



DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co Inc**

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

D&D #1-12

12-12s-23w Trego,KS

Start Date: 2012.09.18 @ 08:10:41

End Date: 2012.09.18 @ 15:23:35

Job Ticket #: 48680 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.09.25 @ 11:59:17



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

12-12s-23w Trego,KS

PO Box 1019
Hays KS 67601

D&D #1-12

Job Ticket: 48680

DST#: 1

ATTN: Ron Nelson

Test Start: 2012.09.18 @ 08:10:41

GENERAL INFORMATION:

Formation: **LKC C-D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:27:36

Time Test Ended: 15:23:35

Test Type: Conventional Bottom Hole (Initial)

Tester: Ray Schwager

Unit No: 42

Interval: 3678.00 ft (KB) To 3716.00 ft (KB) (TVD)

Reference Elevations: 2407.00 ft (KB)

Total Depth: 3716.00 ft (KB) (TVD)

2399.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8369

Inside

Press @ Run Depth: 109.05 psig @ 3684.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.18

End Date:

2012.09.18

Last Calib.: 2012.09.18

Start Time: 08:10:41

End Time:

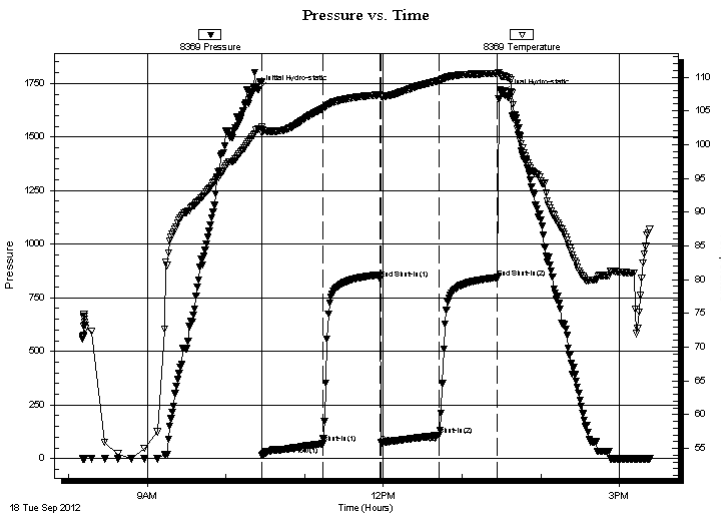
15:23:35

Time On Btm: 2012.09.18 @ 10:24:36

Time Off Btm: 2012.09.18 @ 13:30:35

TEST COMMENT: 45-IFP-w k to a fr bl 1/2" to 7 1/2" bl
45-ISIP-no bl
45-FFP-w k to a fr bl 1" to 3 1/2" bl
45-FSIP-no bl

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1722.05	102.32	Initial Hydro-static
3	14.79	101.75	Open To Flow (1)
49	69.99	105.32	Shut-In(1)
93	839.63	107.38	End Shut-In(1)
94	74.05	107.19	Open To Flow (2)
138	109.05	109.49	Shut-In(2)
183	844.87	110.49	End Shut-In(2)
186	1704.34	110.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	Water	1.41
70.00	SOCMW 1%O49%M50%W	0.98
5.00	CO	0.07
0.00	105'GIP	0.00

Gas Rates

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



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Dow ning-Nelson Oil Co Inc

12-12s-23w Trego,KS

PO Box 1019
Hays KS 67601

D&D #1-12

Job Ticket: 48680

DST#: 1

ATTN: Ron Nelson

Test Start: 2012.09.18 @ 08:10:41

GENERAL INFORMATION:

Formation: **LKC C-D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:27:36

Time Test Ended: 15:23:35

Test Type: Conventional Bottom Hole (Initial)

Tester: Ray Schwager

Unit No: 42

Interval: 3678.00 ft (KB) To 3716.00 ft (KB) (TVD)

Reference Elevations: 2407.00 ft (KB)

Total Depth: 3716.00 ft (KB) (TVD)

2399.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8700 Outside

Press @ Run Depth: psig @ 3684.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.18

End Date:

2012.09.18

Last Calib.:

2012.09.18

Start Time: 08:17:41

End Time:

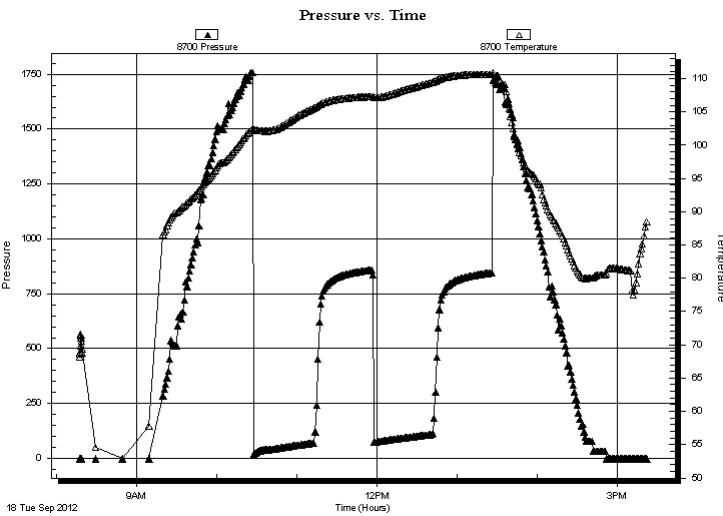
15:22:35

Time On Btm:

Time Off Btm:

TEST COMMENT: 45-IFP-w k to a fr bl 1/2" to 7 1/2" bl
45-ISIP-no bl
45-FFP-w k to a fr bl 1" to 3 1/2" bl
45-FSIP-no bl

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
120.00	Water	1.41
70.00	SOCMW 1%O49%M50%W	0.98
5.00	CO	0.07
0.00	105'GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co Inc

12-12s-23w Trego,KS

PO Box 1019
Hays KS 67601

D&D #1-12

Job Ticket: 48680

DST#: 1

ATTN: Ron Nelson

Test Start: 2012.09.18 @ 08:10:41

Tool Information

Drill Pipe:	Length: 3639.00 ft	Diameter: 3.80 inches	Volume: 51.05 bbl	Tool Weight:	2200.00 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 51.20 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial	54000.00 lb
Depth to Top Packer:	3678.00 ft			Final	57000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	38.00 ft				
Tool Length:	59.00 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			3658.00	
Shut In Tool	5.00			3663.00	
Hydraulic tool	5.00			3668.00	
Packer	5.00			3673.00	21.00 Bottom Of Top Packer
Packer	5.00			3678.00	
Stubb	1.00			3679.00	
Perforations	5.00			3684.00	
Recorder	0.00	8369	Inside	3684.00	
Recorder	0.00	8700	Outside	3684.00	
Perforations	29.00			3713.00	
Bullnose	3.00			3716.00	38.00 Bottom Packers & Anchor

Total Tool Length: 59.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co Inc

12-12s-23w Trego,KS

PO Box 1019
Hays KS 67601

D&D #1-12

Job Ticket: 48680

DST#: 1

ATTN: Ron Nelson

Test Start: 2012.09.18 @ 08:10:41

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

38 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

93000 ppm

Viscosity: 64.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.52 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	Water	1.410
70.00	SOCMW 1%O49%M50%W	0.982
5.00	CO	0.070
0.00	105'GIP	0.000

Total Length: 195.00 ft Total Volume: 2.462 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

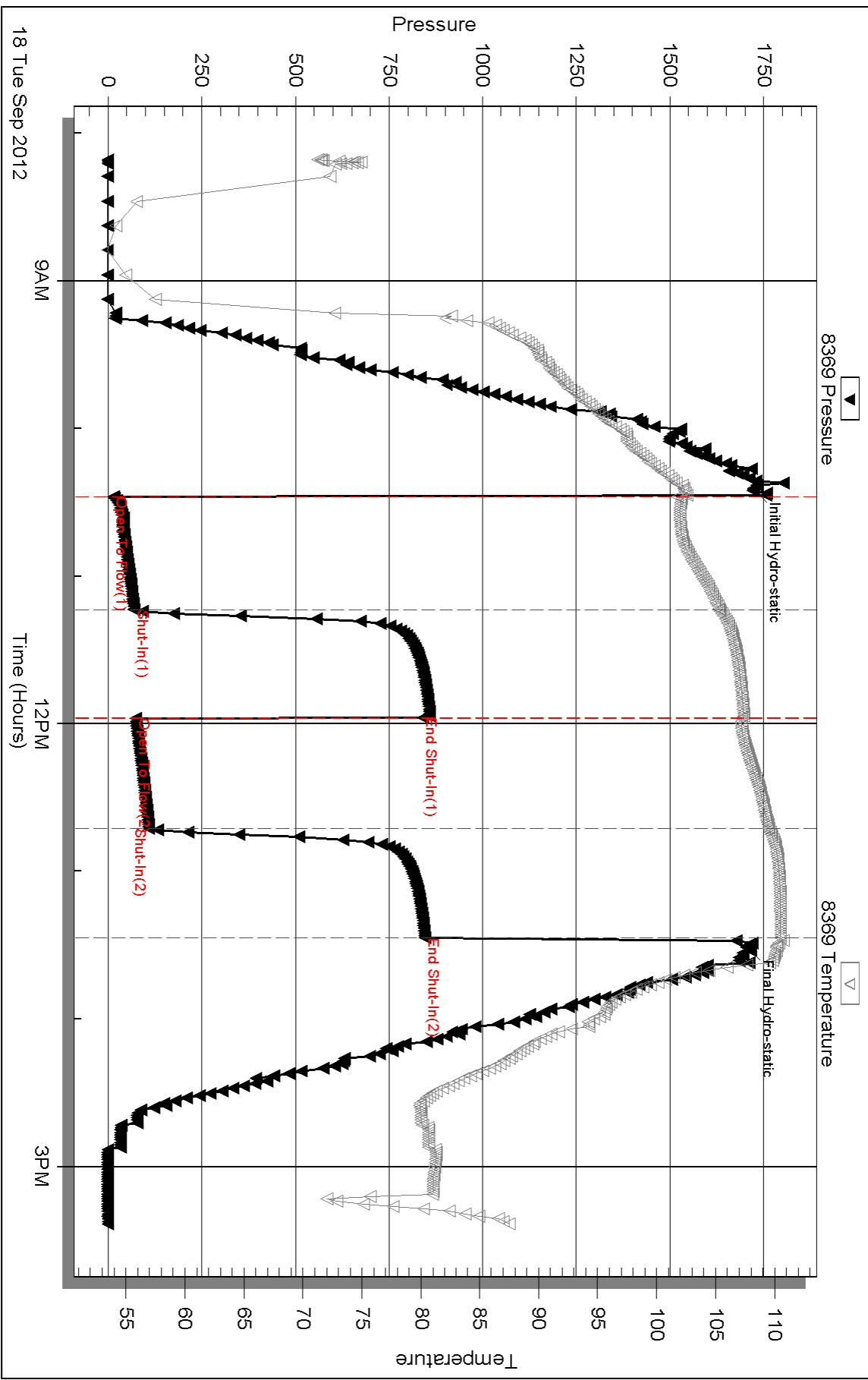
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .07@83F

