

15-1091-20804

Pioneer Resources

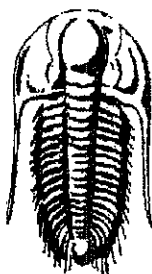
Dirks #3

12 14 32 Logan KS

DST # 1

L. K.C. E

2008.05.04



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Pioneer Resources**

117 W Limestone Rd
Phillipsburg KS 67661

ATTN: Steve Murphy

12 14 32 Logan KS

Dirks #3

Start Date: 2008.05.04 @ 19:00:00

End Date: 2008.05.05 @ 02:39:15

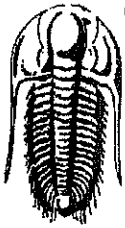
Job Ticket #: 30953 DST #: 1

SE NE SW NE
1810 FNL 1450 FEL

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Pioneer Resources
 117 W Limestone Rd
 Phillipsburg KS 67661
 ATTN: Steve Murphy

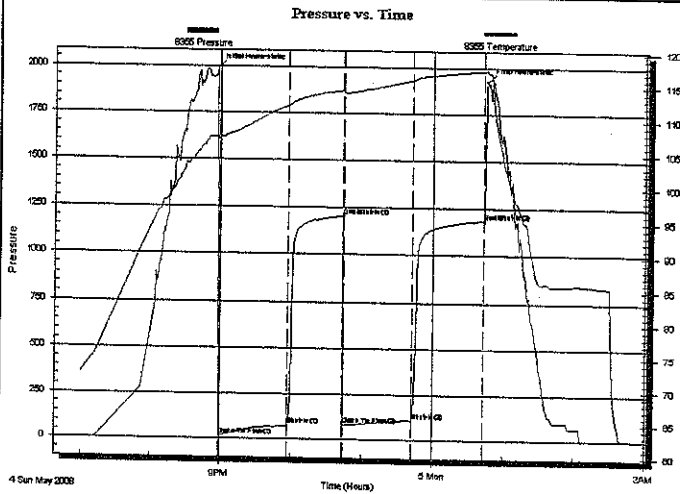
Dirks #3
12 14 32 Logan KS
 Job Ticket: 30953 **DST#: 1**
 Test Start: 2008.05.04 @ 19:00:00

GENERAL INFORMATION:

Formation: **L. KC. E**
 Deviated: **No Whipstock** ft (KB)
 Time Tool Opened: 20:58:45
 Time Test Ended: 02:39:15
 Test Type: **Conventional Bottom Hole**
 Tester: **Harley Davidson**
 Unit No: **33**
 Interval: **4006.00 ft (KB) To 4025.00 ft (KB) (TVD)**
 Total Depth: **4025.00 ft (KB) (TVD)**
 Hole Diameter: **7.78 inches** Hole Condition: **Fair**
 Reference Elevations: **2895.00 ft (KB)**
2890.00 ft (CF)
 KB to GRVCF: **5.00 ft**

Serial #: 8355 Inside
 Press@RunDepth: **111.86 psig @ 4008.00 ft (KB)**
 Start Date: **2008.05.04** End Date: **2008.05.05** Capacity: **7000.00 psig**
 Start Time: **19:00:01** End Time: **02:39:15** Last Calib.: **1899.12.30**
 Time On Btrn: **2008.05.04 @ 20:57:45**
 Time Off Btrn: **2008.05.05 @ 00:45:45**

TEST COMMENT: IF Weak building blow BOB 47 min.
 ISI No blow back
 FF Weak building blow BOB 50 min.
 FSI No blow back



PRESSURE SUMMARY

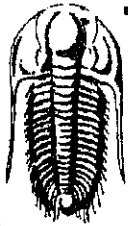
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1987.88	107.61	Initial Hydro-static
1	15.59	107.05	Open To Flow (1)
59	76.05	112.14	Shut-In(1)
105	1203.90	114.44	End Shut-In(1)
106	81.47	114.16	Open To Flow (2)
164	111.86	115.98	Shut-In(2)
225	1183.52	117.38	End Shut-In(2)
228	1925.05	117.13	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	120 GIP	0.00
95.00	100%O	0.47
60.00	15%W 20%O 65%M	0.60
65.00	5%O 30%M 65%W	0.91

