



DRILL STEM TEST REPORT

Prepared For: **Downing Nelson Oil Company, Inc.**

PO Box 1019
Hays, KS 67601

ATTN: Marc Downing

Scott #1-15

15-21s-20w Pawnee,KS

Start Date: 2013.04.07 @ 20:48:02

End Date: 2013.04.08 @ 03:27:32

Job Ticket #: 52214 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.04.16 @ 10:07:24



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Dow ning Nelson Oil Company, Inc.

15-21s-20w Pawnee,KS

PO Box 1019
Hays, KS 67601

Scott #1-15

Job Ticket: 52214

DST#: 1

ATTN: Marc Dow ning

Test Start: 2013.04.07 @ 20:48:02

GENERAL INFORMATION:

Formation: **Cherokee Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:01:47

Time Test Ended: 03:27:32

Test Type: Conventional Bottom Hole (Initial)

Tester: Jason McLemore

Unit No: 54

Interval: 4128.00 ft (KB) To 4158.00 ft (KB) (TVD)

Reference Elevations: 2099.00 ft (KB)

Total Depth: 4158.00 ft (KB) (TVD)

2091.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8789 Inside

Press @ Run Depth: 28.64 psig @ 4130.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.07

End Date:

2013.04.08

Last Calib.:

2013.04.08

Start Time:

20:48:04

End Time:

03:27:32

Time On Btm:

2013.04.07 @ 23:01:17

Time Off Btm:

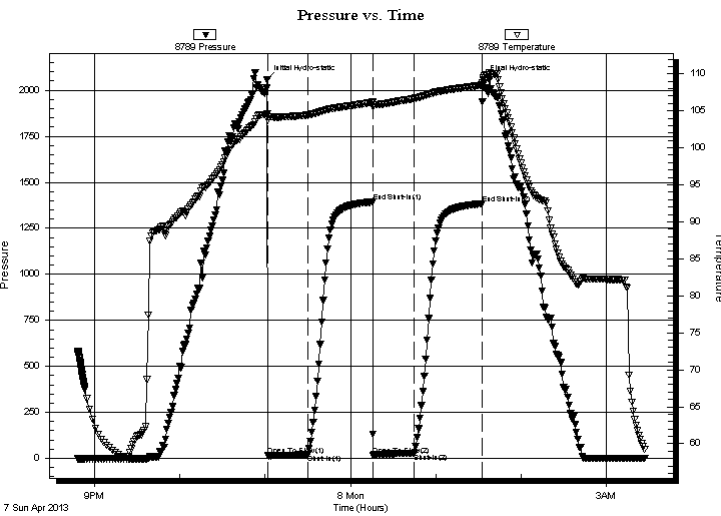
2013.04.08 @ 01:33:17

TEST COMMENT: IFP-Good Blow , BOB in 7 min.

ISI-Dead

FFP-Strong, BOB on open

FSI-Dead



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2059.42 | 104.54 | Initial Hydro-static |
| 1 | 18.42 | 103.75 | Open To Flow (1) |
| 29 | 19.81 | 104.44 | Shut-In(1) |
| 75 | 1393.44 | 106.16 | End Shut-In(1) |
| 75 | 15.19 | 105.75 | Open To Flow (2) |
| 104 | 28.64 | 106.65 | Shut-In(2) |
| 152 | 1383.17 | 108.47 | End Shut-In(2) |
| 152 | 2055.96 | 109.46 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|------------------|--------------|
| 30.00 | HOCM-40%O-60%M | 0.15 |
| 20.00 | Free Oil | 0.28 |
| 0.00 | 840' Gas In Pipe | 0.00 |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing Nelson Oil Company, Inc.

15-21s-20w Pawnee, KS

PO Box 1019
Hays, KS 67601

Scott #1-15

Job Ticket: 52214

DST#: 1

ATTN: Marc Downing

Test Start: 2013.04.07 @ 20:48:02

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 4102.00 ft | Diameter: 3.80 inches | Volume: 57.54 bbl | Tool Weight: 2000.00 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: 65000.00 lb |
| | | | <u>Total Volume: 57.69 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 32.00 ft | | | String Weight: Initial 61000.00 lb |
| Depth to Top Packer: | 4128.00 ft | | | Final 63000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 30.00 ft | | | |
| Tool Length: | 58.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Change Over Sub | 1.00 | | | 4101.00 | |
| Shut In Tool | 5.00 | | | 4106.00 | |
| Hydraulic tool | 5.00 | | | 4111.00 | |
| Jars | 5.00 | | | 4116.00 | |
| Safety Joint | 2.00 | | | 4118.00 | |
| Packer | 5.00 | | | 4123.00 | 28.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 4128.00 | |
| Stubb | 1.00 | | | 4129.00 | |
| Perforations | 1.00 | | | 4130.00 | |
| Recorder | 0.00 | 8789 | Inside | 4130.00 | |
| Recorder | 0.00 | 8289 | Outside | 4130.00 | |
| Perforations | 25.00 | | | 4155.00 | |
| Bullnose | 3.00 | | | 4158.00 | 30.00 Bottom Packers & Anchor |

Total Tool Length: 58.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing Nelson Oil Company, Inc.

15-21s-20w Pawnee,KS

PO Box 1019
Hays, KS 67601

Scott #1-15

Job Ticket: 52214

DST#: 1

ATTN: Marc Downing

Test Start: 2013.04.07 @ 20:48:02

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.17 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbbl |
|--------------|------------------|----------------|
| 30.00 | HOCM-40%O-60%M | 0.148 |
| 20.00 | Free Oil | 0.281 |
| 0.00 | 840' Gas In Pipe | 0.000 |

Total Length: 50.00 ft Total Volume: 0.429 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8789

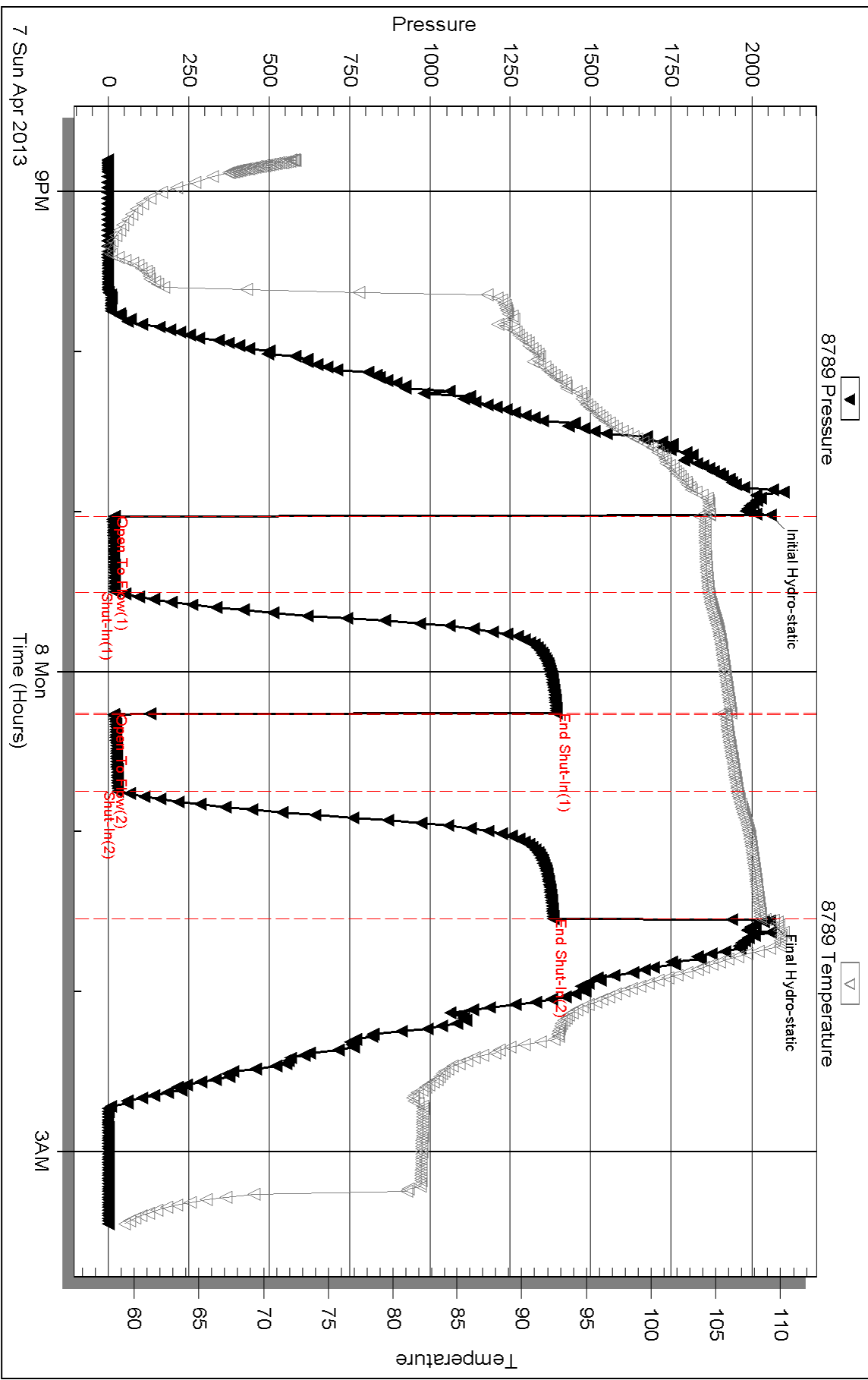
Inside

Downing Nelson Oil Company, Inc.

