

15-195-22581

5-14s-22w



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil CO.**

12/11/08
11/07/08

PO Box 372
Hays, Ks 67601

ATTN: Ron Nelson

5 14 22 Trego KS

Lynd Family Trust *1-5*

Start Date: 2008.10.13 @ 10:35:17

End Date: 2008.10.13 @ 17:13:17

Job Ticket #: 33722 DST #: 1

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Downing-Nelson Oil CO.

Lynd Family Trust *1-5*

N 5 14 22 Trego KS

DST # 1

LKC "E-F"

2008.10.13



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Dowling-Nelson Oil CO.

Lynd Family Trust

PO Box 372
Hays, Ks 67601

5 14 22 Trego KS

Job Ticket: 33722

DST#: 1

ATTN: Ron Nelson

Test Start: 2008.10.13 @ 10:35:17

GENERAL INFORMATION:

Formation: LKC "E-F"

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:24:32

Time Test Ended: 17:13:17

Test Type: Conventional Bottom Hole

Tester: Tyson Flax

Unit No: 44

Interval: 3789.00 ft (KB) To 3820.00 ft (KB) (TVD)

Total Depth: 3820.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2331.00 ft (KB)

2324.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 6672

Inside

Press@RunDepth: 1022.21 psig @ 3795.00 ft (KB)

Start Date: 2008.10.13

End Date:

2008.10.13

Start Time: 10:35:18

End Time:

17:13:17

Capacity: 7000.00 psig

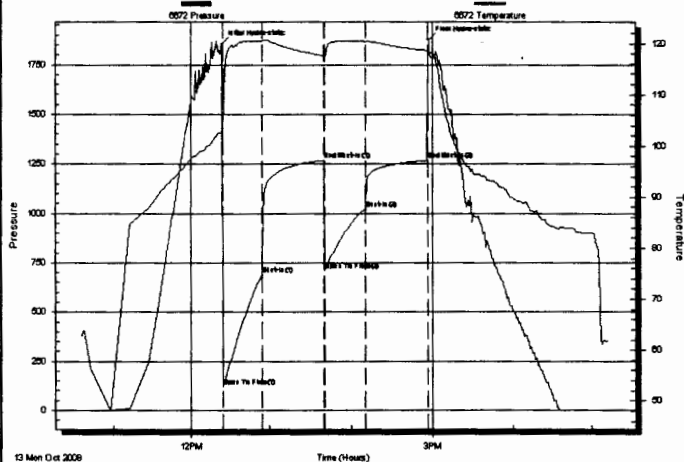
Last Calib.: 2008.10.13

Time On Btm: 2008.10.13 @ 12:24:17

Time Off Btm: 2008.10.13 @ 14:56:47

TEST COMMENT: IFF-BOB in 45 sec
ISI-Weak 1/4" blow back throughout
FFP-BOB 1.5 min
FSI-no blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1853.01	102.46	Initial Hydro-static
1	120.61	101.49	Open To Flow (1)
31	691.03	120.51	Shut-In (1)
76	1268.80	117.60	End Shut-In (1)
77	711.88	117.31	Open To Flow (2)
106	1022.21	120.40	Shut-In (2)
152	1268.39	118.61	End Shut-In (2)
153	1875.29	118.66	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1860.00	Water	26.09
150.00	WM 40%W, 60%M	2.13

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 Oil CO.

Lynd Family Trust

PO Box 372
Hays, Ks 67601

5 14 22 Trego KS

Job Ticket: 33722

DST#: 1

ATTN: Ron Nelson

Test Start: 2008.10.13 @ 10:35:17

Tool Information

Drill Pipe:	Length: 3769.00 ft	Diameter: 3.82 inches	Volume: 53.43 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.25 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:	90000.00 lb
		Total Volume:	53.58 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial	70000.00 lb
Depth to Top Packer:	3789.00 ft			Final	84000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	31.00 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
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Change Over Sub	1.00			3769.00	
Shut In Tool	5.00			3774.00	
Hydraulic tool	5.00			3779.00	
Packer	5.00			3784.00	21.00 Bottom Of Top Packer
Packer	5.00			3789.00	
Stubb	1.00			3790.00	
Perforations	5.00			3795.00	
Recorder	0.00	6669	Inside	3795.00	
Recorder	0.00	6672	Inside	3795.00	
Perforations	22.00			3817.00	
Bullnose	3.00			3820.00	31.00 Bottom Packers & Anchor

Total Tool Length: 52.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil CO.

