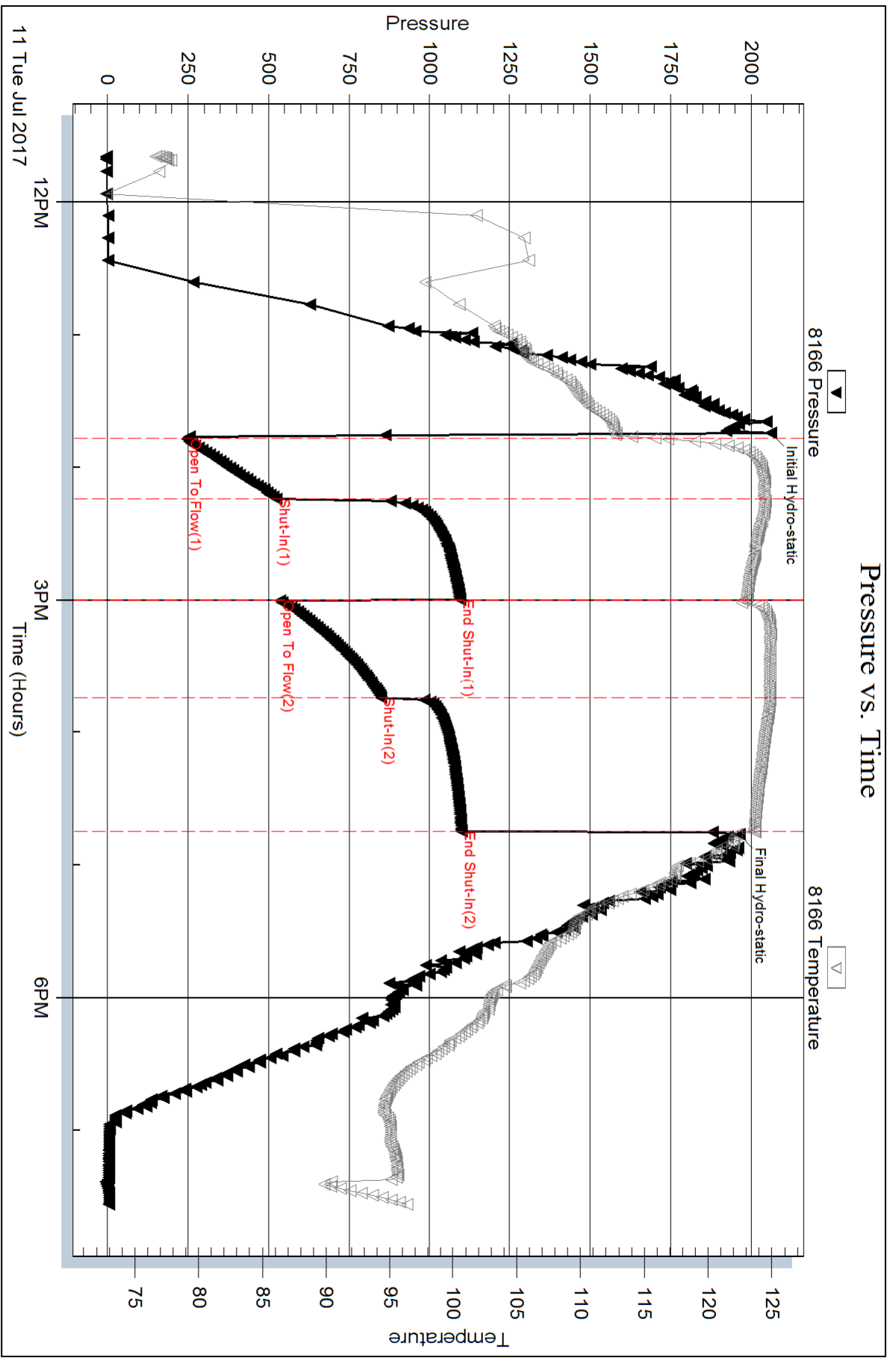
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .22@85=27000