Scott #1-15

DST Test Number: 1

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 52214

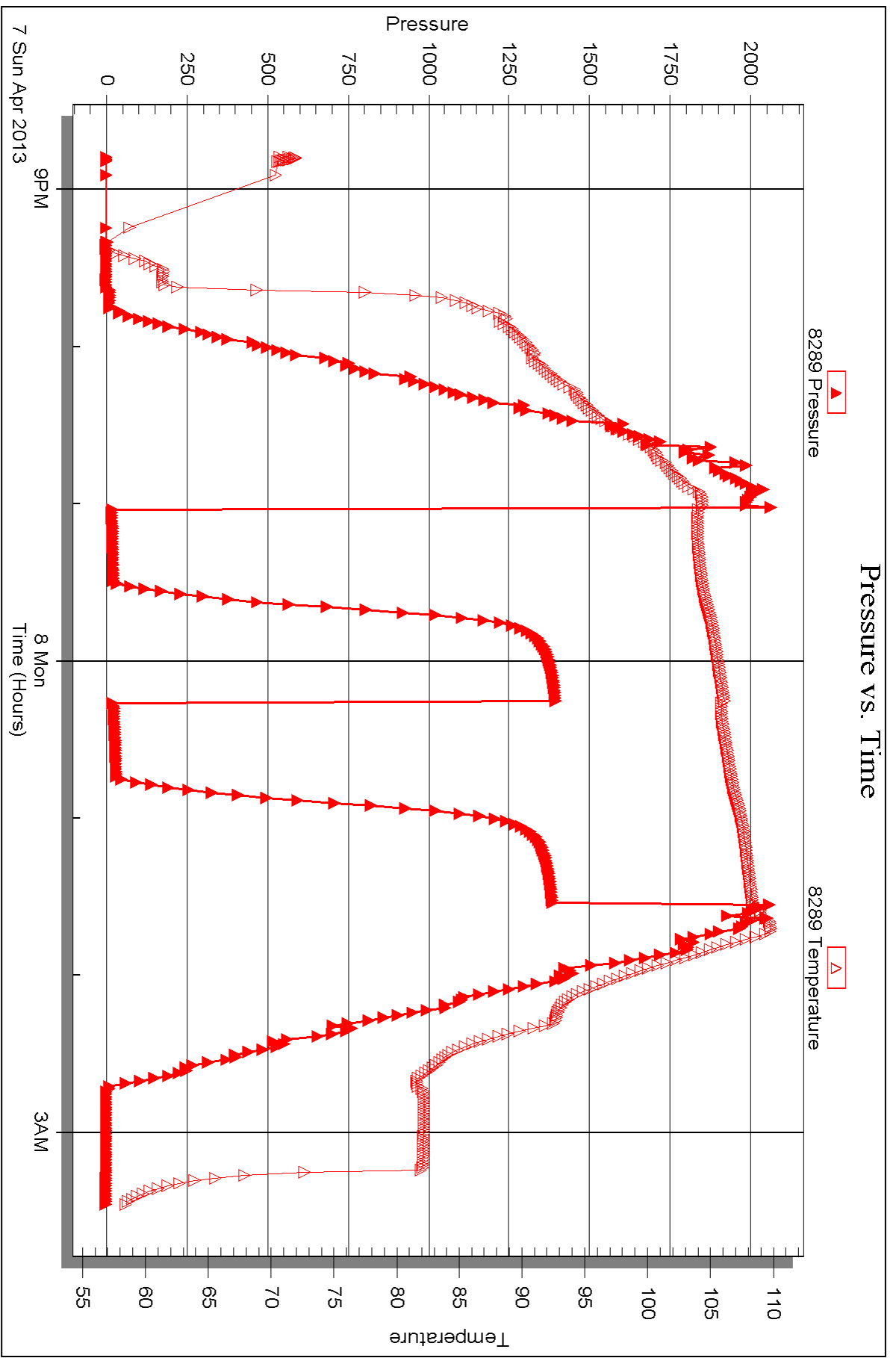
Printed: 2013.04.16 @ 10:07:27

Serial #: 8289

Outside Downing Nelson Oil Company, Inc.

Scott #1-15

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 52214

Printed: 2013.04.16 @ 10:07:27



DRILL STEM TEST REPORT

Prepared For: **Downing Nelson Oil Company, Inc.**

PO Box 1019
Hays, KS 67601

ATTN: Marc Downing

Scott #1-15

15-21s-20w Pawnee,KS

Start Date: 2013.04.08 @ 12:49:05

End Date: 2013.04.08 @ 20:45:20

Job Ticket #: 52215 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.04.16 @ 10:02:33



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Dow ning Nelson Oil Company, Inc.

15-21s-20w Pawnee,KS

PO Box 1019
Hays, KS 67601

Scott #1-15

Job Ticket: 52215

DST#: 2

ATTN: Marc Dow ning

Test Start: 2013.04.08 @ 12:49:05

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:51:05

Time Test Ended: 20:45:20

Test Type: Conventional Bottom Hole (Reset)

Tester: Jason McLemore

Unit No: 54

Interval: 4171.00 ft (KB) To 4210.00 ft (KB) (TVD)

Reference Elevations: 2099.00 ft (KB)

Total Depth: 4210.00 ft (KB) (TVD)

2091.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8789

Inside

Press @ Run Depth: 20.85 psig @ 4177.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.08

End Date:

2013.04.08

Last Calib.:

2013.04.08

Start Time:

12:49:07

End Time:

20:45:20

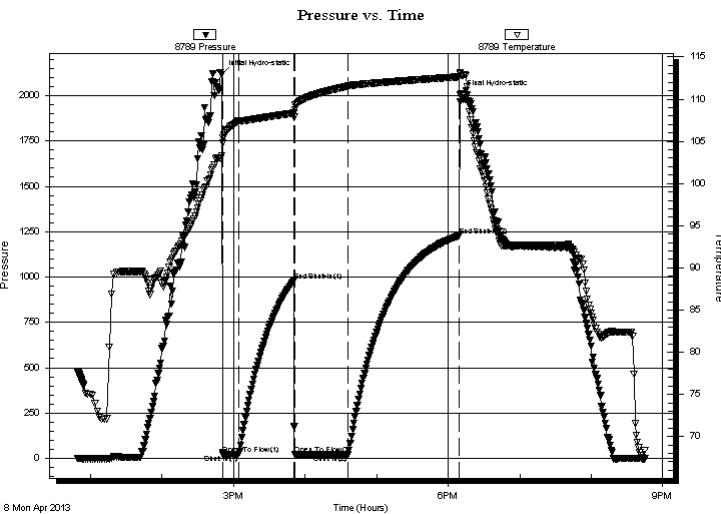
Time On Btm:

2013.04.08 @ 14:49:50

Time Off Btm:

2013.04.08 @ 18:10:05

TEST COMMENT: IFP-Strong,BOB in 30 sec
ISI-Blow back Built to 3"
FFP-Strong,BOB on open
FSI-Dead



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2117.01 | 103.33 | Initial Hydro-static |
| 2 | 21.50 | 105.38 | Open To Flow (1) |
| 15 | 21.37 | 107.41 | Shut-In(1) |
| 61 | 979.75 | 108.35 | End Shut-In(1) |
| 62 | 23.00 | 108.75 | Open To Flow (2) |
| 107 | 20.85 | 111.55 | Shut-In(2) |
| 200 | 1227.69 | 112.66 | End Shut-In(2) |
| 201 | 2007.12 | 113.18 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|--------------|--------------|
| 31.00 | Drilling Mud | 0.16 |
| | | |
| | | |
| | | |
| | | |

* 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 Company, Inc.

15-21s-20w Pawnee,KS

PO Box 1019
Hays, KS 67601

Scott #1-15

Job Ticket: 52215

DST#: 2

ATTN: Marc Dow ning

Test Start: 2013.04.08 @ 12:49:05

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:51:05

Time Test Ended: 20:45:20

Test Type: Conventional Bottom Hole (Reset)

Tester: Jason McLemore

Unit No: 54

Interval: 4171.00 ft (KB) To 4210.00 ft (KB) (TVD)

Reference Elevations: 2099.00 ft (KB)

Total Depth: 4210.00 ft (KB) (TVD)

2091.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8289 **Outside**

Press @RunDepth: psig @ 4177.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.08

End Date:

2013.04.08

Last Calib.:

2013.04.08

Start Time: 12:48:52

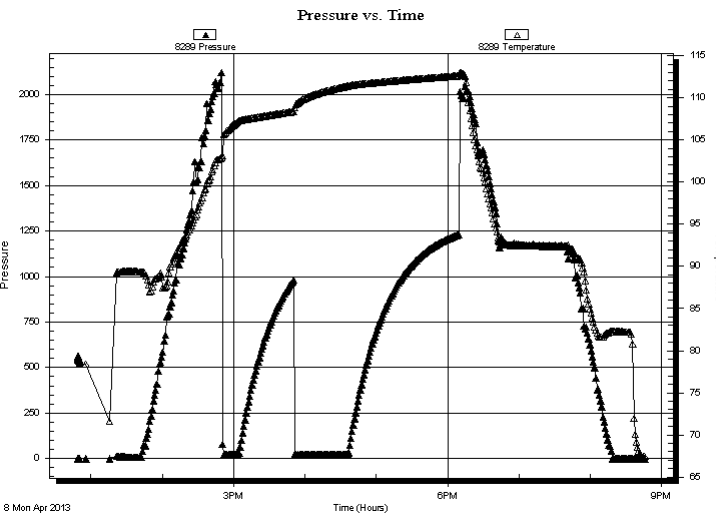
End Time:

20:45:50

Time On Btm:

Time Off Btm:

TEST COMMENT: IFP-Strong,BOB in 30 sec
ISI-Blow back Built to 3"
FFP-Strong,BOB on open
FSI-Dead



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|------------|
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Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|--------------|--------------|
| 31.00 | Drilling Mud | 0.16 |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing Nelson Oil Company, Inc.

15-21s-20w Pawnee, KS

PO Box 1019
Hays, KS 67601

Scott #1-15

Job Ticket: 52215

DST#: 2

ATTN: Marc Downing

Test Start: 2013.04.08 @ 12:49:05

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 4133.00 ft | Diameter: 3.80 inches | Volume: 57.98 bbl | Tool Weight: 2000.00 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: 66000.00 lb |
| | | | <u>Total Volume: 58.13 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 20.00 ft | | | String Weight: Initial 62000.00 lb |
| Depth to Top Packer: | 4171.00 ft | | | Final 65000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 39.00 ft | | | |
| Tool Length: | 67.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Change Over Sub | 1.00 | | | 4144.00 | |
| Shut In Tool | 5.00 | | | 4149.00 | |
| Hydraulic tool | 5.00 | | | 4154.00 | |
| Jars | 5.00 | | | 4159.00 | |
| Safety Joint | 2.00 | | | 4161.00 | |
| Packer | 5.00 | | | 4166.00 | 28.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 4171.00 | |
| Stubb | 1.00 | | | 4172.00 | |
| Perforations | 5.00 | | | 4177.00 | |
| Recorder | 0.00 | 8789 | Inside | 4177.00 | |
| Recorder | 0.00 | 8289 | Outside | 4177.00 | |
| Perforations | 30.00 | | | 4207.00 | |
| Bullnose | 3.00 | | | 4210.00 | 39.00 Bottom Packers & Anchor |

Total Tool Length: 67.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing Nelson Oil Company, Inc.

15-21s-20w Pawnee,KS

PO Box 1019
Hays, KS 67601

Scott #1-15

Job Ticket: 52215

DST#: 2

ATTN: Marc Downing

Test Start: 2013.04.08 @ 12:49:05

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: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.17 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|--------------|---------------|
| 31.00 | Drilling Mud | 0.162 |

Total Length: 31.00 ft Total Volume: 0.162 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

