



KANSAS CORPORATION COMMISSION 1102861  
OIL & GAS CONSERVATION DIVISION

Form ACO-1  
June 2009  
Form Must Be Typed  
Form must be Signed  
All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 30717  
Name: Downing-Nelson Oil Co Inc  
Address 1: PO BOX 1019  
Address 2: \_\_\_\_\_  
City: HAYS State: KS Zip: 67601 + \_\_\_\_\_  
Contact Person: Ron Nelson  
Phone: ( 785 ) 621-2610  
CONTRACTOR: License # 31548  
Name: Discovery Drilling  
Wellsite Geologist: Marc Downing  
Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well     Re-Entry     Workover
- Oil     WSWG     SWD     SLOW  
 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 #: \_\_\_\_\_

11/15/2012	11/20/2012	11/21/2012
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-065-23880-00-00  
Spot Description: \_\_\_\_\_  
NE NW SE SW Sec. 27 Twp. 9 S. R. 24  East  West  
1080 Feet from  North /  South Line of Section  
1915 Feet from  East /  West Line of Section  
Footages Calculated from Nearest Outside Section Corner:  
 NE     NW     SE     SW  
County: Graham  
Lease Name: Robert Nickelson 'B' Well #: 1-27  
Field Name: \_\_\_\_\_  
Producing Formation: None  
Elevation: Ground: 2521 Kelly Bushing: 2529  
Total Depth: 4075 Plug Back Total Depth: \_\_\_\_\_  
Amount of Surface Pipe Set and Cemented at: 218 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: 16000 ppm Fluid volume: 320 bbls  
Dewatering method used: Evaporated  
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: Deanna Garrison Date: 12/04/2012



1102861

Operator Name: Downing-Nelson Oil Co Inc Lease Name: Robert Nickelson 'B' Well #: 1-27  
 Sec. 27 Twp. 9 S. R. 24  East  West County: Graham

**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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i>  List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input checked="" type="checkbox"/> Sample  <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Name</th> <th style="text-align: left;">Top</th> <th style="text-align: left;">Datum</th> </tr> </thead> <tbody> <tr> <td>Top Anhydrite</td> <td>2177'</td> <td>+353</td> </tr> <tr> <td>Base Anhydrite</td> <td>2215'</td> <td>+315</td> </tr> <tr> <td>Topeka</td> <td>3621'</td> <td>-1091</td> </tr> <tr> <td>Heebner</td> <td>3837'</td> <td>-1307</td> </tr> <tr> <td>Toronto</td> <td>3859'</td> <td>-1329</td> </tr> <tr> <td>LKC</td> <td>3874'</td> <td>-1344</td> </tr> </tbody> </table>	Name	Top	Datum	Top Anhydrite	2177'	+353	Base Anhydrite	2215'	+315	Topeka	3621'	-1091	Heebner	3837'	-1307	Toronto	3859'	-1329	LKC	3874'	-1344
Name	Top	Datum																				
Top Anhydrite	2177'	+353																				
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LKC	3874'	-1344																				

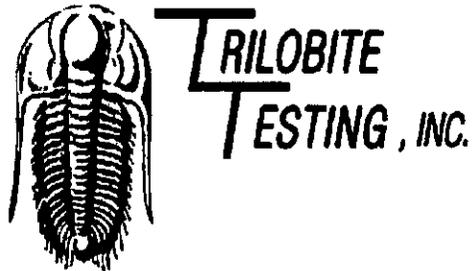
CASING RECORD <input checked="" type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface pipe	12.25	8.625	23	217.56	Common	150	2% Gel & 3% CC

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

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

TUBING RECORD:		Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
Date of First, Resumed Production, SWD or ENHR.			Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain) _____		
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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## DRILL STEM TEST REPORT

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

PO Box 1019  
Hays KS 67601

ATTN: Marc Downing

**27-9s-24w Graham,KS**

**Robert Nickelson #1-27**

Start Date: 2012.11.19 @ 09:20:00

End Date: 2012.11.19 @ 16:04:00

Job Ticket #: 51228                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.11.26 @ 13:06:49

Downing-Nelson Oil Co. Inc.

Robert Nickelson #1-27

27-9s-24w Graham,KS

DST # 1

KC "E-F"

2012.11.19



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Downing-Nelson Oil Co. Inc.

**Robert Nickelson #1-27**

PO Box 1019  
Hays KS 67601

**27-9s-24w Graham,KS**

Job Ticket: 51228

**DST#: 1**

ATTN: Marc Downing

Test Start: 2012.11.19 @ 09:20:00

## GENERAL INFORMATION:

Formation: **KC "E-F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:08:30

Time Test Ended: 16:04:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Brett Dickinson

Unit No: 59

Interval: **3935.00 ft (KB) To 3957.00 ft (KB) (TVD)**

Reference Elevations: 2532.00 ft (KB)

Total Depth: 3957.00 ft (KB) (TVD)

2524.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 6753**

**Outside**

Press@RunDepth: 53.79 psig @ 3939.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.11.19

End Date: 2012.11.19

Last Calib.: 2012.11.19

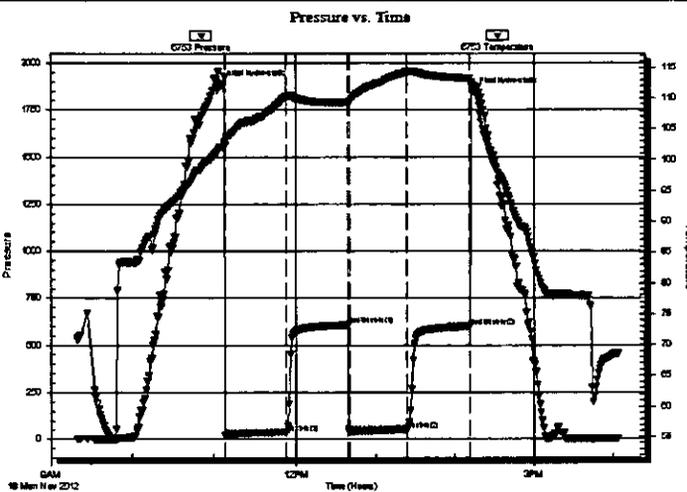
Start Time: 09:20:05

End Time: 16:03:59

Time On Btm: 2012.11.19 @ 11:04:30

Time Off Btm: 2012.11.19 @ 14:14:30

**TEST COMMENT:** IF-5 3/4" blow  
ISI-No blow  
FF-3 1/2" blow  
FSI-No blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1890.53	102.09	Initial Hydro-static
4	18.72	102.44	Open To Flow (1)
49	37.88	110.27	Shut-In(1)
95	607.93	109.33	End Shut-In(1)
96	39.36	109.35	Open To Flow (2)
140	53.79	114.30	Shut-In(2)
187	601.13	113.25	End Shut-In(2)
190	1846.79	111.94	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
78.00	Oil spotted WCM 30%W 70%M	0.82
2.00	SGO 5%G 95%O	0.03

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Downing-Nelson Oil Co. Inc.