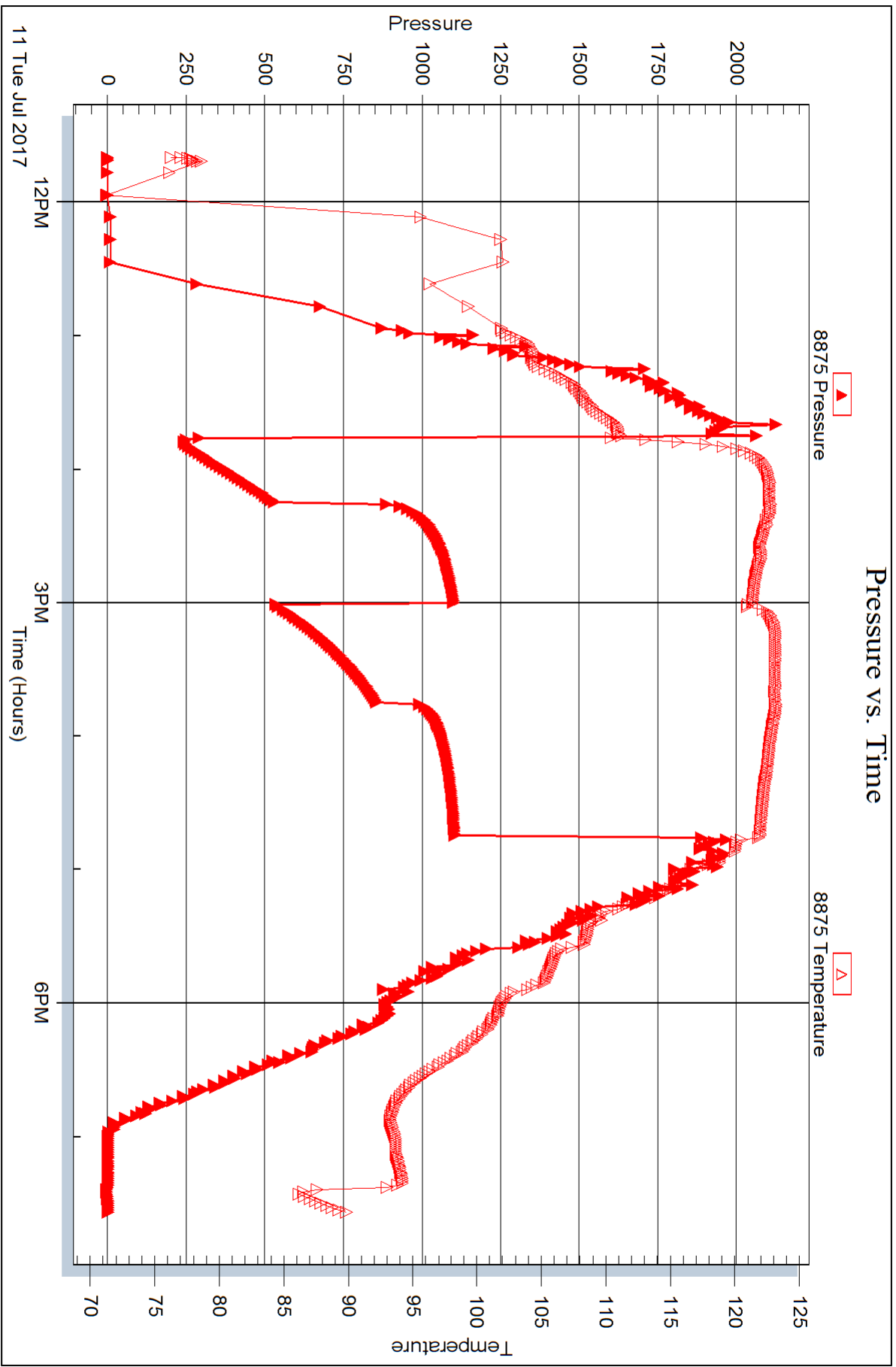
Serial #: 8875

Inside

Cobalt Energy LLC

Dawson Trust A #1-11

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 63854

Printed: 2017.07.17 @ 10:52:49



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **63853**

Well Name & No. Dawson Trust A 1-11 Test No. 1 Date 7-11-10
 Company Cobalt Energy LLC Elevation 3425 ³⁴¹⁹ KB 3407 ³⁴⁰⁸ GL
 Address 115 S Belmont #12 Wichita, KS 67208
 Co. Rep / Geo. Tim Lauer Rig Pickrell #10
 Location: Sec. 11 Twp. 14 Rge. 39 Co. Logan State KS

