

## DRILL STEM TEST REPORT

Prepared For: **Abercrombie Energy, LLC**

150 N Main, Suite 801  
Wichita, KS

ATTN: Jon Christensen

**12/28S/33W**

**COX #2-12**

Start Date: 2005.09.03 @ 02:10:39

End Date: 2005.09.03 @ 15:39:48

Job Ticket #: 22442                      DST #: 1

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Abercrombie Energy, LLC

**COX #2-12**

150 N Main, Suite 801  
Wichita, KS

**12/28S/33W**

ATTN: Jon Christensen

Job Ticket: 22442

**DST#: 1**

Test Start: 2005.09.03 @ 02:10:39

## GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:41:59

Time Test Ended: 15:39:48

Test Type: Conventional Bottom Hole

Tester: Chris Hagman

Unit No: 34

Interval: **4829.00 ft (KB) To 4863.00 ft (KB) (TVD)**

Reference Elevations: 2964.00 ft (KB)

Total Depth: 4863.00 ft (KB) (TVD)

2956.00 ft (CF)

Hole Diameter: 7.78 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

## Serial #: 6752

Inside

Press@RunDepth: 44.52 psig @ 4831.00 ft (KB)

Capacity: 7000.00 psig

Start Date: 2005.09.03

End Date: 2005.09.03

Last Calib.: 1899.12.30

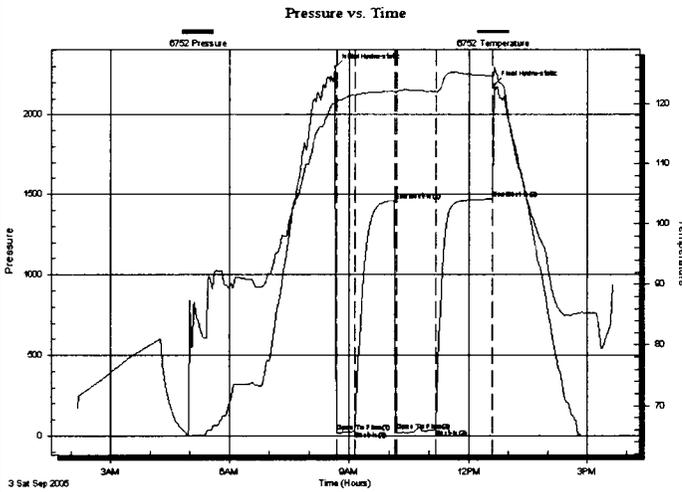
Start Time: 02:10:39

End Time: 15:39:49

Time On Btm: 2005.09.03 @ 08:39:19

Time Off Btm: 2005.09.03 @ 12:39:18

**TEST COMMENT:** IF: BOB 4 min, strong steady blow  
IS: No blow back  
FF: BOB ASAO, GTS 20 min, strong steady blow  
FSI: No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2295.06	119.90	Initial Hydro-static
3	23.28	120.02	Open To Flow (1)
30	32.21	121.40	Shut-In(1)
90	1462.66	122.08	End Shut-In(1)
92	32.80	121.77	Open To Flow (2)
152	44.52	121.94	Shut-In(2)
238	1469.78	124.61	End Shut-In(2)
240	2186.39	125.75	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
62.00	5%G,95%M	0.30

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	2.00	6.14
Last Gas Rate	0.13	5.00	7.26
Max. Gas Rate	0.13	5.00	7.26



**TRILOBITE  
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## DRILL STEM TEST REPORT

TOOL DIAGRAM

Abercrombie Energy, LLC

COX #2-12

150 N Main, Suite 801  
Wichita, KS

12/28S/33W

Job Ticket: 22442

DST#: 1

ATTN: Jon Christensen

Test Start: 2005.09.03 @ 02:10:39

### Tool Information

Drill Pipe:	Length: 4568.00 ft	Diameter: 3.80 inches	Volume: 64.08 bbl	Tool Weight: 2000.00 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: 248.00 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 65.30 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4829.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	34.00 ft			
Tool Length:	57.00 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			4807.00	
Shut In Tool	5.00			4812.00	
Hydraulic tool	5.00			4817.00	
Safety Joint	3.00			4820.00	
Packer	5.00			4825.00	23.00 Bottom Of Top Packer
Packer	4.00			4829.00	
Stubb	1.00			4830.00	
Perforations	1.00			4831.00	
Recorder	0.00	6752	Inside	4831.00	
Perforations	29.00			4860.00	
Recorder	0.00	13630	Inside	4860.00	
Bullnose	3.00			4863.00	34.00 Bottom Packers & Anchor

**Total Tool Length: 57.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Abercrombie Energy, LLC

**COX #2-12**

150 N Main, Suite 801  
Wichita, KS

**12/28S/33W**

Job Ticket: 22442

**DST#: 1**

ATTN: Jon Christensen

Test Start: 2005.09.03 @ 02:10:39

## 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:

7000 ppm

Viscosity: 41.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.95 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	5%G,95%M	0.305

Total Length: 62.00 ft      Total Volume: 0.870 bbl

Num Fluid Samples: 0

Num Gas Bombs: 1

Serial #:

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments: RW=.650@92F=7000ppm



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**GAS RATES**

Abercrombie Energy, LLC

**COX #2-12**

150 N Main, Suite 801  
Wichita, KS

**12/28S/33W**

Job Ticket: 22442

**DST#: 1**

ATTN: Jon Christensen

Test Start: 2005.09.03 @ 02:10:39

## Gas Rates Information

Temperature: 59 deg C  
Relative Density: 0.65  
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m <sup>3</sup> /d)
2	30	0.13	2.00	6.14
2	40	0.13	3.00	6.51
2	50	0.13	4.00	6.89
2	60	0.13	5.00	7.26

Serial #: 6752

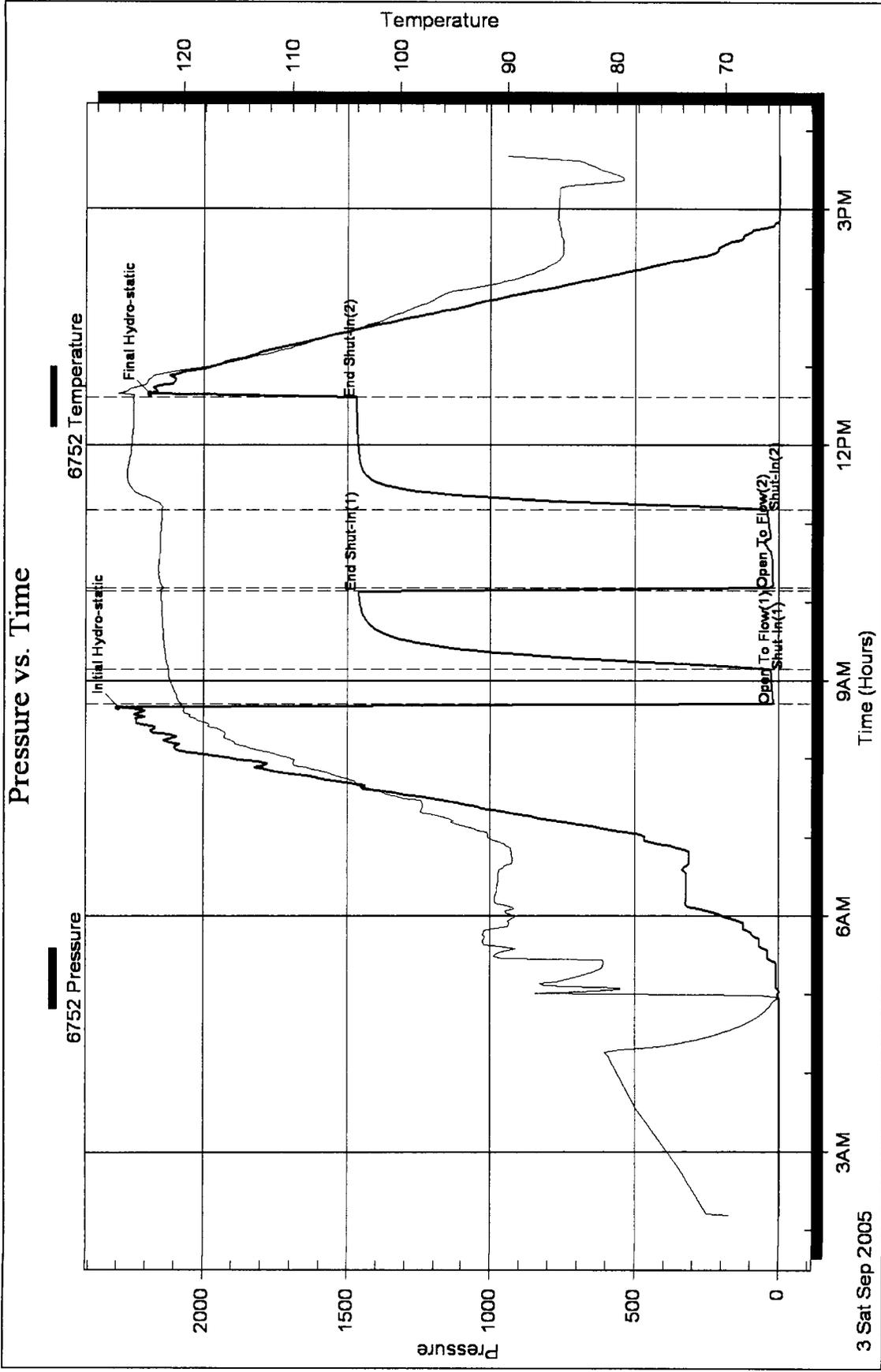
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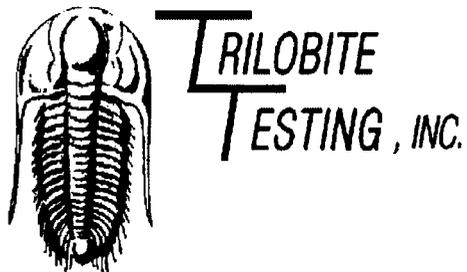
Abercrombie Energy, LLC

