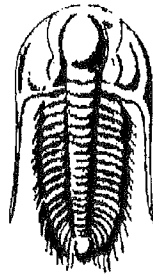


15-195-22420

5-145-21w



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Downing Nelson**

PO Box 372
Hays KS 67601

ATTN: Al Downing

5 14S 21W Trego KS

JR #1-5

Start Date: 2007.02.21 @ 15:09:09

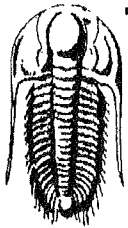
End Date: 2007.02.21 @ 22:00:24

Job Ticket #: 27620 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

Downing Nelson

JR #1-5

PO Box 372
Hays KS 67601

5 14S 21W Trego KS

Job Ticket: 27620

DST#: 1

ATTN: Al Downing

Test Start: 2007.02.21 @ 15:09:09

GENERAL INFORMATION:

Formation: LKC-"C-D"

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:44:24

Time Test Ended: 22:00:24

Test Type: Conventional Bottom Hole

Tester: Jason McLemore

Unit No: 32

Interval: 3617.00 ft (KB) To 3670.00 ft (KB) (TVD)

Total Depth: 3670.00 ft (KB) (TVD)

Hole Diameter: 7.80 inches Hole Condition: Good

Reference Elevations: 2253.00 ft (KB)

2245.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 6719 Inside

Press@RunDepth: 64.80 psig @ 3620.00 ft (KB)

Start Date: 2007.02.21

End Date:

2007.02.21

Capacity: 7000.00 psig

Last Calib.: 2007.02.21

Start Time: 15:09:11

End Time:

22:00:24

Time On Btm: 2007.02.21 @ 16:44:09

Time Off Btm: 2007.02.21 @ 20:02:39

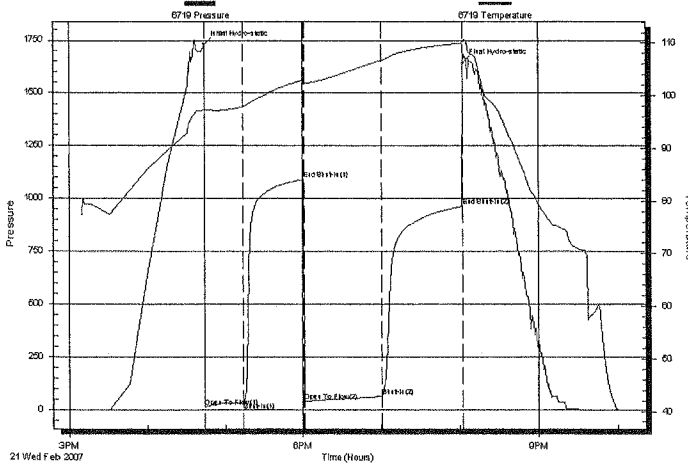
TEST COMMENT: IFP Weak Blow Built to 4 "

ISI Dead

FFP Fair Blow Built to 6-1/4 "

FSI Dead

Pressure vs. Time



PRESSURE SUMMARY

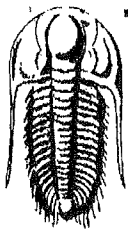
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1731.45	97.53	Initial Hydro-static
1	14.65	97.28	Open To Flow (1)
30	37.09	97.96	Shut-In(1)
77	1091.98	103.02	End Shut-In(1)
77	43.32	102.65	Open To Flow (2)
137	64.80	106.73	Shut-In(2)
198	964.97	110.00	End Shut-In(2)
199	1641.46	110.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
110.00	Muddy Water 25%M 75%W	1.27
10.00	Free Oil	0.14

