



DRILL STEM TEST REPORT

Prepared For: **Abercrombie Energy, LLC**

10209 W. Central STE 2
Wichita, KS 67212

ATTN: Keith Reavis

K-2 Farms #1-17

17-20s-34w Scott,KS

Start Date: 2013.04.18 @ 10:03:00

End Date: 2013.04.18 @ 18:05:00

Job Ticket #: 49168 DST #: 1

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

Printed: 2013.04.29 @ 09:59:36

Abercrombie Energy, LLC
17-20s-34w Scott,KS
K-2 Farms #1-17
DST # 1
LKC "K"
2013.04.18



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Abercrombie Energy, LLC

17-20s-34w Scott, KS

10209 W. Central STE 2
Wichita, KS 67212

K-2 Farms #1-17

Job Ticket: 49168

DST#: 1

ATTN: Keith Reavis

Test Start: 2013.04.18 @ 10:03:00

GENERAL INFORMATION:

Formation: **LKC "K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:04:15

Time Test Ended: 18:05:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Bradley Walter

Unit No: 53

Interval: 4322.00 ft (KB) To 4362.00 ft (KB) (TVD)

Reference Elevations: 3118.00 ft (KB)

Total Depth: 4322.00 ft (KB) (TVD)

3109.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8522 Outside

Press @ Run Depth: 781.19 psig @ 4323.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.18

End Date:

2013.04.18

Last Calib.:

2013.04.18

Start Time: 10:03:05

End Time:

18:04:59

Time On Btm:

2013.04.18 @ 13:03:45

Time Off Btm:

2013.04.18 @ 15:41:45

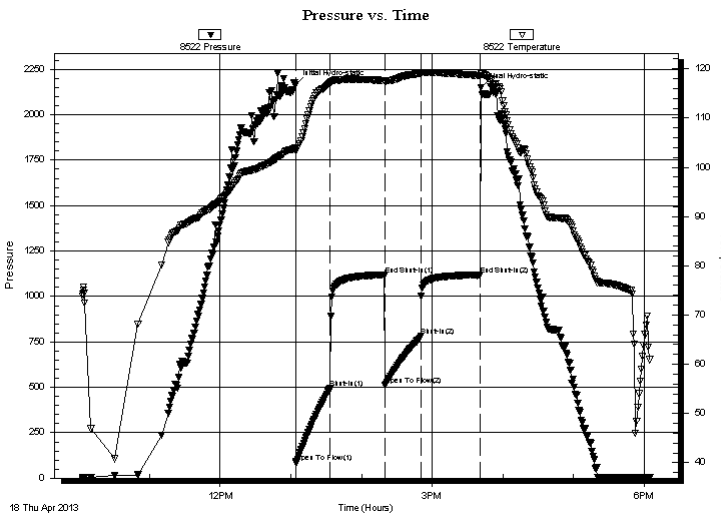
TEST COMMENT: IF: BOB @ 1 3/4 min.

IS: No return.

FF: BOB @ 3 min.

FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2166.12	103.89	Initial Hydro-static
1	84.71	103.38	Open To Flow (1)
30	495.46	117.10	Shut-In(1)
76	1118.06	117.57	End Shut-In(1)
76	509.36	117.32	Open To Flow (2)
107	781.19	119.03	Shut-In(2)
158	1119.31	118.60	End Shut-In(2)
158	2148.34	118.92	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1620.00	mcw 5m 95w (Oil specs on top)	15.96

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Abercrombie Energy, LLC

17-20s-34w Scott,KS

10209 W. Central STE 2
Wichita, KS 67212

K-2 Farms #1-17

Job Ticket: 49168

DST#: 1

ATTN: Keith Reavis

Test Start: 2013.04.18 @ 10:03:00

Tool Information

Drill Pipe:	Length: 4288.00 ft	Diameter: 3.20 inches	Volume: 42.65 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 82000.00 lb
			<u>Total Volume: 42.80 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4322.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	40.00 ft			
Tool Length:	67.00 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			4296.00	
Shut In Tool	5.00			4301.00	
Hydraulic tool	5.00			4306.00	
Jars	5.00			4311.00	
Safety Joint	2.00			4313.00	
Packer	5.00			4318.00	27.00 Bottom Of Top Packer
Packer	4.00			4322.00	
Stubb	1.00			4323.00	
Recorder	0.00	8677	Inside	4323.00	
Recorder	0.00	8522	Outside	4323.00	
Perforations	3.00			4326.00	
Change Over Sub	1.00			4327.00	
Drill Pipe	31.00			4358.00	
Change Over Sub	1.00			4359.00	
Bullnose	3.00			4362.00	40.00 Bottom Packers & Anchor

Total Tool Length: 67.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Abercrombie Energy, LLC

17-20s-34w Scott, KS

10209 W. Central STE 2
Wichita, KS 67212

K-2 Farms #1-17

Job Ticket: 49168

DST#: 1

ATTN: Keith Reavis

Test Start: 2013.04.18 @ 10:03:00

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:

49000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.38 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1620.00	mcw 5m 95w (Oil specs on top)	15.964

Total Length: 1620.00 ft Total Volume: 15.964 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .180 @ 59F = 49,000ppm