Pressure vs. Time

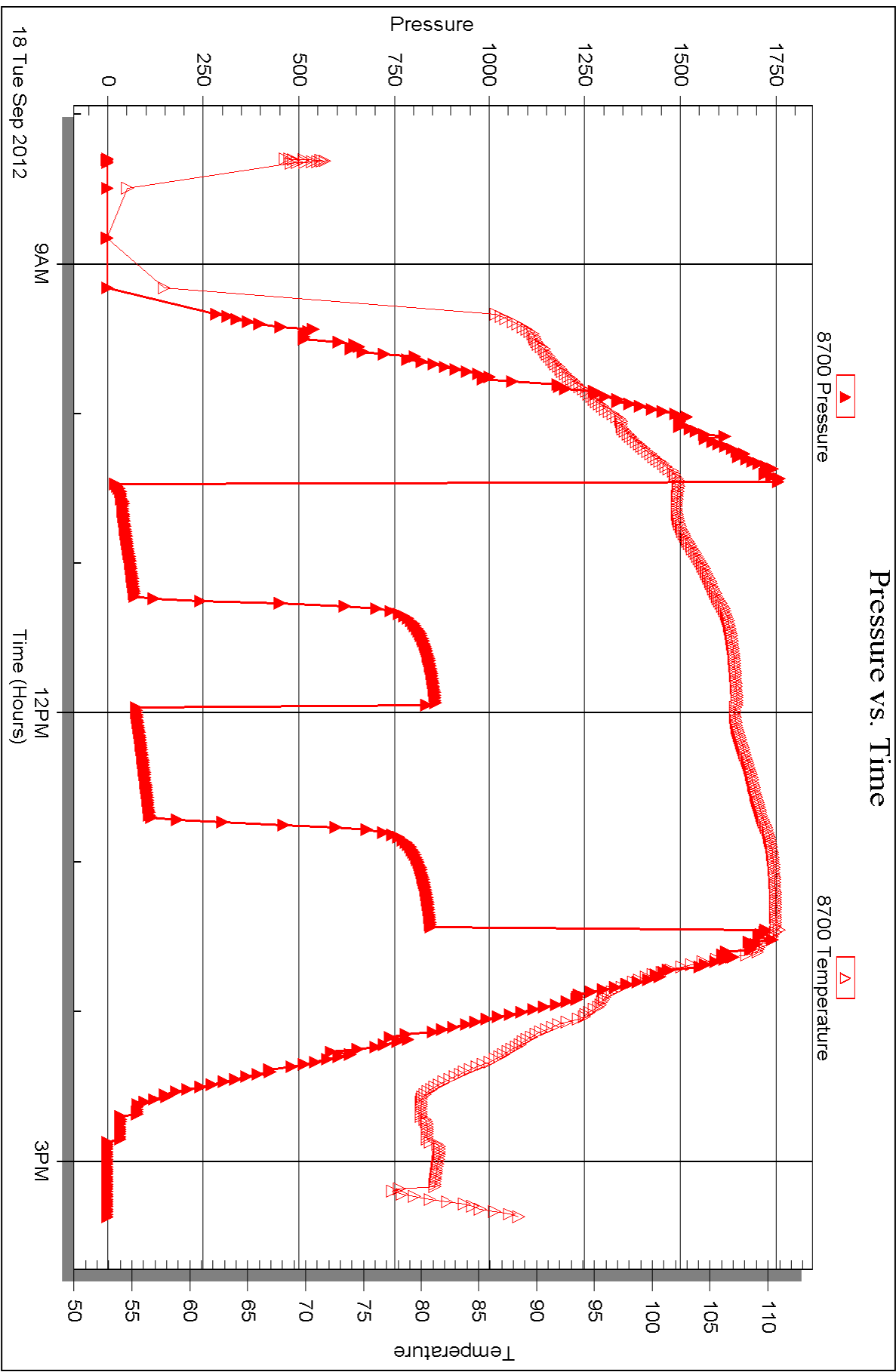


Serial #: 8700

Outside Dow nmg-Nelson Oil Co Inc

D&D#1-12

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co Inc**

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

D&D #1-12

12-12s-23w Trego,KS

Start Date: 2012.09.18 @ 21:45:57

End Date: 2012.09.19 @ 04:18:21

Job Ticket #: 48681 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.09.25 @ 11:58:38



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

12-12s-23w Trego,KS

PO Box 1019
Hays KS 67601

D&D #1-12

Job Ticket: 48681

DST#: 2

ATTN: Ron Nelson

Test Start: 2012.09.18 @ 21:45:57

GENERAL INFORMATION:

Formation: **LKC E**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:03:22

Time Test Ended: 04:18:21

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 42

Interval: 3714.00 ft (KB) To 3730.00 ft (KB) (TVD)

Reference Elevations: 2407.00 ft (KB)

Total Depth: 3730.00 ft (KB) (TVD)

2399.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8369

Inside

Press @ Run Depth: 26.86 psig @ 3715.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.18

End Date:

2012.09.19

Last Calib.:

2012.09.19

Start Time:

21:45:57

End Time:

04:18:21

Time On Btm:

2012.09.18 @ 23:59:52

Time Off Btm:

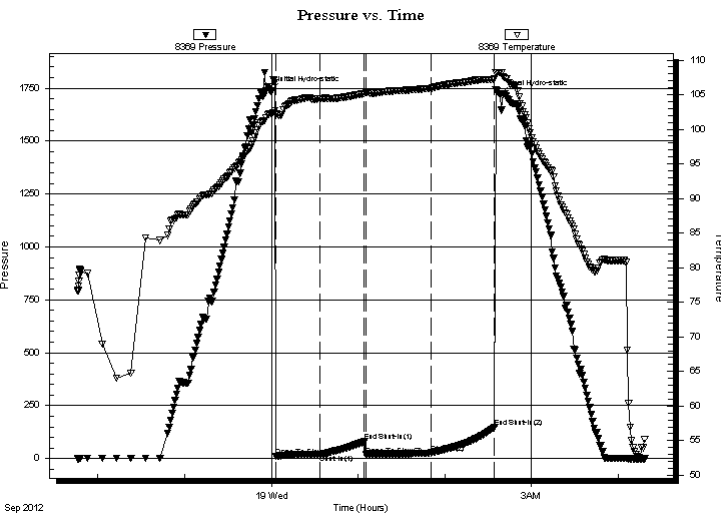
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TEST COMMENT: 30-IFP-w k bl 1/4"

30-ISIP-no bl

45-FFP-w k bl thru-out 1" to 2 1/2" bl

45-FSIP-no bl



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1736.68	102.22	Initial Hydro-static
4	10.36	102.21	Open To Flow (1)
34	19.99	104.39	Shut-In(1)
65	79.72	105.13	End Shut-In(1)
66	17.89	105.27	Open To Flow (2)
111	26.86	105.92	Shut-In(2)
155	148.76	107.23	End Shut-In(2)
159	1718.02	108.21	Final Hydro-static

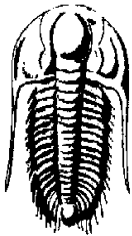
Recovery

Length (ft)	Description	Volume (bbl)
35.00	MGO 10%G40%M50%O	0.22
0.00	85'GIP	0.00

* Recovery from multiple tests

Gas Rates

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



TRILLOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

12-12s-23w Trego,KS

PO Box 1019
Hays KS 67601

D&D #1-12

Job Ticket: 48681

DST#: 2

ATTN: Ron Nelson

Test Start: 2012.09.18 @ 21:45:57

GENERAL INFORMATION:

Formation: **LKC E**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 00:03:22
 Tester: Ray Schwager
 Time Test Ended: 04:18:21
 Unit No: 42
Interval: 3714.00 ft (KB) To 3730.00 ft (KB) (TVD)
 Reference Elevations: 2407.00 ft (KB)
 Total Depth: 3730.00 ft (KB) (TVD)
 2399.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 KB to GR/CF: 8.00 ft

Serial #: 8700

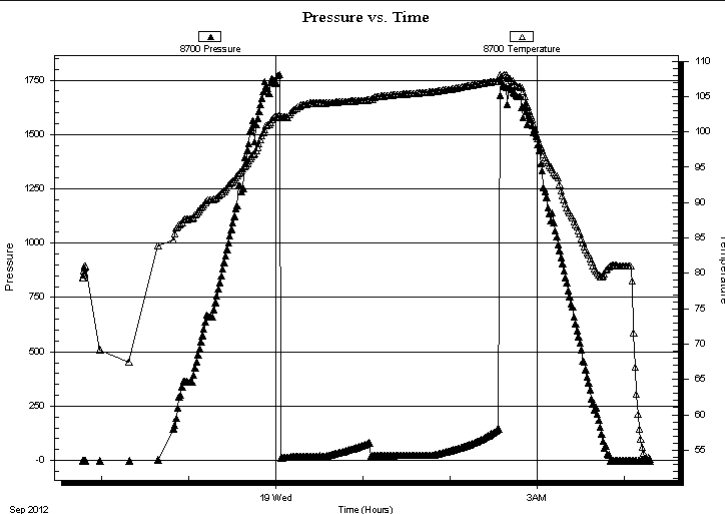
Outside

Press @RunDepth: psig @ 3715.00 ft (KB)
 Start Date: 2012.09.18 End Date: 2012.09.19
 Start Time: 21:46:57 End Time: 04:17:51

Capacity: 8000.00 psig
 Last Calib.: 2012.09.19
 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-IFP-w k bl 1/4"
 30-ISIP-no bl
 45-FFP-w k bl thru-out 1" to 2 1/2" bl
 45-FSIP-no bl

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
35.00	MGO 10%G40%M50%O	0.22
0.00	85'GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co Inc

12-12s-23w Trego,KS

PO Box 1019
Hays KS 67601

D&D #1-12

Job Ticket: 48681

DST#: 2

ATTN: Ron Nelson

Test Start: 2012.09.18 @ 21:45:57

Tool Information

Drill Pipe:	Length: 3676.00 ft	Diameter: 3.80 inches	Volume: 51.56 bbl	Tool Weight: 2200.00 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 51.71 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3714.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	16.00 ft			
Tool Length:	37.00 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			3694.00	
Shut In Tool	5.00			3699.00	
Hydraulic tool	5.00			3704.00	
Packer	5.00			3709.00	21.00 Bottom Of Top Packer
Packer	5.00			3714.00	
Stubb	1.00			3715.00	
Recorder	0.00	8369	Inside	3715.00	
Recorder	0.00	8700	Outside	3715.00	
Perforations	12.00			3727.00	
Bullnose	3.00			3730.00	16.00 Bottom Packers & Anchor
Total Tool Length:	37.00				



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DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co Inc

12-12s-23w Trego,KS

PO Box 1019
Hays KS 67601

D&D #1-12

Job Ticket: 48681

DST#: 2

ATTN: Ron Nelson

Test Start: 2012.09.18 @ 21:45:57

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: 64.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.53 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
35.00	MGO 10%G40%M50%O	0.218
0.00	85'GIP	0.000

Total Length: 35.00 ft Total Volume: 0.218 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