Gas Rates

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



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing Nelson

JR #1-5

PO Box 372
Hays KS 67601

5 14S 21W Trego KS

Job Ticket: 27620

DST#: 1

ATTN: Al Downing

Test Start: 2007.02.21 @ 15:09:09

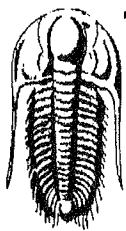
Tool Information

Drill Pipe:	Length: 3577.00 ft	Diameter: 3.80 inches	Volume: 50.18 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	42000.00 lb
		Total Volume:	50.33 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial	40000.00 lb
Depth to Top Packer:	3617.00 ft			Final	40000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	53.00 ft				
Tool Length:	74.00 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			3597.00	
Shut In Tool	5.00			3602.00	
Hydraulic tool	5.00			3607.00	
Packer	5.00			3612.00	21.00 Bottom Of Top Packer
Packer	5.00			3617.00	
Stubb	1.00			3618.00	
Perforations	1.00			3619.00	
Change Over Sub	1.00			3620.00	
Recorder	0.00	6719	Inside	3620.00	
Blank Spacing	31.00			3651.00	
Change Over Sub	1.00			3652.00	
Perforations	15.00			3667.00	
Recorder	0.00	13221	Outside	3667.00	
Bullnose	3.00			3670.00	53.00 Bottom Packers & Anchor

Total Tool Length: 74.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing Nelson

JR #1-5

PO Box 372
Hays KS 67601

5 14S 21W Trego KS

Job Ticket: 27620

DST#: 1

ATTN: Al Downing

Test Start: 2007.02.21 @ 15:09:09

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

19 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

55000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
110.00	Muddy Water 25%M 75%W	1.270
10.00	Free Oil	0.140

