

**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Pioneer Resources**

177 W Limestone Rd
Phillipsburg KS 67661-9622

ATTN: Roger Fisher

36-11s-20w Ellis KS

JoAnn #1

Start Date: 2008.06.25 @ 16:33:54

End Date: 2008.06.25 @ 23:05:54

Job Ticket #: 32883 DST #: 1

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Pioneer Resources

JoAnn #1

36-11s-20w Ellis KS

DST # 1

LKC "1-K"

2008.06.25



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Pioneer Resources
177 W Limestone Rd
Phillipsburg KS 67661-9622

JoAnn #1
36-11s-20w Ellis KS
Job Ticket: 32883 **DST#: 1**
Test Start: 2008.06.25 @ 16:33:54

ATTN: Roger Fisher

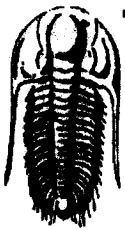
Tool Information

Drill Pipe:	Length: 3550.00 ft	Diameter: 3.82 inches	Volume: 50.32 bbl	Tool Weight: 2100.00 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 52000.00 lb
			<u>Total Volume: 50.32 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 44000.00 lb
Depth to Top Packer:	3559.00 ft			Final 47000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	63.00 ft			
Tool Length:	84.00 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			3539.00	
Shut In Tool	5.00			3544.00	
Hydraulic tool	5.00			3549.00	
Packer	5.00			3554.00	21.00 Bottom Of Top Packer
Packer	5.00			3559.00	
Stubb	1.00			3560.00	
Perforations	2.00			3562.00	
Change Over Sub	1.00			3563.00	
Recorder	0.00	8365	Inside	3563.00	
Recorder	0.00	6625	Outside	3563.00	
Drill Pipe	30.00			3593.00	
Change Over Sub	1.00			3594.00	
Perforations	25.00			3619.00	
Bullnose	3.00			3622.00	63.00 Bottom Packers & Anchor

Total Tool Length: 84.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Pioneer Resources
177 W Limestone Rd
Phillipsburg KS 67661-9622
ATTN: Roger Fisher

JoAnn #1
36-11s-20w Ells KS
Job Ticket: 32883 DST#:1
Test Start: 2008.06.25 @ 16:33:54

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: bbl		
Water Loss: 7.80 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2600.00 ppm			
Filter Cake: inches			

