



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
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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: \_\_\_\_\_



1093861

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 <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input 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 type="checkbox"/> Sample  Name Top Datum
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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 _____ 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 <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
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<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <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) _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	Hockersmith-Robben 1-29
Doc ID	1093861

All Electric Logs Run

Micro
Sonic
Dual Induction
Compansated Density/Neutron

Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	Hockersmith-Robben 1-29
Doc ID	1093861

Tops

Name	Top	Datum
Top Anhydrite	2618'	+429
Base Anhydrite	2648'	+399
Topeka	3833'	-786
Heebner	4047'	-1000
LKC	4084'	-1037
BKC	4358'	-1311
Marmaton	4388'	-1433
Pawnee	4480'	-1475
Myrick Station	4522'	-1499
Ft Scott	4546'	-1527
Cherokee Shale	4574'	-1569
Johnson Zone	4616'	-1569
Mississippi	4650'	-1603

# ALLIED OIL & GAS SERVICES, LLC 056301

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

SERVICE POINT  
*Oakley, KS*

DATE <i>8-7-12</i>	SEC <i>29</i>	TWP. <i>9</i>	RANGE <i>31</i>	CALLED OUT	ON LOCATION <i>3:30pm</i>	JOB START <i>4:00pm</i>	JOB FINISH <i>4:15pm</i>
LEASE <i>Robben</i>				WELL# <i>1-29</i>	LOCATION <i>Oakley, 8N, 31E, NW 1/4</i>	COUNTY <i>Thomas</i>	STATE <i>KS</i>
OLD OR NEW (Circle one)					1.01		1.3

CONTRACTOR <i>Discovery #1</i>	OWNER <i>Same</i>
TYPE OF JOB <i>Surface</i>	
HOLE SIZE <i>12 1/4"</i>	T.D. <i>292'</i>
CASING SIZE <i>8 1/2"</i>	DEPTH <i>292.29'</i>
TUBING SIZE	DEPTH
DRILL PIPE	DEPTH
TOOL	DEPTH
PRES. MAX	MINIMUM
MEAS. LINE	SHOE JOINT
CEMENT LEFT IN CSG. <i>15'</i>	
PERFS.	
DISPLACEMENT <i>12.73 bbl</i>	

CEMENT	
AMOUNT ORDERED <i>185 SK cement 3% cc</i>	
<i>29 gal</i>	
COMMON	<i>185 SK @ 16.25 = 3006.25</i>
POZMIX	<i>@</i>
GEL	<i>3 SK @ 21.25 = 63.75</i>
CHLORIDE	<i>7 SK @ 58.20 = 407.40</i>
ASC	<i>@</i>

EQUIPMENT	
PUMP TRUCK # <i>423 ADI</i>	CEMENTER <i>Larone Weathly</i>
BULK TRUCK # <i>347</i>	HELPER <i>Tyler Fipse</i>
BULK TRUCK #	DRIVER <i>Adam Helcomb</i>
BULK TRUCK #	DRIVER

HANDLING <i>200.06 SK</i>	@ <i>2.10</i>	<i>420.13</i>
MILEAGE <i>7.15 tank 12 x 2.55</i>	@	<i>252.47</i>
TOTAL		<i>4155.00</i>

REMARKS:  
*Mix 185 SK cement*  
*Displace with water*  
*Cement did circulate.*  
  
*Thank you*

SERVICE		
DEPTH OF JOB <i>292.29'</i>		
PUMP TRUCK CHARGE		<i>1125.00</i>
EXTRA FOOTAGE	@	
MILEAGE <i>12</i>	@ <i>7.00</i>	<i>84.00</i>
MANIFOLD <i>swedge</i>	@	<i>150</i>
L.D. Mileage <i>12</i>	@ <i>4.00</i>	<i>48.00</i>
TOTAL		<i>1257.00</i>

CHARGE TO: *Downing Nelson Oil Co. Inc.*  
STREET \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

To: Allied Oil & Gas Services, LLC.  
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PLUG & FLOAT EQUIPMENT		
	@	
	@	
	@	
	@	
	@	
TOTAL		

PRINTED NAME \_\_\_\_\_  
SIGNATURE *[Signature]*

SALES TAX (If Any) <i>253.85</i>	
TOTAL CHARGES <i>5,412.00</i>	
DISCOUNT <i>20</i> <i>1082.40</i>	IF PAID IN 30 DAYS

JOB LOG

SWIFT Services, Inc.

DATE 8-15-12 PAGE NO. 1

CUSTOMER Downing & Nelson WELL NO. # 1-29 LEASE Hackersmith-Robben JOB TYPE 2-stage TICKET NO. 21742

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0415							0-100 30/FE
								RTD 4710'
								5 1/2" x 14" x 4708' x 21' x 2581' DV
								Best 2, 4, 7, 9, 11, 13, 15, 51
								Back 2, 52
								D.V. 52 @ 2581'
	0615							Start FE
	0820							Break Circ
	0840	25	7/5					Plug RHYMH 34/20 sks EA-2 cement
	0848	5	0			200		Start Preflushes 500 gal Mudflush 20 bbl KCL flush
	0854	5	32/0			200		Start EA-2 Cement 125 sks
	0900		30					End Cement
								Drop DV & D Plug
								wash Pump & line
	0904	6	0			200		Start Displacement water 55 bbl
	0913	5	55			300		mud 60 bbl
	0925		114.5			600/1200		Land Plug
								Release Pressure
								Drop Opening Plug
	0940					1100		Open DV
	0945	5	0			150		Start KCL flush 20 bbl
	0949	6	20/0			150		Start SMD Cement
	1012		138					End Cement
								Drop Closing Plug
	1015	5	0			150		Start Displacement
	1025	4	50			250		Circ Cement
	1030		63			450/1500		Land Plug / Close DV Tool
								Release Pressure
								D.V. Closed
								circ 25 sks to pit
								Thank you
								Nick, David E, & Jeremy



## DRILL STEM TEST REPORT

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

PO Box 1019  
Hays KS 67601

ATTN: Ron Nelson

**29-9s-31w Thomas,KS**

**Hockersmith-Robben #1-29**

Start Date: 2012.08.12 @ 09:40:00

End Date: 2012.08.12 @ 15:16:00

Job Ticket #: 47398                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.08.16 @ 15:16:09

Downing-Nelson oil Co.Inc.

Hockersmith-Robben #1-29

29-9s-31w Thomas,KS

DST # 1

LKC-H,I,J

2012.08.12



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Dow ning-Nelson oil Co.Inc.

**Hockersmith-Robben #1-29**

PO Box 1019  
Hays KS 67601

**29-9s-31w Thomas,KS**

ATTN: Ron Nelson

Job Ticket: 47398

**DST#: 1**

Test Start: 2012.08.12 @ 09:40:00

## GENERAL INFORMATION:

Formation: **LKC-H,I,J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:39:30

Time Test Ended: 15:16:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Chuck Kreuzer Jr.

Unit No: 61

**Interval: 4208.00 ft (KB) To 4300.00 ft (KB) (TVD)**

Reference Elevations: 3043.00 ft (KB)

Total Depth: 4300.00 ft (KB) (TVD)

3038.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8791**

**Inside**

Press @ Run Depth: 25.49 psig @ 4211.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.08.12

End Date:

2012.08.12

Last Calib.:

2012.08.12

Start Time: 09:40:05

End Time:

15:15:59

Time On Btm:

2012.08.12 @ 11:14:30

Time Off Btm:

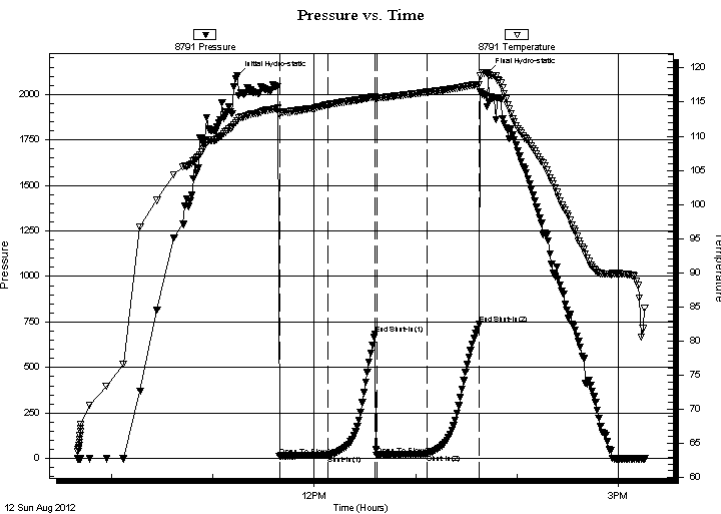
2012.08.12 @ 13:43:00

**TEST COMMENT:** IF: Weak blow , Started at 1 in. Died to 3/4 in.

IS: No blow back.

FF: Weak blow , Built to 2 in.

FS: No blow back.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2102.29	112.27	Initial Hydro-static
25	13.41	113.24	Open To Flow (1)
54	18.62	114.63	Shut-In(1)
82	682.72	115.83	End Shut-In(1)
83	16.24	115.64	Open To Flow (2)
113	25.49	116.46	Shut-In(2)
143	736.16	117.61	End Shut-In(2)
149	2120.87	119.02	Final Hydro-static

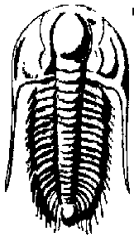
## Recovery

Length (ft)	Description	Volume (bbl)
30.00	OCMW 30%O 20%W 50%M	0.42

## Gas Rates

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





# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

Dow ning-Nelson oil Co.Inc.

**Hockersmith-Robben #1-29**PO Box 1019  
Hays KS 67601**29-9s-31w Thomas,KS**

ATTN: Ron Nelson

Job Ticket: 47398

**DST#: 1**

Test Start: 2012.08.12 @ 09:40:00

### GENERAL INFORMATION:

Formation: **LKC-H,I,J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:39:30

Time Test Ended: 15:16:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Chuck Kreutzer Jr.

Unit No: 61

**Interval: 4208.00 ft (KB) To 4300.00 ft (KB) (TVD)**

Reference Elevations: 3043.00 ft (KB)

Total Depth: 4300.00 ft (KB) (TVD)

3038.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8673** **Outside**

Press @RunDepth: psig @ 4211.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.08.12

End Date:

2012.08.12

Last Calib.:

2012.08.12

Start Time: 09:40:05

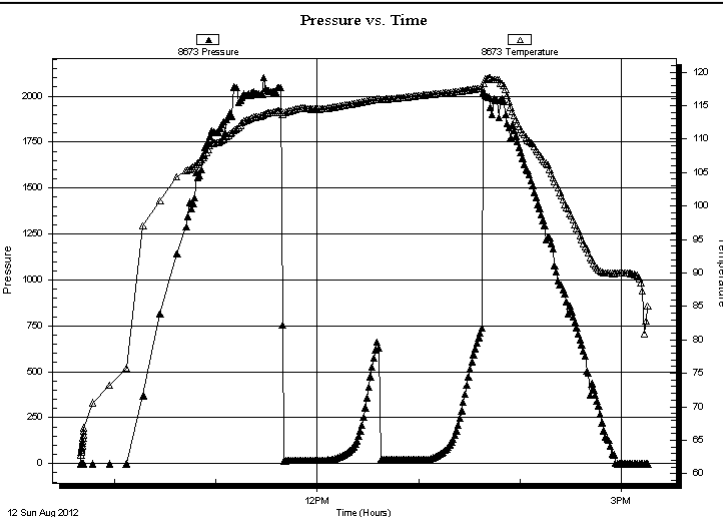
End Time:

15:15:59

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: Weak blow , Started at 1 in. Died to 3/4 in.  
 IS: No blow back.  
 FF: Weak blow , Built to 2 in.  
 FS: No blow back.