1228S33W

DST Test Number: 1

# Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Abercrombie Energy, LLC**

150 N Main, Suite 801  
Wichita, KS

ATTN: Jon Christensen

**12/28S/33W**

**COX #2-12**

Start Date: 2005.09.04 @ 09:45:33

End Date: 2005.09.04 @ 18:16:03

Job Ticket #: 22443                      DST #: 2

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Abercrombie Energy, LLC

COX #2-12

150 N Main, Suite 801  
Wchita, KS

12/28S/33W

Job Ticket: 22443

DST#: 2

ATTN: Jon Christensen

Test Start: 2005.09.04 @ 09:45:33

## GENERAL INFORMATION:

Formation: **Atoka**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:44:03

Time Test Ended: 18:16:03

Test Type: Conventional Bottom Hole

Tester: Chris Hagman

Unit No: 34

Interval: 4997.00 ft (KB) To 5050.00 ft (KB) (TVD)

Reference Elevations: 2964.00 ft (KB)

Total Depth: 5050.00 ft (KB) (TVD)

2956.00 ft (CF)

Hole Diameter: 7.78 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

## Serial #: 6752

Inside

Press@RunDepth: 23.35 psig @ 5000.00 ft (KB)

Capacity: 7000.00 psig

Start Date: 2005.09.04

End Date: 2005.09.04

Last Calib.: 1899.12.30

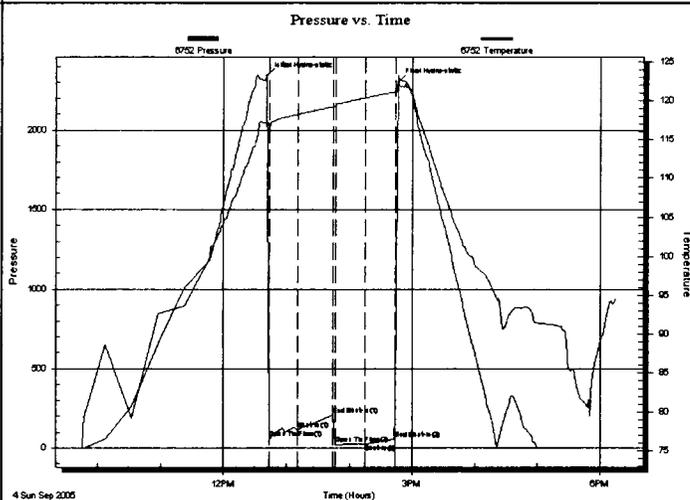
Start Time: 09:45:33

End Time: 18:16:03

Time On Btm: 2005.09.04 @ 12:41:33

Time Off Btm: 2005.09.04 @ 14:46:33

**TEST COMMENT:** F: Weak surface blow, died 15 min.  
IS: No blow back  
FF: Weak surface blow, died 20 min.  
FS: No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2342.01	117.12	Initial Hydro-static
3	60.69	116.32	Open To Flow (1)
29	115.11	118.21	Shut-In(1)
63	207.54	119.22	End Shut-In(1)
65	22.51	119.26	Open To Flow (2)
93	23.35	120.33	Shut-In(2)
122	56.51	121.09	End Shut-In(2)
125	2300.18	123.26	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	100%M	0.15

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Abercrombie Energy, LLC

COX #2-12

150 N Main, Suite 801  
Wichita, KS

12/28S/33W

Job Ticket: 22443

DST#: 2

ATTN: Jon Christensen

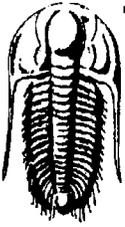
Test Start: 2005.09.04 @ 09:45:33

### Tool Information

Drill Pipe:	Length: 4753.00 ft	Diameter: 3.80 inches	Volume: 66.67 bbl	Tool Weight:	2000.00 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: 248.00 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 67.89 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial	62000.00 lb
Depth to Top Packer:	4997.00 ft			Final	62000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	53.00 ft				
Tool Length:	76.00 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			4975.00	
Shut In Tool	5.00			4980.00	
Hydraulic tool	5.00			4985.00	
Safety Joint	3.00			4988.00	
Packer	5.00			4993.00	23.00 Bottom Of Top Packer
Packer	4.00			4997.00	
Stubb	1.00			4998.00	
Perforations	2.00			5000.00	
Recorder	0.00	6752	Inside	5000.00	
Perforations	14.00			5014.00	
Change Over Sub	1.00			5015.00	
Drill Pipe	31.00			5046.00	
Change Over Sub	1.00			5047.00	
Recorder	0.00	13630	Inside	5047.00	
Bullnose	3.00			5050.00	53.00 Bottom Packers & Anchor

**Total Tool Length: 76.00**



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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Abercrombie Energy, LLC

**COX #2-12**

150 N Main, Suite 801  
Wichita, KS

**12/28S/33W**

Job Ticket: 22443

**DST#: 2**

ATTN: Jon Christensen

Test Start: 2005.09.04 @ 09:45:33

## 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:

4200 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.95 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbf
30.00	100%M	0.148