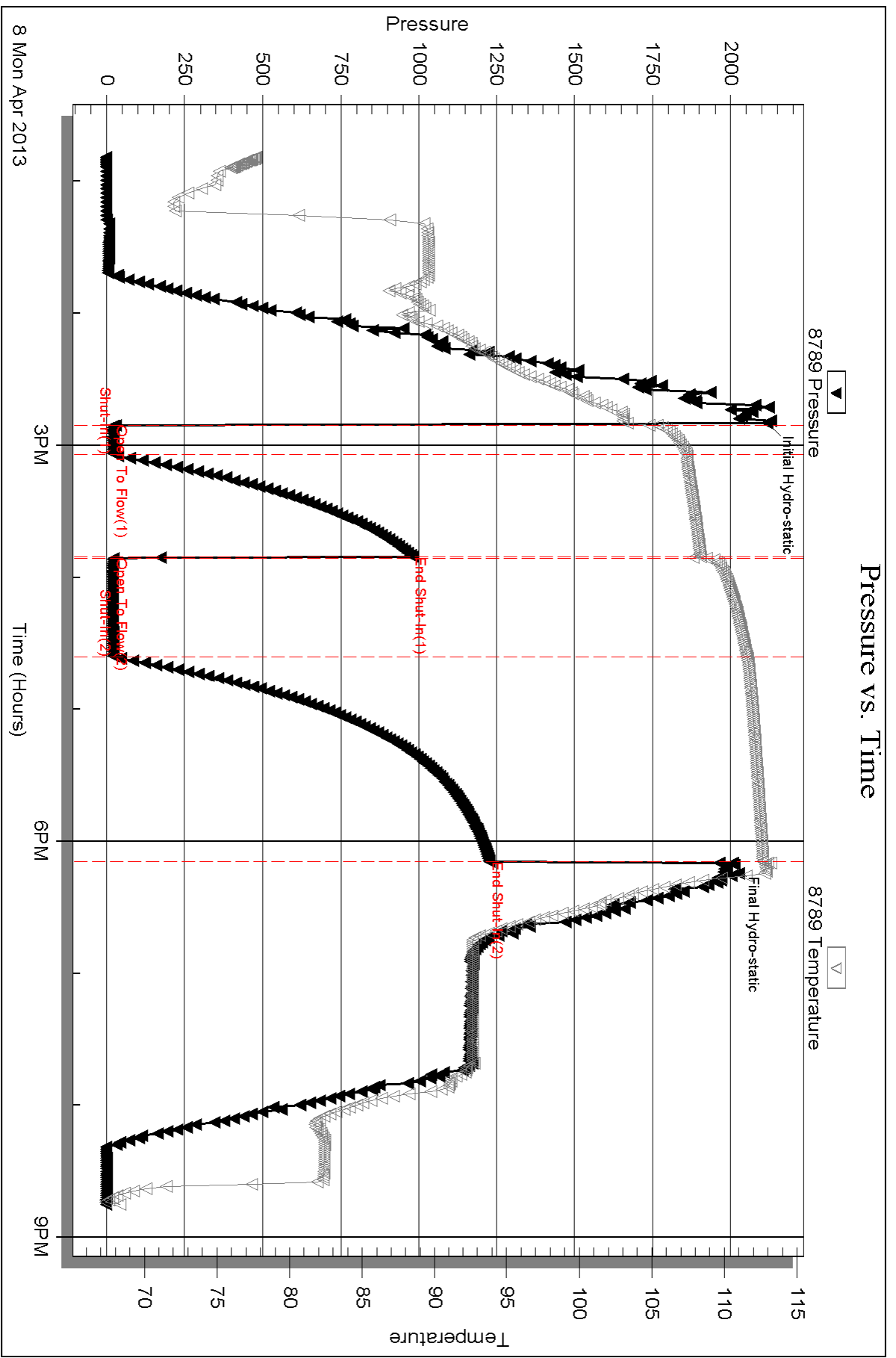
Serial #: 8789

Inside

Downing Nelson Oil Company, Inc.

Scott #1-15

DST Test Number: 2

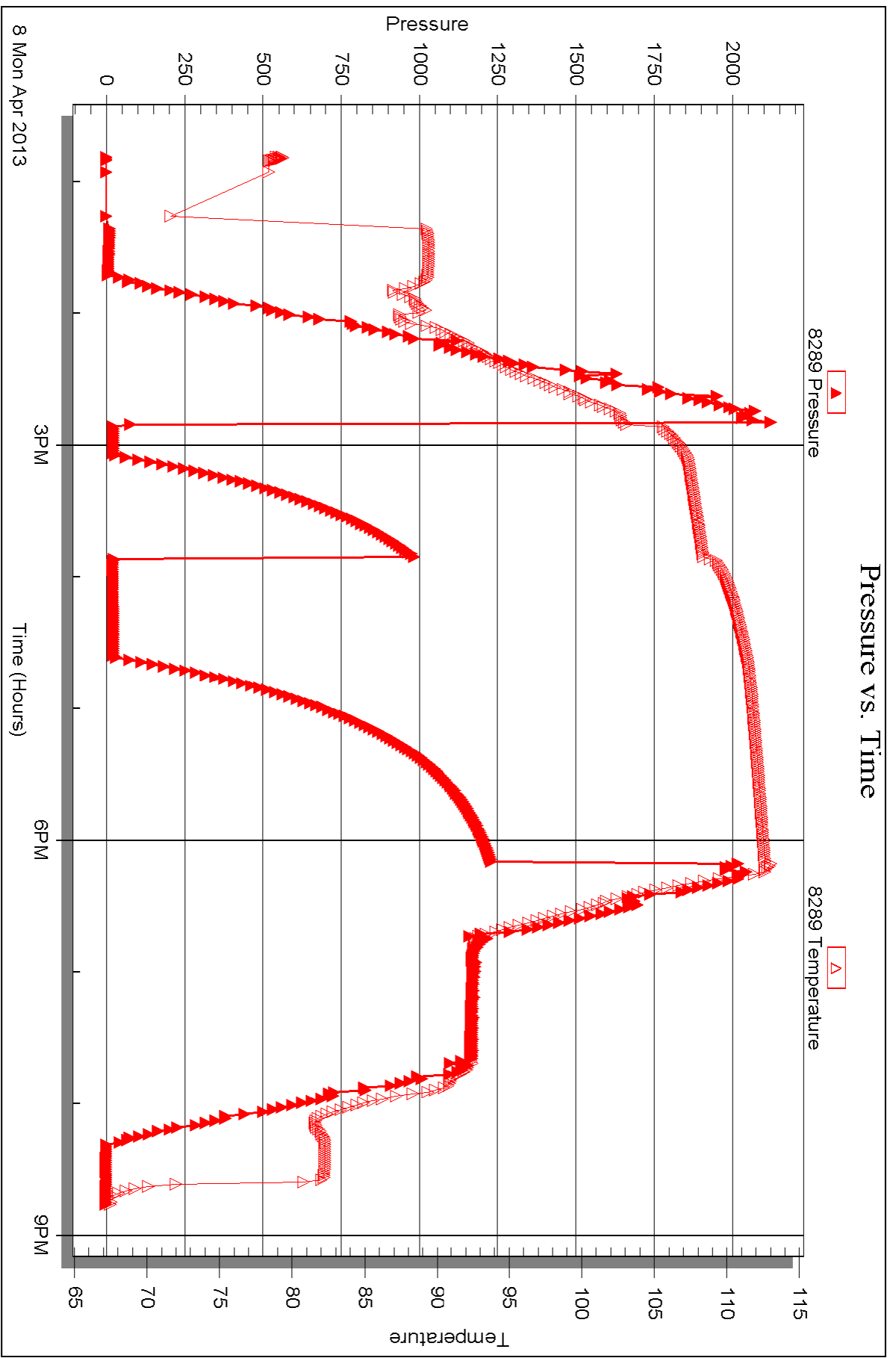


Serial #: 8289

Outside Downing Nelson Oil Company, Inc.

Scott #1-15

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 52215

Printed: 2013.04.16 @ 10:02:36



DRILL STEM TEST REPORT

Prepared For: **Downing Nelson Oil Company, Inc.**

PO Box 1019
Hays, KS 67601

ATTN: Marc Downing

Scott #1-15

15-21s-20w Pawnee,KS

Start Date: 2013.04.09 @ 03:02:27

End Date: 2013.04.09 @ 11:10:42

Job Ticket #: 52216 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.04.16 @ 10:01:46



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning Nelson Oil Company, Inc.

15-21s-20w Pawnee,KS

PO Box 1019
Hays, KS 67601

Scott #1-15

Job Ticket: 52216

DST#: 3

ATTN: Marc Dow ning

Test Start: 2013.04.09 @ 03:02:27

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:25:12

Time Test Ended: 11:10:42

Test Type: Conventional Bottom Hole (Reset)

Tester: Jason McLemore

Unit No: 54

Interval: 4210.00 ft (KB) To 4226.00 ft (KB) (TVD)

Reference Elevations: 2099.00 ft (KB)

Total Depth: 4226.00 ft (KB) (TVD)

2091.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8789

Inside

Press @ Run Depth: 57.42 psig @ 4213.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.09

End Date:

2013.04.09

Last Calib.:

2013.04.09

Start Time:

03:02:29

End Time:

11:10:42

Time On Btm:

2013.04.09 @ 05:24:27

Time Off Btm:

2013.04.09 @ 08:47:12

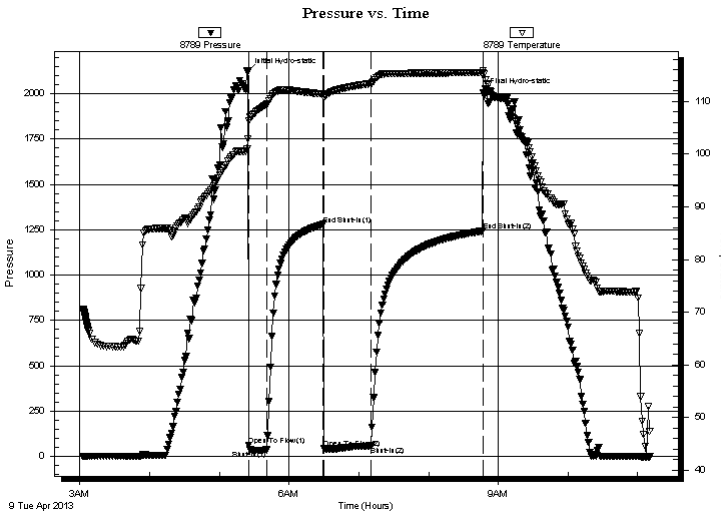
TEST COMMENT: IFP-Strong, BOB in 1 min.

ISI-Dead

FFP-BOB on open, GTS in 35 min.

FSI-Dead

PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2118.77 | 102.84 | Initial Hydro-static |
| 1 | 60.18 | 106.28 | Open To Flow (1) |
| 17 | 36.36 | 109.46 | Shut-In(1) |
| 65 | 1279.12 | 111.43 | End Shut-In(1) |
| 66 | 42.87 | 110.67 | Open To Flow (2) |
| 107 | 57.42 | 113.40 | Shut-In(2) |
| 203 | 1242.50 | 115.53 | End Shut-In(2) |
| 203 | 2003.69 | 115.91 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|---------------------|--------------|
| 125.00 | GOCM-20%G-20%O-60%M | 1.48 |
| 5.00 | Free Oil | 0.07 |
| | | |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Downing Nelson Oil Company, Inc.

15-21s-20w Pawnee, KS

PO Box 1019
Hays, KS 67601

Scott #1-15

Job Ticket: 52216

DST#: 3

ATTN: Marc Downing

Test Start: 2013.04.09 @ 03:02:27

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:25:12

Time Test Ended: 11:10:42

Test Type: Conventional Bottom Hole (Reset)

Tester: Jason McLemore

Unit No: 54

Interval: 4210.00 ft (KB) To 4226.00 ft (KB) (TVD)

Reference Elevations: 2099.00 ft (KB)

Total Depth: 4226.00 ft (KB) (TVD)

2091.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8289 Outside

Press @ Run Depth: psig @ 4213.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.09 End Date: 2013.04.09

Last Calib.: 2013.04.09

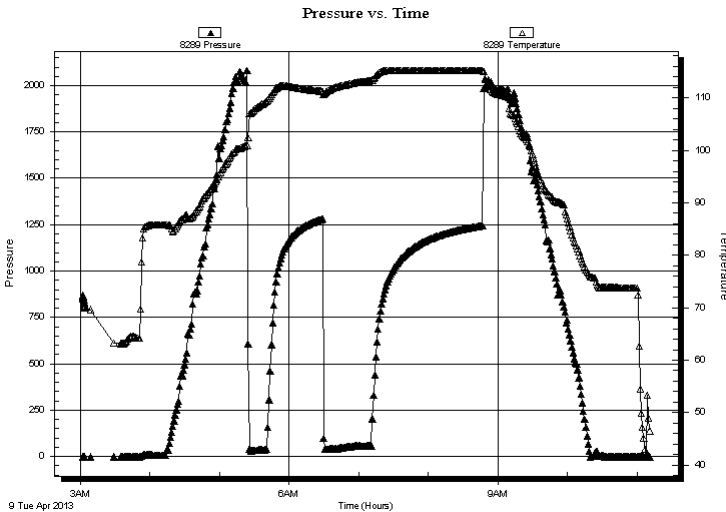
Start Time: 03:01:57 End Time: 11:10:55

Time On Btm:

Time Off Btm:

TEST COMMENT: IFP-Strong, BOB in 1 min.
ISI-Dead
FFP-BOB on open, GTS in 35 min.
FSI-Dead

PRESSURE SUMMARY



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

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|---------------------|--------------|
| 125.00 | GOCM-20%G-20%O-60%M | 1.48 |
| 5.00 | Free Oil | 0.07 |
| | | |
| | | |
| | | |

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing Nelson Oil Company, Inc.