Gas Rates

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



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Pioneer Resources

Dirks #3

117 W Limestone Rd
Phillipsburg KS 67661

12 14 32 Logan KS

Job Ticket: 30953

DST#: 1

ATTN: Steve Murphy

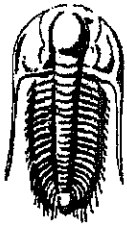
Test Start: 2008.05.04 @ 19:00:00

Tool Information

Drill Pipe:	Length: 3882.00 ft	Diameter: 3.80 inches	Volume: 54.45 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: 25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 55.05 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	4006.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	19.00 ft			
Tool Length:	46.00 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			3980.00	
Shut In Tool	5.00			3985.00	
Hydraulic tool	5.00			3990.00	
Jars	5.00			3995.00	
Safety Joint	2.00			3997.00	
Packer	5.00		Fluid	4002.00	27.00 Bottom Of Top Packer
Packer	4.00			4006.00	
Stubb	1.00			4007.00	
Perforations	1.00			4008.00	
Recorder	0.00	6751	Inside	4008.00	
Recorder	0.00	8355	Inside	4008.00	
Perforations	13.00			4021.00	
Bullnose	4.00			4025.00	19.00 Bottom Packers & Anchor
Total Tool Length:	46.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Pioneer Resources
117 W Limestone Rd
Phillipsburg KS 67661
ATTN: Steve Murphy

Dirks #3
12 14 32 Logan KS
Job Ticket: 30953 **DST#: 1**
Test Start: 2008.05.04 @ 19:00:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 37 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl	
Water Loss: 9.56 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 2400.00 ppm		
Filter Cake: inches		