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
30.00	OCMW 30%O 20%W 50%M	0.42

### 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.

**Hockersmith-Robben #1-29**

PO Box 1019  
Hays KS 67601

**29-9s-31w Thomas,KS**

Job Ticket: 47398

**DST#: 1**

ATTN: Ron Nelson

Test Start: 2012.08.12 @ 09:40:00

## Tool Information

Drill Pipe:	Length: 4206.00 ft	Diameter: 3.80 inches	Volume: 59.00 bbl	Tool Weight: 2600.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			Total Volume: 59.00 bbl	Tool Chased 2.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4208.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	90.00 ft			
Tool Length:	110.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4193.00	
Hydraulic tool	5.00			4198.00	
Packer	5.00			4203.00	20.00 Bottom Of Top Packer
Packer	5.00			4208.00	
Stubb	1.00			4209.00	
Perforations	1.00			4210.00	
Change Over Sub	1.00			4211.00	
Recorder	0.00	8791	Inside	4211.00	
Recorder	0.00	8673	Outside	4211.00	
Blank Spacing	63.00			4274.00	
Change Over Sub	1.00			4275.00	
Perforations	20.00			4295.00	
Bullnose	3.00			4298.00	90.00 Bottom Packers & Anchor

**Total Tool Length: 110.00**



**TRILOBITE**  
TESTING, INC.

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Dow ning-Nelson oil Co.Inc.

**Hockersmith-Robben #1-29**

PO Box 1019  
Hays KS 67601

**29-9s-31w Thomas,KS**

Job Ticket: 47398      **DST#: 1**

ATTN: Ron Nelson

Test Start: 2012.08.12 @ 09:40:00

## 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: 53.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.97 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 800.00 ppm			
Filter Cake: 2.00 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	OCMW 30%O 20%W 50%M	0.421

Total Length: 30.00 ft      Total Volume: 0.421 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:

Serial #: 8791

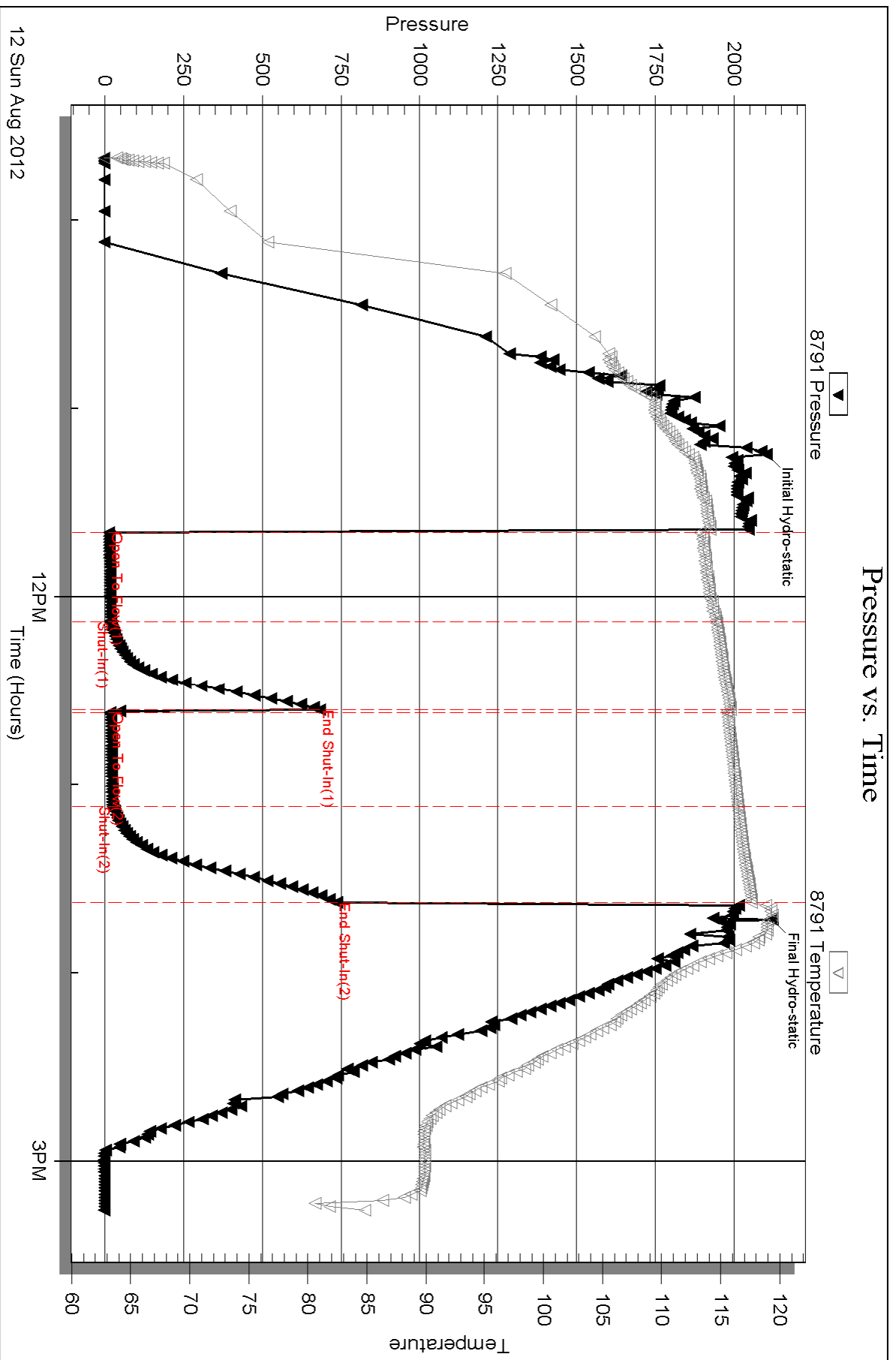
Inside

Downing-Nelson Oil Co. Inc.

29-95-31w Thomas, KS

DST Test Number: 1

# Pressure vs. Time

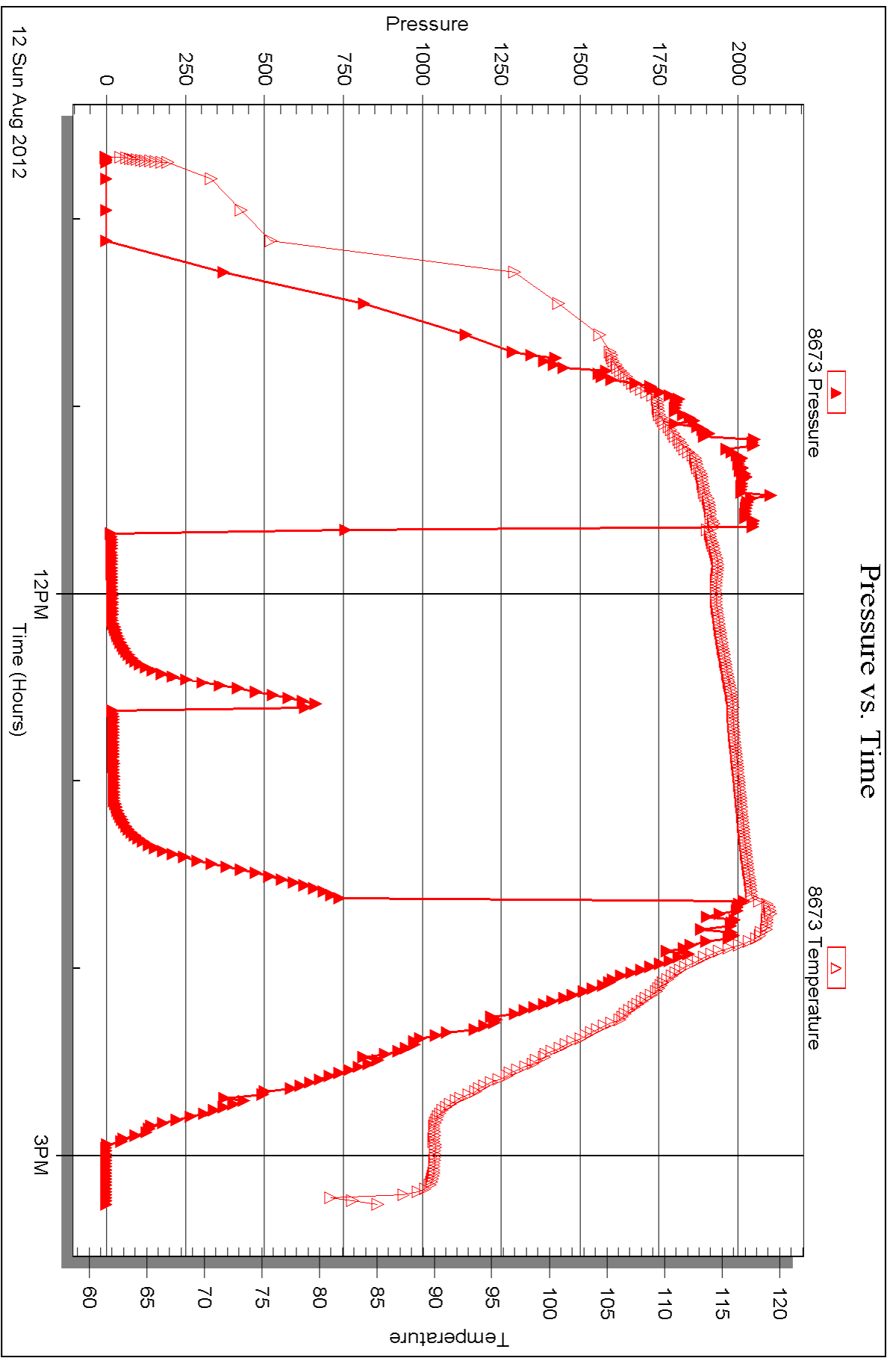


Serial #: 8673

Outside Dow nting-Nelson oil Co. Inc.

29-95-31w Thomas, KS

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 47398

Printed: 2012.08.16 @ 15:16:12



## DRILL STEM TEST REPORT

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

PO Box 1019  
Hays KS 67601

ATTN: Ron Nelson

**29-9s-31w Thomas,KS**

**Hockersmith-Robben #1-29**

Start Date: 2012.08.12 @ 01:00:00

End Date: 2012.08.12 @ 09:36:30

Job Ticket #: 47399                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.08.16 @ 15:15:14

Downing-Nelson oil Co.Inc.

Hockersmith-Robben #1-29

29-9s-31w Thomas,KS

DST # 2

LKC-L

2012.08.12



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Dow ning-Nelson oil Co.Inc.