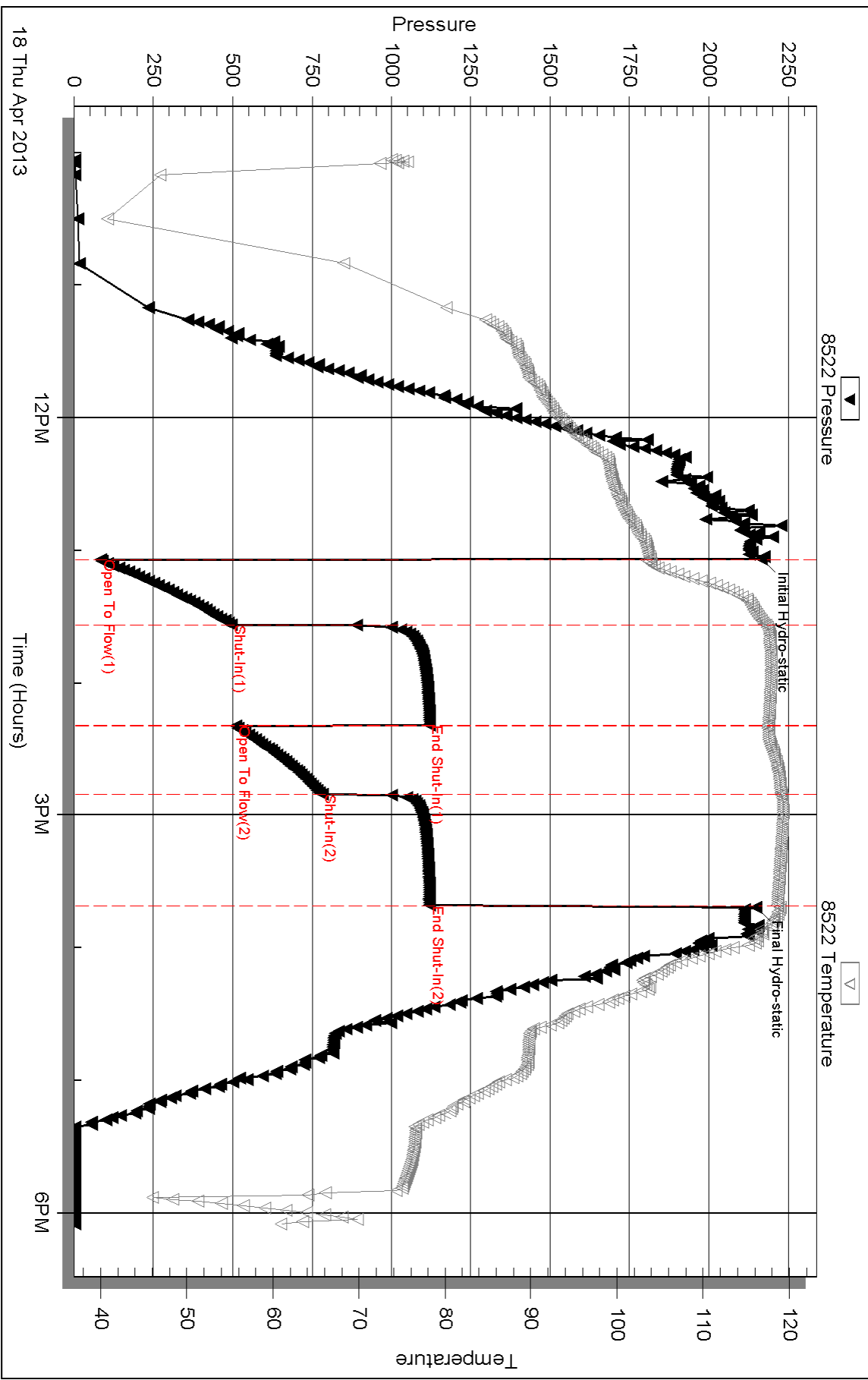
Serial #: 8522

Outside Abercrombie Energy, LLC

K-2 Farms #1-17

DST Test Number: 1

Pressure vs. Time



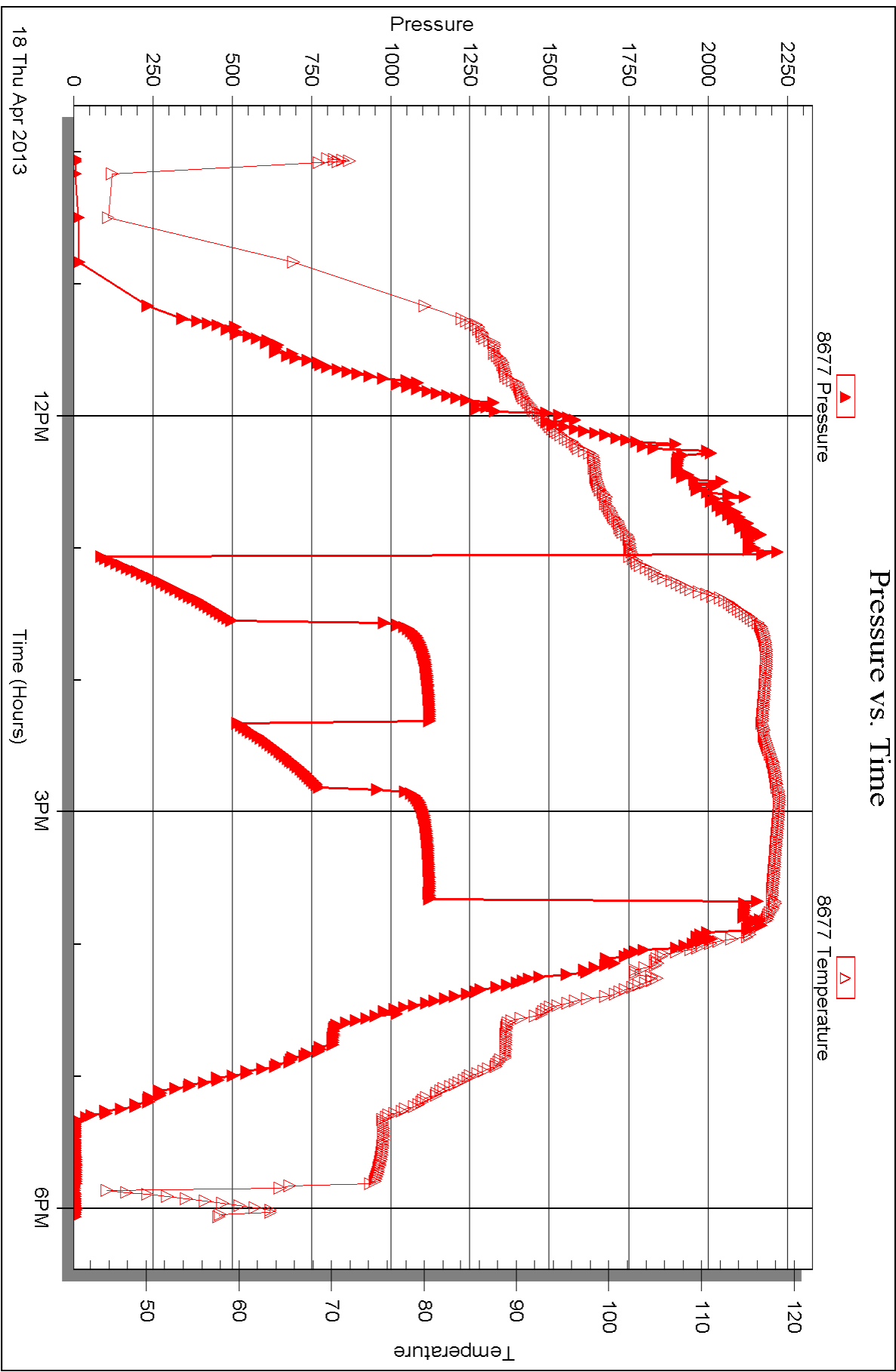
Serial #: 8677

Inside

Abercrombie Energy, LLC

K-2 Farms #1-17

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Abercrombie Energy, LLC**

10209 W. Central STE 2
Wichita, KS 67212

ATTN: Keith Reavis

K-2 Farms #1-17

17-20s-34w Scott,KS

Start Date: 2013.04.19 @ 15:55:00

End Date: 2013.04.19 @ 23:57:30

Job Ticket #: 49169 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.04.29 @ 09:58:46



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Abercrombie Energy, LLC

17-20s-34w Scott, KS

10209 W. Central STE 2
Wichita, KS 67212

K-2 Farms #1-17

ATTN: Keith Reavis

Job Ticket: 49169

DST#: 2

Test Start: 2013.04.19 @ 15:55:00

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:13:15

Time Test Ended: 23:57:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 53

Interval: 4515.00 ft (KB) To 4541.00 ft (KB) (TVD)

Reference Elevations: 3118.00 ft (KB)

Total Depth: 4541.00 ft (KB) (TVD)

3109.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8522 Outside

Press @ Run Depth: 109.25 psig @ 4516.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.19

End Date:

2013.04.19

Last Calib.: 2013.04.19

Start Time: 15:55:05

End Time:

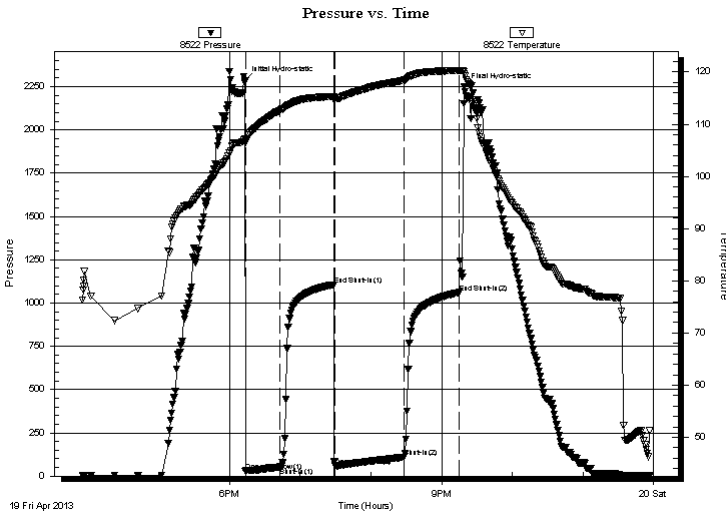
23:57:29

Time On Btm: 2013.04.19 @ 18:13:00

Time Off Btm: 2013.04.19 @ 21:19:15

TEST COMMENT: IF: BOB @ 8 min.
IS: 5" return.
FF: BOB @ 5 min.
FS: 3" return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2286.01	107.14	Initial Hydro-static
1	26.68	106.47	Open To Flow (1)
30	53.38	112.63	Shut-In(1)
76	1105.99	115.30	End Shut-In(1)
77	58.52	115.01	Open To Flow (2)
135	109.25	118.43	Shut-In(2)
182	1060.41	120.24	End Shut-In(2)
187	2246.95	119.57	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	gmco 35g 15m 50o	1.04
115.00	gsmco 35g 5m 60o	1.14
0.00	1150 GIP	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Abercrombie Energy, LLC

17-20s-34w Scott,KS

10209 W. Central STE 2
Wichita, KS 67212

K-2 Farms #1-17

Job Ticket: 49169

DST#: 2

ATTN: Keith Reavis

Test Start: 2013.04.19 @ 15:55:00

Tool Information

Drill Pipe:	Length: 4475.00 ft	Diameter: 3.20 inches	Volume: 44.51 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 44.66 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 61000.00 lb
Depth to Top Packer:	4515.00 ft			Final 63000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.00 ft			
Tool Length:	53.00 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			4489.00	
Shut In Tool	5.00			4494.00	
Hydraulic tool	5.00			4499.00	
Jars	5.00			4504.00	
Safety Joint	2.00			4506.00	
Packer	5.00			4511.00	27.00 Bottom Of Top Packer
Packer	4.00			4515.00	
Stubb	1.00			4516.00	
Recorder	0.00	8677	Inside	4516.00	
Recorder	0.00	8522	Outside	4516.00	
Perforations	22.00			4538.00	
Bullnose	3.00			4541.00	26.00 Bottom Packers & Anchor

Total Tool Length: 53.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Abercrombie Energy, LLC

17-20s-34w Scott,KS

10209 W. Central STE 2
Wichita, KS 67212

K-2 Farms #1-17

Job Ticket: 49169

DST#: 2

ATTN: Keith Reavis

Test Start: 2013.04.19 @ 15:55:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 50.00 sec/qt
Water Loss: 6.38 in³
Resistivity: ohm.m
Salinity: 7000.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: 30 deg API
Water Salinity: 0 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	gmco 35g 15m 50o	1.043
115.00	gsmco 35g 5m 60o	1.144
0.00	1150 GIP	0.000

Total Length: 235.00 ft Total Volume: 2.187 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

