



**WELL COMPLETION FORM**  
**WELL HISTORY - DESCRIPTION OF WELL & LEASE**

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well       Re-Entry       Workover
- Oil       WSW       SWD       SIOW
- Gas       D&A       ENHR       SIGW
- OG       GSW       Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic       Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

- Deepening       Re-perf.       Conv. to ENHR       Conv. to SWD
- Conv. to GSW
- Plug Back: \_\_\_\_\_ Plug Back Total Depth \_\_\_\_\_
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date      Date Reached TD      Completion Date or Recompletion Date

API No. 15 - \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE       NW       SE       SW

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

**Drilling Fluid Management Plan**

(Data must be collected from the Reserve Pit)

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite: \_\_\_\_\_

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

**AFFIDAVIT**

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

**KCC Office Use ONLY**

- Letter of Confidentiality Received  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_



1073333

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

|   |   |
|---|---|
| Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No<br><i>(Attach Additional Sheets)</i><br><br>Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No<br><br>Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No<br>Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No<br>Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No<br><i>(If no, Submit Copy)</i><br><br>List All E. Logs Run: | <input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample<br><br>Name Top Datum |
|---|---|

| CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used  |                   |                           |                   |               |                |              |                            |
|---|-------------------|---------------------------|-------------------|---------------|----------------|--------------|----------------------------|
| Report all strings set-conductor, surface, intermediate, production, etc. |                   |                           |                   |               |                |              |                            |
| Purpose of String   | Size Hole Drilled | Size Casing Set (In O.D.) | Weight Lbs. / Ft. | Setting Depth | Type of Cement | # Sacks Used | Type and Percent Additives |
|   |                   |                           |                   |               |                |              |                            |
|   |                   |                           |                   |               |                |              |                            |
|   |                   |                           |                   |               |                |              |                            |

| ADDITIONAL CEMENTING / SQUEEZE RECORD  |                  |                |              |                            |
|--|------------------|----------------|--------------|----------------------------|
| Purpose:   | Depth Top Bottom | Type of Cement | # Sacks Used | Type and Percent Additives |
| _____ Perforate<br>_____ Protect Casing<br>_____ Plug Back TD<br>_____ Plug Off Zone |                  |                |              |                            |
|  |                  |                |              |                            |

| Shots Per Foot | PERFORATION RECORD - Bridge Plugs Set/Type<br>Specify Footage of Each Interval Perforated | Acid, Fracture, Shot, Cement Squeeze Record<br><i>(Amount and Kind of Material Used)</i> | Depth |
|----------------|---|--|-------|
|                |   |  |       |
|                |   |  |       |
|                |   |  |       |
|                |   |  |       |
|                |   |  |       |

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

Date of First, Resumed Production, SWD or ENHR. \_\_\_\_\_ Producing Method:  Flowing  Pumping  Gas Lift  Other *(Explain)* \_\_\_\_\_

|                                   |           |         |             |               |         |
|-----------------------------------|-----------|---------|-------------|---------------|---------|
| Estimated Production Per 24 Hours | Oil Bbls. | Gas Mcf | Water Bbls. | Gas-Oil Ratio | Gravity |
|-----------------------------------|-----------|---------|-------------|---------------|---------|

|   |  |  |
|---|--|--|
| DISPOSITION OF GAS:<br><input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease<br><i>(If vented, Submit ACO-18.)</i> | METHOD OF COMPLETION:<br><input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled<br><i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____<br><input type="checkbox"/> Other <i>(Specify)</i> _____ | PRODUCTION INTERVAL:<br>_____<br>_____ |
|---|--|--|

|           |                           |
|-----------|---------------------------|
| Form      | ACO1 - Well Completion    |
| Operator  | Downing-Nelson Oil Co Inc |
| Well Name | Robert Pfeifer Trust 1-12 |
| Doc ID    | 1073333                   |

Tops

| Name           | Top   | Datum |
|----------------|-------|-------|
| Top Anhydrite  | 1483' | +729  |
| Base Anhydrite | 1525' | +687  |
| Topeka         | 3218' | -1006 |
| Heebner        | 3466' | -1254 |
| Toronto        | 3485' | -1273 |
| LKC            | 3513' | -1301 |
| BKC            | 3749' | -1537 |
| Arbuckle       | 3862' | -1650 |



## DRILL STEM TEST REPORT

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

PO Box 1019  
Hays KS 67601

ATTN: Ron Nelson

### **Pfeifer #1-12**

#### **12-14s-19w Ellis,KS**

Start Date: 2012.01.24 @ 09:56:16

End Date: 2012.01.24 @ 15:51:16

Job Ticket #: 46383                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.02.01 @ 11:39:01



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Downing-Nelson Oil Co Inc

**12-14s-19w Ellis, KS**

PO Box 1019  
Hays KS 67601

**Pfeifer #1-12**

Job Ticket: 46383

**DST#: 1**

ATTN: Ron Nelson

Test Start: 2012.01.24 @ 09:56:16

## GENERAL INFORMATION:

Formation: **LKC-C & D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:51:16

Time Test Ended: 15:51:16

Test Type: Conventional Bottom Hole (Initial)

Tester: Jeff Brown

Unit No: 150

**Interval: 3517.00 ft (KB) To 3572.00 ft (KB) (TVD)**

Reference Elevations: 2211.00 ft (KB)

Total Depth: 3572.00 ft (KB) (TVD)

2203.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

**Serial #: 8321**

**Inside**

Press @ Run Depth: 85.14 psig @ 3554.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.01.24

End Date:

2012.01.24

Last Calib.:

2012.01.24

Start Time:

09:56:17

End Time:

15:51:16

Time On Btm:

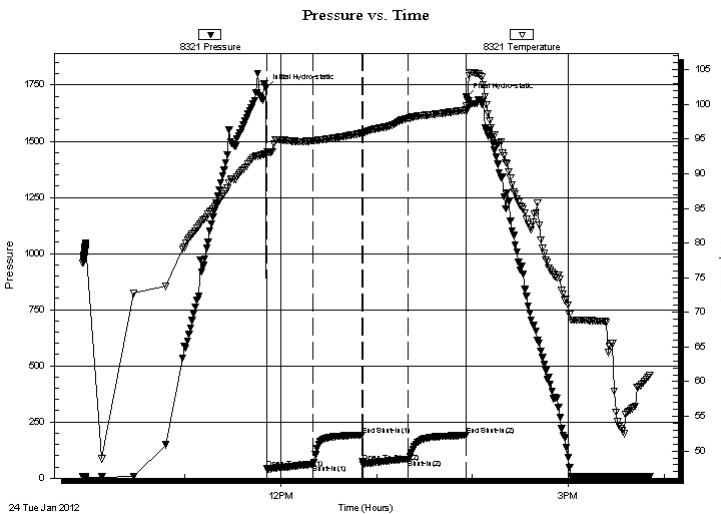
2012.01.24 @ 11:50:46

Time Off Btm:

2012.01.24 @ 13:56:16

**TEST COMMENT:** IFP-Strong blow BOB in 2 1/2 min  
ISI-Dead no blow back  
FFP-Strong blow BOB in 4 min  
FSI-Weak surface blow back

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1736.10         | 92.86        | Initial Hydro-static |
| 1           | 44.57           | 92.87        | Open To Flow (1)     |
| 30          | 62.67           | 94.75        | Shut-In(1)           |
| 60          | 192.28          | 95.85        | End Shut-In(1)       |
| 61          | 71.95           | 95.81        | Open To Flow (2)     |
| 89          | 85.14           | 97.97        | Shut-In(2)           |
| 125         | 190.32          | 99.19        | End Shut-In(2)       |
| 126         | 1696.05         | 99.87        | Final Hydro-static   |

## Recovery

| Length (ft) | Description               | Volume (bbl) |
|-------------|---------------------------|--------------|
| 31.00       | GOCWM 35%G 20%O 15%W 30%M | 0.43         |
| 94.00       | GOCM 10%G 20%O 70%M       | 1.32         |
| 0.00        | 1858-GIP                  | 0.00         |
|             |                           |              |
|             |                           |              |

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Downing-Nelson Oil Co Inc

**12-14s-19w Ellis, KS**

PO Box 1019  
Hays KS 67601

**Pfeifer #1-12**

Job Ticket: 46383

**DST#: 1**

ATTN: Ron Nelson

Test Start: 2012.01.24 @ 09:56:16

## GENERAL INFORMATION:

Formation: **LKC-C & D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:51:16

Time Test Ended: 15:51:16

Test Type: Conventional Bottom Hole (Initial)

Tester: Jeff Brown

Unit No: 150

**Interval: 3517.00 ft (KB) To 3572.00 ft (KB) (TVD)**

Reference Elevations: 2211.00 ft (KB)

Total Depth: 3572.00 ft (KB) (TVD)

2203.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

**Serial #: 8737 Outside**

Press @ Run Depth: psig @ 3554.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.01.24

End Date:

2012.01.24

Last Calib.:

2012.01.24

Start Time: 09:56:24

End Time:

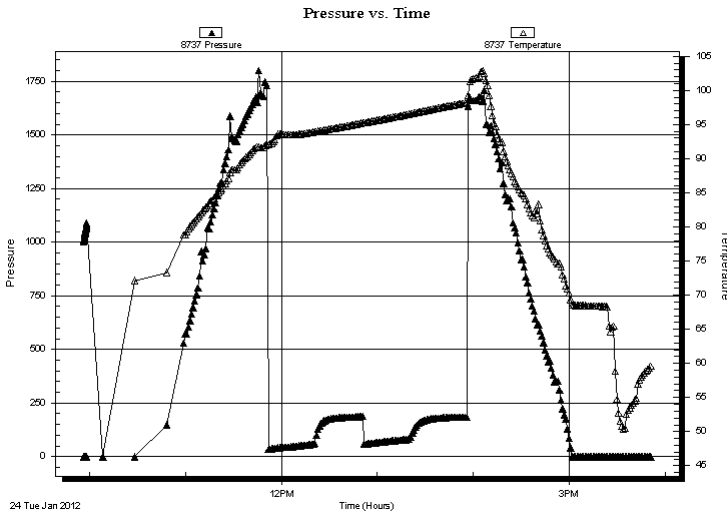
15:51:23

Time On Btm:

Time Off Btm:

**TEST COMMENT:** IFP-Strong blow BOB in 2 1/2 min  
ISI-Dead no blow back  
FFP-Strong blow BOB in 4 min  
FSI-Weak surface blow back

## PRESSURE SUMMARY



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

## Recovery

## Gas Rates

| Length (ft) | Description               | Volume (bbl) |
|-------------|---------------------------|--------------|
| 31.00       | GOCWM 35%G 20%O 15%W 30%M | 0.43         |
| 94.00       | GOCM 10%G 20%O 70%M       | 1.32         |
| 0.00        | 1858-GIP                  | 0.00         |
|             |                           |              |
|             |                           |              |

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Downing-Nelson Oil Co Inc

**12-14s-19w Ellis,KS**

PO Box 1019  
Hays KS 67601

**Pfeifer #1-12**

Job Ticket: 46383

**DST#: 1**

ATTN: Ron Nelson

Test Start: 2012.01.24 @ 09:56:16

## Tool Information

|                           |                    |                       |                                |                                    |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe:               | Length: 3517.00 ft | Diameter: 3.80 inches | Volume: 49.33 bbl              | Tool Weight: 2000.00 lb            |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 2.25 inches | Volume: 0.00 bbl               | Weight set on Packer: 20000.00 lb  |
| Drill Collar:             | Length: 0.00 ft    | Diameter: 2.70 inches | Volume: 0.00 bbl               | Weight to Pull Loose: 62000.00 lb  |
|                           |                    |                       | <u>Total Volume: 49.33 bbl</u> | Tool Chased 0.00 ft                |
| Drill Pipe Above KB:      | 20.00 ft           |                       |                                | String Weight: Initial 51000.00 lb |
| Depth to Top Packer:      | 3517.00 ft         |                       |                                | Final 54000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                       |                                |                                    |
| Interval between Packers: | 55.00 ft           |                       |                                |                                    |
| Tool Length:              | 75.00 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        |            |          | 3498.00    |                               |
| Shut In Tool     | 5.00        |            |          | 3503.00    |                               |
| Hydraulic tool   | 5.00        |            |          | 3508.00    |                               |
| Packer           | 4.00        |            |          | 3512.00    | 20.00 Bottom Of Top Packer    |
| Packer           | 5.00        |            |          | 3517.00    |                               |
| Stubb            | 1.00        |            |          | 3518.00    |                               |
| Perforations     | 3.00        |            |          | 3521.00    |                               |
| Change Over Sub  | 1.00        |            |          | 3522.00    |                               |
| Drill Pipe       | 31.00       |            |          | 3553.00    |                               |
| Change Over Sub  | 1.00        |            |          | 3554.00    |                               |
| Recorder         | 0.00        | 8321       | Inside   | 3554.00    |                               |
| Recorder         | 0.00        | 8737       | Outside  | 3554.00    |                               |
| Perforations     | 15.00       |            |          | 3569.00    |                               |
| Bullnose         | 3.00        |            |          | 3572.00    | 55.00 Bottom Packers & Anchor |