**Hockersmith-Robben #1-29**

PO Box 1019  
Hays KS 67601

**29-9s-31w Thomas,KS**

ATTN: Ron Nelson

Job Ticket: 47399

**DST#: 2**

Test Start: 2012.08.12 @ 01:00:00

## GENERAL INFORMATION:

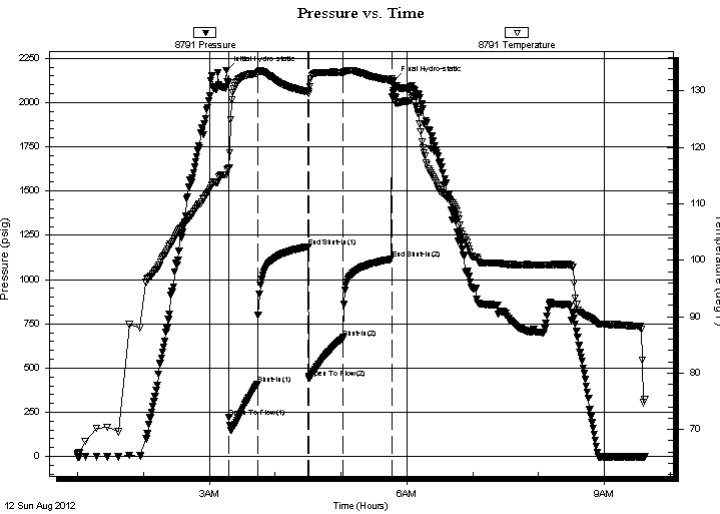
Formation: **LKC-L**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 03:18:00  
 Time Test Ended: 09:36:30  
 Interval: **4330.00 ft (KB) To 4354.00 ft (KB) (TVD)**  
 Total Depth: 4354.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Chuck Kreuzer Jr.  
 Unit No: 61  
 Reference Elevations: 3043.00 ft (KB)  
 3038.00 ft (CF)  
 KB to GR/CF: 5.00 ft

## Serial #: 8791

Inside

Press @ Run Depth: 671.66 psig @ 4331.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.08.12 End Date: 2012.08.12 Last Calib.: 2012.08.13  
 Start Time: 01:00:05 End Time: 09:36:30 Time On Btm: 2012.08.12 @ 03:15:30  
 Time Off Btm: 2012.08.12 @ 05:48:00

**TEST COMMENT:** IF: Strong blow , Built to B.O.B in 1 min.  
 IS: Bled off, strong Blow back. Built to B.O.B in 4 1/2 mins.  
 FF: Strong blow , Built to B.O.B in 30 sec. Gas to surface 20 mins. into FF  
 FS: Bled off, Strong blow back. Built to B.O.B in 5 mins.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2181.30	115.18	Initial Hydro-static
3	222.58	116.35	Open To Flow (1)
29	409.16	133.13	Shut-In(1)
75	1185.41	129.87	End Shut-In(1)
76	441.87	129.46	Open To Flow (2)
107	671.66	133.32	Shut-In(2)
151	1115.47	131.82	End Shut-In(2)
153	2125.68	130.08	Final Hydro-static

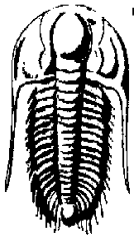
## Recovery

Length (ft)	Description	Volume (bbl)
124.00	HMCO-25% m75% o	1.74
1798.00	go-25% g75% o	25.22
0.00	GTS	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.

**Hockersmith-Robben #1-29**

PO Box 1019  
Hays KS 67601

**29-9s-31w Thomas,KS**

ATTN: Ron Nelson

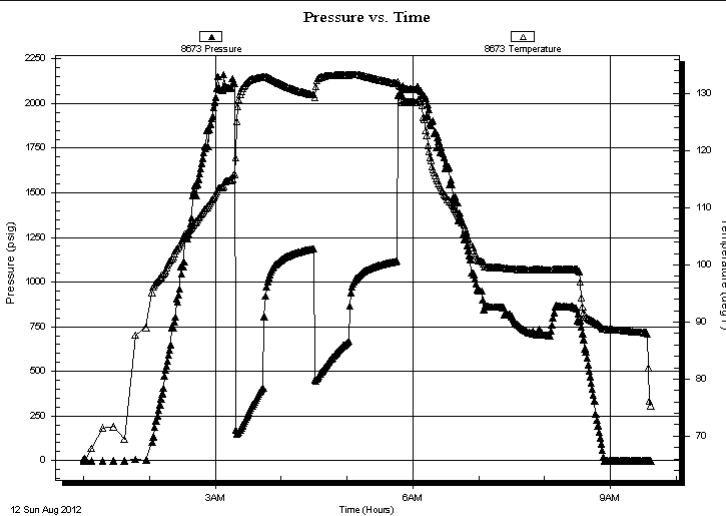
Job Ticket: 47399 **DST#: 2**  
Test Start: 2012.08.12 @ 01:00:00

### GENERAL INFORMATION:

<b>Formation:</b> <b>LKC-L</b>	
<b>Deviated:</b> No Whipstock: ft (KB)	<b>Test Type:</b> Conventional Bottom Hole (Reset)
<b>Time Tool Opened:</b> 03:18:00	<b>Tester:</b> Chuck Kreutzer Jr.
<b>Time Test Ended:</b> 09:36:30	<b>Unit No:</b> 61
<b>Interval:</b> <b>4330.00 ft (KB) To 4354.00 ft (KB) (TVD)</b>	<b>Reference Elevations:</b> 3043.00 ft (KB)
<b>Total Depth:</b> 4354.00 ft (KB) (TVD)	3038.00 ft (CF)
<b>Hole Diameter:</b> 7.88 inches <b>Hole Condition:</b> Fair	<b>KB to GR/CF:</b> 5.00 ft

<b>Serial #:</b> <b>8673</b>	<b>Outside</b>			
<b>Press @RunDepth:</b> psig @    4331.00 ft (KB)	<b>Capacity:</b>	8000.00 psig		
<b>Start Date:</b> 2012.08.12        End Date:                      2012.08.12	<b>Last Calib.:</b>	2012.08.13		
<b>Start Time:</b> 01:00:05              End Time:                      09:36:30	<b>Time On Btm:</b>			
	<b>Time Off Btm:</b>			

**TEST COMMENT:** IF: Strong blow , Built to B.O.B in 1 min.  
 IS: Bled off , strong Blow back. Built to B.O.B in 4 1/2 mins.  
 FF: Strong blow , Built to B.O.B in 30 sec. Gas to surface 20 mins. into FF  
 FS: Bled off , Strong blow back. Built to B.O.B in 5 mins.



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
124.00	HMCO-25%m75%o	1.74
1798.00	go-25%g75%o	25.22
0.00	GTS	0.00

### Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Dow ning-Nelson oil Co.Inc.

**Hockersmith-Robben #1-29**

PO Box 1019  
Hays KS 67601

**29-9s-31w Thomas,KS**

ATTN: Ron Nelson

Job Ticket: 47399

**DST#: 2**

Test Start: 2012.08.12 @ 01:00:00

## Tool Information

Drill Pipe:	Length: 4331.00 ft	Diameter: 3.80 inches	Volume: 60.75 bbl	Tool Weight: 2600.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 60.75 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	4330.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	24.00 ft			
Tool Length:	44.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4315.00	
Hydraulic tool	5.00			4320.00	
Packer	5.00			4325.00	20.00 Bottom Of Top Packer
Packer	5.00			4330.00	
Stubb	1.00			4331.00	
Recorder	0.00	8791	Inside	4331.00	
Recorder	0.00	8673	Outside	4331.00	
Perforations	20.00			4351.00	
Bullnose	3.00			4354.00	24.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>44.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Dow ning-Nelson oil Co.Inc.

**Hockersmith-Robben #1-29**

PO Box 1019  
Hays KS 67601

**29-9s-31w Thomas,KS**

Job Ticket: 47399

**DST#: 2**

ATTN: Ron Nelson

Test Start: 2012.08.12 @ 01:00:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

38 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.96 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	HMCO-25% <i>m</i> 75% <i>o</i>	1.739
1798.00	go-25% <i>g</i> 75% <i>o</i>	25.221
0.00	GTS	0.000

Total Length: 1922.00 ft      Total Volume: 26.960 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

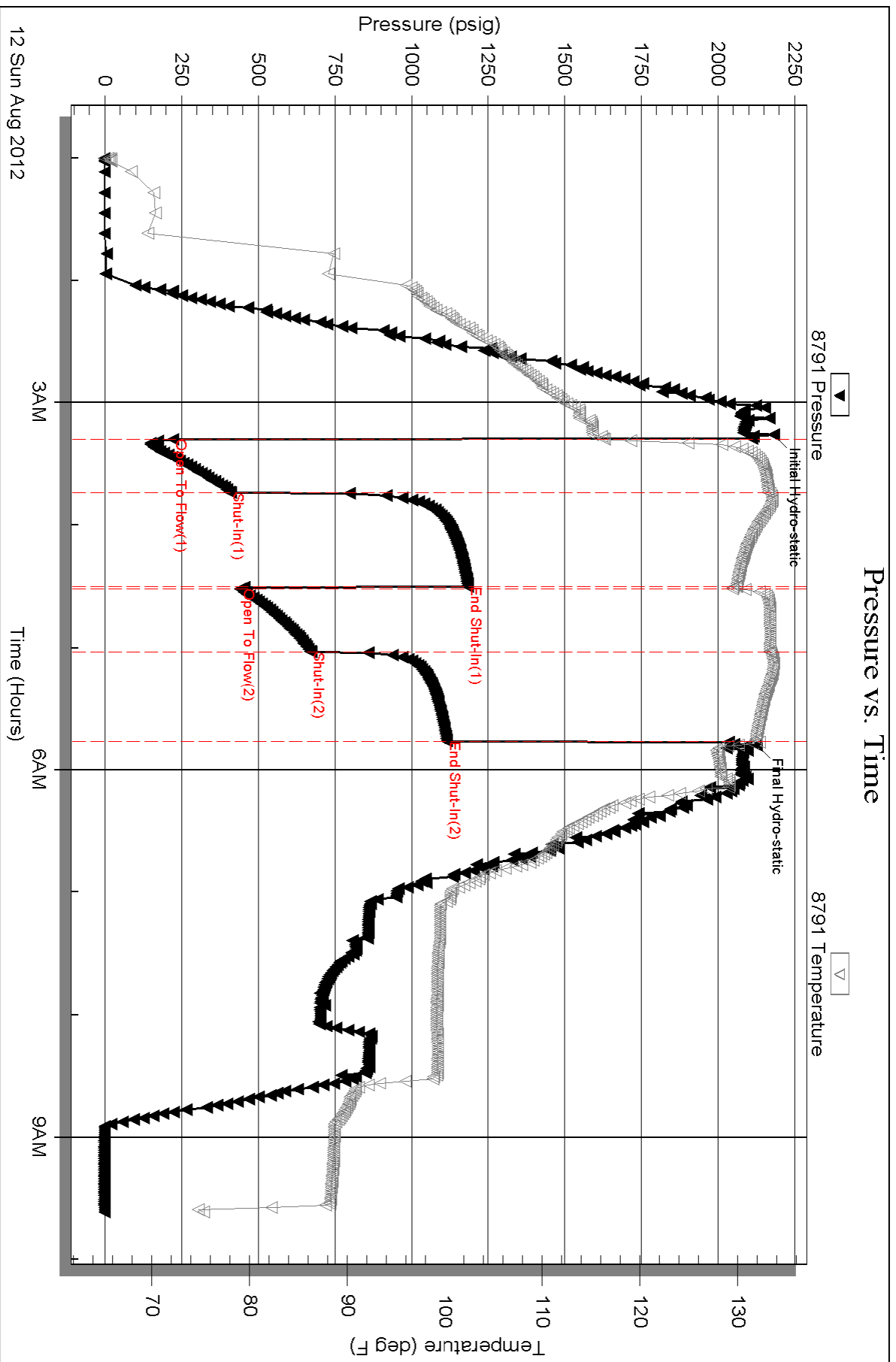
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity-40\*@80=38\*