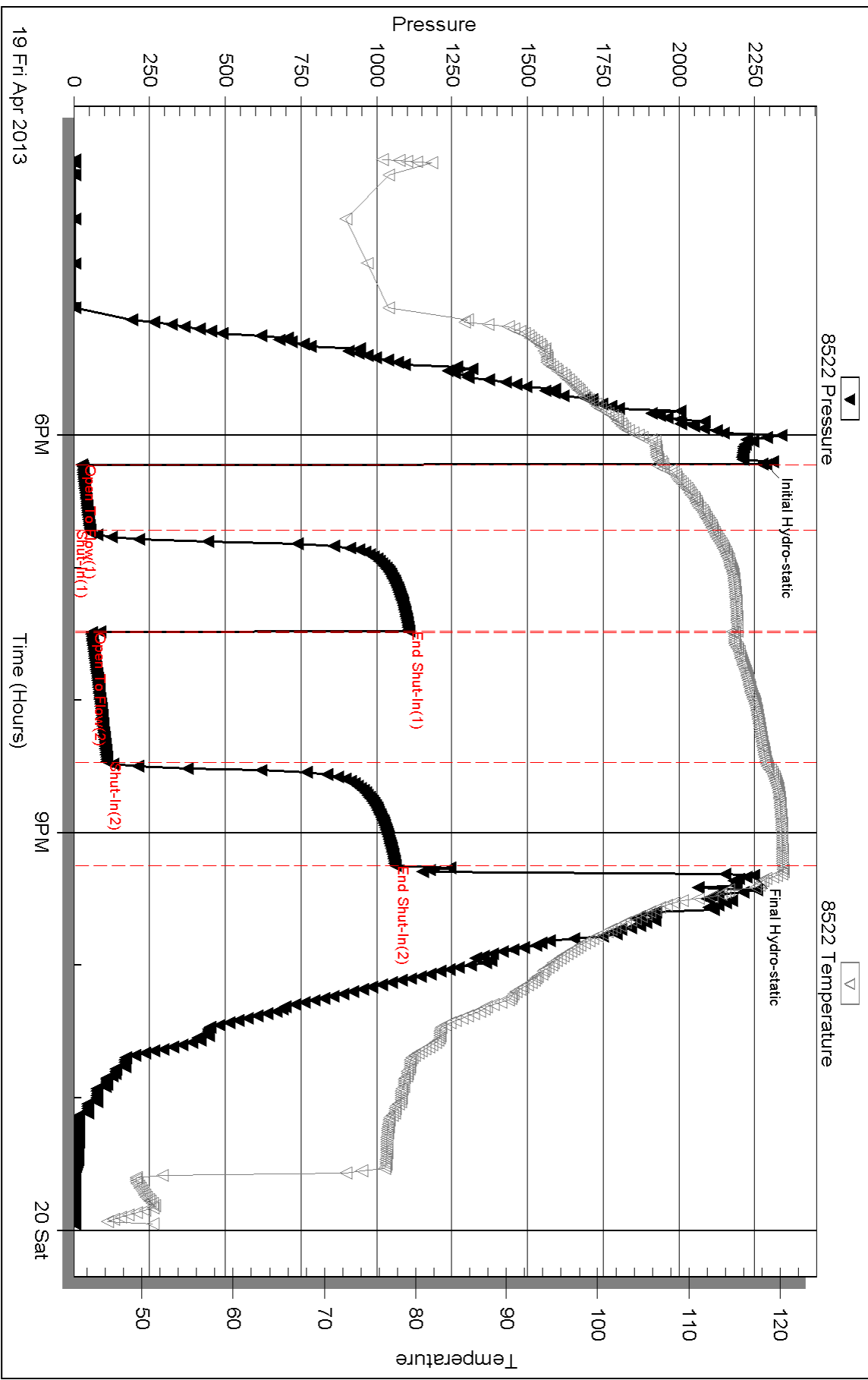
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



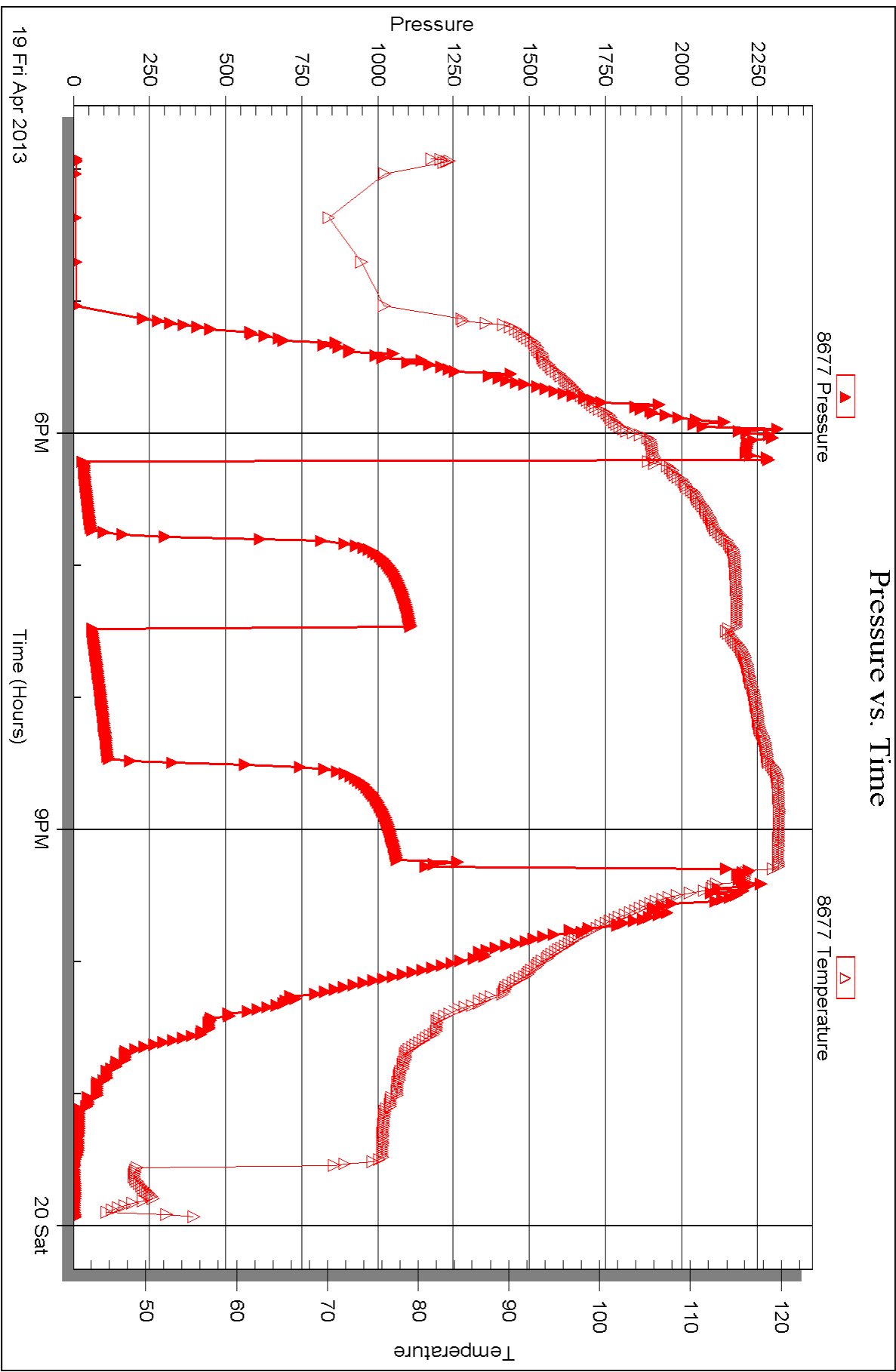
Serial #: 8677

Inside

Abercrombie Energy, LLC

K-2 Farms #1-17

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Abercrombie Energy, LLC**

10209 W. Central STE 2
Wichita, KS 67212

ATTN: Keith Reavis

K-2 Farms #1-17

17-20s-34w Scott,KS

Start Date: 2013.04.20 @ 08:23:00

End Date: 2013.04.20 @ 16:00:00

Job Ticket #: 49170 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.04.29 @ 09:57:58



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Abercrombie Energy, LLC

17-20s-34w Scott, KS

10209 W. Central STE 2
Wichita, KS 67212

K-2 Farms #1-17

Job Ticket: 49170

DST#: 3

ATTN: Keith Reavis

Test Start: 2013.04.20 @ 08:23:00

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:50:45

Time Test Ended: 16:00:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 53

Interval: 4552.00 ft (KB) To 4574.00 ft (KB) (TVD)

Reference Elevations: 3118.00 ft (KB)

Total Depth: 4574.00 ft (KB) (TVD)

3109.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8522 Outside

Press @ Run Depth: 44.29 psig @ 4543.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.20