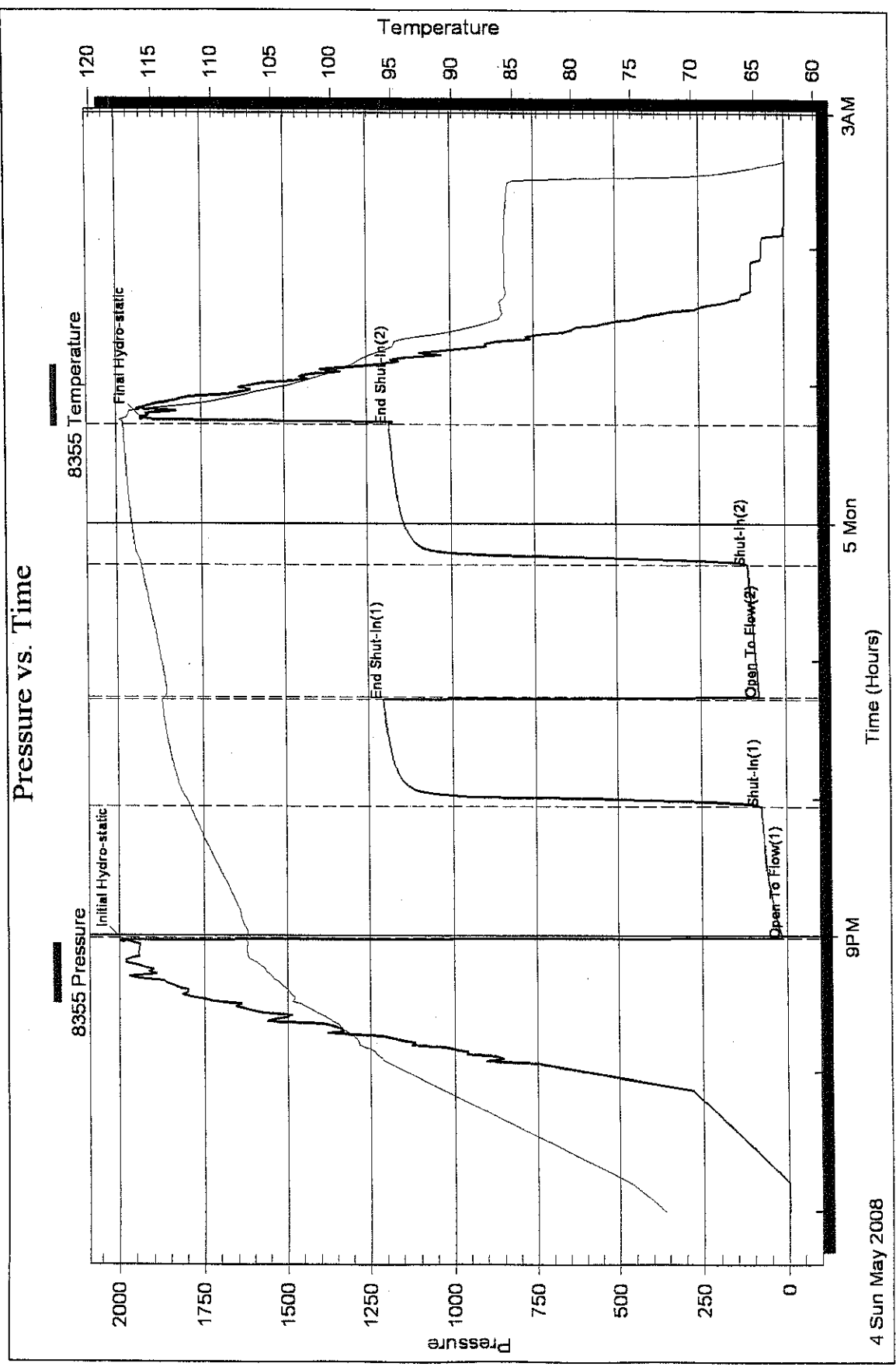
Recovery Information

Recovery Table

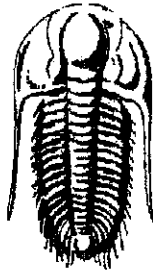
Length ft	Description	Volume bbl
0.00	120 GIP	0.000
95.00	100%O	0.467
60.00	15%W 20%O 65%M	0.596
65.00	5%O 30%M 65%W	0.912

Total Length: 220.00 ft Total Volume: 1.975 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time







**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Pioneer Resources**

117 W Limestone Rd
Phillipsburg KS 67661

ATTN: Steve Murphy

12 14 32 Logan KS

Dirks #3

Start Date: 2008.05.06 @ 18:50:00

End Date: 2008.05.06 @ 23:42:50

Job Ticket #: 32033 DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Pioneer Resources

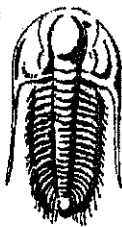
Dirks #3

12 14 32 Logan KS

DST # 2

Cherokee (lime)

2008.05.06



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Pioneer Resources
 117 W Limestone Rd
 Phillipsburg KS 67661
 ATTN: Steve Murphy

Dirks #3
12 14 32 Logan KS
 Job Ticket: 32033 DST#: 2
 Test Start: 2008.05.06 @ 18:50:00

GENERAL INFORMATION:

Formation: **Cherokee (Lime)**
 Deviated: **No Whipstock** ft (KB)
 Time Tool Opened: 20:53:10
 Time Test Ended: 23:42:50
 Interval: **4452.00 ft (KB) To 4520.00 ft (KB) (TVD)**
 Total Depth: **4520.00 ft (KB) (TVD)**
 Hole Diameter: **7.78 inches** Hole Condition: **Good**

Test Type: **Conventional Bottom Hole**
 Tester: **Jake Fahrenbruch**
 Unit No: **43**
 Reference Elevations: **2895.00 ft (KB)**
 2890.00 ft (CF)
 KB to GR/CF: **5.00 ft**

