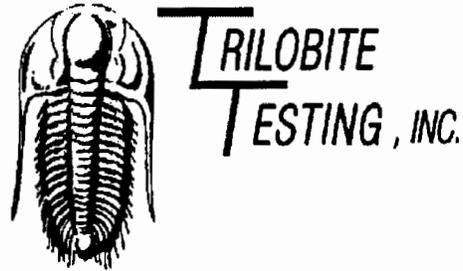


15-065-22944

9-8s-23w



## DRILL STEM TEST REPORT

Prepared For: **Pioneer Resources**

177 W. Limestone Road  
Phillipsburg, KS.67661

ATTN: Todd Morgenstem

**9-8s-23w-Graham**

**Hull #1**

Start Date: 2004.02.14 @ 15:03:20

End Date: 2004.02.14 @ 20:04:35

Job Ticket #: 18375                      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

**TOOL DIAGRAM**

Pioneer Resources

**Hull #1**

177 W. Limestone Road  
Phillipsburg, KS.67661

**9-8s-23w-Graham**

Job Ticket: 18375

**DST#: 1**

ATTN: Todd Morgenstern

Test Start: 2004.02.14 @ 15:03:20

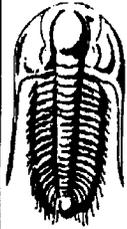
### Tool Information

Drill Pipe:	Length: 3202.00 ft	Diameter: 3.80 inches	Volume: 44.92 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 346.00 ft	Diameter: 2.25 inches	Volume: 1.70 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 80000.00 lb
		<b>Total Volume:</b>	<b>46.62 bbl</b>	Tool Chased 5.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3536.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	24.00 ft			
Tool Length:	45.00 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			3516.00	
Shut In Tool	5.00			3521.00	
Hydraulic tool	5.00			3526.00	
Packer	5.00			3531.00	21.00 Bottom Of Top Packer
Packer	5.00			3536.00	
Stubb	1.00			3537.00	
Perforations	2.00			3539.00	
Recorder	0.00	6627	Inside	3539.00	
Perforations	18.00			3557.00	
Recorder	0.00	13252	Outside	3557.00	
Bullnose	3.00			3560.00	24.00 Bottom Packers & Anchor

**Total Tool Length: 45.00**



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Pioneer Resources

**Hull #1**

177 W. Limestone Road  
Phillipsburg, KS.67661

**9-8s-23w-Graham**

Job Ticket: 18375

**DST#: 1**

ATTN: Todd Morgenstern

Test Start: 2004.02.14 @ 15:03:20

**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: 45.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
10.00	Mud W/Oil Show	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 #: 6627