15-21s-20w Pawnee, KS

PO Box 1019
Hays, KS 67601

Scott #1-15

Job Ticket: 52216

DST#: 3

ATTN: Marc Downing

Test Start: 2013.04.09 @ 03:02:27

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 4164.00 ft | Diameter: 3.80 inches | Volume: 58.41 bbl | Tool Weight: 2000.00 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: 65000.00 lb |
| | | | <u>Total Volume: 58.56 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 12.00 ft | | | String Weight: Initial 62000.00 lb |
| Depth to Top Packer: | 4210.00 ft | | | Final 62000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 16.00 ft | | | |
| Tool Length: | 44.00 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 | | | 4183.00 | |
| Shut In Tool | 5.00 | | | 4188.00 | |
| Hydraulic tool | 5.00 | | | 4193.00 | |
| Jars | 5.00 | | | 4198.00 | |
| Safety Joint | 2.00 | | | 4200.00 | |
| Packer | 5.00 | | | 4205.00 | 28.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 4210.00 | |
| Stubb | 1.00 | | | 4211.00 | |
| Perforations | 2.00 | | | 4213.00 | |
| Recorder | 0.00 | 8789 | Inside | 4213.00 | |
| Recorder | 0.00 | 8289 | Outside | 4213.00 | |
| Perforations | 10.00 | | | 4223.00 | |
| Bullnose | 3.00 | | | 4226.00 | 16.00 Bottom Packers & Anchor |

Total Tool Length: 44.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing Nelson Oil Company, Inc.

15-21s-20w Pawnee,KS

PO Box 1019
Hays, KS 67601

Scott #1-15

Job Ticket: 52216

DST#: 3

ATTN: Marc Downing

Test Start: 2013.04.09 @ 03:02:27

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 54.00 sec/qt

Water Loss: 9.16 in³

Resistivity: ohm.m

Salinity: 4500.00 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

ppm

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|---------------------|---------------|
| 125.00 | GOCM-20%G-20%O-60%M | 1.480 |
| 5.00 | Free Oil | 0.070 |

Total Length: 130.00 ft Total Volume: 1.550 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

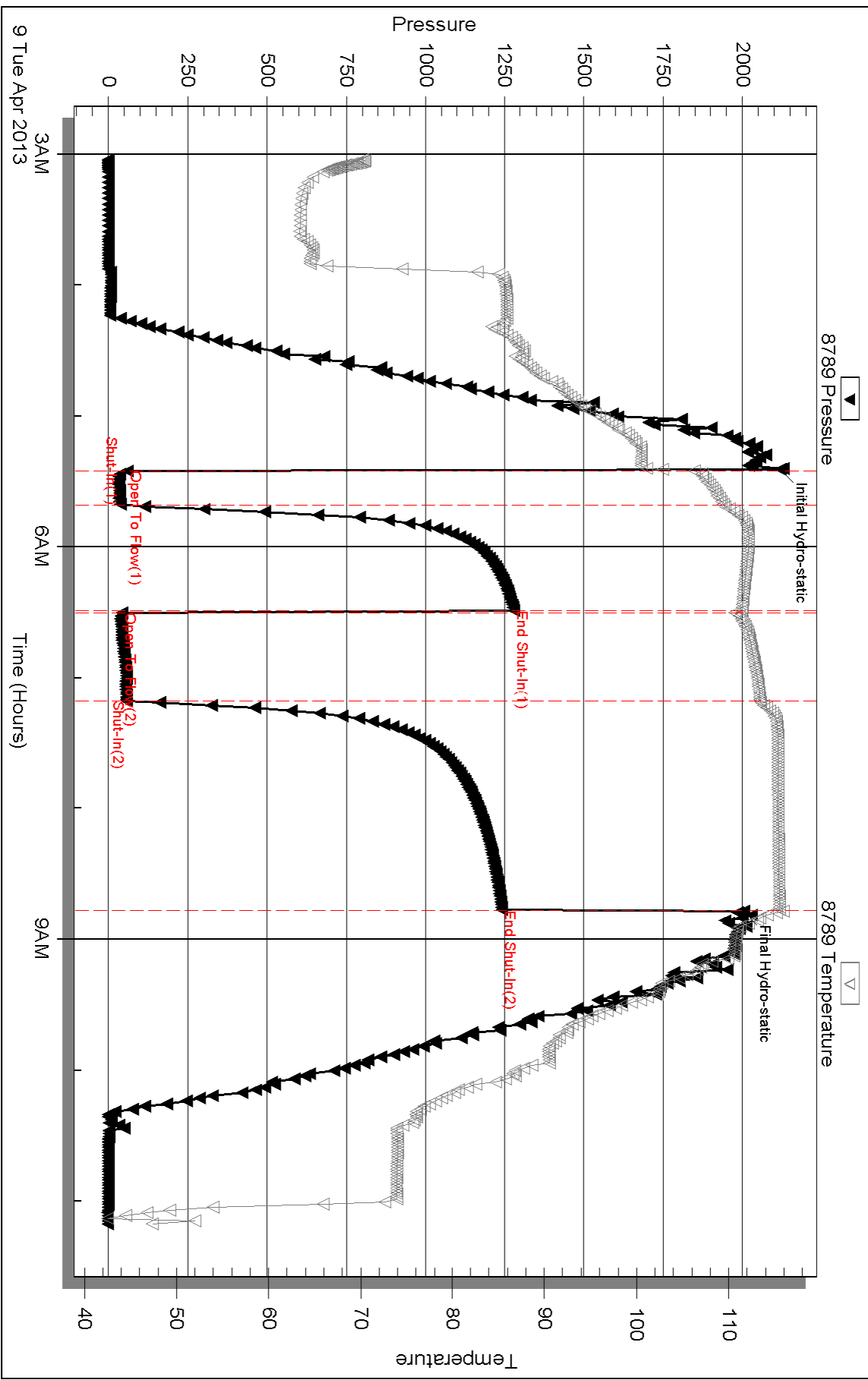
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

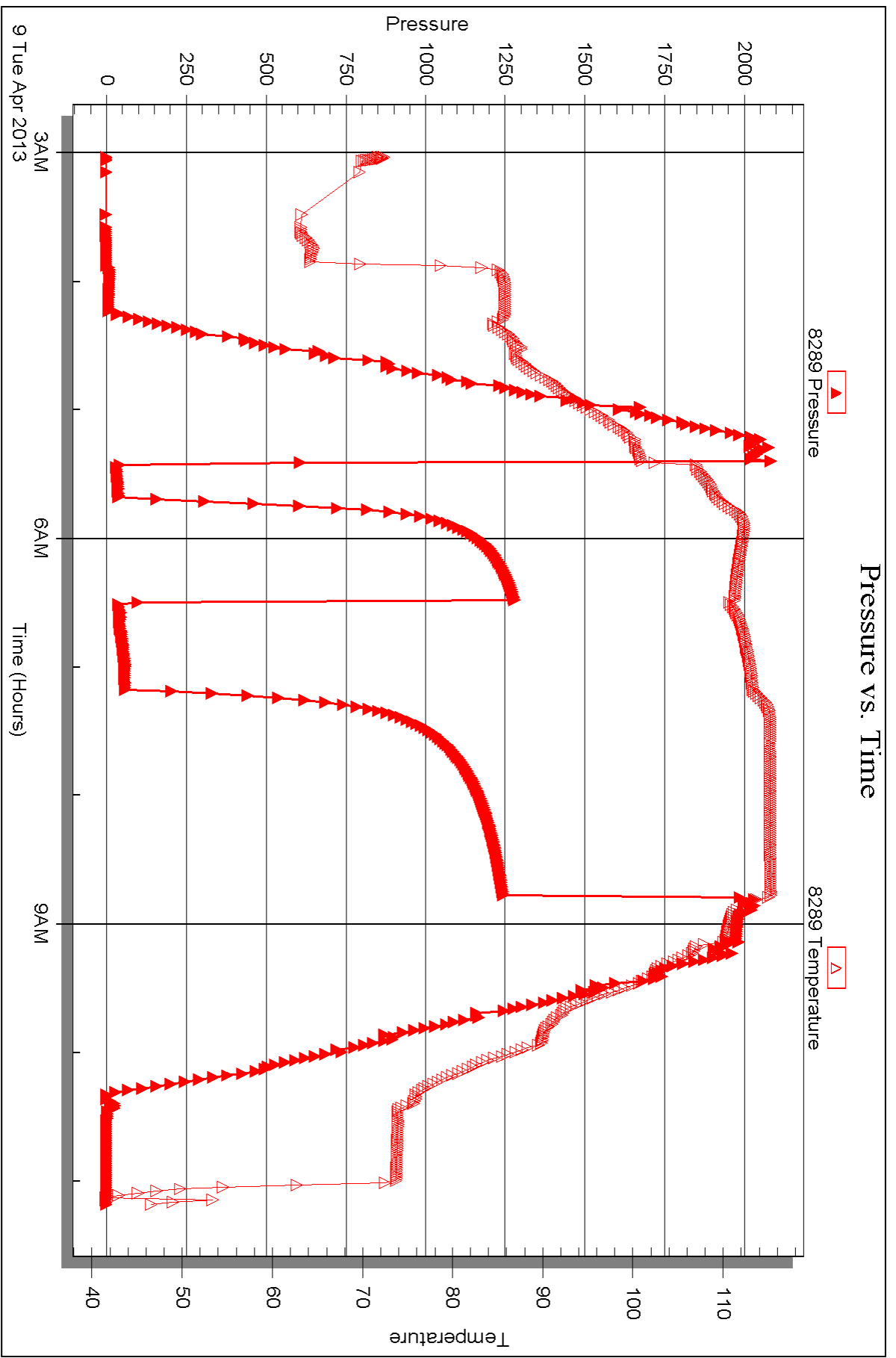


Serial #: 8289

Outside Downing Nelson Oil Company, Inc.

Scott #1-15

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 52216

Printed: 2013.04.16 @ 10:01:50



DRILL STEM TEST REPORT

Prepared For: **Downing Nelson Oil Company, Inc.**

PO Box 1019
Hays, KS 67601

ATTN: Marc Downing

Scott #1-15

15-21s-20w Pawnee,KS

Start Date: 2013.04.09 @ 17:47:49

End Date: 2013.04.10 @ 01:51:04

Job Ticket #: 52217 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.04.16 @ 10:01:14



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Dow ning Nelson Oil Company, Inc.