### Pressure vs. Time

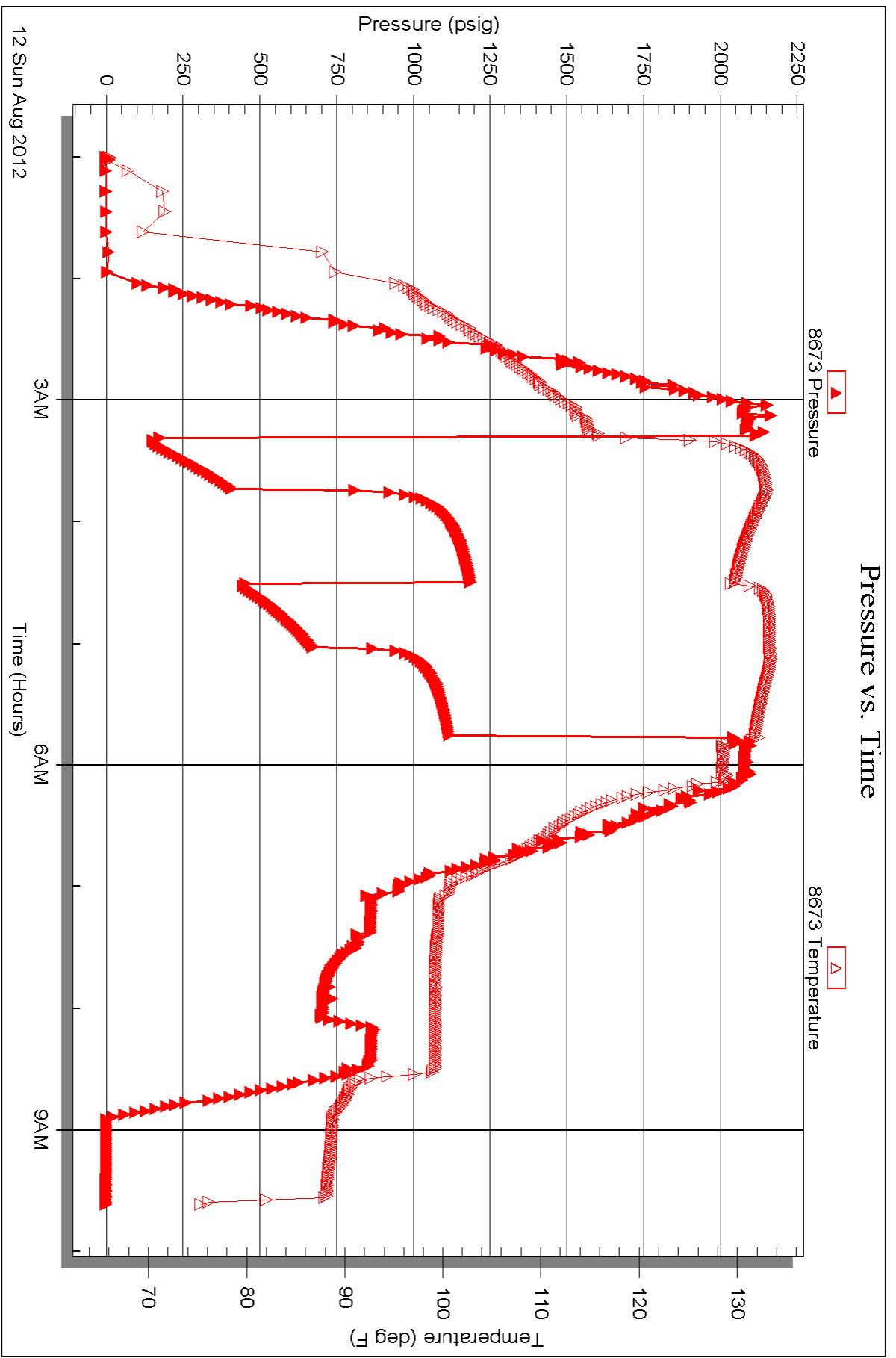


Serial #: 8673

Outside Dow nting-Nelson oil Co. Inc.

29-95-31w Thomas, KS

DST Test Number: 2





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 47398

Well Name & No. Hockersmith - Robben #1-29 Test No. 1 Date 8-11-12  
 Company Downing - Nelson Oil Co. Inc. Elevation 3038 KB 3038 GL  
 Address P.O. Box 1019 Hays KS 67601  
 Co. Rep / Geo. Ron Nelson Rig Discovery #1  
 Location: Sec. 29 Twp. 9 Rge. 31W Co. Thomas State KS

Interval Tested 4208 4300 Zone Tested L1C - H, E, J  
 Anchor Length 92 Drill Pipe Run 4206 Mud Wt. 8.9  
 Top Packer Depth 4203 Drill Collars Run 0 Vis 53  
 Bottom Packer Depth 4208 Wt. Pipe Run 0 WL 8.0  
 Total Depth 4300 Chlorides 800 ppm System LCM 1 1/2 #

Blow Description IF: weak blow started at 1 in died to 3/4 in.  
IST: No blow back  
FF: ~~weak~~ weak blow, built to 2 in.  
FST: No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>OCMW</u>		<u>30</u>	<u>20</u>	<u>50</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 30 BHT 116 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 2102  Test 1250 T-On Location 4:30  
 (B) First Initial Flow 13  Jars \_\_\_\_\_ T-Started 9:40  
 (C) First Final Flow 19  Safety Joint \_\_\_\_\_ T-Open 11:39  
 (D) Initial Shut-In 683  Circ Sub \_\_\_\_\_ T-Pulled 13:50  
 (E) Second Initial Flow 16  Hourly Standby \_\_\_\_\_ T-Out 15:16  
 (F) Second Final Flow 25  Mileage 50x2 = 100x1.55 155  
 (G) Final Shut-In 736  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2121  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Sub Total 0  
 Total 1405  
 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative [Signature]  
 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 of sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 47399

Well Name & No. Hocker Smith - Robben #1-29 Test No. 2 Date 8-12-2012  
 Company Downing - Nelson oil co. Inc. Elevation 3043 KB 3038 GL  
 Address P.O. Box 1019 Hays KS 67601  
 Co. Rep / Geo. Ron Nelson Rig Discovery #1  
 Location: Sec. 29 Twp. 9 Rge. 31w Co. Thomas State Ks.

Interval Tested 4330 4354 Zone Tested LKC-L  
 Anchor Length 24 Drill Pipe Run 4331 Mud Wt. 8.9  
 Top Packer Depth 4325 Drill Collars Run -0 Vis 53  
 Bottom Packer Depth 4330 Wt. Pipe Run -0- WL 8.0  
 Total Depth 4354 Chlorides 800 ppm System LCM 1/2 #

Blow Description IF: Strong blow, Built to B.O.B in 1 min.  
ISS: Bled off: Strong blow back built to B.O.B in 4 1/2 mins.  
FF: Strong blow, Built to B.O.B in 30 sec. (Gas to surface 20 mins into. ~~FF: Strong blow~~)  
FSI: Bled off: Strong blow back built to B.O.B in 5 mins.

Rec	Feet of	%gas	%oil	%water	%mud
<del>200300</del>	gas in pipe 2432				
1798	go	25%	75%		
124	Hmco-		75%		25%

Rec Total 1922 BHT 138 Gravity 38 API RW @ ° F Chlorides ppm

(A) Initial Hydrostatic <u>2181</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>00137</u>
(B) First Initial Flow <u>223</u>	<input type="checkbox"/> Jars	T-Started <u>1:00</u>
(C) First Final Flow <u>409</u>	<input type="checkbox"/> Safety Joint	T-Open <u>3:18</u>
(D) Initial Shut-In <u>1185</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>5:45</u>
(E) Second Initial Flow <u>442</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>9:36</u>
(F) Second Final Flow <u>672</u>	<input checked="" type="checkbox"/> Mileage <u>50x2 = 100 x 1.55 = 310</u>	Comments <u>Loaded tools at 8:14</u>
(G) Final Shut-In <u>1115</u>	<input type="checkbox"/> Sampler	<u>at 22:20</u>
(H) Final Hydrostatic <u>2126</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>800</u>
Final Flow <u>30</u>	<input checked="" type="checkbox"/> Day Standby <u>1 Day 11 hrs.</u>	Total <u>2360</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1560</u>	

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

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.



## DRILL STEM TEST REPORT

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

PO Box 1019  
Hays KS 67601

ATTN: Ron Nelson

**29-9s-31w Thomas,KS**

**Hockersmith-Robben #1-29**

Start Date: 2012.08.12 @ 09:40:00

End Date: 2012.08.12 @ 15:16:00

Job Ticket #: 47398                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.08.16 @ 15:16:09

Downing-Nelson oil Co.Inc.

Hockersmith-Robben #1-29

29-9s-31w Thomas,KS

DST # 1

LKC-H,I,J

2012.08.12





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Dow ning-Nelson oil Co.Inc.

**Hockersmith-Robben #1-29**

PO Box 1019  
Hays KS 67601

**29-9s-31w Thomas,KS**

ATTN: Ron Nelson

Job Ticket: 47398

**DST#: 1**

Test Start: 2012.08.12 @ 09:40:00

## GENERAL INFORMATION:

Formation: **LKC-H,I,J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:39:30

Time Test Ended: 15:16:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Chuck Kreuzer Jr.