**Total Tool Length: 75.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Downing-Nelson Oil Co Inc

**12-14s-19w Ellis,KS**

PO Box 1019  
Hays KS 67601

**Pfeifer #1-12**

Job Ticket: 46383

**DST#: 1**

ATTN: Ron Nelson

Test Start: 2012.01.24 @ 09:56:16

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 8.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 64.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.58 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

| Length<br>ft | Description               | Volume<br>bbbl |
|--------------|---------------------------|----------------|
| 31.00        | GOCWM 35%G 20%O 15%W 30%M | 0.435          |
| 94.00        | GOCM 10%G 20%O 70%M       | 1.319          |
| 0.00         | 1858-GIP                  | 0.000          |

Total Length: 125.00 ft

Total Volume: 1.754 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



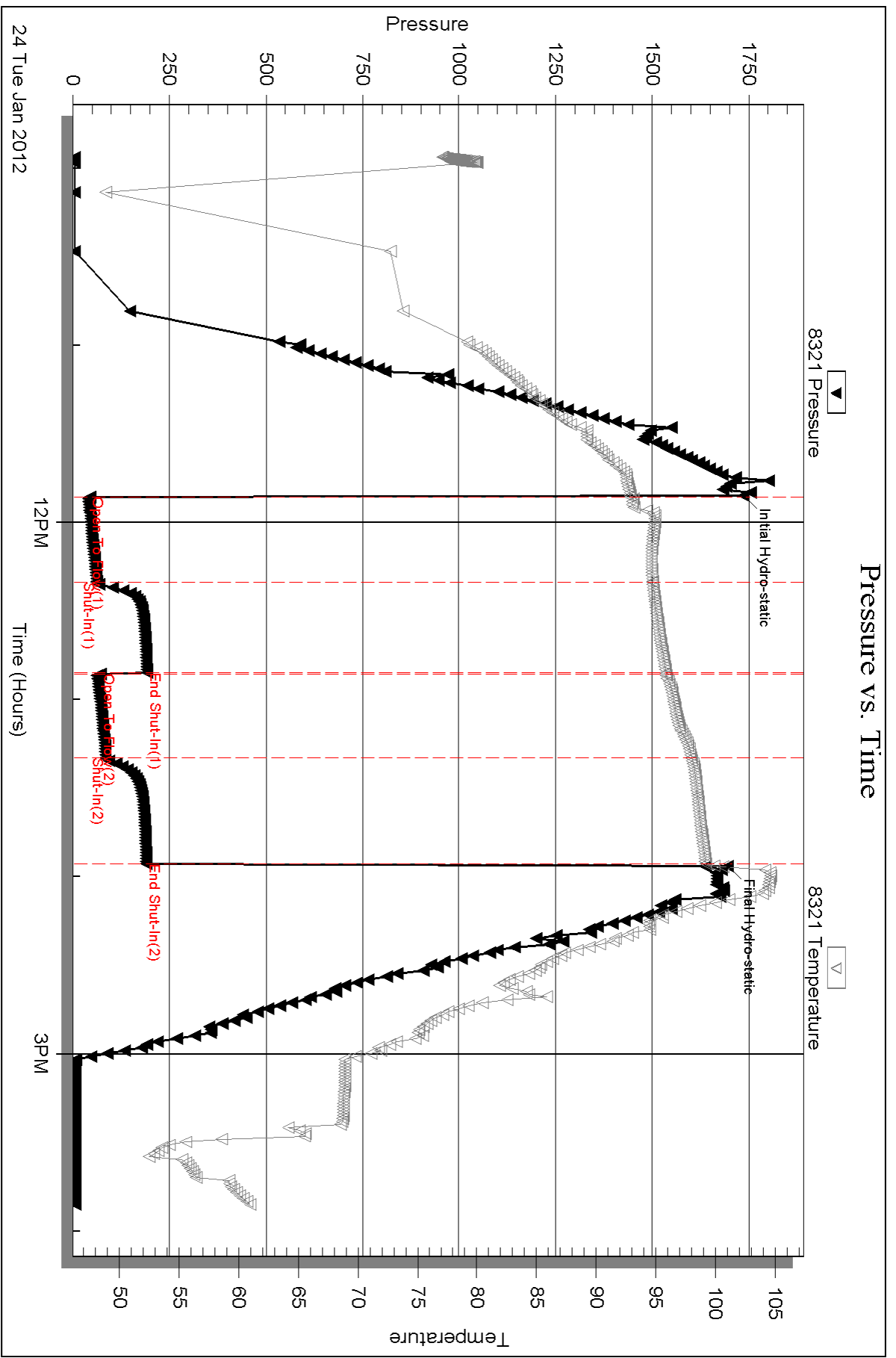
Serial #: 8321

Inside

Dowling-Nelson Oil Co Inc

Pfeifer #1-12

DST Test Number: 1



Triobite Testing, Inc

Ref. No.: 46383

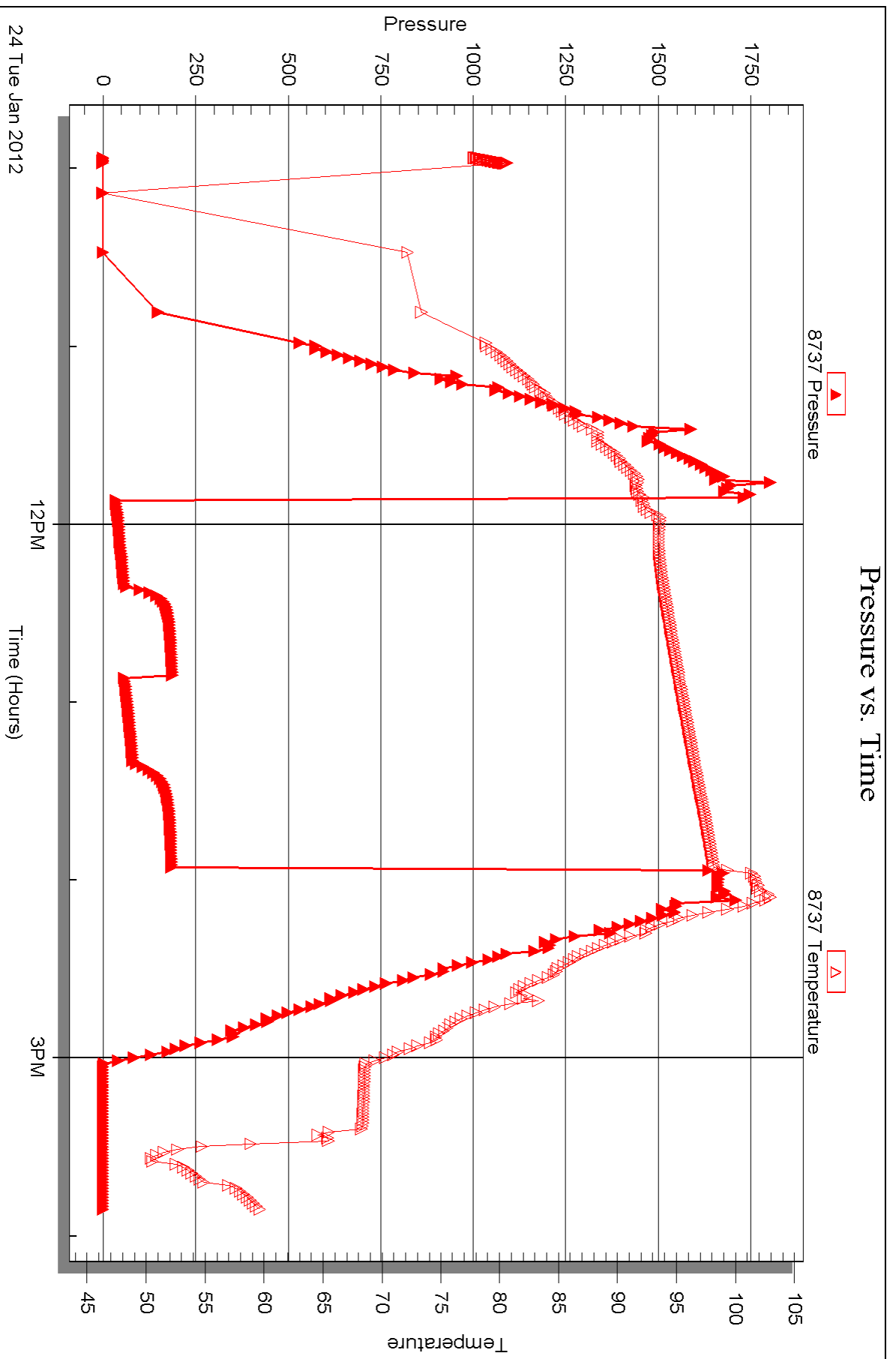
Printed: 2012.02.01 @ 11:39:03

Serial #: 8737

Outside Dow nung-Nelson Oil Co Inc

Pfeifer #1-12

DST Test Number: 1



Triobite Testing, Inc

Ref. No.: 46383

Printed: 2012.02.01 @ 11:39:03



## DRILL STEM TEST REPORT

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

PO Box 1019  
Hays KS 67601

ATTN: Ron Nelson

### **Pfeifer #1-12**

#### **12-14s-19w Ellis,KS**

Start Date: 2012.01.25 @ 05:03:14

End Date: 2012.01.25 @ 12:41:44

Job Ticket #: 46384                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.02.01 @ 11:38:14



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Downing-Nelson Oil Co Inc

**12-14s-19w Ellis, KS**

PO Box 1019  
Hays KS 67601

**Pfeifer #1-12**

Job Ticket: 46384

**DST#: 2**

ATTN: Ron Nelson

Test Start: 2012.01.25 @ 05:03:14

## GENERAL INFORMATION:

Formation: **LKC- H & I**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:38:14

Time Test Ended: 12:41:44

Test Type: Conventional Bottom Hole (Reset)

Tester: Jeff Brown

Unit No: 150

**Interval: 3623.00 ft (KB) To 3676.00 ft (KB) (TVD)**

Reference Elevations: 2211.00 ft (KB)

Total Depth: 3676.00 ft (KB) (TVD)

2203.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

**Serial #: 8321**

**Inside**

Press @ Run Depth: 42.22 psig @ 3659.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.01.25

End Date:

2012.01.25

Last Calib.:

2012.01.25

Start Time: 05:03:15

End Time:

12:40:44

Time On Btm:

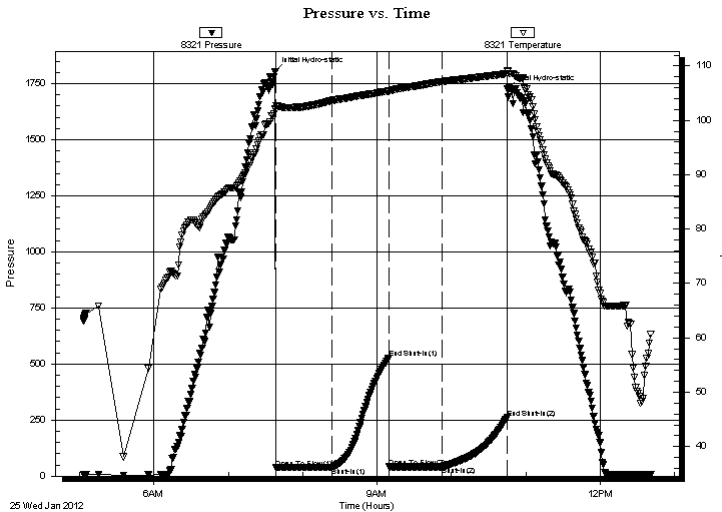
2012.01.25 @ 07:37:44

Time Off Btm:

2012.01.25 @ 10:45:14

**TEST COMMENT:** IFP-Weak blow built to 2 in  
ISI-Dead no blow back  
FFP-Weak blow built to 1 in  
FSI-Dead no blow back

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1805.02         | 102.09       | Initial Hydro-static |
| 1           | 37.36           | 101.88       | Open To Flow (1)     |
| 46          | 40.57           | 103.61       | Shut-In(1)           |
| 92          | 525.19          | 105.40       | End Shut-In(1)       |
| 92          | 41.42           | 105.32       | Open To Flow (2)     |
| 135         | 42.22           | 107.16       | Shut-In(2)           |
| 187         | 260.28          | 108.59       | End Shut-In(2)       |
| 188         | 1725.40         | 109.20       | Final Hydro-static   |

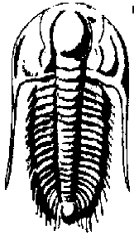
## Recovery

| Length (ft) | Description    | Volume (bbl) |
|-------------|----------------|--------------|
| 25.00       | SOCM 5% O95% M | 0.35         |
|             |                |              |
|             |                |              |
|             |                |              |
|             |                |              |

## Gas Rates

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

\* Recovery from multiple tests



# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

Downing-Nelson Oil Co Inc

**12-14s-19w Ellis, KS**

PO Box 1019  
Hays KS 67601

**Pfeifer #1-12**

Job Ticket: 46384

**DST#: 2**

ATTN: Ron Nelson

Test Start: 2012.01.25 @ 05:03:14

### GENERAL INFORMATION:

Formation: **LKC- H & I**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:38:14

Time Test Ended: 12:41:44

Test Type: Conventional Bottom Hole (Reset)

Tester: Jeff Brown

Unit No: 150

**Interval: 3623.00 ft (KB) To 3676.00 ft (KB) (TVD)**

Reference Elevations: 2211.00 ft (KB)

Total Depth: 3676.00 ft (KB) (TVD)

2203.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

**Serial #: 8737 Outside**

Press @RunDepth: psig @ 3659.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.01.25 End Date: 2012.01.25

Last Calib.: 2012.01.25

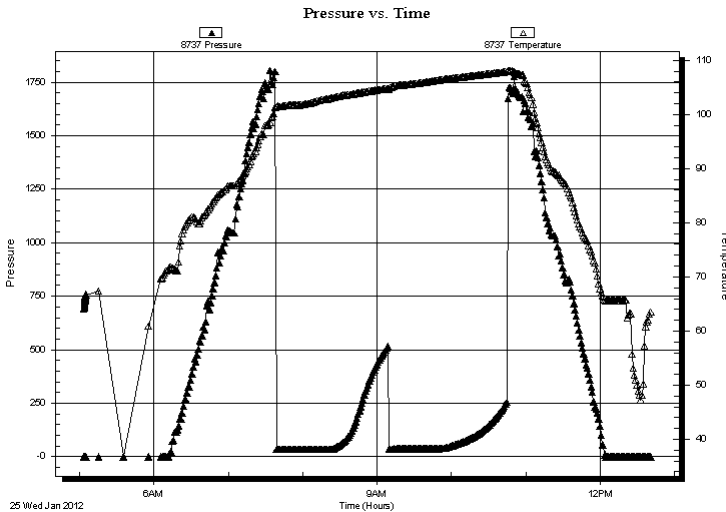
Start Time: 05:03:15 End Time: 12:40:44

Time On Btm

Time Off Btm

**TEST COMMENT:** IFP-Weak blow built to 2 in  
ISI-Dead no blow back  
FFP-Weak blow built to 1 in  
FSI-Dead no blow back

### PRESSURE SUMMARY



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

### Recovery

| Length (ft) | Description     | Volume (bbl) |
|-------------|-----------------|--------------|
| 25.00       | SOCM 5% O 95% M | 0.35         |
|             |                 |              |
|             |                 |              |
|             |                 |              |
|             |                 |              |
|             |                 |              |

### 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 Co Inc

**12-14s-19w Ellis,KS**

PO Box 1019  
Hays KS 67601

**Pfeifer #1-12**

Job Ticket: 46384

**DST#: 2**

ATTN: Ron Nelson

Test Start: 2012.01.25 @ 05:03:14

## Tool Information

|                           |                    |                       |                                |                                    |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe:               | Length: 3612.00 ft | Diameter: 3.80 inches | Volume: 50.67 bbl              | Tool Weight: 2000.00 lb            |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 2.25 inches | Volume: 0.00 bbl               | Weight set on Packer: 20000.00 lb  |
| Drill Collar:             | Length: 0.00 ft    | Diameter: 2.70 inches | Volume: 0.00 bbl               | Weight to Pull Loose: 64000.00 lb  |
|                           |                    |                       | <u>Total Volume: 50.67 bbl</u> | Tool Chased 0.00 ft                |
| Drill Pipe Above KB:      | 9.00 ft            |                       |                                | String Weight: Initial 54000.00 lb |
| Depth to Top Packer:      | 3623.00 ft         |                       |                                | Final 55000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                       |                                |                                    |
| Interval between Packers: | 53.00 ft           |                       |                                |                                    |
| Tool Length:              | 73.00 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        |            |          | 3604.00    |                               |
| Shut In Tool     | 5.00        |            |          | 3609.00    |                               |
| Hydraulic tool   | 5.00        |            |          | 3614.00    |                               |
| Packer           | 4.00        |            |          | 3618.00    | 20.00 Bottom Of Top Packer    |
| Packer           | 5.00        |            |          | 3623.00    |                               |
| Stubb            | 1.00        |            |          | 3624.00    |                               |
| Perforations     | 2.00        |            |          | 3626.00    |                               |
| Change Over Sub  | 1.00        |            |          | 3627.00    |                               |
| Drill Pipe       | 31.00       |            |          | 3658.00    |                               |
| Change Over Sub  | 1.00        |            |          | 3659.00    |                               |
| Recorder         | 0.00        | 8321       | Inside   | 3659.00    |                               |
| Recorder         | 0.00        | 8737       | Outside  | 3659.00    |                               |
| Perforations     | 14.00       |            |          | 3673.00    |                               |
| Bullnose         | 3.00        |            |          | 3676.00    | 53.00 Bottom Packers & Anchor |

**Total Tool Length: 73.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Downing-Nelson Oil Co Inc

**12-14s-19w Ellis,KS**

PO Box 1019  
Hays KS 67601

**Pfeifer #1-12**

Job Ticket: 46384

**DST#: 2**

ATTN: Ron Nelson

Test Start: 2012.01.25 @ 05:03:14

## 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: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

| Length<br>ft | Description | Volume<br>bbl |
|--------------|-------------|---------------|
| 25.00        | SOCM5%O95%M | 0.351         |

Total Length: 25.00 ft      Total Volume: 0.351 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

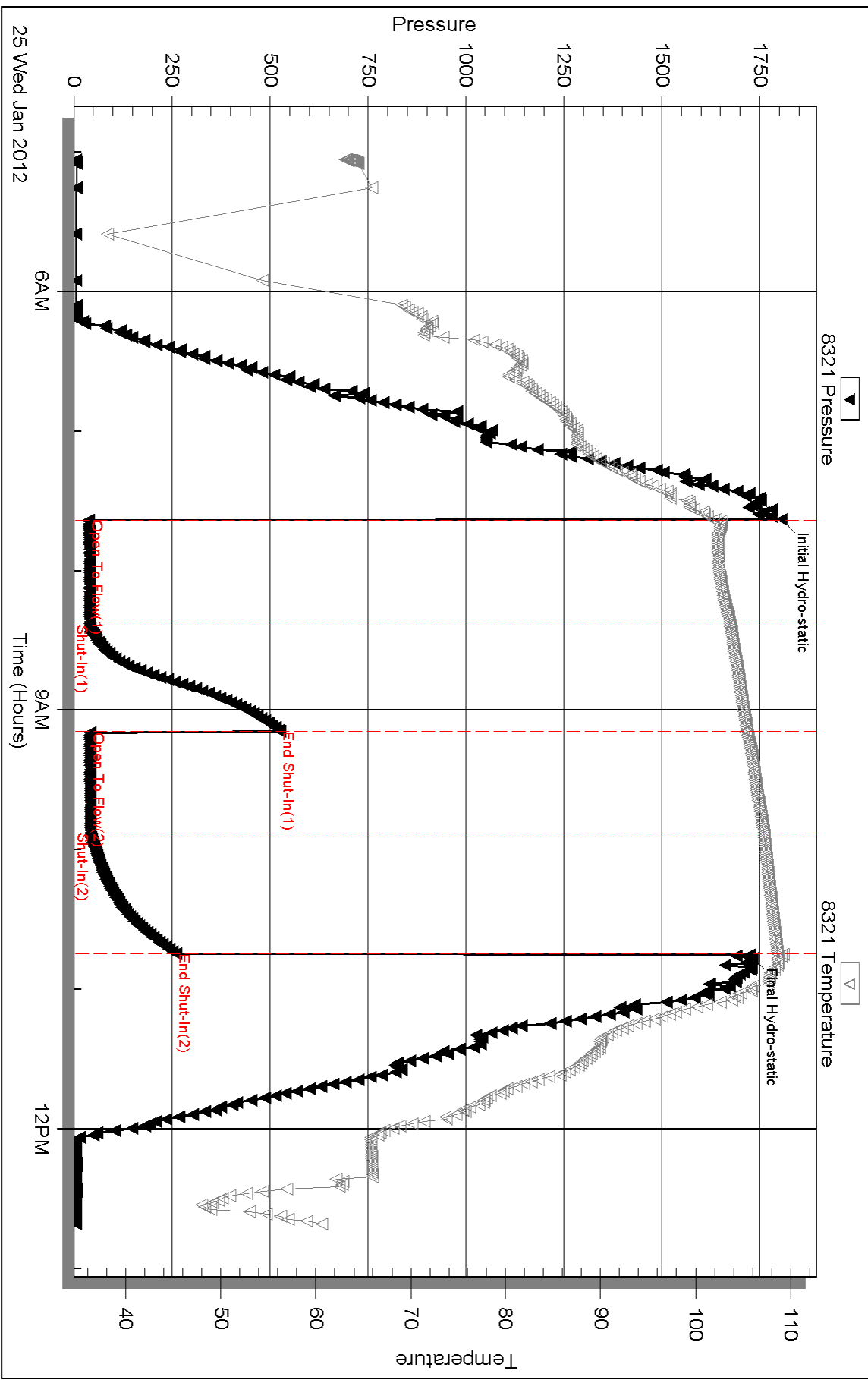
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

