



## DRILL STEM TEST REPORT

Prepared For: **E&B Natural Resources**

1600 Norris Rd.  
Bakersfield, CA 93308

ATTN: Bob O'Dell

**Walters "B" #5**

**2-12s-18w Ellis,KS**

Start Date: 2012.09.09 @ 13:49:15

End Date: 2012.09.09 @ 19:56:15

Job Ticket #: 49497                      DST #: 1

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

Printed: 2012.09.17 @ 14:49:42



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

E&B Natural Resources  
 1600 Norris Rd.  
 Bakersfield, CA 93308  
 ATTN: Bob O'Dell

**2-12s-18w Ellis,KS**  
**Walters "B" #5**  
 Job Ticket: 49497 **DST#: 1**  
 Test Start: 2012.09.09 @ 13:49:15

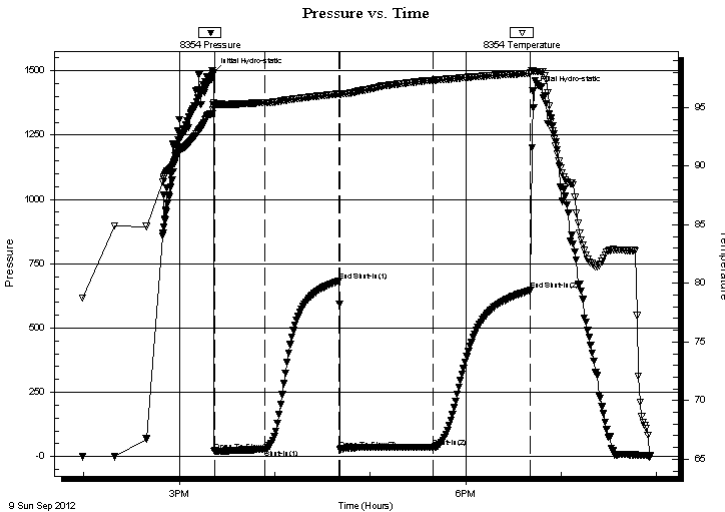
## GENERAL INFORMATION:

Formation: **Topeka**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 15:21:55  
 Time Test Ended: 19:56:15  
 Interval: **3080.00 ft (KB) To 3105.00 ft (KB) (TVD)**  
 Total Depth: 3105.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Dustin Rash  
 Unit No: 38  
 Reference Elevations: 2131.00 ft (KB)  
 2125.00 ft (CF)  
 KB to GR/CF: 6.00 ft

**Serial #: 8354 Inside**  
 Press @ Run Depth: 37.78 psig @ 3082.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.09.09 End Date: 2012.09.09 Last Calib.: 2012.09.09  
 Start Time: 13:59:15 End Time: 19:56:15 Time On Btm: 2012.09.09 @ 15:21:45  
 Time Off Btm: 2012.09.09 @ 18:42:15

**TEST COMMENT:** IF-Weak surface blow throughout.  
 IS-No Return.  
 FF-Weak building blow . Built to 3 inches.  
 FS-No Return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1493.69	95.38	Initial Hydro-static
1	21.20	94.98	Open To Flow (1)
32	27.69	95.42	Shut-In(1)
79	683.00	96.17	End Shut-In(1)
80	29.15	96.12	Open To Flow (2)
138	37.78	97.33	Shut-In(2)
199	646.48	97.94	End Shut-In(2)
201	1421.56	98.17	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	10%Gas/15%Oil/75%Mud	0.10
0.00	40' G.I.P.	0.00

## Gas Rates

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



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

## DRILL STEM TEST REPORT

E&B Natural Resources  
1600 Norris Rd.  
Bakersfield, CA 93308  
ATTN: Bob O'Dell

**2-12s-18w Ellis, KS**  
**Walters "B" #5**  
Job Ticket: 49497      **DST#: 1**  
Test Start: 2012.09.09 @ 13:49:15

### GENERAL INFORMATION:

Formation: **Topeka**  
Deviated: No Whipstock:                      ft (KB)  
Time Tool Opened: 15:21:55  
Time Test Ended: 19:56:15

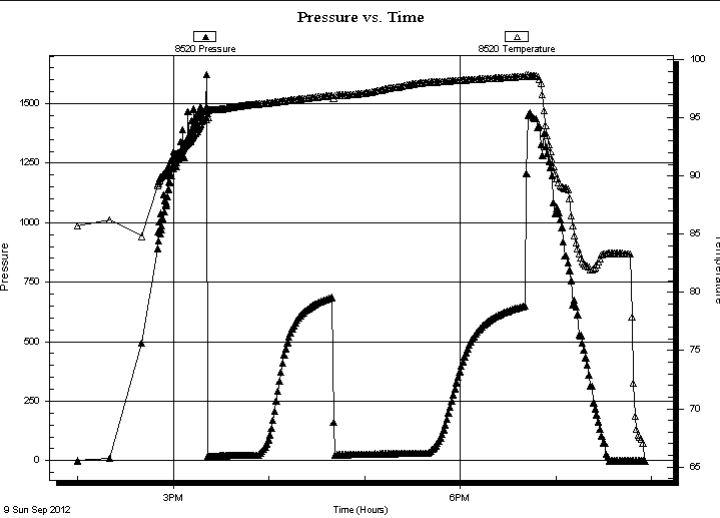
Test Type: Conventional Bottom Hole (Initial)  
Tester: Dustin Rash  
Unit No: 38

Interval: **3080.00 ft (KB) To 3105.00 ft (KB) (TVD)**  
Total Depth: 3105.00 ft (KB) (TVD)  
Reference Elevations: 2131.00 ft (KB)  
Hole Diameter: 7.88 inches Hole Condition: Fair                      2125.00 ft (CF)  
KB to GR/CF: 6.00 ft

**Serial #: 8520      Outside**

Press @ RunDepth:                      psig @      3082.00 ft (KB)                      Capacity:                      8000.00 psig  
Start Date:                      2012.09.09                      End Date:                      2012.09.09                      Last Calib.:                      2012.09.09  
Start Time:                      14:00:05                      End Time:                      19:56:05                      Time On Btm:  
Time Off Btm:

**TEST COMMENT:** IF-Weak surface blow throughout.  
ISI-No Return.  
FF-Weak building blow . Built to 3 inches.  
FSI-No Return.



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

Recovery		
Length (ft)	Description	Volume (bbl)
20.00	10%Gas/15%Oil/75%Mud	0.10
0.00	40' G.I.P.	0.00

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

E&B Natural Resources

**2-12s-18w Ellis,KS**

1600 Norris Rd.  
Bakersfield, CA 93308

**Walters "B" #5**

Job Ticket: 49497

**DST#: 1**

ATTN: Bob O'Dell

Test Start: 2012.09.09 @ 13:49:15

## Tool Information

Drill Pipe:	Length: 3043.00 ft	Diameter: 3.80 inches	Volume: 42.69 bbl	Tool Weight: 3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose: 10000.00 lb
			<u>Total Volume: 42.83 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	3080.00 ft			Final 39000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	25.00 ft			
Tool Length:	53.00 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			3053.00	
Shut In Tool	5.00			3058.00	
Hydraulic tool	5.00			3063.00	
Jars	5.00			3068.00	
Safety Joint	3.00			3071.00	
Packer	5.00			3076.00	28.00 Bottom Of Top Packer
Packer	4.00			3080.00	
Stubb	1.00			3081.00	
Perforations	1.00			3082.00	
Recorder	0.00	8354	Inside	3082.00	
Recorder	0.00	8520	Outside	3082.00	
Perforations	20.00			3102.00	
Bullnose	3.00			3105.00	25.00 Bottom Packers & Anchor

**Total Tool Length: 53.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

E&B Natural Resources

**2-12s-18w Ellis,KS**

1600 Norris Rd.  
Bakersfield, CA 93308

**Walters "B" #5**

Job Ticket: 49497

**DST#: 1**

ATTN: Bob O'Dell

Test Start: 2012.09.09 @ 13:49:15

## 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: 66.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.37 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4600.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
20.00	10%Gas/15%Oil/75%Mud	0.098
0.00	40' G.I.P.	0.000

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:

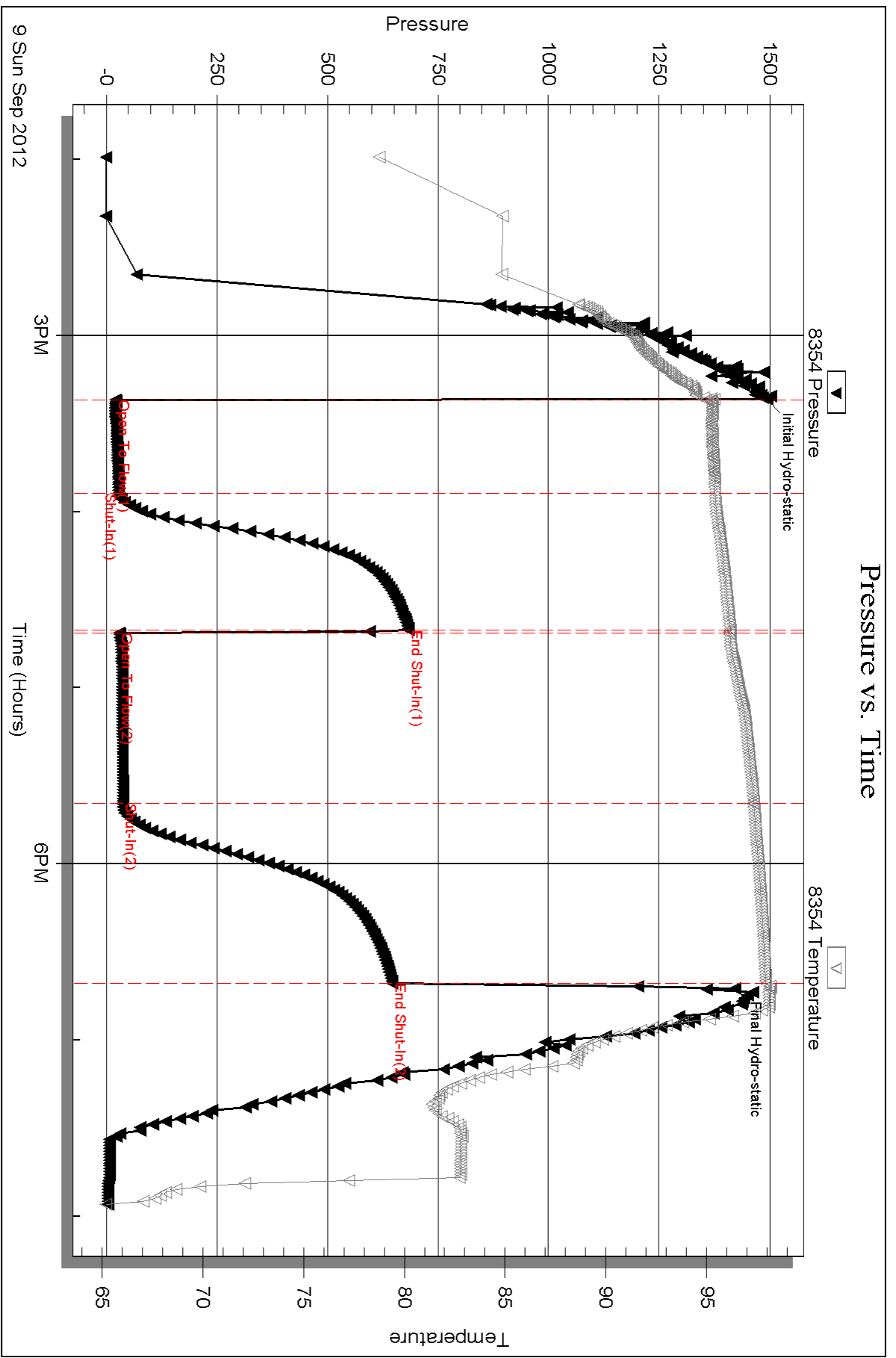
Serial #: 8354

Inside

E&B Natural Resources

Wells "B" #5

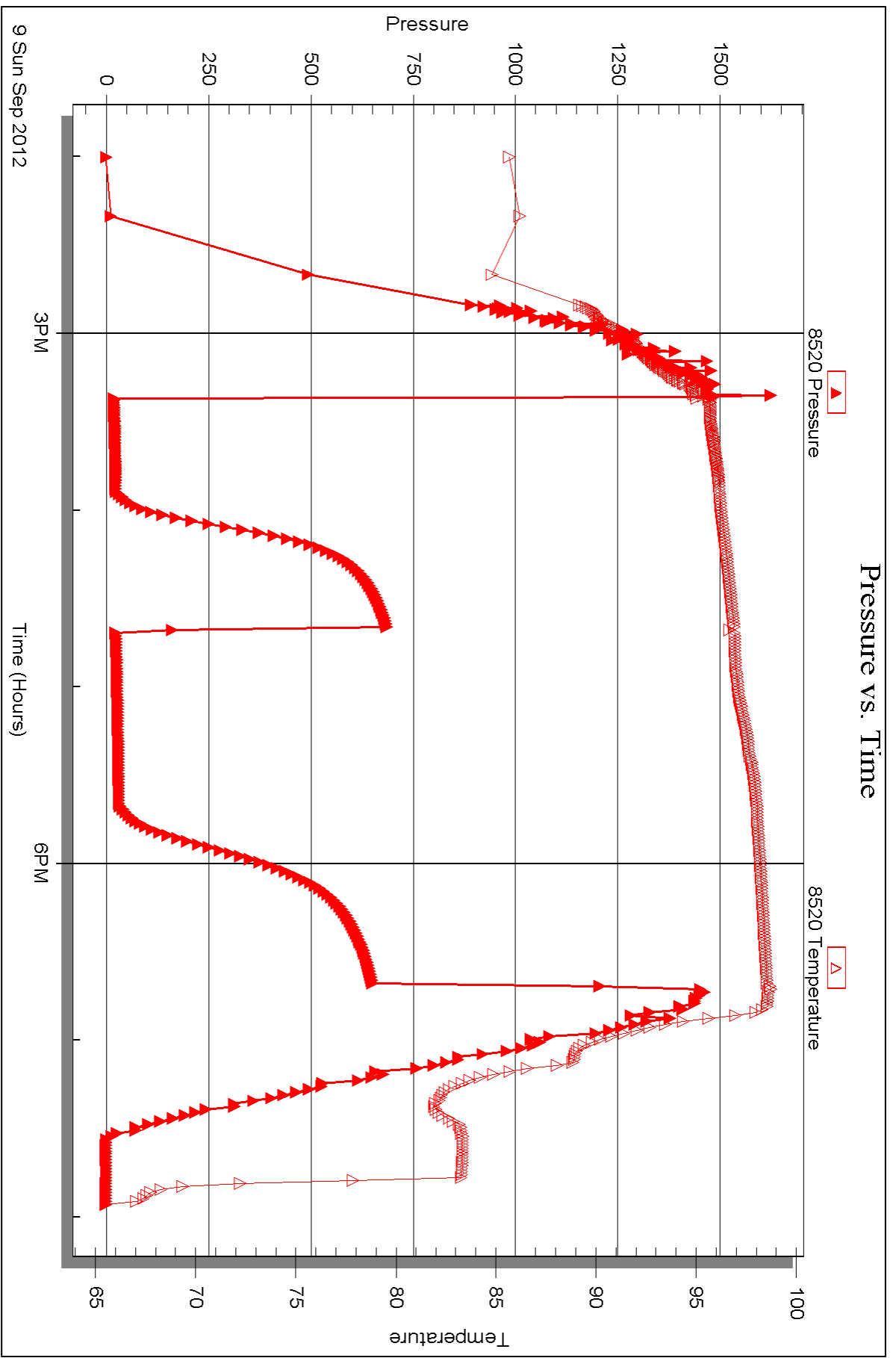
DST Test Number: 1



Triobite Testing, Inc

Ref. No: 49497

Printed: 2012.09.17 @ 14:49:46





## DRILL STEM TEST REPORT

Prepared For: **E&B Natural Resources**

1600 Norris Rd.  
Bakersfield, CA 93308

ATTN: Bob O'Dell

**Walters "B" #5**

**2-12s-18w Ellis,KS**

Start Date: 2012.09.10 @ 05:06:15

End Date: 2012.09.10 @ 11:22:45

Job Ticket #: 49498                      DST #: 2

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

Printed: 2012.09.17 @ 14:48:55





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

E&B Natural Resources

**2-12s-18w Ellis,KS**

1600 Norris Rd.  
Bakersfield, CA 93308

**Walters "B" #5**

Job Ticket: 49498

**DST#: 2**

ATTN: Bob O'Dell

Test Start: 2012.09.10 @ 05:06:15

## GENERAL INFORMATION:

Formation: **Topeka**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:22:15

Time Test Ended: 11:22:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Rash

Unit No: 38

**Interval: 3194.00 ft (KB) To 3215.00 ft (KB) (TVD)**

Reference Elevations: 2131.00 ft (KB)

Total Depth: 3215.00 ft (KB) (TVD)

2125.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 6.00 ft

**Serial #: 8354 Inside**

Press @ Run Depth: 77.21 psig @ 3196.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.10 End Date: 2012.09.10

Last Calib.: 2012.09.10

Start Time: 05:16:15 End Time: 11:22:45

Time On Btm: 2012.09.10 @ 06:22:05

Time Off Btm: 2012.09.10 @ 09:39:45

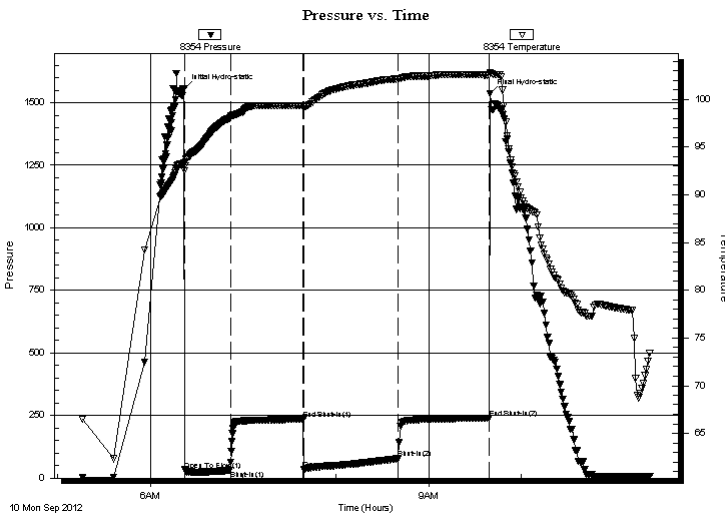
**TEST COMMENT:** IF-Strong building blow . BOB in 1 minute. GTS in 30 minutes.