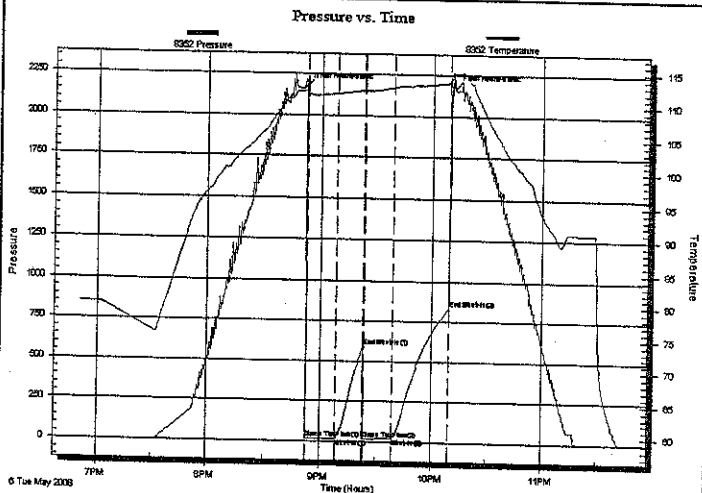
Serial #: 8352

Inside

Press@RunDepth: **21.23 psig @ 4453.00 ft (KB)**
 Start Date: **2008.05.06** End Date: **2008.05.06**
 Start Time: **18:50:02** End Time: **23:42:49**

Capacity: **7000.00 psig**
 Last Calib.: **2008.05.06**
 Time On Btm: **2008.05.06 @ 20:51:30**
 Time Off Btm: **2008.05.06 @ 22:12:10**

TEST COMMENT: IF Weak surface blow died after 10 min
 ISI No blow back
 FF No blow
 FSI No blow back



PRESSURE SUMMARY

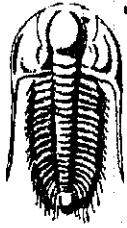
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2170.33	112.18	Initial Hydro-static
2	17.56	111.15	Open To Flow (1)
17	19.07	111.79	Shut-In(1)
32	592.41	112.25	End Shut-In(1)
32	20.08	112.12	Open To Flow (2)
48	21.23	112.72	Shut-In(2)
78	835.16	113.50	End Shut-In(2)
81	2169.26	114.81	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	100%DM	0.02

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Pioneer Resources
117 W Limestone Rd
Phillipsburg KS 67661
ATTN: Steve Murphy

Dirks #3
12 14 32 Logan KS
Job Ticket: 32033 **DST#: 2**
Test Start: 2008.05.06 @ 18:50:00

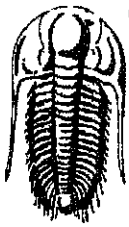
Tool Information

Drill Pipe:	Length: 4321.00 ft	Diameter: 3.80 inches	Volume: 60.61 bbl	Tool Weight:	3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 125.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose:	65000.00 lb
			Total Volume: 61.22 bbl	Tool Chased	2.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial	50000.00 lb
Depth to Top Packer:	4452.00 ft			Final	50000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	68.00 ft				
Tool Length:	96.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4429.00	
Hydraulic tool	5.00			4434.00	
Jars	5.00			4439.00	
Safety Joint	3.00			4442.00	
Packer	5.00			4447.00	28.00 Bottom Of Top Packer
Packer	5.00			4452.00	
Stubb	1.00			4453.00	
Recorder	0.00	8352	Inside	4453.00	
Recorder	0.00	6799	Inside	4453.00	
Perforations	30.00			4483.00	
Blank Spacing	33.00			4516.00	
Bullnose	4.00			4520.00	68.00 Bottom Packers & Anchor

Total Tool Length: 96.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Pioneer Resources
117 W Limestone Rd
Phillipsburg KS 67661
ATTN: Steve Murphy

Dirks #3
12 14 32 Logan KS
Job Ticket: 32033 **DST#: 2**
Test Start: 2008.05.06 @ 18:50:00

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: 48.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.98 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2500.00 ppm			
Filter Cake: inches			