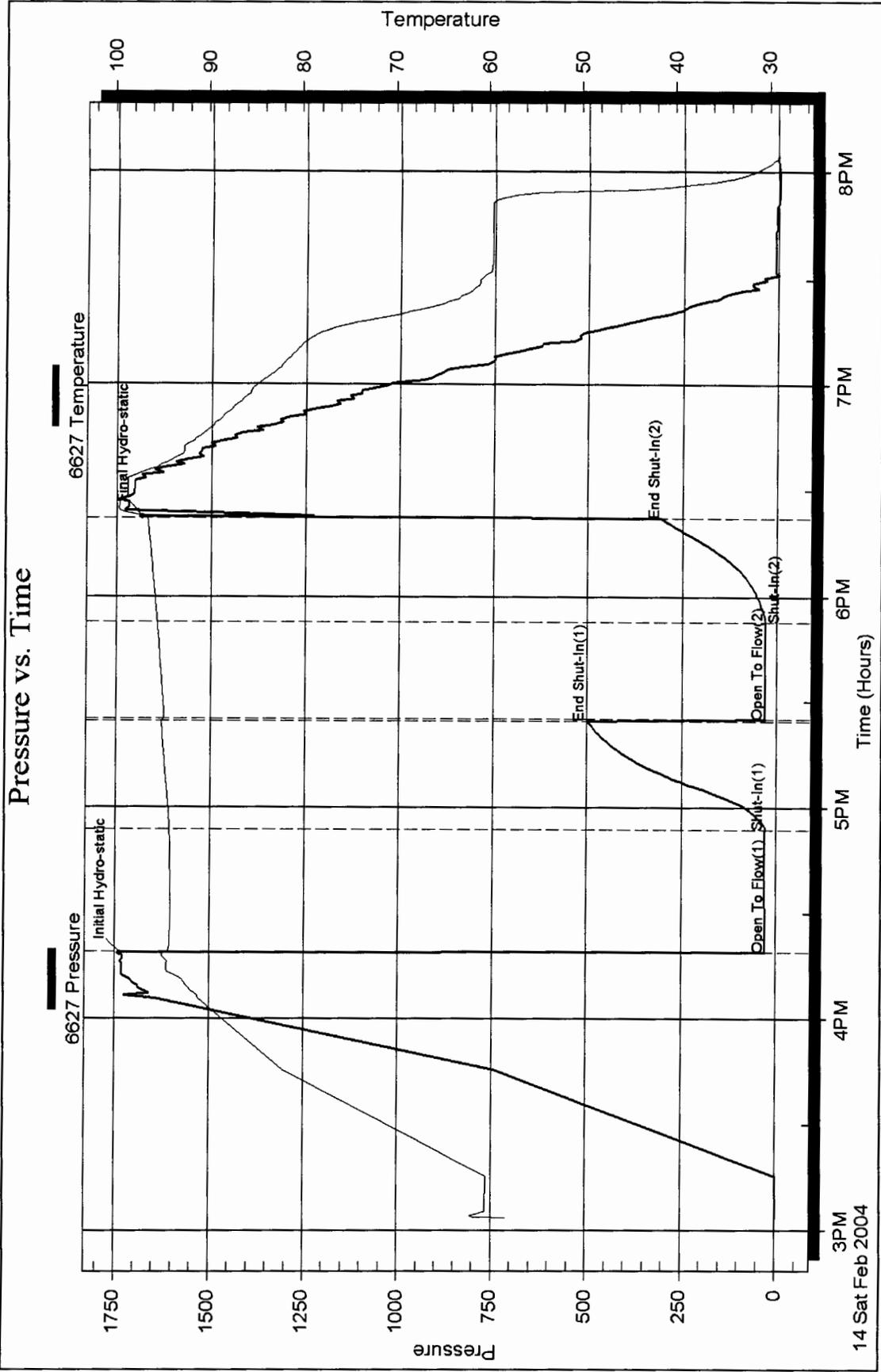
Inside

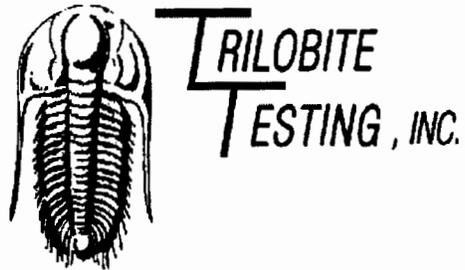
Pioneer Resources

9-8s-23w - Graham

DST Test Number: 1

### Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Pioneer Resources**

177 W. Limestone Road  
Phillipsburg, KS.67661

ATTN: Todd Morgenstem

**9-8s-23w-Graham**

**Hull #1**

Start Date: 2004.02.15 @ 06:35:44

End Date: 2004.02.15 @ 12:56:44

Job Ticket #: 18601                      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

Pioneer Resources

177 W. Limestone Road  
Phillipsburg, KS.67661

ATTN: Todd Morgenstern

Hull #1

9-8s-23w-Graham

Job Ticket: 18601

DST#: 2

Test Start: 2004.02.15 @ 06:35:44

### GENERAL INFORMATION:

Formation: **LKC**

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

Time Tool Opened: 07:54:14

Time Test Ended: 12:56:44

Test Type: **Conventional Bottom Hole**

Tester: **Jason McLemore**

Unit No: **24**

Interval: **3557.00 ft (KB) To 3600.00 ft (KB) (TVD)**

Reference Elevations: **2245.00 ft (KB)**

Total Depth: **3600.00 ft (KB) (TVD)**

**2240.00 ft (CF)**

Hole Diameter: **7.80 inches** Hole Condition: **Good**

KB to GR/CF: **5.00 ft**

**Serial #: 6627**

**Inside**

Press@RunDepth: **243.99 psig @ 3560.00 ft (KB)**

Capacity: **7000.00 psig**

Start Date: **2004.02.15**

End Date:

**2004.02.15**

Last Calib.: **1899.12.30**

Start Time: **06:35:46**

End Time:

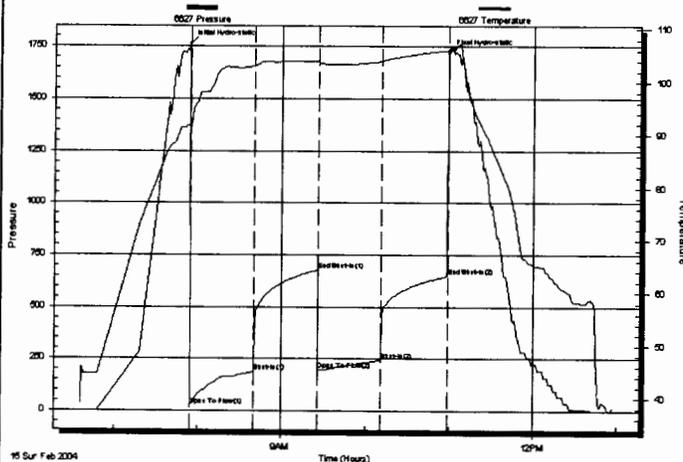
**12:56:44**

Time On Btm: **2004.02.15 @ 07:53:59**

Time Off Btm: **2004.02.15 @ 10:58:59**

TEST COMMENT: IFP- Good Blow , BOB in 8 min., No Blow back  
FP- Good Blow , BOB in 15 min., No Blow back

Pressure vs. Time



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1761.28	92.02	Initial Hydro-static
1	21.06	91.63	Open To Flow (1)
47	187.12	103.02	Shut-In (1)
92	677.33	103.98	End Shut-In (1)
93	198.09	103.73	Open To Flow (2)
137	243.99	103.93	Shut-In (2)
185	648.68	106.03	End Shut-In (2)
185	1717.70	106.26	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
150.00	Frothy Oil Cut Water	0.74
450.00	Frothy Mud Cut Oil	4.53

### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Pioneer Resources  
177 W. Limestone Road  
Phillipsburg, KS.67661  
ATTN: Todd Morgenstern