# Pressure vs. Time



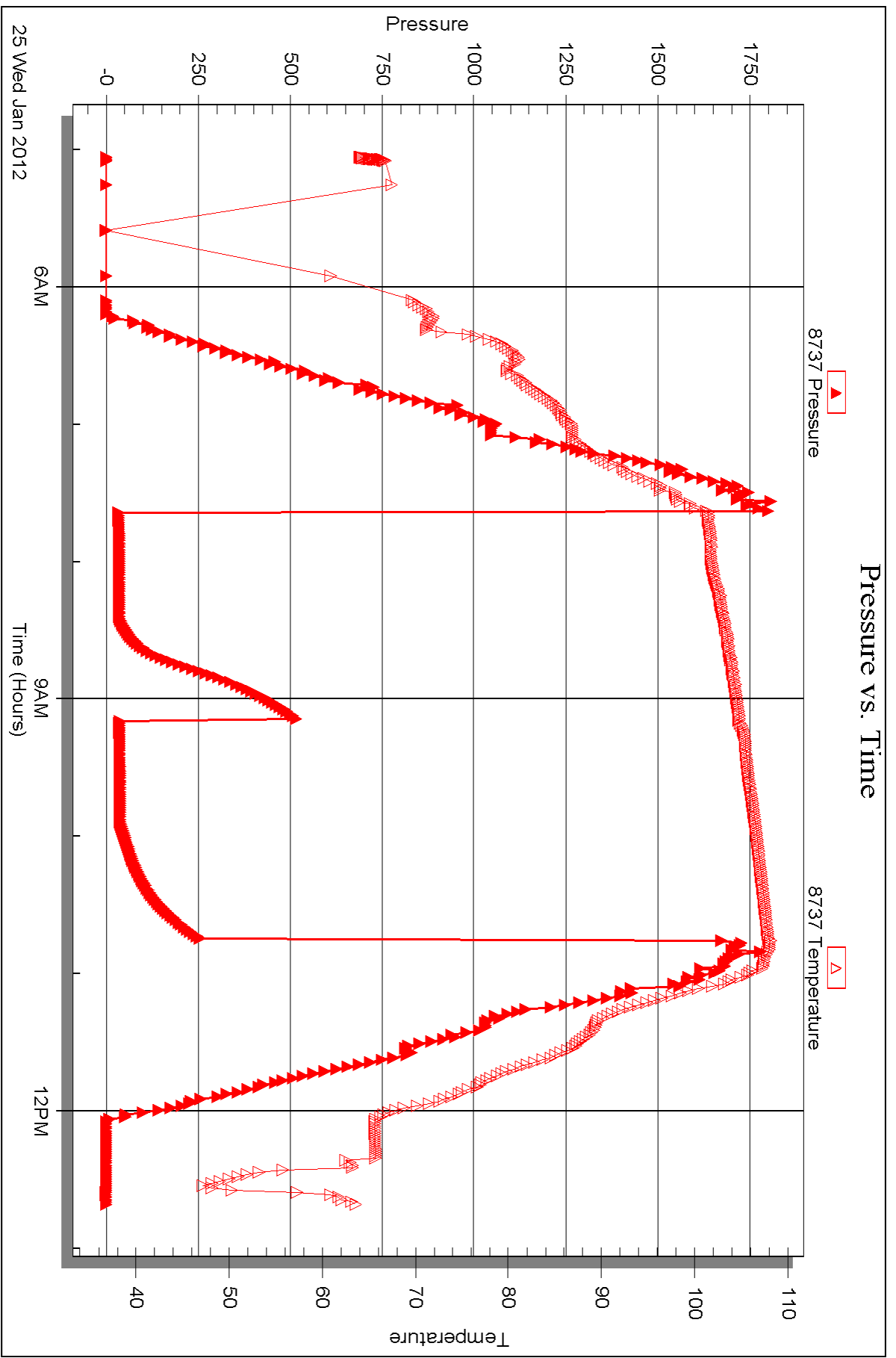


Serial #: 8737

Outside Dow nung-Nelson Oil Co Inc

Pfeifer #1-12

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 46384

Printed: 2012.02.01 @ 11:38:18



## DRILL STEM TEST REPORT

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

PO Box 1019  
Hays KS 67601

ATTN: Ron Nelson

### **Pfeifer #1-12**

#### **12-14s-19w Ellis,KS**

Start Date: 2012.01.25 @ 18:48:01

End Date: 2012.01.26 @ 01:50:01

Job Ticket #: 46385                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.02.01 @ 11:36:59



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Downing-Nelson Oil Co Inc

**12-14s-19w Ellis, KS**

PO Box 1019  
Hays KS 67601

**Pfeifer #1-12**

Job Ticket: 46385

**DST#: 3**

ATTN: Ron Nelson

Test Start: 2012.01.25 @ 18:48:01

## GENERAL INFORMATION:

Formation: **LKC-J**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 20:37:01  
 Time Test Ended: 01:50:01  
 Interval: **3680.00 ft (KB) To 3696.00 ft (KB) (TVD)**  
 Total Depth: 3696.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Jeff Brown  
 Unit No: 150  
 Reference Elevations: 2211.00 ft (KB)  
 2203.00 ft (CF)  
 KB to GR/CF: 8.00 ft

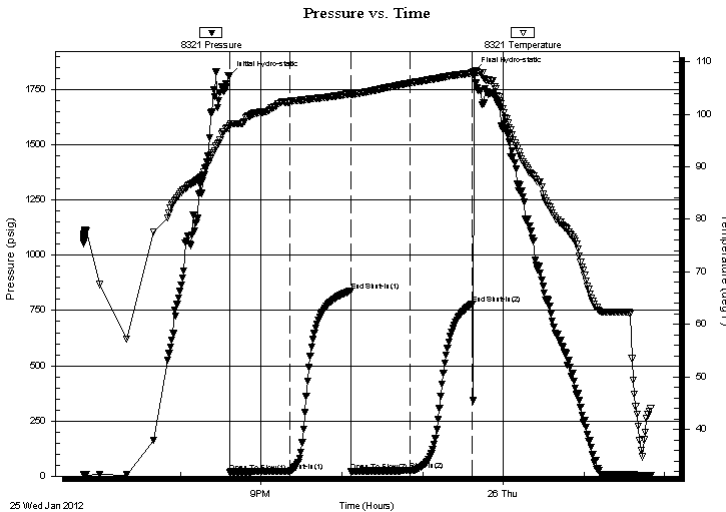
## Serial #: 8321

Inside

Press @ Run Depth: 24.72 psig @ 3683.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.01.25 End Date: 2012.01.26 Last Calib.: 2012.01.26  
 Start Time: 18:48:02 End Time: 01:50:01 Time On Btm: 2012.01.25 @ 20:36:31  
 Time Off Btm: 2012.01.25 @ 23:38:01

TEST COMMENT: IFP-Weak blow built to 2 3/4 in  
 ISI-Dead no blow back  
 FFP-Weak blow built to 1 in  
 FSI-Dead no blow back

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1814.38         | 97.78        | Initial Hydro-static |
| 1           | 18.40           | 97.80        | Open To Flow (1)     |
| 45          | 21.89           | 102.34       | Shut-In(1)           |
| 90          | 838.65          | 103.92       | End Shut-In(1)       |
| 91          | 22.29           | 103.76       | Open To Flow (2)     |
| 135         | 24.72           | 105.94       | Shut-In(2)           |
| 181         | 779.40          | 107.82       | End Shut-In(2)       |
| 182         | 1833.10         | 108.08       | Final Hydro-static   |

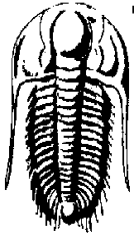
## Recovery

| Length (ft) | Description        | Volume (bbl) |
|-------------|--------------------|--------------|
| 20.00       | Mud with oil spots | 0.28         |
|             |                    |              |
|             |                    |              |
|             |                    |              |
|             |                    |              |

\* 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

PO Box 1019  
Hays KS 67601

ATTN: Ron Nelson

12-14s-19w Ellis, KS

Pfeifer #1-12

Job Ticket: 46385

DST#: 3

Test Start: 2012.01.25 @ 18:48:01

## GENERAL INFORMATION:

Formation: **LKC-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:37:01

Time Test Ended: 01:50:01

Test Type: Conventional Bottom Hole (Reset)

Tester: Jeff Brown

Unit No: 150

Interval: **3680.00 ft (KB) To 3696.00 ft (KB) (TVD)**

Total Depth: 3696.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2211.00 ft (KB)

2203.00 ft (CF)

KB to GR/CF: 8.00 ft

**Serial #: 8737**

**Outside**

Press@RunDepth: psig @ 3683.00 ft (KB)

Start Date: 2012.01.25

End Date:

2012.01.26

Start Time: 18:48:01

End Time:

01:50:30

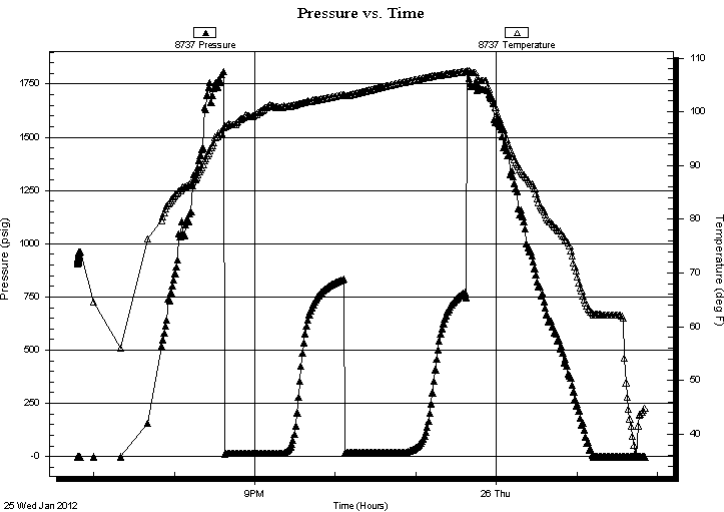
Capacity: 8000.00 psig

Last Calib.: 2012.01.26

Time On Btm:

Time Off Btm:

TEST COMMENT: IFP-Weak blow built to 2 3/4 in  
ISI-Dead no blow back  
FFP-Weak blow built to 1 in  
FSI-Dead no blow back



## PRESSURE SUMMARY

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

## Recovery

| Length (ft) | Description         | Volume (bbl) |
|-------------|---------------------|--------------|
| 20.00       | Mud w ith oil spots | 0.28         |
|             |                     |              |
|             |                     |              |
|             |                     |              |
|             |                     |              |

\* 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 Co Inc

**12-14s-19w Ellis,KS**

PO Box 1019  
Hays KS 67601

**Pfeifer #1-12**

Job Ticket: 46385

**DST#: 3**

ATTN: Ron Nelson

Test Start: 2012.01.25 @ 18:48:01

## Tool Information

|                           |                    |                       |                                |                                    |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe:               | Length: 3676.00 ft | Diameter: 3.80 inches | Volume: 51.56 bbl              | Tool Weight: 2000.00 lb            |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 2.25 inches | Volume: 0.00 bbl               | Weight set on Packer: 20000.00 lb  |
| Drill Collar:             | Length: 0.00 ft    | Diameter: 2.70 inches | Volume: 0.00 bbl               | Weight to Pull Loose: 69000.00 lb  |
|                           |                    |                       | <u>Total Volume: 51.56 bbl</u> | Tool Chased 0.00 ft                |
| Drill Pipe Above KB:      | 16.00 ft           |                       |                                | String Weight: Initial 54000.00 lb |
| Depth to Top Packer:      | 3680.00 ft         |                       |                                | Final 54000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                       |                                |                                    |
| Interval between Packers: | 16.00 ft           |                       |                                |                                    |
| Tool Length:              | 36.00 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        |            |          | 3661.00    |                               |
| Shut In Tool     | 5.00        |            |          | 3666.00    |                               |
| Hydraulic tool   | 5.00        |            |          | 3671.00    |                               |
| Packer           | 4.00        |            |          | 3675.00    | 20.00 Bottom Of Top Packer    |
| Packer           | 5.00        |            |          | 3680.00    |                               |
| Stubb            | 1.00        |            |          | 3681.00    |                               |
| Perforations     | 2.00        |            |          | 3683.00    |                               |
| Recorder         | 0.00        | 8321       | Inside   | 3683.00    |                               |
| Recorder         | 0.00        | 8737       | Outside  | 3683.00    |                               |
| Perforations     | 10.00       |            |          | 3693.00    |                               |
| Bullnose         | 3.00        |            |          | 3696.00    | 16.00 Bottom Packers & Anchor |

**Total Tool Length: 36.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Downing-Nelson Oil Co Inc

**12-14s-19w Ellis,KS**

PO Box 1019  
Hays KS 67601

**Pfeifer #1-12**

Job Ticket: 46385

**DST#: 3**

ATTN: Ron Nelson

Test Start: 2012.01.25 @ 18:48:01

## 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: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

| Length<br>ft | Description        | Volume<br>bbl |
|--------------|--------------------|---------------|
| 20.00        | Mud with oil spots | 0.281         |