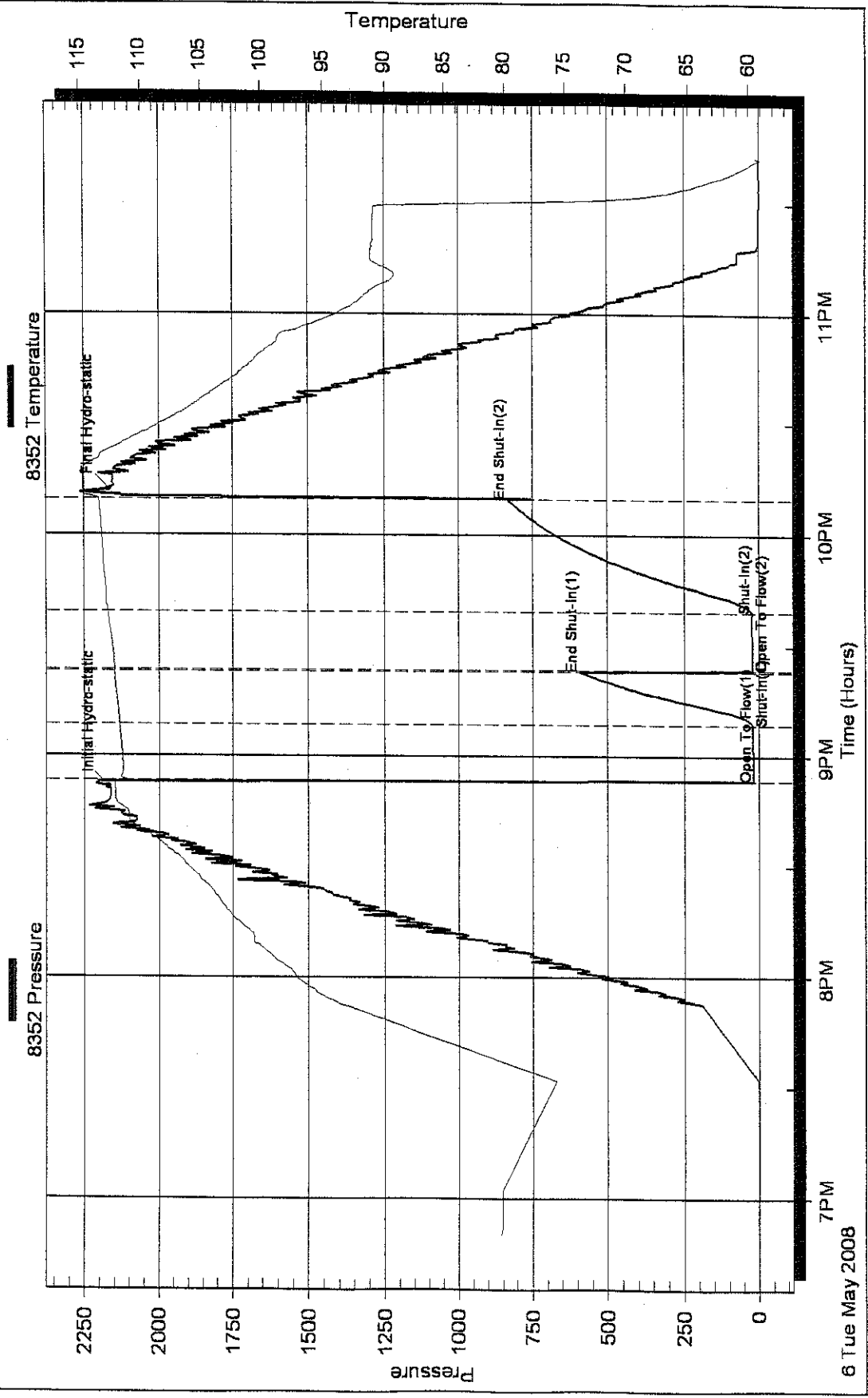
Recovery Information

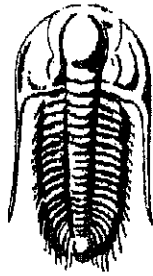
Recovery Table

Length ft	Description	Volume bbl
5.00	100%DM	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Pioneer Resources**