**Robert Nickelson #1-27**

PO Box 1019  
Hays KS 67601

**27-9s-24w Graham,KS**

Job Ticket: 51228

**DST#: 1**

ATTN: Marc Downing

Test Start: 2012.11.19 @ 09:20:00

**Tool Information**

Drill Pipe:	Length: 3890.00 ft	Diameter: 3.80 inches	Volume: 54.57 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - 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: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3935.00 ft			Final 45000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	42.00 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			3916.00	
Shut In Tool	5.00			3921.00	
Hydraulic tool	5.00			3926.00	
Packer	4.00			3930.00	20.00 Bottom Of Top Packer
Packer	5.00			3935.00	
Stubb	1.00			3936.00	
Perforations	3.00			3939.00	
Recorder	0.00	8166	Inside	3939.00	
Recorder	0.00	6753	Outside	3939.00	
Perforations	15.00			3954.00	
Bullnose	3.00			3957.00	22.00 Bottom Packers & Anchor

**Total Tool Length: 42.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Dow ning-Nelson Oil Co. Inc.

**Robert Nickelson #1-27**

PO Box 1019  
Hays KS 67601

**27-9s-24w Graham,KS**

Job Ticket: 51228      **DST#: 1**

ATTN: Marc Dow ning

Test Start: 2012.11.19 @ 09:20:00

## 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:	88000 ppm
Viscosity: 60.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.98 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 800.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

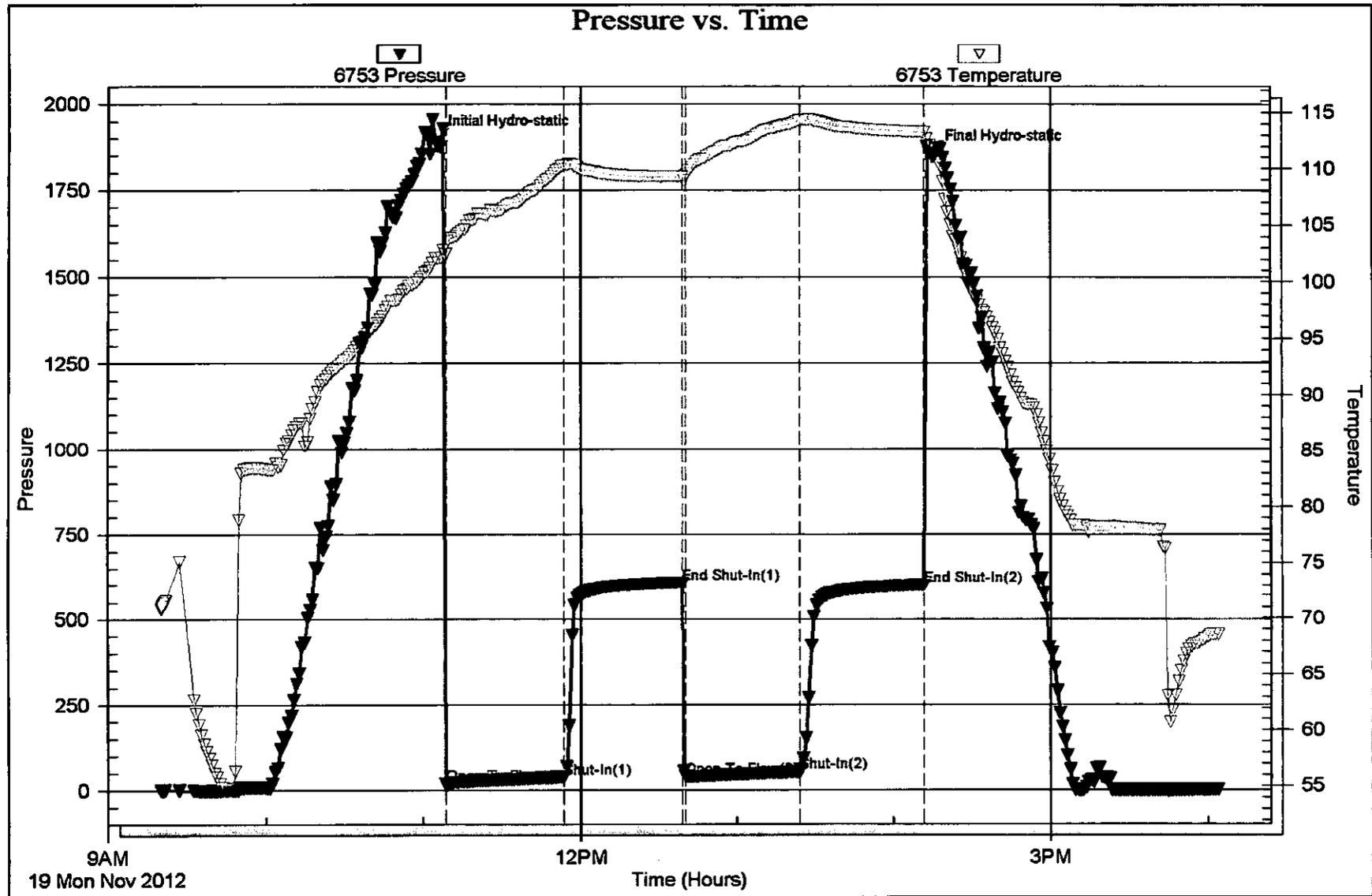
Length ft	Description	Volume bbl
78.00	Oil spotted WCM 30%W 70%M	0.821
2.00	SGO 5%G 95%O	0.028