Total Length: 120.00 ft

Total Volume: 1.410 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

DST Test Number: 1

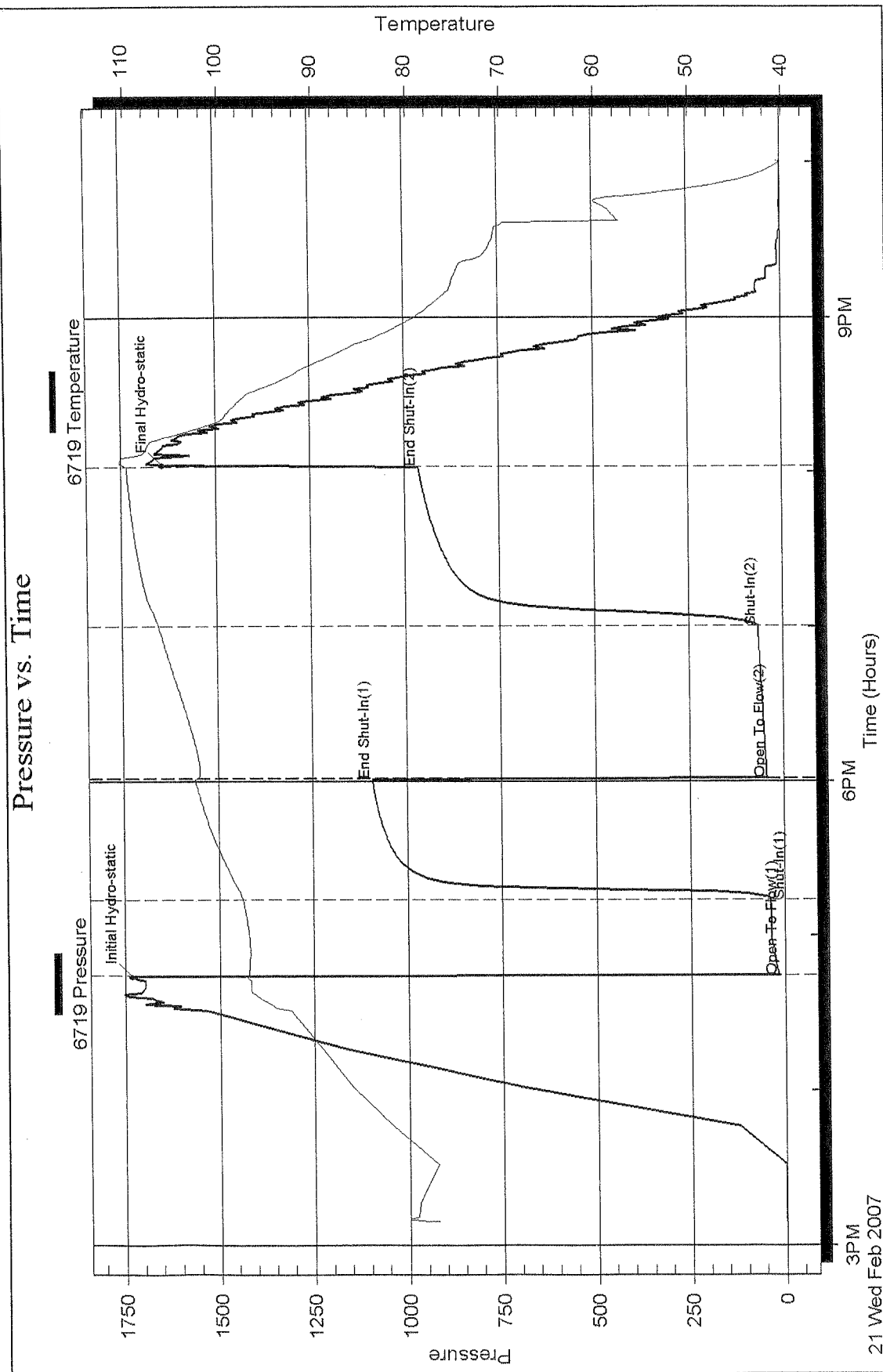
5 14S 21W Trego KS

Dowling Nelson

Inside

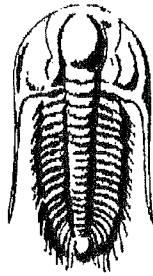
Serial #: 6719

Pressure vs. Time



Ref. No: 27620

Trilobite Testing, Inc



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Downing Nelson**

PO Box 372
Hays KS 67601

ATTN: Al Downing

5 14S 21W Trego KS

JR #1-5

Start Date: 2007.02.22 @ 03:40:14

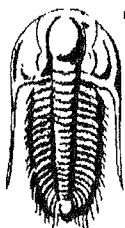
End Date: 2007.02.22 @ 09:50:29

Job Ticket #: 27621 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

Downing Nelson

JR #1-5

PO Box 372
Hays KS 67601

5 14S 21W Trego KS

Job Ticket: 27621

DST#: 2

ATTN: Al Downing

Test Start: 2007.02.22 @ 03:40:14

GENERAL INFORMATION:

Formation: LKC-"E"

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:18:29

Time Test Ended: 09:50:29

Test Type: Conventional Bottom Hole

Tester: Jason McLemore

Unit No: 32

Interval: 3666.00 ft (KB) To 3685.00 ft (KB) (TVD)

Total Depth: 3685.00 ft (KB) (TVD)

Hole Diameter: 7.80 inches Hole Condition: Good

Reference Elevations: 2253.00 ft (KB)

2245.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 6719 Inside

Press@RunDepth: 104.57 psig @ 3668.00 ft (KB)

Start Date: 2007.02.22

End Date:

2007.02.22

Start Time: 03:40:16

End Time:

09:50:29

Capacity: 7000.00 psig

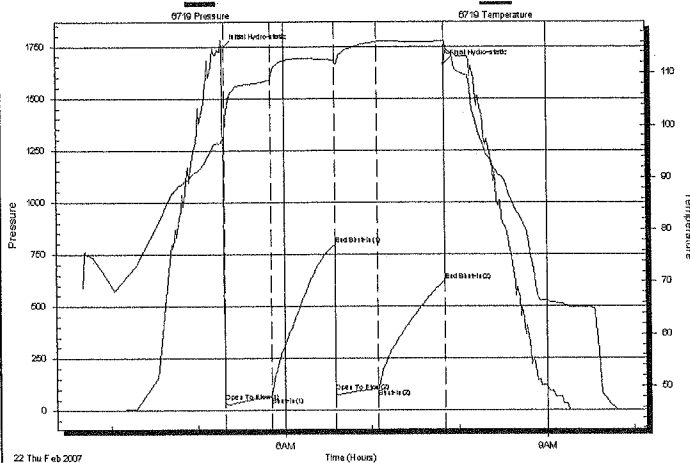
Last Calib.: 2007.02.22

Time On Btm: 2007.02.22 @ 05:17:59

Time Off Btm: 2007.02.22 @ 07:50:14

TEST COMMENT: IFP Strong BOB in 2 Min
ISI Blow back Built to 2 "
FFP Strong BOB in 4 Min
FSI Blow back Built to 6 "