ISI-No Return.

FF-Strong blow . BOB in 30 seconds.

FSI-Weak return @ 45 seconds. Built to 2 inches.

## PRESSURE SUMMARY



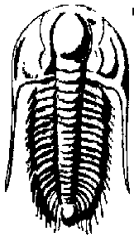
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1556.55	93.31	Initial Hydro-static
1	33.10	92.54	Open To Flow (1)
30	30.67	98.09	Shut-In(1)
77	235.29	99.34	End Shut-In(1)
78	35.59	99.30	Open To Flow (2)
138	77.21	102.15	Shut-In(2)
197	239.22	102.55	End Shut-In(2)
198	1535.95	102.83	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
92.00	2%Oil/88%Water/10%Mud	1.03
103.00	30%Gas/10%Oil/30%Water/30%Mud	1.44
0.00	2973' G.I.P.	0.00

## Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

E&B Natural Resources  
1600 Norris Rd.  
Bakersfield, CA 93308  
ATTN: Bob O'Dell

**2-12s-18w Ellis,KS**

**Walters "B" #5**

Job Ticket: 49498

**DST#: 2**

Test Start: 2012.09.10 @ 05:06:15

## GENERAL INFORMATION:

Formation: **Topeka**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:22:15

Time Test Ended: 11:22:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Rash

Unit No: 38

**Interval: 3194.00 ft (KB) To 3215.00 ft (KB) (TVD)**

Reference Elevations: 2131.00 ft (KB)

Total Depth: 3215.00 ft (KB) (TVD)

2125.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 6.00 ft

**Serial #: 8520 Outside**

Press@RunDepth: psig @ 3196.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.10 End Date: 2012.09.10

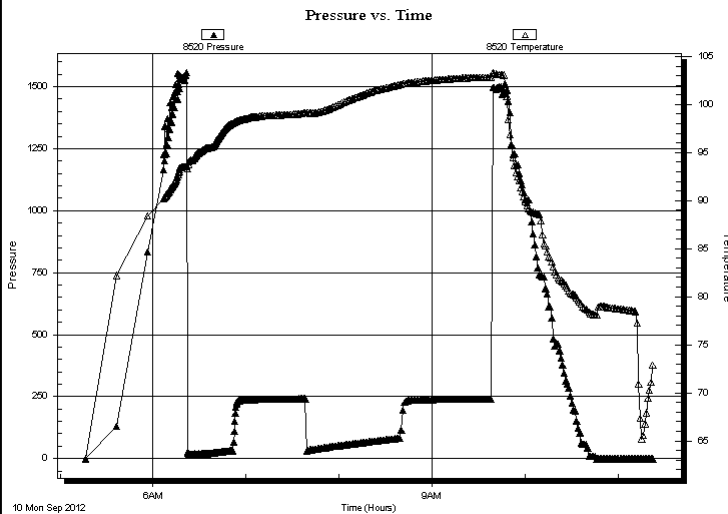
Last Calib.: 2012.09.10

Start Time: 05:16:30 End Time: 11:22:30

Time On Btm:

Time Off Btm:

**TEST COMMENT:** IF-Strong building blow . BOB in 1 minute. GTS in 30 minutes.  
ISI-No Return.  
FF-Strong blow . BOB in 30 seconds.  
FSI-Weak return @ 45 seconds. Built to 2 inches.



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
92.00	2%Oil/88%Water/10%Mud	1.03
103.00	30%Gas/10%Oil/30%Water/30%Mud	1.44
0.00	2973' G.I.P.	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

E&B Natural Resources

**2-12s-18w Ellis,KS**

1600 Norris Rd.  
Bakersfield, CA 93308

**Walters "B" #5**

Job Ticket: 49498

**DST#: 2**

ATTN: Bob O'Dell

Test Start: 2012.09.10 @ 05:06:15

## Tool Information

Drill Pipe:	Length: 3168.00 ft	Diameter: 3.80 inches	Volume: 44.44 bbl	Tool Weight: 3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose: 5000.00 lb
			<u>Total Volume: 44.58 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	3194.00 ft			Final 38000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	21.00 ft			
Tool Length:	49.00 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			3167.00	
Shut In Tool	5.00			3172.00	
Hydraulic tool	5.00			3177.00	
Jars	5.00			3182.00	
Safety Joint	3.00			3185.00	
Packer	5.00			3190.00	28.00 Bottom Of Top Packer
Packer	4.00			3194.00	
Stubb	1.00			3195.00	
Perforations	1.00			3196.00	
Recorder	0.00	8354	Inside	3196.00	
Recorder	0.00	8520	Outside	3196.00	
Perforations	16.00			3212.00	
Bullnose	3.00			3215.00	21.00 Bottom Packers & Anchor

**Total Tool Length: 49.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

E&B Natural Resources

**2-12s-18w Ellis,KS**

1600 Norris Rd.  
Bakersfield, CA 93308

**Walters "B" #5**

Job Ticket: 49498

**DST#: 2**

ATTN: Bob O'Dell

Test Start: 2012.09.10 @ 05:06:15

## 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:	20000 ppm
Viscosity: 66.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.38 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.29 ohm.m	Gas Cushion Pressure: psig		
Salinity: 4600.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
92.00	2%Oil/88%Water/10%Mud	1.026
103.00	30%Gas/10%Oil/30%Water/30%Mud	1.445
0.00	2973' G.I.P.	0.000

Total Length: 195.00 ft      Total Volume: 2.471 bbl

Num Fluid Samples: 0

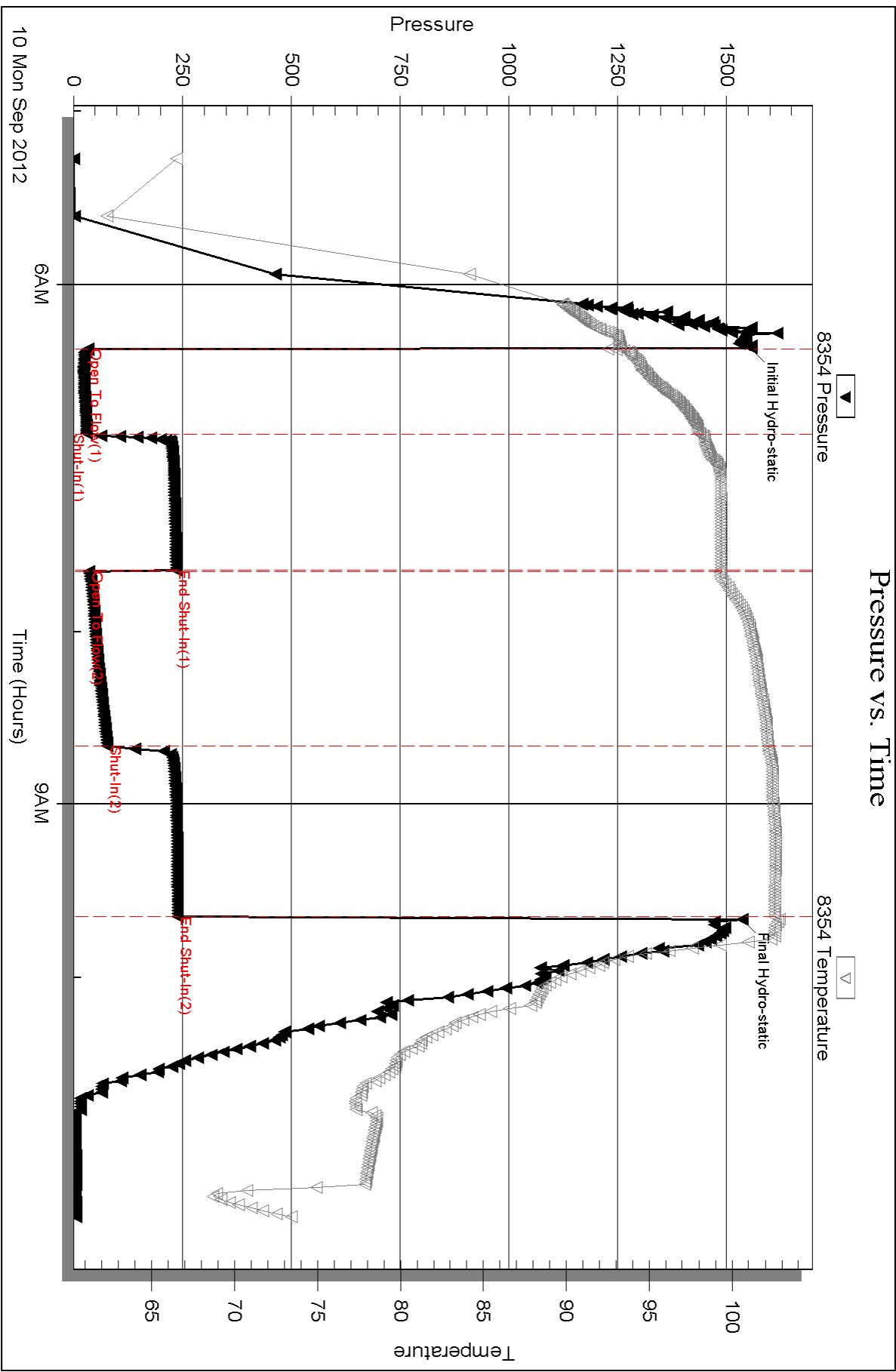
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