Unit No: 61

**Interval: 4208.00 ft (KB) To 4300.00 ft (KB) (TVD)**

Reference Elevations: 3043.00 ft (KB)

Total Depth: 4300.00 ft (KB) (TVD)

3038.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 8791**

**Inside**

Press @ Run Depth: 25.49 psig @ 4211.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.08.12

End Date:

2012.08.12

Last Calib.:

2012.08.12

Start Time: 09:40:05

End Time:

15:15:59

Time On Btm:

2012.08.12 @ 11:14:30

Time Off Btm:

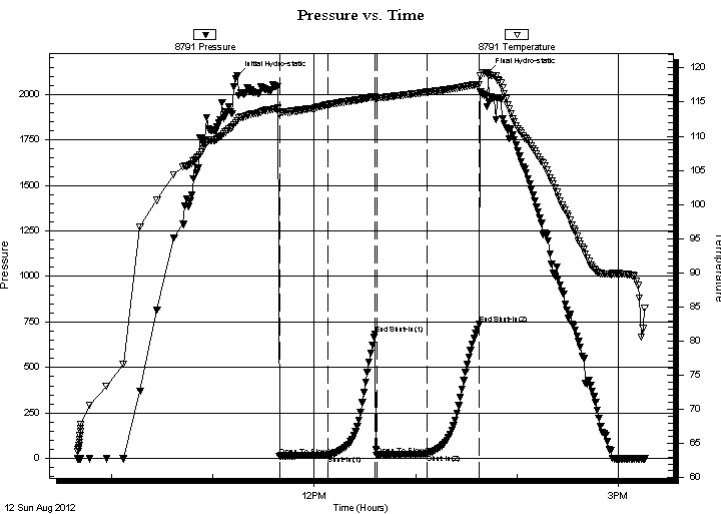
2012.08.12 @ 13:43:00

**TEST COMMENT:** IF: Weak blow , Started at 1 in. Died to 3/4 in.

IS!: No blow back.

FF: Weak blow , Built to 2 in.

FS!: No blow back.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2102.29	112.27	Initial Hydro-static
25	13.41	113.24	Open To Flow (1)
54	18.62	114.63	Shut-In(1)
82	682.72	115.83	End Shut-In(1)
83	16.24	115.64	Open To Flow (2)
113	25.49	116.46	Shut-In(2)
143	736.16	117.61	End Shut-In(2)
149	2120.87	119.02	Final Hydro-static

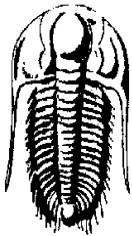
## Recovery

Length (ft)	Description	Volume (bbl)
30.00	OCMW 30%O 20%W 50%M	0.42

## Gas Rates

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





# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

Dow ning-Nelson oil Co.Inc.

Hockersmith-Robben #1-29

PO Box 1019  
Hays KS 67601

29-9s-31w Thomas,KS

Job Ticket: 47398 **DST#: 1**

ATTN: Ron Nelson

Test Start: 2012.08.12 @ 09:40:00

### GENERAL INFORMATION:

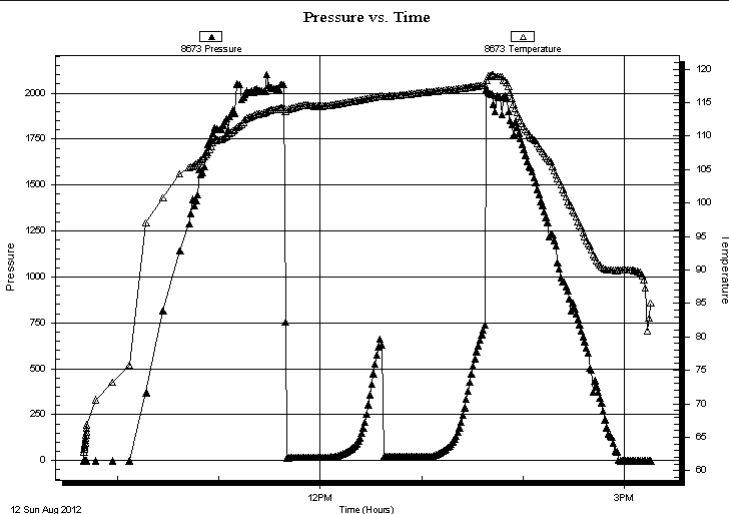
Formation: <b>LKC-H,I,J</b>			
Deviated: No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Initial)	
Time Tool Opened: 11:39:30		Tester: Chuck Kreutzer Jr.	
Time Test Ended: 15:16:00		Unit No: 61	
<b>Interval: 4208.00 ft (KB) To 4300.00 ft (KB) (TVD)</b>		Reference Elevations: 3043.00 ft (KB)	
Total Depth: 4300.00 ft (KB) (TVD)		3038.00 ft (CF)	
Hole Diameter: 7.88 inches	Hole Condition: Fair	KB to GR/CF: 5.00 ft	

### Serial #: 8673

### Outside

Press @ Run Depth: psig @ 4211.00 ft (KB)	Capacity: 8000.00 psig
Start Date: 2012.08.12	End Date: 2012.08.12
Start Time: 09:40:05	End Time: 15:15:59
	Last Calib.: 2012.08.12
	Time On Btm:
	Time Off Btm:

TEST COMMENT: IF: Weak blow , Started at 1 in. Died to 3/4 in.  
IS: No blow back.  
FF: Weak blow , Built to 2 in.  
FS: No blow back.



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
30.00	OCMW 30%O 20%W 50%M	0.42

### 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.

**Hockersmith-Robben #1-29**

PO Box 1019  
Hays KS 67601

**29-9s-31w Thomas,KS**

ATTN: Ron Nelson

Job Ticket: 47398

**DST#: 1**

Test Start: 2012.08.12 @ 09:40:00

## Tool Information

Drill Pipe:	Length: 4206.00 ft	Diameter: 3.80 inches	Volume: 59.00 bbl	Tool Weight: 2600.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			Total Volume: 59.00 bbl	Tool Chased 2.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4208.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	90.00 ft			
Tool Length:	110.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut In Tool	5.00			4193.00	
Hydraulic tool	5.00			4198.00	
Packer	5.00			4203.00	20.00 Bottom Of Top Packer
Packer	5.00			4208.00	
Stubb	1.00			4209.00	
Perforations	1.00			4210.00	
Change Over Sub	1.00			4211.00	
Recorder	0.00	8791	Inside	4211.00	
Recorder	0.00	8673	Outside	4211.00	
Blank Spacing	63.00			4274.00	
Change Over Sub	1.00			4275.00	
Perforations	20.00			4295.00	
Bullnose	3.00			4298.00	90.00 Bottom Packers & Anchor

**Total Tool Length: 110.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Dow ning-Nelson oil Co.Inc.

**Hockersmith-Robben #1-29**

PO Box 1019  
Hays KS 67601

**29-9s-31w Thomas,KS**

Job Ticket: 47398      **DST#: 1**

ATTN: Ron Nelson

Test Start: 2012.08.12 @ 09:40:00

## 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: 53.00 sec/qt

Cushion Volume: bbl

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 800.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	OCMW 30%O 20%W 50%M	0.421

Total Length: 30.00 ft      Total Volume: 0.421 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8791

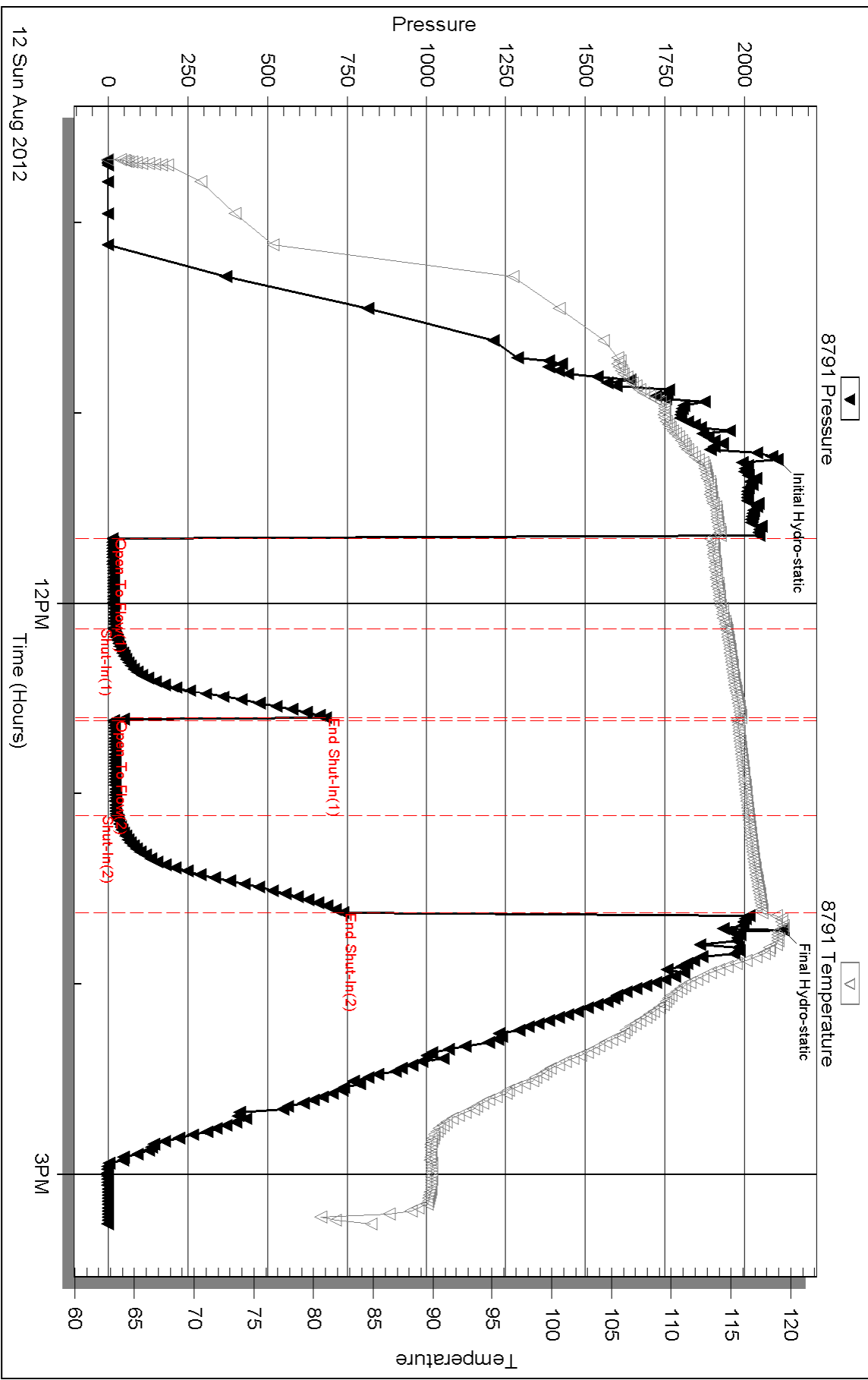
Inside

Dow nging-Nelson oil Co. Inc.