15-21s-20w Pawnee,KS

PO Box 1019
Hays, KS 67601

Scott #1-15

Job Ticket: 52217

DST#: 4

ATTN: Marc Dow ning

Test Start: 2013.04.09 @ 17:47:49

GENERAL INFORMATION:

Formation: **Mississippi**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:24:49
 Time Test Ended: 01:51:04
 Interval: **4220.00 ft (KB) To 4232.00 ft (KB) (TVD)**
 Total Depth: 4232.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Jason MxcLemore
 Unit No: 54
 Reference Elevations: 2099.00 ft (KB)
 2091.00 ft (CF)
 KB to GR/CF: 8.00 ft

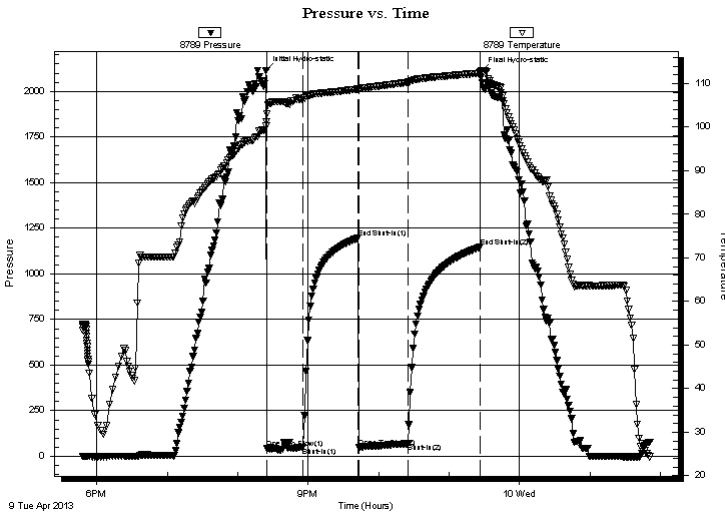
Serial #: 8789

Inside

Press @ Run Depth: 69.41 psig @ 4224.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.04.09 End Date: 2013.04.10 Last Calib.: 2013.04.10
 Start Time: 17:47:51 End Time: 01:51:04 Time On Btm: 2013.04.09 @ 20:24:04
 Time Off Btm: 2013.04.09 @ 23:27:04

TEST COMMENT: IFP-Strong, BOB in 30 Seconds
 ISI-Blow back Built to 2-3/4"
 FFP-BOB on Open, Gas To Surface in 30 Min.
 FSI-Blow back Built to 1-1/2"

PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2113.17 | 100.26 | Initial Hydro-static |
| 1 | 43.68 | 102.99 | Open To Flow (1) |
| 32 | 49.79 | 106.38 | Shut-In(1) |
| 79 | 1196.18 | 108.75 | End Shut-In(1) |
| 79 | 47.63 | 108.50 | Open To Flow (2) |
| 121 | 69.41 | 110.29 | Shut-In(2) |
| 183 | 1146.02 | 112.41 | End Shut-In(2) |
| 183 | 2107.47 | 112.86 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|---------------------|--------------|
| 120.00 | GOCM-20%G-20%O-60%M | 1.41 |
| 30.00 | Free Oil | 0.42 |
| | | |
| | | |
| | | |

* 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 Company, Inc.

15-21s-20w Pawnee,KS

PO Box 1019
Hays, KS 67601

Scott #1-15

Job Ticket: 52217

DST#: 4

ATTN: Marc Dow ning

Test Start: 2013.04.09 @ 17:47:49

GENERAL INFORMATION:

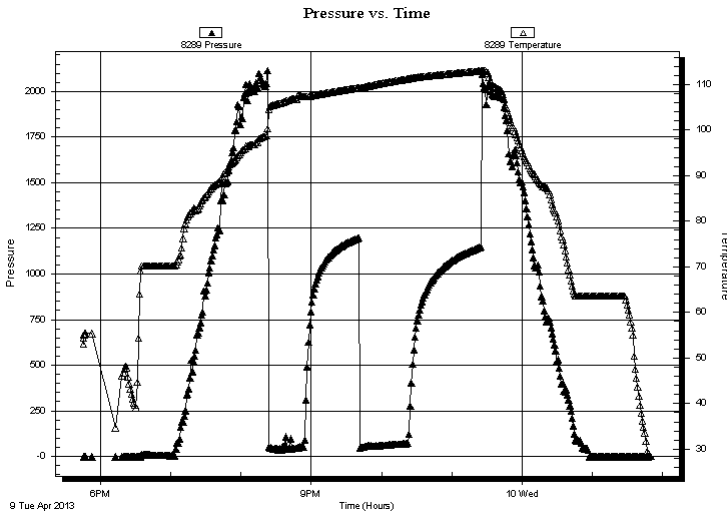
Formation: **Mississippi**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:24:49
 Time Test Ended: 01:51:04
 Interval: **4220.00 ft (KB) To 4232.00 ft (KB) (TVD)**
 Total Depth: 4232.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Jason MxcLemore
 Unit No: 54
 Reference Elevations: 2099.00 ft (KB)
 2091.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8289

Outside

Press @ Run Depth: psig @ 4224.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.04.09 End Date: 2013.04.10 Last Calib.: 2013.04.10
 Start Time: 17:45:54 End Time: 01:49:37 Time On Btm:
 Time Off Btm:

TEST COMMENT: IFP-Strong, BOB in 30 Seconds
 ISI-Blow back Built to 2-3/4"
 FFP-BOB on Open, Gas To Surface in 30 Min.
 FSI-Blow back Built to 1-1/2"



PRESSURE SUMMARY

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

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|---------------------|--------------|
| 120.00 | GOCM-20%G-20%O-60%M | 1.41 |
| 30.00 | Free Oil | 0.42 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing Nelson Oil Company, Inc.

15-21s-20w Pawnee, KS

PO Box 1019
Hays, KS 67601

Scott #1-15

Job Ticket: 52217

DST#: 4

ATTN: Marc Downing

Test Start: 2013.04.09 @ 17:47:49

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 4194.00 ft | Diameter: 3.80 inches | Volume: 58.83 bbl | Tool Weight: 2000.00 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: 65000.00 lb |
| | | | <u>Total Volume: 58.98 bbl</u> | Tool Chased 3.00 ft |
| Drill Pipe Above KB: | 32.00 ft | | | String Weight: Initial 60000.00 lb |
| Depth to Top Packer: | 4220.00 ft | | | Final 60000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 12.00 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 | | | 4193.00 | |
| Shut In Tool | 5.00 | | | 4198.00 | |
| Hydraulic tool | 5.00 | | | 4203.00 | |
| Jars | 5.00 | | | 4208.00 | |
| Safety Joint | 2.00 | | | 4210.00 | |
| Packer | 5.00 | | | 4215.00 | 28.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 4220.00 | |
| Stubb | 1.00 | | | 4221.00 | |
| Perforations | 3.00 | | | 4224.00 | |
| Recorder | 0.00 | 8789 | Inside | 4224.00 | |
| Recorder | 0.00 | 8289 | Outside | 4224.00 | |
| Perforations | 5.00 | | | 4229.00 | |
| Bullnose | 3.00 | | | 4232.00 | 12.00 Bottom Packers & Anchor |

Total Tool Length: 40.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing Nelson Oil Company, Inc.

15-21s-20w Pawnee, KS

PO Box 1019
Hays, KS 67601

Scott #1-15

Job Ticket: 52217

DST#: 4

ATTN: Marc Downing

Test Start: 2013.04.09 @ 17:47:49

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.16 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbbl |
|--------------|---------------------|----------------|
| 120.00 | GOCM-20%G-20%O-60%M | 1.410 |
| 30.00 | Free Oil | 0.421 |

Total Length: 150.00 ft

Total Volume: 1.831 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

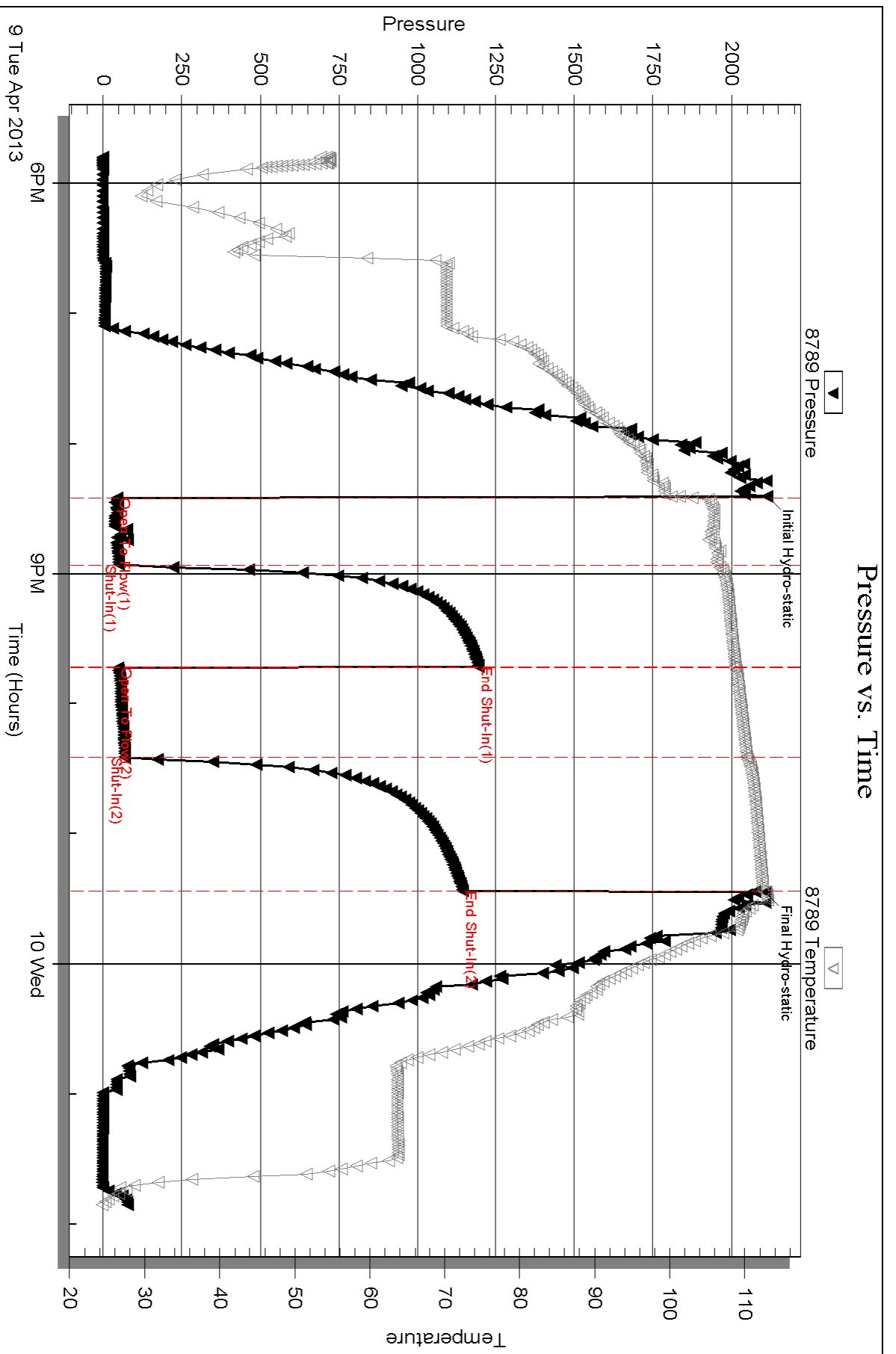
Serial #: 8789

Inside

Downing Nelson Oil Company, Inc.