Lynd Family Trust

PO Box 372
Hays, Ks 67601

5 14 22 Trego KS

Job Ticket: 33722

DST#: 1

ATTN: Ron Nelson

Test Start: 2008.10.13 @ 10:35:17

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:

65000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.77 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1860.00	Water	26.089
150.00	WM 40%W,60%M	2.126

Total Length: 2010.00 ft Total Volume: 28.215 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

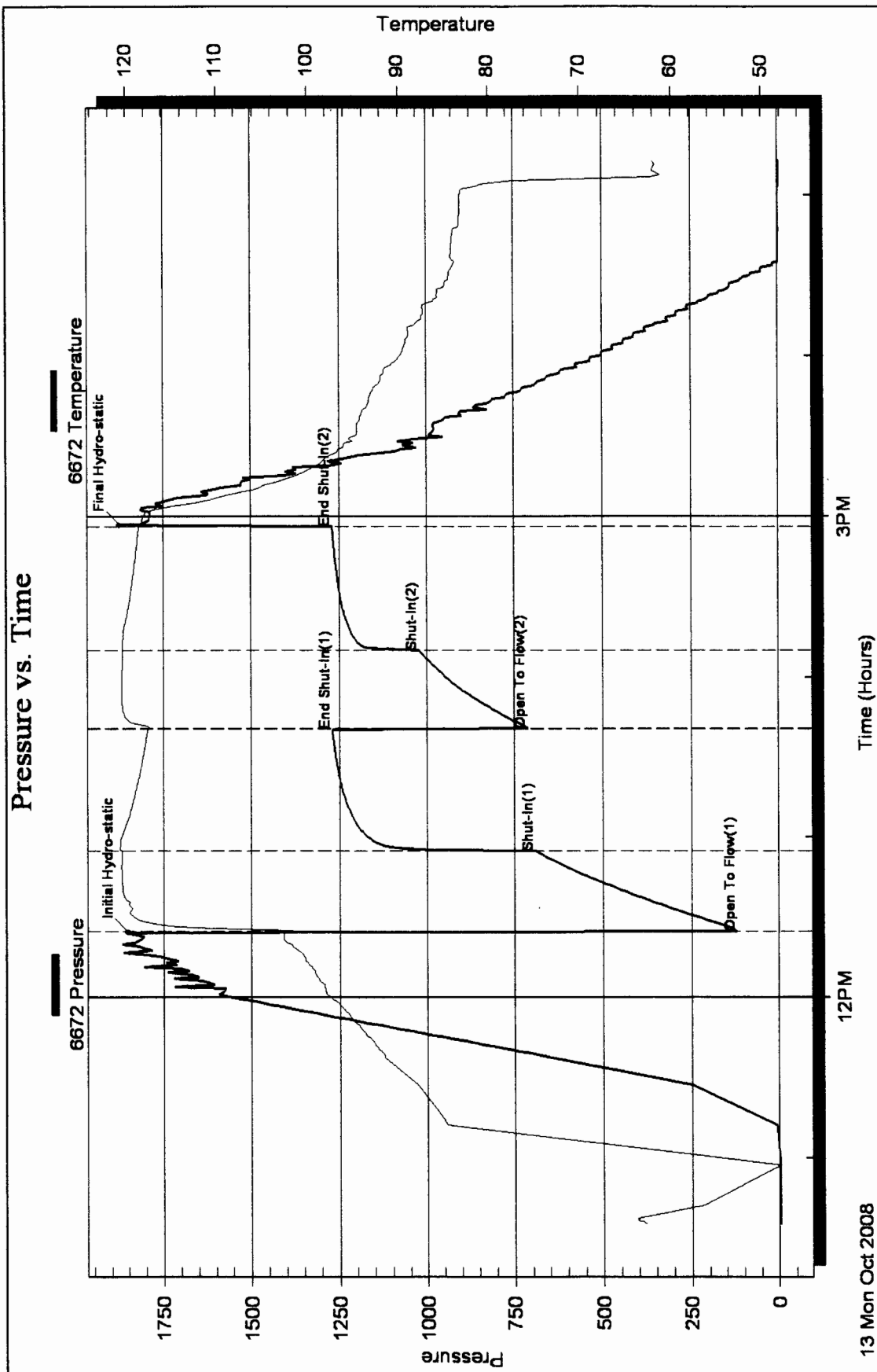
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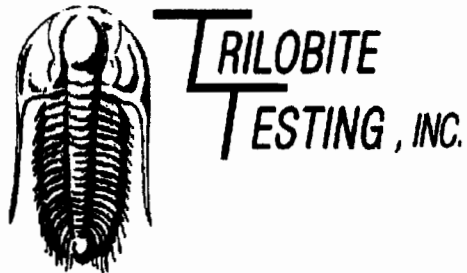
Laboratory Name:

Laboratory Location:

Recovery Comments: RW .13 @ 66F = 65000ppm Chlorides

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil CO.**

PO Box 372
Hays, Ks 67601

ATTN: Ron Nelson

5 14 22 Trego KS

Lynd Family Trust

Start Date: 2008.10.14 @ 23:47:39

End Date: 2008.10.15 @ 06:43:54

Job Ticket #: 33723 DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



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DRILL STEM TEST REPORT

Downing-Nelson Oil CO.