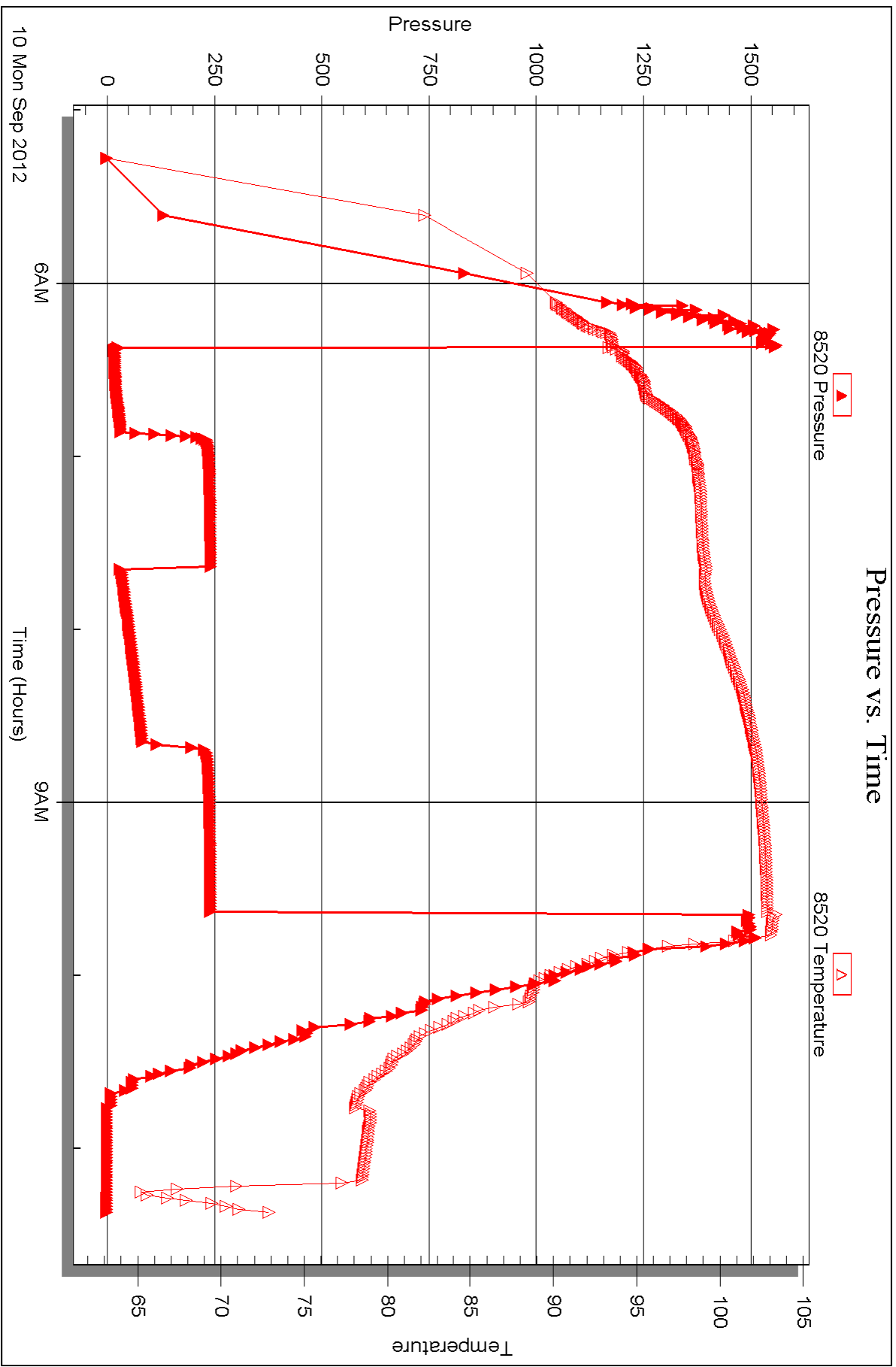
Serial #: 8520

Outside

E&B Natural Resources

Walters "B" #5

DST Test Number: 2





## DRILL STEM TEST REPORT

Prepared For: **E&B Natural Resources**

1600 Norris Rd.  
Bakersfield, CA 93308

ATTN: Bob O'Dell

**Walters "B" #5**

**2-12s-18w Ellis,KS**

Start Date: 2012.09.10 @ 20:41:15

End Date: 2012.09.11 @ 03:14:15

Job Ticket #: 49499                      DST #: 3

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

Printed: 2012.09.17 @ 14:48:02



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

E&B Natural Resources

**2-12s-18w Ellis,KS**

1600 Norris Rd.  
Bakersfield, CA 93308

**Walters "B" #5**

Job Ticket: 49499

**DST#: 3**

ATTN: Bob O'Dell

Test Start: 2012.09.10 @ 20:41:15

## GENERAL INFORMATION:

Formation: **Oread**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:56:45

Time Test Ended: 03:14:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Rash

Unit No: 38

**Interval: 3230.00 ft (KB) To 3280.00 ft (KB) (TVD)**

Reference Elevations: 2131.00 ft (KB)

Total Depth: 3280.00 ft (KB) (TVD)

2125.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 6.00 ft

**Serial #: 8354 Inside**

Press @ Run Depth: 77.15 psig @ 3269.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.10

End Date:

2012.09.11

Last Calib.: 2012.09.11

Start Time: 20:51:15

End Time:

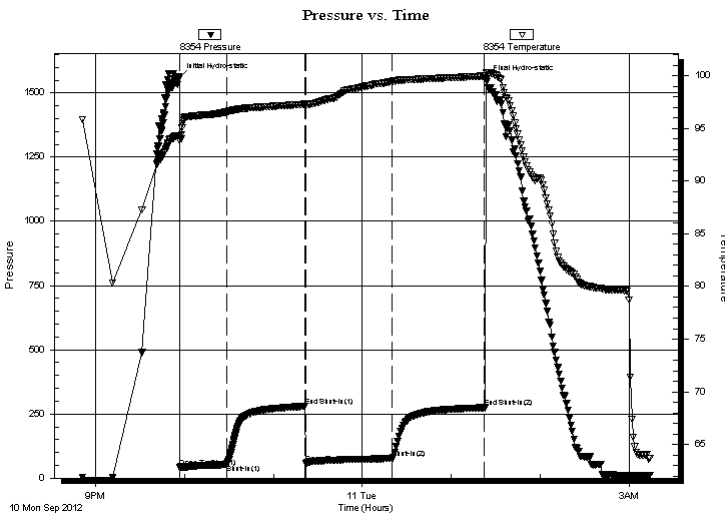
03:14:15

Time On Btm: 2012.09.10 @ 21:56:35

Time Off Btm: 2012.09.11 @ 01:23:15

**TEST COMMENT:** IF-Fair building blow . BOB in 12 minutes 30 seconds.  
ISI-No Return.  
FF-Strong building blow . BOB in 8 minutes 30 seconds.  
FSI-Return @ 45 seconds. Built to 4 inches.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1561.27	94.32	Initial Hydro-static
1	42.45	93.82	Open To Flow (1)
32	53.35	96.55	Shut-In(1)
85	280.18	97.30	End Shut-In(1)
86	55.86	97.25	Open To Flow (2)
144	77.15	99.46	Shut-In(2)
206	275.04	99.96	End Shut-In(2)
207	1550.17	100.27	Final Hydro-static

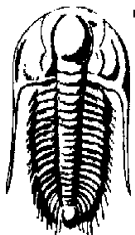
## Recovery

Length (ft)	Description	Volume (bbl)
60.00	10%Gas/10%Oil/80%Mud	0.58
80.00	40%Gas/30%Oil/30%Mud	1.12
0.00	475' G.I.P.	0.00