Scott #1-15

DST Test Number: 4



Triobite Testing, Inc

Ref. No: 52217

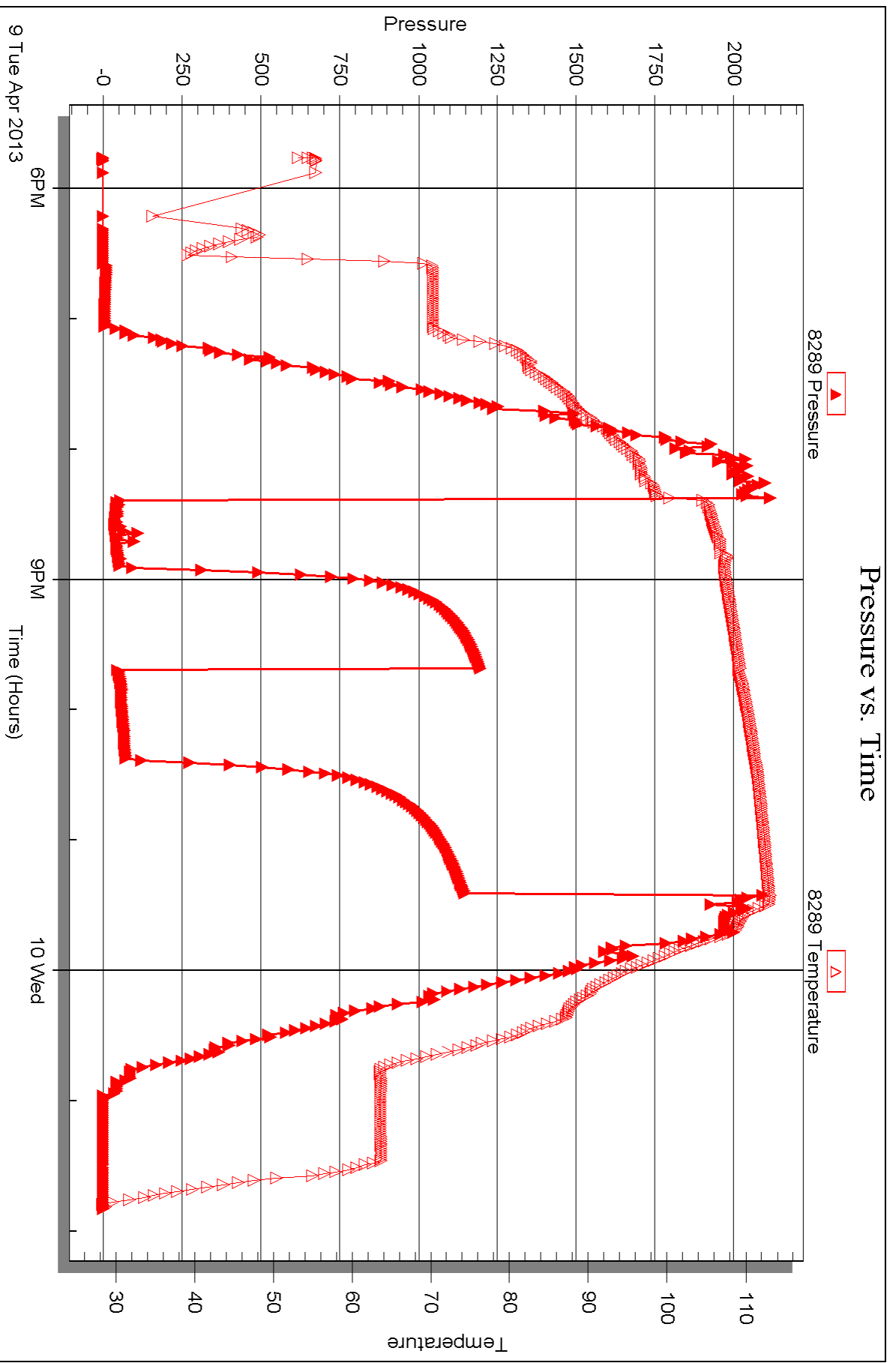
Printed: 2013.04.16 @ 10:01:17

Serial #: 8289

Outside Downing Nelson Oil Company, Inc.

Scott #1-15

DST Test Number: 4





DRILL STEM TEST REPORT

Prepared For: **Downing Nelson Oil Company, Inc.**

PO Box 1019
Hays, KS 67601

ATTN: Marc Downing

Scott #1-15

15-21s-20w Pawnee,KS

Start Date: 2013.04.10 @ 08:16:49

End Date: 2013.04.10 @ 17:30:19

Job Ticket #: 52218 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.04.16 @ 10:00:34



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Downing Nelson Oil Company, Inc.

15-21s-20w Pawnee, KS

PO Box 1019
Hays, KS 67601

Scott #1-15

Job Ticket: 52218

DST#: 5

ATTN: Marc Downing

Test Start: 2013.04.10 @ 08:16:49

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:43:19

Time Test Ended: 17:30:19

Test Type: Conventional Bottom Hole (Reset)

Tester: Jason McLemore

Unit No: 54

Interval: 4231.00 ft (KB) To 4243.00 ft (KB) (TVD)

Reference Elevations: 2099.00 ft (KB)

Total Depth: 4243.00 ft (KB) (TVD)

2091.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8789 Inside

Press @ Run Depth: 75.04 psig @ 4235.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.10

End Date: 2013.04.10

Last Calib.: 2013.04.10

Start Time: 08:16:51

End Time: 17:30:19

Time On Btm: 2013.04.10 @ 11:04:34

Time Off Btm: 2013.04.10 @ 15:14:34

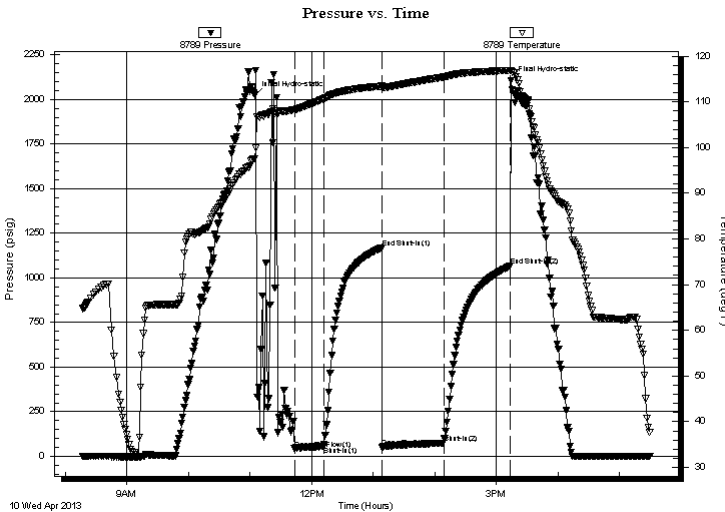
TEST COMMENT: IFP-Slid Tool, Plugging Action, Flush Tool, BOB in 30 min. Still Some Plugging Action

ISI-Blow back Built to 1/2", Died in 30 min.

FFP-BOB in 3 min. Still have Plugging Action

FSI-Surface Blow back For 15 min.

PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2023.83 | 97.57 | Initial Hydro-static |
| 39 | 41.97 | 108.29 | Open To Flow (1) |
| 68 | 55.06 | 110.66 | Shut-In(1) |
| 124 | 1168.95 | 113.44 | End Shut-In(1) |
| 125 | 52.29 | 113.08 | Open To Flow (2) |
| 185 | 75.04 | 115.43 | Shut-In(2) |
| 249 | 1067.75 | 116.89 | End Shut-In(2) |
| 250 | 2105.53 | 116.82 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|---------------|--------------|
| 120.00 | SOCM-5%O-95%M | 1.41 |
| 5.00 | Free Oil | 0.07 |
| | | |
| | | |
| | | |

* 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 Company, Inc.

15-21s-20w Pawnee,KS

PO Box 1019
Hays, KS 67601

Scott #1-15

Job Ticket: 52218

DST#: 5

ATTN: Marc Dow ning

Test Start: 2013.04.10 @ 08:16:49

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:43:19

Time Test Ended: 17:30:19

Test Type: Conventional Bottom Hole (Reset)

Tester: Jason McLemore

Unit No: 54

Interval: 4231.00 ft (KB) To 4243.00 ft (KB) (TVD)

Reference Elevations: 2099.00 ft (KB)

Total Depth: 4243.00 ft (KB) (TVD)

2091.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8289 Outside

Press @RunDepth: psig @ 4235.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.10

End Date: 2013.04.10

Last Calib.: 2013.04.10

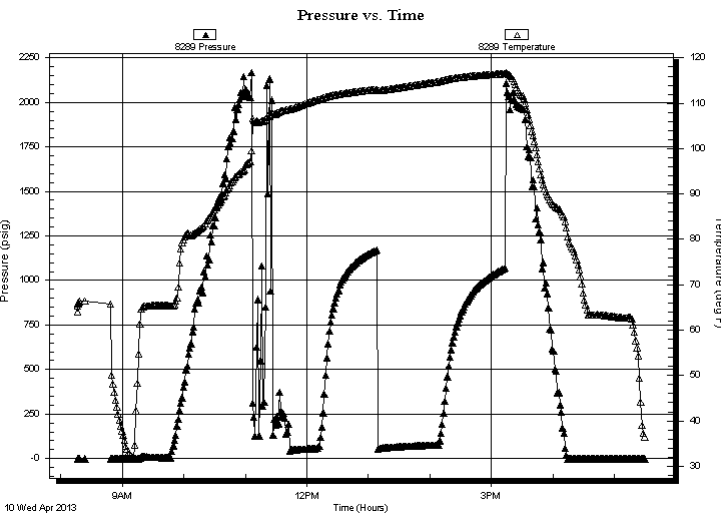
Start Time: 08:16:21

End Time: 17:30:34

Time On Btm:

Time Off Btm:

TEST COMMENT: IFP-Slid Tool, Plugging Action, Flush Tool, BOB in 30 min. Still Some Plugging Action
ISI-Blow back Built to 1/2", Died in 30 min.
FFP-BOB in 3 min. Still have Plugging Action
FSI-Surface Blow back For 15 min.



PRESSURE SUMMARY

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

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|---------------|--------------|
| 120.00 | SOCM-5%O-95%M | 1.41 |
| 5.00 | Free Oil | 0.07 |
| | | |
| | | |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing Nelson Oil Company, Inc.

15-21s-20w Pawnee, KS

PO Box 1019
Hays, KS 67601

Scott #1-15

Job Ticket: 52218

DST#: 5

ATTN: Marc Downing

Test Start: 2013.04.10 @ 08:16:49

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 4194.00 ft | Diameter: 3.80 inches | Volume: 58.83 bbl | Tool Weight: 2000.00 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: 65000.00 lb |
| | | | <u>Total Volume: 58.98 bbl</u> | Tool Chased 4.00 ft |
| Drill Pipe Above KB: | 21.00 ft | | | String Weight: Initial 62000.00 lb |
| Depth to Top Packer: | 4231.00 ft | | | Final 52000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 12.00 ft | | | |
| Tool Length: | 40.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Change Over Sub | 1.00 | | | 4204.00 | |
| Shut In Tool | 5.00 | | | 4209.00 | |
| Hydraulic tool | 5.00 | | | 4214.00 | |
| Jars | 5.00 | | | 4219.00 | |
| Safety Joint | 2.00 | | | 4221.00 | |
| Packer | 5.00 | | | 4226.00 | 28.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 4231.00 | |
| Stubb | 1.00 | | | 4232.00 | |
| Perforations | 3.00 | | | 4235.00 | |
| Recorder | 0.00 | 8789 | Inside | 4235.00 | |
| Recorder | 0.00 | 8289 | Outside | 4235.00 | |
| Perforations | 5.00 | | | 4240.00 | |
| Bullnose | 3.00 | | | 4243.00 | 12.00 Bottom Packers & Anchor |

Total Tool Length: 40.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing Nelson Oil Company, Inc.