117 W Limestone Rd
Phillipsburg KS 67661

ATTN: Steve Murphy

12 14 32 Logan KS

Dirks #3

Start Date: 2008.05.07 @ 08:50:00

End Date: 2008.05.07 @ 12:56:50

Job Ticket #: 32034 DST #: 3

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Pioneer Resources

Dirks #3

12 14 32 Logan KS

DST # 3

Morrow Sand (upper)

2008.05.07



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Pioneer Resources
117 W Limestone Rd
Phillipsburg KS 67661
ATTN: Steve Murphy

Dirks #3
12 14 32 Logan KS
Job Ticket: 32034 **DST#: 3**
Test Start: 2008.05.07 @ 08:50:00

Tool Information

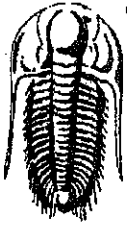
Drill Pipe:	Length: 4441.00 ft	Diameter: 3.80 inches	Volume: 62.30 bbl	Tool Weight: 2900.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 125.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 62.91 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4563.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	24.00 ft			
Tool Length:	52.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut In Tool	5.00			4540.00	
Hydraulic tool	5.00			4545.00	
Jars	5.00			4550.00	
Safety Joint	3.00			4553.00	
Packer	5.00			4558.00	28.00 Bottom Of Top Packer
Packer	5.00			4563.00	
Stubb	1.00			4564.00	
Recorder	0.00	8352	Inside	4564.00	
Recorder	0.00	6799	Inside	4564.00	
Perforations	20.00			4584.00	
Bullnose	3.00			4587.00	24.00 Bottom Packers & Anchor

Total Tool Length: 52.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Pioneer Resources
117 W Limestone Rd
Phillipsburg KS 67661
ATTN: Steve Murphy

Dirks #3
12 14 32 Logan KS
Job Ticket: 32034 DST#: 3
Test Start: 2008.05.07 @ 08:50:00

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: 53.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.58 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2700.00 ppm			
Filter Cake: inches			