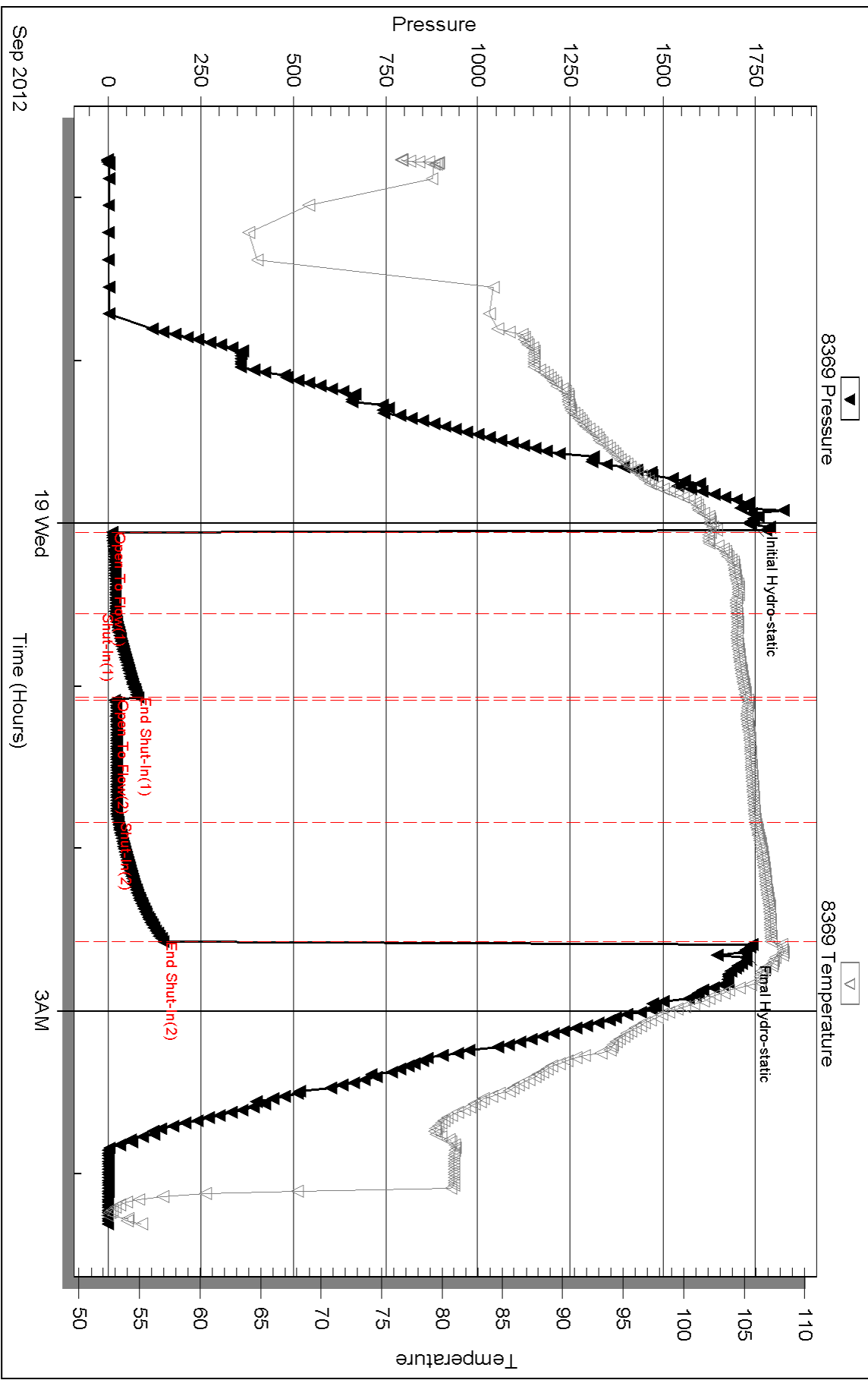
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

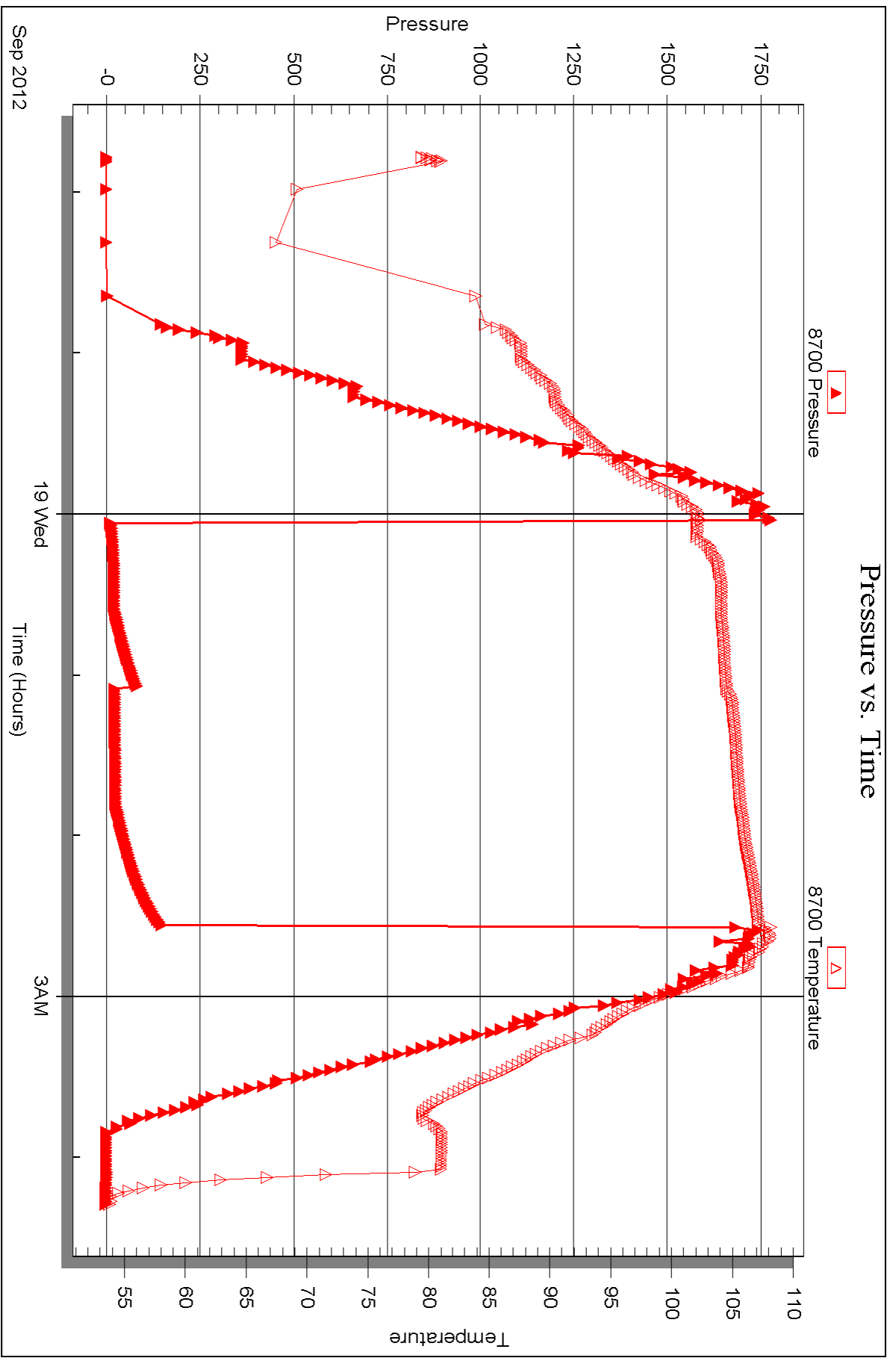


Serial #: 8700

Outside Dow nting-Nelson Oil Co Inc

D&D#1-12

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 48681

Printed: 2012.09.25 @ 11:58:43



DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co Inc**

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

D&D #1-12

12-12s-23w Trego,KS

Start Date: 2012.09.19 @ 17:10:12

End Date: 2012.09.19 @ 22:50:36

Job Ticket #: 48682 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.09.25 @ 11:57:52



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

12-12s-23w Trego,KS

PO Box 1019
Hays KS 67601

D&D #1-12

Job Ticket: 48682

DST#: 3

ATTN: Ron Nelson

Test Start: 2012.09.19 @ 17:10:12

GENERAL INFORMATION:

Formation: **LKC H-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:09:07

Time Test Ended: 22:50:36

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 42

Interval: 3780.00 ft (KB) To 3850.00 ft (KB) (TVD)

Reference Elevations: 2407.00 ft (KB)

Total Depth: 3850.00 ft (KB) (TVD)

2399.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8369

Inside

Press @ Run Depth: 21.81 psig @ 3784.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.19

End Date: 2012.09.19

Last Calib.: 2012.09.19

Start Time: 17:10:12

End Time: 22:50:36

Time On Btm: 2012.09.19 @ 19:06:37

Time Off Btm: 2012.09.19 @ 21:17:37

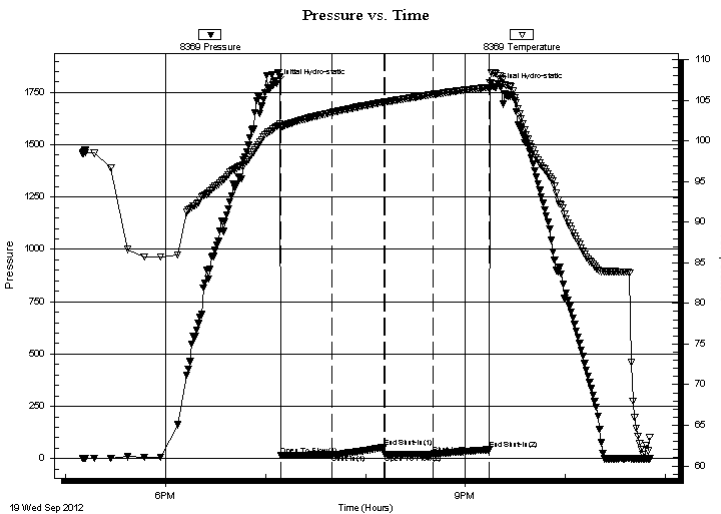
TEST COMMENT: 30-IFP-very Weak surface bl ,died in 20 min

30-ISIP-no bl

30-FFP-no bl

30-FSIP-no bl

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1793.67	101.77	Initial Hydro-static
3	14.60	101.65	Open To Flow (1)
33	18.75	103.50	Shut-In(1)
65	54.88	104.77	End Shut-In(1)
65	20.89	104.78	Open To Flow (2)
94	21.81	105.72	Shut-In(2)
128	42.71	106.62	End Shut-In(2)
131	1773.66	108.35	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	SOCM 5%O95%M	0.02

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co Inc

12-12s-23w Trego,KS

PO Box 1019
Hays KS 67601

D&D #1-12

Job Ticket: 48682

DST#: 3

ATTN: Ron Nelson

Test Start: 2012.09.19 @ 17:10:12

Tool Information

Drill Pipe:	Length: 3742.00 ft	Diameter: 3.80 inches	Volume: 52.49 bbl	Tool Weight: 2200.00 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 52.64 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	3780.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	70.00 ft			
Tool Length:	91.00 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			3760.00	
Shut In Tool	5.00			3765.00	
Hydraulic tool	5.00			3770.00	
Packer	5.00			3775.00	21.00 Bottom Of Top Packer
Packer	5.00			3780.00	
Stubb	1.00			3781.00	
Perforations	3.00			3784.00	
Recorder	0.00	8369	Inside	3784.00	
Recorder	0.00	8700	Outside	3784.00	
Blank Spacing	63.00			3847.00	
Bullnose	3.00			3850.00	70.00 Bottom Packers & Anchor