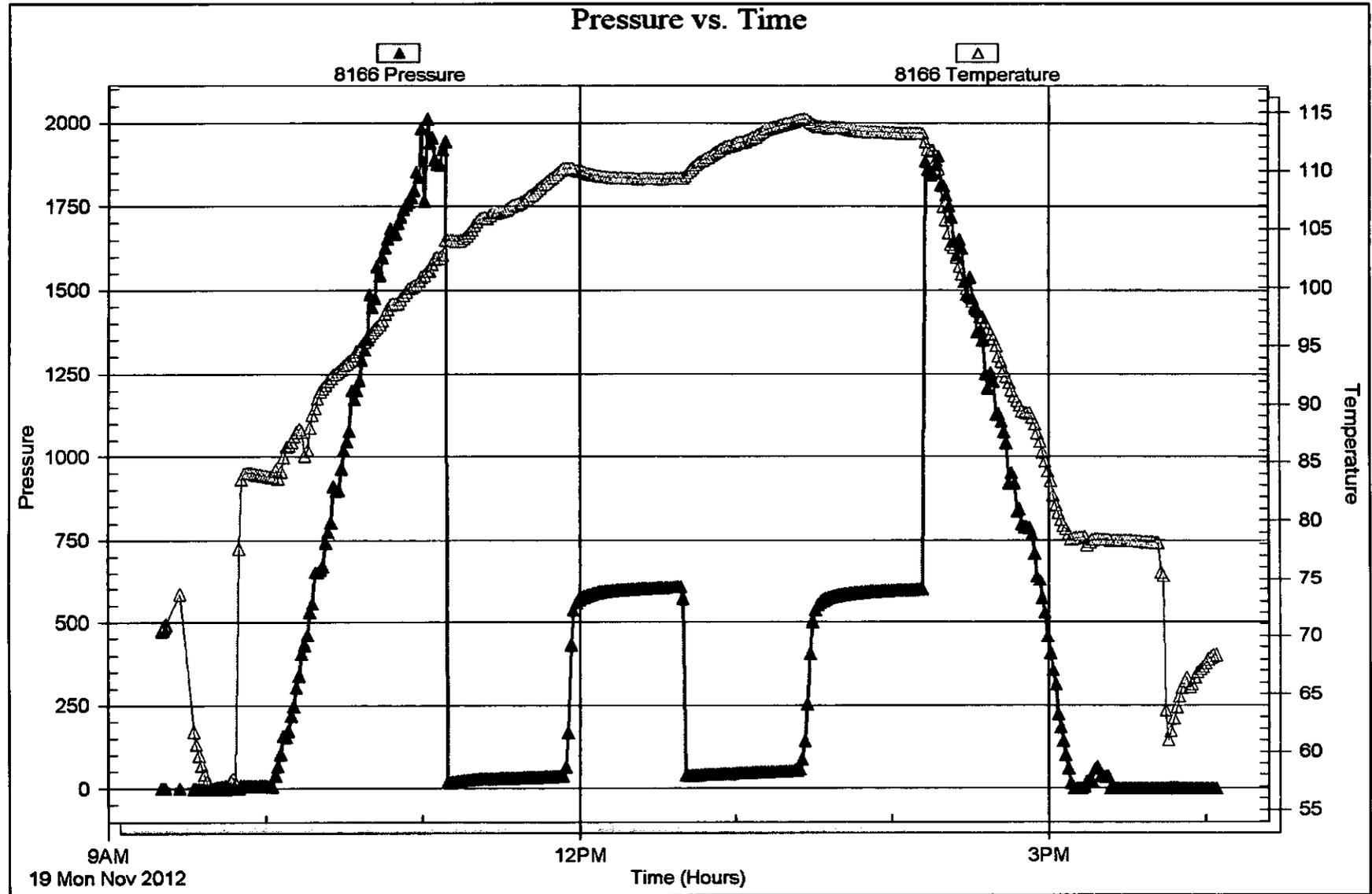
Total Length: 80.00 ft      Total Volume: 0.849 bbl

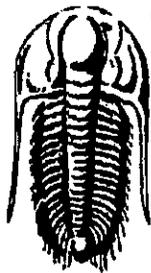
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments:







**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

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

PO Box 1019  
Hays KS 67601

ATTN: Marc Downing

**27-9s-24w Graham,KS**

**Robert Nickelson #1-27**

Start Date: 2012.11.20 @ 01:50:00

End Date: 2012.11.20 @ 07:01:30

Job Ticket #: 51229                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.11.26 @ 13:05:57

Downing-Nelson Oil Co. Inc.

Robert Nickelson #1-27

27-9s-24w Graham,KS

DST # 2

KC "r"

2012.11.20



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co. Inc.

**Robert Nickelson #1-27**

PO Box 1019  
Hays KS 67601

**27-9s-24w Graham,KS**

Job Ticket: 51229

**DST#: 2**

ATTN: Marc Dow ning

Test Start: 2012.11.20 @ 01:50:00

## GENERAL INFORMATION:

Formation: **KC "I"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:28:00

Time Test Ended: 07:01:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: **4017.00 ft (KB) To 4036.00 ft (KB) (TVD)**

Reference Elevations: 2532.00 ft (KB)

Total Depth: 4036.00 ft (KB) (TVD)

2524.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 6753**

**Outside**

Press@RunDepth: 13.00 psig @ 4018.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.11.20

End Date:

2012.11.20

Last Calib.: 2012.11.20

Start Time: 01:50:05

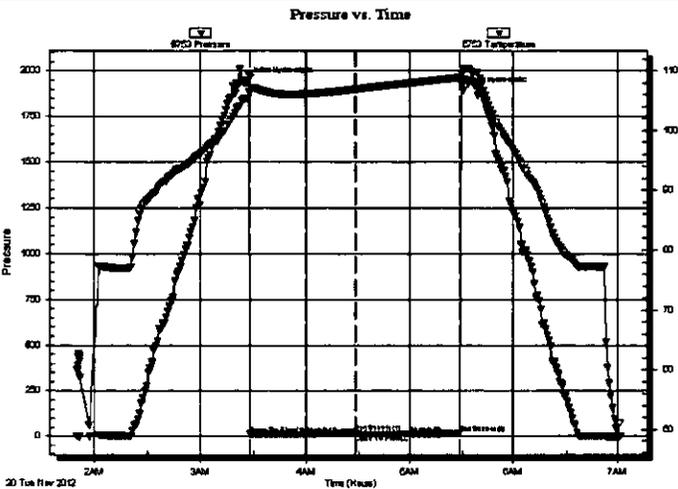
End Time:

07:01:29

Time On Btm: 2012.11.20 @ 03:26:30

Time Off Btm: 2012.11.20 @ 05:30:30

TEST COMMENT: IF-1/2" blow  
ISI-No blow  
FF-No blow  
FSI-No blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1945.03	105.37	Initial Hydro-static
2	14.10	106.31	Open To Flow (1)
33	13.71	106.11	Shut-In(1)
62	20.69	106.87	End Shut-In(1)
62	14.21	106.89	Open To Flow (2)
94	13.00	107.95	Shut-In(2)
122	16.71	108.85	End Shut-In(2)
124	1892.90	109.85	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1.00	Mud	0.00

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co. Inc.

**Robert Nickelson #1-27**

PO Box 1019  
Hays KS 67601

**27-9s-24w Graham,KS**

Job Ticket: 51229

**DST#: 2**

ATTN: Marc Dow ning

Test Start: 2012.11.20 @ 01:50:00

## GENERAL INFORMATION:

Formation: **KC "I"**

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

Time Tool Opened: 03:28:00

Time Test Ended: 07:01:30

Test Type: **Conventional Bottom Hole (Reset)**

Tester: **Brett Dickinson**

Unit No: **59**

Interval: **4017.00 ft (KB) To 4036.00 ft (KB) (TVD)**

Reference Elevations: **2532.00 ft (KB)**

Total Depth: **4036.00 ft (KB) (TVD)**

**2524.00 ft (CF)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

**KB to GR/CF: 8.00 ft**

**Serial #: 8166**

**Inside**

Press@RunDepth: **psig @ 4018.00 ft (KB)**

Capacity: **8000.00 psig**

Start Date: **2012.11.20**

End Date: **2012.11.20**

Last Calib.: **2012.11.20**

Start Time: **01:50:05**

End Time: **07:01:29**

Time On Btm:

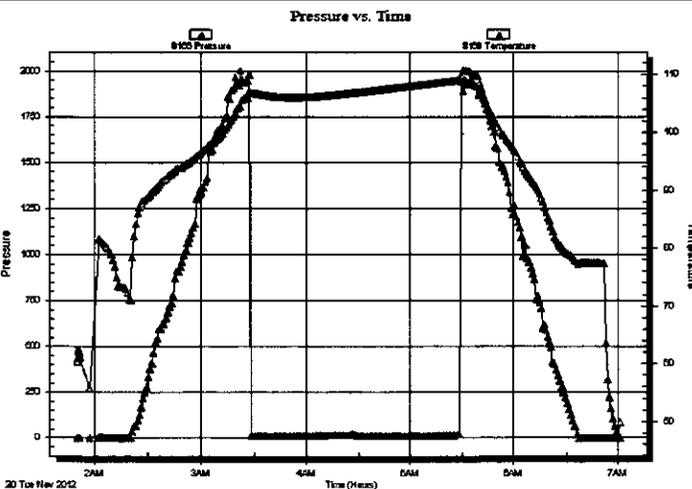
Time Off Btm:

TEST COMMENT: **IF-1/2" blow**

**ISI-No blow**

**FF-No blow**

**FSl-No blow**



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
1.00	Mud	0.00

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Dow ning-Nelson Oil Co. Inc.

**Robert Nickelson #1-27**

PO Box 1019  
Hays KS 67601

**27-9s-24w Graham,KS**

Job Ticket: 51229 **DST#: 2**

ATTN: Marc Dow ning

Test Start: 2012.11.20 @ 01:50:00

**Tool Information**

Drill Pipe:	Length: 3983.00 ft	Diameter: 3.80 inches	Volume: 55.87 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - 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: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	4017.00 ft			Final 45000.00 lb
Depth to Bottom Packer:	ft			
Interval betw een Packers:	19.00 ft			
Tool Length:	39.00 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			3998.00	
Shut In Tool	5.00			4003.00	
Hydraulic tool	5.00			4008.00	
Packer	4.00			4012.00	20.00 Bottom Of Top Packer
Packer	5.00			4017.00	
Stubb	1.00			4018.00	
Recorder	0.00	8166	Inside	4018.00	
Recorder	0.00	6753	Outside	4018.00	
Perforations	15.00			4033.00	
Bullnose	3.00			4036.00	19.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>39.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Downing-Nelson Oil Co. Inc.