**Hull #1**  
**9-8s-23w-Graham**  
Job Ticket: 18601      **DST#: 2**  
Test Start: 2004.02.15 @ 06:35:44

**Tool Information**

Drill Pipe:	Length: 3198.00 ft	Diameter: 3.80 inches	Volume: 44.86 bbl	Tool Weight:	2400.00 lb
Heavy Wt. Pipe:	Length: 346.00 ft	Diameter: 2.25 inches	Volume: 1.70 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	lb
			<b>Total Volume: 46.56 bbl</b>	Tool Chased	0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial	49000.00 lb
Depth to Top Packer:	3557.00 ft			Final	lb
Depth to Bottom Packer:	ft				
Interval between Packers:	43.00 ft				
Tool Length:	64.00 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			3537.00	
Shut In Tool	5.00			3542.00	
Hydraulic tool	5.00			3547.00	
Packer	5.00			3552.00	21.00      Bottom Of Top Packer
Packer	5.00			3557.00	
Stubb	1.00			3558.00	
Perforations	1.00			3559.00	
Change Over Sub	1.00			3560.00	
Recorder	0.00	6627	Inside	3560.00	
Blank Spacing	31.00			3591.00	
Change Over Sub	1.00			3592.00	
Perforations	5.00			3597.00	
Recorder	0.00	13252	Outside	3597.00	
Bullnose	3.00			3600.00	43.00      Bottom Packers & Anchor

**Total Tool Length: 64.00**



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Pioneer Resources

**Hull #1**

177 W. Limestone Road  
Phillipsburg, KS.67661

**9-8s-23w-Graham**

Job Ticket: 18601

**DST#: 2**

ATTN: Todd Morgenstern

Test Start: 2004.02.15 @ 06:35:44

**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:

38000 ppm

Viscosity: 45.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbbl
150.00	Frothy Oil Cut Water	0.738
450.00	Frothy Mud Cut Oil	4.527