Total Tool Length: 91.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co Inc

12-12s-23w Trego,KS

PO Box 1019
Hays KS 67601

D&D #1-12

Job Ticket: 48682

DST#: 3

ATTN: Ron Nelson

Test Start: 2012.09.19 @ 17:10:12

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:

bbbl

Water Loss: 7.91 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	SOCM 5%O95%M	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:

Serial #: 8369

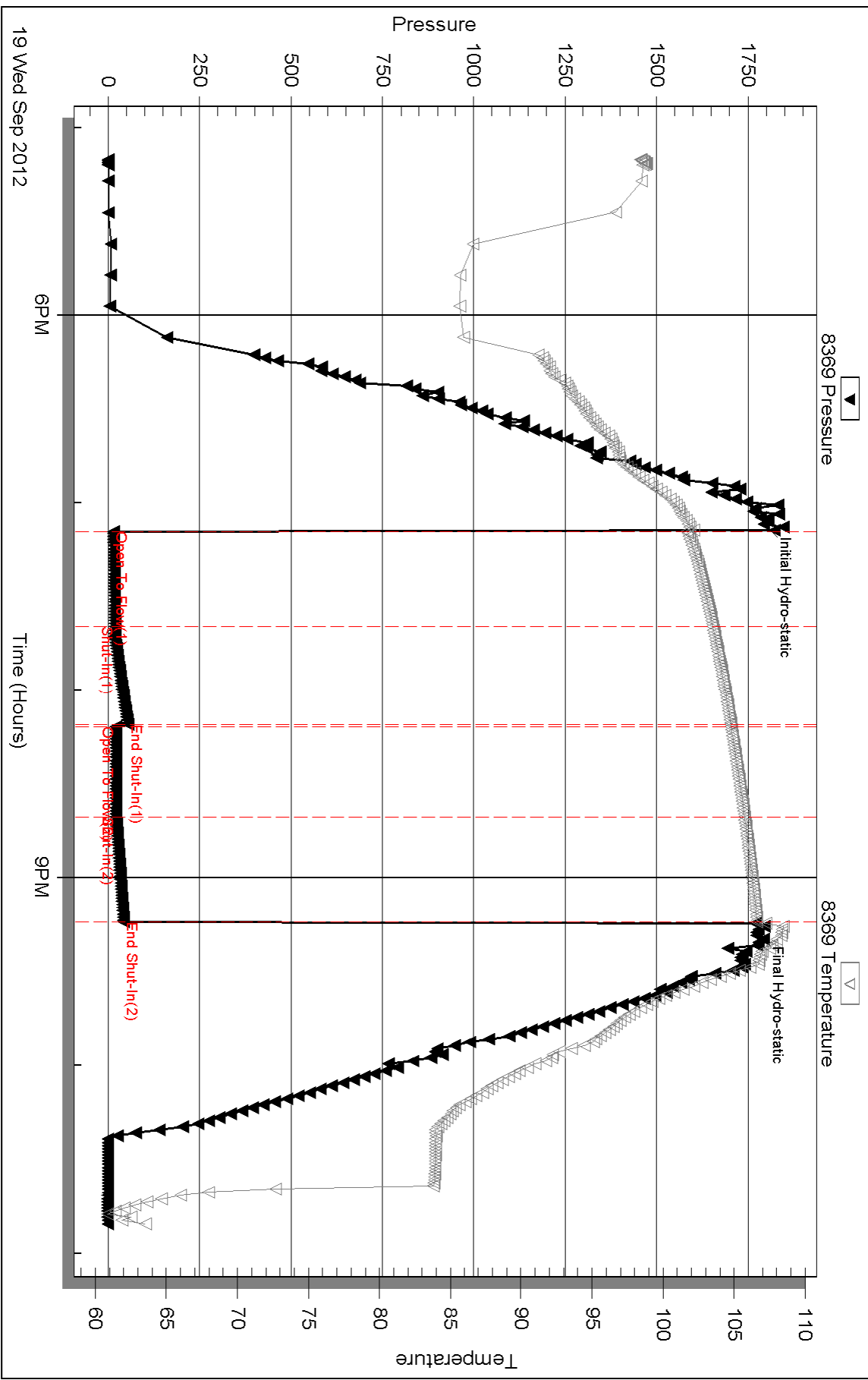
Inside

Dow nging-Nelson Oil Co Inc

D&D#1-12

DST Test Number: 3

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 48682

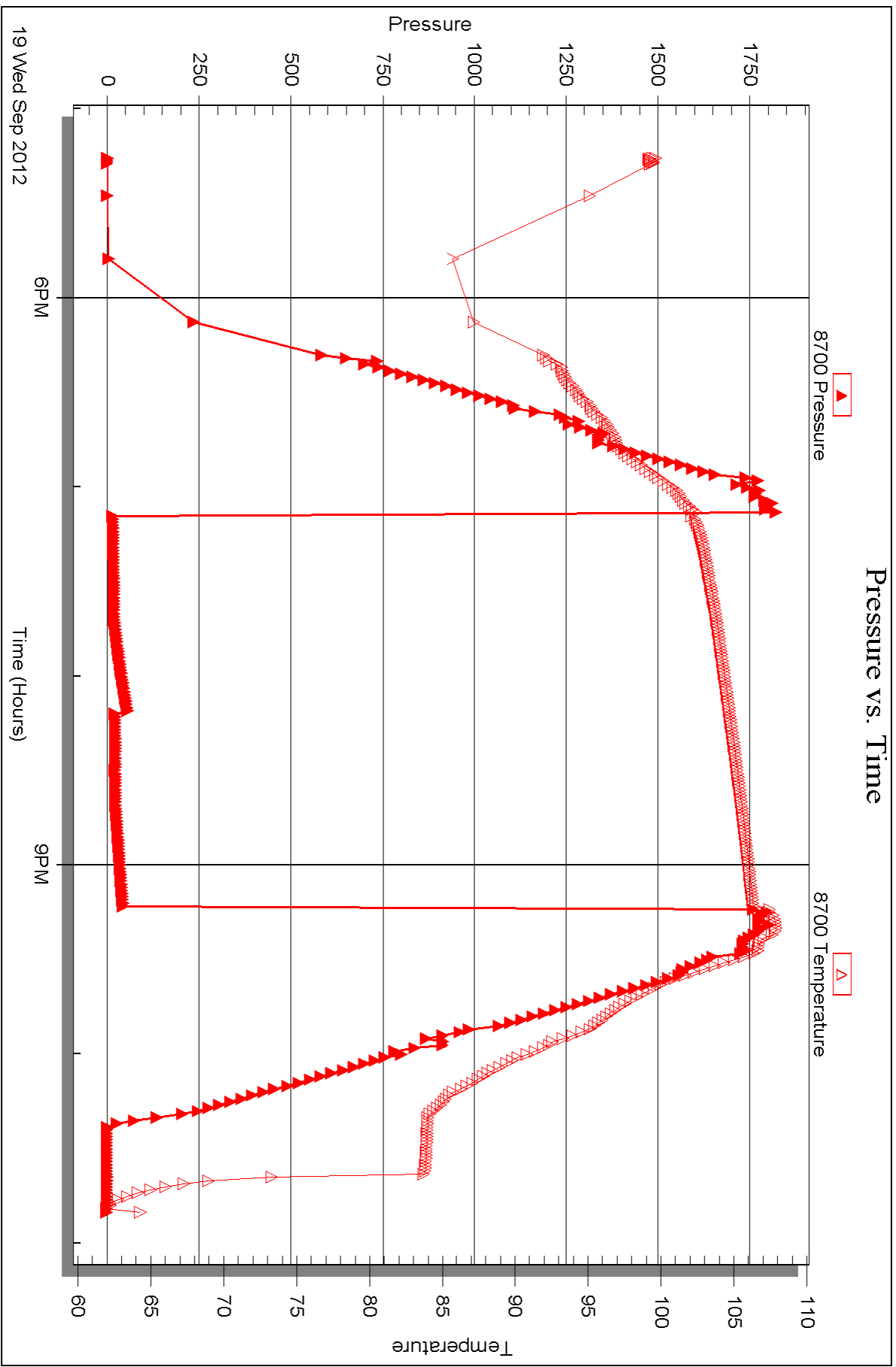
Printed: 2012.09.25 @ 11:57:56

Serial #: 8700

Outside Dow nung-Nelson Oil Co Inc

D&D#1-12

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co Inc**

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

D&D #1-12

12-12s-23w Trego,KS

Start Date: 2012.09.20 @ 16:35:33

End Date: 2012.09.20 @ 22:24:27

Job Ticket #: 48683 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.09.25 @ 11:57:09



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

12-12s-23w Trego,KS

PO Box 1019
Hays KS 67601

D&D #1-12

Job Ticket: 48683

DST#: 4

ATTN: Ron Nelson

Test Start: 2012.09.20 @ 16:35:33

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:42:28

Time Test Ended: 22:24:27

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 42

Interval: 3994.00 ft (KB) To 4036.00 ft (KB) (TVD)

Reference Elevations: 2407.00 ft (KB)

Total Depth: 4036.00 ft (KB) (TVD)

2399.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8369

Inside

Press @ Run Depth: 37.12 psig @ 4000.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.20

End Date:

2012.09.20

Last Calib.:

2012.09.20

Start Time:

16:35:33

End Time:

22:24:27

Time On Btm:

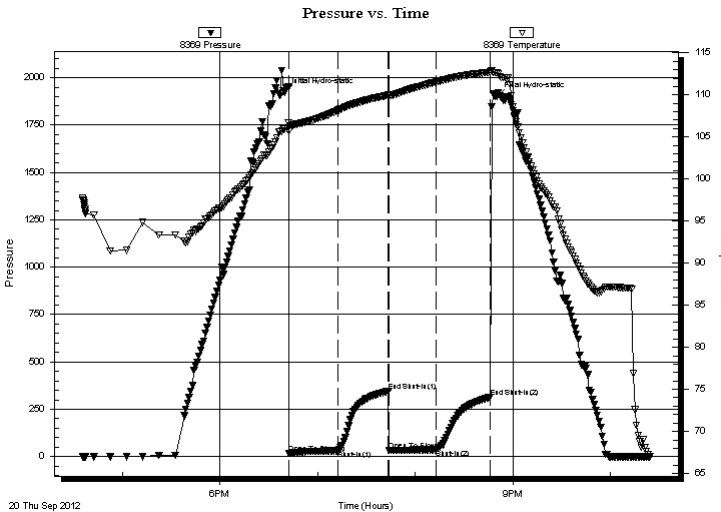
2012.09.20 @ 18:39:58

Time Off Btm:

2012.09.20 @ 20:49:58

TEST COMMENT: 30-IFP-w k bl 1/4" to 1/2" bl
30-ISIP-no bl
30-FFP-very w k surface bl thru-out
30-FSIP-no bl