**Robert Nickelson #1-27**

PO Box 1019  
Hays KS 67601

**27-9s-24w Graham,KS**

Job Ticket: 51229

**DST#: 2**

ATTN: Marc Downing

Test Start: 2012.11.20 @ 01:50:00

## 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: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	Mud	0.005

Total Length: 1.00 ft

Total Volume: 0.005 bbl

Num Fluid Samples: 0

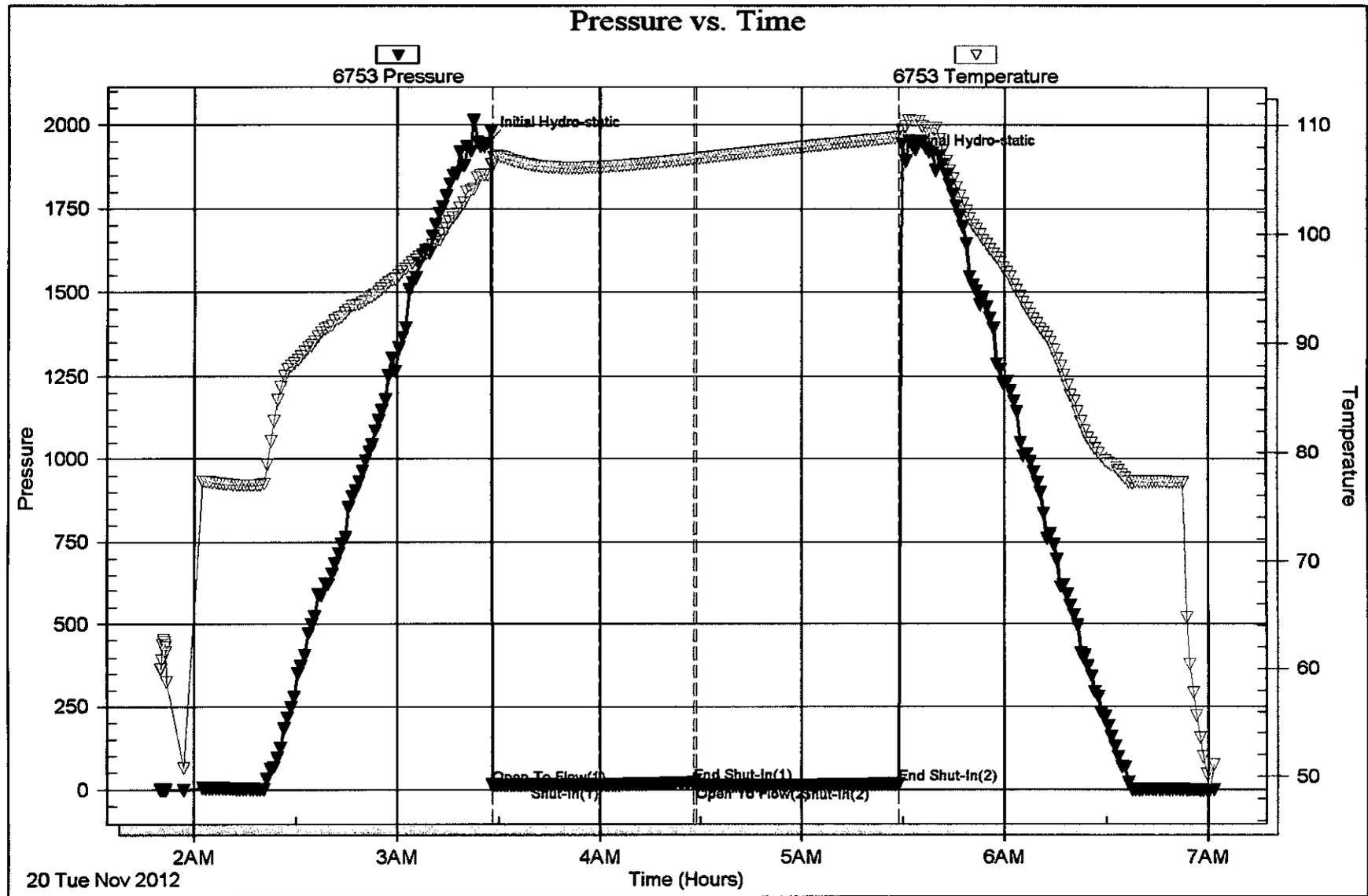
Num Gas Bombs: 0

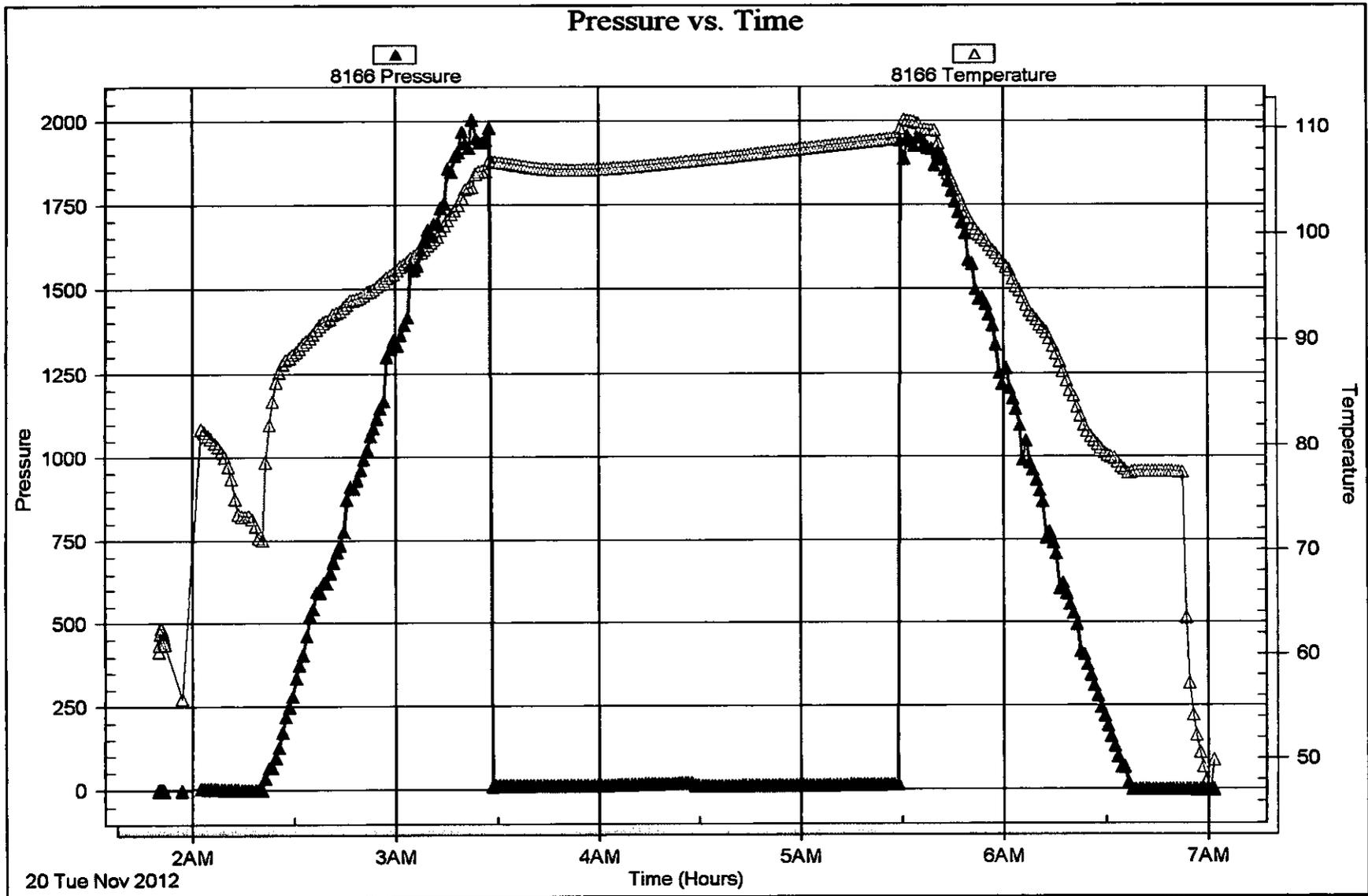
Serial #:

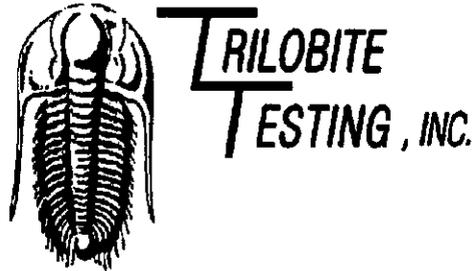
Laboratory Name:

Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

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

PO Box 1019  
Hays KS 67601

ATTN: Marc Downing

**27-9s-24w Graham,KS**

**Robert Nickelson #1-27**

Start Date: 2012.11.20 @ 14:35:00

End Date: 2012.11.20 @ 19:55:00

Job Ticket #: 51230                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.11.26 @ 13:05:03

Downing-Nelson Oil Co. Inc.

Robert Nickelson #1-27

27-9s-24w Graham,KS

DST # 3

KC" LK"

2012.11.20



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Dowling-Nelson Oil Co. Inc.

**Robert Nickelson #1-27**

PO Box 1019  
Hays KS 67601

**27-9s-24w Graham, KS**

Job Ticket: 51230

**DST#: 3**

ATTN: Marc Dowling

Test Start: 2012.11.20 @ 14:35:00

## GENERAL INFORMATION:

Formation: **KC" I-K"**

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

Time Tool Opened: 16:19:00

Time Test Ended: 19:55:00

Test Type: **Conventional Bottom Hole (Reset)**

Tester: **Brett Dickinson**

Unit No: **59**

Interval: **4016.00 ft (KB) To 4075.00 ft (KB) (TVD)**

Total Depth: **4075.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **2532.00 ft (KB)**

**2524.00 ft (CF)**

KB to GR/CF: **8.00 ft**

**Serial #: 6753** **Outside**

Press@RunDepth: **21.46 psig @ 4020.00 ft (KB)**

Start Date: **2012.11.20**

End Date: **2012.11.20**

Start Time: **14:35:05**

End Time: **19:54:59**

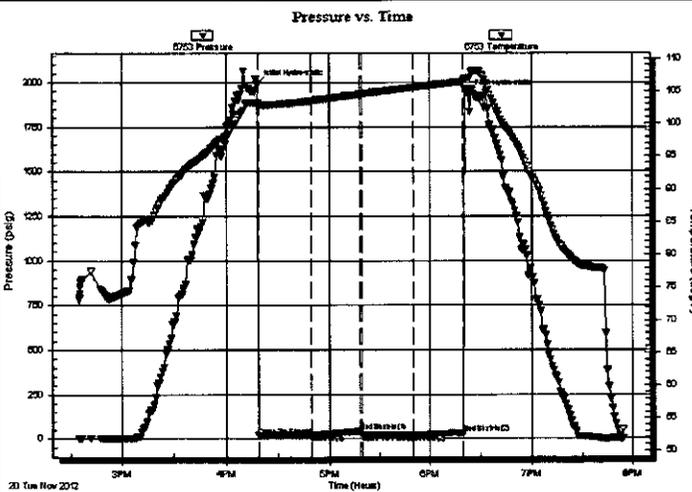
Capacity: **8000.00 psig**

Last Calib.: **2012.11.20**

Time On Btm: **2012.11.20 @ 16:18:00**

Time Off Btm: **2012.11.20 @ 18:23:00**

TEST COMMENT: IF-3/4" blow  
ISI-No blow  
FF-No blow  
FSI-No blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1992.70	103.18	Initial Hydro-static
1	19.78	102.75	Open To Flow (1)
32	20.59	103.48	Shut-In(1)
60	42.79	104.46	End Shut-In(1)
61	21.72	104.50	Open To Flow (2)
92	21.46	105.51	Shut-In(2)
122	32.08	106.38	End Shut-In(2)
125	1933.16	107.01	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Oil spotted mud	0.02

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Downing-Nelson Oil Co. Inc.