Interval Tested 4072 4141 Zone Tested Toronto - Lansing A
 Anchor Length 69 Drill Pipe Run 4063 Mud Wt. 9.0
 Top Packer Depth 4067 Drill Collars Run — Vis 68
 Bottom Packer Depth 4072 Wt. Pipe Run — WL 8.8
 Total Depth 4141 Chlorides 5000 ppm System LCM 2
 Blow Description BOB in 2 min.
No return.
BOB in 3 min.
No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>325</u>	<u>mcw</u>		<u>60</u>	<u>40</u>	
<u>310</u>	<u>mcw</u>		<u>90</u>	<u>10</u>	
<u>1302</u>	<u>water</u>		<u>100</u>		
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1937 BHT 123 Gravity — API RW .16 @ 105° F Chlorides 28,000 ppm

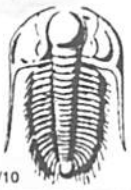
(A) Initial Hydrostatic 2060 Test 1150
 (B) First Initial Flow 249 Jars —
 (C) First Final Flow 525 Safety Joint —
 (D) Initial Shut-In 1096 Circ Sub NLC
 (E) Second Initial Flow 536 Hourly Standby —
 (F) Second Final Flow 849 Mileage 112 84
 (G) Final Shut-In 1101 Sampler —
 (H) Final Hydrostatic 1962 Straddle —
 Shale Packer —
 Extra Packer —
 Extra Recorder —
 Day Standby —
 Accessibility —

T-On Location 9:40
 T-Started 11:39
 T-Open 13:45
 T-Pulled 16:45
 T-Out 19:38

Comments —
 Ruined Shale Packer —
 Ruined Packer —
 Extra Copies —
 Sub Total 0
 Total 1234
 MP/DST Disc't —

Initial Open 30
 Initial Shut-In 45
 Final Flow 45
 Final Shut-In 60
 Sub Total 1234
 Approved By Tim J. Lauer 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.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **63854**

Well Name & No. Dawson Trust A 1-11 Test No. 2 Date 7-12-17
 Company Cobalt Energy Elevation 3414 KB 3408 GL
 Address _____
 Co. Rep / Geo. Tim Lauer Rig Pickrell #10
 Location: Sec. 11 Twp. 14 Rge. 37 Co. Logan State KS

Interval Tested 4141 4278 Zone Tested Lansing C-G
 Anchor Length _____ 137 Drill Pipe Run 4126 Mud Wt. 9.0
 Top Packer Depth _____ 4136 Drill Collars Run _____ Vis 66
 Bottom Packer Depth _____ 4141 Wt. Pipe Run _____ WL 8.0
 Total Depth _____ 4278 Chlorides 6000 ppm System LCM 2
 Blow Description BoB in 1 min.
No return.
BoB in 2 min.
No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>434</u>	<u>wcm</u>		<u>40</u>	<u>60</u>	
<u>310</u>	<u>mcw</u>		<u>56</u>	<u>50</u>	
<u>310</u>	<u>mcw</u>		<u>90</u>	<u>10</u>	
<u>1488</u>	<u>water</u>		<u>100</u>		
____	____				

Rec Total 2542 BHT 123 Gravity _____ API RW .22 @ 85 ° F Chlorides 27,000 ppm
 (A) Initial Hydrostatic 2066 Test 1150 T-On Location 14:45
 (B) First Initial Flow 295 Jars _____ T-Started 14:55
 (C) First Final Flow 900 Safety Joint _____ T-Open 16:30
 (D) Initial Shut-In 1202 Circ Sub NIC T-Pulled 19:30
 (E) Second Initial Flow 912 Hourly Standby _____ T-Out 21:48
 (F) Second Final Flow 1183 Mileage 112 168 Comments logged 7-15-17
 (G) Final Shut-In 1206 Sampler _____ 13:30
 (H) Final Hydrostatic 1983 Straddle _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Initial Open 30 Extra Packer _____
 Initial Shut-In 45 Extra Recorder _____
 Final Flow 45 Day Standby 1.5d 27.75h Sub Total 1600
 Final Shut-In 60 Accessibility _____ Total 2918
 Sub Total 1318 MP/DST Disc't _____

Approved By Tim J. Lauer 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.