Total Length: 20.00 ft      Total Volume: 0.281 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

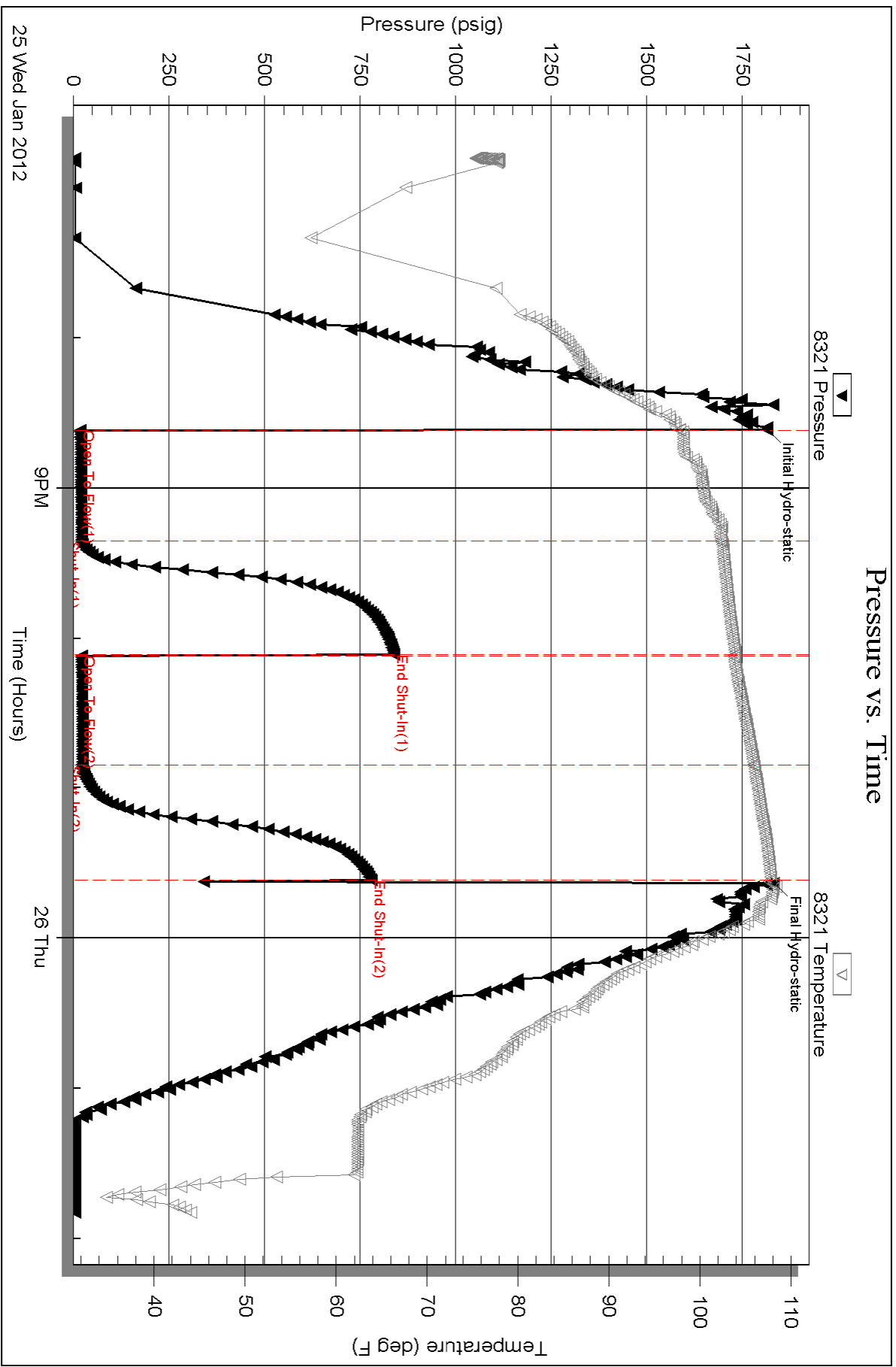
Serial #: 8321

Inside

Dow nung-Nelson Oil Co Inc

Pfeifer #1-12

DST Test Number: 3



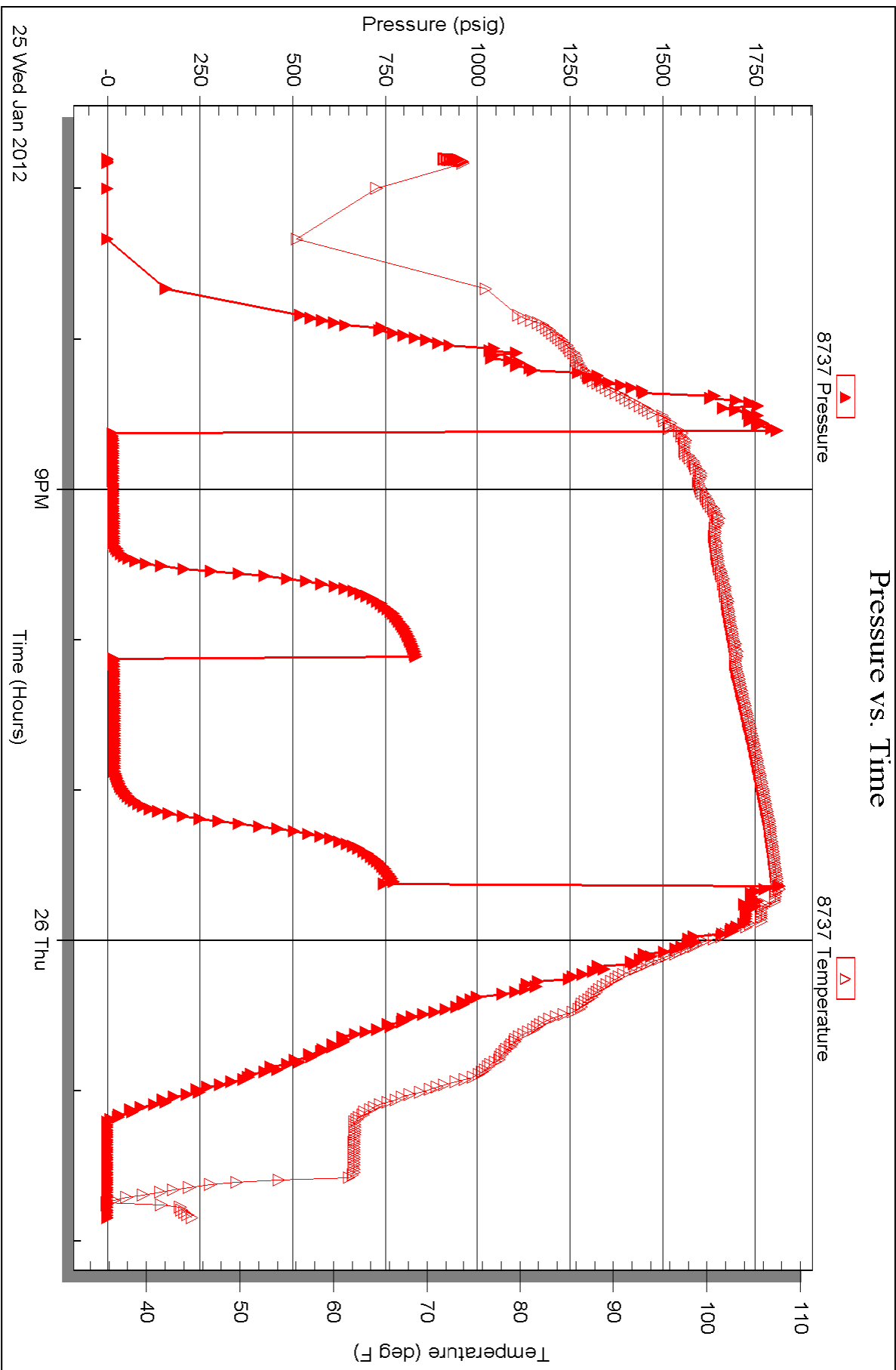
Serial #: 8737

Outside

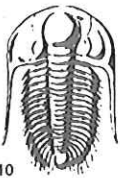
Dow nung-Nelson Oil Co Inc

Pfeifer #1-12

DST Test Number: 3







# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## RECEIVED Test Ticket

JAN 30 2012

NO. 46383

BY: \_\_\_\_\_

Well Name & No. Pfeifer 1-12 Test No. 1 Date 1-24-12  
 Company Downing-Nelson Oil Co INC Elevation 2211 KB 2203 GL  
 Address Po Box 1019 Hays KS 67601  
 Co. Rep / Geo. Marc Downing Rig Discovery #3  
 Location: Sec. 12 Twp. 14 S Rge. 19 W Co. ELLIS State KS

Interval Tested 3517-3572 Zone Tested KLC-C+D  
 Anchor Length 55 Drill Pipe Run 3517 Mud Wt. 8.5  
 Top Packer Depth 3512 Drill Collars Run 0 Vis 2.4  
 Bottom Packer Depth 3517 Wt. Pipe Run 0 WL 7.6  
 Total Depth 3572 Chlorides 2000 ppm System LCM 2 1/2  
 Blow Description 1st-Strong Blow Bob IN 2 1/2 min  
2nd-Dead NO Blow Back  
3rd-Strong Blow Bob IN 4 min ?  
4th-Weak Surface Blow Back

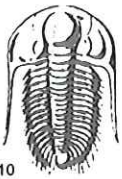
| Rec       | Feet of          | %gas      | %oil      | %water    | %mud      |
|-----------|------------------|-----------|-----------|-----------|-----------|
| <u>31</u> | <u>CoCwm</u>     | <u>35</u> | <u>20</u> | <u>15</u> | <u>30</u> |
| <u>94</u> | <u>CoCm</u>      | <u>10</u> | <u>20</u> |           | <u>70</u> |
|           | <u>1858-CoIP</u> |           |           |           |           |
|           |                  |           |           |           |           |
|           |                  |           |           |           |           |

Rec Total 125 BHT \_\_\_\_\_ Gravity \_\_\_\_\_ API RW, 1169 @ 564 °F Chlorides 56,000 ppm

(A) Initial Hydrostatic 1736 1736  Test 1125 T-On Location 7:58  
 (B) First Initial Flow 45  Jars \_\_\_\_\_ T-Started 9:56  
 (C) First Final Flow 203  Safety Joint \_\_\_\_\_ T-Open 11:50  
 (D) Initial Shut-In 192  Circ Sub \_\_\_\_\_ T-Pulled 13:50  
 (E) Second Initial Flow 72  Hourly Standby \_\_\_\_\_ T-Out 15:51  
 (F) Second Final Flow 85  Mileage 12 RT 16.80 Comments \_\_\_\_\_  
 (G) Final Shut-In 190  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1169  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In 30  Day Standby \_\_\_\_\_ Total 1141.80  
 Final Flow 30  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 30 Sub Total 1141.80

Approved By \_\_\_\_\_ Our Representative Jeff Brown

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

RECEIVED  
JAN 30 2012

## Test Ticket

NO. 46384

4/10

BY:

Well Name & No. Pfeifer 1-12 Test No. 2 Date 1-25-12  
 Company Downing-Nelson oil CO INC Elevation 2211 KB 2203 GL  
 Address PO Box 1019 Hays KS 67601  
 Co. Rep / Geo. Marc Downing Rig Discovery #3  
 Location: Sec. 12 Twp. 14s Rge. 19W Co. ELLIS State KS

Interval Tested 32623-32673 Zone Tested LKC-H + I  
 Anchor Length 53 Drill Pipe Run 32612 Mud Wt. 8.9  
 Top Packer Depth 32618 Drill Collars Run 0 Vis 51  
 Bottom Packer Depth 32623 Wt. Pipe Run 0 WL 8.0  
 Total Depth 32673 Chlorides 2500 ppm System LCM 2#