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1919.95	105.98	Initial Hydro-static
3	16.13	105.72	Open To Flow (1)
33	31.61	108.16	Shut-In(1)
64	345.58	109.96	End Shut-In(1)
64	33.09	109.90	Open To Flow (2)
93	37.12	111.55	Shut-In(2)
126	312.84	112.71	End Shut-In(2)
130	1899.93	112.66	Final Hydro-static

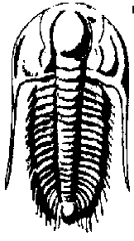
Recovery

Length (ft)	Description	Volume (bbl)
55.00	SOCWM 5%O25%W70%M	0.50

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Downing-Nelson Oil Co Inc

12-12s-23w Trego,KS

PO Box 1019
Hays KS 67601

D&D #1-12

Job Ticket: 48683

DST#: 4

ATTN: Ron Nelson

Test Start: 2012.09.20 @ 16:35:33

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:42:28

Time Test Ended: 22:24:27

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 42

Interval: 3994.00 ft (KB) To 4036.00 ft (KB) (TVD)

Reference Elevations: 2407.00 ft (KB)

Total Depth: 4036.00 ft (KB) (TVD)

2399.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8700 Outside

Press @ Run Depth: psig @ 4000.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.20

End Date:

2012.09.20

Last Calib.:

2012.09.20

Start Time: 16:35:43

End Time:

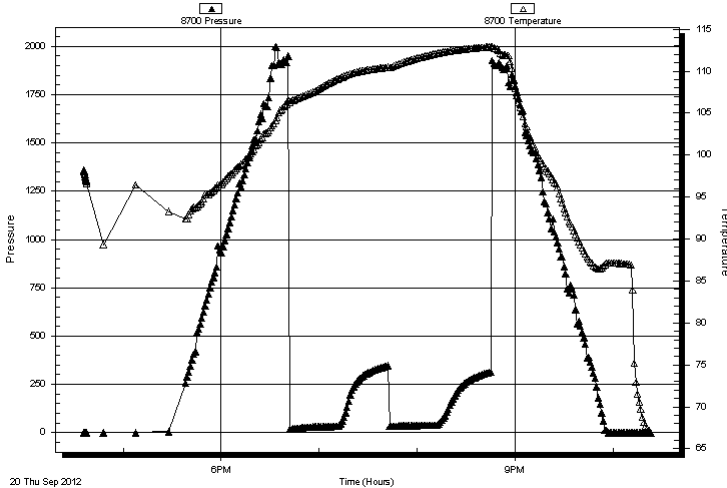
22:23:07

Time On Btm:

Time Off Btm:

TEST COMMENT: 30-IFP-w k bl 1/4" to 1/2" bl
30-ISIP-no bl
30-FFP-very w k surface bl thru-out
30-FSIP-no bl

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Gas Rates

Length (ft)	Description	Volume (bbl)
55.00	SOCWM 5% O25% W70% M	0.50

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co Inc

12-12s-23w Trego,KS

PO Box 1019
Hays KS 67601

D&D #1-12

Job Ticket: 48683

DST#: 4

ATTN: Ron Nelson

Test Start: 2012.09.20 @ 16:35:33

Tool Information

Drill Pipe:	Length: 3961.00 ft	Diameter: 3.80 inches	Volume: 55.56 bbl	Tool Weight:	2200.00 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 55.71 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial	58000.00 lb
Depth to Top Packer:	3994.00 ft			Final	59000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	42.00 ft				
Tool Length:	63.00 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			3974.00	
Shut In Tool	5.00			3979.00	
Hydraulic tool	5.00			3984.00	
Packer	5.00			3989.00	21.00 Bottom Of Top Packer
Packer	5.00			3994.00	
Stubb	1.00			3995.00	
Perforations	5.00			4000.00	
Recorder	0.00	8369	Inside	4000.00	
Recorder	0.00	8700	Outside	4000.00	
Blank Spacing	33.00			4033.00	
Bullnose	3.00			4036.00	42.00 Bottom Packers & Anchor

Total Tool Length: 63.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co Inc

12-12s-23w Trego,KS

PO Box 1019
Hays KS 67601

D&D #1-12

Job Ticket: 48683

DST#: 4

ATTN: Ron Nelson

Test Start: 2012.09.20 @ 16:35:33

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:

10000 ppm

Viscosity: 61.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.94 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
55.00	SOCWM 5%O25%W70%M	0.498

Total Length: 55.00 ft Total Volume: 0.498 bbf

Num Fluid Samples: 0

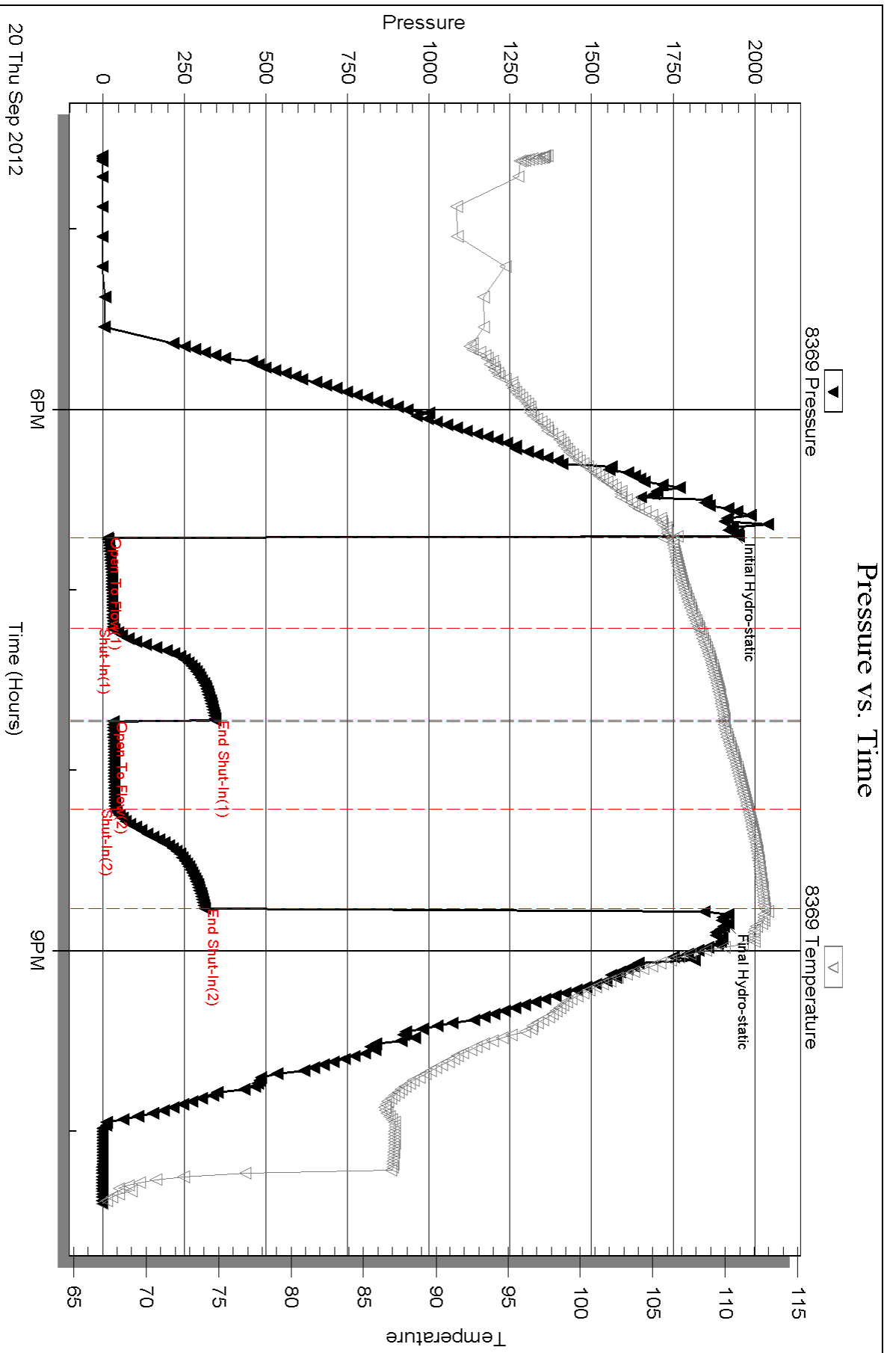
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .59@72F

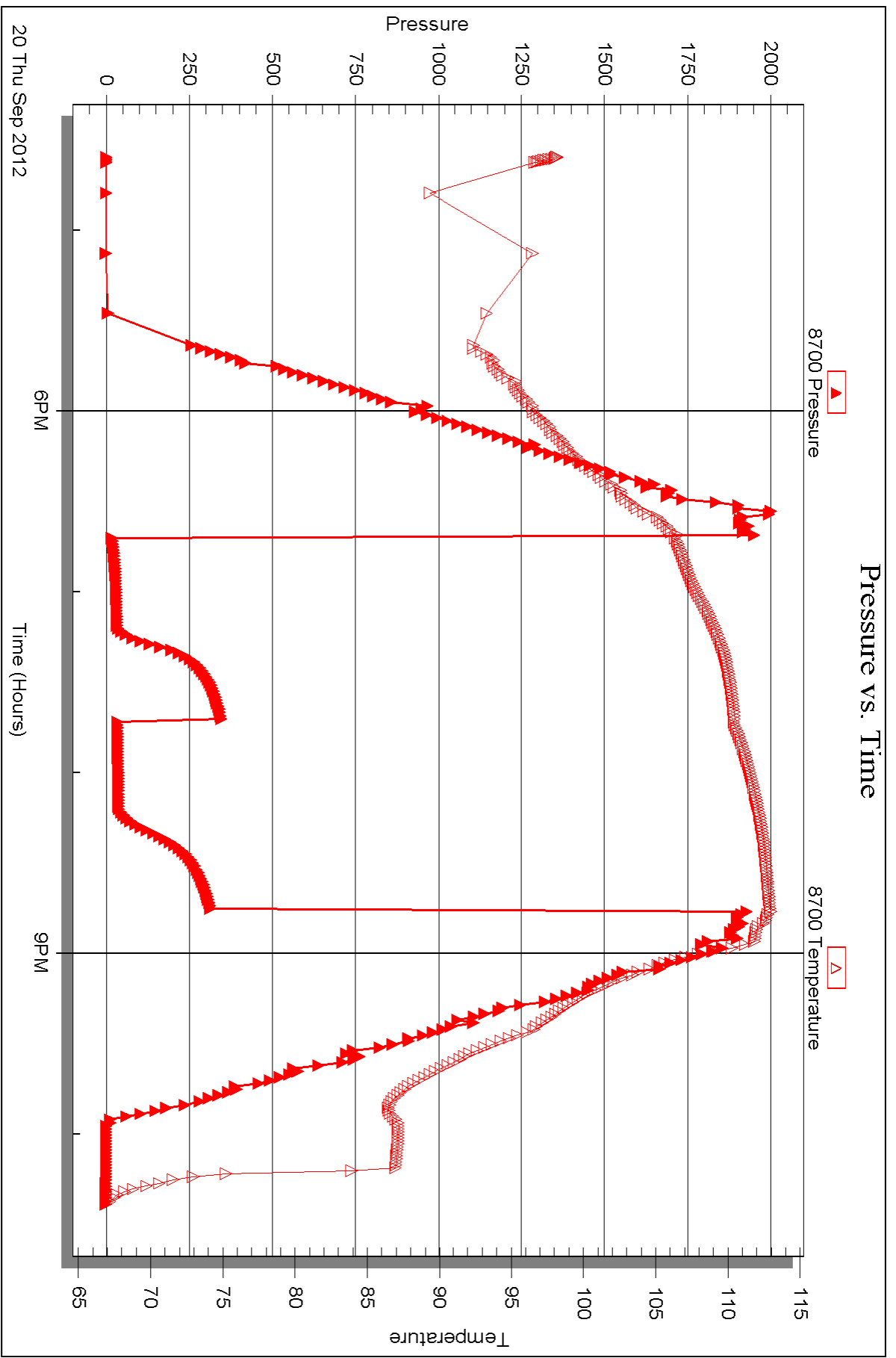


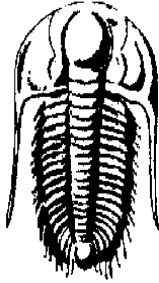
Serial #: 8700

Outside Dow nmg-Nelson Oil Co Inc

D&D#1-12

DST Test Number: 4





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co Inc**

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

D&D #1-12

12-12s-23w Trego,KS

Start Date: 2012.09.21 @ 13:25:30

End Date: 2012.09.21 @ 19:46:54

Job Ticket #: 48684 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.09.25 @ 11:56:15