PO Box 372
Hays, Ks 67601

ATTN: Ron Nelson

Lynd Family Trust

5 14 22 Trego KS

Job Ticket: 33723

DST#: 2

Test Start: 2008.10.14 @ 23:47:39

GENERAL INFORMATION:

Formation: **Cherokee Sand**

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

Time Tool Opened: 02:05:24

Time Test Ended: 06:43:54

Test Type: **Conventional Bottom Hole**

Tester: **Tyson Flax**

Unit No: **44**

Interval: **4130.00 ft (KB) To 4245.00 ft (KB) (TVD)**

Total Depth: **4245.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Good**

Reference Elevations: **2331.00 ft (KB)**

2324.00 ft (CF)

KB to GR/CF: **7.00 ft**

Serial #: 6672 **Inside**

Press@RunDepth: **292.49 psig @ 4137.00 ft (KB)**

Start Date: **2008.10.14**

End Date:

2008.10.15

Start Time: **23:47:40**

End Time:

06:43:54

Capacity: **7000.00 psig**

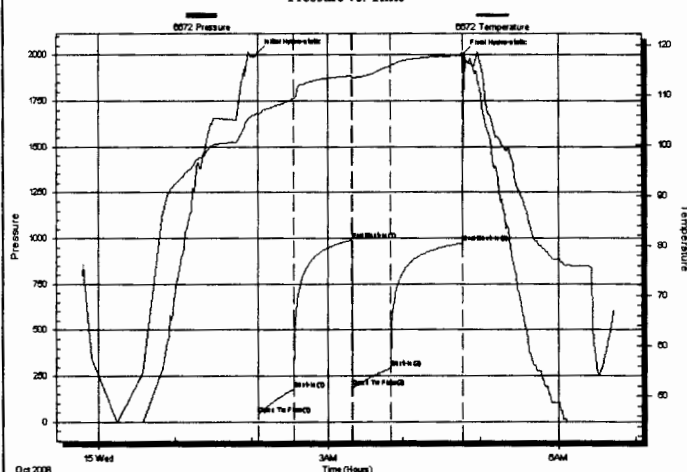
Last Calib.: **2008.10.15**

Time On Btm: **2008.10.15 @ 02:05:09**

Time Off Btm: **2008.10.15 @ 04:47:24**

TEST COMMENT: IFF-BOB in 8 min
ISI-no blow back
FFP-BOB in 9 min
FSI-no blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2015.21	106.69	Initial Hydro-static
1	44.08	105.84	Open To Flow (1)
28	177.91	109.39	Shut-In(1)
75	991.30	113.84	End Shut-In(1)
75	185.67	113.40	Open To Flow (2)
106	292.49	115.86	Shut-In(2)
162	972.58	117.87	End Shut-In(2)
163	2005.76	118.21	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
300.00	MW 70%W,30%M	3.97
60.00	WM 50%W,50%M	0.85
210.00	Mud	2.98

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing-Nelson Oil CO.

Lynd Family Trust

PO Box 372
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Job Ticket: 33723

DST#: 2

ATTN: Ron Nelson

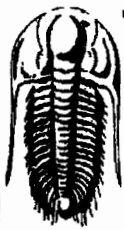
Test Start: 2008.10.14 @ 23:47:39

Tool Information

Drill Pipe:	Length: 4084.00 ft	Diameter: 3.82 inches	Volume: 57.89 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.25 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:	100000.0 lb
			Total Volume: 58.04 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial	76000.00 lb
Depth to Top Packer:	4130.00 ft			Final	80000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	115.00 ft				
Tool Length:	136.00 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			4114.00	
Change Over Sub	1.00			4115.00	
Hydraulic tool	5.00			4120.00	
Packer	5.00			4125.00	21.00 Bottom Of Top Packer
Packer	5.00			4130.00	
Stubb	1.00			4131.00	
Perforations	5.00			4136.00	
Change Over Sub	1.00			4137.00	
Recorder	0.00	6672	inside	4137.00	
Recorder	0.00	6669	inside	4137.00	
Blank Spacing	94.00			4231.00	
Change Over Sub	1.00			4232.00	
Perforations	10.00			4242.00	
Bullnose	3.00			4245.00	115.00 Bottom Packers & Anchor

Total Tool Length: 136.00



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Job Ticket: 33723

DST#: 2

ATTN: Ron Nelson

Test Start: 2008.10.14 @ 23:47:39

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:

23000 ppm

Viscosity: 82.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.89 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4300.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
300.00	MW 70%W,30%M	3.975
60.00	WM 50%W,50%M	0.851
210.00	Mud	2.977

Total Length: 570.00 ft

Total Volume: 7.803 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