Pressure vs. Time



PRESSURE SUMMARY

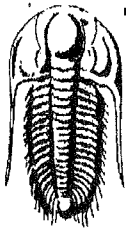
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1745.58	97.34	Initial Hydro-static
1	42.20	98.00	Open To Flow (1)
33	67.12	108.77	Shut-In(1)
77	796.88	112.44	End Shut-In(1)
78	89.49	112.13	Open To Flow (2)
107	104.57	116.00	Shut-In(2)
152	622.55	116.06	End Shut-In(2)
153	1664.28	116.32	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	Gassy Muddy Oil 30%G 45%O 25%M	0.57
190.00	Free Oil	2.67
0.00	950 Gas In Pipe	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing Nelson

JR #1-5

PO Box 372
Hays KS 67601

5 14S 21W Trego KS

Job Ticket: 27621

DST#: 2

ATTN: Al Downing

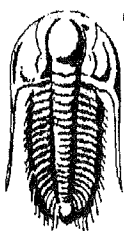
Test Start: 2007.02.22 @ 03:40:14

Tool Information

Drill Pipe:	Length: 3636.00 ft	Diameter: 3.80 inches	Volume: 51.00 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	45000.00 lb
		Total Volume:	51.15 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial	40000.00 lb
Depth to Top Packer:	3666.00 ft			Final	42000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	19.00 ft				
Tool Length:	40.00 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			3646.00	
Shut In Tool	5.00			3651.00	
Hydraulic tool	5.00			3656.00	
Packer	5.00			3661.00	21.00 Bottom Of Top Packer
Packer	5.00			3666.00	
Stubb	1.00			3667.00	
Perforations	1.00			3668.00	
Recorder	0.00	6719	Inside	3668.00	
Perforations	14.00			3682.00	
Recorder	0.00	13221	Outside	3682.00	
Bullnose	3.00			3685.00	19.00 Bottom Packers & Anchor

Total Tool Length: 40.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing Nelson

JR #1-5

PO Box 372
Hays KS 67601

5 14S 21W Trego KS

Job Ticket: 27621

DST#: 2

ATTN: Al Downing

Test Start: 2007.02.22 @ 03:40:14

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	Gassy Muddy Oil 30%G 45%O 25%M	0.568
190.00	Free Oil	2.665
0.00	950 Gas In Pipe	0.000