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

12-12s-23w Trego,KS

PO Box 1019
Hays KS 67601

D&D #1-12

Job Ticket: 48684

DST#: 5

ATTN: Ron Nelson

Test Start: 2012.09.21 @ 13:25:30

GENERAL INFORMATION:

Formation: **Toronto**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:50:55

Time Test Ended: 19:46:54

Test Type: Conventional Straddle (Reset)

Tester: Ray Schwager

Unit No: 42

Interval: 3622.00 ft (KB) To 3644.00 ft (KB) (TVD)

Total Depth: 4157.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2407.00 ft (KB)

2399.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8369

Inside

Press @ Run Depth: 239.75 psig @ 3625.00 ft (KB)

Start Date: 2012.09.21

End Date:

2012.09.21

Start Time: 13:25:30

End Time:

19:46:54

Capacity: 8000.00 psig

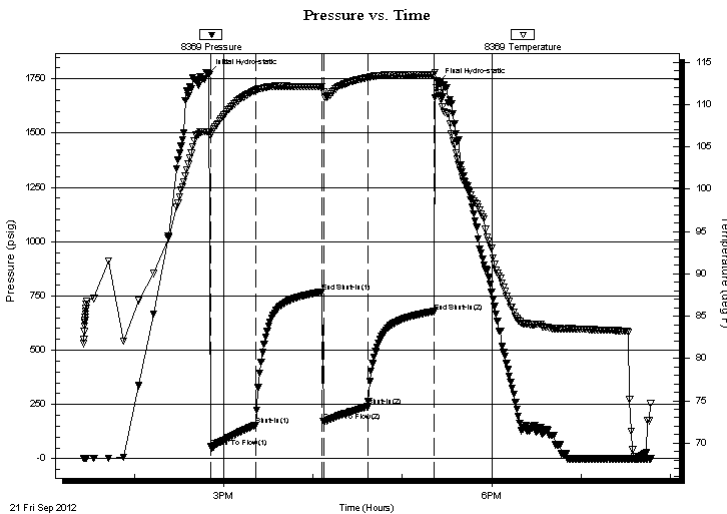
Last Calib.: 2012.09.21

Time On Btm: 2012.09.21 @ 14:49:25

Time Off Btm: 2012.09.21 @ 17:23:55

TEST COMMENT: 30-IFP-strg bl in 3 min
45-ISIP-4" bl bk
30-FFP-strg bl in 3 min
45-FSIP-6" bl bk

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1773.84	106.85	Initial Hydro-static
2	54.30	106.31	Open To Flow (1)
32	155.45	111.70	Shut-In(1)
77	769.27	112.12	End Shut-In(1)
78	171.42	111.51	Open To Flow (2)
107	239.75	113.19	Shut-In(2)
152	678.15	113.54	End Shut-In(2)
155	1730.78	111.39	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	1010'GIP	0.00
567.00	CO	7.68
63.00	GMO 20%G20%M60%O	0.88

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

12-12s-23w Trego,KS

PO Box 1019
Hays KS 67601

D&D #1-12

Job Ticket: 48684

DST#: 5

ATTN: Ron Nelson

Test Start: 2012.09.21 @ 13:25:30

GENERAL INFORMATION:

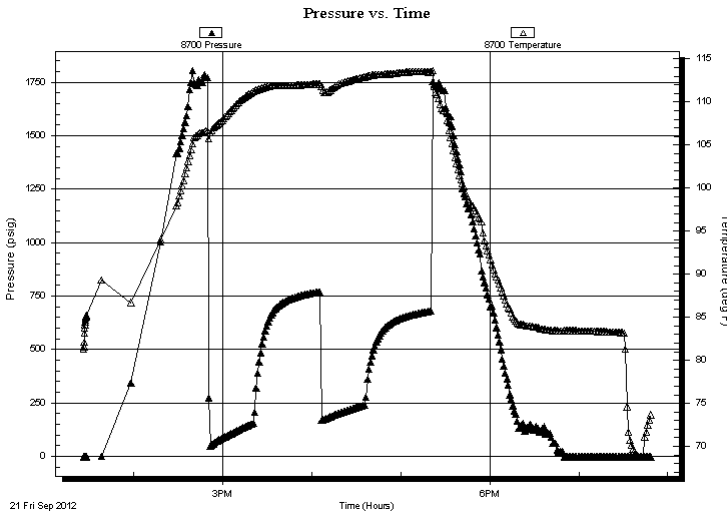
Formation: **Toronto**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 14:50:55
 Time Test Ended: 19:46:54
 Interval: **3622.00 ft (KB) To 3644.00 ft (KB) (TVD)**
 Total Depth: 4157.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Straddle (Reset)
 Tester: Ray Schwager
 Unit No: 42
 Reference Elevations: 2407.00 ft (KB)
 2399.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8700 Outside

Press @RunDepth: psig @ 3625.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.09.21 End Date: 2012.09.21 Last Calib.: 2012.09.21
 Start Time: 13:26:00 End Time: 19:48:24 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-IFP-strg bl in 3 min
 45-ISIP-4" bl bk
 30-FFP-strg bl in 3 min
 45-FSIP-6" bl bk

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

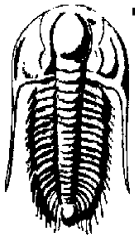
Recovery

Length (ft)	Description	Volume (bbl)
0.00	1010'GIP	0.00
567.00	CO	7.68
63.00	GMO 20%G20%M60%O	0.88

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

12-12s-23w Trego,KS

PO Box 1019
Hays KS 67601

D&D #1-12

Job Ticket: 48684

DST#: 5

ATTN: Ron Nelson

Test Start: 2012.09.21 @ 13:25:30

GENERAL INFORMATION:

Formation: **Toronto**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:50:55

Time Test Ended: 19:46:54

Test Type: Conventional Straddle (Reset)

Tester: Ray Schwager

Unit No: 42

Interval: 3622.00 ft (KB) To 3644.00 ft (KB) (TVD)

Reference Elevations: 2407.00 ft (KB)

Total Depth: 4157.00 ft (KB) (TVD)

2399.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8374 Below (Straddle)

Press @RunDepth: psig @ 3650.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.21

End Date:

2012.09.21

Last Calib.:

2012.09.21

Start Time: 13:25:46

End Time:

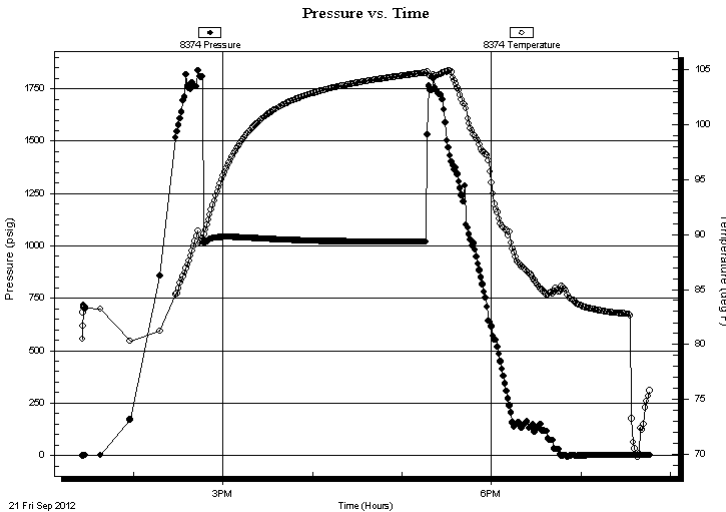
19:46:40

Time On Btm:

Time Off Btm:

TEST COMMENT: 30-IFP-strg bl in 3 min
45-ISIP-4" bl bk
30-FFP-strg bl in 3 min
45-FSIP-6" bl bk

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
0.00	1010'GIP	0.00
567.00	CO	7.68
63.00	GMO 20%G20%M60%O	0.88

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co Inc

12-12s-23w Trego,KS

PO Box 1019
Hays KS 67601

D&D #1-12

Job Ticket: 48684

DST#: 5

ATTN: Ron Nelson

Test Start: 2012.09.21 @ 13:25:30

Tool Information

Drill Pipe:	Length: 3601.00 ft	Diameter: 3.80 inches	Volume: 50.51 bbl	Tool Weight: 2200.00 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 50.66 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3622.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	3644.00 ft			
Interval between Packers:	22.00 ft			
Tool Length:	559.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3602.00	
Shut In Tool	5.00			3607.00	
Hydraulic tool	5.00			3612.00	
Packer	5.00			3617.00	21.00 Bottom Of Top Packer
Packer	5.00			3622.00	
Stubb	1.00			3623.00	
Perforations	2.00			3625.00	
Recorder	0.00	8369	Inside	3625.00	
Recorder	0.00	8700	Outside	3625.00	
Perforations	15.00			3640.00	
Blank Off Sub	1.00			3641.00	
Blank Spacing	3.00			3644.00	22.00 Tool Interval
Packer	5.00			3649.00	
Stubb	1.00			3650.00	
Recorder	0.00	8374	Below	3650.00	
Blank Spacing	507.00			4157.00	
Bullnose	3.00			4160.00	516.00 Bottom Packers & Anchor
Total Tool Length:	559.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co Inc

12-12s-23w Trego,KS

PO Box 1019
Hays KS 67601

D&D #1-12

Job Ticket: 48684

DST#: 5

ATTN: Ron Nelson

Test Start: 2012.09.21 @ 13:25:30

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

22 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	1010'GIP	0.000
567.00	CO	7.680
63.00	GMO 20%G20%M60%O	0.884