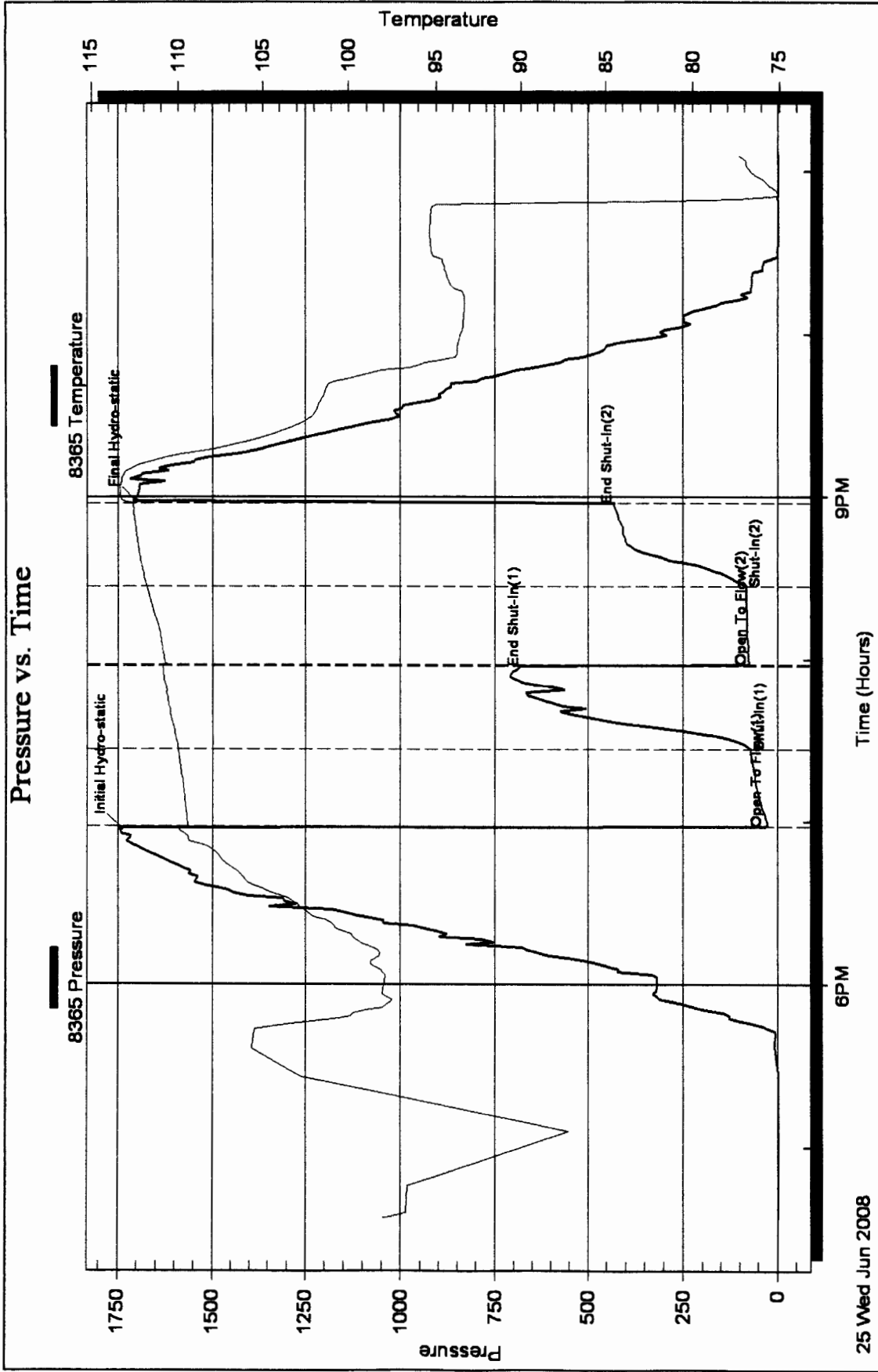
Recovery Information

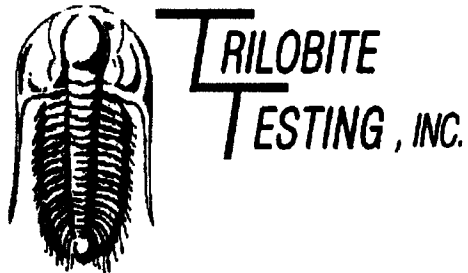
Recovery Table

Length ft	Description	Volume bbl
45.00	OCM 10%O 90%M	0.638
65.00	GsyMCO 15%G 60%O 25%M	0.921
60.00	Gsy Free Oil 10%G 90%O	0.851
0.00	500' GP	0.000

Total Length: 170.00 ft Total Volume: 2.410 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Pioneer Resources**

177 W Limestone Rd
Phillipsburg KS 67661-9622

ATTN: Roger Fisher

36-11s-20w Ellis KS

JoAnn #1

Start Date: 2008.06.26 @ 11:26:48

End Date: 2008.06.26 @ 16:31:18

Job Ticket #: 32884 DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Pioneer Resources

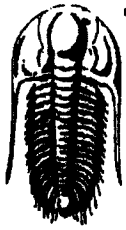
JoAnn #1

36-11s-20w Ellis KS

DST # 2

Arb

2008.06.26



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Pioneer Resources
177 W Limestone Rd
Phillipsburg KS 67661-9622
ATTN: Roger Fisher

JoAnn #1
36-11s-20w Ellis KS
Job Ticket: 32884 **DST#: 2**
Test Start: 2008.06.26 @ 11:26:48

GENERAL INFORMATION:

Formation: **Arb**
Deviated: **No** Whipstock: ft (KB)
Time Tool Opened: 13:38:18
Time Test Ended: 16:31:18
Interval: 3690.00 ft (KB) To 3716.00 ft (KB) (TVD)
Total Depth: 3716.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole
Tester: Kyle Kinderknecht
Unit No: 42
Reference Elevations: 2.00 ft (KB)
1.00 ft (CF)
KB to GRV/CF: 1.00 ft