End Date: 2013.04.20

Last Calib.: 2013.04.20

Start Time: 08:23:05

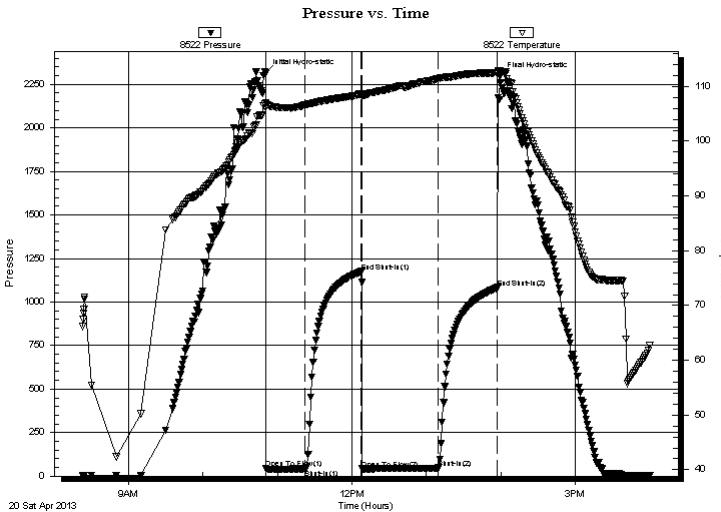
End Time: 15:59:59

Time On Btm: 2013.04.20 @ 10:50:30

Time Off Btm: 2013.04.20 @ 13:59:00

TEST COMMENT: IF: 1 1/2" blow .
IS: No return.
FF: Surface blow .
FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2314.37	106.93	Initial Hydro-static
1	43.75	106.14	Open To Flow (1)
32	40.97	106.69	Shut-In(1)
77	1174.47	108.64	End Shut-In(1)
78	41.84	108.32	Open To Flow (2)
139	44.29	111.40	Shut-In(2)
187	1082.99	112.49	End Shut-In(2)
189	2294.55	112.92	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	Mud 100m (oil spots)	0.35

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Abercrombie Energy, LLC

17-20s-34w Scott,KS

10209 W. Central STE 2
Wichita, KS 67212

K-2 Farms #1-17

Job Ticket: 49170

DST#: 3

ATTN: Keith Reavis

Test Start: 2013.04.20 @ 08:23:00

Tool Information

Drill Pipe:	Length: 4506.00 ft	Diameter: 3.20 inches	Volume: 44.82 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 72000.00 lb
			<u>Total Volume: 44.97 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 61000.00 lb
Depth to Top Packer:	4542.00 ft			Final 61000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	32.00 ft			
Tool Length:	54.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4521.00	
Shut In Tool	5.00			4526.00	
Hydraulic tool	5.00			4531.00	
Jars	5.00			4536.00	
Safety Joint	2.00			4538.00	
Packer	4.00			4542.00	22.00 Bottom Of Top Packer
Stubb	1.00			4543.00	
Recorder	0.00	8677	Inside	4543.00	
Recorder	0.00	8522	Outside	4543.00	
Perforations	28.00			4571.00	
Bullnose	3.00			4574.00	32.00 Anchor Tool

Total Tool Length: 54.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Abercrombie Energy, LLC

17-20s-34w Scott, KS

10209 W. Central STE 2
Wichita, KS 67212

K-2 Farms #1-17

Job Ticket: 49170

DST#: 3

ATTN: Keith Reavis

Test Start: 2013.04.20 @ 08:23:00

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: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
50.00	Mud 100m (oil spots)	0.346

Total Length: 50.00 ft Total Volume: 0.346 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

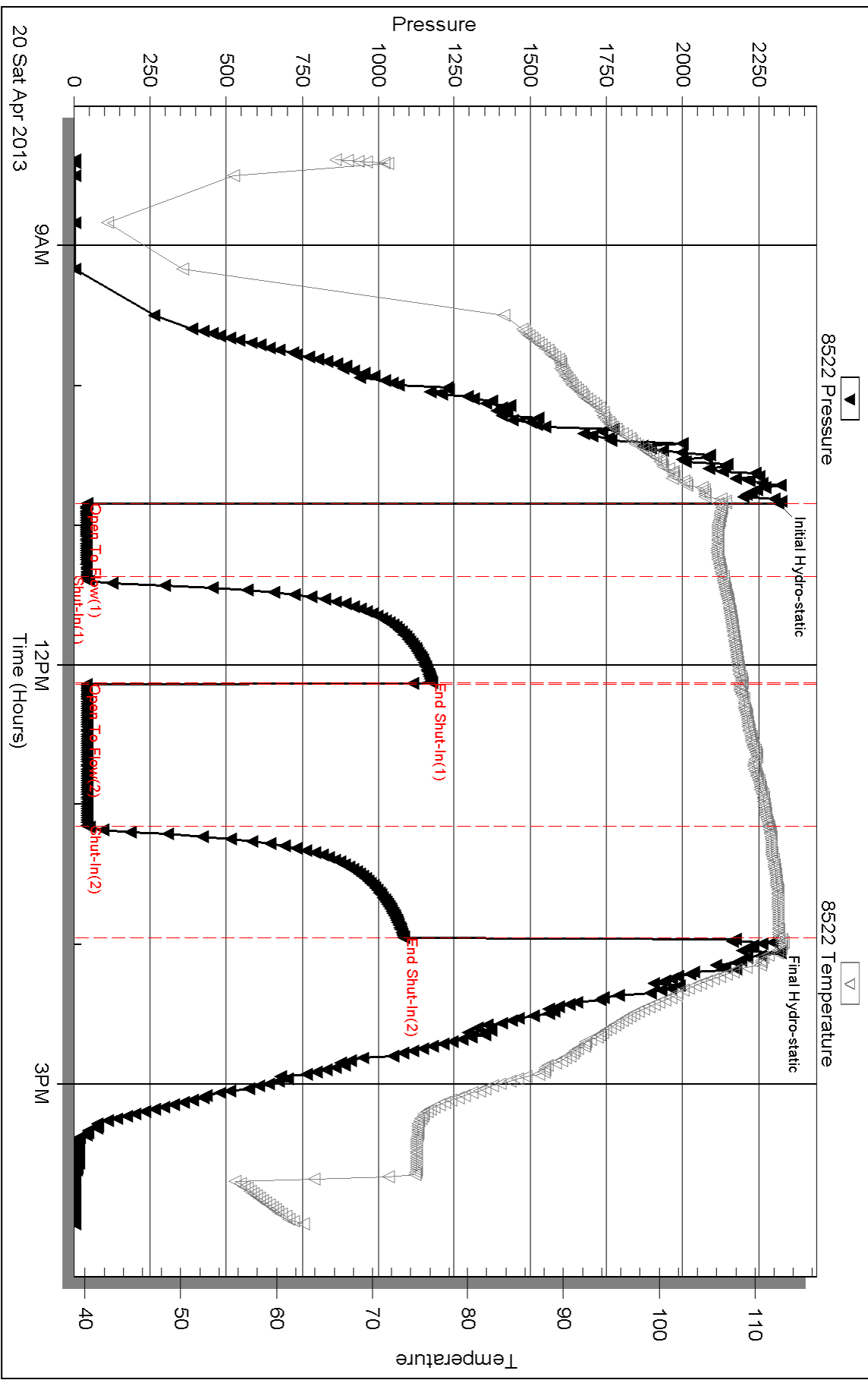
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