Total Length: 600.00 ft

Total Volume: 5.265 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6627

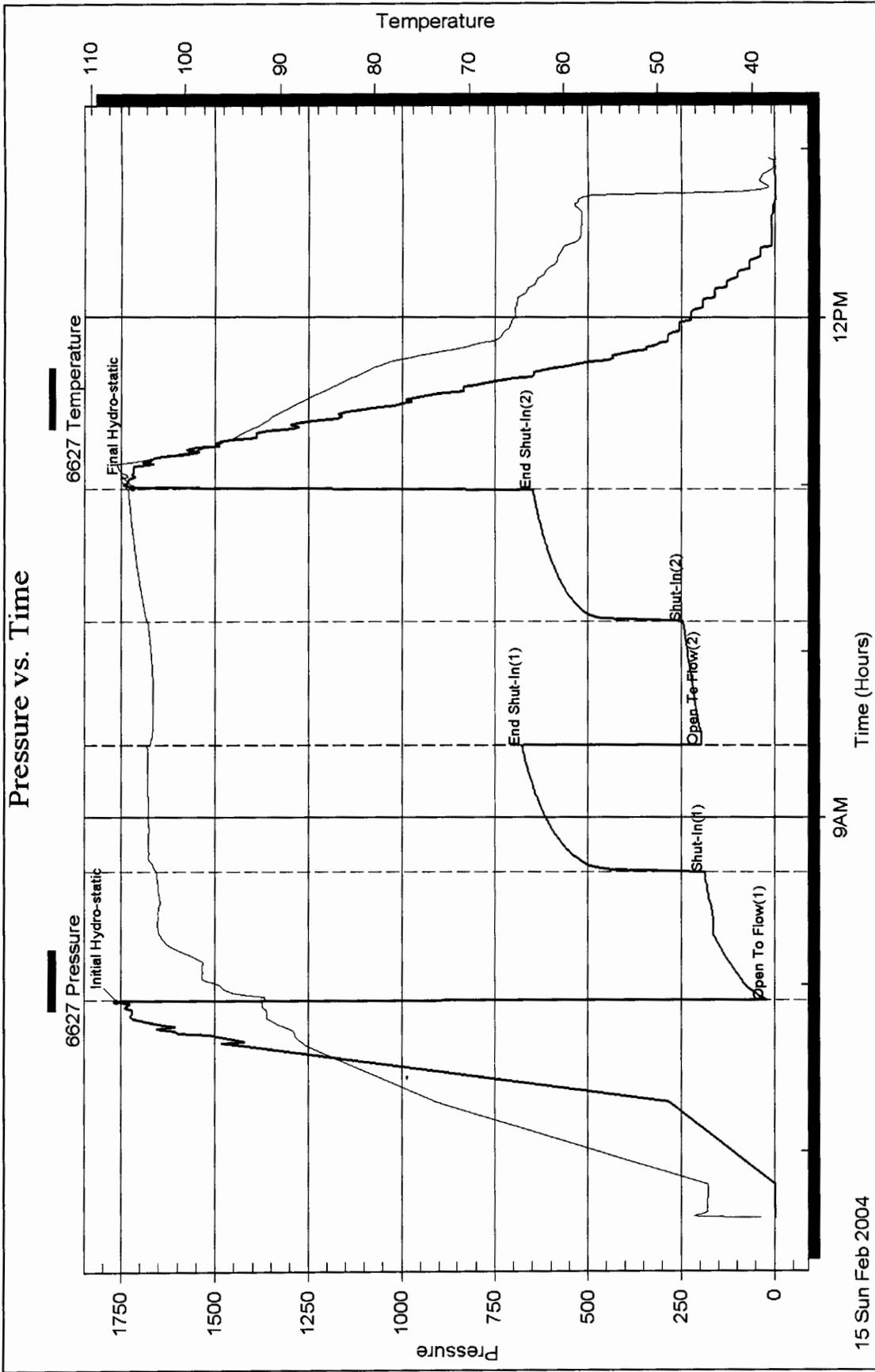
Inside

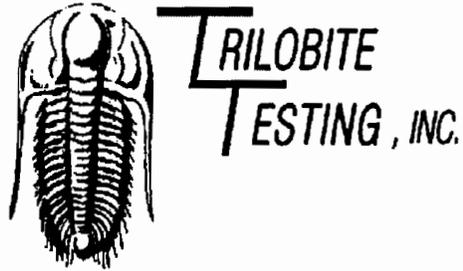
Fioneer Resources

9-8s-23w - Graham

DST Test Number: 2

### Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Pioneer Resources**

177 W. Limestone Road  
Phillipsburg, KS.67661

ATTN: Todd Morgenstem

**9-8s-23w-Graham**

**Hull #1**

Start Date: 2004.02.16 @ 04:40:42

End Date: 2004.02.16 @ 10:34:57

Job Ticket #: 18602                      DST #: 3

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Pioneer Resources

177 W. Limestone Road  
Phillipsburg, KS.67661

ATTN: Todd Morgenstern

Hull #1

9-8s-23w-Graham

Job Ticket: 18602

DST#: 3

Test Start: 2004.02.16 @ 04:40:42

### GENERAL INFORMATION:

Formation: **LKC "160-180"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:26:57

Time Test Ended: 10:34:57

Test Type: Conventional Bottom Hole

Tester: Jason McLemore

Unit No: 24

Interval: **3652.00 ft (KB) To 3690.00 ft (KB) (TVD)**

Total Depth: 3690.00 ft (KB) (TVD)

Hole Diameter: 7.80 inches Hole Condition: Good

Reference Elevations: 2245.00 ft (KB)

2240.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: **6627** Inside

Press@RunDepth: 13.94 psig @ 3654.00 ft (KB)

Start Date: 2004.02.16

End Date:

2004.02.16

Start Time: 04:40:44

End Time:

10:34:57

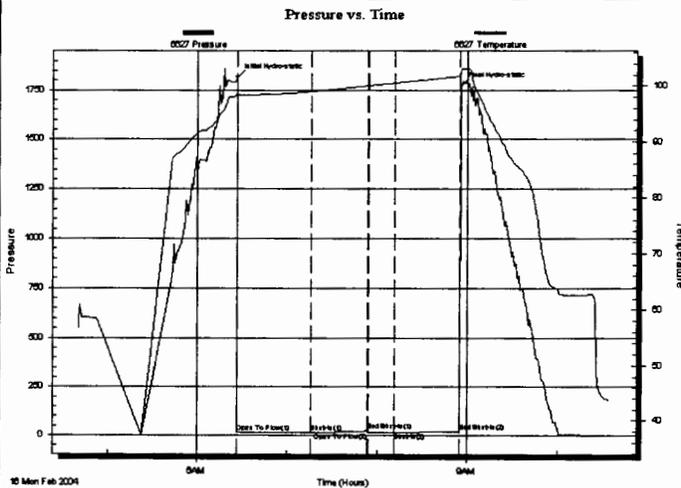
Capacity: 7000.00 psig

Last Calib.: 1899.12.30

Time On Btm: 2004.02.16 @ 06:26:42

Time Off Btm: 2004.02.16 @ 08:55:57

TEST COMMENT: IFP-Weak Blow, 1/2", Died in 37 min.  
FFP- No Blow



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1817.05	98.67	Initial Hydro-static
1	13.02	97.86	Open To Flow (1)
50	13.53	99.03	Shut-in(1)
87	21.92	100.07	End Shut-in(1)
87	12.55	100.07	Open To Flow (2)
105	13.94	100.57	Shut-in(2)
149	21.38	101.78	End Shut-in(2)
150	1771.56	102.51	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)

### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Pioneer Resources

**Hull #1**

177 W. Limestone Road  
Phillipsburg, KS.67661

**9-8s-23w-Graham**

Job Ticket: 18602

**DST#: 3**

ATTN: Todd Morgenstern

Test Start: 2004.02.16 @ 04:40:42

### Tool Information

Drill Pipe:	Length: 3292.00 ft	Diameter: 3.80 inches	Volume: 46.18 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 346.00 ft	Diameter: 2.25 inches	Volume: 1.70 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	54000.00 lb
			<u>Total Volume: 47.88 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial	44000.00 lb
Depth to Top Packer:	3652.00 ft			Final	44000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	38.00 ft				
Tool Length:	59.00 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			3632.00	
Shut In Tool	5.00			3637.00	
Hydraulic tool	5.00			3642.00	
Packer	5.00			3647.00	21.00 Bottom Of Top Packer
Packer	5.00			3652.00	
Stubb	1.00			3653.00	
Perforations	1.00			3654.00	
Recorder	0.00	6627	Inside	3654.00	
Perforations	33.00			3687.00	
Recorder	0.00	13252	Outside	3687.00	
Bullnose	3.00			3690.00	38.00 Bottom Packers & Anchor