## Gas Rates

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





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

E&B Natural Resources

**2-12s-18w Ellis, KS**

1600 Norris Rd.  
Bakersfield, CA 93308

**Walters "B" #5**

Job Ticket: 49499

**DST#: 3**

ATTN: Bob O'Dell

Test Start: 2012.09.10 @ 20:41:15

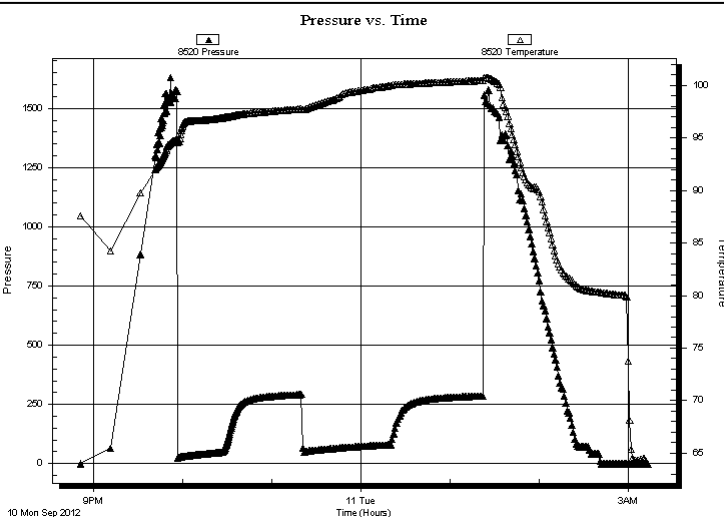
### GENERAL INFORMATION:

Formation:	<b>Oread</b>		Test Type:	Conventional Bottom Hole (Initial)
Deviated:	No Whipstock:	ft (KB)	Tester:	Dustin Rash
Time Tool Opened:	21:56:45		Unit No:	38
Time Test Ended:	03:14:15		Reference Elevations:	2131.00 ft (KB)
<b>Interval:</b>	<b>3230.00 ft (KB) To 3280.00 ft (KB) (TVD)</b>			2125.00 ft (CF)
Total Depth:	3280.00 ft (KB) (TVD)		KB to GR/CF:	6.00 ft
Hole Diameter:	7.88 inches	Hole Condition: Fair		

**Serial #: 8520 Outside**

Press @ Run Depth:	psig @	3269.00 ft (KB)	Capacity:	8000.00 psig	
Start Date:	2012.09.10	End Date:	2012.09.11	Last Calib.:	2012.09.11
Start Time:	20:51:30	End Time:	03:13:30	Time On Btm:	
				Time Off Btm:	

**TEST COMMENT:** IF-Fair building blow . BOB in 12 minutes 30 seconds.  
 IS- No Return.  
 FF-Strong building blow . BOB in 8 minutes 30 seconds.  
 FS- Return @ 45 seconds. Built to 4 inches.



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
60.00	10%Gas/10%Oil/80%Mud	0.58
80.00	40%Gas/30%Oil/30%Mud	1.12
0.00	475' G.I.P.	0.00

### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

E&B Natural Resources

**2-12s-18w Ellis,KS**

1600 Norris Rd.  
Bakersfield, CA 93308

**Walters "B" #5**

Job Ticket: 49499

**DST#: 3**

ATTN: Bob O'Dell

Test Start: 2012.09.10 @ 20:41:15

## Tool Information

Drill Pipe:	Length: 3201.00 ft	Diameter: 3.80 inches	Volume: 44.90 bbl	Tool Weight: 3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose: 5000.00 lb
			<u>Total Volume: 45.04 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	3230.00 ft			Final 38000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	50.00 ft			
Tool Length:	78.00 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			3203.00	
Shut In Tool	5.00			3208.00	
Hydraulic tool	5.00			3213.00	
Jars	5.00			3218.00	
Safety Joint	3.00			3221.00	
Packer	5.00			3226.00	28.00 Bottom Of Top Packer
Packer	4.00			3230.00	
Stubb	1.00			3231.00	
Perforations	5.00			3236.00	
Change Over Sub	1.00			3237.00	
Drill Pipe	31.00			3268.00	
Change Over Sub	1.00			3269.00	
Recorder	0.00	8354	Inside	3269.00	
Recorder	0.00	8520	Outside	3269.00	
Perforations	8.00			3277.00	
Bullnose	3.00			3280.00	50.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>78.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

E&B Natural Resources

**2-12s-18w Ellis,KS**

1600 Norris Rd.  
Bakersfield, CA 93308

**Walters "B" #5**

Job Ticket: 49499

**DST#: 3**

ATTN: Bob O'Dell

Test Start: 2012.09.10 @ 20:41:15

## 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: 50.00 sec/qt

Cushion Volume:

bbbl

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4900.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
60.00	10%Gas/10%Oil/80%Mud	0.577
80.00	40%Gas/30%Oil/30%Mud	1.122
0.00	475' G.I.P.	0.000