29-95-31w Thomas, KS

DST Test Number: 1

# Pressure vs. Time

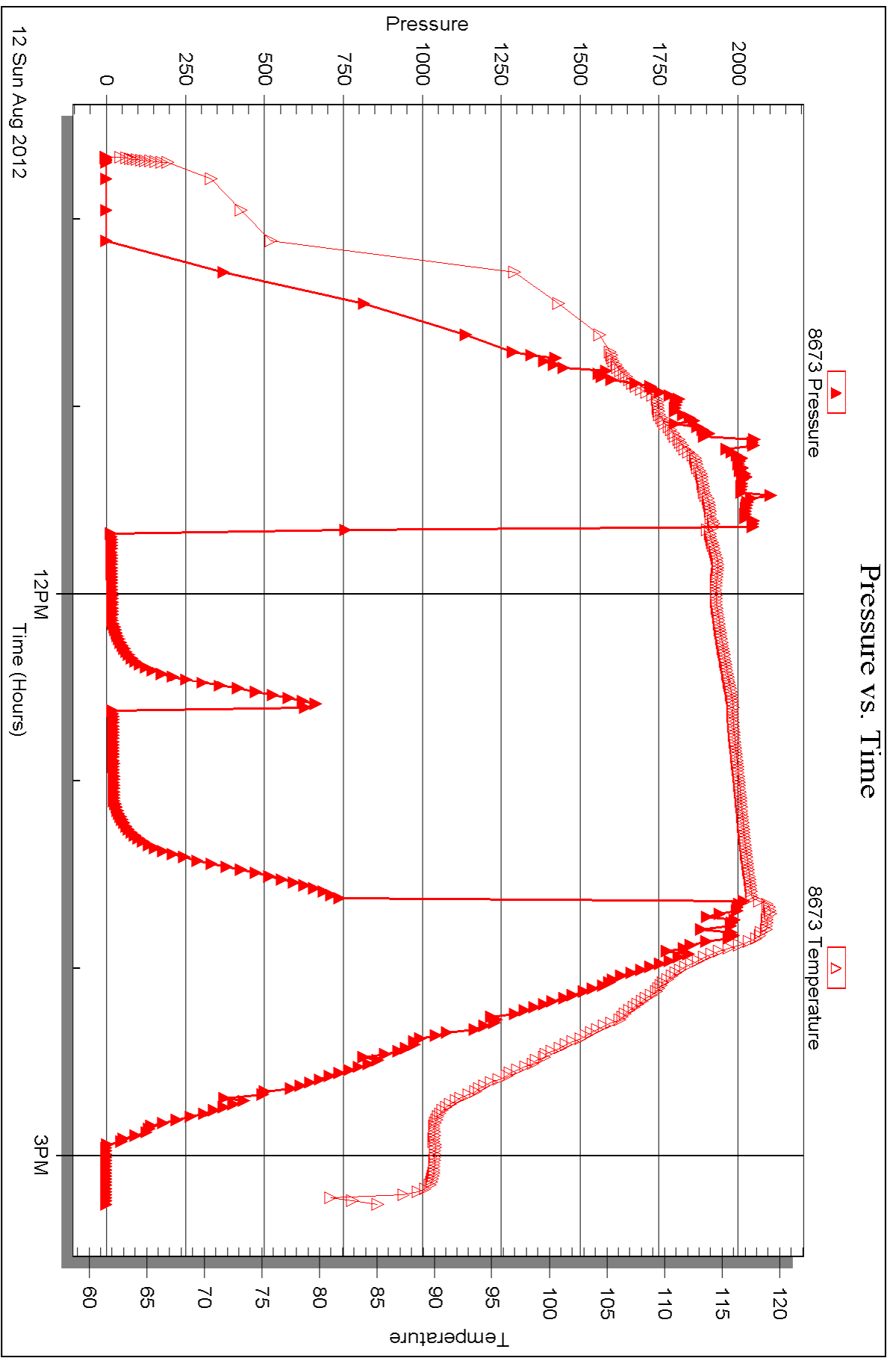


Serial #: 8673

Outside Dow nung-Nelson oil Co. Inc.

29-95-31w Thomas, KS

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 47398

Printed: 2012.08.16 @ 15:16:12



## DRILL STEM TEST REPORT

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

PO Box 1019  
Hays KS 67601

ATTN: Ron Nelson

**29-9s-31w Thomas,KS**

**Hockersmith-Robben #1-29**

Start Date: 2012.08.12 @ 01:00:00

End Date: 2012.08.12 @ 09:36:30

Job Ticket #: 47399                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.08.16 @ 15:15:14

Downing-Nelson oil Co.Inc.

Hockersmith-Robben #1-29

29-9s-31w Thomas,KS

DST # 2

LKC-L

2012.08.12



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Dow ning-Nelson oil Co.Inc.

**Hockersmith-Robben #1-29**

PO Box 1019  
Hays KS 67601

**29-9s-31w Thomas,KS**

ATTN: Ron Nelson

Job Ticket: 47399

**DST#: 2**

Test Start: 2012.08.12 @ 01:00:00

## GENERAL INFORMATION:

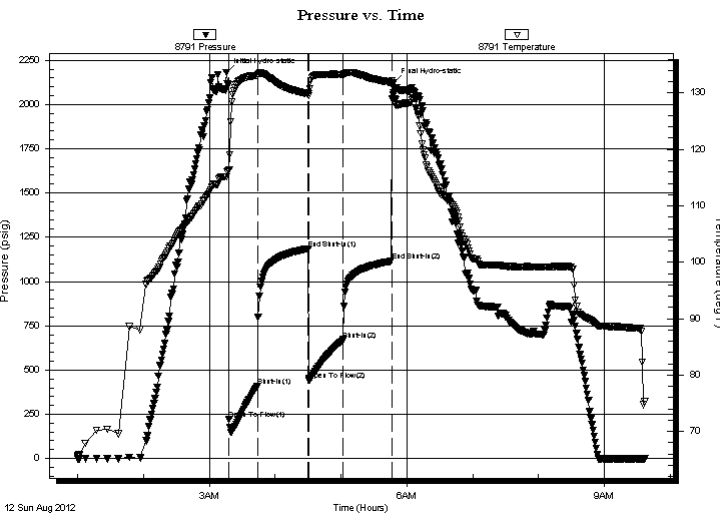
Formation: **LKC-L**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 03:18:00  
 Time Test Ended: 09:36:30  
 Interval: **4330.00 ft (KB) To 4354.00 ft (KB) (TVD)**  
 Total Depth: 4354.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Chuck Kreuzer Jr.  
 Unit No: 61  
 Reference Elevations: 3043.00 ft (KB)  
 3038.00 ft (CF)  
 KB to GR/CF: 5.00 ft

## Serial #: 8791

Inside

Press @ Run Depth: 671.66 psig @ 4331.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.08.12 End Date: 2012.08.12 Last Calib.: 2012.08.13  
 Start Time: 01:00:05 End Time: 09:36:30 Time On Btm: 2012.08.12 @ 03:15:30  
 Time Off Btm: 2012.08.12 @ 05:48:00

**TEST COMMENT:** IF: Strong blow , Built to B.O.B in 1 min.  
 IS: Bled off, strong Blow back. Built to B.O.B in 4 1/2 mins.  
 FF: Strong blow , Built to B.O.B in 30 sec. Gas to surface 20 mins. into FF  
 FS: Bled off, Strong blow back. Built to B.O.B in 5 mins.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2181.30	115.18	Initial Hydro-static
3	222.58	116.35	Open To Flow (1)
29	409.16	133.13	Shut-In(1)
75	1185.41	129.87	End Shut-In(1)
76	441.87	129.46	Open To Flow (2)
107	671.66	133.32	Shut-In(2)
151	1115.47	131.82	End Shut-In(2)
153	2125.68	130.08	Final Hydro-static

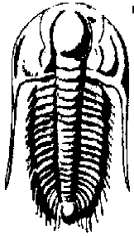
## Recovery

Length (ft)	Description	Volume (bbl)
124.00	HMCO-25% m75% o	1.74
1798.00	go-25% g75% o	25.22
0.00	GTS	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.

**Hockersmith-Robben #1-29**

PO Box 1019  
Hays KS 67601

**29-9s-31w Thomas,KS**

Job Ticket: 47399

**DST#: 2**

ATTN: Ron Nelson

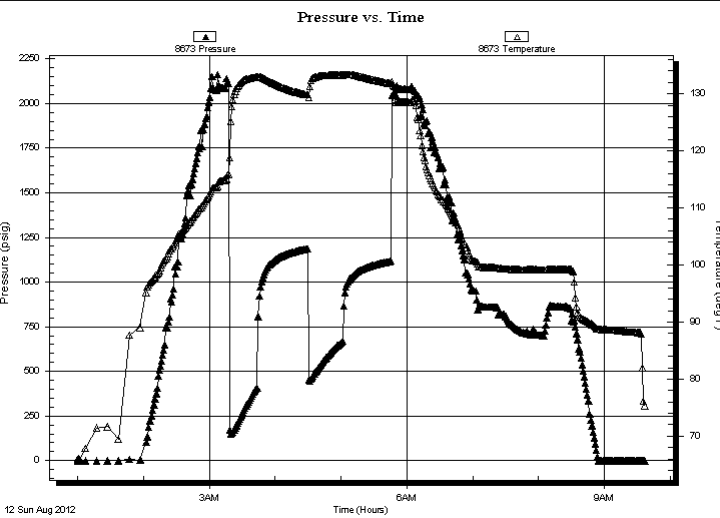
Test Start: 2012.08.12 @ 01:00:00

### GENERAL INFORMATION:

Formation: **LKC-L**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 03:18:00 Tester: Chuck Kreuzer Jr.  
 Time Test Ended: 09:36:30 Unit No: 61  
**Interval: 4330.00 ft (KB) To 4354.00 ft (KB) (TVD)**  
 Reference Elevations: 3043.00 ft (KB)  
 Total Depth: 4354.00 ft (KB) (TVD) 3038.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

**Serial #: 8673 Outside**  
 Press @ Run Depth: psig @ 4331.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.08.12 End Date: 2012.08.12 Last Calib.: 2012.08.13  
 Start Time: 01:00:05 End Time: 09:36:30 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** IF: Strong blow , Built to B.O.B in 1 min.  
 IS: Bled off , strong Blow back. Built to B.O.B in 4 1/2 mins.  
 FF: Strong blow , Built to B.O.B in 30 sec. Gas to surface 20 mins. into FF  
 FS: Bled off , Strong blow back. Built to B.O.B in 5 mins.



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

Recovery		
Length (ft)	Description	Volume (bbl)
124.00	HMCO-25%m75%o	1.74
1798.00	go-25%g75%o	25.22
0.00	GTS	0.00

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

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Dow ning-Nelson oil Co.Inc.

**Hockersmith-Robben #1-29**

PO Box 1019  
Hays KS 67601

**29-9s-31w Thomas,KS**

ATTN: Ron Nelson

Job Ticket: 47399

**DST#: 2**

Test Start: 2012.08.12 @ 01:00:00

## Tool Information

Drill Pipe:	Length: 4331.00 ft	Diameter: 3.80 inches	Volume: 60.75 bbl	Tool Weight:	2600.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume: 60.75 bbl</u>	Tool Chased	2.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial	50000.00 lb
Depth to Top Packer:	4330.00 ft			Final	60000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	24.00 ft				
Tool Length:	44.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut In Tool	5.00			4315.00	
Hydraulic tool	5.00			4320.00	
Packer	5.00			4325.00	20.00 Bottom Of Top Packer
Packer	5.00			4330.00	
Stubb	1.00			4331.00	
Recorder	0.00	8791	Inside	4331.00	
Recorder	0.00	8673	Outside	4331.00	
Perforations	20.00			4351.00	
Bullnose	3.00			4354.00	24.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>44.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Dow ning-Nelson oil Co.Inc.