Blow Description FFP-Weak Blow Built TO 2 IN  
ISJ-Dead NO Blow Back  
FFP-Weak Blow Built TO 1 IN  
FSI-Dead NO Blow Back

| Rec       | Feet of     | %gas     | %oil     | %water    | %mud      |
|-----------|-------------|----------|----------|-----------|-----------|
| <u>25</u> | <u>SOCM</u> | <u>5</u> | <u>5</u> | <u>95</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 25 BHT 109 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1805  Test 1125 T-On Location 4:09  
 (B) First Initial Flow 37  Jars \_\_\_\_\_ T-Started 5:03  
 (C) First Final Flow 41  Safety Joint \_\_\_\_\_ T-Open 7:38  
 (D) Initial Shut-In 525  Circ Sub \_\_\_\_\_ T-Pulled 10:38  
 (E) Second Initial Flow 41  Hourly Standby \_\_\_\_\_ T-Out 12:41  
 (F) Second Final Flow 42  Mileage 12 RT 116.80 Comments \_\_\_\_\_  
 (G) Final Shut-In 260  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1725  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 45  Extra Recorder \_\_\_\_\_ Sub Total 8  
 Initial Shut-In 45  Day Standby \_\_\_\_\_ Total 1141.80  
 Final Flow 45  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 45 Sub Total 1141.80

Approved By \_\_\_\_\_ Our Representative Jeff Brown



# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED  
JAN 30 2012  
BY: \_\_\_\_\_

## Test Ticket

NO. 46385

4/10

Well Name & No. Peifer 1-12 Test No. 3 Date 1-25-12  
 Company Downing-Nelson Oil Co INC Elevation 2211 KB 2203 GL  
 Address Po Box 1019 Hays KS 67701  
 Co. Rep / Geo. Marc Downing Rig Discovery #3  
 Location: Sec. 12 Twp. 14S Rge. 19W Co. ELLIS State KS

Interval Tested 3680-3694 Zone Tested LKC-5  
 Anchor Length 16 Drill Pipe Run 3670 Mud Wt. 8.9  
 Top Packer Depth 3675 Drill Collars Run 0 Vis 520  
 Bottom Packer Depth 3680 Wt. Pipe Run 0 WL 8.0  
 Total Depth 3694 Chlorides 3000 ppm System LCM 1 1/2  
 Blow Description APP-Weak Blow Built TO 2 3/4  
FSI-Dead No Back  
APP-Weak Blow Built TO 1 IN  
FSI-Dead No Blow Back

| Rec       | Feet of                       | %gas | %oil | %water | %mud |
|-----------|-------------------------------|------|------|--------|------|
| <u>20</u> | <u>Mud with A seam of oil</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 20 BHT 108 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1814  Test 1125- T-On Location 18:06  
 (B) First Initial Flow 18  Jars \_\_\_\_\_ T-Started 18:48  
 (C) First Final Flow 22  Safety Joint \_\_\_\_\_ T-Open 20:36  
 (D) Initial Shut-In 839  Circ Sub \_\_\_\_\_ T-Pulled 23:36  
 (E) Second Initial Flow 22  Hourly Standby \_\_\_\_\_ T-Out 1:50  
 (F) Second Final Flow 25  Mileage 12 RT 16.80 Comments \_\_\_\_\_  
 (G) Final Shut-In 779  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1833  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1141.80  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1141.80

Approved By \_\_\_\_\_ Our Representative Jeff Brown

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.

**JOB LOG**

**SWIFT Services, Inc.**

DATE 1-27-12 PAGE NO. 1

CUSTOMER Drawing & Nelson WELL NO. 1-12 LEASE Pfeifer JOB TYPE Cement Longstring TICKET NO. 21247

| CHART NO. | TIME | RATE (BPM) | VOLUME (BBL) (GAL) | PUMPS |   | PRESSURE (PSI) |          | TD-3893 | DESCRIPTION OF OPERATION AND MATERIALS             |
|-----------|------|------------|--------------------|-------|---|----------------|----------|---------|--|
|           |      |            |                    | T     | C | TUBING         | CASING   |         |  |
|           | 0500 |            |                    |       |   |                |          |         | DN location w/ float equip - R5 LDDC               |
|           | 0525 |            |                    |       |   |                |          |         | Fin LD - change over to new casing                 |
|           | 0630 |            |                    |       |   |                |          |         | Start casing - to 3892'                            |
|           |      |            |                    |       |   |                |          |         | Insert float shoe w/ auto-fill                     |
|           |      |            |                    |       |   |                |          |         | L.D. Baffle - SS - 20' @ 3892' <b>(94 1/2 BBL)</b> |
|           |      |            |                    |       |   |                |          |         | Cent. 1-3-5-7-9-11-57                              |
|           |      |            |                    |       |   |                |          |         | Cut Basket #58 <b>(B+C) #58 @ 1480'</b>            |
|           |      |            |                    |       |   |                |          |         | Drop Pull-up ball - left out                       |
|           |      |            |                    |       |   |                |          |         | JTs left out #93-94                                |
|           | 0800 |            |                    |       |   |                |          |         | Fin run casing - Tag Bottom                        |
|           | 0815 |            |                    |       |   |                |          |         | Start circ/rotate                                  |
|           |      |            |                    |       |   |                |          |         | WTR tank plugged @ Valve.                          |
|           |      |            |                    |       |   |                |          |         | Call for WTR truck.                                |
|           | 0940 |            |                    |       |   |                |          |         | Plug RH - 30 sks 14H 25 sks cut                    |
|           | 0945 | 5          | 12                 |       |   |                | 200      |         | Pump 500 gal Mucil flush                           |
|           |      | 6          | 20                 |       |   |                | 250      |         | Pump 20 BBL KCL flush                              |
|           | 0950 | 4 1/2      |                    |       |   |                | 250      |         | Start 130 sks EA-2 cut                             |
|           | 1000 |            | 36                 |       |   |                | vac      |         | Fin cut - wash out pump lines                      |
|           |      |            |                    |       |   |                |          |         | Drop L.D. Plug                                     |
|           | 1003 | 8          |                    |       |   |                | 350      |         | Start Displ  |
|           |      |            | 70                 |       |   |                |          |         | Caught cut left                                    |
|           |      | 5 1/2      | 90                 |       |   |                |          |         | Slow rate  |
|           | 1015 |            | 94 1/2             |       |   |                | 750/1400 |         | Plug Down - Hold - Release & Hold                  |
|           |      |            |                    |       |   |                |          |         | Job Complete                                       |
|           | 1030 |            |                    |       |   |                |          |         | Wash up & Reel up                                  |
|           | 1045 |            |                    |       |   |                |          |         |  |

*Thanks*  
*Alan, Brian & Doug*

**JOB LOG**

**SWIFT Services, Inc.**

DATE 02-07-12 PAGE NO. 1

CUSTOMER DAWNING-NEESON WELL NO. 1-12 LEASE PFEICEL UNIT JOB TYPE CMT: POB-CULM TICKET NO. 21306

| CHART NO. | TIME | RATE (BPM) | VOLUME (BBL) (GAL) | PUMPS |   | PRESSURE (PSI) |        | DESCRIPTION OF OPERATION AND MATERIALS |
|-----------|------|------------|--------------------|-------|---|----------------|--------|--|
|           |      |            |                    | T     | C | TUBING         | CASING |  |
|           |      |            |                    |       |   |                |        | ON LOCATION                            |
|           |      |            |                    |       |   |                |        | CMT: 15050 SMD <sup>W</sup> /14" P0    |
|           |      |            |                    |       |   |                |        | 2 3/8" S 1/2 RBP 350                   |
|           |      |            |                    |       |   |                |        | POB-CULM 1470                          |
|           | 0805 |            | 6.5                | -     | - | 1000           | 1000   | PSZ TEST                               |
|           |      |            |                    |       |   |                |        | OPEN PC                                |
|           | 0820 | 3.0        | 3.0                | -     | - | 300            |        | INSULATE - GOOD BLOW                   |
|           |      | 3.5        | 0                  | -     | - | 350            |        | START CMT @ 110" #                     |
|           |      | }          | 6.0                | -     | - | 500            |        | CIRC-MUD                               |
|           |      |            | 60.0               | -     | - | 600            |        | CIRC CMT TO PIT!                       |
|           |      |            | 65.0               | -     | - | 600            |        | MIX 20 SLS @ 14"                       |
|           |      |            | 0                  | -     | - | 600            |        | START DISP                             |
|           |      |            | 4.5                | -     | - | 600            |        | END                                    |
|           | 0845 |            |                    |       |   |                |        | CLOSE PC                               |
|           | 0850 |            |                    | -     | - | 1100           | 1100   | PSZ TEST - HQD                         |
|           |      |            |                    |       |   |                |        | RUN IN 5 JOINTS                        |
|           | 0905 | 2.5        | 0                  | -     | - | 300            |        | REV. OUT                               |
|           |      | }          | 5                  | -     | - | 250            |        | 1ST FLG                                |
|           |      |            | 9                  | -     | - | 150            |        | 2ND FLG                                |
|           | 0920 |            | 20                 | -     | - | 150            |        | MIL CLEAN                              |
|           |      |            |                    |       |   |                |        | TOTAL CMT 13054                        |
|           |      |            |                    |       |   |                |        | 20545 TO PIT!                          |
|           | 0945 |            |                    |       |   |                |        | JOB COMPLETE                           |
|           |      |            |                    |       |   |                |        | THANK YOU!                             |
|           |      |            |                    |       |   |                |        | DAVE, JESSE, ROB                       |



### DRILL STEM TESTS

| No. | Interval | IFP/Time | ISIP/Time | FFP/Time | FSIP/Time | FBI-FBI | RECOVERY |
|-----|----------|----------|-----------|----------|-----------|---------|----------|
|     |          |          |           |          |           |         |          |
|     |          |          |           |          |           |         |          |
|     |          |          |           |          |           |         |          |
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|     |          |          |           |          |           |         |          |
|     |          |          |           |          |           |         |          |
|     |          |          |           |          |           |         |          |

REMARKS AND RECOMMENDATIONS \_\_\_\_\_

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### LEGEND

- 
Anhydrite
- 
Salt
- 
Sandstone
- 
Shale
- 
Carb sh
- 
Limestone
- 
Ool. Lime
- 
Chert
- 
Dolomite

|   |  |  |  |
|---|--|--|--|
| <p style="font-size: small;">DRILLING TIME IN MINUTES<br/>PER FOOT</p> <p style="font-size: x-small;">Rate of Penetration Decreases</p>  | <p style="font-size: small;">DEPTH</p> <p style="font-size: x-small;">1452</p> <p style="font-size: x-small;">1500</p> | <p style="text-align: center; font-size: small;">SAMPLE DESCRIPTIONS</p> | <p style="text-align: center; font-size: small;">REMARKS</p> |
|   |  | LITHOLOGY  |  |
|   |  | OIL SHOWS  |  |



|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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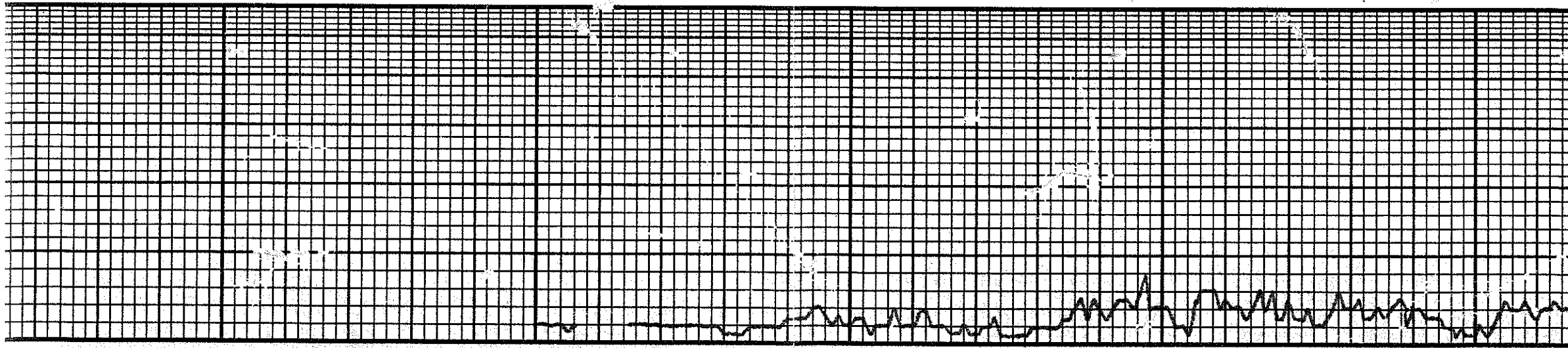
1550

3000

50

3100

50





3200

Tigpaka  
32211000

SD

3300

SD

3400

LS: wht-torn, f/x sh, ppx,  
tile.