Total Length: 30.00 ft

Total Volume: 0.148 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

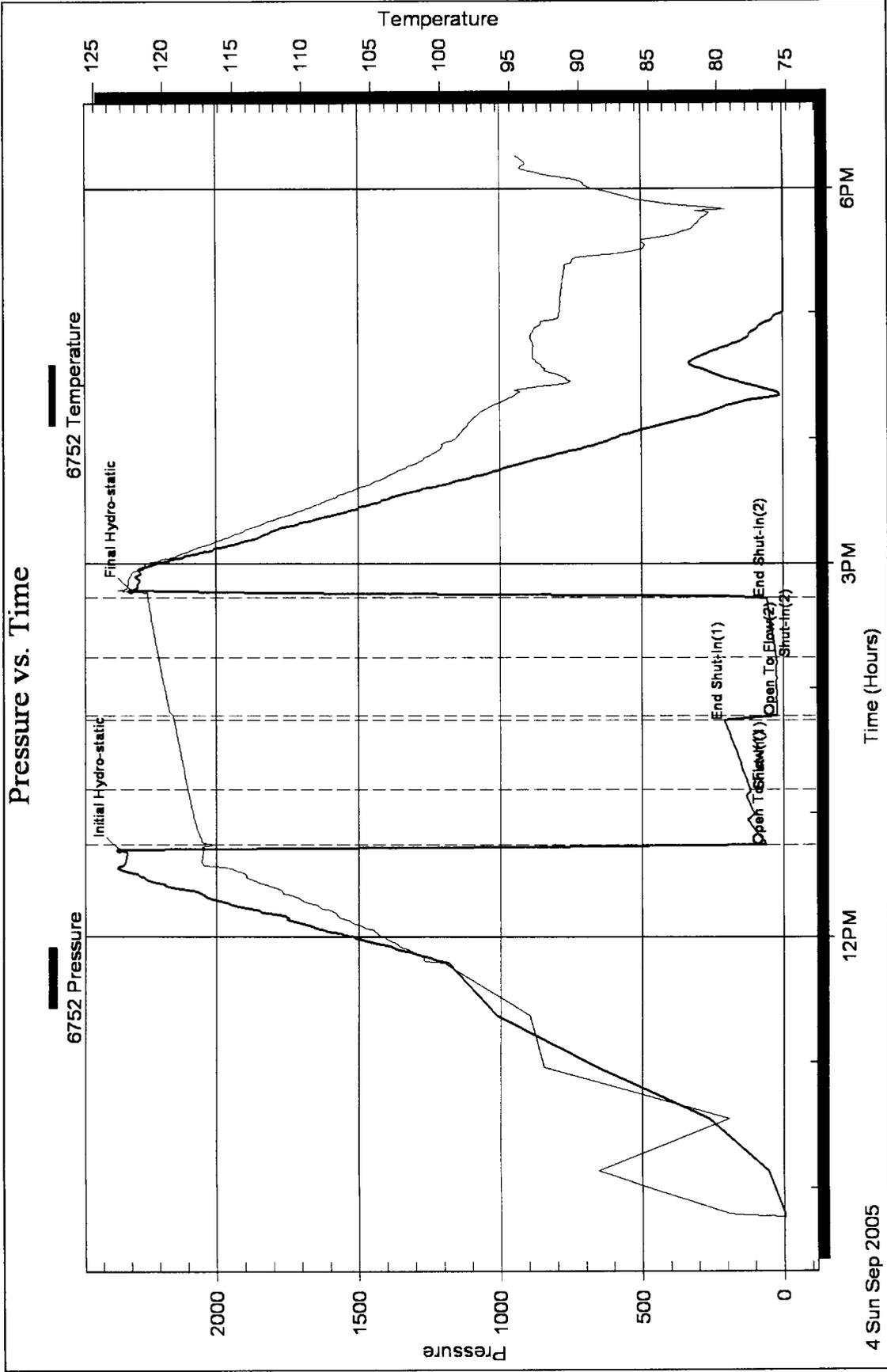
Serial #:

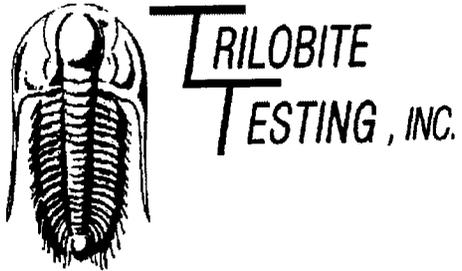
Laboratory Name:

Laboratory Location:

Recovery Comments: RW=1.092@92F=4200

### Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Abercrombie Energy, LLC**

150 N Main, Suite 801  
Wichita, KS

ATTN: Jon Christensen

**12/28S/33W**

**COX #2-12**

Start Date: 2005.09.05 @ 12:59:17

End Date: 2005.09.06 @ 00:24:17

Job Ticket #: 22444                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Abercrombie Energy, LLC

COX #2-12

12/28S/33W

DST # 3

Morrow Snd.

2005.09.05



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Abercrombie Energy, LLC

**COX #2-12**

150 N Main, Suite 801  
Wichita, KS

**12/28S/33W**

Job Ticket: 22444

**DST#: 3**

ATTN: Jon Christensen

Test Start: 2005.09.05 @ 12:59:17

## GENERAL INFORMATION:

Formation: **Morrow Snd.**

Deviated: **No Whipstock:** ft (KB)

Time Tool Opened: 16:10:17

Time Test Ended: 00:24:17

Test Type: Conventional Bottom Hole

Tester: Chris Hagman

Unit No: 34

Interval: **5135.00 ft (KB) To 5224.00 ft (KB) (TVD)**

Reference Elevations: 2964.00 ft (KB)

Total Depth: 5224.00 ft (KB) (TVD)

2956.00 ft (CF)

Hole Diameter: 7.78 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

## Serial #: 6752

Inside

Press@RunDepth: 106.11 psig @ 5137.00 ft (KB)

Capacity: 7000.00 psig

Start Date: 2005.09.05 End Date: 2005.09.06

Last Calib.: 1899.12.30

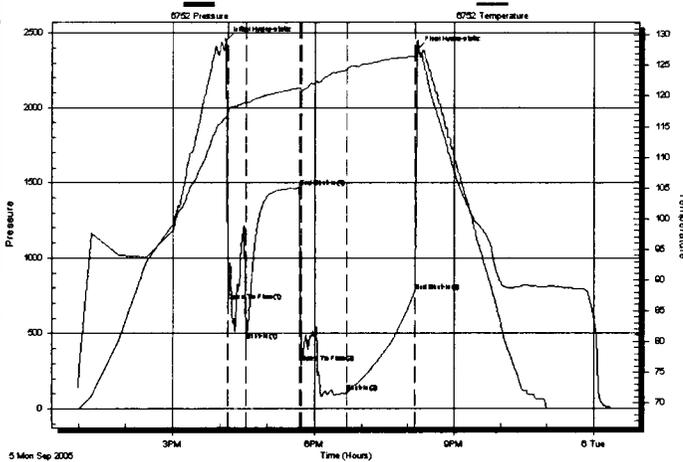
Start Time: 12:59:17 End Time: 00:24:17

Time On Btm: 2005.09.05 @ 16:07:37

Time Off Btm: 2005.09.05 @ 20:12:17

**TEST COMMENT:** IF: Weak surface blow, died 20 min.  
IS: No blow back  
FF: BOB 25 min., strong surging blow  
FS: No blow back

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2451.17	116.49	Initial Hydro-static
3	713.82	117.38	Open To Flow (1)
26	451.50	118.80	Shut-In(1)
93	1467.88	121.34	End Shut-In(1)
97	305.34	120.92	Open To Flow (2)
155	106.11	124.27	Shut-In(2)
242	778.42	126.53	End Shut-In(2)
245	2384.19	128.99	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
124.00	10%G,20%O,70%M	0.61
124.00	10%O,90%M	0.61

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Abercrombie Energy, LLC

**COX #2-12**

150 N Main, Suite 801  
Wichita, KS

**12/28S/33W**

Job Ticket: 22444

**DST#: 3**

ATTN: Jon Christensen

Test Start: 2005.09.05 @ 12:59:17

### Tool Information

Drill Pipe:	Length: 4872.00 ft	Diameter: 3.80 inches	Volume: 68.34 bbl	Tool Weight: 2000.00 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: 248.00 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose: 70000.00 lb
		<b>Total Volume:</b>	<b>69.56 bbl</b>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	5135.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	89.00 ft			
Tool Length:	117.00 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			5108.00	
Shut In Tool	5.00			5113.00	
Hydraulic tool	5.00			5118.00	
Jars	5.00			5123.00	
Safety Joint	3.00			5126.00	
Packer	5.00			5131.00	28.00 Bottom Of Top Packer
Packer	4.00			5135.00	
Stubb	1.00			5136.00	
Perforations	1.00			5137.00	
Recorder	0.00	6752	Inside	5137.00	
Perforations	19.00			5156.00	
Change Over Sub	1.00			5157.00	
Drill Pipe	63.00			5220.00	
Change Over Sub	1.00			5221.00	
Recorder	0.00	13630	Inside	5221.00	
Bullnose	3.00			5224.00	89.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>117.00</b>				