**Hockersmith-Robben #1-29**

PO Box 1019  
Hays KS 67601

**29-9s-31w Thomas,KS**

Job Ticket: 47399      **DST#: 2**

ATTN: Ron Nelson

Test Start: 2012.08.12 @ 01:00:00

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 38 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 53.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.96 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 800.00 ppm		
Filter Cake: 2.00 inches		

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	HMCO-25% <i>m</i> 75% <i>o</i>	1.739
1798.00	go-25% <i>g</i> 75% <i>o</i>	25.221
0.00	GTS	0.000

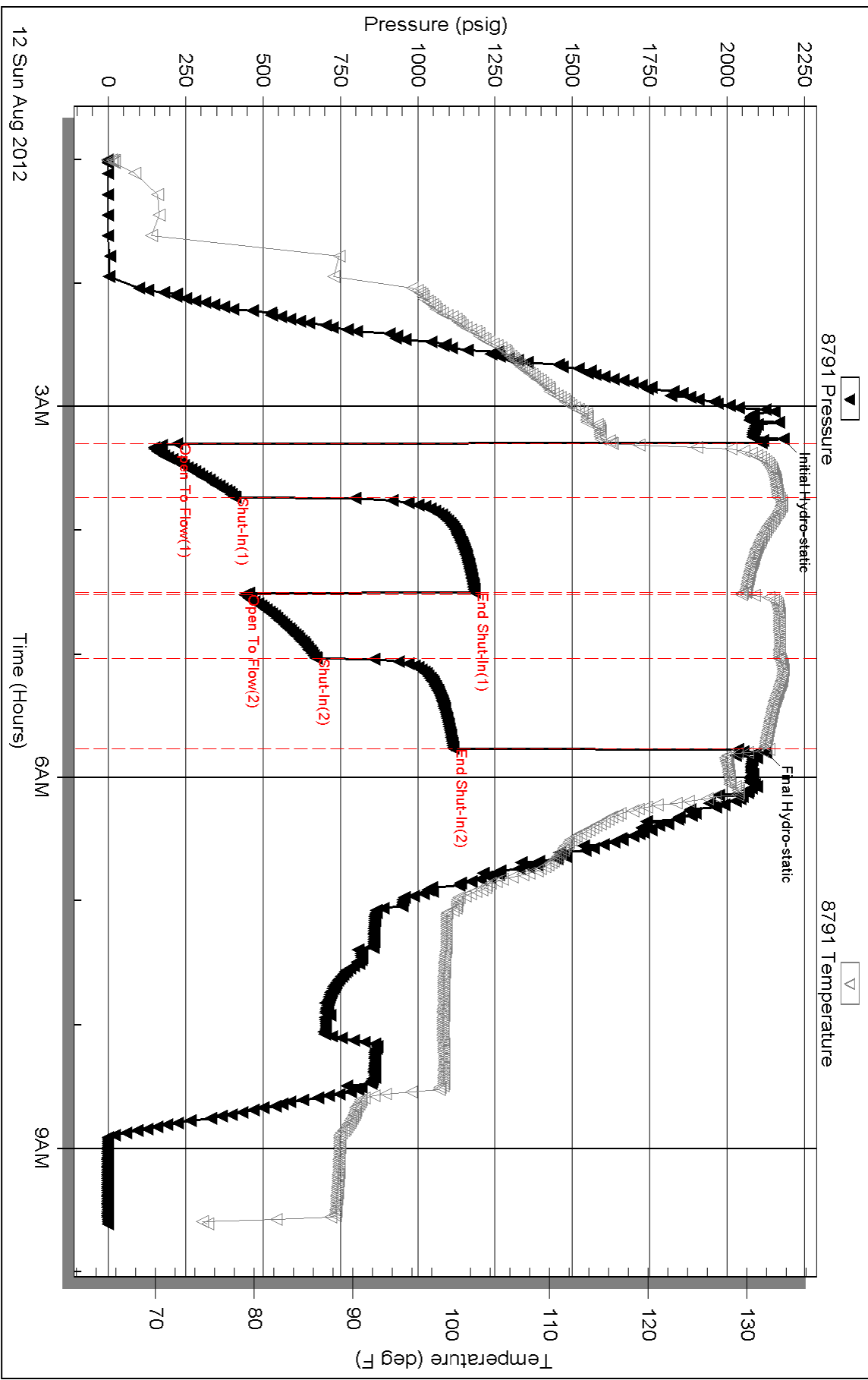
Total Length: 1922.00 ft      Total Volume: 26.960 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments: Gravity-40\*@80=38\*

### Pressure vs. Time

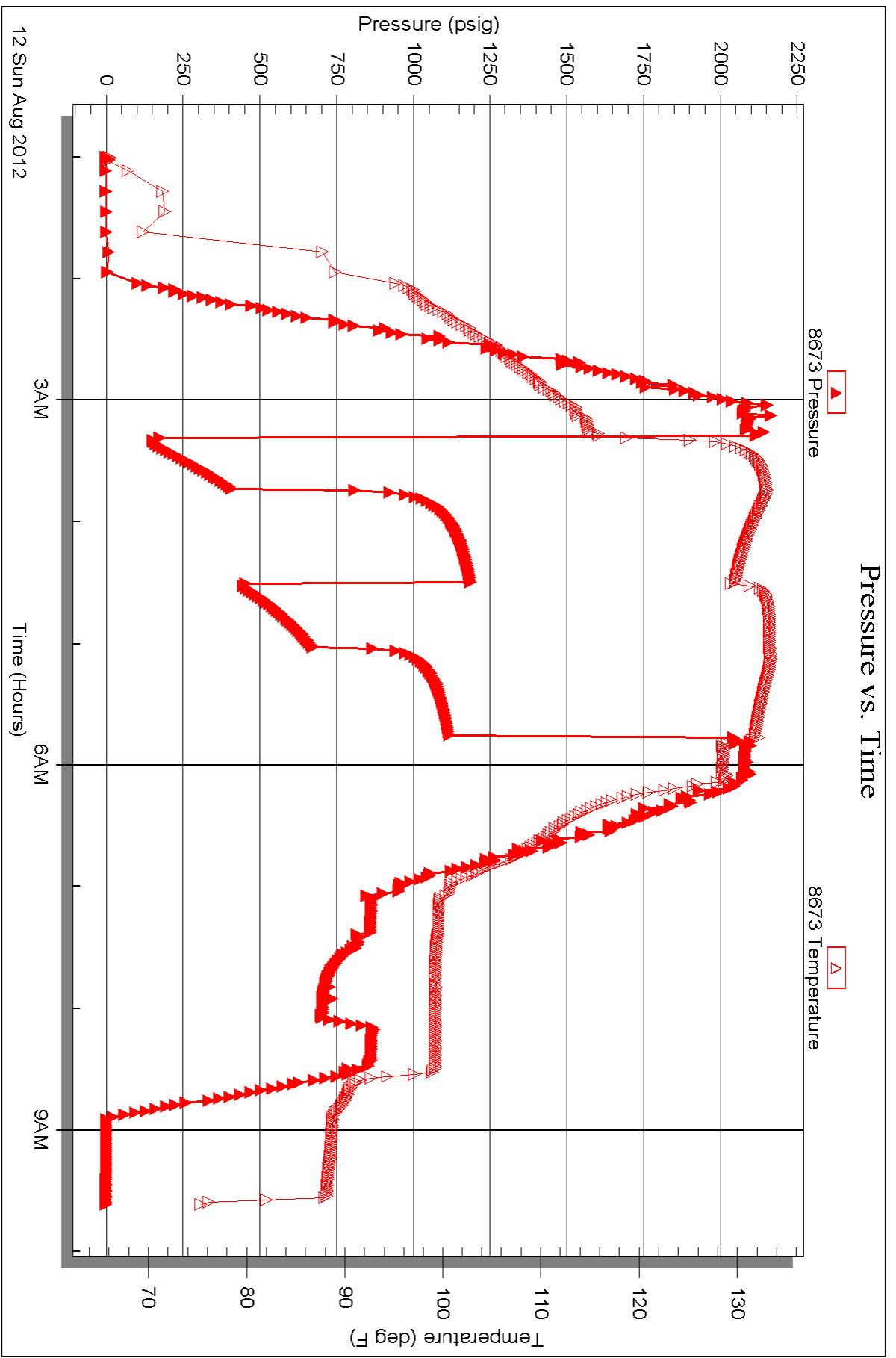


Serial #: 8673

Outside Dow nting-Nelson oil Co. Inc.

29-95-31w Thomas, KS

DST Test Number: 2





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 47398

Well Name & No. Hockersmith - Robben #1-29 Test No. 1 Date 8-11-12  
 Company Downing - Nelson Oil Co. Inc. Elevation 3038 KB 3038 GL  
 Address P.O. Box 1019 Hays KS 67601  
 Co. Rep / Geo. Ron Nelson Rig Discovery #1  
 Location: Sec. 29 Twp. 9 Rge. 31W Co. Thomas State Ks

Interval Tested 4208 4300 Zone Tested LIC - H, E, J  
 Anchor Length 92 Drill Pipe Run 4206 Mud Wt. 8.9  
 Top Packer Depth 4203 Drill Collars Run 0 Vis 53  
 Bottom Packer Depth 4208 Wt. Pipe Run 0 WL 8.0  
 Total Depth 4300 Chlorides 800 ppm System LCM 1 1/2 #

Blow Description IF: weak blow started at 1 in died to 3/4 in.  
IST: No blow back  
FF: ~~weak~~ weak blow, built to 2 in.  
FST: No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>OCMW</u>		<u>30</u>	<u>20</u>	<u>50</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 30 BHT 116 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 2102  Test 1250 T-On Location 4:30  
 (B) First Initial Flow 13  Jars \_\_\_\_\_ T-Started 9:40  
 (C) First Final Flow 19  Safety Joint \_\_\_\_\_ T-Open 11:39  
 (D) Initial Shut-In 683  Circ Sub \_\_\_\_\_ T-Pulled 13:50  
 (E) Second Initial Flow 16  Hourly Standby \_\_\_\_\_ T-Out 15:16  
 (F) Second Final Flow 25  Mileage 50x2 = 100x1.55 155  
 (G) Final Shut-In 736  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2121  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_

Sub Total 1405

Sub Total 1405

Comments ONLY Had row out for short trial

Sub Total 0  
 Total 1405  
 MP/DST Disc't \_\_\_\_\_

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

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 of sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 47399

Well Name & No. Hocker Smith - Robben #1-29 Test No. 2 Date 8-12-2012  
 Company Downing - Nelson oil co. Inc. Elevation 3043 KB 3038 GL  
 Address P.O. Box 1019 Hays KS 67601  
 Co. Rep / Geo. Ron Nelson Rig Discovery #1  
 Location: Sec. 29 Twp. 9 Rge. 31W Co. Thomas State Ks.

Interval Tested 4330 4354 Zone Tested LKC-L  
 Anchor Length 24 Drill Pipe Run 4331 Mud Wt. 8.9  
 Top Packer Depth 4325 Drill Collars Run -0 Vis 53  
 Bottom Packer Depth 4330 Wt. Pipe Run -0- WL 8.0  
 Total Depth 4354 Chlorides 800 ppm System LCM 1/2 #

Blow Description IF: Strong blow, Built to B.O.B in 1 min.  
ISS: Bled off: Strong blow back built to B.O.B in 4 1/2 mins.