LS: wht, f/x sh, sub xln,  
scat fr int xln. Tng

ppx & tile, NS.

Sh: grg

LS: wht-com, fu-mid xln, gd  
int xln & ul scat ppx. Many chky

ox, All NS.

Sh: dk grg

Sh: grg

LS: fann-wht, fass, fr ind  
xln, sub xln-chky, NS.

LS: fann-wht, scat fass  
gd int xln, fr ont chky  
ex, ul scat grg chky.

LS: wht-ll torn, fass, int lld  
in pet. fr int xln & ul

many sub xln-chky, ox  
scat torn onto, NS

Sh: Black Carb

Sh: dk grg

LS: wht, fu-v f/x sh, mostly  
dms

Sh: grg

LS: wht, f/x sh, chky, Tng  
torn, v dms & ppx, All  
NS.

Sh: grg

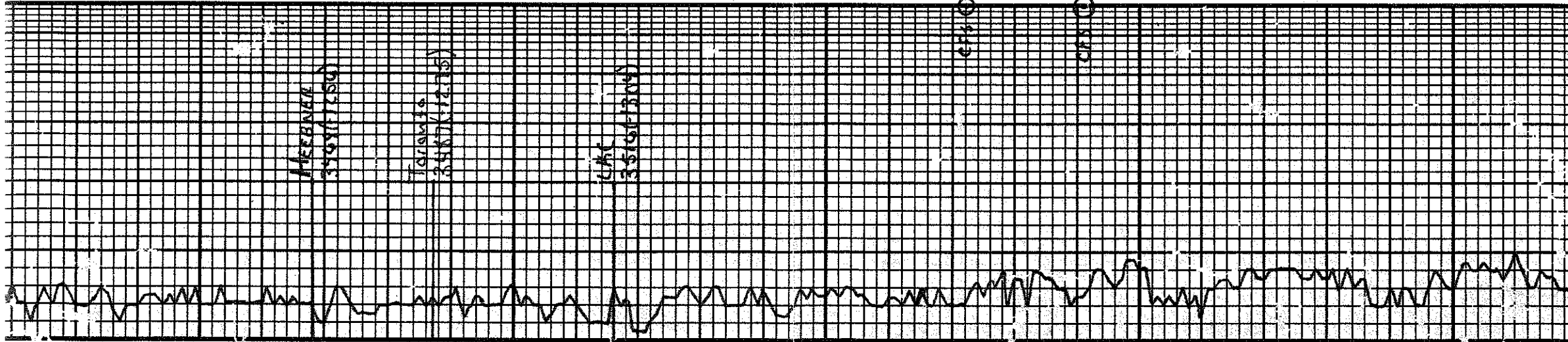
LS: AIA

Sh: Black Carb

Sh: grg

LS: wht, fu-mid xln, many  
fass, fr int fass, v chky.

front grg fass chky, All



MEERBERG  
3500 (1250)

FORNIA  
3500 (1250)

WAC  
3500 (1250)

CPK

CPK

50

3500

50

3600

50

|                   |   |
|-------------------|---|
| Sh: gry - dk gry  | LS: wht, fuxln, foss in prt.<br>subxl - chky, 1-2 pcs w/ pr<br>resid sln, NSF, No Od.   |
| Sh: gry           | LS: wht - lt tan, subxl<br>in prt, trng dms. Prs<br>& mtd w/dreth, All<br>NS.   |
| Sh: Black Carb    |   |
| Sh: gry           | LS: wht, fuxln, subxl, subdr-<br>chky, 2-3 ex w/ spdd SFO in pr<br>PPR, mostly barren, No Od.   |
| Sh: gry           | LS: wht, vfxln, vchms, No Od  |
| Sh: red-brn       | LS: tan, fuxnd xln, prs, v. lit,<br>NS  |
| Sh: gry w/ brn    | LS: lt tan, fuxnd xln, vchms, prs<br>fuxln, ex. fuxnd vngl, 1-2 ex w/<br>pr. fuxln, fuxnd sat w/ SFO, gng<br>in prt. 11 - f. Od.              |
| Sh: gry           | LS: lt tan-brn, fuxnd xln, fux-<br>nd, subxl w/ SFO, vngl, fux-<br>nd, lt brn str, sat w/ f. SFO,<br>f. Od. fux. Friable, Free oil on<br>cup. |
| Sh: gry           | LS: wht, fuxnd xln, 2-4 dms ex<br>w/ f. Od. lt brn sat sln, f. SFO in fr<br>intx, fuxng. About vchky ex<br>w/ d. f. Od.                       |
| Sh: gry           | LS: wht, fuxln, subxl - chky,<br>2-3 fux ex w/ gd vngl, d sat w/<br>f. SFO, 1-2 flt dms ex in base.<br>No Od.                                 |
| Sh: dk gry - blk. | LS: wht, fuxnd xln, No<br>vngl w/ NS. Scent gg t<br>tan chnta.  |
| Sh: gry           | LS: wht, fuxnd xln, fux fass.<br>subxl - 2-3 ex w/ f. SFO in<br>pr. chnta w/ pr. fuxng. v. fnt<br>Od.   |
| Sh: gry           | LS: wht, fuxln, ool. Scent f. ool.<br>fuxnd xln, fuxnd xln.   |

|                          |                   |
|--------------------------|-------------------|
| Vis: 64 wt: 8.5          | Vis: 51 wt: 8.9   |
| DST #1                   | DST #2            |
| 3517-3572                | 3423-3474         |
| 30-30-30-30              | 45-45-45-45       |
| I.F.: BOB 2 1/2 min      | I.F.: 2" blow     |
| F.F.: BOB 4 min/surf SIB | F.F.: 1" blow     |
| I.F.P.: 45-63            | I.F.P.: 37-41     |
| F.P.P.: 72-95            | F.P.P.: 41-42     |
| S.P.P.: 192-190          | S.P.P.: 525-260   |
| MP: 1786-1696            | MP: 1905-1725     |
| Rec:                     | Rec:              |
| 145' GIP                 | 25' soem 510      |
| 94' GCM 10% 20% 20%      | BHT: 109'         |
| 81' w/o gym 35% 20% 20%  | DST #3            |
| BHT: 99' chdr: 56K       | 3680-3696         |
|                          | 45-45-45-45       |
|                          | I.F.: 2 3/4" blow |
|                          | F.F.: 1" blow     |

FPP: 22-25  
 SIP: 939-779  
 WP: 1914-1933  
 Rec:  
 2x med wt oil & cum  
 BHT: 108°

#3

gwg in pht. Some int fossils w/ fr shell, fur. H.O.D, free oil on cut.  
 Sh: ggy  
 LS: Tom - white, v. foss, gd w/gg, scat. w/ foss. gd scat. w/ ggd, SFO, ggd.

LS: Tom, med xlm, v. sh. faint oil on w/ fr. lt brn - 6cm, spotted SFO, H.O.D.  
 Sh: ggy  
 LS: med, Fin v. Fin xlm, Scat. foss & med. Fin. subxlm. dx, prfx, NS.

Sh: ggy

LS: wht, v. Fin xlm, subxlm in pr. Totally barren.

LS: wht, Fin xlm. v. chas, few subxlm dx, NS

LS: Tom - white, fine med xlm, dns.

Sh: ggy w/ brn - red

LS: Tom, tot. oil, dns, prfx

Sh: ggy w/ brn

Sh: AIA

Sh: ggy w/ some brn

Sh: Tom - red - brn w/ scat. Tom + 2 oil cnts. washes red.

Sh: AIA washes v red. 1-2 pcs wht. see data.

Oils: wht, med & chas xlm, printxlm, fine

Mostly barren w/ scat. gills. white stars.

All No Od.

McLanahan

3700

50

3800

50

3900

A.K.C.  
 3193 (1538)

Antibuck  
 3193 (1538)

A.K.C.  
 3193 (1641)  
 3193 (1538)



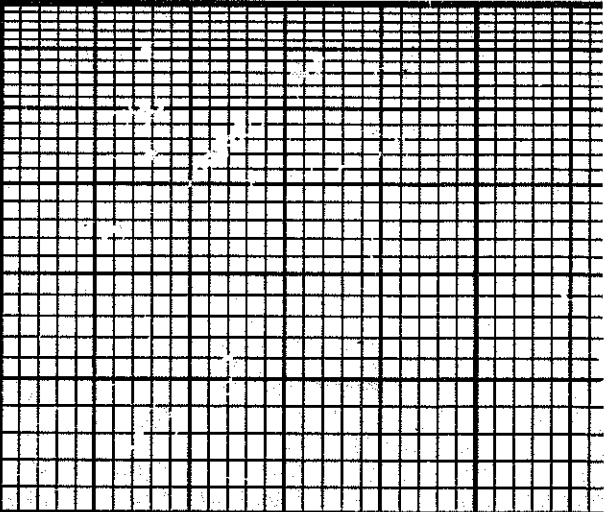
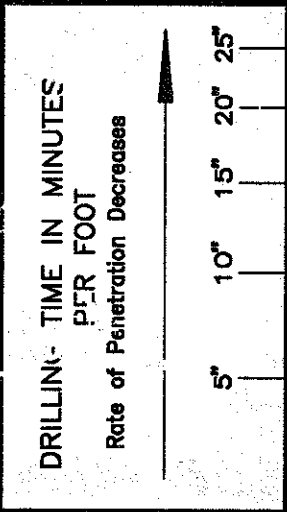
## DRILL STEM TESTS

| No. | Interval | IFP/Time | ISIP/Time | FFP/Time | FSIP/Time | FBI-FBI | RECOVERY |
|-----|----------|----------|-----------|----------|-----------|---------|----------|
|     |          |          |           |          |           |         |          |
|     |          |          |           |          |           |         |          |
|     |          |          |           |          |           |         |          |
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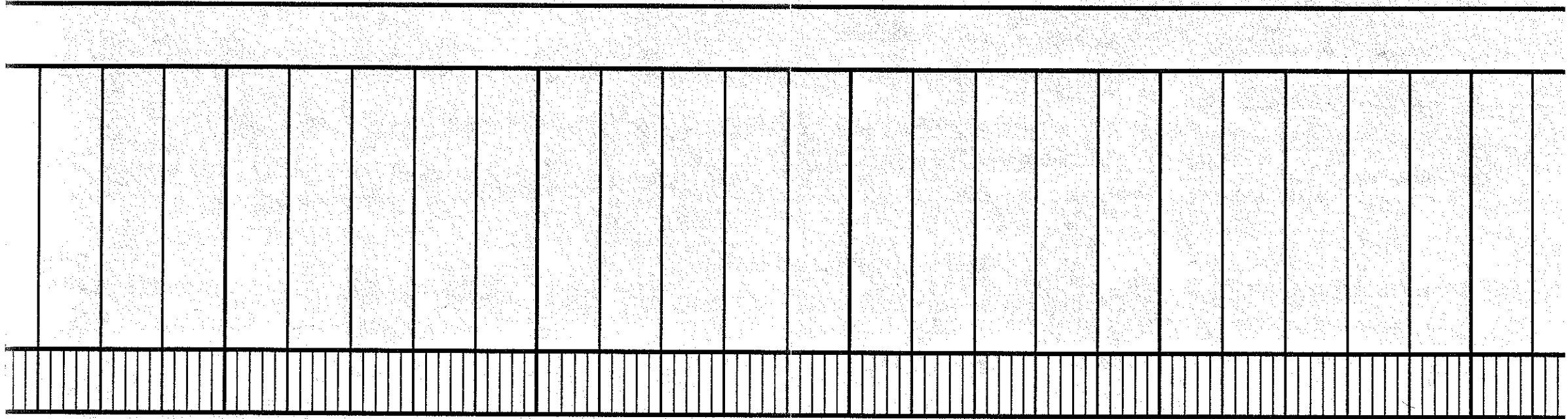
REMARKS AND RECOMMENDATIONS \_\_\_\_\_