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Abercrombie Energy, LLC

**COX #2-12**

150 N Main, Suite 801  
Wichita, KS

**12/28S/33W**

Job Ticket: 22444

**DST#: 3**

ATTN: Jon Christensen

Test Start: 2005.09.05 @ 12:59:17

**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: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1900.00 ppm

Filter Cake: inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
124.00	10%G,20%O,70%M	0.610
124.00	10%O,90%M	0.610

Total Length: 248.00 ft

Total Volume: 1.220 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

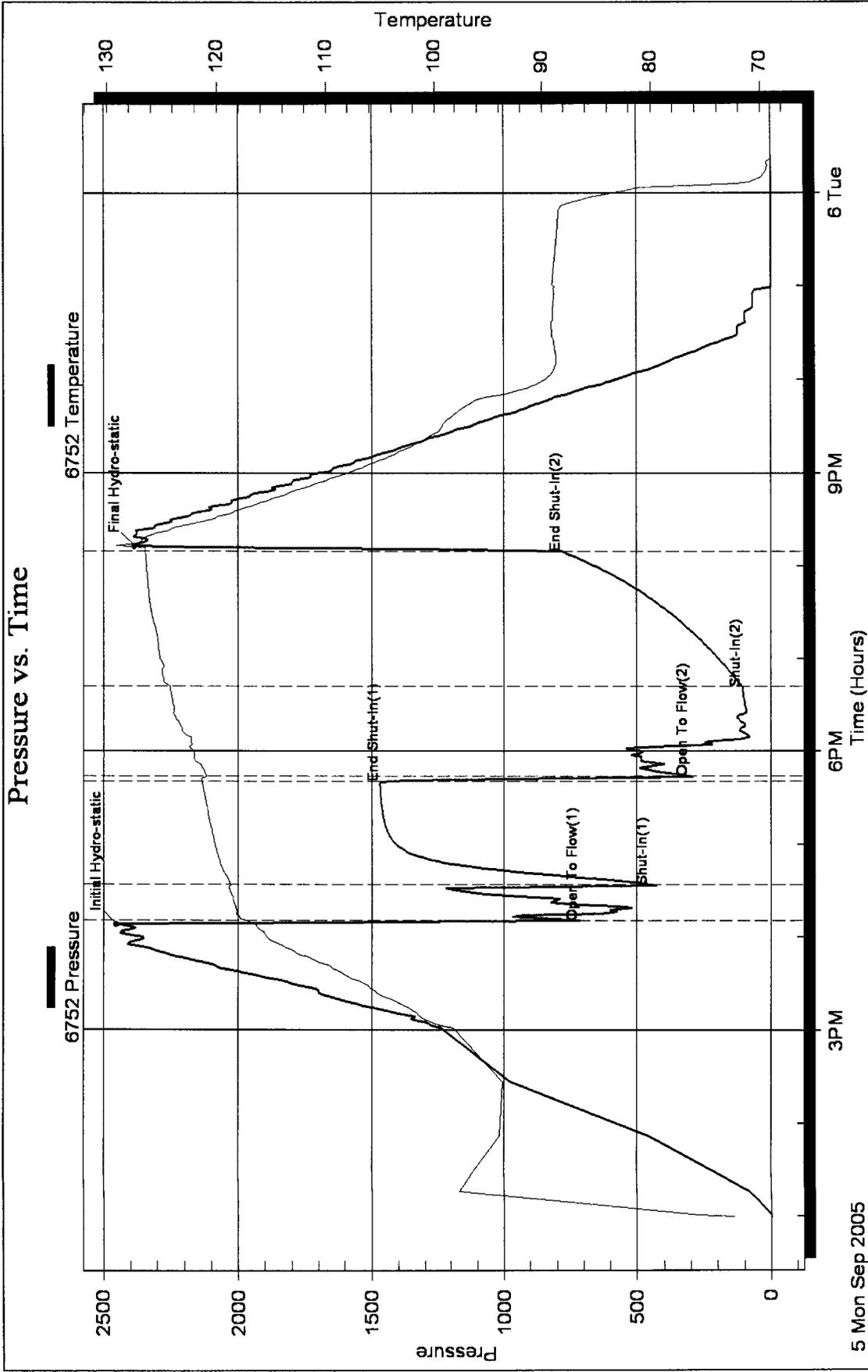
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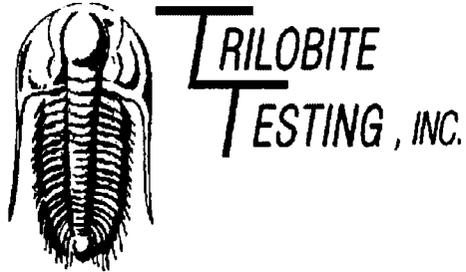
Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Abercrombie Energy, LLC**

150 N Main, Suite 801  
Wichita, KS

ATTN: Jon Christensen

**12/28S/33W**

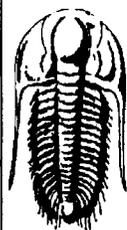
**COX #2-12**

Start Date: 2005.09.06 @ 17:04:28

End Date: 2005.09.07 @ 07:20:37

Job Ticket #: 22445                      DST #: 4

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Abercrombie Energy, LLC

**COX #2-12**

150 N Main, Suite 801  
Wichita, KS

**12/28S/33W**

Job Ticket: 22445

**DST#: 4**

ATTN: Jon Christensen

Test Start: 2005.09.06 @ 17:04:28

## GENERAL INFORMATION:

Formation: **Chester SS**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:14:07

Time Test Ended: 07:20:37

Test Type: Conventional Bottom Hole

Tester: Chris Hagman

Unit No: 34

Interval: **5313.00 ft (KB) To 5342.00 ft (KB) (TVD)**

Reference Elevations: 2964.00 ft (KB)

Total Depth: 5342.00 ft (KB) (TVD)

2956.00 ft (CF)

Hole Diameter: 7.78 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

## Serial #: 6752

Inside

Press@RunDepth: 762.72 psig @ 5315.00 ft (KB)

Capacity: 7000.00 psig

Start Date: 2005.09.06

End Date: 2005.09.07

Last Calib.: 1899.12.30

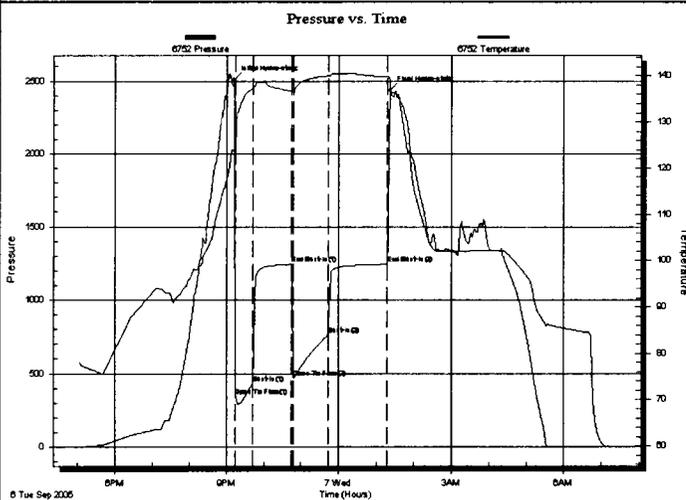
Start Time: 17:04:28

End Time: 07:20:38

Time On Btm: 2005.09.06 @ 21:11:37

Time Off Btm: 2005.09.07 @ 01:20:48

**TEST COMMENT:** IF: BOB 30 sec., GTS 15 min., strong steadily dieing blow  
IS: Blow back imedeatly, BOB 8 min  
FF: BOB 30 sec., GTS ASAO, strong steadily dieing blow  
FS: Blow back imedeatly, BOB 8 min