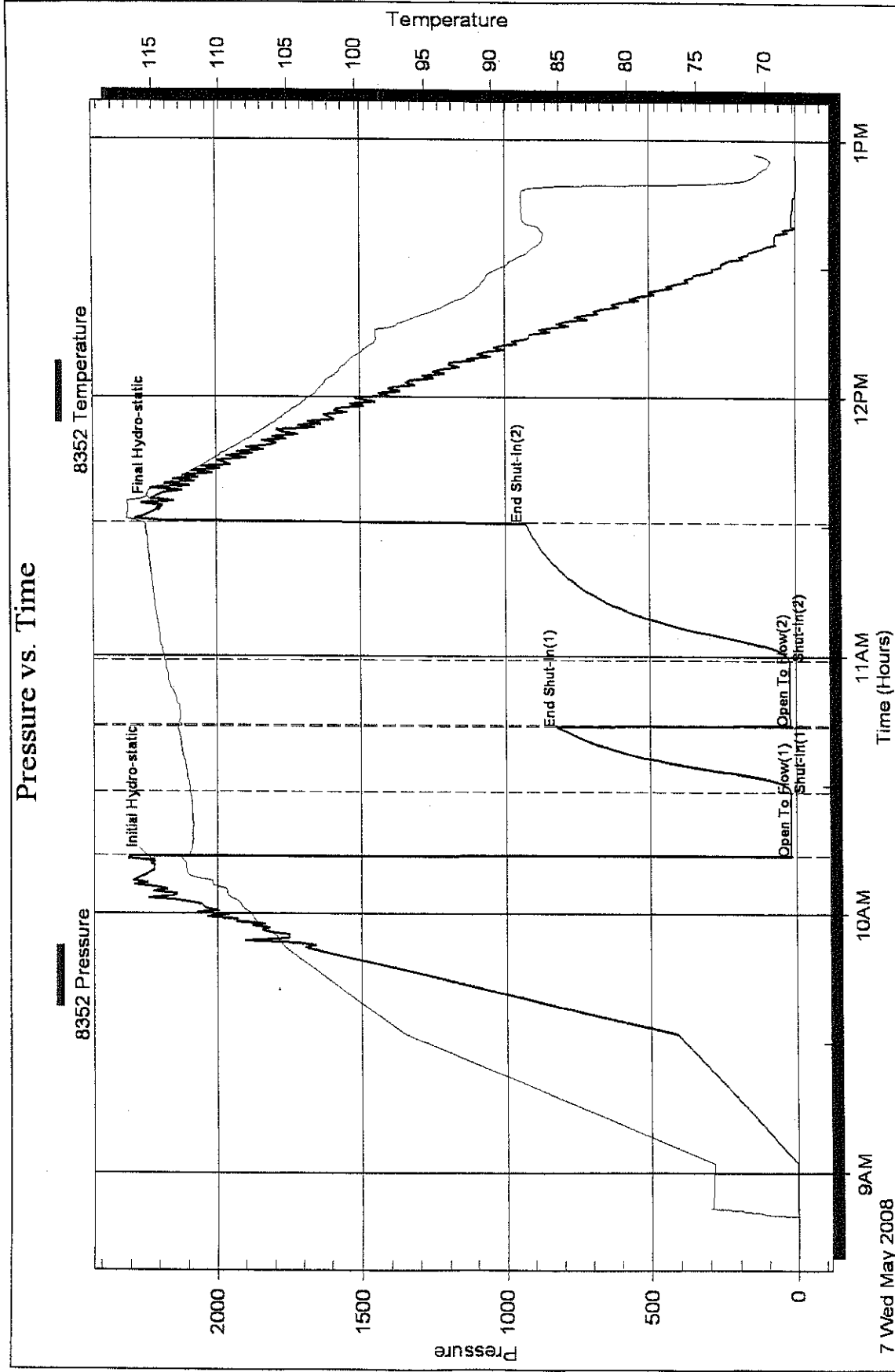
Recovery Information

Recovery Table

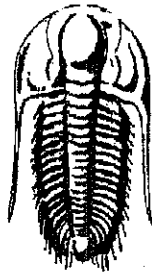
Length ft	Description	Volume bbl
3.00	100%DM	0.015

Total Length: 3.00 ft Total Volume: 0.015 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time



7 Wed May 2008



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Pioneer Resources**

117 W Limestone Rd
Phillipsburg KS 67661

ATTN: Steve Murphy

12 14 32 Logan KS

Dirks #3

Start Date: 2008.05.07 @ 18:00:00

End Date: 2008.05.08 @ 02:35:00

Job Ticket #: 32035 DST #: 4

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Pioneer Resources

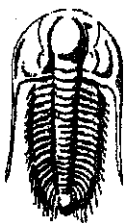
Dirks #3

12 14 32 Logan KS

DST # 4

Morrow Sand (lower)

2008.05.07



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Pioneer Resources
117 W Limestone Rd
Phillipsburg KS 67661
ATTN: Steve Murphy

Dirks #3
12 14 32 Logan KS
Job Ticket: 32035 **DST#: 4**
Test Start: 2008.05.07 @ 18:00:00

GENERAL INFORMATION:

Formation: **Morrow Sand (lower)**
Deviated: **No** Whipstock: ft (KB)
Time Tool Opened: 20:20:00
Time Test Ended: 02:35:00
Interval: 4563.00 ft (KB) To 4620.00 ft (KB) (TVD)
Total Depth: 4620.00 ft (KB) (TVD)
Hole Diameter: 7.78 inches Hole Condition: Good