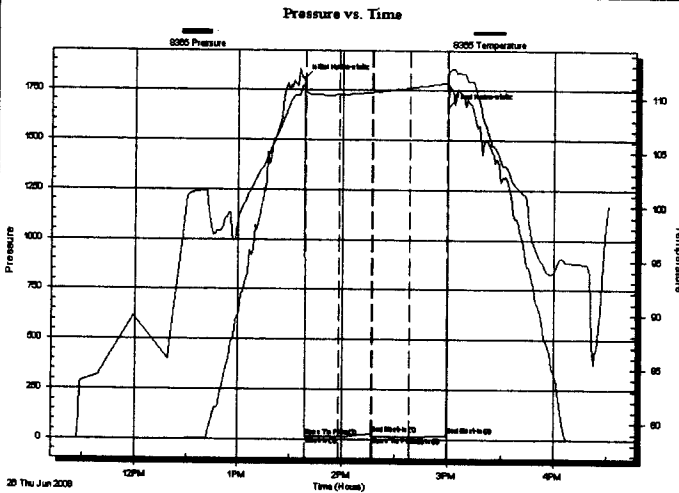
Serial #: 8365

Inside

Press@RunDepth: 14.89 psig @ 3693.00 ft (KB)
Start Date: 2008.06.26 End Date: 2008.06.26
Start Time: 11:26:53 End Time: 16:31:17

Capacity: 7000.00 psig
Last Calib.: 2008.06.26
Time On Btrn: 2008.06.26 @ 13:37:48
Time Off Btrn: 2008.06.26 @ 14:59:48

TEST COMMENT: IF Surface died 10 min



PRESSURE SUMMARY

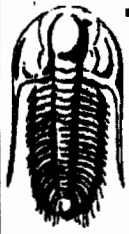
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1807.89	111.19	Initial Hydro-static
1	13.70	110.61	Open To Flow (1)
20	13.45	110.33	Shut-In(1)
39	28.95	110.58	End Shut-In(1)
40	13.97	110.58	Open To Flow (2)
61	14.89	110.99	Shut-In(2)
82	22.53	111.45	End Shut-In(2)
82	1662.95	112.23	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	StOCM 5%O 95%M	0.07
1.00	Free oil	0.01

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Pioneer Resources
177 W Limestone Rd
Phillipsburg KS 67661-9622
ATTN: Roger Fisher

JoAnn #1
36-11s-20w Ells KS
Job Ticket: 32884 DST#: 2
Test Start: 2008.06.26 @ 11:26:48

Tool Information

Drill Pipe:	Length: 3675.00 ft	Diameter: 3.82 inches	Volume: 52.09 bbl	Tool Weight: 2100.00 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 52.09 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3690.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.00 ft			
Tool Length:	47.00 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			3670.00	
Shut In Tool	5.00			3675.00	
Hydraulic tool	5.00			3680.00	
Packer	5.00			3685.00	21.00 Bottom Of Top Packer
Packer	5.00			3690.00	
Stubb	1.00			3691.00	
Perforations	2.00			3693.00	
Recorder	0.00	8365	Inside	3693.00	
Recorder	0.00	6625	Outside	3693.00	
Perforations	20.00			3713.00	
Bullnose	3.00			3716.00	26.00 Bottom Packers & Anchor

Total Tool Length: 47.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Pioneer Resources
177 W Limestone Rd
Phillipsburg KS 67661-9622

JoAnn #1
36-11s-20w Ells KS
Job Ticket: 32884 **DST#: 2**
Test Start: 2008.06.26 @ 11:26:48

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: bbl		
Water Loss: 7.79 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2600.00 ppm			
Filter Cake: inches			