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2510.22	123.82	Initial Hydro-static
3	344.28	123.50	Open To Flow (1)
31	433.54	137.39	Shut-In(1)
93	1242.83	136.71	End Shut-In(1)
96	474.13	136.14	Open To Flow (2)
152	762.72	140.06	Shut-In(2)
246	1243.11	139.79	End Shut-In(2)
250	2435.05	139.19	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	10%G,30%O,20%W,40%M	0.59
2951.00	5%G,95%O	40.23

## Gas Rates

	Chole (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	1.00	5.76
Last Gas Rate	0.13	2.00	6.14
Max. Gas Rate	0.13	2.00	6.14



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Abercrombie Energy, LLC

**COX #2-12**

150 N Main, Suite 801  
Wichita, KS

**12/28S/33W**

Job Ticket: 22445

**DST#: 4**

ATTN: Jon Christensen

Test Start: 2005.09.06 @ 17:04:28

### Tool Information

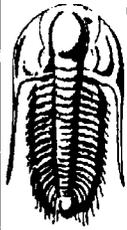
Drill Pipe:	Length: 5059.00 ft	Diameter: 3.80 inches	Volume: 70.96 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 248.00 ft	Diameter: 2.25 inches	Volume: 1.22 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 72.18 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	5313.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	29.00 ft			
Tool Length:	57.00 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			5286.00	
Shut In Tool	5.00			5291.00	
Hydraulic tool	5.00			5296.00	
Jars	5.00			5301.00	
Safety Joint	3.00			5304.00	
Packer	5.00			5309.00	28.00 Bottom Of Top Packer
Packer	4.00			5313.00	
Stubb	1.00			5314.00	
Perforations	1.00			5315.00	
Recorder	0.00	6752	Inside	5315.00	
Perforations	24.00			5339.00	
Recorder	0.00	13630	Inside	5339.00	
Bullnose	3.00			5342.00	29.00 Bottom Packers & Anchor

**Total Tool Length: 57.00**



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

Abercrombie Energy, LLC

**COX #2-12**

150 N Main, Suite 801  
Wichita, KS

**12/28S/33W**

Job Ticket: 22445

**DST#: 4**

ATTN: Jon Christensen

Test Start: 2005.09.06 @ 17:04:28

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

28 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.96 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2600.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbf
120.00	10%G,30%O,20%W,40%M	0.590
2951.00	5%G,95%O	40.229

Total Length: 3071.00 ft

Total Volume: 40.819 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API=29@70F=28 corrected



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

**GAS RATES**

Abercrombie Energy, LLC

**COX #2-12**

150 N Main, Suite 801  
Wichita, KS

**12/28S/33W**

Job Ticket: 22445

**DST#: 4**

ATTN: Jon Christensen

Test Start: 2005.09.06 @ 17:04:28

### Gas Rates Information

Temperature: 59 deg C

Relative Density: 0.65

Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m <sup>3</sup> /d)
2	10	0.13	1.00	5.76
2	20	0.13	2.00	6.14
2	30	0.13	2.00	6.14
2	40	0.13	2.00	6.14
2	50	0.13	2.00	6.14
2	60	0.13	2.00	6.14

Serial #: 6752

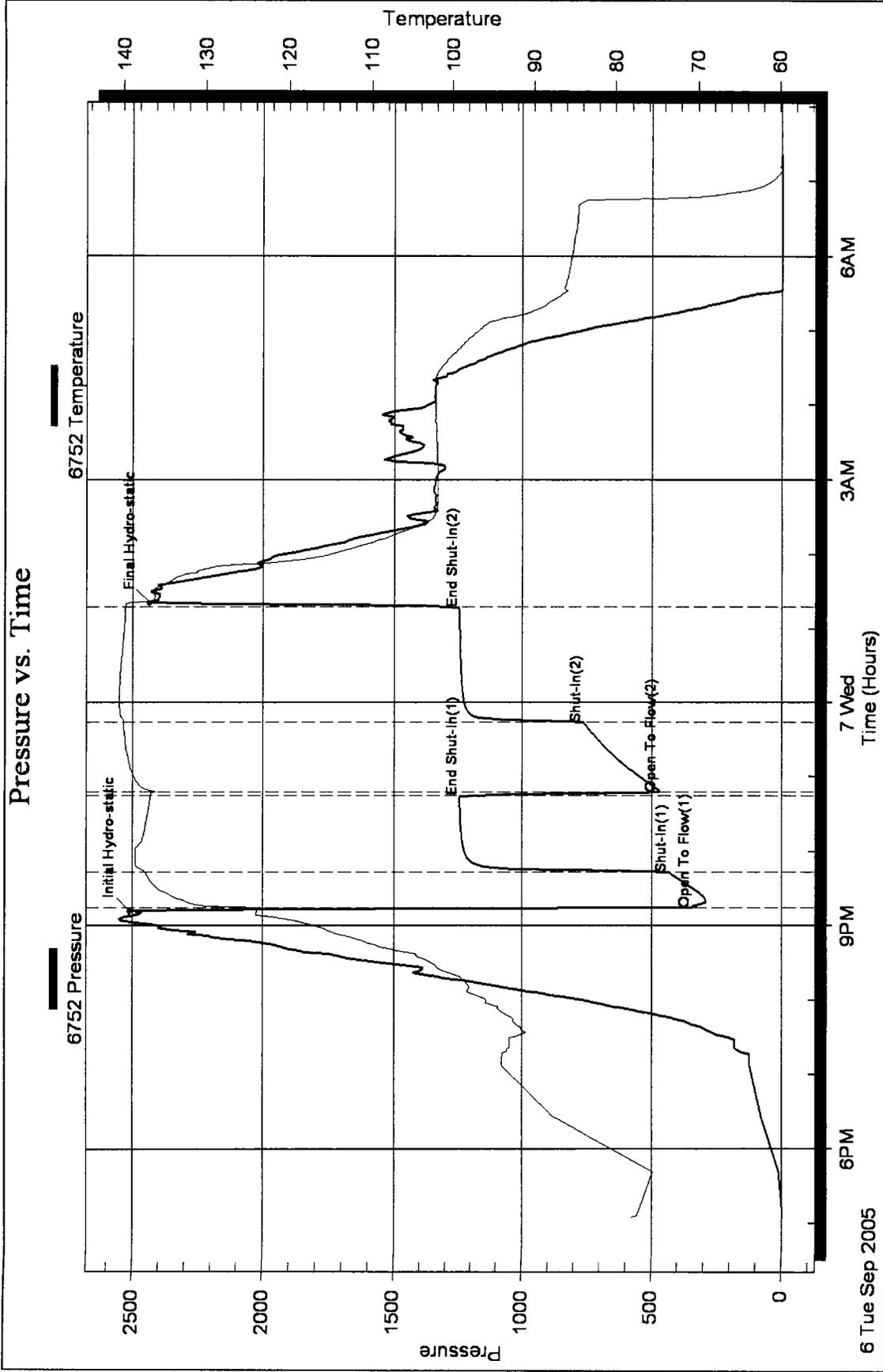
Inside

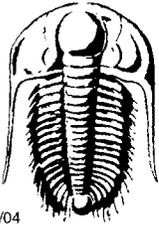
Abercrombie Energy, LLC

12/28S/33W

DST Test Number: 4

### Pressure vs. Time





# TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

1870  
No 22442

## Test Ticket

Well Name & No. COX #2-12 Test No. 1 Date 9-3-05  
 Company Abercrombie Energy, LLC Zone Tested Pawnee  
 Address 150 W Main, Suite 801 Wichita, KS 67202 Elevation 2964 KB 2956 GL  
 Co. Rep / Geo. Jon Christensen Cont. Aber #3 Est. Ft. of Pay \_\_\_\_\_ Por. \_\_\_\_\_ %  
 Location: Sec. 12 Twp. 28 S Rge. 33 W Co. Haskell State KS  
 No. of Copies \_\_\_\_\_ Distribution Sheet (Y, N) \_\_\_\_\_ Turnkey (Y, N) \_\_\_\_\_ Evaluation (Y, N) \_\_\_\_\_