15-21s-20w Pawnee,KS

PO Box 1019
Hays, KS 67601

Scott #1-15

Job Ticket: 52218

DST#: 5

ATTN: Marc Downing

Test Start: 2013.04.10 @ 08:16:49

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 54.00 sec/qt

Water Loss: 9.17 in³

Resistivity: ohm.m

Salinity: 4500.00 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

ppm

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|---------------|---------------|
| 120.00 | SOCM-5%O-95%M | 1.410 |
| 5.00 | Free Oil | 0.070 |

Total Length: 125.00 ft Total Volume: 1.480 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8789

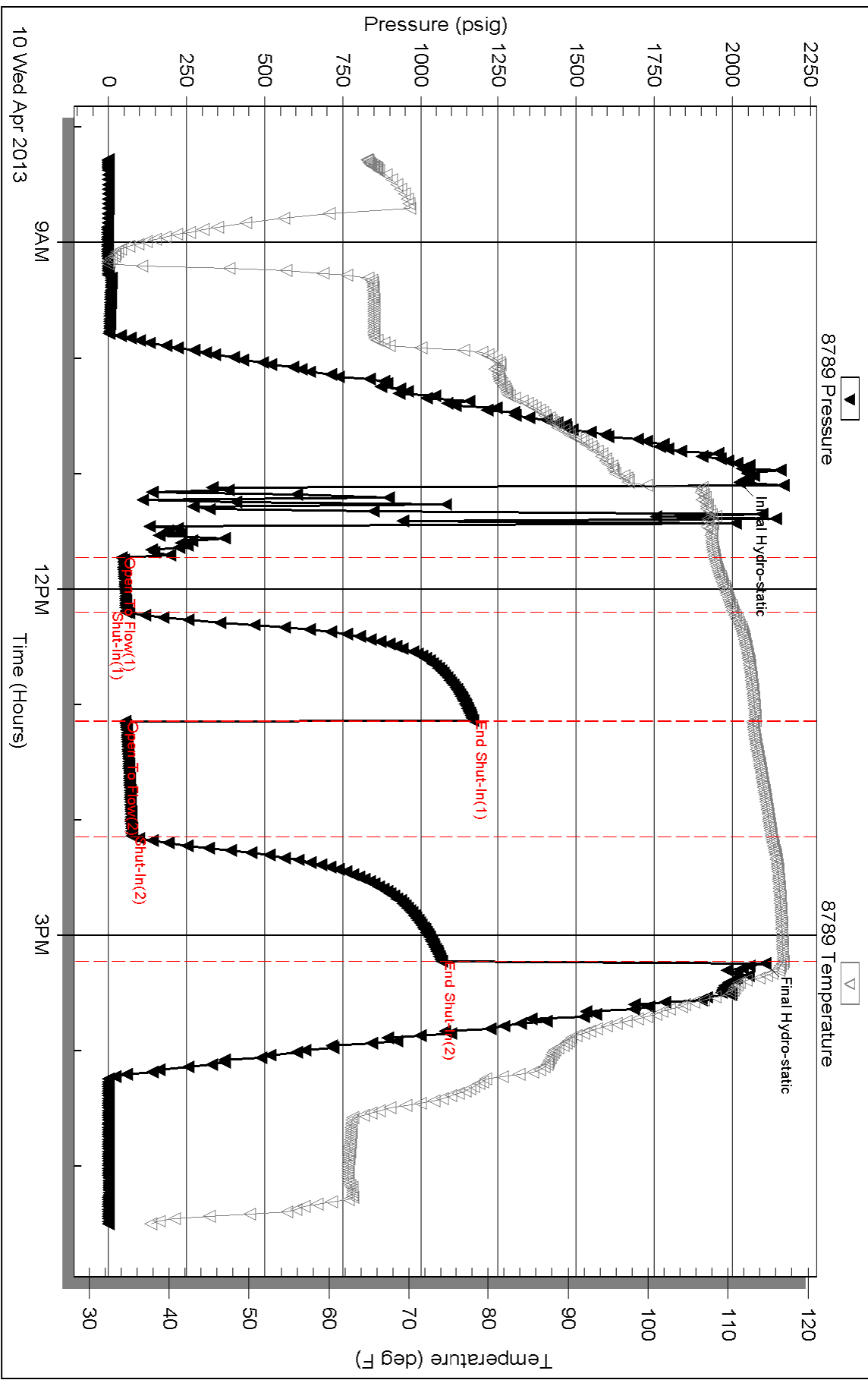
Inside

Downing Nelson Oil Company, Inc.

Scott #1-15

DST Test Number: 5

Pressure vs. Time

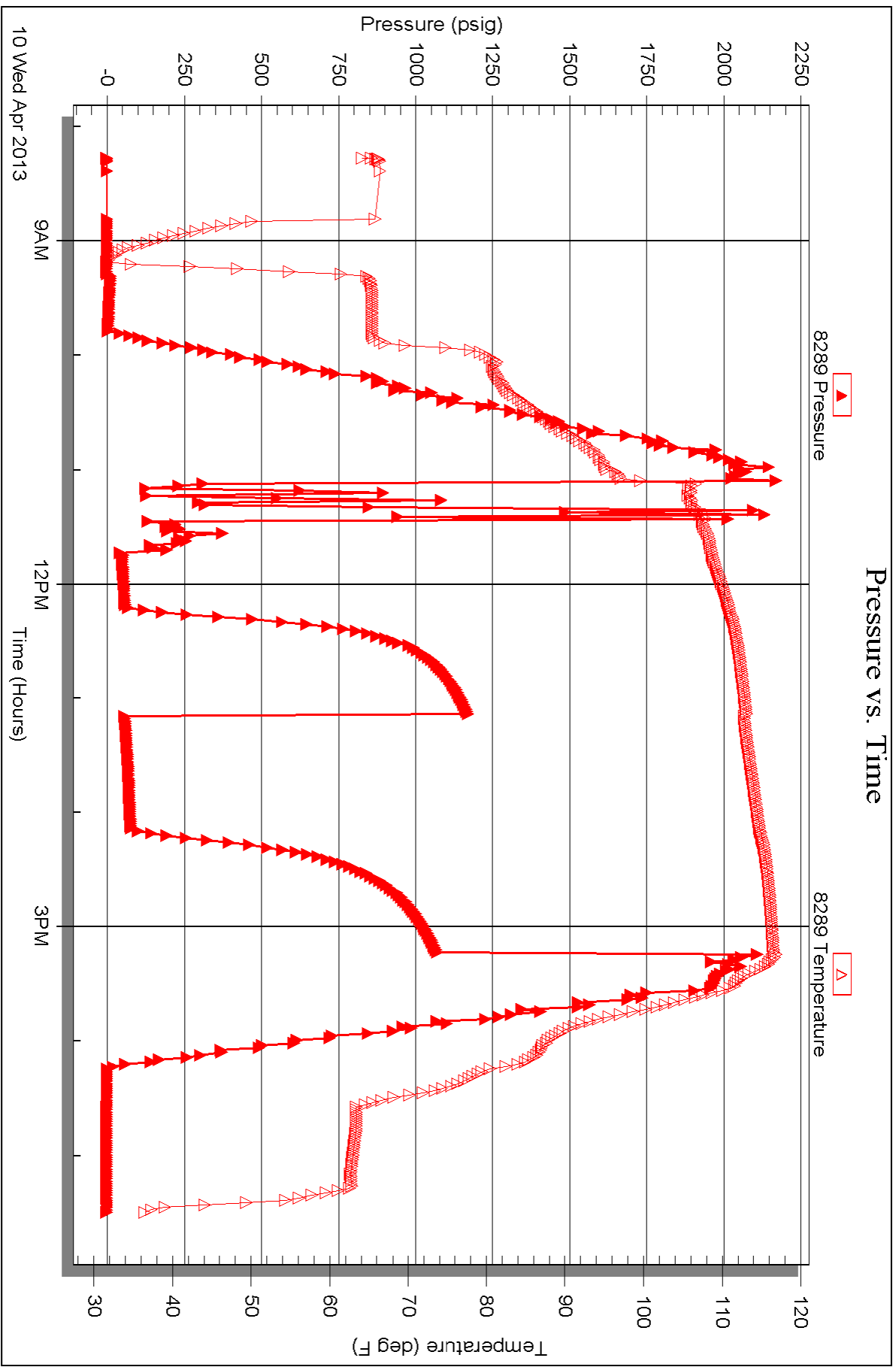


Serial #: 8289

Outside Downing Nelson Oil Company, Inc.

Scott #1-15

DST Test Number: 5





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52214

Well Name & No. Scott #1-15 Test No. 1 Date 4-7-13
 Company Downing Nelson Oil Company, Inc. Elevation 2099 KB 2091 GL
 Address PO Box 1019, Hays, KS. 67601
 Co. Rep / Geo. Marc Downing Rig Discovery #4
 Location: Sec. 15 Twp. 21 S Rge. 20 W Co. Pawnee State KS

Interval Tested 4128-4158 Zone Tested Cherokee Sand
 Anchor Length 30 Drill Pipe Run 4102 Mud Wt. 9.0
 Top Packer Depth 4123 Drill Collars Run 30 Vis 54
 Bottom Packer Depth 4128 Wt. Pipe Run 0 WL 9.2
 Total Depth 4158 Chlorides 4500 ppm System LCM 1#
 Blow Description FFP - Good Blow BOB in 7 min.
ISI - Dead
FFP - BOB on Open
FSI - Dead

| Rec | Feet of | %gas | %oil | %water | %mud |
|-----------|-----------------|------|-----------|--------|-----------|
| <u>20</u> | <u>Free Oil</u> | | | | |
| <u>30</u> | <u>Hocen</u> | | <u>40</u> | | <u>60</u> |
| | | | | | |
| | | | | | |
| | <u>840' GIP</u> | | | | |

Rec Total 50 BHT _____ Gravity 36 API RW _____ @ _____ °F Chlorides _____ ppm

| | | |
|-------------------------------------|--|--|
| (A) Initial Hydrostatic <u>2059</u> | <input checked="" type="checkbox"/> Test <u>1250</u> | T-On Location <u>19:26</u> |
| (B) First Initial Flow <u>18</u> | <input checked="" type="checkbox"/> Jars <u>250</u> | T-Started <u>20:46</u> |
| (C) First Final Flow <u>20</u> | <input checked="" type="checkbox"/> Safety Joint <u>75</u> | T-Open <u>23:02</u> |
| (D) Initial Shut-In <u>1393</u> | <input type="checkbox"/> Circ Sub _____ | T-Pulled <u>1:32</u> |
| (E) Second Initial Flow <u>15</u> | <input type="checkbox"/> Hourly Standby _____ | T-Out <u>3:28</u> |
| (F) Second Final Flow <u>29</u> | <input checked="" type="checkbox"/> Mileage <u>116 FT</u> 179.80 | Comments _____ |
| (G) Final Shut-In <u>1383</u> | <input type="checkbox"/> Sampler _____ | |
| (H) Final Hydrostatic <u>2056</u> | <input type="checkbox"/> Straddle _____ | <input type="checkbox"/> Ruined Shale Packer _____ |
| | <input type="checkbox"/> Shale Packer _____ | <input type="checkbox"/> Ruined Packer _____ |
| Initial Open <u>30</u> | <input 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>1754.80</u> |
| Final Shut-In <u>45</u> | <input type="checkbox"/> Accessibility _____ | MP/DST Disc't _____ |
| | Sub Total <u>1754.80</u> | |

Approved By _____ Our Representative Jane McJannet 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.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52215

Well Name & No. Scott # 1-15 Test No. 2 Date 4-8-13
 Company Downing Nelson Oil Company, Inc Elevation 2099 KB 2091 GL
 Address PO Box 1019, Hays, KS. 67601
 Co. Rep / Geo. Marc Downing Rig Discovery # 4
 Location: Sec. 15 Twp. 21s Rge. 20w Co. Pawnee State KS

Interval Tested 4171-4210 Zone Tested Mississippi
 Anchor Length 39' Drill Pipe Run _____ Mud Wt. 8.9
 Top Packer Depth 4166 Drill Collars Run 30 Vis 54
 Bottom Packer Depth 4171 Wt. Pipe Run 0 WL 9.2
 Total Depth 4210 Chlorides 6500 ppm System LCM 1/2 #
 Blow Description IFF- Strong, BOB in 30 sec.
ISI- Blowback Built to 3"
FFP- BOB on Open, Gas to surface at shut in.
FSI- Dead