**Robert Nickelson #1-27**

PO Box 1019  
Hays KS 67601

**27-9s-24w Graham,KS**

Job Ticket: 51230

**DST#: 3**

ATTN: Marc Downing

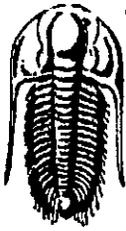
Test Start: 2012.11.20 @ 14:35:00

### Tool Information

Drill Pipe:	Length: 3981.00 ft	Diameter: 3.80 inches	Volume: 55.84 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - 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: 60000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	4016.00 ft			Final 45000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	59.00 ft			
Tool Length:	79.00 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			3997.00	
Shut In Tool	5.00			4002.00	
Hydraulic tool	5.00			4007.00	
Packer	4.00			4011.00	20.00 Bottom Of Top Packer
Packer	5.00			4016.00	
Stubb	1.00			4017.00	
Perforations	3.00			4020.00	
Recorder	0.00	8166	Inside	4020.00	
Recorder	0.00	6753	Outside	4020.00	
Change Over Sub	1.00			4021.00	
Blank Spacing	31.00			4052.00	
Change Over Sub	1.00			4053.00	
Perforations	19.00			4072.00	
Bullnose	3.00			4075.00	59.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>79.00</b>				



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Downing-Nelson Oil Co. Inc.

**Robert Nickelson #1-27**

PO Box 1019  
Hays KS 67601

**27-9s-24w Graham,KS**

Job Ticket: 51230

**DST#: 3**

ATTN: Marc Downing

Test Start: 2012.11.20 @ 14:35:00

**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:

bbl

Water Loss: 7.97 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
5.00	Oil spotted mud	0.025