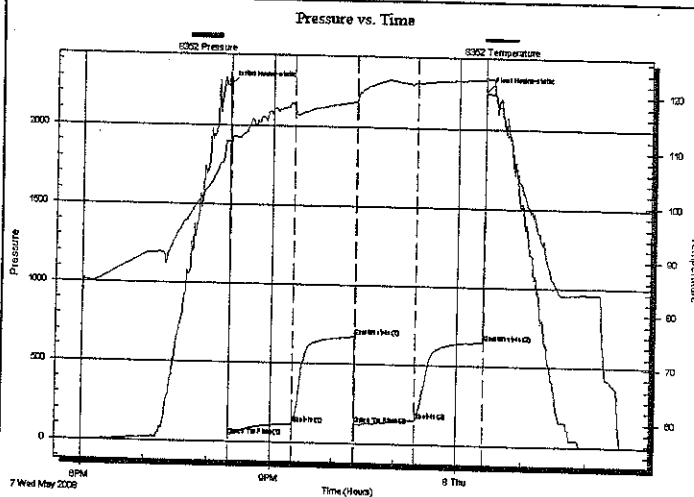
Test Type: Conventional Bottom Hole
Tester: Jake Fahrenbruch
Unit No: 43
Reference Elevations: 2895.00 ft (KB)
2890.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8352

Inside
Press@RunDepth: 152.58 psig @ 4597.00 ft (KB)
Start Date: 2008.05.07 End Date: 2008.05.08
Start Time: 18:00:02 End Time: 02:35:00

Capacity: 7000.00 psig
Last Calib.: 2008.05.08
Time On Btm: 2008.05.07 @ 20:18:20
Time Off Btm: 2008.05.08 @ 00:25:50

TEST COMMENT: IF Fairly weak blow built to 7.5 " in bucket
ISI Bled off no blow back
FF Fair blow built to BOB in 60 min
FSI Bled off no blow back



PRESSURE SUMMARY

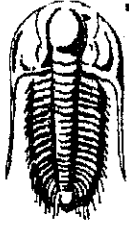
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2243.16	111.17	Initial Hydro-static
2	37.71	110.00	Open To Flow (1)
62	116.82	117.82	Shut-In(1)
123	673.84	118.66	End Shut-In(1)
123	122.27	118.94	Open To Flow (2)
182	152.58	122.21	Shut-In(2)
247	652.90	122.96	End Shut-In(2)
248	2233.63	123.44	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
245.00	GCOCM 16%G 19%O 65%M	2.30
25.00	GCOM 5%G 30%O 65%M	0.35
0.00	60' GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Pioneer Resources

Dirks #3

117 W Limestone Rd
Phillipsburg KS 67661

12 14 32 Logan KS

Job Ticket: 32035

DST#: 4

ATTN: Steve Murphy

Test Start: 2008.05.07 @ 18:00:00

Tool Information

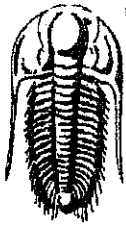
Drill Pipe:	Length: 4441.00 ft	Diameter: 3.80 inches	Volume: 62.30 bbl	Tool Weight: 3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 125.00 ft	Diameter: 2.25 inches	Volume: 0.61 bbl	Weight to Pull Loose: 63000.00 lb
			<u>Total Volume: 62.91 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4563.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	57.00 ft			
Tool Length:	85.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4540.00	
Hydraulic tool	5.00			4545.00	
Jars	5.00			4550.00	
Safety Joint	3.00			4553.00	
Packer	5.00			4558.00	28.00 Bottom Of Top Packer
Packer	5.00			4563.00	
Stubb	1.00			4564.00	
Blank Spacing	33.00			4597.00	
Recorder	0.00	8352	Inside	4597.00	
Recorder	0.00	6799	Inside	4597.00	
Perforations	20.00			4617.00	
Bullnose	3.00			4620.00	57.00 Bottom Packers & Anchor

Total Tool Length: 85.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Pioneer Resources

Dirks #3

117 W Limestone Rd
Phillipsburg KS 67661

12 14 32 Logan KS

Job Ticket: 32035

DST#: 4

ATTN: Steve Murphy

Test Start: 2008.05.07 @ 18:00:00

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: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2700.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
245.00	GCOCM 16%G 19%O 65%M	2.298
25.00	GCOM 5%G 30%O 65%M	0.351
0.00	60' GIP	0.000

Total Length: 270.00 ft

Total Volume: 2.649 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