Interval Tested 4829-4863 Initial Str Wt./Lbs. 60K Unseated Str Wt/Lbs. 60K  
 Anchor Length 34' Wt. Set Lbs. 20K Wt. Pulled Loose/Lbs. 65K  
 Top Packer Depth 4824 Tool Weight 2K  
 Bottom Packer Depth 4829 Hole Size 7 7/8" ✓ Rubber Size 6 3/4" ✓  
 Total Depth 4863 Wt. Pipe Run N.A. Drill Collar Run 248  
 Mud Wt. 9.1 LCM 2<sup>nd</sup> Vis. 41 WL 90 Drill Pipe Size 4.5 XH Ft. Run \_\_\_\_\_  
 Blow Description IF: BOB 4 min., strong steady blow  
TSI: No blow back  
FE: BOB ASAG, CATS 20 min., strong steady blow  
FSI: No blow back

Recovery - Total Feet \_\_\_\_\_ GIP \_\_\_\_\_ Ft. in DC 62 Ft. in DP \_\_\_\_\_  
 Rec. 62 Feet of gas cut mud %gas 5 %oil \_\_\_\_\_ %water \_\_\_\_\_ %mud 95  
 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 \_\_\_\_\_  
 BHT 125 °F Gravity \_\_\_\_\_ °API D @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API  
 RW .650 @ 92 °F Chlorides 7000 ppm Recovery \_\_\_\_\_ Chlorides 2000 ppm System

	AK-1	Alpine	Recorder No.	
(A) Initial Hydrostatic Mud	2295	PSI	6752(210)	Test <u>✓ conv. 1050</u>
(B) First Initial Flow Pressure	83	PSI	(depth) 4831	Jars _____
(C) First Final Flow Pressure	32	PSI	Recorder No. 13630	Safety Jt. <u>✓ 50</u>
(D) Initial Shut-In Pressure	1463	PSI	(depth) 4860	Circ Sub _____
(E) Second Initial Flow Pressure	33	PSI	Recorder No. _____	Sampler _____
(F) Second Final Flow Pressure	45	PSI	(depth) _____	Straddle _____
(G) Final Shut-In Pressure	1470	PSI	Initial Opening 30	Ext. Packer _____
(Q) Final Hydrostatic Mud	2186	PSI	Initial Shut-In 60	Shale Packer _____

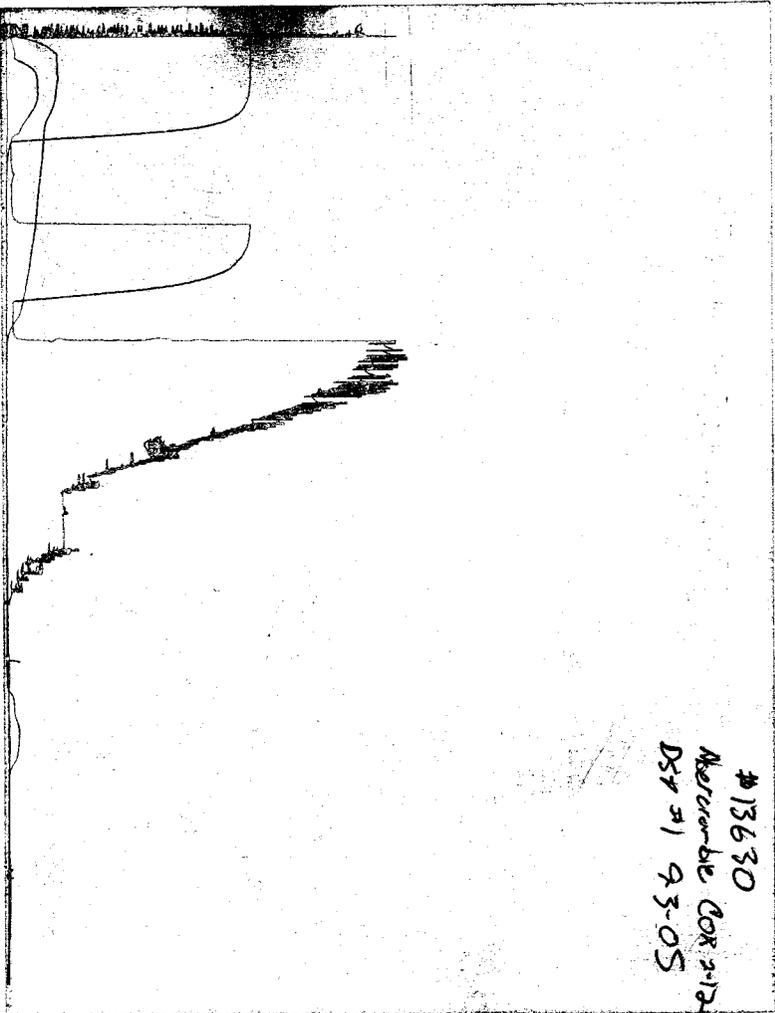
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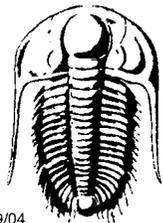
Approved By [Signature]  
 Our Representative [Signature]

Final Flow 60  
 Final Shut-In 90  
 T-On Location 0115  
 T-Started 0415  
 T-Open 0840  
 T-Pulled 1240  
 T-Out 1545  
14:30  
 Mileage ✓ x 90 90  
 Sub Total: 1240 1190  
 Std. By x 5.5 120/90  
 Other acc. charge 150  
 Total: 1740 1550



**CHART PAGE**  
This is a photocopy of the actual AK-1 recorder chart.





# TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 22443

9/04

## Test Ticket

Well Name & No. Cox #2-12 Test No. 2 Date 9-4-05  
 Company Abercrombie Energy, LLC Zone Tested Atoka  
 Address 150 W Main, Suite 801 Wichita, KS 67202 Elevation 2964 KB 2956 GL  
 Co. Rep / Geo. Jon Christensen Cont. Aber #3 Est. Ft. of Pay \_\_\_\_\_ Por. \_\_\_\_\_ %  
 Location: Sec. 12 Twp. 28S Rge. 33W Co. Haskell State KS  
 No. of Copies \_\_\_\_\_ Distribution Sheet (Y, N) \_\_\_\_\_ Turnkey (Y, N) \_\_\_\_\_ Evaluation (Y, N) \_\_\_\_\_

Interval Tested 4997-5050 Initial Str Wt./Lbs. 62K Unseated Str Wt./Lbs. 62K  
 Anchor Length 53' Wt. Set Lbs. 20K Wt. Pulled Loose/Lbs. 70K  
 Top Packer Depth 4992 Tool Weight 2K  
 Bottom Packer Depth 4997 Hole Size 7 7/8" ✓ Rubber Size 6 3/4" ✓  
 Total Depth 5050 Wt. Pipe Run NA Drill Collar Run 248  
 Mud Wt. 8.9 LCM 3# Vis. 52 WL 8.0 Drill Pipe Size 4.5 XH Ft. Run 4753  
 Blow Description TF: Weak surface blow, died 15 min.  
ISB: No blow back  
FF: Weak surface blow, died 20 min.  
FSB: No blow back

Recovery - Total Feet	GIP	Ft. in DC	Ft. in DP
<u>30</u>		<u>30</u>	
Rec. <u>30</u> Feet of <u>Mud</u>	%gas	%oil	%water <u>100</u> %mud
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

BHT 121 °F Gravity \_\_\_\_\_ °API D @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API  
 RW 1.092 @ 92 °F Chlorides 4200 ppm Recovery \_\_\_\_\_ Chlorides 2000 ppm System