**Total Tool Length: 59.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Pioneer Resources

**Hull #1**

177 W. Limestone Road  
Phillipsburg, KS.67661

**9-8s-23w-Graham**

Job Ticket: 18602

**DST#: 3**

ATTN: Todd Morgenstern

Test Start: 2004.02.16 @ 04:40:42

## 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: 43.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl

Total Length: ft

Total Volume: bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6627

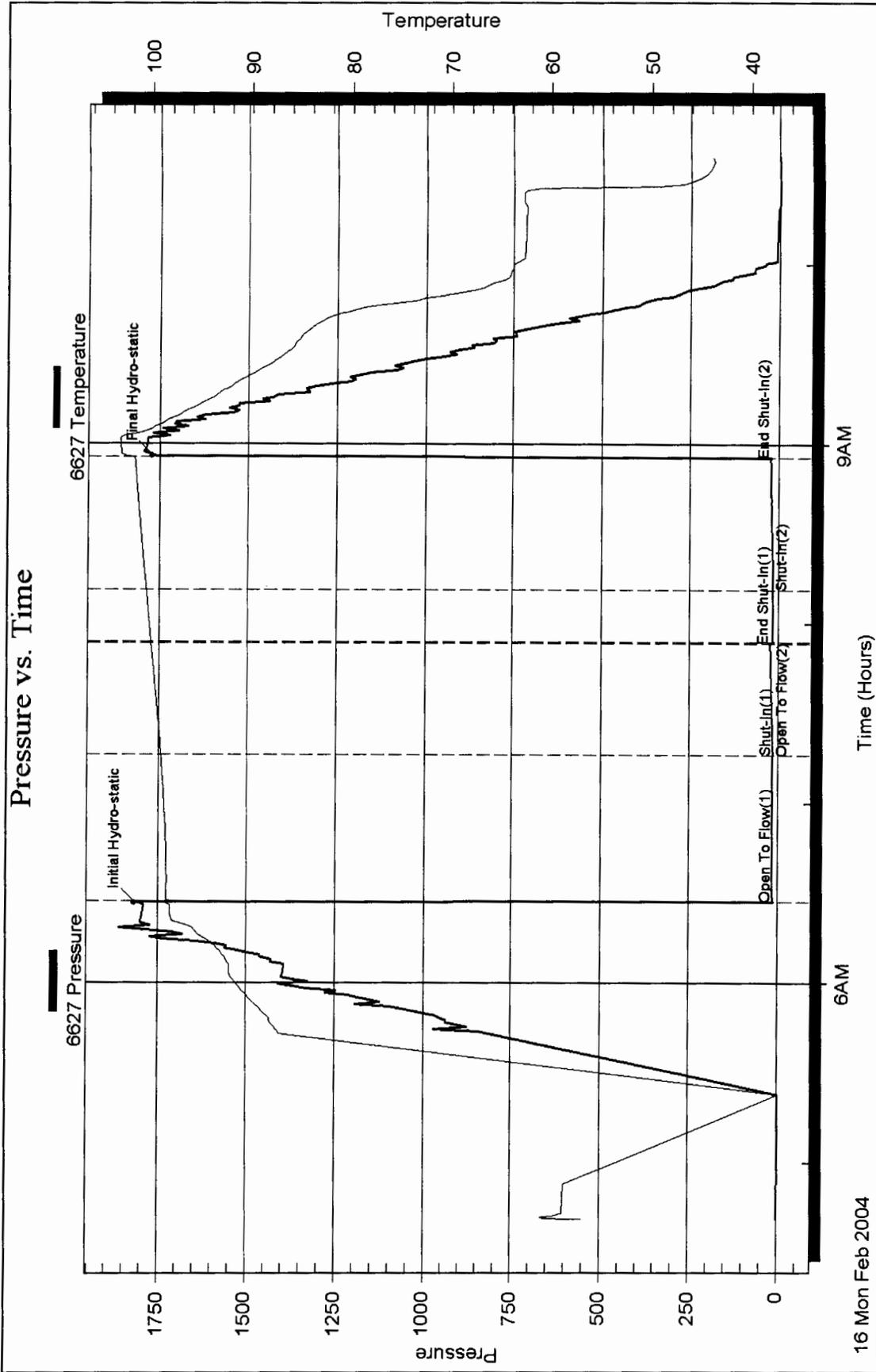
Inside

Pioneer Resources

9-8s-23w - Graham

DST Test Number: 3

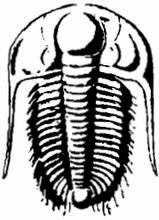
### Pressure vs. Time



16 Mon Feb 2004

6AM

9AM



# TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

TNW  
6218

No 18375

05/03

## Test Ticket

Well Name & No. Hull #1 Test No. 1 Date 2-14-04  
 Company Pioneer Resources Zone Tested Lansing 35'  
 Address 177 W. Limestone Road, Phillipsburg, KS 67661 Elevation 2245 KB 2240 GL  
 Co. Rep / Geo. Todd Morgenstern Cont. Shields Est. Ft. of Pay \_\_\_\_\_ Por. \_\_\_\_\_ %  
 Location: Sec. 9 Twp. 8s Rge. 23w Co. Graham State Ks  
 No. of Copies \_\_\_\_\_ Distribution Sheet (Y, N) \_\_\_\_\_ Turnkey (Y, N) \_\_\_\_\_ Evaluation (Y, N) \_\_\_\_\_