### LEGEND

- Anhydrite
- Salt
- Sandstone
- Shale
- Carb sh
- Limestone
- Ool. Lime
- Chert
- Dolomite



| DEPTH               | REMARKS |
|---------------------|---------|
| 14.52               |         |
| 1500                |         |
| LITHOLOGY           |         |
| SAMPLE DESCRIPTIONS |         |
| OIL SHOWS           |         |



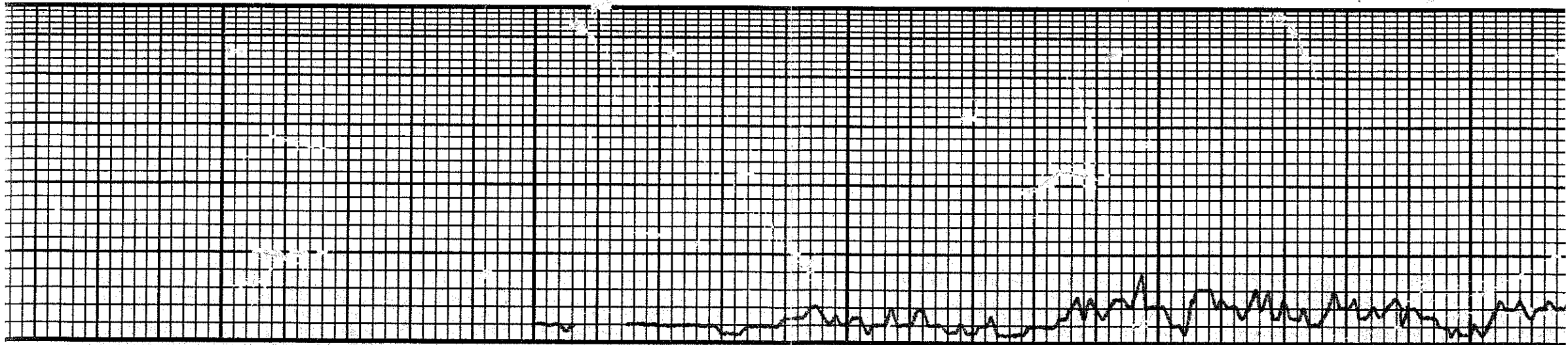
1550

3000

50

3100

50



3200

Tigpaka  
32211000

SD

3300

SD

3400

LS: wht-torn, f/x sh, ppx,  
tile.

LS: wht, f/x sh, sub xln,  
scat fr int xln. Tng

ppx & tile, NS.

Sh: grg

LS: wht-com, f-u mid xln, gd  
int xln & w scat ppx. Many chky

ox, All NS.

Sh: dk grg

Sh: grg

LS: fann-wht, fass, fr ind  
xln, sub xln-chky, NS.

LS: fann-wht, scat fass  
gd int xln, fr ont chky  
ex, w scat grg chky.

LS: wht-ll torn, fass, wtd  
in pet. fr int xln & w

many sub xln-chky, ox  
scat torn onto, NS

Sh: Black Carb

Sh: dk grg

LS: wht, f-u v f/x sh, mostly  
dms

Sh: grg

LS: wht, f/x sh, chky, Tng  
torn, v dms & ppx, All  
NS.

Sh: grg

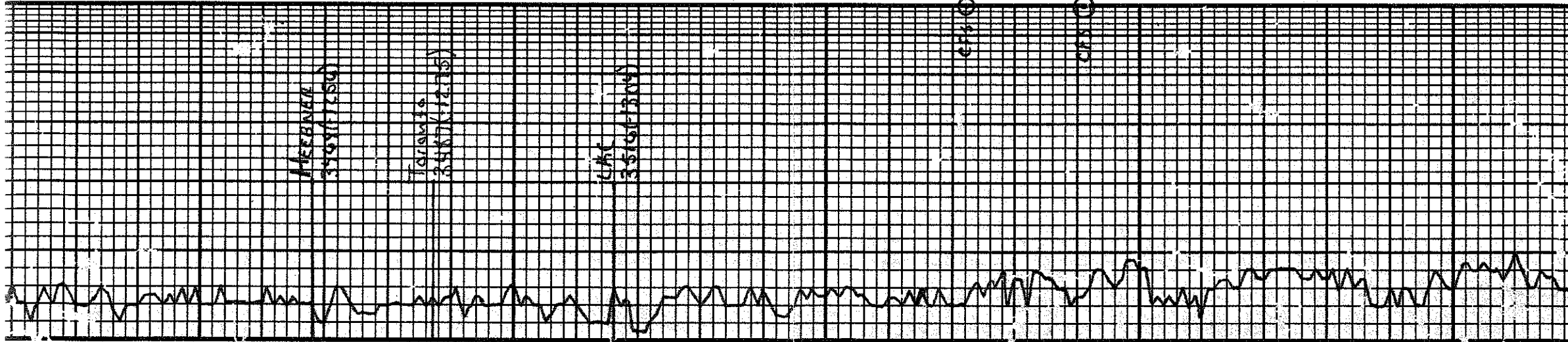
LS: AIA

Sh: Black Carb

Sh: grg

LS: wht, f-u mid xln, many  
fass, fr int fass, v chky.

front grg fass chky, All



Sh: gry - drk gry  
Sh: gry

LS: wht, fuxln, foss in prt.  
Subxl - chky, 1-2 pcs w/ pr  
resid sln, NSF, No Od.

LS: wht - 11 tom, subxl  
in prt, trng dms. Prs  
& mtd w/dreth, All  
NS.

Sh: Black Carb

Sh: gry

LS: wht, fuxln, subxl, subxl -  
chky, 2-3 ex w/ spdd SFO in pr  
ppr, mostly barren, No Od.

Sh: gry

LS: wht, vfxln, vchms, No Od

Sh: red-brn

LS: tom, found xln, prs, v. lit,  
NS

Sh: gry w/ brn

LS: 11 tom, found xln, subxl, prs  
fuxln, ex. pr. gd vngt, 1-2 ex w/  
pr. subxl, fr. gd sat w/ gd SFO, gnd  
in prt, 11 - pr Od.

Sh: gry

LS: 11 tom-brn, fuxln, subxl, fr.  
Subxl w/ sat w/ pr. subxl, fr.  
11 tom str. sat w/ pr SFO,  
fr Od. fr Friable, Free oil on  
cup.

LS: wht, fuxln, 2-4 dms ex  
w/ fr. gd 11 tom sat ch. fr SFO in fr  
w/ subxl & vngt. About vchky ex  
w/ subxl. fr Od.

Sh: gry

LS: wht, fuxln, subxl - chky.  
2-3 foss ex w/ gd vngt, gd sat w/  
fr SFO, 1-2 flt dms ex in base.  
No Od.

LS: wht, fuxln, vchms, No  
vngt w/ NS. Sat gry +  
tom chnta.

Sh: drk gry - blk.

Sh: gry

LS: wht, fuxln, subxl, fuxln, fr. foss.  
subxl - 2-3 ex w/ fr. subxl  
pr ch w/ pr SFO, vngt, v. fr  
Od.

Sh: gry

LS: wht, fuxln, oal. Sat fr. oal.  
fr. subxl, fr. subxl, fr. subxl, fr. subxl.

50

3500

50

3600

50

Vis: 64 wt: 8.5  
DST #1  
3517-3572  
30-30-30-30  
I.F.: BOB 2 1/2 min  
F.F.: BOB 4 min / surf SIB  
I.F.P.: 45-63  
F.F.P.: 72-95  
SIP: 192-190  
HP: 1786 - 1696  
Rec:

145' GIP  
94' GCM 10% 20%  
81' WCGM 85% 20%  
BHT: 99' 15%  
Cuber: 56K

Vis: 51 wt: 8.9  
DST #2  
3423-3474  
45-45-45-45  
I.F.: 2" blow  
F.F.: 1" blow  
I.F.P.: 37-41  
F.F.P.: 41-42  
SIP: 525-260  
HP: 1905 - 1725  
Rec:

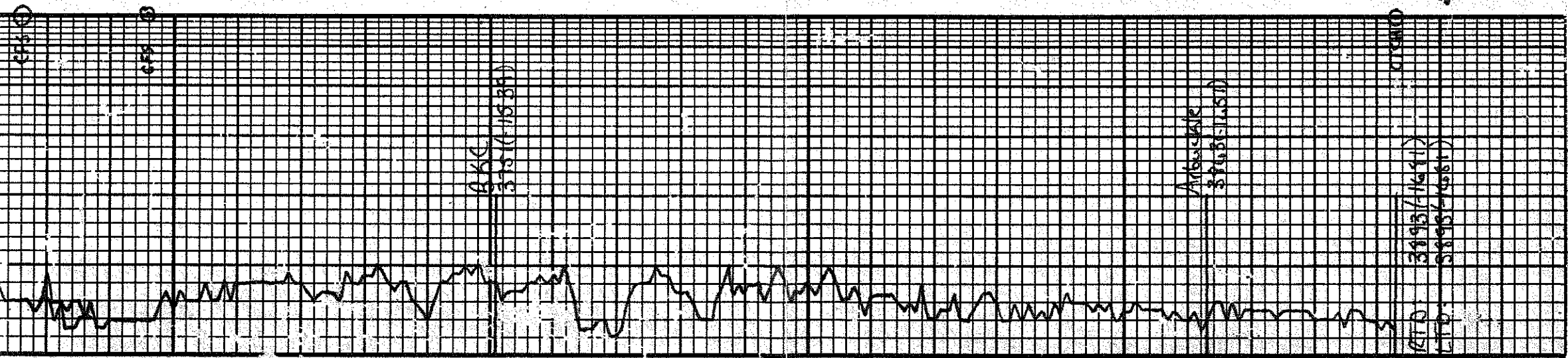
25' soem 510  
BHT: 109'  
DST #3  
3680-3696  
45-45-45-45  
I.F.: 2 3/4" blow  
F.F.: 1" blow



FPP: 22-25  
 SIP: 939-779  
 HP: 1914-1933  
 Rec:  
 20 med wt oil drum  
 BHT: 108°

|   |   |
|---|---|
| 3<br>#3<br>3700<br>50<br>3800<br>50<br>3900 | 300 in prt. Some int fossils w/ for Shum, Fur. H. Od, free oil on cap.<br>Sh: gy<br>LS: tom - whit, v. fass, gd v. gy, scat. w/ fass. gd scat. w/ gy, SFO, gd Od.<br>LS: tom, med xln, v. od, faint oil pt w/ fr. lt brn str, spotted SFO, H. Od.<br>Sh: gy<br>LS: tom, fin v. fin xln, scat fass & med. fass subxl. dx, pr. N.S.<br>LS: whit, v. fin xln, subxl. in prt. Totally barren.<br>Sh: gy<br>LS: whit, fin xln, v. med, few subxl. dx, N.S.<br>Sh: gy<br>LS: tom - whit, fin med xln, dns.<br>Sh: gy w/ brn red<br>LS: tom, tot. od, dns, pr.<br>Sh: gy w/ brn<br>Sh: AIA<br>Sh: gy w/ some brn<br>Sh: tom, red-brn w/ scat tom + 2 oil drms. washes red.<br>Sh: AIA washes v. red. 1-2 pcs whit. SFO data.<br>Od. whit, med rhom xln, print. base, fine.<br>Mostly barren w/ scat gilsomite str.<br>All No Od. |
|---|---|

McLanigan



3700  
 3800  
 3900

AKC  
 315 (1538)

Arbuckle  
 3195 (1691)

3195 (1691)  
 3195 (1691)