Total Length: 140.00 ft

Total Volume: 1.699 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8354

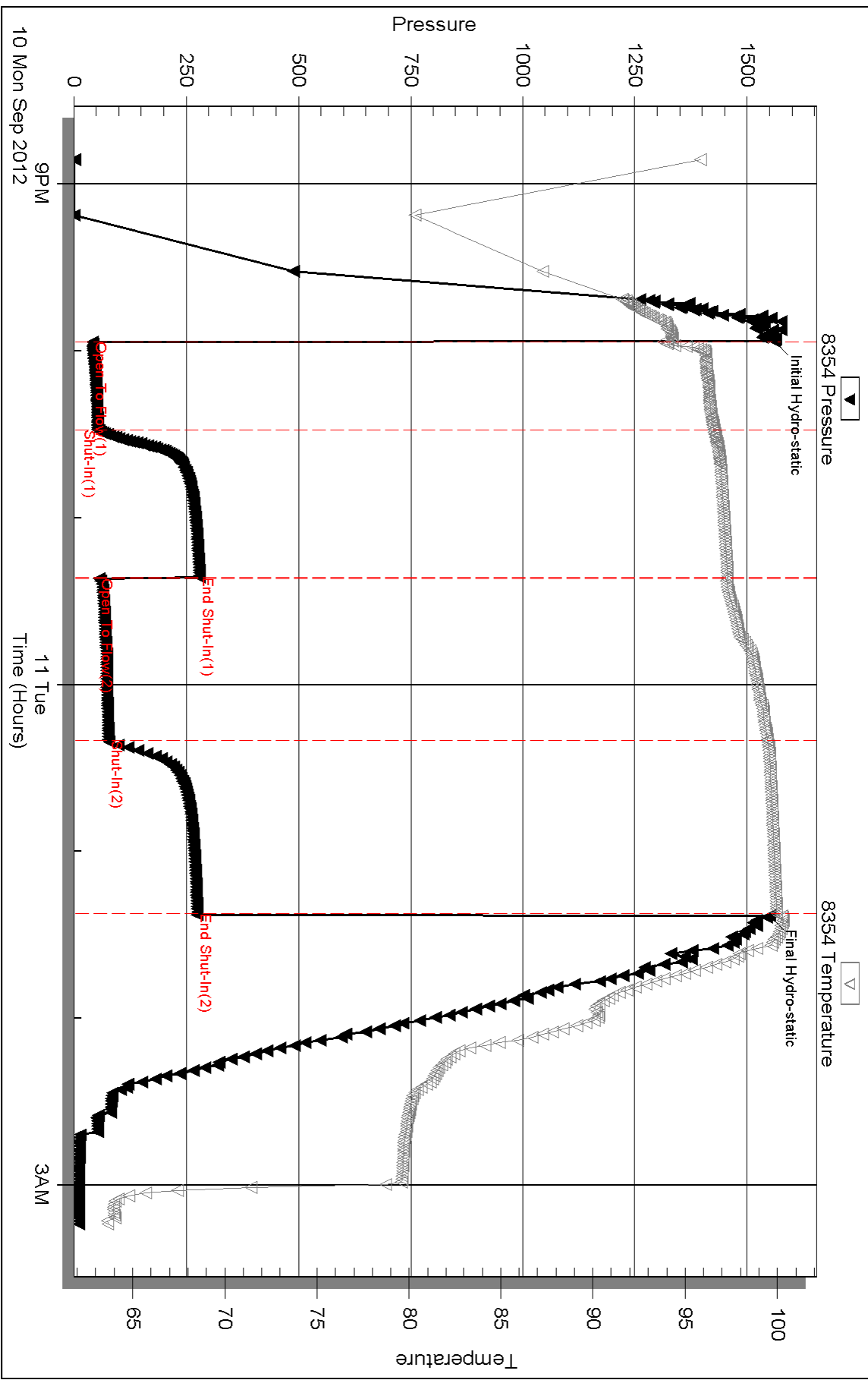
Inside

E&B Natural Resources

Walters "B" #5

DST Test Number: 3

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 49499

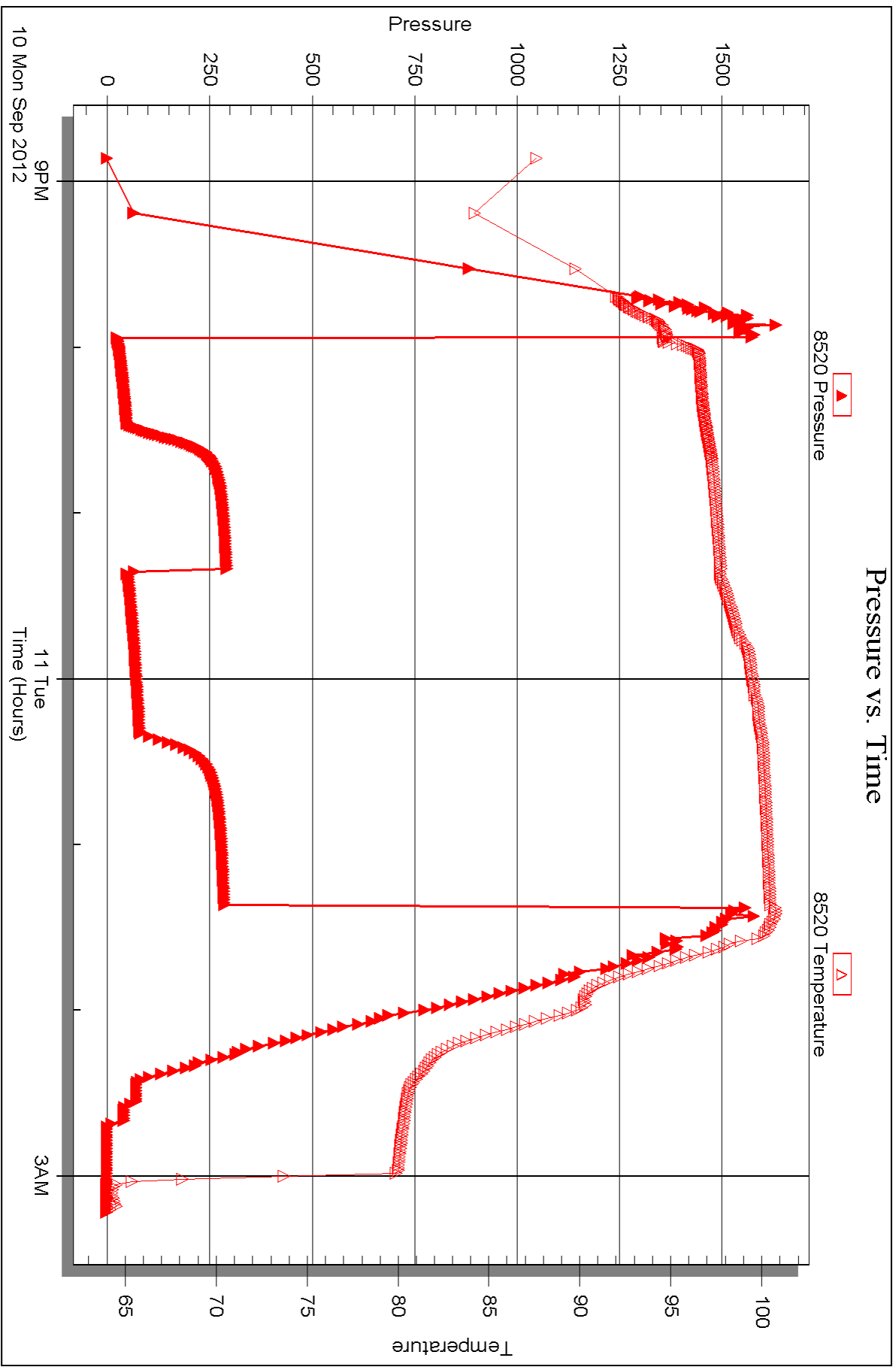
Printed: 2012.09.17 @ 14:48:07

Serial #: 8520

Outside E&B Natural Resources

Walters "B" #5

DST Test Number: 3





## DRILL STEM TEST REPORT

Prepared For: **E&B Natural Resources**

1600 Norris Rd.  
Bakersfield, CA 93308

ATTN: Bob O'Dell

**Walters "B" #5**

**2-12s-18w Ellis,KS**

Start Date: 2012.09.11 @ 21:31:30

End Date: 2012.09.12 @ 03:10:00

Job Ticket #: 49500                      DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.09.17 @ 14:39:09



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

E&B Natural Resources  
 1600 Norris Rd.  
 Bakersfield, CA 93308  
 ATTN: Bob O'Dell

**2-12s-18w Ellis,KS**  
**Walters "B" #5**  
 Job Ticket: 49500 **DST#: 4**  
 Test Start: 2012.09.11 @ 21:31:30

## GENERAL INFORMATION:

Formation: **Lansing "E-G"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 23:25:10  
 Time Test Ended: 03:10:00  
 Interval: **3419.00 ft (KB) To 3470.00 ft (KB) (TVD)**  
 Total Depth: 3470.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Dustin Rash  
 Unit No: 38  
 Reference Elevations: 2131.00 ft (KB)  
 2125.00 ft (CF)  
 KB to GR/CF: 6.00 ft

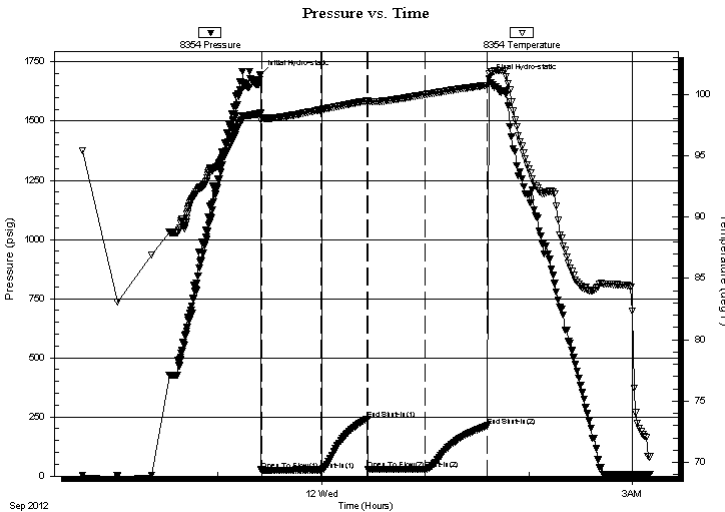
## Serial #: 8354

Inside

Press @ Run Depth: 28.37 psig @ 3459.00 ft (KB)  
 Start Date: 2012.09.11 End Date: 2012.09.12  
 Start Time: 21:41:30 End Time: 03:10:00  
 Capacity: 8000.00 psig  
 Last Calib.: 2012.09.12  
 Time On Btm: 2012.09.11 @ 23:24:50  
 Time Off Btm: 2012.09.12 @ 01:37:00

TEST COMMENT: IF-Weak surface blow . Died @ 5 minutes.  
 IS-No Return.  
 FF-No Blow .  
 FS-No Return.

## PRESSURE SUMMARY



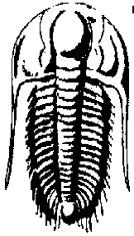
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1698.34	98.47	Initial Hydro-static
1	25.96	98.12	Open To Flow (1)
35	26.74	98.75	Shut-In(1)
62	241.11	99.47	End Shut-In(1)
63	27.87	99.44	Open To Flow (2)
96	28.37	100.00	Shut-In(2)
132	212.23	100.75	End Shut-In(2)
133	1679.46	101.68	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	100%Mud	0.05

## Gas Rates

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



# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

E&B Natural Resources  
 1600 Norris Rd.  
 Bakersfield, CA 93308  
 ATTN: Bob O'Dell

2-12s-18w Ellis, KS

Walters "B" #5

Job Ticket: 49500

DST#: 4

Test Start: 2012.09.11 @ 21:31:30

### GENERAL INFORMATION:

Formation: **Lansing "E-G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:25:10

Time Test Ended: 03:10:00

Interval: **3419.00 ft (KB) To 3470.00 ft (KB) (TVD)**

Total Depth: 3470.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Rash

Unit No: 38

Reference Elevations: 2131.00 ft (KB)

2125.00 ft (CF)

KB to GR/CF: 6.00 ft

Serial #: **8520** Outside

Press @ Run Depth: psig @ 3459.00 ft (KB)

Start Date: 2012.09.11

End Date: 2012.09.12

Start Time: 21:41:45

End Time: 03:09:45

Capacity: 8000.00 psig

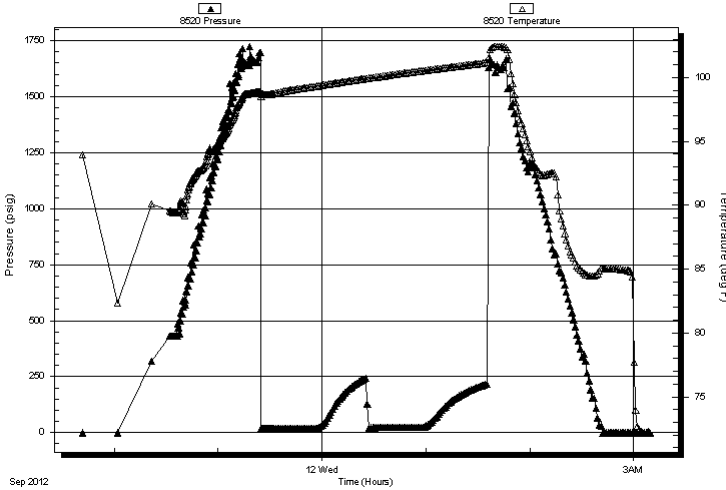
Last Calib.: 2012.09.12

Time On Btm:

Time Off Btm:

**TEST COMMENT:** IF-Weak surface blow . Died @ 5 minutes.  
 IS- No Return.  
 FF- No Blow .  
 FS- No Return.

Pressure vs. Time



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
10.00	100%Mud	0.05

### Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

E&B Natural Resources

**2-12s-18w Ellis,KS**

1600 Norris Rd.  
Bakersfield, CA 93308

**Walters "B" #5**

Job Ticket: 49500

**DST#: 4**

ATTN: Bob O'Dell

Test Start: 2012.09.11 @ 21:31:30

## Tool Information

Drill Pipe:	Length: 3394.00 ft	Diameter: 3.80 inches	Volume: 47.61 bbl	Tool Weight: 3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose: 5000.00 lb
			<u>Total Volume: 47.75 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 39000.00 lb
Depth to Top Packer:	3419.00 ft			Final 39000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	51.00 ft			
Tool Length:	79.00 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			3392.00	
Shut In Tool	5.00			3397.00	
Hydraulic tool	5.00			3402.00	
Jars	5.00			3407.00	
Safety Joint	3.00			3410.00	
Packer	5.00			3415.00	28.00 Bottom Of Top Packer
Packer	4.00			3419.00	
Stubb	1.00			3420.00	
Perforations	5.00			3425.00	
Change Over Sub	1.00			3426.00	
Drill Pipe	32.00			3458.00	
Change Over Sub	1.00			3459.00	
Recorder	0.00	8354	Inside	3459.00	
Recorder	0.00	8520	Outside	3459.00	
Perforations	8.00			3467.00	
Bullnose	3.00			3470.00	51.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>79.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

E&B Natural Resources

**2-12s-18w Ellis,KS**

1600 Norris Rd.  
Bakersfield, CA 93308

**Walters "B" #5**

Job Ticket: 49500

**DST#: 4**

ATTN: Bob O'Dell

Test Start: 2012.09.11 @ 21:31:30

## 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: 47.00 sec/qt

Cushion Volume:

bbbl

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7800.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	100%Mud	0.049

Total Length: 10.00 ft      Total Volume: 0.049 bbl

Num Fluid Samples: 0

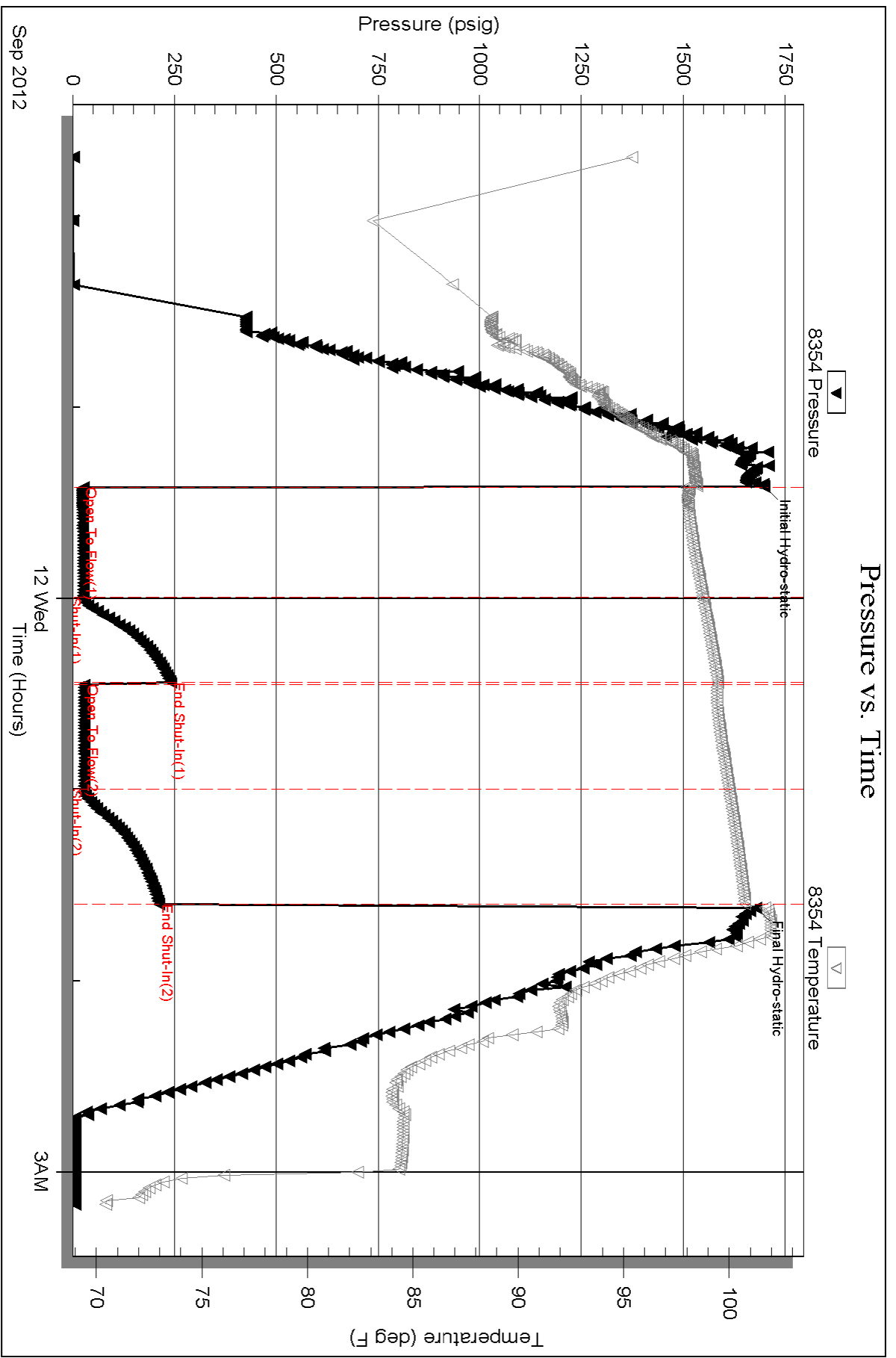
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

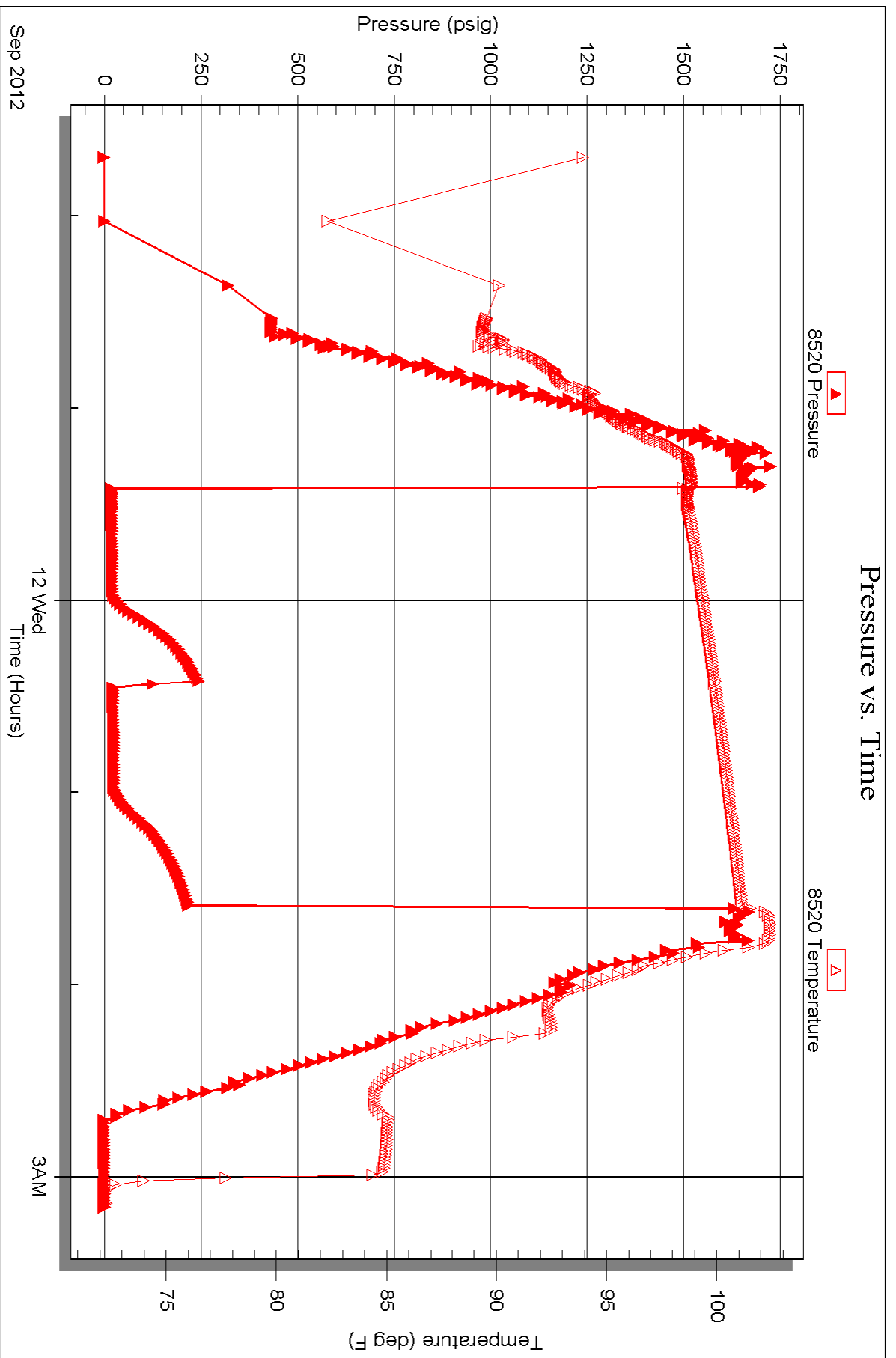


Serial #: 8520

Outside E&B Natural Resources

Wells "B" #5

DST Test Number: 4





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 49497

4/10

Well Name & No. Walters 'B' #5 Test No. 1 Date 9-9-12  
 Company E+B Natural Resources Elevation 2131 KB 2125 GL  
 Address 1600 Navis Rd. Bakersfield, CA 93308  
 Co. Rep / Geo. Bob O'Dell Rig Mullin 16  
 Location: Sec. 2 Twp. 12S Rge. 18W Co. Ellis State KS