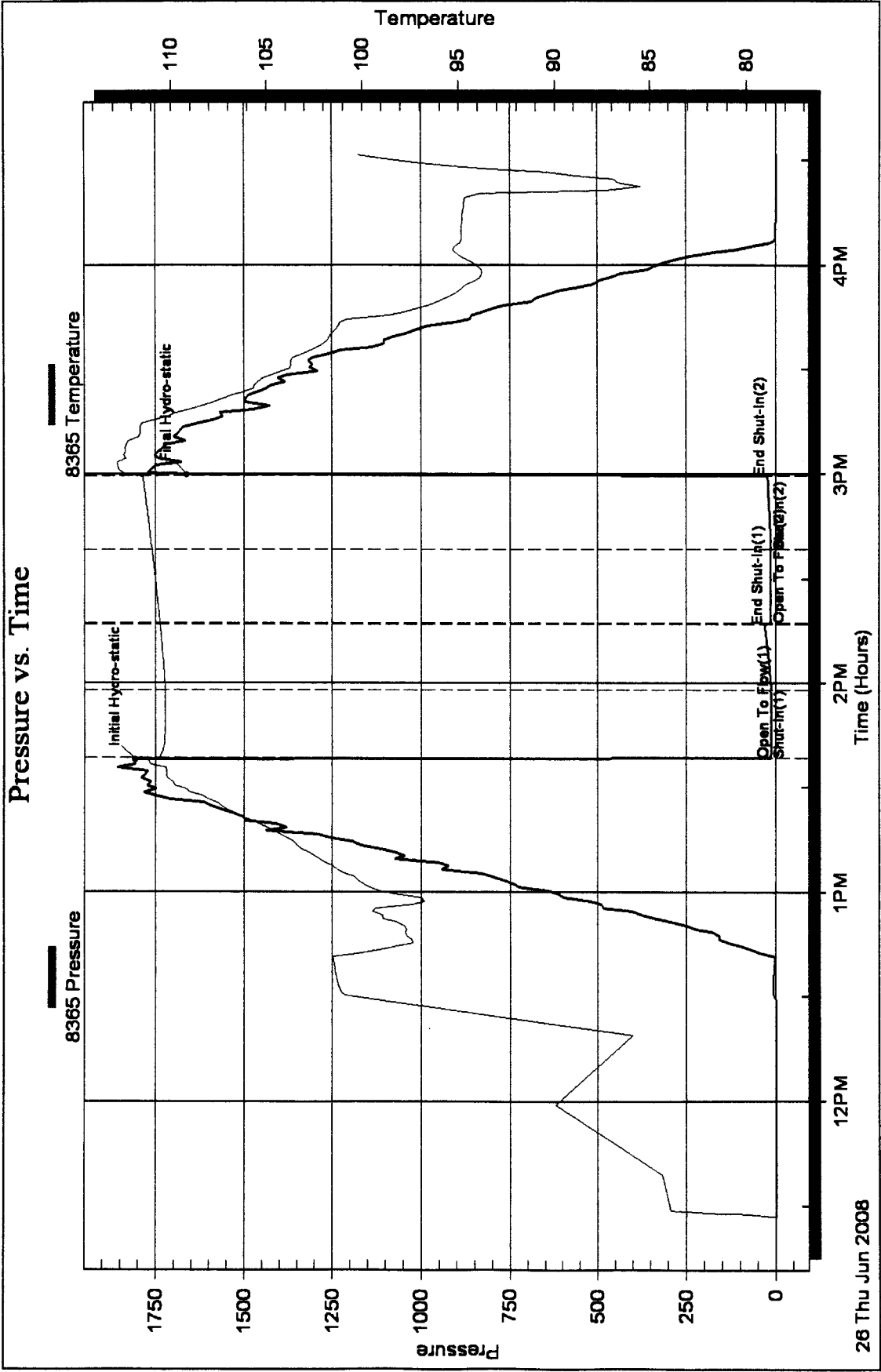
Recovery Information

Recovery Table

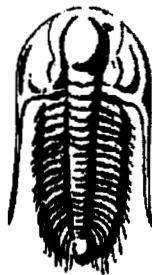
Length ft	Description	Volume bbl
5.00	SitOCM 5%O 95%M	0.071
1.00	Free oil	0.014

Total Length: 6.00 ft Total Volume: 0.085 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time



26 Thu Jun 2008



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Pioneer Resources**

177 W Limestone Rd
Phillipsburg KS 67661-9622

ATTN: Roger Fisher

36-11s-20w Ellis KS

JoAnn #1

Start Date: 2008.06.26 @ 23:45:10

End Date: 2008.06.27 @ 05:58:04

Job Ticket #: 32885 DST #: 3

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Pioneer Resources

JoAnn #1

36-11s-20w Ellis KS

DST # 3

Arb

2008.06.26



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Pioneer Resources
177 W Limestone Rd
Phillipsburg KS 67661-9622
ATTN: Roger Fisher

JoAnn #1
36-11s-20w Ellis KS
Job Ticket: 32885 DST#: 3
Test Start: 2008.06.26 @ 23:45:10

GENERAL INFORMATION:

Formation: **Arb**
Deviated: **No** Whipstock: ft (KB)
Time Tool Opened: 01:24:35
Time Test Ended: 05:58:04
Interval: 3716.00 ft (KB) To 3724.00 ft (KB) (TVD)
Total Depth: 3622.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole
Tester: Kyle Kinderknecht/Pa
Unit No: 42
Reference Elevations: 2.00 ft (KB)
1.00 ft (CF)
KB to GR/CF: 1.00 ft