Interval Tested 3536 - 3560 Initial Str Wt./Lbs. 46,000 Unseated Str Wt./Lbs. 46,000  
 Anchor Length 24' Wt. Set Lbs. 25,000 Wt. Pulled Loose/Lbs. 80,000  
 Top Packer Depth 3531 Tool Weight 2000  
 Bottom Packer Depth 3536 Hole Size 7 7/8" ✓ Rubber Size 6 3/4" ✓  
 Total Depth 3560 Wt. Pipe Run 346 Drill Collar Run 0  
 Mud Wt. 9.2 LCM 0 Vis. 45 WL 8.0 Drill Pipe Size 4 1/2 XH Ft. Run 3202  
 Blow Description IFP - Weak Blow, Died in 20 min, No Blowback.  
IFP - No Blow

Recovery - Total Feet 10 GIP \_\_\_\_\_ Ft. in DC \_\_\_\_\_ Ft. in DP \_\_\_\_\_  
 Rec. 10 Feet of Mud w/oil show %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. \_\_\_\_\_ Feet of \_\_\_\_\_ %gas \_\_\_\_\_ %oil \_\_\_\_\_ %water \_\_\_\_\_ %mud \_\_\_\_\_  
 BHT \_\_\_\_\_ °F Gravity \_\_\_\_\_ °API D @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API  
 RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm Recovery \_\_\_\_\_ Chlorides 700 ppm System

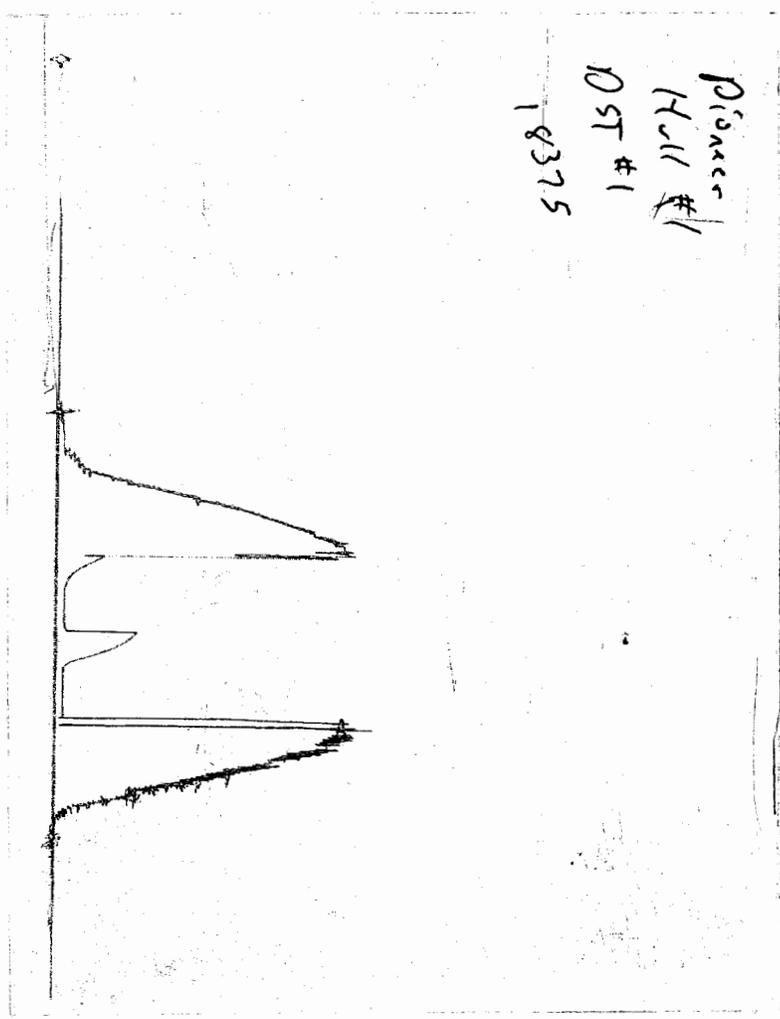
	AK-1	Alpine	Recorder No.	Test
(A) Initial Hydrostatic Mud		<u>1736</u> PSI	<u>6627</u>	✓ <u>700</u>
(B) First Initial Flow Pressure		<u>28</u> PSI	(depth) <u>3539</u>	Elec. Rec. ✓ <u>150</u>
(C) First Final Flow Pressure		<u>30</u> PSI	Recorder No. <u>13252</u>	Jars _____
(D) Initial Shut-In Pressure		<u>501</u> PSI	(depth) <u>3557</u>	Safety Jt. _____
(E) Second Initial Flow Pressure		<u>30</u> PSI	Recorder No. _____	Circ Sub _____
(F) Second Final Flow Pressure		<u>30</u> PSI	(depth) _____	Sampler _____
(G) Final Shut-In Pressure		<u>306</u> PSI	<b>Initial Opening</b> <u>30</u>	Straddle _____
(Q) Final Hydrostatic Mud		<u>1681</u> PSI	Initial Shut-In <u>30</u>	Ext. Packer _____
			Final Flow <u>30</u>	Shale Packer _____
			Final Shut-In <u>30</u>	Mileage <u>62(124) 105.40</u>