Total Length: 630.00 ft

Total Volume: 8.564 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

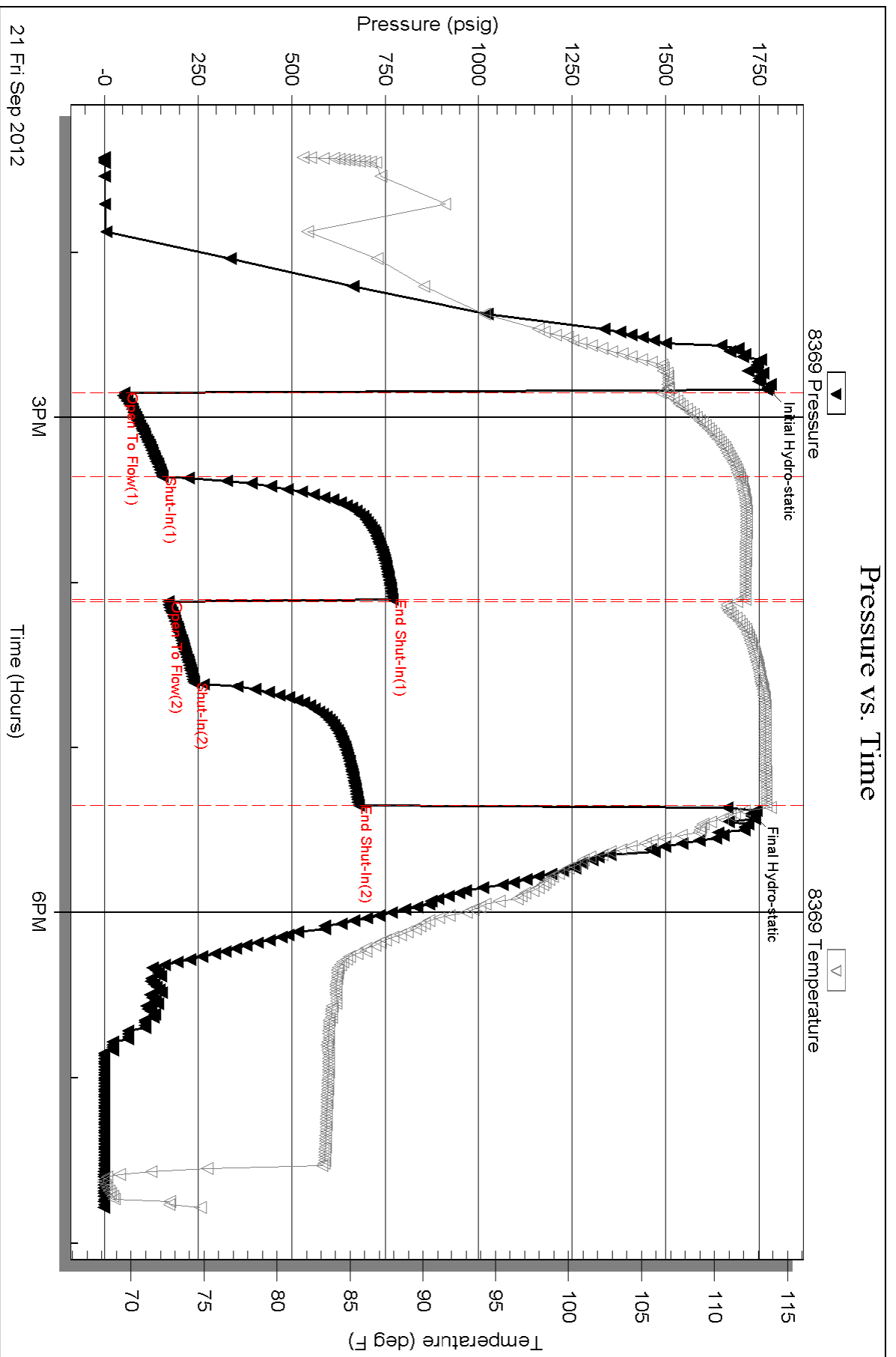
Serial #: 8369

Inside

Dow nung-Nelson Oil Co Inc

D&D #1-12

DST Test Number: 5



Triobite Testing, Inc

Ref. No: 48684

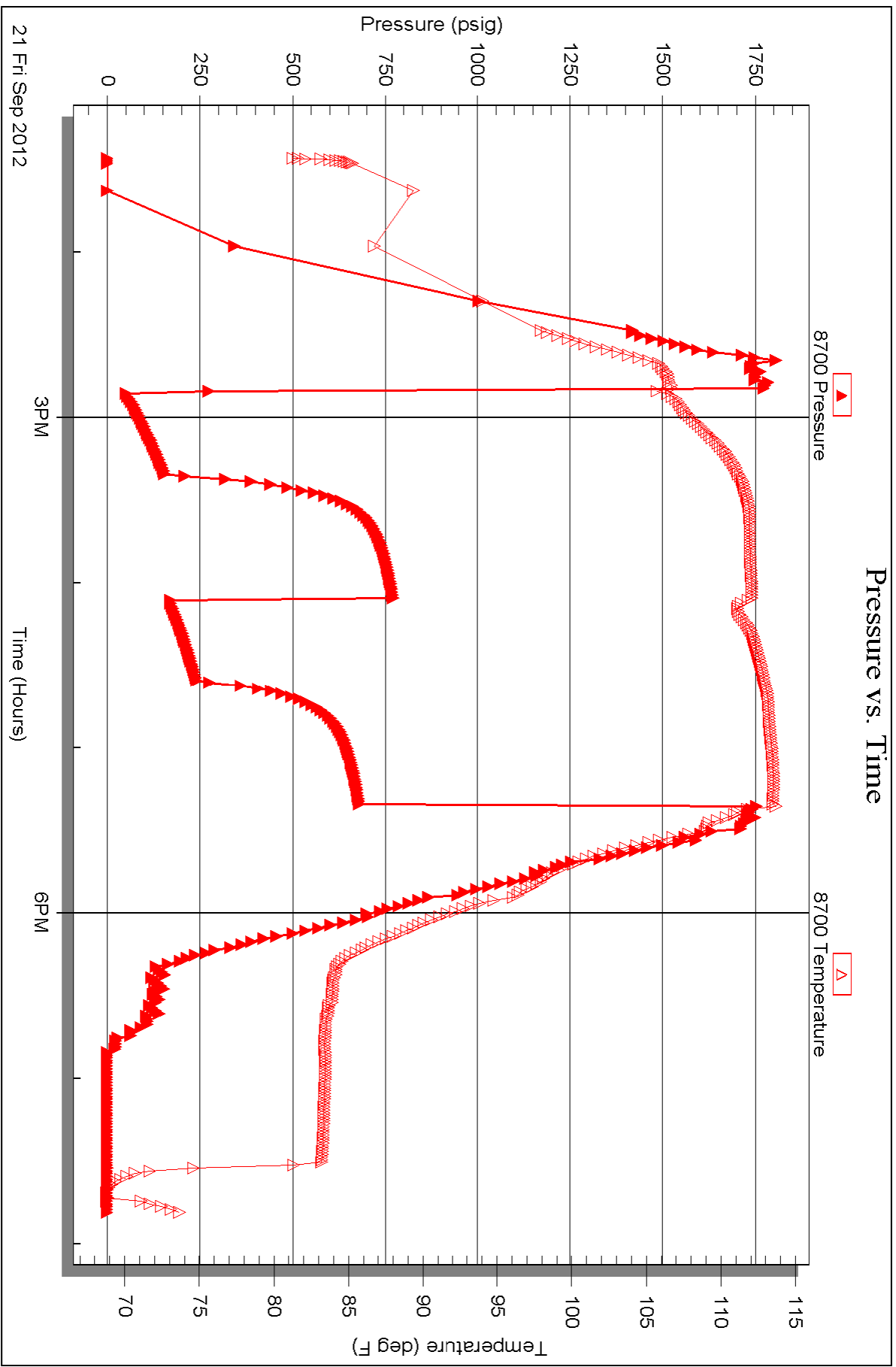
Printed: 2012.09.25 @ 11:56:20

Serial #: 8700

Outside Dow nung-Nelson Oil Co Inc

D&D#1-12

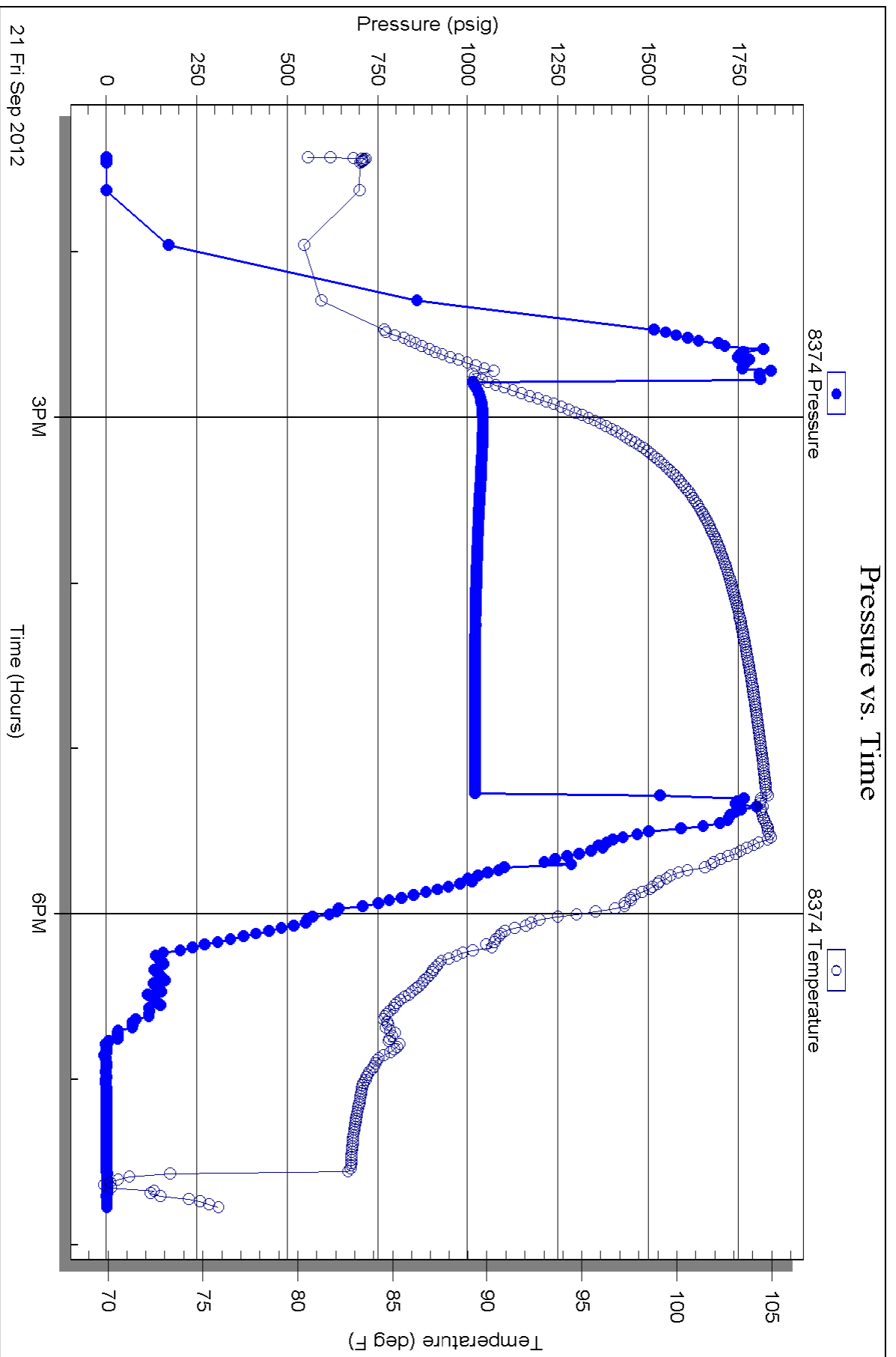
DST Test Number: 5



Triobite Testing, Inc

Ref. No: 48684

Printed: 2012.09.25 @ 11:56:21





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48680

4/10

Well Name & No. D+D #1-12 Test No. 1 Date 9-18-12
 Company Downing-Nelson Oil Co Inc Elevation 2407 KB 2399 GL
 Address PO BOX 1019 Hays, Ks 67601
 Co. Rep / Geo. MARC DOWNING Rig DISCOVERY rig 3
 Location: Sec. 12 Twp. 12 Rge. 23^w Co. Yrego State K