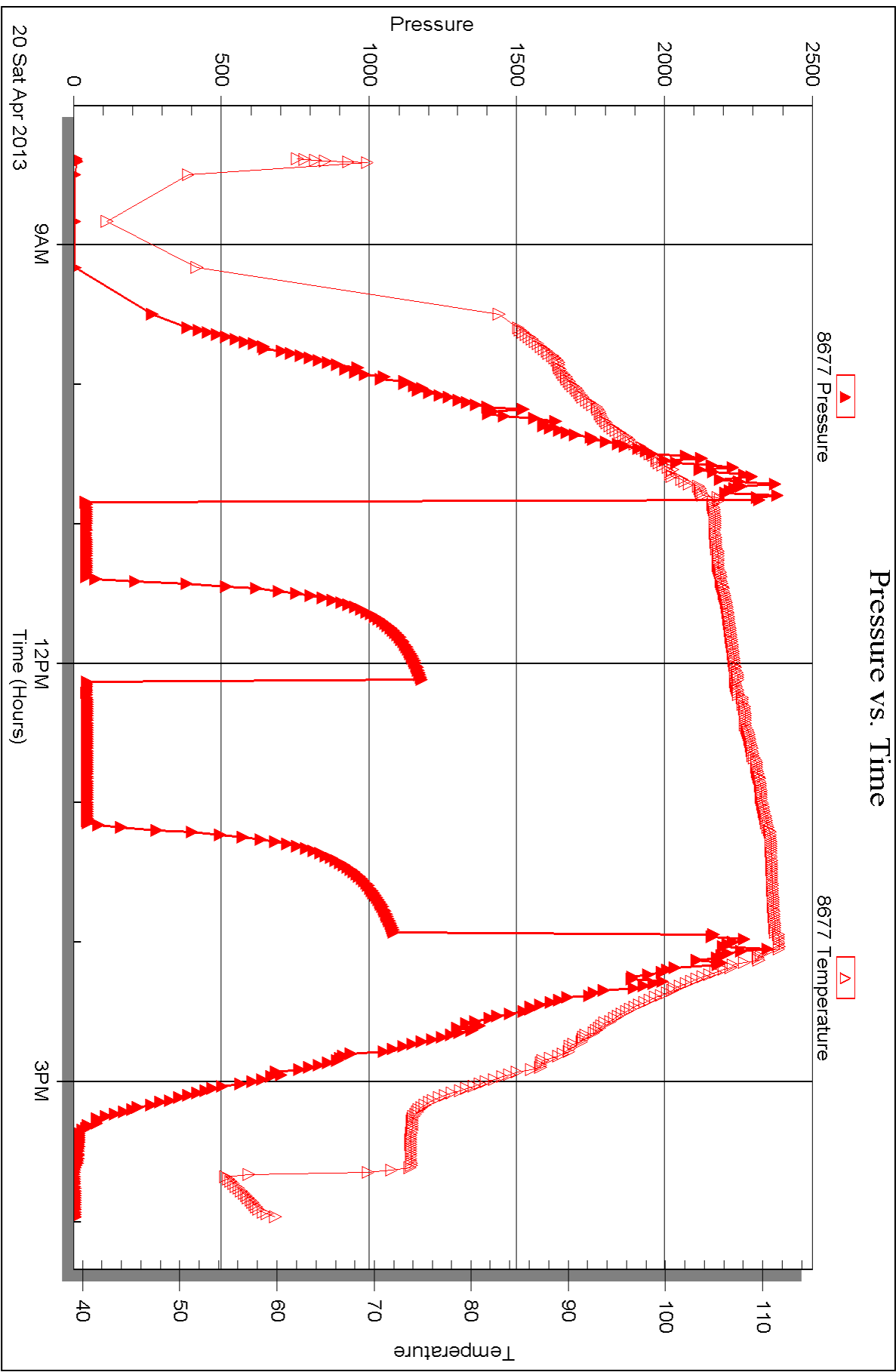
Serial #: 8677

Inside

Abercrombie Energy, LLC

K-2 Farms #1-17

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Abercrombie Energy, LLC**

10209 W. Central STE 2
Wichita, KS 67212

ATTN: Keith Reavis

K-2 Farms #1-17

17-20s-34w Scott,KS

Start Date: 2013.04.21 @ 01:32:00

End Date: 2013.04.21 @ 08:38:30

Job Ticket #: 49171 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.04.29 @ 09:57:01



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Abercrombie Energy, LLC

17-20s-34w Scott, KS

10209 W. Central STE 2
Wichita, KS 67212

K-2 Farms #1-17

Job Ticket: 49171

DST#: 4

ATTN: Keith Reavis

Test Start: 2013.04.21 @ 01:32:00

GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:49:45

Time Test Ended: 08:38:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 53

Interval: 4578.00 ft (KB) To 4607.00 ft (KB) (TVD)

Reference Elevations: 3118.00 ft (KB)

Total Depth: 4607.00 ft (KB) (TVD)

3109.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8522 Outside

Press @ RunDepth: 41.50 psig @ 4579.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.21

End Date:

2013.04.21

Last Calib.:

2013.04.21

Start Time: 01:32:05

End Time:

08:38:29

Time On Btm:

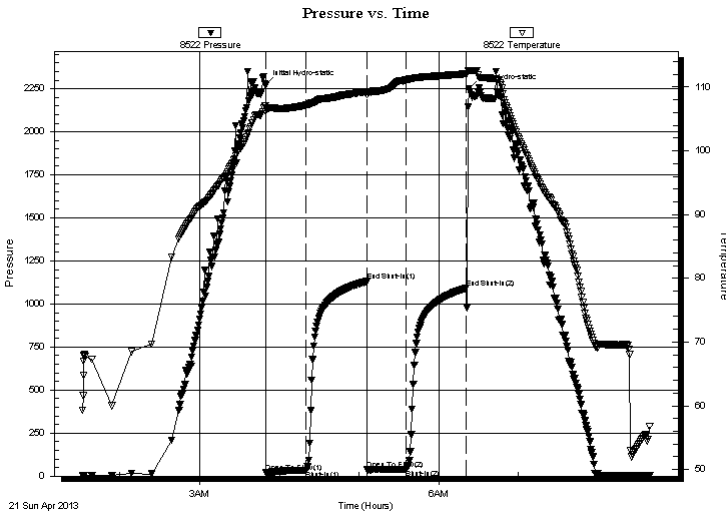
2013.04.21 @ 03:49:30

Time Off Btm:

2013.04.21 @ 06:22:45

TEST COMMENT: IF: 1" blow .
IS: No return.
FF: No blow .
FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2271.24	107.10	Initial Hydro-static
1	21.53	106.16	Open To Flow (1)
31	35.22	107.18	Shut-In(1)
77	1131.25	109.28	End Shut-In(1)
77	37.03	108.78	Open To Flow (2)
106	41.50	111.11	Shut-In(2)
151	1091.20	112.11	End Shut-In(2)
154	2249.40	112.62	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
45.00	Mud 100m (oil spots)	0.30

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Abercrombie Energy, LLC

17-20s-34w Scott, KS

10209 W. Central STE 2
Wichita, KS 67212

K-2 Farms #1-17

Job Ticket: 49171

DST#: 4

ATTN: Keith Reavis

Test Start: 2013.04.21 @ 01:32:00

Tool Information

Drill Pipe:	Length: 4536.00 ft	Diameter: 3.20 inches	Volume: 45.12 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 45.27 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4578.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	29.00 ft			
Tool Length:	56.00 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			4552.00	
Shut In Tool	5.00			4557.00	
Hydraulic tool	5.00			4562.00	
Jars	5.00			4567.00	
Safety Joint	2.00			4569.00	
Packer	5.00			4574.00	27.00 Bottom Of Top Packer
Packer	4.00			4578.00	
Stubb	1.00			4579.00	
Recorder	0.00	8677	Inside	4579.00	
Recorder	0.00	8522	Outside	4579.00	
Perforations	25.00			4604.00	
Bullnose	3.00			4607.00	29.00 Bottom Packers & Anchor

Total Tool Length: 56.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Abercrombie Energy, LLC

17-20s-34w Scott, KS

10209 W. Central STE 2
Wichita, KS 67212

K-2 Farms #1-17

Job Ticket: 49171

DST#: 4

ATTN: Keith Reavis

Test Start: 2013.04.21 @ 01:32:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 42.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 9000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	Mud 100m (oil spots)	0.297

Total Length: 45.00 ft Total Volume: 0.297 bbl

Num Fluid Samples: 0

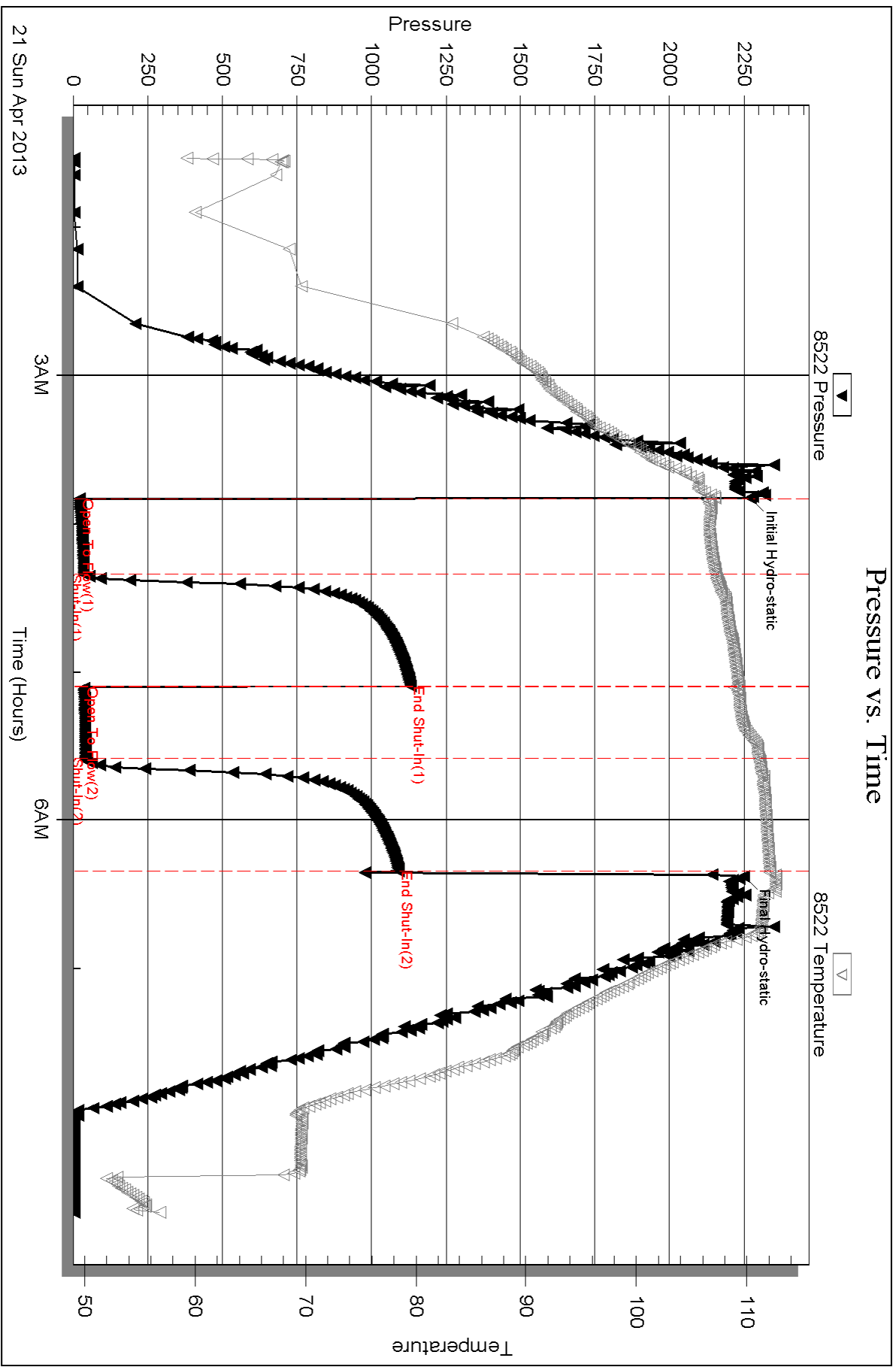
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