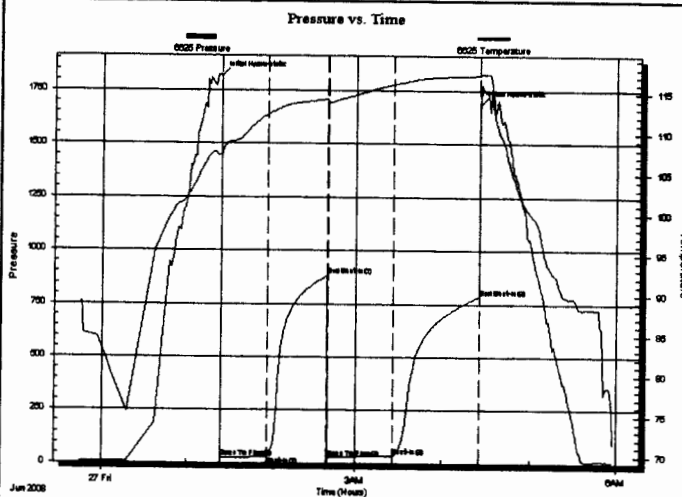
Serial #: 6625

Outside

Press@RunDepth: 34.75 psig @ 3717.00 ft (KB)
Start Date: 2008.06.26 End Date: 2008.06.27
Start Time: 23:45:10 End Time: 05:58:04

Capacity: 7000.00 psig
Last Calib.: 2008.06.27
Time On Btm: 2008.06.27 @ 01:24:05
Time Off Btm: 2008.06.27 @ 04:26:05

TEST COMMENT: IF- weak blow built to 2"
FF- weak 1/4" blow



PRESSURE SUMMARY

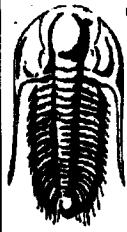
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1818.81	107.33	Initial Hydro-static
1	25.13	107.15	Open To Flow (1)
34	30.55	112.38	Shut-in(1)
76	882.51	114.24	End Shut-in(1)
76	25.56	113.93	Open To Flow (2)
122	34.75	116.06	Shut-in(2)
181	786.08	117.19	End Shut-in(2)
182	1688.34	117.34	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
25.00	clean oil	0.35
20.00	HOCM 25%O 75%M	0.28

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Pioneer Resources
177 W Limestone Rd
Phillipsburg KS 67661-9622
ATTN: Roger Fisher

JoAnn #1
36-11s-20w Ellis KS
Job Ticket: 32885 DST#: 3
Test Start: 2008.06.26 @ 23:45:10

Tool Information

Drill Pipe:	Length: 3707.00 ft	Diameter: 3.82 inches	Volume: 52.55 bbl	Tool Weight: 2100.00 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 52.55 bbl</u>	Tool Chased: ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3716.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	8.00 ft			
Tool Length:	29.00 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			3696.00	
Shut In Tool	5.00			3701.00	
Hydraulic tool	5.00			3706.00	
Packer	5.00			3711.00	21.00 Bottom Of Top Packer
Packer	5.00			3716.00	
Stubb	1.00			3717.00	
Recorder	0.00	8365	Inside	3717.00	
Recorder	0.00	6625	Outside	3717.00	
Perforations	4.00			3721.00	
Bullnose	3.00			3724.00	8.00 Bottom Packers & Anchor
Total Tool Length:	29.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Pioneer Resources	JoAnn #1
177 W Limestone Rd Phillipsburg KS 67661-9622	36-11s-20w Ells KS
ATTN: Roger Fisher	Job Ticket: 32885 DST#: 3
	Test Start: 2008.06.26 @ 23:45:10

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: bbl		
Water Loss: 7.79 in ³	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 bbl
25.00	clean oil	0.354
20.00	HOCM 25%O 75%M	0.284