Interval Tested 3678-3716 Zone Tested LKC C-D
 Anchor Length 38 Drill Pipe Run 3639 Mud Wt. 8.7
 Top Packer Depth 3673 Drill Collars Run 30 Vis 65
 Bottom Packer Depth 3678 Wt. Pipe Run - WL 7.6
 Total Depth 3716 Chlorides 800 ppm System LCM 3[#]
 Blow Description IFP - WEAK TO A GOOD BLOW 1/2" TO 7 1/2" BLOW
ISIP - NO BLOW
FFP - WEAK TO A FAIR BLOW 1" TO 3 1/2" BLOW
FSIP - NO BLOW

Rec	Feet of	%gas	%oil	%water	%mud
105	GIP				
5	CO				
70	SO CMW		1	50	49
120	WATER				

Rec Total 195 BHT 110 Gravity 38 API RW .07 @ 83 °F Chlorides 93000 ppm
 (A) Initial Hydrostatic 1722 Test 1150 T-On Location 0700
 (B) First Initial Flow 14 Jars T-Started 0810
 (C) First Final Flow 69 Safety Joint T-Open 1025
 (D) Initial Shut-In 839 Circ Sub T-Pulled 1325
 (E) Second Initial Flow ~~10974~~ Hourly Standby T-Out 1523
 (F) Second Final Flow 109 Mileage 68RT 105.40 Comments _____
 (G) Final Shut-In 844 Sampler _____
 (H) Final Hydrostatic 1704 Straddle _____
 Ruined Shale Packer _____
 Shale Packer _____
 Ruined Packer _____
 Extra Packer _____
 Extra Copies _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open 45
 Initial Shut-In 45
 Final Flow 45
 Final Shut-In 45
 Sub Total 1255.40
 Total 1255.40
 MP/DST Disc't _____

Approved By _____ Our Representative RAY SCHWAGER Thank you
 TriLOBite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48681

4/10

Well Name & No. D+D #1-12 Test No. 2 Date 9-18-12
 Company Downing-Nelson Oil Co Inc Elevation 2407 KB 2399 GL
 Address P.O. Box 1019 Hays, Ks 67601
 Co. Rep / Geo. MARC Downing Rig DISCOVERY rig 3
 Location: Sec. 12 Twp. 12^s Rge. 23^w Co. Trego State K

Interval Tested 3714-3730 Zone Tested LKC "E"
 Anchor Length 16 Drill Pipe Run 3676 Mud Wt. 8.7
 Top Packer Depth 3709 Drill Collars Run 30 Vis 65
 Bottom Packer Depth 3714 Wt. Pipe Run - WL 7.6
 Total Depth 3730 Chlorides 800 ppm System LCM 3#

Blow Description FFP- WEAK Blow thru-out 1/4" Blow
ISIP- NO Blow
FFP- WEAK Blow thru-out 1" to 2 1/2" Blow
FSIP- NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>85</u>	<u>GIP</u>				
<u>35</u>	<u>MGO</u>	<u>10</u>	<u>50</u>	<u>40</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 35 BHT 107 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic 1736 Test 1150 T-On Location 2115
 (B) First Initial Flow 10 Jars - T-Started 2145
 (C) First Final Flow 19 Safety Joint - T-Open 0000
 (D) Initial Shut-In 79 Circ Sub - T-Pulled 0230
 (E) Second Initial Flow 17 Hourly Standby - T-Out 0418
 (F) Second Final Flow 26 Mileage 68RT 105.40 Comments -
 (G) Final Shut-In 148 Sampler -
 (H) Final Hydrostatic 1718 Straddle - Ruined Shale Packer -
 Shale Packer - Ruined Packer -
 Extra Packer - Extra Copies -
 Extra Recorder - Sub Total 0
 Day Standby - Total 1255.40
 Accessibility - MP/DST Disc't -

Sub Total 1255.40

Approved By _____ Our Representative RAY Schwager Thank you

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48682

4/10

Well Name & No. D+O #1-12 Test No. 3 Date 9-19-12
 Company Downing-Nelson Oil Co Inc Elevation 2407 KB 2399 GL
 Address P.O. Box 1019 Hays, Ks 67601
 Co. Rep / Geo. Ron Nelson Marc Downing Rig Discovery rig 3
 Location: Sec. 12 Twp. 12^s Rge. 23 Co. Trego State K

Interval Tested 3780-3850 Zone Tested LKL H-J
 Anchor Length 70 Drill Pipe Run 3742 Mud Wt. 8.7
 Top Packer Depth 3775 Drill Collars Run 30 Vis 53
 Bottom Packer Depth 3780 Wt. Pipe Run - WL 8
 Total Depth 3850 Chlorides 2000 ppm System LCM 2#

Blow Description FFP - Very Weak surface blow, died in 20 min
ISIP - No Blow
FFP - No Blow
FSIP - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>50 CM</u>	<u>5</u>		<u>95</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 106 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic 1793 Test 1150 T-On Location 1650
 (B) First Initial Flow 14 Jars T-Started 1710
 (C) First Final Flow 18 Safety Joint T-Open 1905
 (D) Initial Shut-In 54 Circ Sub T-Pulled 2105
 (E) Second Initial Flow 20 Hourly Standby T-Out 2250
 (F) Second Final Flow 21 Mileage 68 RT 105.40 Comments
 (G) Final Shut-In 42 Sampler
 (H) Final Hydrostatic 1773 Straddle Ruined Shale Packer
 Shale Packer Ruined Packer
 Extra Packer Extra Copies
 Extra Recorder Sub Total 0
 Day Standby Total 1255.40
 Accessibility MP/DST Disc't

Sub Total 1255.40

Approved By _____ Our Representative Ray Schwager *Thank you*

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48683

4/10

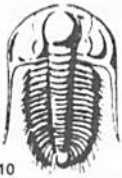
Well Name & No. O+O #1-12 Test No. 4 Date 9-20-12
 Company Downing-Nelson Oil Co Inc Elevation 2407 KB 2399 GL
 Address PO Box 1019 Hays, KS 67601
 Co. Rep / Geo. MARC DOWNING Rig Discovery rig 3
 Location: Sec. 12 Twp. 12^s Rge. 23^w Co. Trego State Ks

Interval Tested 3994-4036 Zone Tested MARMATON
 Anchor Length 42 Drill Pipe Run 3961 Mud Wt. 8.9
 Top Packer Depth 3989 Drill Collars Run 30 Vis 61
 Bottom Packer Depth 3994 Wt. Pipe Run - WL 8
 Total Depth 4036 Chlorides 3000 ppm System LCM 2#
 Blow Description IFP - WEAK BLOW 1/4" TO 1/2" BLOW
ISIP - NO BLOW
FFP - VERY WEAK SURFACE BLOW
FSIP - NO BLOW

Rec	Feet of	%gas	%oil	%water	%mud
<u>55</u>	<u>50 CWM</u>	<u>5</u>	<u>25</u>	<u>70</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 55 BHT 112 Gravity - API RW .59 @ 72° F Chlorides 10000 ppm
 (A) Initial Hydrostatic 1919 Test 1250 T-On Location 1615
 (B) First Initial Flow 16 Jars _____ T-Started 1635
 (C) First Final Flow 31 Safety Joint _____ T-Open 1840
 (D) Initial Shut-In 345 Circ Sub _____ T-Pulled 2040
 (E) Second Initial Flow 33 Hourly Standby _____ T-Out 2224
 (F) Second Final Flow 37 Mileage 68RT 105.40 Comments _____
 (G) Final Shut-In 312 Sampler _____
 (H) Final Hydrostatic 1899 Straddle _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Initial Open 30 Shale Packer _____
 Initial Shut-In 30 Extra Packer _____
 Final Flow 30 Extra Recorder _____
 Final Shut-In 30 Day Standby _____
 Accessibility _____
 Sub Total 1355.40 MP/DST Disc't _____

Approved By _____ Our Representative RAY SCHWARTZ THANK YOU
 Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 48684

4/10

Well Name & No. DOD #1-12 Test No. 5 Date 9-21-12
 Company Downing-Nelson Oil Co Inc Elevation 2407 KB 2399 GL
 Address PO Box 1019 Hays Ks 67601
 Co. Rep / Geo. MARC Downing Rig Discovery rig 3
 Location: Sec. 12 Twp. 12^s Rge. 23^w Co. Trapp State Ks

Interval Tested 3622-3644 Zone Tested TORONTO
 Anchor Length 22 Drill Pipe Run 3601 Mud Wt. 9.1
 Top Packer Depth 3622-3617 Drill Collars Run 30 Vis 60
 Bottom Packer Depth 3644 Wt. Pipe Run - WL 8
 Total Depth 4157 Chlorides 3000 ppm System LCM 2#
 Blow Description IFP - STRONG BLOW IN 3min
ISIP - 4" BLOW BACK
FFP - STRONG BLOW IN 3min
FSTIP - 6" BLOW BACK

Rec	Feet of	%gas	%oil	%water	%mud
<u>1010</u>	<u>GIP</u>				
<u>567</u>	<u>CO</u>				
<u>63</u>	<u>GMO</u>	<u>20</u>	<u>60</u>	<u>20</u>	

Rec Total 630 BHT 113 Gravity 22 API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic <u>1773</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>1300</u>
(B) First Initial Flow <u>54</u>	<input type="checkbox"/> Jars	T-Started <u>1325</u>
(C) First Final Flow <u>154</u>	<input type="checkbox"/> Safety Joint	T-Open <u>1445</u>
(D) Initial Shut-In <u>769</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>1715</u>
(E) Second Initial Flow <u>171</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1946</u>
(F) Second Final Flow <u>239</u>	<input checked="" type="checkbox"/> Mileage <u>68RT</u> 105.40	Comments
(G) Final Shut-In <u>678</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1730</u>	<input checked="" type="checkbox"/> Straddle <u>600</u>	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input checked="" type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1955.40</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1955.40</u>	

Approved By

Our Representative

Ray Schwager Thank 909

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