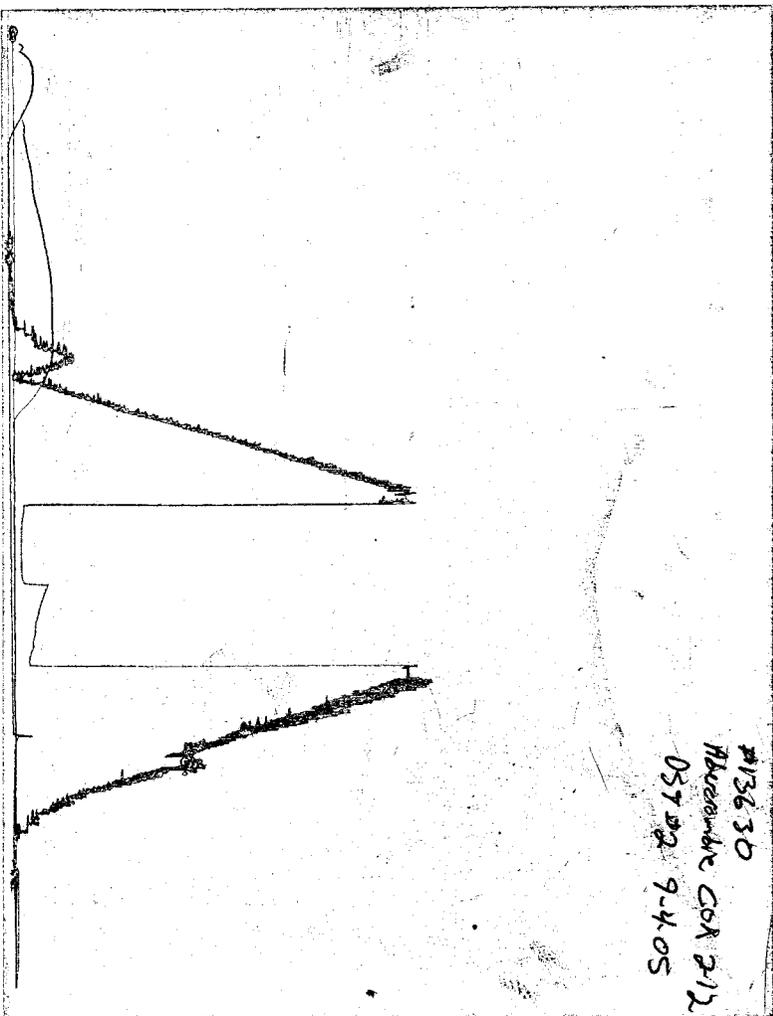
	AK-1	Alpine	Recorder No.	Test
(A) Initial Hydrostatic Mud	<u>2342</u> PSI		<u>6752 (9:44)</u>	<u>✓</u> <u>1150</u>
(B) First Initial Flow Pressure	<u>61</u> PSI		(depth) <u>5000</u>	Jars _____
(C) First Final Flow Pressure	<u>115</u> PSI		Recorder No. <u>13630</u>	Safety Jt. <u>✓</u>
(D) Initial Shut-In Pressure	<u>208</u> PSI		(depth) <u>5047</u>	Circ Sub _____
(E) Second Initial Flow Pressure	<u>23</u> PSI		Recorder No. _____	Sampler _____
(F) Second Final Flow Pressure	<u>23</u> PSI		(depth) _____	Straddle _____
(G) Final Shut-In Pressure	<u>57</u> PSI	Initial Opening	<u>30</u>	Ext. Packer _____
(Q) Final Hydrostatic Mud	<u>2300</u> PSI	Initial Shut-In	<u>30</u>	Shale Packer _____
		Final Flow	<u>30</u>	Ruined Packer _____
		Final Shut-In	<u>30</u>	Mileage <u>✓</u> <u>X 90</u> <u>90</u>

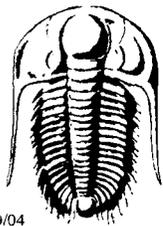
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Approved By [Signature]  
 Our Representative [Signature]

T-On Location 0930  
 T-Started 1000  
 T-Open 1245  
 T-Pulled 1445  
 T-Out 1800  
 Sub Total: 1340 1240  
 Std. By \_\_\_\_\_  
 Other Acc. Charge 150  
 Total: 1490 1390

**CHART PAGE**  
This is a photocopy of the actual AK-1 recorder chart.





# TRILOBITE TESTING INC.

No 22444

P.O. Box 362 • Hays, Kansas 67601

9/04

## Test Ticket

Well Name & No. Cox #2-12 Test No. 3 Date 9-5-05  
 Company Abercrombie Energy, LLC Zone Tested Morrans sand  
 Address 150 W Main, Suite 801 Wichita, KS 67202 Elevation 2964 KB 2956 GL  
 Co. Rep / Geo. Jan Christensen Cont. Aber, #3 Est. Ft. of Pay \_\_\_\_\_ Por. \_\_\_\_\_ %  
 Location: Sec. 12 Twp. 28S Rge. 33W Co. Haskell State KS  
 No. of Copies \_\_\_\_\_ Distribution Sheet (Y, N) \_\_\_\_\_ Turnkey (Y, N) \_\_\_\_\_ Evaluation (Y, N) \_\_\_\_\_

Interval Tested 5135-5224 Initial Str Wt./Lbs. 64K Unseated Str Wt./Lbs. 64K  
 Anchor Length 89 Wt. Set Lbs. 20K Wt. Pulled Loose/Lbs. 70K  
 Top Packer Depth 5130 Tool Weight 2K  
 Bottom Packer Depth 5135 Hole Size 7 7/8" ✓ Rubber Size 6 3/4" ✓  
 Total Depth 5224 Wt. Pipe Run W.H. Drill Collar Run 248  
 Mud Wt. 8.8 LCM 3# Vis. 49 WL 80 Drill Pipe Size 4.5 X 7' Ft. Run 4572  
 Blow Description ZF: Weak surface blow, died - 20 min.  
RF: No blow back  
FF: BOB 26 min, strong surging blow  
ESI: No blow back

Recovery - Total Feet	GIP	Ft. in DC	Ft. in DP
Rec. <u>124</u>	Feet of <u>gas cut oily mud</u>	<u>10</u> %gas <u>20</u> %oil	%water <u>70</u> %mud
Rec. <u>124</u>	Feet of <u>oily mud</u>	%gas <u>10</u> %oil	%water <u>90</u> %mud
Rec. _____	Feet of _____	%gas _____ %oil _____	%water _____ %mud _____
Rec. _____	Feet of _____	%gas _____ %oil _____	%water _____ %mud _____
Rec. _____	Feet of _____	%gas _____ %oil _____	%water _____ %mud _____

BHT 127 °F Gravity \_\_\_\_\_ °API D @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API  
 RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm Recovery \_\_\_\_\_ Chlorides 1900 ppm System