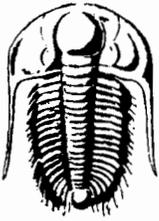
TRILOBITE TESTING INC. SHALL NOT BE LIABLE FOR DAMAGED OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Approved By Todd Morgenstern  
 Our Representative Jason Mc Lane Thank You  
 T-Started 15:03  
 T-Open 16:20  
 T-Pulled 18:20  
 T-Out 20:00  
 Sub Total: 955.40  
 Std. By \_\_\_\_\_  
 Other \_\_\_\_\_  
 Total: \_\_\_\_\_

**CHART PAGE**

This is a photocopy of the actual AK-1 recorder chart





# TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

N<sup>o</sup> 18601

05/03

## Test Ticket

Well Name & No. Hull #1 Test No. 2 Date 2-15-04  
 Company Pioneer Resources Zone Tested LKC  
 Address 177 W. Limestone Road, Phillipsburg, Ks 67661 Elevation 2245 KB 2240 GL  
 Co. Rep / Geo. Todd Morgenstern Cont. Shields Est. Ft. of Pay \_\_\_\_\_ Por. \_\_\_\_\_ %  
 Location: Sec. 9 Twp. 8s Rge. 23w Co. Graham State Ks  
 No. of Copies Reg Distribution Sheet (Y, N) \_\_\_\_\_ Turnkey (Y, N) \_\_\_\_\_ Evaluation (Y, N) \_\_\_\_\_

Interval Tested 3557 - 3600 Initial Str Wt./Lbs. 49,000 Unseated Str Wt./Lbs. 50,000  
 Anchor Length 43' Wt. Set Lbs. 25,000 Wt. Pulled Loose/Lbs. 52,000  
 Top Packer Depth 3552 Tool Weight 2400  
 Bottom Packer Depth 3557 Hole Size 7 7/8" ✓ Rubber Size 6 3/4" ✓  
 Total Depth 3600 Wt. Pipe Run 346 Drill Collar Run 0  
 Mud Wt. 9.2 LCM 0 Vis. 45 WL 8.0 Drill Pipe Size 4 1/2 XH Ft. Run 3198  
 Blow Description IFP - Good Blow, BOB in 8 min, No Blowback  
FFP - Good Blow, BOB in 15 min,

Recovery - Total Feet 600 GIP 120 Ft. in DC \_\_\_\_\_ Ft. in DP \_\_\_\_\_  
 Rec. 450 Feet of Foamy Mud Cut Oil %gas \_\_\_\_\_ %oil \_\_\_\_\_ %water \_\_\_\_\_ %mud \_\_\_\_\_  
 Rec. 150 Feet of Foamy Oil Cut Muddy Water %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 \_\_\_\_\_ °F Gravity \_\_\_\_\_ °API D @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API  
 RW 240 @ 45 °F Chlorides 38,000 ppm Recovery \_\_\_\_\_ Chlorides 700 ppm System

	AK-1	Alpine	Recorder No.	Test
(A) Initial Hydrostatic Mud		1761 PSI	6627	✓
(B) First Initial Flow Pressure		21 PSI	(depth) 3558	Elec. Rec. ✓
(C) First Final Flow Pressure		187 PSI	Recorder No. 13252	Jars _____
(D) Initial Shut-In Pressure		677 PSI	(depth) 3597	Safety Jt. _____
(E) Second Initial Flow Pressure		198 PSI	Recorder No. _____	Circ Sub _____
(F) Second Final Flow Pressure		244 PSI	(depth) _____	Sampler _____
(G) Final Shut-In Pressure		649 PSI	Initial Opening 45	Straddle _____
(Q) Final Hydrostatic Mud		1718 PSI	Initial Shut-In 45	Ext. Packer _____

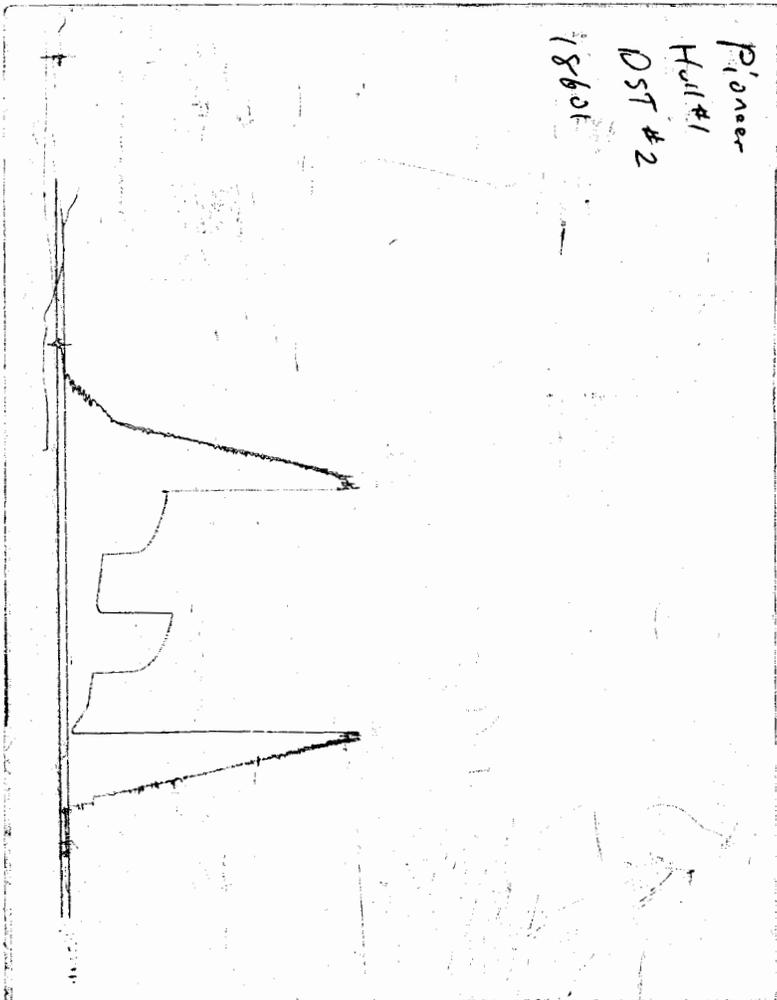
TRILOBITE TESTING INC. SHALL NOT BE LIABLE FOR DAMAGED OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

