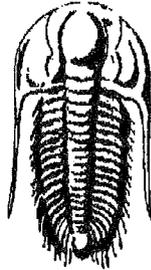


15-145-21597

14-20s-16w

IND



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **M A Yost Operations, Inc.**

PO Box 811
Russell KS 67665

ATTN: Mike Bair

¹⁶
~~14-20-18~~ Pawnee KS

Nelson #1 'C'

Start Date: 2009.11.12 @ 09:45:03

End Date: 2009.11.12 @ 16:25:03

Job Ticket #: 36776 DST #: 1

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

M A Yost Operations, Inc.

Nelson #1

14-20-18 Pawnee KS

DST # 1

Atb

2009.11.12

Range 15 16w, not 18w



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

MA Yost Operations, Inc.
 PO Box 811
 Russell KS 67665
 ATTN: Mike Bair

Nelson #1
14-20-18 Pawnee KS
 Job Ticket: 36776 **DST#: 1**
 Test Start: 2009.11.12 @ 09:45:03

GENERAL INFORMATION:

Formation: **Arb**
 Deviated: **No** Whipstock: ft (KB)
 Time Tool Opened: 11:26:33
 Time Test Ended: 16:25:03
 Interval: **3777.00 ft (KB) To 3784.00 ft (KB) (TVD)**
 Total Depth: 3784.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole
 Tester: Kyle Kinderknecht
 Unit No: 47
 Reference Elevations: 2066.00 ft (KB)
 2057.00 ft (CF)
 KB to GR/CF: 9.00 ft

Serial #: 8319

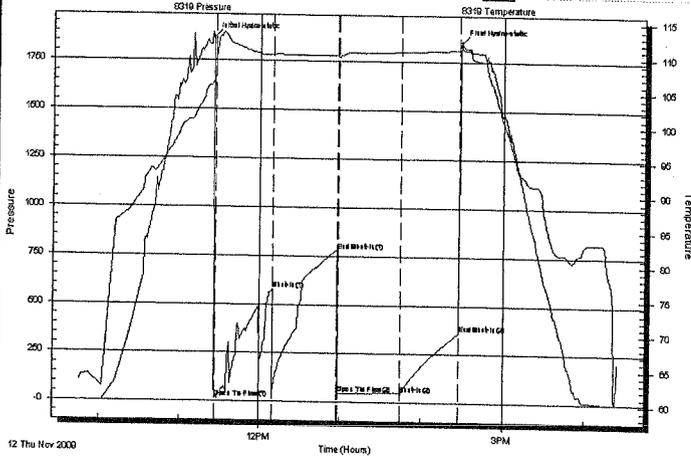
Inside

Press@RunDepth: 47.63 psig @ 3778.00 ft (KB)
 Start Date: 2009.11.12 End Date: 2009.11.12
 Start Time: 09:45:08 End Time: 16:25:02

Capacity: 7000.00 psig
 Last Calib.: 2009.11.12
 Time On Btm: 2009.11.12 @ 11:25:03
 Time Off Btm: 2009.11.12 @ 14:29:03

TEST COMMENT: IF BOB 1 min 25 sec Died to Surface
 ISI Weak died 10 min
 FF 1 1/2"
 FSI Weak died 5 min

Pressure vs. Time



PRESSURE SUMMARY

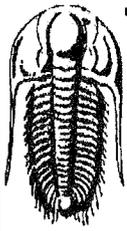
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1869.94	106.55	Initial Hydro-static
2	16.63	108.24	Open To Flow (1)
45	574.65	110.18	Shut-In(1)
93	779.35	110.16	End Shut-In(1)
94	44.56	109.99	Open To Flow (2)
140	47.63	110.74	Shut-In(2)
183	360.46	111.05	End Shut-In(2)
184	1852.49	111.34	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
65.00	Mud	0.92
0.00	GIP too windy and too weak to smell	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

MA Yost Operations, Inc.

Nelson #1

PO Box 811
Russell KS 67665

14-20-18 Pawnee KS

Job Ticket: 36776

DST#: 1

ATTN: Mike Bair

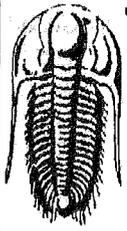
Test Start: 2009.11.12 @ 09:45:03

Tool Information

Drill Pipe:	Length: 3780.00 ft	Diameter: 3.82 inches	Volume: 53.58 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
		Total Volume:	53.58 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3777.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	7.00 ft			
Tool Length:	27.00 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			3758.00	
Shut In Tool	5.00			3763.00	
Hydraulic tool	5.00			3768.00	
Packer	4.00			3772.00	20.00 Bottom Of Top Packer
Packer	5.00			3777.00	
Stubb	1.00			3778.00	
Recorder	0.00	8319	Inside	3778.00	
Recorder	0.00	8369	Inside	3778.00	
Perforations	3.00			3781.00	
Bullnose	3.00			3784.00	7.00 Bottom Packers & Anchor
Total Tool Length:	27.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

MA Yost Operations, Inc.