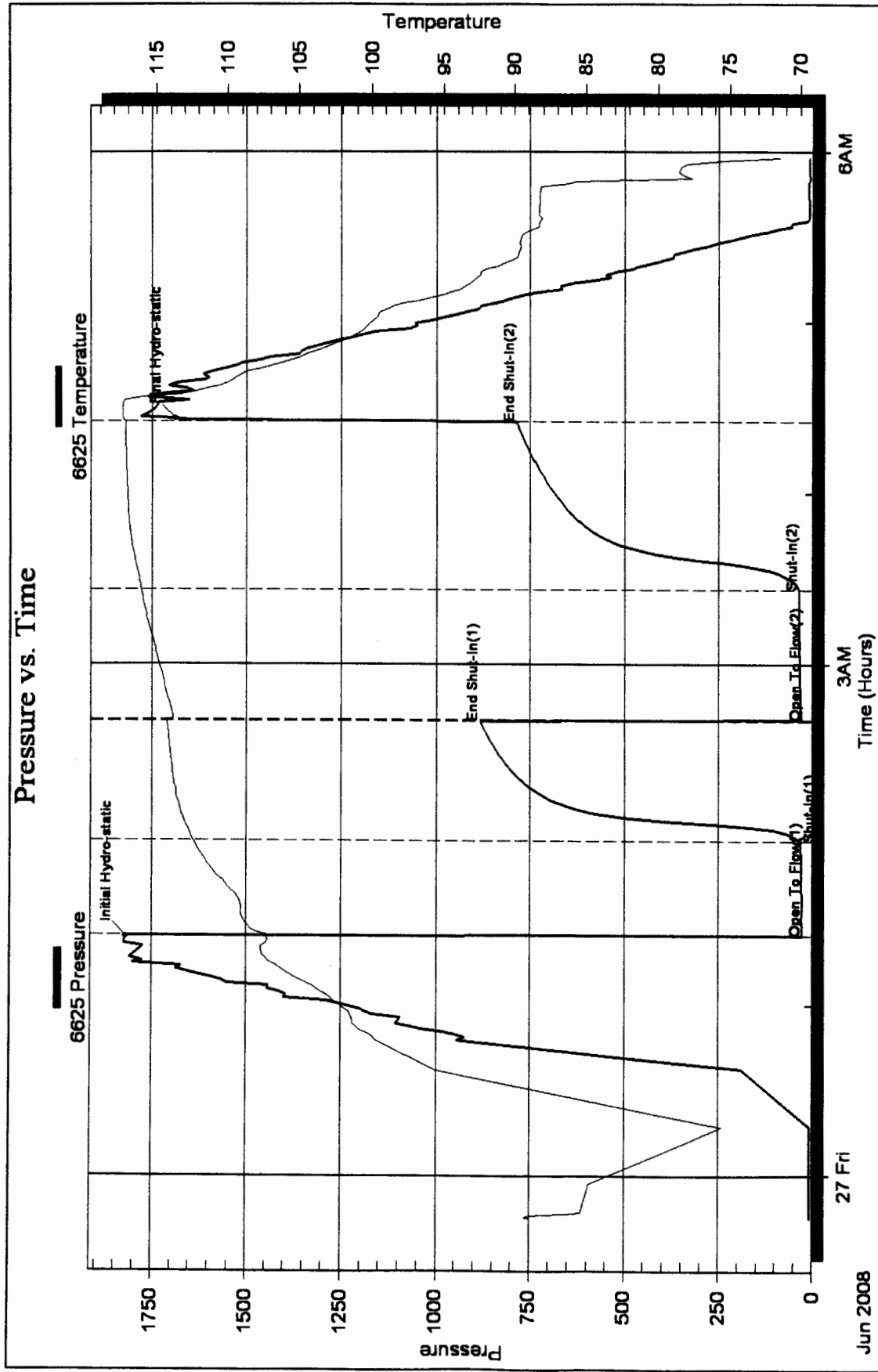
Total Length: 45.00 ft Total Volume: 0.638 bbl

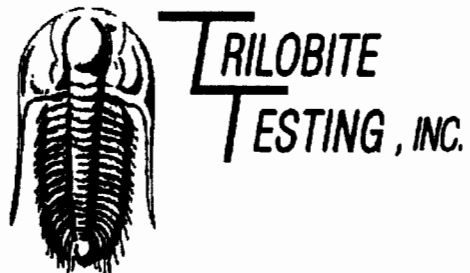
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Pioneer Resources**

177 W Limestone Rd
Phillipsburg KS 67661-9622

ATTN: Roger Fisher

36-11s-20w Ellis KS

JoAnn #1

Start Date: 2008.06.27 @ 13:05:56

End Date: 2008.06.27 @ 18:05:56

Job Ticket #: 32286 DST #: 4

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Pioneer Resources

JoAnn #1

36-11s-20w Ellis KS

DST # 4

Arbuckle

2008.06.27



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Pioneer Resources
177 W Limestone Rd
Phillipsburg KS 67661-9622
ATTN: Roger Fisher