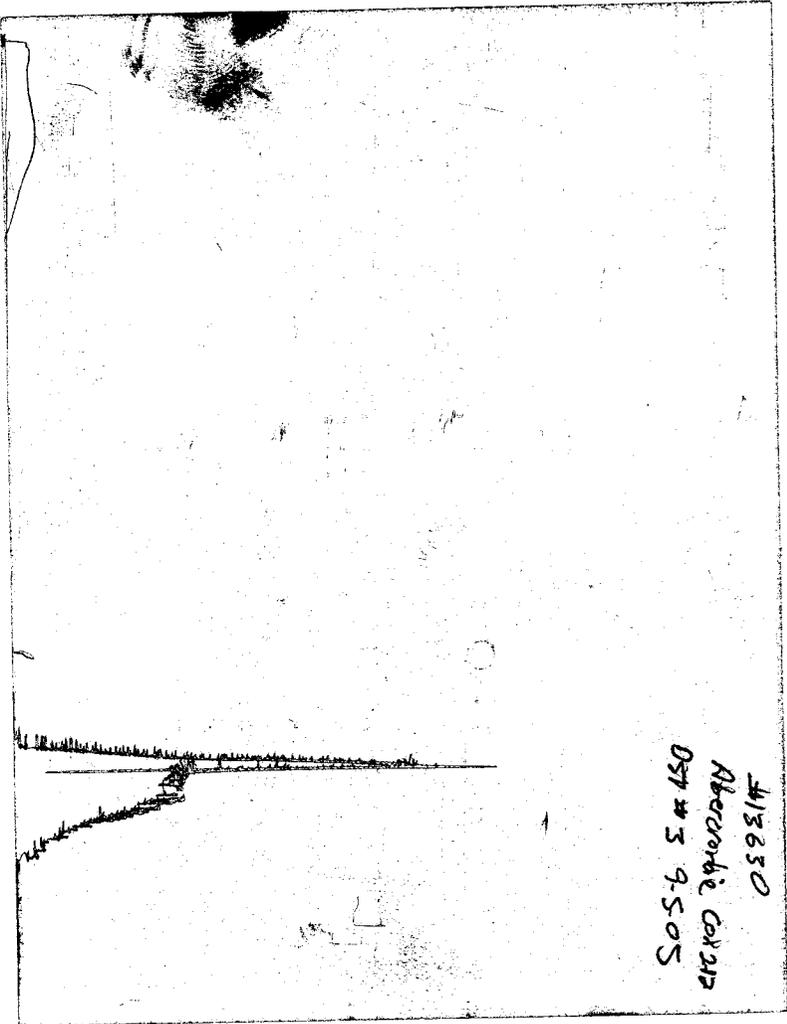
	AK-1	Alpine	Recorder No.	Test
(A) Initial Hydrostatic Mud	<u>2451</u>	PSI	<u>6752 (1257)</u>	✓ <u>conv. 1150</u>
(B) First Initial Flow Pressure	<u>714</u>	PSI	(depth) <u>5137</u>	Jars ✓ <u>200</u>
(C) First Final Flow Pressure	<u>452</u>	PSI	Recorder No. <u>13630</u>	Safety Jt. ✓ <u>50</u>
(D) Initial Shut-In Pressure	<u>1468</u>	PSI	(depth) <u>5221</u>	Circ Sub _____
(E) Second Initial Flow Pressure	<u>305</u>	PSI	Recorder No. _____	Sampler _____
(F) Second Final Flow Pressure	<u>106</u>	PSI	(depth) _____	Straddle _____
(G) Final Shut-In Pressure	<u>778</u>	PSI	Initial Opening <u>30</u>	Ext. Packer _____
(Q) Final Hydrostatic Mud	<u>2384</u>	PSI	Initial Shut-In <u>60</u>	Shale Packer _____

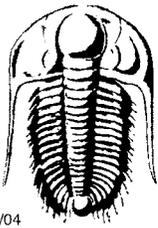
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Approved By [Signature]  
 Our Representative [Signature]

Final Flow 60  
 Final Shut-In 90  
 T-On Location 12 45  
 T-Started 1300  
 T-Open 1610  
 T-Pulled 2010  
 T-Out 0015  
 Mileage ✓ 90 90  
 Sub Total: 1540 1490  
 Std. By 18.5 1.5 45  
 Other Acc. charge 150  
 Total: 1815 1685  
 11:30

**CHART PAGE**  
This is a photocopy of the actual AK-1 recorder chart.





# TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No. 22445

9/04

## Test Ticket

Well Name & No. COX #2-12 Test No. 4 Date 9-06-05  
 Company Abercrombie, Energy, LLC Zone Tested Chester SS  
 Address 150 W Main, Suite 801 Wichita, KS 67202 Elevation 2964 KB 2956 GL  
 Co. Rep / Geo. Jon Christensen Cont. Aber #3 Est. Ft. of Pay \_\_\_\_\_ Por. \_\_\_\_\_ %  
 Location: Sec. 12 Twp. 28S Rge. 33W Co. Haskell State KS  
 No. of Copies \_\_\_\_\_ Distribution Sheet (Y, N) \_\_\_\_\_ Turnkey (Y, N) \_\_\_\_\_ Evaluation (Y, N) \_\_\_\_\_

Interval Tested 5313'-5342 Initial Str Wt./Lbs. 64K Unseated Str Wt./Lbs. 68K  
 Anchor Length 29' Wt. Set Lbs. 20K Wt. Pulled Loose/Lbs. 70K  
 Top Packer Depth 5308 Tool Weight 2K  
 Bottom Packer Depth 5313 Hole Size 7 7/8" Rubber Size 6 3/4"  
 Total Depth 5342 Wt. Pipe Run NA Drill Collar Run 248  
 Mud Wt. 8.8 LCM 3# Vis. 58 WL 8.0 Drill Pipe Size 4.5 x 11 Ft. Run 5059

Blow Description IF: BOB 30 sec, GTS 15 min, strong steadily dying blow  
IST: Blow back immediately, BOB 8 min.  
FF: BOB 30 sec, GTS ASAO, strong steadily dying blow  
FST: Blow back immediately, BOB 8 min.

Recovery - Total Feet	GIP	Ft. in DC	Ft. in DP
<del>3071</del> <u>3071</u>	<del>2236</del> <u>2236</u>	<u>248</u>	<del>2823</del> <u>2823</u>
Rec. <u>2951</u>	Feet of <u>gas cut oil</u>	<u>5</u> %gas	<u>95</u> %oil
Rec. <u>120</u>	Feet of <u>oil &amp; gas cut Waxy mud</u>	<u>10</u> %gas	<u>30</u> %oil
Rec. _____	Feet of <u>Waxy</u>	_____ %gas	_____ %oil
Rec. _____	Feet of _____	_____ %gas	_____ %oil
Rec. _____	Feet of _____	_____ %gas	_____ %oil
BHT <u>140</u>	°F Gravity <u>29</u>	°API D @ <u>70</u>	°F Corrected Gravity <u>28</u>
RW _____ @ _____ °F	Chlorides _____ ppm	Recovery _____	Chlorides <u>2600</u> ppm System

	AK-1	Alpine	Recorder No.	Test
(A) Initial Hydrostatic Mud	<u>2510</u>	PSI	<u>6752(0503)</u>	<u>1150</u>
(B) First Initial Flow Pressure	<u>344</u>	PSI	(depth) <u>5315</u>	Jars <u>200</u>
(C) First Final Flow Pressure	<u>434</u>	PSI	Recorder No. <u>13630</u>	Safety Jt. <u>50</u>
(D) Initial Shut-In Pressure	<u>1243</u>	PSI	(depth) <u>5339</u>	Circ Sub <u>35</u>
(E) Second Initial Flow Pressure	<u>474</u>	PSI	Recorder No. _____	Sampler _____
(F) Second Final Flow Pressure	<u>763</u>	PSI	(depth) _____	Straddle _____
(G) Final Shut-In Pressure	<u>1243</u>	PSI	Initial Opening <u>30</u>	Ext. Packer _____
(Q) Final Hydrostatic Mud	<u>2435</u>	PSI	Initial Shut-In <u>60</u>	Shale Packer _____
			Final Flow <u>60</u>	Ruined Packer _____
			Final Shut-In <u>90</u>	Mileage <u>90</u>

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Approved By [Signature]  
 Our Representative [Signature]

T-On Location 1700 Sub Total: 1575 152'  
 T-Started 1730 Std. By 4.0 120  
 T-Open 2115 Other Acc. Charge 150  
 T-Pulled 2115 Total: 2025  
 T-Out 0700 1795



P.O. Box 362 • Hays, Kansas 67601 • (785) 625-4778

**GAS VOLUME REPORT**

McCormick LLC. OPERATOR      Cor #2-12 WELL NAME AND NO.      4 DST NO.

Ins. of Water PSIG	Orifice Size	CF/D	Mln.	Ins. of Water PSIG	Orifice Size	MCF/D
			10	1	1/8	5.4
			20	2	1/8	5.8
			30	2	1/8	5.8
			40	2	1/8	5.8
			50	2	1/8	5.8
			60	2	1/8	5.8
BOB 30 sec., strong steadily dying blow, GTS 15 min Blow back immediately, BOB 8 min. SOB 30 sec., GTS ASAP, strong steadily dying blow						

Remarks: Flammable

**CHART PAGE**  
This is a photocopy of the actual AK-1 recorder chart.