Nelson #1

PO Box 811
Russell KS 67665

14-20-18 Pawnee KS

Job Ticket: 36776

DST#: 1

ATTN: Mike Bair

Test Start: 2009.11.12 @ 09:45:03

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 48.00 sec/qt

Water Loss: 7.98 in³

Resistivity: ohm.m

Salinity: 2800.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

deg API

Water Salinity:

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
65.00	Mud	0.921
0.00	GIP too windy and too weak to smell	0.000

Total Length: 65.00 ft Total Volume: 0.921 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

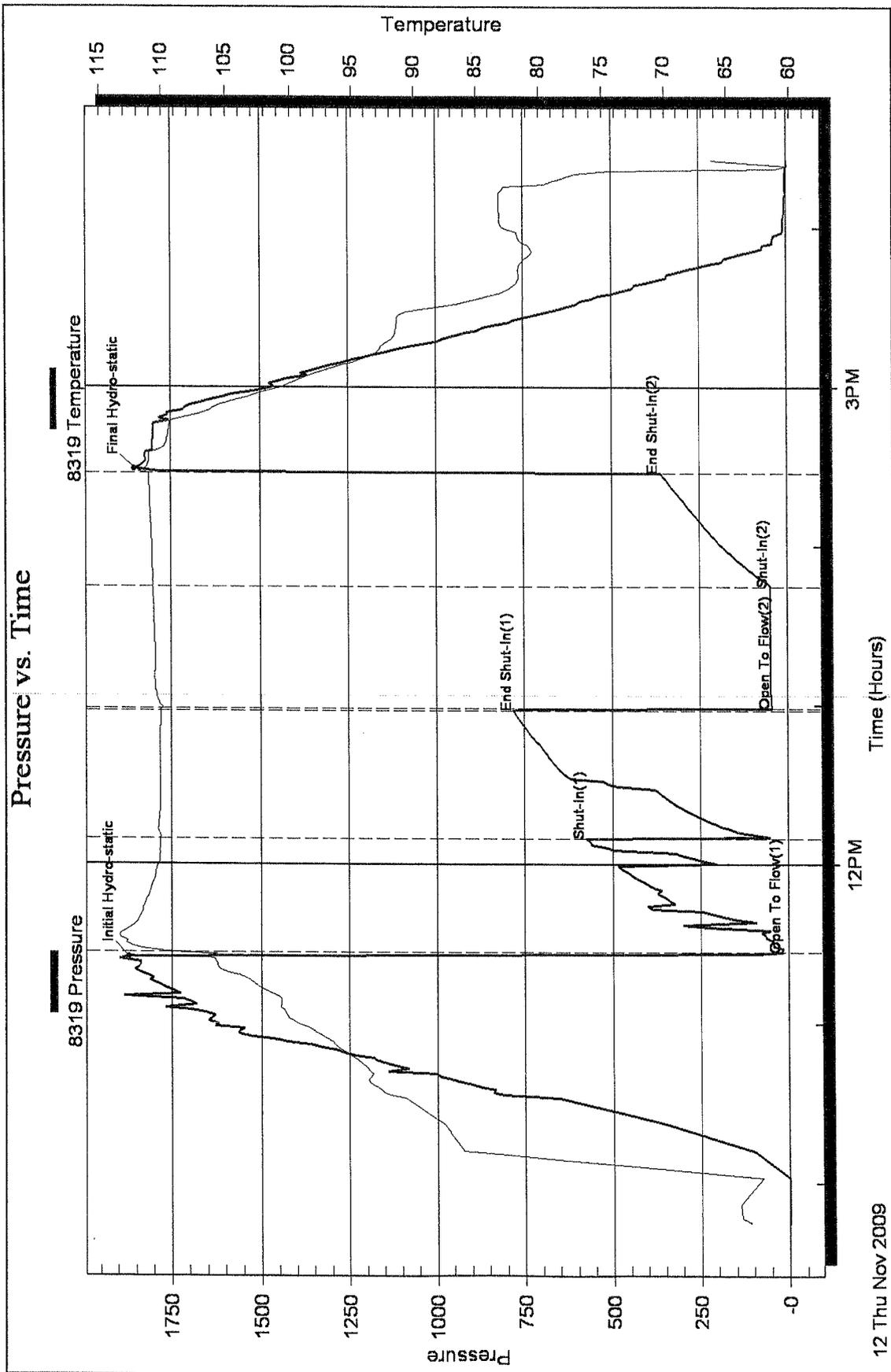
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

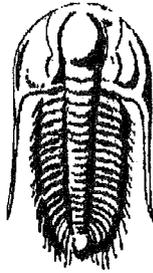
Pressure vs. Time



12 Thu Nov 2009

12 PM

3 PM



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **M A Yost Operations, Inc.**

PO Box 811
Russell KS 67665

ATTN: Mike Bair

14-20-18 Pawnee KS

Nelson #1

Start Date: 2009.11.13 @ 08:16:09

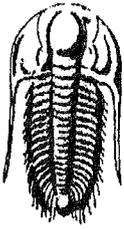
End Date: 2009.11.13 @ 15:06:39

Job Ticket #: 36777 DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

MA Yost Operations, Inc.