Total Length: 5.00 ft

Total Volume: 0.025 bbl

Num Fluid Samples: 0

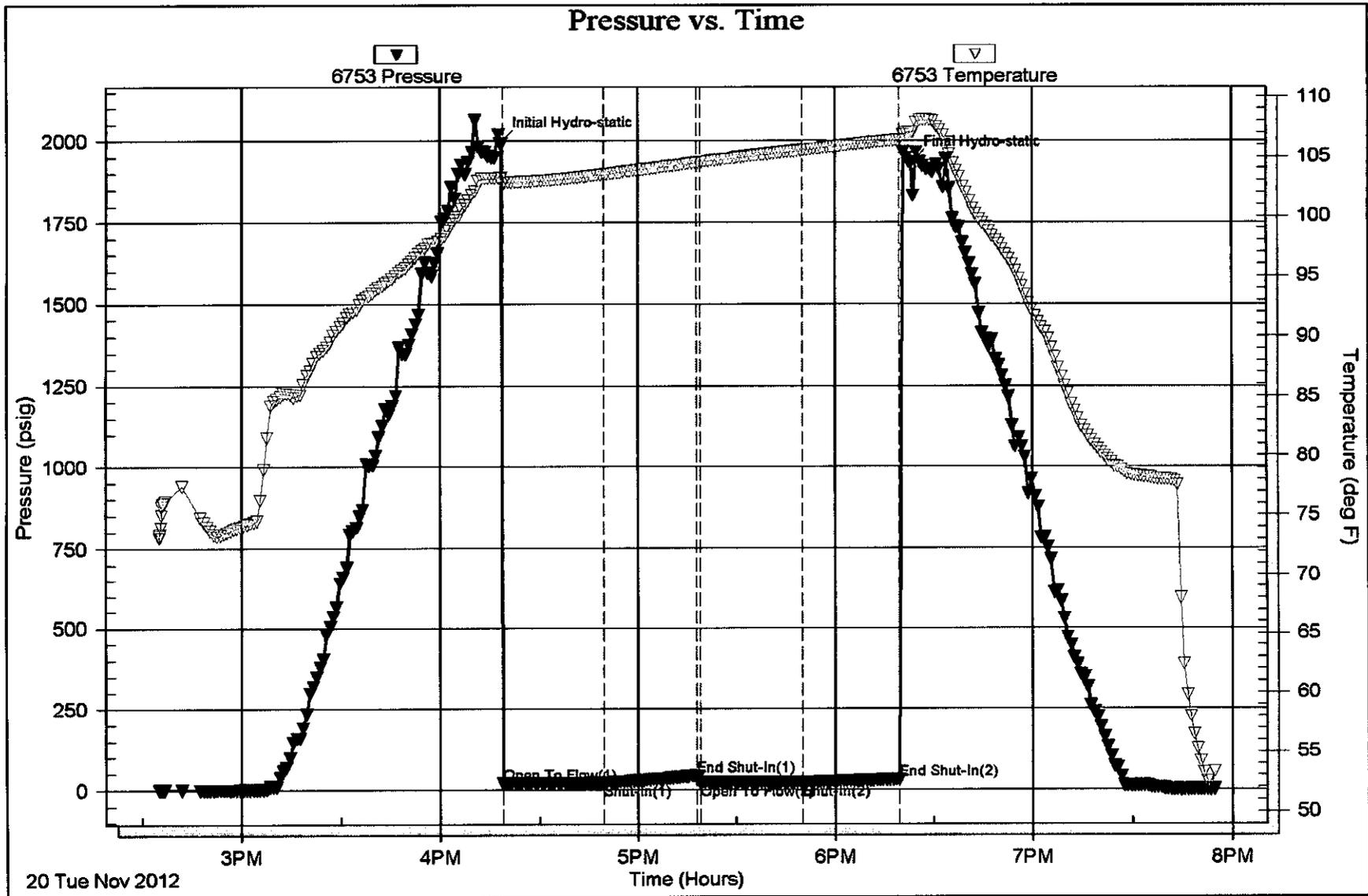
Num Gas Bombs: 0

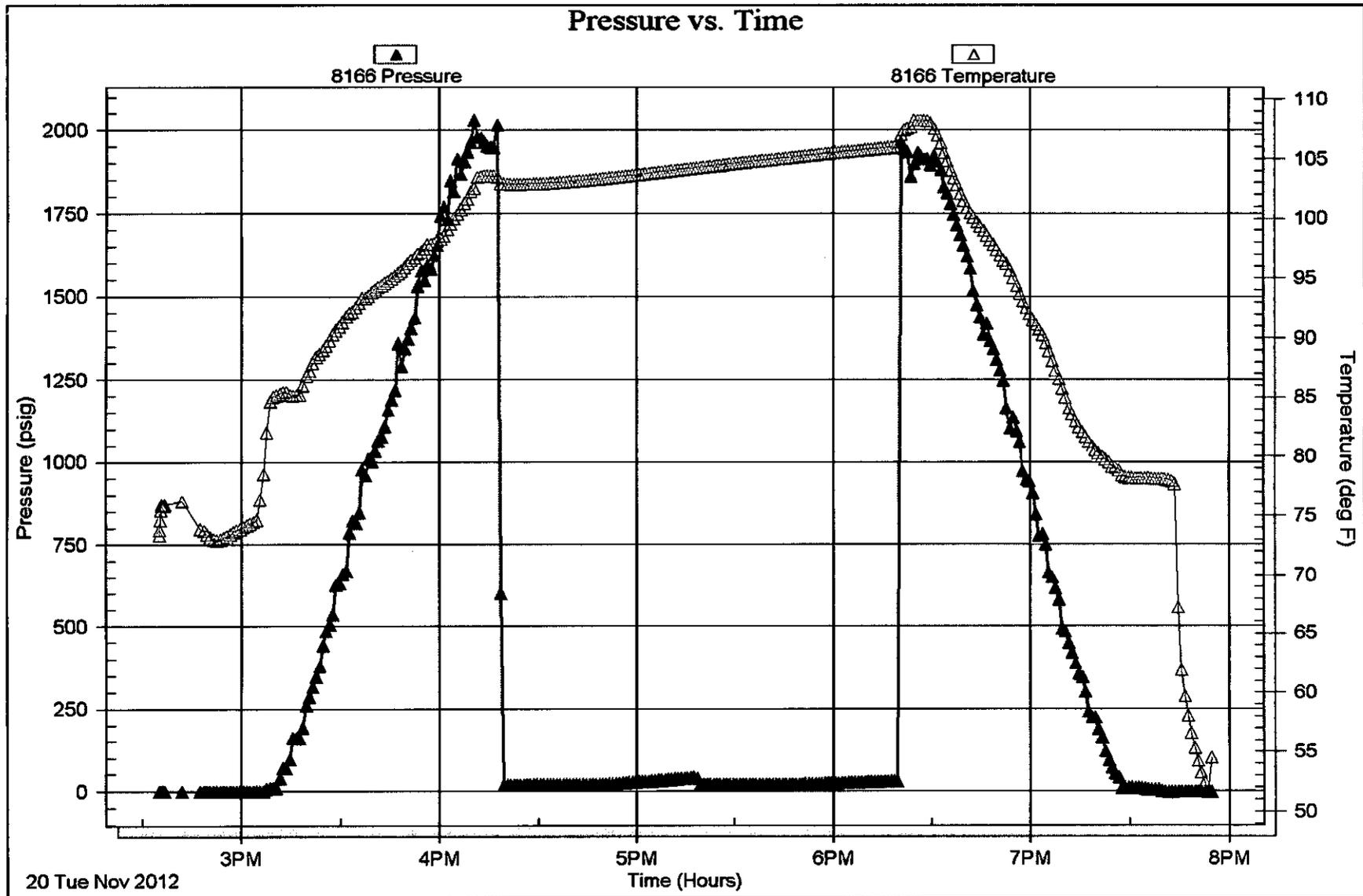
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 51228

Well Name & No. Robert Nickelson "B" 1-27 Test No. 1 Date 11/19/12  
 Company Downing-Nelson Oil Co Inc Elevation 2532 KB 2524 GL  
 Address PO Box 1019 Hays KS 67601  
 Co. Rep / Geo. \_\_\_\_\_ Rig Discovery #1  
 Location: Sec. 27 Twp. 9 Rge. 24 Co. Graham State KS

Interval Tested 3935-3957 Zone Tested KC "E, F"  
 Anchor Length 22 Drill Pipe Run 3890 Mud Wt. 8.9  
 Top Packer Depth 3930 Drill Collars Run 30 Vis 60  
 Bottom Packer Depth 3935 Wt. Pipe Run - WL 8.0  
 Total Depth 3957 Chlorides 800 ppm System LCM 2  
 Blow Description IF - 5 3/4 in blow  
FSI - No blow  
FF - 3 1/2 in blow  
ISI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	<u>560</u>	<u>5</u>	<u>93</u>		
<u>78</u>	<u>oil spotted wcm</u>			<u>30</u>	<u>70</u>
____	____	%gas	%oil	%water	%mud
____	____	%gas	%oil	%water	%mud
____	____	%gas	%oil	%water	%mud

Rec Total 80 BHT 113 Gravity \_\_\_\_\_ API RW .09 @ 70 °F Chlorides 88,000 ppm  
 (A) Initial Hydrostatic 1,591  Test \_\_\_\_\_ T-On Location 8:40  
 (B) First Initial Flow 19  Jars \_\_\_\_\_ T-Started 9:20  
 (C) First Final Flow 38  Safety Joint \_\_\_\_\_ T-Open 11:10  
 (D) Initial Shut-In 608  Circ Sub \_\_\_\_\_ T-Pulled 14:10  
 (E) Second Initial Flow 39  Hourly Standby \_\_\_\_\_ T-Out 16:00  
 (F) Second Final Flow 54  Mileage 112.7 173.60  
 (G) Final Shut-In 601  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1,847  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1323.60  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1323.60

Approved By \_\_\_\_\_ Our Representative Ben Dick

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. 51229

Well Name & No. Robert Nickelson "B" 1-27 Test No. 2 Date 11/20/12  
 Company Downing-Nelson Oil Co Inc. Elevation 2532 KB 2524 GL  
 Address PO Box 1019 Hays KS 67601  
 Co. Rep / Geo. \_\_\_\_\_ Rig Discovery #11  
 Location: Sec. 27 Twp. 9 Rge. 24 Co. Braham State KS

Interval Tested 4017-4036 Zone Tested KC "J"  
 Anchor Length 19 Drill Pipe Run 3983 Mud Wt. 8.9  
 Top Packer Depth 4012 Drill Collars Run 30 Vis 60  
 Bottom Packer Depth 4017 Wt. Pipe Run - WL 8.0  
 Total Depth 4036 Chlorides 800 ppm System LCM 2  
 Blow Description ZF - No blow  
ISL - No blow  
FF - No blow  
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>Mud</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 1 BHT 109 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm  
 (A) Initial Hydrostatic 1945  Test \_\_\_\_\_ T-On Location 1:35  
 (B) First Initial Flow 14  Jars \_\_\_\_\_ T-Started 1:50  
 (C) First Final Flow 14  Safety Joint \_\_\_\_\_ T-Open 3:30  
 (D) Initial Shut-In 21  Circ Sub \_\_\_\_\_ T-Pulled 1:30  
 (E) Second Initial Flow 14  Hourly Standby \_\_\_\_\_ T-Out 2:05  
 (F) Second Final Flow 13  Mileage 112.1 173.60 Comments \_\_\_\_\_  
 (G) Final Shut-In 17  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1893  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Initial Open 30  Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Initial Shut-In 30  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Final Flow 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Shut-In 30  Day Standby \_\_\_\_\_ Total 1423.60  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1423.60

Approved By \_\_\_\_\_ Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 51230