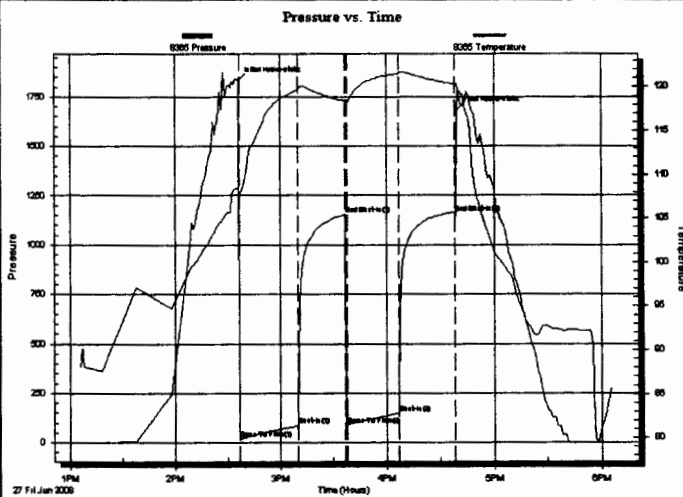
JoAnn #1
36-11s-20w Ellis KS
Job Ticket: 32286 **DST#: 4**
Test Start: 2008.06.27 @ 13:05:56

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 14:36:56
Time Test Ended: 18:05:56
Interval: **3724.00 ft (KB) To 3746.00 ft (KB) (TVD)**
Total Depth: 3746.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Reference Elevations: 2.00 ft (KB)
1.00 ft (CF)
KB to GR/CF: 1.00 ft

Serial #: 8365 **Inside**
Press@RunDepth: 147.31 psig @ 3728.00 ft (KB) Capacity: 7000.00 psig
Start Date: 2008.06.27 End Date: 2008.06.27 Last Calib.: 2007.11.27
Start Time: 13:06:01 End Time: 18:05:55 Time On Btrr: 2008.06.27 @ 14:36:26
Time Off Btrr: 2008.06.27 @ 16:38:56

TEST COMMENT: IF- weak blow building bottom of bucket in 20 minutes
IS- no blow
FF- weak blow building to bottom of bucket in 24 minutes
FS- no blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1832.63	108.41	Initial Hydro-static
1	18.59	107.50	Open To Flow (1)
34	86.64	119.76	Shut-In(1)
61	1153.63	118.40	End Shut-In(1)
61	89.23	117.84	Open To Flow (2)
91	147.31	121.45	Shut-In(2)
122	1161.67	120.31	End Shut-In(2)
123	1680.32	120.36	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	Clean Oil	0.03
298.00	Muddy Suffer Water	4.22

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Pioneer Resources
177 W Limestone Rd
Phillipsburg KS 67661-9622

ATTN: Roger Fisher

JoAnn #1
36-11s-20w Ellis KS
Job Ticket: 32286 DST#: 4
Test Start: 2008.06.27 @ 13:05:56

Tool Information

Drill Pipe:	Length: 3707.00 ft	Diameter: 3.82 inches	Volume: 52.55 bbl	Tool Weight: 2100.00 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 52000.00 lb
			<u>Total Volume: 52.55 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3724.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	43.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3704.00	
Shut In Tool	5.00			3709.00	
Hydraulic tool	5.00			3714.00	
Packer	5.00			3719.00	21.00 Bottom Of Top Packer
Packer	5.00			3724.00	
Stubb	1.00			3725.00	
Perforations	3.00			3728.00	
Recorder	0.00	8365	Inside	3728.00	
Recorder	0.00	6625	Outside	3728.00	
Perforations	15.00			3743.00	
Bullnose	3.00			3746.00	22.00 Bottom Packers & Anchor

Total Tool Length: 43.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Pioneer Resources

JoAnn #1

177 W Limestone Rd
Phillipsburg KS 67661-9622

36-11s-20w Ellis KS

Job Ticket: 32286

DST#: 4

ATTN: Roger Fisher

Test Start: 2008.06.27 @ 13:05:56

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:

26000 ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.79 in³

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 bbl
2.00	Clean Oil	0.028
298.00	Muddy Sulfer Water	4.224

Total Length: 300.00 ft

Total Volume: 4.252 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .21@96

Pressure vs. Time