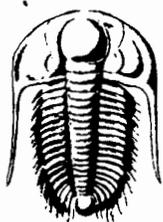
Approved By Todd S. Morgenstern  
 Our Representative Jason McLenore

Final Flow	45	Shale Packer	_____
Final Shut-In	45	Mileage	<u>62</u>
T-On Location	4:43	Sub Total:	<u>955.40</u>
T-Started	6:35	Std. By	_____
T-Open	7:53	Other	_____
T-Pulled	10:53	Total:	_____
T-Out	12:45		

# CHART PAGE

This is a photocopy of the actual AK-1 recorder chart





# TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

N<sup>o</sup> 18602

05/03

## Test Ticket

Well Name & No. Hull #1 Test No. 3 Date 2-16-01  
 Company Pioneer Resources Zone Tested LKC 160-180  
 Address 177 W. Limestone Road, Phillipsburg, Ks. 67661 Elevation 2245 KB 2240 GL  
 Co. Rep / Geo. Todd Morgenstern Cont. \_\_\_\_\_ Est. Ft. of Pay \_\_\_\_\_ Por. \_\_\_\_\_ %  
 Location: Sec. 9 Twp. 8s Rge. 23w Co. Graham State Ks  
 No. of Copies Reg Distribution Sheet (Y, N) \_\_\_\_\_ Turnkey (Y, N) \_\_\_\_\_ Evaluation (Y, N) \_\_\_\_\_

Interval Tested 3652 - 3690 Initial Str Wt./Lbs. 44,000 Unseated Str Wt./Lbs. 44,000  
 Anchor Length 38' Wt. Set Lbs. 25,000 Wt. Pulled Loose/Lbs. 57,000  
 Top Packer Depth 3647 Tool Weight 2400  
 Bottom Packer Depth 3652 Hole Size 7 7/8" Rubber Size 6 3/4"  
 Total Depth 3690 Wt. Pipe Run 346 Drill Collar Run 0  
 Mud Wt. 9.3 LCM 0 Vis. 43 WL 8.8 Drill Pipe Size 4 1/2 XH Ft. Run 3292  
 Blow Description FFP - Weak Blow, 1/2", then Died in 37 min.  
FFP - No Blow

Recovery - Total Feet	GIP	Ft. in DC	Ft. in DP
Rec. <u>1</u>	Feet of <u>MUD</u>	%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. _____	Feet of _____	%gas	%oil %water %mud

BHT \_\_\_\_\_ °F Gravity \_\_\_\_\_ °API D @ \_\_\_\_\_ °F Corrected Gravity \_\_\_\_\_ °API  
 RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm Recovery \_\_\_\_\_ Chlorides 600 ppm System

	AK-1	Alpine	Recorder No.	Test
(A) Initial Hydrostatic Mud		<u>1817</u> PSI	<u>6627</u>	<input checked="" type="checkbox"/>
(B) First Initial Flow Pressure		<u>13</u> PSI	(depth) <u>3654</u>	Elec. Rec. <input checked="" type="checkbox"/>
(C) First Final Flow Pressure		<u>14</u> PSI	Recorder No. <u>13252</u>	Jars _____
(D) Initial Shut-In Pressure		<u>22</u> PSI	(depth) <u>3687</u>	Safety Jt. _____
(E) Second Initial Flow Pressure		<u>13</u> PSI	Recorder No. _____	Circ Sub _____
(F) Second Final Flow Pressure		<u>14</u> PSI	(depth) _____	Sampler _____
(G) Final Shut-In Pressure		<u>21</u> PSI	<b>Initial Opening</b> <u>45</u>	Straddle _____
(Q) Final Hydrostatic Mud		<u>1772</u> PSI	Initial Shut-In <u>45</u>	Ext. Packer _____

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.

Approved By \_\_\_\_\_  
 Our Representative Jason Mc Lomax

Final Flow	<u>15</u>	Shale Packer	_____
Final Shut-In	<u>45</u>	Mileage	<u>62</u>
T-On Location	<u>3:15</u>	Sub Total:	<u>955.40</u>
T-Started	<u>4:40</u>	Std. By	_____
T-Open	<u>6:26</u>	Other	_____
T-Pulled	<u>8:56</u>	Total:	_____
T-Out	<u>10:30</u>		

**CHART PAGE**

This is a photocopy of the actual AK-1 recorder chart

Pickering Resources  
Hull # ( )  
DST # 3  
15602