Well Name & No. Robert Nickelson "B" #1-27 Test No. 3 Date 11/20/12  
 Company Downing-Nelson Oil Co Inc. Elevation 2532 KB 2524 GL  
 Address PO Box 1019 Hays KS 67601  
 Co. Rep / Geo. \_\_\_\_\_ Rig Discovery #1  
 Location: Sec. 27 Twp. 9 Rge. 24 Co. Graham State KS

Interval Tested 4016-4075 Zone Tested L&C<sup>17</sup>-K<sup>11</sup>  
 Anchor Length 59 Drill Pipe Run 3981 Mud Wt. 8.9  
 Top Packer Depth 4011 Drill Collars Run 30 Vis 54  
 Bottom Packer Depth 4016 Wt. Pipe Run - WL 8.0  
 Total Depth 4075 Chlorides 1000 ppm System LCM 1 1/2 #  
 Blow Description IF - 3/4" blow  
IS - No blow  
FF - No blow  
FS - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>oil spotted mud</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 106 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm  
 (A) Initial Hydrostatic 1,993  Test \_\_\_\_\_ T-On Location 14:30  
 (B) First Initial Flow 20  Jars \_\_\_\_\_ T-Started 14:35  
 (C) First Final Flow 21  Safety Joint \_\_\_\_\_ T-Open 16:15  
 (D) Initial Shut-In 43  Circ Sub \_\_\_\_\_ T-Pulled 18:15  
 (E) Second Initial Flow 22  Hourly Standby \_\_\_\_\_ T-Out 19:55  
 (F) Second Final Flow 21  Mileage 112.7 173.60 Comments \_\_\_\_\_  
 (G) Final Shut-In 32  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1,933  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Initial Open 30  Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Initial Shut-In 30  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Final Flow 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Shut-In 30  Day Standby \_\_\_\_\_ Total 1423.60  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1423.60

Approved By \_\_\_\_\_ Our Representative Beth D...

TriLOBite Testing Inc. shall not be liable for damaged or 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.

# QUALITY OILWELL CEMENTING, INC.

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 6253

Date	Sec.	Twp.	Range	County	State	On Location	Finish
11-15-12	27	9	24	GRAHAM	KANSAS		5:15 pm
Lease <b>ROBERT NICKELSON</b> # <b>1-27</b>				Location <b>WAKEENEY N TO RENTINE - 6 1/2 W - N / INTO</b>			
Contractor <b>D.D. #1</b>				Owner <b>DOWNING &amp; NELSON</b>			
Type Job <b>SURFACE</b>				To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cement and helper to assist owner or contractor to do work as listed.			
Hole Size <b>12 1/4"</b>		T.D. <b>218'</b>		Charge To <b>DOWNING &amp; NELSON</b>			
Csg. <b>8 5/8" - 23LB-NEL</b>		Depth <b>218'</b>		Street <b>111 WEST 10TH - PO BOX 1019</b>			
Tbg. Size		Depth		City <b>HAYS</b>		State <b>KS, 67101</b>	
Tool		Depth		The above was done to satisfaction and supervision of owner agent or contractor.			
Cement Left in Csg.		Shoe Joint <b>15'</b>		Cement Amount Ordered <b>150 com - 3cc - 2% GEL</b>			
Meas Line		Displace <b>13 Bbls</b>					
<b>EQUIPMENT</b>				Common <b>150</b>			
Pumptrk # <b>110</b>	No.	Cementer Helper <b>TRAVIS</b>		Poz. Mix			
Bulktrk # <b>14</b>	No.	Driver <b>Doug</b>		Gel. <b>3</b>			
Bulktrk <b>PLU</b>	No.	Driver <b>CTSC0</b>		Calcium <b>5</b>			
<b>JOB SERVICES &amp; REMARKS</b>				Hulls			
Remarks: <b>SWEDGE ON LOCATION</b>				Salt			
Rat Hole				Flowseal			
Mouse Hole				Kol-Seal			
Centralizers				Mud CLR 48			
Baskets				CFL-117 or CD110 CAF 38			
D/V or Port Collar				Sand			
				Handling <b>158</b>			
<b>CEMENT DID NOT CIRCULATE</b>				Mileage			
				<b>FLOAT EQUIPMENT</b>			
				Guide Shoe			
				Centralizer			
				Baskets			
				AFU Inserts			
				Float Shoe			
				Latch Down			
				Pumptrk Charge <b>Surface</b>			
<b>THANK YOU!</b>				Mileage <b>36</b>			
				Tax			
				Discount			
				Total Charge			
Signature <b>Chf Mayfield</b>							

# QUALITY OILWELL CEMENTING, INC.

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 6229

Date <i>11-21-12</i>	Sec. <i>27</i>	Twp. <i>9</i>	Range <i>24</i>	County <i>Grant</i>	State <i>KS</i>	On Location	Finish <i>3:45 AM</i>
				Location <i>Wakeeney N to RL 6kw</i>			
Lease <i>Robert Nickelson R</i>			Well No. <i>1-27</i>		Owner		
Contractor <i>Discovery 1</i>			To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.				
Type Job <i>plug</i>			T.D. <i>4075</i>		Charge To <i>Downing Nelson</i>		
Hole Size <i>7 7/8</i>			Depth <i>2200</i>		Street		
Csg.			Depth		City		
Tbg. Size			Depth		State		
Tool			Depth		The above was done to satisfaction and supervision of owner agent or contractor.		
Cement Left in Csg.			Shoe Joint		Cement Amount Ordered		
Meas Line			Displace		<i>220 60/40 4% gel 'flow</i>		
<b>EQUIPMENT</b>							
Pumptrk <i>16</i> No. <i>16</i>			Cementer <i>Travis</i>		Common <i>132</i>		
			Helper		Poz. Mix <i>88</i>		
Bulktrk <i>8</i> No. <i>8</i>			Driver <i>Matt</i>		Gel. <i>8</i>		
			Driver		Calcium		
Bulktrk <i>PU</i> No. <i>PU</i>			Driver <i>Lanney W</i>				
			Driver				
<b>JOB SERVICES &amp; REMARKS</b>							
Remarks:					Hulls		
Rat Hole <i>30 sks</i>					Salt		
Mouse Hole <i>15 sks</i>					Flowseal <i>55#</i>		
Centralizers					Kol-Seal		
Baskets					Mud CLR 48		
D/V or Port Collar					CFL-117 or CD110 CAF 38		
<i>#1 2200' 25 sks</i>					Sand		
<i>#2 1300' 100 sks</i>					Handling		
<i>#3 275' 40 sks</i>					Mileage		
<i>#4 40' 10 sks</i>					<b>FLOAT EQUIPMENT</b>		
					Guide Shoe		
					Centralizer		
					Baskets		
					AFU Inserts		
					Float Shoe		
					Latch Down		
					<del>Plug</del> <i>8/8 wood plug</i>		
					Pumptrk Charge		
					Mileage <i>36 plug</i>		
					Tax		
					Discount		
					Total Charge		
Signature <i>W. Mayfield</i>							