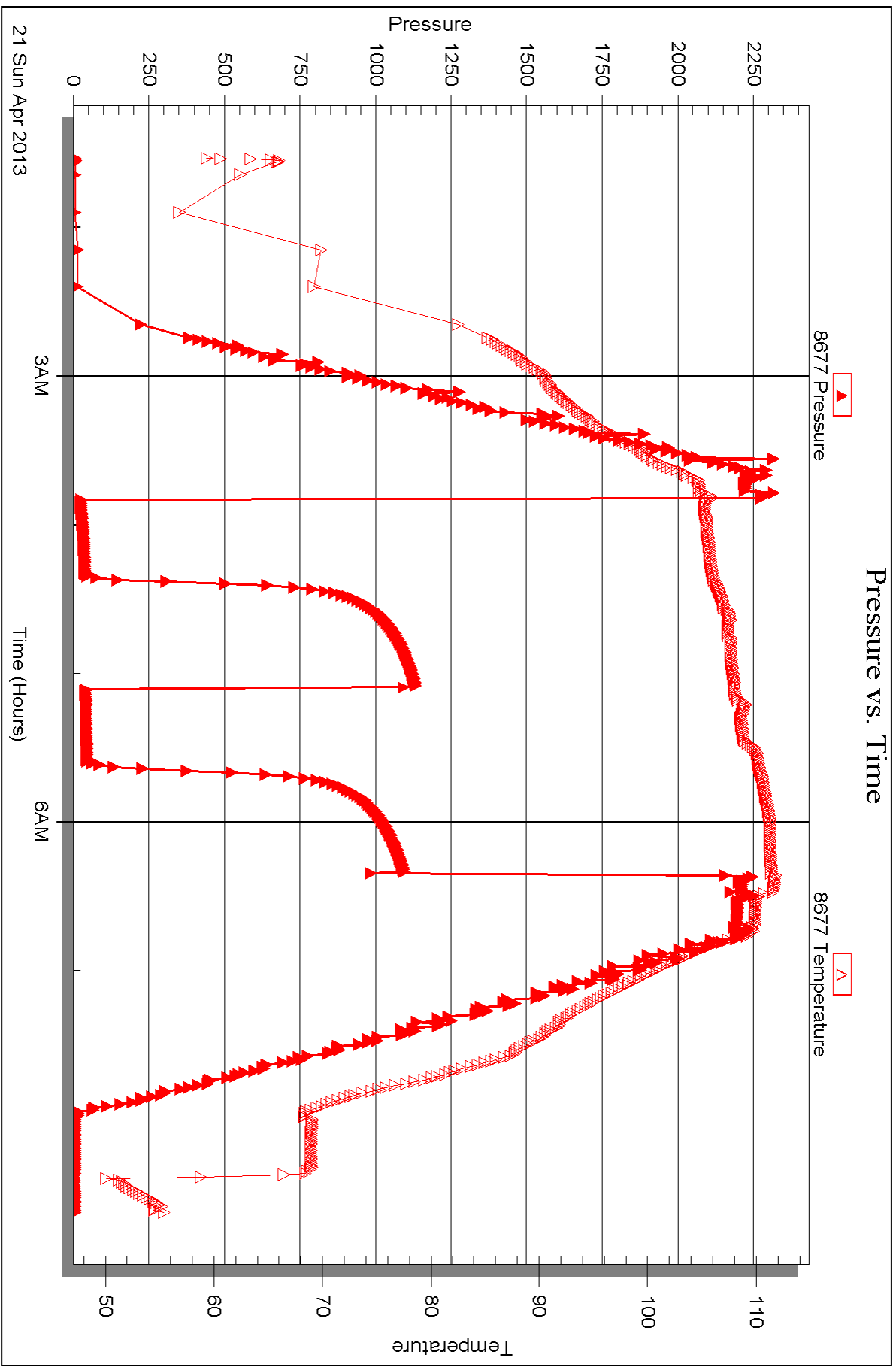
Serial #: 8677

Inside

Abercrombie Energy, LLC

K-2 Farms #1-17

DST Test Number: 4





DRILL STEM TEST REPORT

Prepared For: **Abercrombie Energy, LLC**

10209 W. Central STE 2
Wichita, KS 67212

ATTN: Keith Reavis

K-2 Farms #1-17

17-20s-34w Scott,KS

Start Date: 2013.04.21 @ 16:33:00

End Date: 2013.04.21 @ 23:21:15

Job Ticket #: 49172 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.04.29 @ 09:50:35



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Abercrombie Energy, LLC

17-20s-34w Scott,KS

10209 W. Central STE 2
Wichita, KS 67212

K-2 Farms #1-17

ATTN: Keith Reavis

Job Ticket: 49172

DST#: 5

Test Start: 2013.04.21 @ 16:33:00

GENERAL INFORMATION:

Formation: **Ft Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:48:45

Time Test Ended: 23:21:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 53

Interval: 4607.00 ft (KB) To 4630.00 ft (KB) (TVD)

Reference Elevations: 3118.00 ft (KB)

Total Depth: 4630.00 ft (KB) (TVD)

3109.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8522 Outside

Press @ Run Depth: 34.12 psig @ 4608.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.21

End Date:

2013.04.21

Last Calib.: 2013.04.21

Start Time: 16:33:05

End Time:

23:21:14

Time On Btm: 2013.04.21 @ 18:48:30

Time Off Btm: 2013.04.21 @ 21:05:45

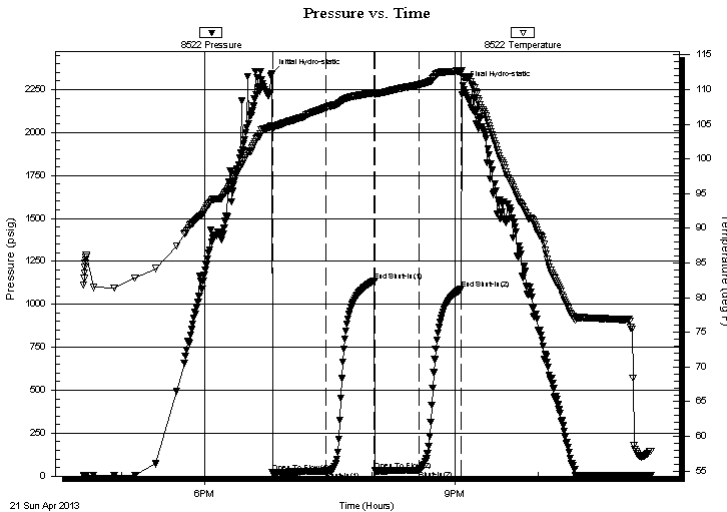
TEST COMMENT: IF: No blow , Flushed tool, Surge died.

IS: No return.

FF: No blow .

FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2341.33	104.80	Initial Hydro-static
1	20.14	104.20	Open To Flow (1)
39	29.24	107.40	Shut-In(1)
74	1137.42	109.54	End Shut-In(1)
74	32.21	109.29	Open To Flow (2)
106	34.12	110.71	Shut-In(2)
136	1087.60	112.69	End Shut-In(2)
138	2274.70	111.75	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	w cm 30w 70m (oil spots)	0.10

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Abercrombie Energy, LLC

17-20s-34w Scott,KS

10209 W. Central STE 2
Wichita, KS 67212

K-2 Farms #1-17

Job Ticket: 49172

DST#: 5

ATTN: Keith Reavis

Test Start: 2013.04.21 @ 16:33:00

Tool Information

Drill Pipe:	Length: 4570.00 ft	Diameter: 3.20 inches	Volume: 45.46 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 72000.00 lb
			<u>Total Volume: 45.61 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4607.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	23.00 ft			
Tool Length:	50.00 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			4581.00	
Shut In Tool	5.00			4586.00	
Hydraulic tool	5.00			4591.00	
Jars	5.00			4596.00	
Safety Joint	2.00			4598.00	
Packer	5.00			4603.00	27.00 Bottom Of Top Packer
Packer	4.00			4607.00	
Stubb	1.00			4608.00	
Recorder	0.00	8677	Inside	4608.00	
Recorder	0.00	8522	Outside	4608.00	
Perforations	19.00			4627.00	
Bullnose	3.00			4630.00	23.00 Bottom Packers & Anchor

Total Tool Length: 50.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Abercrombie Energy, LLC

17-20s-34w Scott, KS

10209 W. Central STE 2
Wichita, KS 67212

K-2 Farms #1-17

Job Ticket: 49172

DST#: 5

ATTN: Keith Reavis

Test Start: 2013.04.21 @ 16:33:00

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:

34000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	w cm 30w 70m (oil spots)	0.098

Total Length: 20.00 ft Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

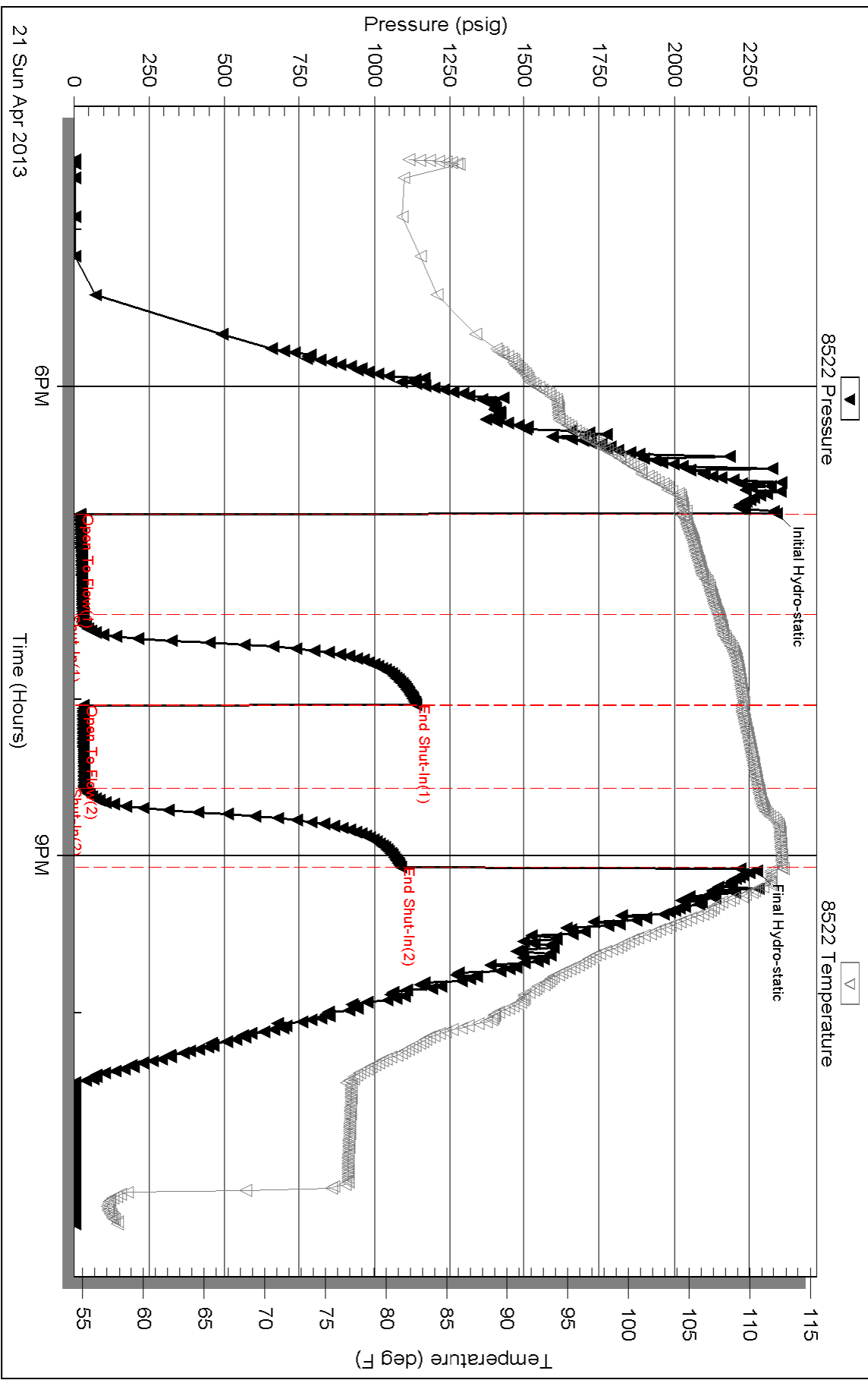
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .238 @ 58F = 34000ppm

Pressure vs. Time



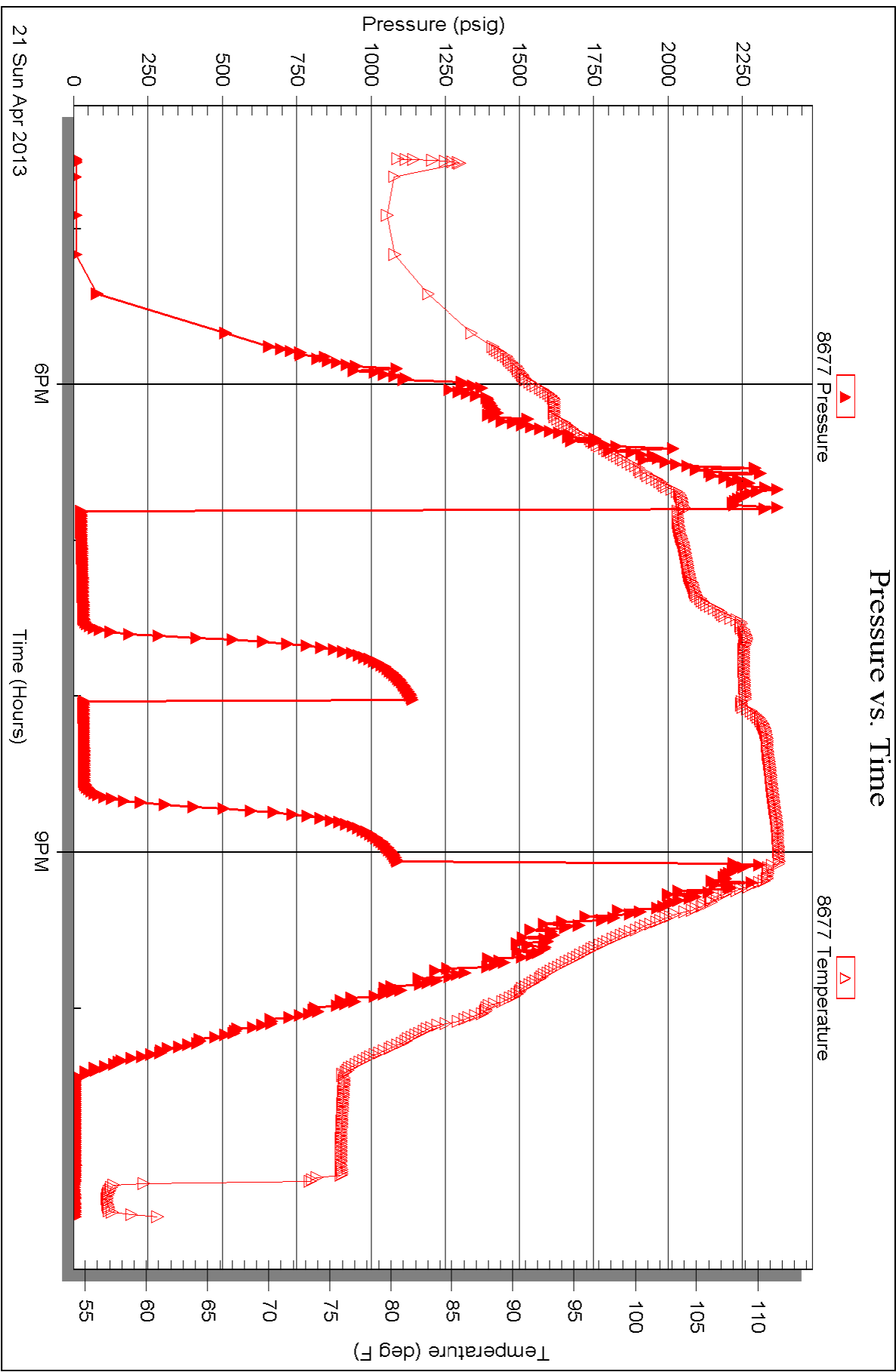
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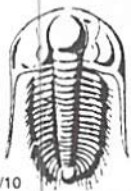
Inside

Abercrombie Energy, LLC

K-2 Farms #1-17

DST Test Number: 5





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 49168

Well Name & No. Abercrombie K-2 Farms 1-17 Test No. 1 Date 4/18/13
 Company Abercrombie Energy, LLC Elevation 3118 KB 3109 GL
 Address 10209 W. Central STE 2
 Co. Rep / Geo. Keith Reavis Rig Val #4
 Location: Sec. 17 Twp. 20s Rge. 34w Co. Scott State Ks

Interval Tested 4322 4362 Zone Tested LKC K
 Anchor Length 40 Drill Pipe Run 4288 Mud Wt. 9.3
 Top Packer Depth 4317 Drill Collars Run 30 Vis 53
 Bottom Packer Depth 4322 Wt. Pipe Run Ø WL 6.4
 Total Depth 4362 Chlorides 5800 ppm System LCM 2#
 Blow Description IF: BOB @ 1 1/4 min.
ISI: No return
FF: BOB @ 3 min.
FST: No return.