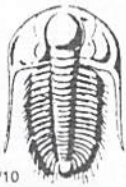
| Rec | Feet of | %gas | %oil | %water | %mud |
|-----------|---------------------|------|------|--------|------|
| <u>31</u> | <u>Drilling Mud</u> | | | | |
| ____ | Feet of _____ | %gas | %oil | %water | %mud |
| ____ | Feet of _____ | %gas | %oil | %water | %mud |
| ____ | Feet of _____ | %gas | %oil | %water | %mud |
| ____ | Feet of _____ | %gas | %oil | %water | %mud |

Rec Total 31 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

| | | |
|-------------------------------------|--|--|
| (A) Initial Hydrostatic <u>2117</u> | <input checked="" type="checkbox"/> Test <u>1250</u> | T-On Location <u>12:28</u> |
| (B) First Initial Flow <u>22</u> | <input checked="" type="checkbox"/> Jars <u>250</u> | T-Started <u>12:47</u> |
| (C) First Final Flow <u>21</u> | <input checked="" type="checkbox"/> Safety Joint <u>75</u> | T-Open <u>14:49</u> |
| (D) Initial Shut-In <u>680</u> | <input type="checkbox"/> Circ Sub _____ | T-Pulled <u>18:04</u> |
| (E) Second Initial Flow <u>23</u> | <input type="checkbox"/> Hourly Standby _____ | T-Out <u>20:45</u> |
| (F) Second Final Flow <u>21</u> | <input checked="" type="checkbox"/> Mileage <u>179.80</u> | Comments _____ |
| (G) Final Shut-In <u>1228</u> | <input type="checkbox"/> Sampler _____ | |
| (H) Final Hydrostatic <u>2007</u> | <input type="checkbox"/> Straddle _____ | <input type="checkbox"/> Ruined Shale Packer _____ |
| Initial Open <u>15</u> | <input type="checkbox"/> Shale Packer _____ | <input type="checkbox"/> Ruined Packer _____ |
| Initial Shut-In <u>45</u> | <input type="checkbox"/> Extra Packer _____ | <input type="checkbox"/> Extra Copies _____ |
| Final Flow <u>NO 45</u> | <input type="checkbox"/> Extra Recorder _____ | Sub Total <u>0</u> |
| Final Shut-In <u>90</u> | <input type="checkbox"/> Day Standby _____ | Total <u>1754.80</u> |
| | <input type="checkbox"/> Accessibility _____ | MP/DST Disc't _____ |
| | Sub Total <u>1754.80</u> | |

Approved By _____ Our Representative Jason McFarmer Thank you

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52216

Well Name & No. Scott # 1-15 Test No. 3 Date 4-9-13
 Company Downing Nelson Oil Company, Inc. Elevation 2099 KB 2091 GL
 Address PO Box 1019, Hays, Ks. 67601
 Co. Rep / Geo. Marc Downing Rig Discovery #4
 Location: Sec. 15 Twp. 21s Rge. 20w Co. Pawnee State Ks

Interval Tested 4210 - 4226 Zone Tested Mississippi
 Anchor Length 16 Drill Pipe Run 4164 Mud Wt. 8.9
 Top Packer Depth 4205 Drill Collars Run 30 Vis 59
 Bottom Packer Depth 4210 Wt. Pipe Run 0 WL 9.2
 Total Depth 4226 Chlorides 6500 ppm System LCM 1/2"
 Blow Description IFP - Strong BOB in 1 min
ISI - Dead
FFP BOB on Open, Gas to Surface in 35 min.
FSI - Dead

| Rec | Feet of | %gas | %oil | %water | %mud |
|------------|-----------------|-----------|-----------|-----------|------|
| <u>5</u> | <u>Free Oil</u> | | | | |
| <u>125</u> | <u>GOCM</u> | <u>20</u> | <u>20</u> | <u>60</u> | |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |

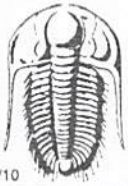
Rec Total 130 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2119 Test 1250 T-On Location 2:37
 (B) First Initial Flow 60 Jars 250 T-Started 3:00
 (C) First Final Flow 36 Safety Joint 75 T-Open 5:24
 (D) Initial Shut-In 1279 Circ Sub _____ T-Pulled 8:39
 (E) Second Initial Flow 43 Hourly Standby _____ T-Out 11:10
 (F) Second Final Flow 57 Mileage 179.80 Comments _____
 (G) Final Shut-In 1243 Sampler _____
 (H) Final Hydrostatic 2004 Straddle _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____

Initial Open 15 Shale Packer _____
 Initial Shut-In 45 Extra Packer _____
 Final Flow 45 Extra Recorder _____
 Final Shut-In 90 Day Standby _____
 Accessibility _____

Sub Total 1754.80 Sub Total _____
 Total 1754.80 MP/DST Disc't _____

Approved By _____ Our Representative Jason McLean 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.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52217

Well Name & No. Scott #1-15 Test No. 4 Date 4-9-13
 Company Downing Nelson Oil Company, Inc. Elevation 2099 KB 2091 GL
 Address PO Box 1019, Hays, KS. 67601
 Co. Rep / Geo. Al Downing Rig Discovery #4
 Location: Sec. 15 Twp. 21s Rge. 20w Co. Pawnee State Ks

Interval Tested 4220-4232 Zone Tested Mississippi
 Anchor Length 12 Drill Pipe Run 4194 Mud Wt. 9.3
 Top Packer Depth 4215 Drill Collars Run 30 Vis 52
 Bottom Packer Depth 4220 Wt. Pipe Run 0 WL 9.2
 Total Depth 4232 Chlorides 6,000 ppm System LCM 2nd
 Blow Description IFP - Strong, BOB in 30 seconds
ISI - Blowback Built to 2 3/4"
FIP - BOB on open, Gas to surface in 30 min.
FSI - Blowback Built to 1 1/2"

| Rec | Feet of | %gas | %oil | %water | %mud |
|------------|-----------------|-----------|-----------|--------|-----------|
| <u>30</u> | <u>Free Oil</u> | | | | |
| <u>120</u> | <u>60cm</u> | <u>20</u> | <u>20</u> | | <u>60</u> |
| | | | | | |
| | | | | | |
| | | | | | |

Rec Total 150 BHT _____ Gravity 36 API RW _____ @ _____ °F Chlorides _____ ppm

| | | |
|-------------------------------------|--|----------------------------|
| (A) Initial Hydrostatic <u>2113</u> | <input checked="" type="checkbox"/> Test <u>1250</u> | T-On Location <u>17:36</u> |
| (B) First Initial Flow <u>44</u> | <input checked="" type="checkbox"/> Jars <u>250</u> | T-Started <u>17:45</u> |
| (C) First Final Flow <u>50</u> | <input checked="" type="checkbox"/> Safety Joint <u>75</u> | T-Open <u>20:24</u> |
| (D) Initial Shut-In <u>1196</u> | <input type="checkbox"/> Circ Sub _____ | T-Pulled <u>23:24</u> |
| (E) Second Initial Flow <u>48</u> | <input type="checkbox"/> Hourly Standby _____ | T-Out <u>1:50</u> |
| (F) Second Final Flow <u>69</u> | <input checked="" type="checkbox"/> Mileage <u>179.80</u> | Comments _____ |
| (G) Final Shut-In <u>1146</u> | <input type="checkbox"/> Sampler _____ | |
| (H) Final Hydrostatic <u>2107</u> | <input type="checkbox"/> Straddle _____ | |
| | <input type="checkbox"/> Shale Packer _____ | |
| | <input type="checkbox"/> Extra Packer _____ | |
| | <input type="checkbox"/> Extra Recorder _____ | |
| | <input type="checkbox"/> Day Standby _____ | |
| | <input type="checkbox"/> Accessibility _____ | |
| | Sub Total <u>1754.80</u> | |

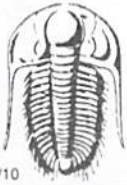
Initial Open 30
 Initial Shut-In 45
 Final Flow 45
 Final Shut-In 60

Sub Total 1754.80 MP/DST Disc't _____

Approved By _____ Our Representative Jason McJannet

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Thank You



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52218

Well Name & No. Scott # 1-15 Test No. 5 Date 4-10-13
 Company Downing Nelson Oil Company, Inc. Elevation 2099 KB 2091 GL
 Address PO Box 1019, Hays, Ks. 67601
 Co. Rep / Geo. Al Downing Rig Discovery #4
 Location: Sec. 15 Twp. 21s Rge. 20w Co. Pawnee State KS

Interval Tested 4231-4243 Zone Tested Mississippi
 Anchor Length 12' Drill Pipe Run 4194 Mud Wt. 9.3
 Top Packer Depth 4226 Drill Collars Run 30 Vis 52
 Bottom Packer Depth 4231 Wt. Pipe Run 0 WL 9.2
 Total Depth 4243 Chlorides 6,000 ppm System LCM 2#
 Blow Description IFF- Slid Tool, Plugging Action, Flush Tool, BOB in 30 min.
ISI- Blowback Built to 1/2", Died in 30 min.
FFP- BOB in 3 min. some Plugging Action
FST- Surface Blowback For 15 min.

| Rec | Feet of | %gas | %oil | %water | %mud |
|------------|-------------------------------------|------|----------|--------|-----------|
| <u>5</u> | <u>Free Oil</u> | | | | |
| <u>120</u> | <u>SOCM</u> | | <u>5</u> | | <u>95</u> |
| | | | | | |
| | <u>(Bottom Collar Full of Sand)</u> | | | | |
| | | | | | |

Rec Total 125 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

| | | |
|-------------------------------------|--|--|
| (A) Initial Hydrostatic <u>2024</u> | <input checked="" type="checkbox"/> Test <u>1250</u> | T-On Location <u>8:05</u> |
| (B) First Initial Flow <u>42</u> | <input checked="" type="checkbox"/> Jars <u>250</u> | T-Started <u>8:14</u> |
| (C) First Final Flow <u>55</u> | <input checked="" type="checkbox"/> Safety Joint <u>75</u> | T-Open <u>11:05</u> |
| (D) Initial Shut-In <u>1169</u> | <input type="checkbox"/> Circ Sub _____ | T-Pulled <u>15:05</u> |
| (E) Second Initial Flow <u>52</u> | <input type="checkbox"/> Hourly Standby _____ | T-Out <u>17:28</u> |
| (F) Second Final Flow <u>75</u> | <input checked="" type="checkbox"/> Mileage <u>179.80</u> | Comments _____ |
| (G) Final Shut-In <u>1068</u> | <input type="checkbox"/> Sampler _____ | |
| (H) Final Hydrostatic <u>2106</u> | <input type="checkbox"/> Straddle _____ | <input type="checkbox"/> Ruined Shale Packer _____ |
| | <input type="checkbox"/> Shale Packer _____ | <input type="checkbox"/> Ruined Packer _____ |
| Initial Open <u>60</u> | <input type="checkbox"/> Extra Packer _____ | <input type="checkbox"/> Extra Copies _____ |
| Initial Shut-In <u>60</u> | <input type="checkbox"/> Extra Recorder _____ | Sub Total <u>0</u> |
| Final Flow <u>60</u> | <input type="checkbox"/> Day Standby _____ | Total <u>1754.80</u> |
| Final Shut-In <u>60</u> | <input type="checkbox"/> Accessibility _____ | MP/DST Disc't _____ |
| | Sub Total <u>1754.80</u> | |

Approved By _____ Our Representative Jason M. Lomon *Thank you*

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