Nelson #1

PO Box 811
Russell KS 67665

14-20-18 Pawnee KS

Job Ticket: 36777

DST#: 2

ATTN: Mke Bair

Test Start: 2009.11.13 @ 08:16:09

GENERAL INFORMATION:

Formation: **Arb**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:04:39

Time Test Ended: 15:06:39

Test Type: Conventional Straddle

Tester: Kyle Kinderknecht

Unit No: 47

Interval: 3782.00 ft (KB) To 3818.00 ft (KB) (TVD)

Total Depth: 3895.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2066.00 ft (KB)

2057.00 ft (CF)

KB to GR/CF: 9.00 ft

Serial #: 8319

Inside

Press@RunDepth: psig @ 3796.00 ft (KB)

Start Date: 2009.11.13

End Date: 2009.11.13

Capacity: 7000.00 psig

Last Calib.: 2009.11.13

Start Time: 08:16:14

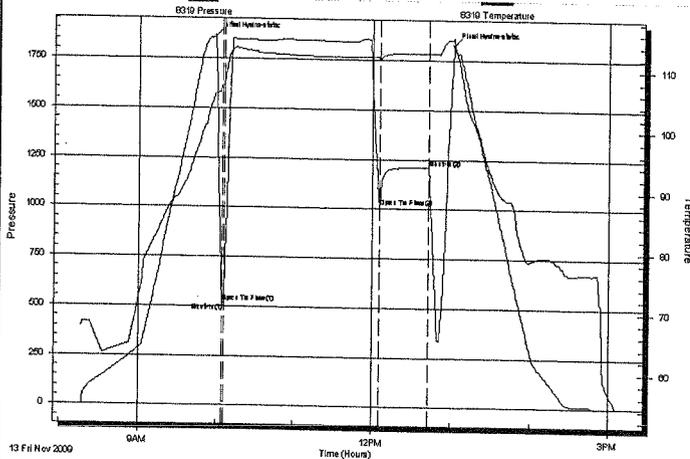
End Time: 15:06:38

Time On Btm: 2009.11.13 @ 09:59:09

Time Off Btm: 2009.11.13 @ 13:02:09

TEST COMMENT: IF BOB 20 sec
ISI Weak

Pressure vs. Time



PRESSURE SUMMARY

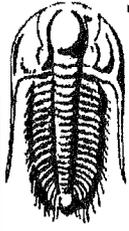
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1863.87	105.97	Initial Hydro-static
6	519.06	107.26	Open To Flow (1)
7	512.13	107.33	Shut-In(1)
127	1009.48	111.73	Open To Flow (2)
165	1212.61	112.91	Shut-In(2)
183	1826.78	115.45	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	2500 GIP	0.00
420.00	MDY WTR Scum of oil	5.95

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

MA Yost Operations, Inc.

Nelson #1

PO Box 811
Russell KS 67665

14-20-18 Pawnee KS

Job Ticket: 36777

DST#: 2

ATTN: Mike Bair

Test Start: 2009.11.13 @ 08:16:09

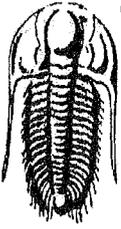
Tool Information

Drill Pipe:	Length: 3765.00 ft	Diameter: 3.82 inches	Volume: 53.37 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 50000.00 lb
			Total Volume: 53.37 bbl	Tool Chased 2.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3782.00 ft			Final 47000.00 lb
Depth to Bottom Packer:	3818.00 ft			
Interval between Packers:	36.00 ft			
Tool Length:	140.00 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			3756.00	
Shut In Tool	5.00			3761.00	
Hydraulic tool	5.00			3766.00	
Jars	4.00			3770.00	
Safety Joint	3.00			3773.00	
Packer	4.00			3777.00	27.00 Bottom Of Top Packer
Packer	5.00			3782.00	
Stubb	1.00			3783.00	
Perforations	13.00			3796.00	
Recorder	0.00	8319	Inside	3796.00	
Perforations	18.00			3814.00	
Recorder	0.00	13308	Inside	3814.00	
Blank Off Sub	1.00			3815.00	
Blank Spacing	3.00			3818.00	36.00 Tool Interval
Packer	0.00			3818.00	
Stubb	1.00			3819.00	
Recorder	0.00	8369	Below	3819.00	
Perforations	12.00			3831.00	
Change Over Sub	1.00			3832.00	
Blank Spacing	63.00			3895.00	77.00 Bottom Packers & Anchor

Total Tool Length: 140.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

MA Yost Operations, Inc.

Nelson #1

PO Box 811
Russell KS 67665

14-20-18 Pawnee KS

Job Ticket: 36777

DST#: 2

ATTN: Mike Bair

Test Start: 2009.11.13 @ 08:16:09

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 48.00 sec/qt

Water Loss: 7.98 in³

Resistivity: ohm.m

Salinity: 2800.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	2500 GIP	0.000
420.00	MDY WTR Scum of oil	5.954

Total Length: 420.00 ft Total Volume: 5.954 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8319

Inside

MA Yost Operations, Inc.

14-20-18 Pawnee KS

DST Test Number: 2

Pressure vs. Time