Rec	Feet of	%gas	%oil	%water	%mud
2205	Water SMCW			100 <u>95</u>	5
1620	MCW (oil specs on top)			95	5

Rec Total 2205 BHT 119 Gravity — API RW 180 @ 54 ° F Chlorides 49,000 ppm

(A) Initial Hydrostatic <u>1620</u> <u>2166</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>0830</u>
(B) First Initial Flow <u>65</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>1003</u>
(C) First Final Flow <u>495</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>1303</u>
(D) Initial Shut-In <u>1118</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>1533</u>
(E) Second Initial Flow <u>509</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1805</u>
(F) Second Final Flow <u>781</u>	<input checked="" type="checkbox"/> Mileage <u>43 RT</u> 66.65	Comments
(G) Final Shut-In <u>1119</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2148</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1641.65</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1641.65</u>	

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 49169

Well Name & No. K-2 Farms 1-17 Test No. 2 Date 4/19/13
 Company Abarcrombie Energy, LLC Elevation 3118 KB 3109 GL
 Address 10209 W. Central STE 2 Wichita, Ks 67212
 Co. Rep / Geo. Keith Rawlis Rig VAL #4
 Location: Sec. 17 Twp. 20 S Rge. 34 W Co. Scott State Ks

Interval Tested 4515 - 4541 Zone Tested Marmaton
 Anchor Length 26 Drill Pipe Run 4475 Mud Wt. 9.4
 Top Packer Depth 4510 Drill Collars Run 30 Vis 50
 Bottom Packer Depth 4515 Wt. Pipe Run Ø WL 6.4
 Total Depth 4541 Chlorides 7,000 ppm System LCM 1#
 Blow Description IF: BOB@ 2 min
ISI: 5" return.
FF: BOB@ 5 min
FSI: 3" Return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>115</u>	<u>GSMCO</u>	<u>35</u>	<u>60</u>	<u>5</u>	<u>0</u>
<u>120</u>	<u>G MCO</u>	<u>35</u>	<u>50</u>	<u>15</u>	<u>0</u>
<u> </u>	<u>1150 GIP</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Rec Total 235 BHT 120 Gravity 30 API RW @ °F Chlorides ppm

(A) Initial Hydrostatic 2286 Test 1250 T-On Location 1500
 (B) First Initial Flow 27 Jars 250 T-Started 1553
 (C) First Final Flow 53 Safety Joint 75 T-Open 1812
 (D) Initial Shut-In 1106 Circ Sub N/C T-Pulled 2112
 (E) Second Initial Flow 59 Hourly Standby T-Out
 (F) Second Final Flow 109 Mileage 43 R/T 66.65 Comments
 (G) Final Shut-In 1060 Sampler
 (H) Final Hydrostatic 2247 Straddle Ruined Shale Packer
 Shale Packer Ruined Packer
 Extra Packer Extra Copies
 Extra Recorder Sub Total 0
 Day Standby Total 1641.65
 Accessibility MP/DST Disc't
 Sub Total 1641.65

Approved By Keith Rawlis 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.

TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

NO. 49170

Well Name & No. K-2 Farms 1-17 Test No. 3 Date 4/20/13
 Company Abercrombie Energy, LLC Elevation 3118 KB 3109 GL
 Address ~~Keith Reavis~~ 10209 W. Central STE 2 Wichita, Ks 67212
 Co. Rep / Geo. Keith Reavis Rig VAL #4
 Location: Sec. 17 Twp. 20s Rge. 34w Co. Scott State Ks

Interval Tested 4542 4574 Zone Tested Marmaton
 Anchor Length 32 Drill Pipe Run 4506 Mud Wt. 9.4
 Top Packer Depth 4542 Drill Collars Run 30 Vis 50
 Bottom Packer Depth — Wt. Pipe Run 0 WL 6.4
 Total Depth 4574 Chlorides 7000 ppm System LCM 7000
 Blow Description IF: 1 1/2" blow
ISI: No return.
FF: Surface blow
FSI: No Return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>50</u>	<u>MUD (oil spots)</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 50 BHT 113 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2314</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>0745</u>
(B) First Initial Flow <u>44</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0823</u>
(C) First Final Flow <u>41</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1052</u>
(D) Initial Shut-In <u>1174</u>	<input checked="" type="checkbox"/> Circ Sub <u>NE</u>	T-Pulled <u>1352</u>
(E) Second Initial Flow <u>42</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1600</u>
(F) Second Final Flow <u>44</u>	<input checked="" type="checkbox"/> Mileage <u>43 RT</u> <u>66.65</u>	Comments
(G) Final Shut-In <u>1083</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2295</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</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>60</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Day Standby	Total <u>1641.65</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1641.65</u>	

Approved By _____ Our Representative [Signature]
 Triobite 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. 49171

Well Name & No. K-2 Farms 1-17 Test No. 4 Date 4/21/13
 Company Abercrombe Energy, LLC Elevation 3118 KB 3109 GL
 Address 10209 W Central STE #2 Wichita, KS 67212
 Co. Rep / Geo. Keith Reavis Rig VAL #4
 Location: Sec. 17 Twp. 20S Rge. 34W Co. Scott State Ks

Interval Tested 4578 - 4607 Zone Tested Pawnee
 Anchor Length 29 Drill Pipe Run 4536 Mud Wt. 9.5
 Top Packer Depth 4573 Drill Collars Run 30 Vis 42
 Bottom Packer Depth 4578 Wt. Pipe Run Ø WL 80
 Total Depth 4607 Chlorides 9,000 ppm System LCM 2#
 Blow Description IF: 1" blow
ISI: No Return.
FF: No blow
FSI: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>45</u>	<u>MUD (OIL 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	Feet of	%gas	%oil	%water	%mud

Rec Total 45 BHT 113 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2271</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>0045</u>
(B) First Initial Flow <u>22</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0132</u>
(C) First Final Flow <u>35</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0352</u>
(D) Initial Shut-In <u>1131</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>0622</u>
(E) Second Initial Flow <u>37</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0839</u>
(F) Second Final Flow <u>42</u>	<input checked="" type="checkbox"/> Mileage <u>43 RT</u> 66.65	Comments
(G) Final Shut-In <u>1091</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2249</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1641.65</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1641.65</u>	

Approved By Keith Reavis

Our Representative [Signature]

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 49172

Well Name & No. K-2 Farms #1-17 Test No. 5 Date 4/21/13
 Company Abercrombie Energy, LLC Elevation 3118 KB 3109 GL
 Address 10209 W. Central STE #2 Wichita, KS 67212
 Co. Rep / Geo. Keith Reavis Rig VAL #4
 Location: Sec. 17 Twp. 20s Rge. 34w Co. Scott State Ks

Interval Tested 457 4607 4630 Zone Tested Ft. Scott
 Anchor Length 23 Drill Pipe Run 4570 Mud Wt. 9.5
 Top Packer Depth 4602 Drill Collars Run 30 Vis 51
 Bottom Packer Depth 4607 Wt. Pipe Run Ø WL 5# 6.4
 Total Depth 4630 Chlorides 6500 ppm System LCM 3#
 Blow Description IF: Surface blow died FLUSHED tool blow died.
ISI: No return
FF: No blow
FSI: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>Wcm (oil spots)</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 20 BHT 113 Gravity — API RW 1238 @ 58 ° F Chlorides 34,000 ppm

(A) Initial Hydrostatic <u>2341</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>1600</u>
(B) First Initial Flow <u>20</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1633</u>
(C) First Final Flow <u>29</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>2046</u>
(D) Initial Shut-In <u>1137</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>2158</u>
(E) Second Initial Flow <u>32</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>2320</u>
(F) Second Final Flow <u>34</u>	<input checked="" type="checkbox"/> Mileage <u>43RT</u> <u>133.30</u>	Comments <u>loaded tools @ 18:00 on 4/23</u>
(G) Final Shut-In <u>1098</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2275</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30 FLUSH</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>800</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby <u>1d 18.75h</u>	Total <u>2508.30</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1708.30</u>	

Approved By _____

Our Representative [Signature]

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