Interval Tested 3080-3105 Zone Tested Topeka  
 Anchor Length 25' Drill Pipe Run \_\_\_\_\_ Mud Wt. 8.9  
 Top Packer Depth 3075 Drill Collars Run 29.28 Vis 66  
 Bottom Packer Depth 3080 Wt. Pipe Run 0 WL 6.4  
 Total Depth 3105 Chlorides 4600 ppm System LCM 3.0

Blow Description IF - Weak surface blow throughout,  
IST - No Return,  
FF - Weak building blow, Built to 3 inches,  
FST - No Return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>Gassy OCM</u>	<u>10</u>	<u>15</u>	<u>25</u>	<u>50</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	<u>40' G.I.P.</u>	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 20 BHT 98 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1494  Test 1150 T-On Location 1230  
 (B) First Initial Flow 21  Jars 250 T-Started 1415  
 (C) First Final Flow 28  Safety Joint 75 T-Open 1522  
 (D) Initial Shut-In 683  Circ Sub \_\_\_\_\_ T-Pulled 1840  
 (E) Second Initial Flow 29  Hourly Standby \_\_\_\_\_ T-Out \_\_\_\_\_  
 (F) Second Final Flow 38  Mileage 13X2 40.30 Comments Part-1349  
 (G) Final Shut-In 646  Sampler \_\_\_\_\_ Slid 4'-6'  
 (H) Final Hydrostatic 1422  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In 45  Day Standby \_\_\_\_\_ Total 1515.30  
 Final Flow 60  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 60 Sub Total 1515.30

Approved By \_\_\_\_\_ Our Representative [Signature]

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# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 49498

4/10

Well Name & No. Walters "B" #5 Test No. 2 Date 9-10-12  
 Company E+B Natural Resources Elevation 2131 KB 2125 GL  
 Address 1600 Norris Rd. Bakersfield, CA 93308  
 Co. Rep / Geo. Bob O'Dell Rig Murphy 16  
 Location: Sec. 2 Twp. 12S Rge. 18W Co. Ellis State KS

Interval Tested 3194-3215 Zone Tested Topeka  
 Anchor Length 21' Drill Pipe Run 3168 Mud Wt. 8.9  
 Top Packer Depth 3189 Drill Collars Run 29.28 Vis 66  
 Bottom Packer Depth 3194 Wt. Pipe Run 0 WL 6.4  
 Total Depth 3215 Chlorides 4600 ppm System LCM 3.0

Blow Description IF- Strong building blow, BOB in 1 minute, GTS in 30 minutes  
IST- No Return.

FF- Strong blow, BOB in 30 seconds.  
FST- Weak return @ 45 seconds, Built to 2 inches.

Rec	Feet of	%gas	%oil	%water	%mud
<u>103</u>	<u>GOCWM</u>	<u>30</u>	<u>10</u>	<u>30</u>	<u>30</u>
<u>92</u>	<u>VSOCWM</u>	<u>0</u>	<u>2</u>	<u>88</u>	<u>10</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 195 BHT 103 Gravity ✓ API RW 293 @ 78 °F Chlorides 20,000 ppm

(A) Initial Hydrostatic 1557  Test 1150 T-On Location 0445  
 (B) First Initial Flow 33  Jars 250 T-Started 0515  
 (C) First Final Flow 31  Safety Joint 75 T-Open 0622  
 (D) Initial Shut-In 235  Circ Sub T-Pulled 0940  
 (E) Second Initial Flow 36  Hourly Standby T-Out 1130  
 (F) Second Final Flow 77  Mileage 13X2 40.30 Comments BATT-0506  
 (G) Final Shut-In 239  Sampler  
 (H) Final Hydrostatic 1536  Straddle  Ruined Shale Packer  
 Shale Packer  Ruined Packer  
 Extra Packer  Extra Copies

Initial Open 30  
 Initial Shut-In 45  
 Final Flow 60  
 Final Shut-In 60  
 Sub Total 0  
 Total 1515.30  
 Sub Total 1515.30

Approved By \_\_\_\_\_ Our Representative D. Roth

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# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 49499

Well Name & No. Walters "B" #5 Test No. 3 Date 9-10-12  
 Company E+B Natural Resources Elevation 2131 KB 2125 GL  
 Address 1600 Norris Rd, Bakersfield, CA 93308  
 Co. Rep / Geo. Bob O'Dell Rig Mulfr 16  
 Location: Sec. 2 Twp. 12S Rge. 18W Co. Ellis State KS

Interval Tested 3230-3280 Zone Tested Oread  
 Anchor Length 50' Drill Pipe Run 3201 Mud Wt. 8.8  
 Top Packer Depth 3225 Drill Collars Run 29.28 Vis 50  
 Bottom Packer Depth 3230 Wt. Pipe Run 0 WL 8.0  
 Total Depth 3280 Chlorides 4900 ppm System LCM 2#

Blow Description FF - Fair building blow, BOB in 12 minutes 30 seconds.  
~~JST - No Return.~~

FF - Strong building blow, BOB in 8 minutes 30 seconds,

FST - Return @ 45 seconds. Built to 4 inches,

Rec	Feet of	%gas	%oil	%water	%mud
<u>80</u>	<u>Gassy HOCM</u>	<u>40</u>	<u>30</u>	<u>30</u>	<u>0</u>
<u>60</u>	<u>Gassy SOCM</u>	<u>10</u>	<u>10</u>	<u>80</u>	<u>0</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec 475' G.I.P. %gas %oil %water %mud

Rec Total 140 BHT 100 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1561  Test 1150 T-On Location 2015  
 (B) First Initial Flow 42  Jars 250 T-Started 2100  
 (C) First Final Flow 53  Safety Joint 75 T-Open 2157  
 (D) Initial Shut-In 280  Circ Sub \_\_\_\_\_ T-Pulled 0120  
 (E) Second Initial Flow 56  Hourly Standby \_\_\_\_\_ T-Out 0315  
 (F) Second Final Flow 77  Mileage 13X2 40.30 Comments Best - 2041  
 (G) Final Shut-In 275  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1550  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_

Initial Open 30  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Shut-In 45  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Flow 60  Day Standby \_\_\_\_\_ Total 1515.30  
 Final Shut-In 60  Accessibility \_\_\_\_\_  
 Sub Total 1515.30 MP/DST Disc't

Approved By \_\_\_\_\_ Our Representative [Signature]

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# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 49500

4/10

Well Name & No. Walters "B" #5 Test No. 4 Date 9-11-12  
 Company ETB Natural Resources Elevation 2131 KB 2125 GL  
 Address 1600 Norris Rd, Bakersfield, CA 93308  
 Co. Rep / Geo. Bob O'Dell Rig Murphy 16  
 Location: Sec. 2 Twp. 12S Rge. 18W Co. Ellis State KS

Interval Tested 3419-3470 Zone Tested Lansing "E-G"  
 Anchor Length 51' Drill Pipe Run 3394 Mud Wt. 9.0  
 Top Packer Depth 3414 Drill Collars Run 29.28 Vis 47  
 Bottom Packer Depth 3419 Wt. Pipe Run Ø WL 8.0  
 Total Depth 3470 Chlorides 7800 ppm System LCM 3#

Blow Description IF- Weak surface blow, Died @ 5 minutes.  
~~IST- No Return,~~  
~~FF- No Blow,~~  
~~FST- No Return,~~

Rec	Feet of	%gas	%oil	%water	%mud
10	Mud			100	

Rec Total 10 BHT 102 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1698  Test 1150 T-On Location 2100  
 (B) First Initial Flow 26  Jars 250 T-Started 2200  
 (C) First Final Flow 27  Safety Joint 75 T-Open 2325  
 (D) Initial Shut-In 241  Circ Sub \_\_\_\_\_ T-Pulled 0130  
 (E) Second Initial Flow 28  Hourly Standby \_\_\_\_\_ T-Out 0300  
 (F) Second Final Flow 28  Mileage 13X2 40.30 Comments Bot-2131  
 (G) Final Shut-In 212  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1679  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_

Initial Open 30  Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Initial Shut-In 30  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Final Flow 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Shut-In 30  Day Standby \_\_\_\_\_ Total 1515.30  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1515.30

Approved By \_\_\_\_\_ Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements 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.