Total Length: 250.00 ft

Total Volume: 3.233 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

DST Test Number: 2

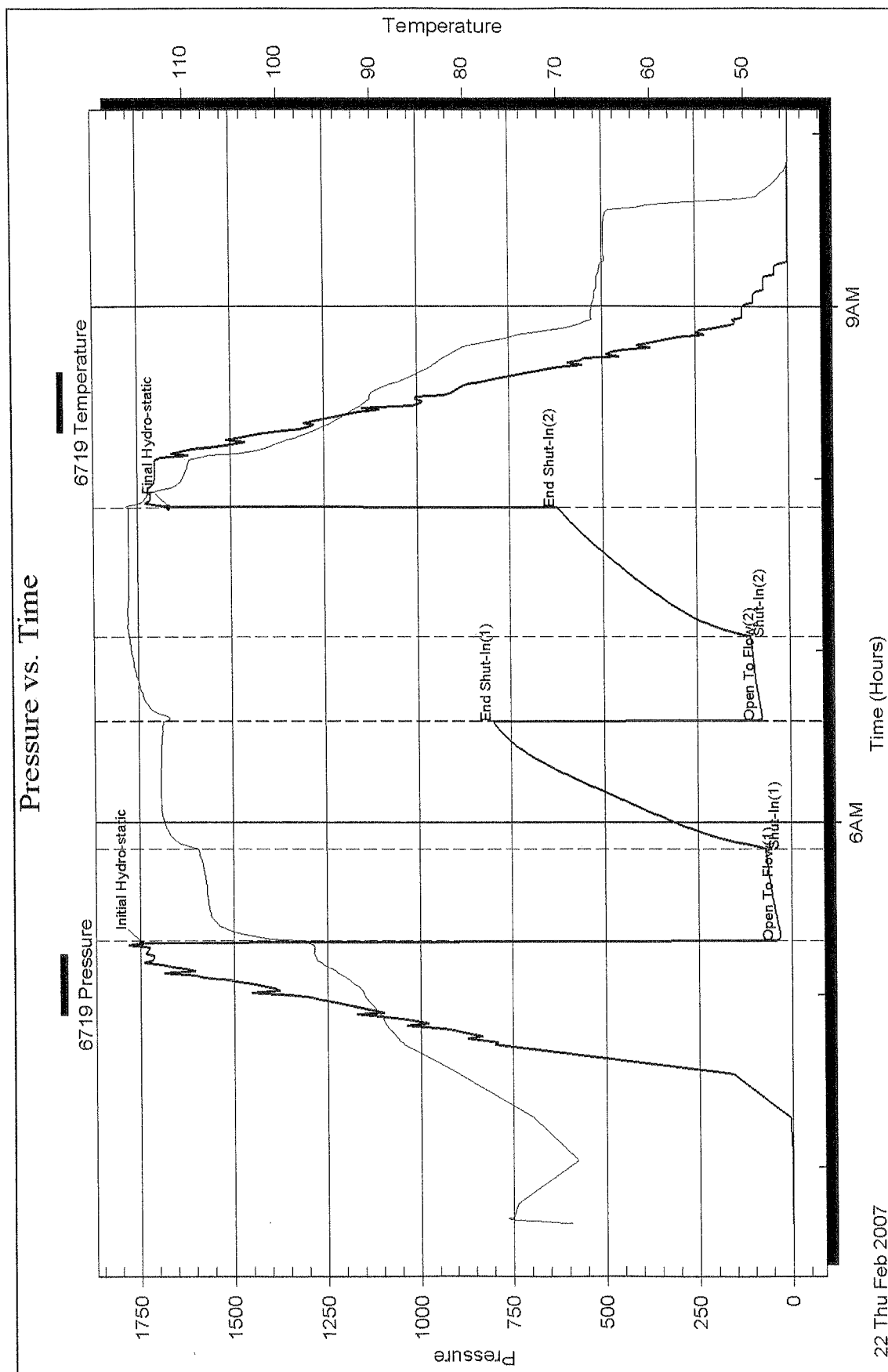
5 14S 21W Trego KS

Dowling Nelson

Inside

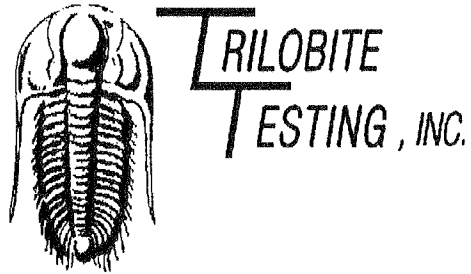
Serial #: 6719

Pressure vs. Time



Ref. No: 27621

Trilobite Testing, Inc



DRILL STEM TEST REPORT

Prepared For: **Downing Nelson**

PO Box 372
Hays KS 67601

ATTN: Al Downing

5 14S 21W Trego KS

JR #1-5

Start Date: 2007.02.22 @ 22:07:47

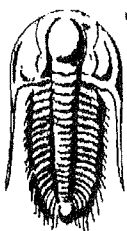
End Date: 2007.02.23 @ 04:46:17

Job Ticket #: 27622 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

Downing Nelson

JR #1-5

PO Box 372
Hays KS 67601

5 14S 21W Trego KS

Job Ticket: 27622

DST#: 3

ATTN: Al Downing

Test Start: 2007.02.22 @ 22:07:47

GENERAL INFORMATION:

Formation: LKC-"H-I-J"

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:55:17

Time Test Ended: 04:46:17

Test Type: Conventional Bottom Hole

Tester: Jason McLemore

Unit No: 32

Interval: 3726.00 ft (KB) To 3808.00 ft (KB) (TVD)

Total Depth: 3808.00 ft (KB) (TVD)

Hole Diameter: 7.80 inches Hole Condition: Good

Reference Elevations: 2253.00 ft (KB)

2245.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 6719

Inside

Press@RunDepth: 80.30 psig @ 3732.00 ft (KB)

Start Date: 2007.02.22

End Date:

2007.02.23

Capacity: 7000.00 psig

Last Calb.: 2007.02.23

Start Time: 22:07:49

End Time:

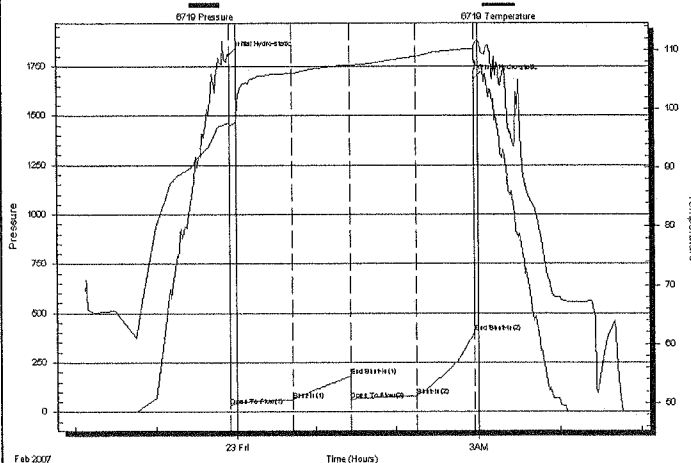
04:46:17

Time On Btm: 2007.02.22 @ 23:55:02

Time Off Btm: 2007.02.23 @ 02:57:32

TEST COMMENT: IFP Good Blow BOB in 8 Min
ISI Blow back Built to 1/2 "
FFP Strong Blow BOB in 5 Min
FSI Blow back Built to 1/2 "

Pressure vs. Time



PRESSURE SUMMARY

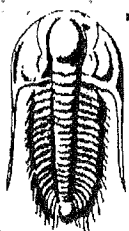
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1807.18	97.52	Initial Hydro-static
1	31.85	97.14	Open To Flow (1)
48	60.69	106.02	Shut-In(1)
91	180.51	107.44	End Shut-In(1)
92	59.08	107.41	Open To Flow (2)
140	80.30	108.88	Shut-In(2)
183	402.69	110.24	End Shut-In(2)
183	1687.19	110.63	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
170.00	HMC60 30%G 30%O 40%M	2.11
0.00	130' Gas In Pipe	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing Nelson

JR #1-5

PO Box 372
Hays KS 67601

5 14S 21W Trego KS

Job Ticket: 27622

DST#: 3

ATTN: Al Downing

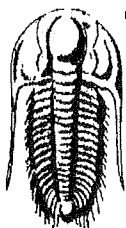
Test Start: 2007.02.22 @ 22:07:47

Tool Information

Drill Pipe:	Length: 3699.00 ft	Diameter: 3.80 inches	Volume: 51.89 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	50000.00 lb
		Total Volume:	52.04 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial	42000.00 lb
Depth to Top Packer:	3726.00 ft			Final	42000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	82.00 ft				
Tool Length:	103.00 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			3706.00	
Shut In Tool	5.00			3711.00	
Hydraulic tool	5.00			3716.00	
Packer	5.00			3721.00	21.00 Bottom Of Top Packer
Packer	5.00			3726.00	
Stubb	1.00			3727.00	
Perforations	4.00			3731.00	
Change Over Sub	1.00			3732.00	
Recorder	0.00	6719	Inside	3732.00	
Blank Spacing	62.00			3794.00	
Change Over Sub	1.00			3795.00	
Perforations	10.00			3805.00	
Recorder	0.00	13221	Outside	3805.00	
Bullnose	3.00			3808.00	82.00 Bottom Packers & Anchor
Total Tool Length:		103.00			



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing Nelson

JR #1-5

PO Box 372
Hays KS 67601

5 14S 21W Trego KS

Job Ticket: 27622

DST#: 3

ATTN: Al Downing

Test Start: 2007.02.22 @ 22:07:47

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 52.00 sec/qt

Water Loss: 7.98 in³

Resistivity: ohm.m

Salinity: 3500.00 ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
170.00	HMC GO 30%G 30%O 40%M	2.111
0.00	130' Gas In Pipe	0.000

Total Length: 170.00 ft

Total Volume: 2.111 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

DST Test Number: 3

5 14S 21W Trego KS

Dow ning Nelson

Inside

Serial #: 6719