FF: Strong blow, Built to B.O.B in 30 sec. (Gas to surface 20 mins into. ~~FF: Strong blow~~)

FSI: Bled off; Strong blow back built to B.O.B in 5 mins.

Rec	Feet of	%gas	%oil	%water	%mud
<u>200300</u>	<u>gas in pipe 2432</u>				
<u>1798</u>	<u>go</u>	<u>25</u>	<u>75</u>		
<u>124</u>	<u>Hmco -</u>		<u>75</u>		<u>25</u>

Rec Total 1922 BHT 138 Gravity 38 API RW @ ° F Chlorides ppm

(A) Initial Hydrostatic <u>2181</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>00137</u>
(B) First Initial Flow <u>223</u>	<input type="checkbox"/> Jars	T-Started <u>1:00</u>
(C) First Final Flow <u>409</u>	<input type="checkbox"/> Safety Joint	T-Open <u>3:18</u>
(D) Initial Shut-In <u>1185</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>5:45</u>
(E) Second Initial Flow <u>442</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>9:36</u>
(F) Second Final Flow <u>672</u>	<input checked="" type="checkbox"/> Mileage <u>50x2 = 100 x 1.55 = 310</u>	Comments <u>Loaded tools at 8:14</u>
(G) Final Shut-In <u>1115</u>	<input type="checkbox"/> Sampler	<u>at 22:20</u>
(H) Final Hydrostatic <u>2126</u>	<input type="checkbox"/> Straddle	

Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Shale Packer
Initial Shut-In <u>45</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Final Flow <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Shut-In <u>45</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>800</u>
	<input checked="" type="checkbox"/> Day Standby <u>1 Day 11 hrs.</u>	Total <u>2360</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
Sub Total <u>1560</u>		

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

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.





## DRILL STEM TESTS

No.	Interval	IFP/Time	ISIP/Time	FFP/Time	FSP/Time	IH-FHH	RECOVERY

REMARKS AND RECOMMENDATIONS: BASED ON DST#2, PIPE WAS SET APP. 2' OFF BOTTOM FOR LKC 'L' ZONE PRODUCTION.

Ron Nelson

**LEGEND**

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

LITHOLOGY

DEPTH

3700

50

OIL SHOWS

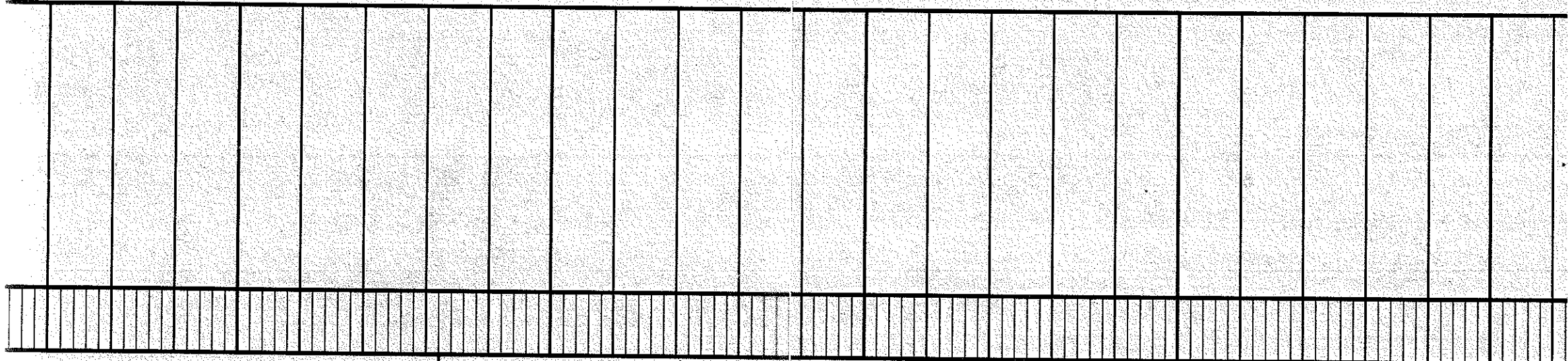
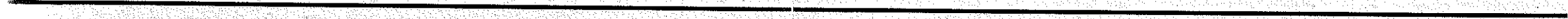
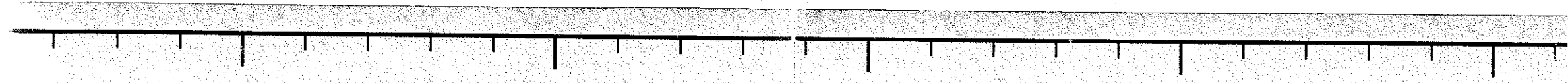
REMARKS

SAMPLE DESCRIPTIONS

DRILLING TIME IN MINUTES PER FOOT

Rate of Penetration Decreases





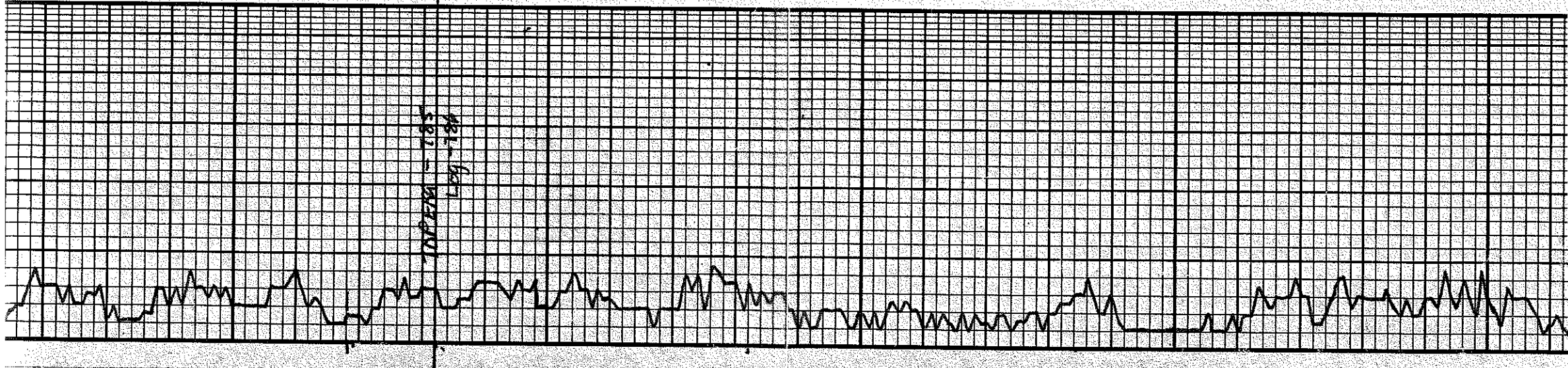
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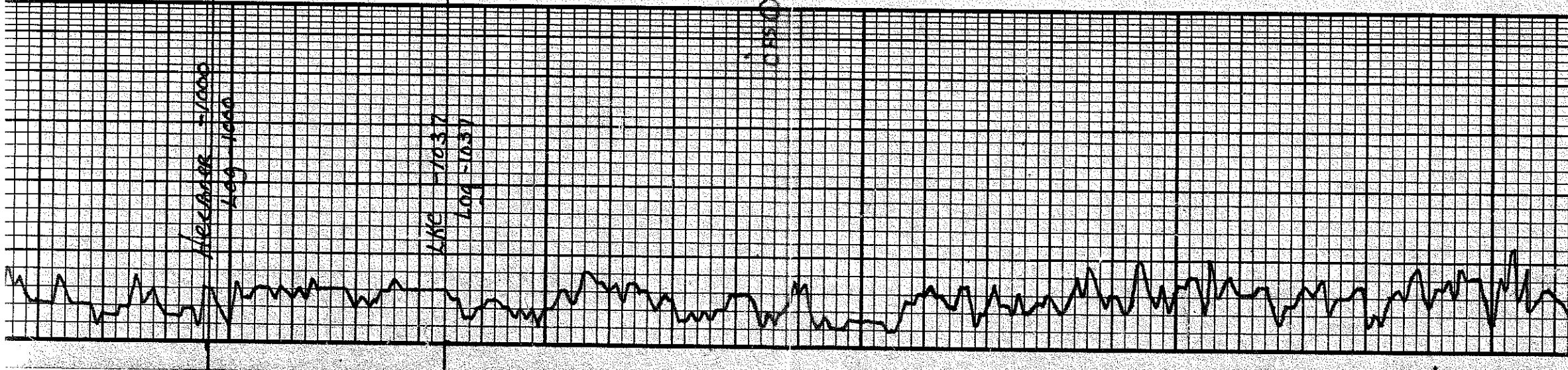
50

3900

50

4000





Hexadecane 1000  
Lag 1000

2Kc 1057  
1505-1037

52

4100

50

4200

52

foos chry tan LS 9 d  
int-foss: pp NS  
sh grey

sh grey clay ben ee

tan foss LS. sm fr mry E  
foss  
then tan dns fr xyl/LS NS  
sh gry. brn

tan w/ mds no xyl/LS  
w/ foss 9 of mry foss  
chry cap foss

dns tan micryls LS  
NS.

sh gry

LS tan grey chry  
NS.

tan chry. suc xyl/LS foss  
LS chry/LS NS. w/ fu ps  
chry

sh brn. gry

chry tan w/ mds  
w/ foss - suc xyl/LS 9 d  
chry

sh gry ocuans

LS tan mic xyl/LS  
v pr xyl/LS fu ps w/ ch

sh gry

tan mo xyl/LS - fu xyl/LS  
w/ fu xyl/LS mo LS

sh brn. 20 gry

LS tan suc mo xyl/LS  
gnd xyl/LS NS

LS gry micryls w/ dns  
no appens  
w/ dns

sh blk  
LS tan w/ mds - v ch xyl/LS  
w/ ps v pr xyl/LS NS  
fu ps tan w/ ch  
sh gry 9 d

sh gry

LS tan sm brn. w/ fu ps  
sh brn. - 20 d - 50 d - 100 d - 200 d

micryls w/ mds NS. no  
app

sh blk

micryls tan v dns LS

sh gry 9 d  
v pr xyl/LS NS tan - 9 d

DST # 1  
4208' - 41300'  
30" - 30" - 30" - 30"  
1st op 1" blow  
2nd op 2" blow  
IFP 13-19  
FFP 16-25  
SIP 683-736  
HP 2102-2121  
Rec 30' OCMW  
30% oil  
20% w/ tr  
50% mud

DST # 1



DNS TRAVLS 1-2 PCS/CL

DNS gran v. fine xylite as v. org  
N.S. few pieces of 1-2 pcs dns  
sh. 90% fine, but 5% to 10% on edge  
sh. 90% fine

LS wh. tan sh. - U-fine scale  
wavy - gray sh. - 1/2" to 1"  
wavy sh. - 1/2" to 1"

Shale color  
gray-ox

LS sm v. fine sh. dns pr. xylite  
most of it gray - some  
mushy - 1/2" to 1" of gray & brn  
oxy

LS with gray some clay  
sh. 100% fine, U.S. sh. tan  
2-3" N.S. 1-2 pcs w/ fine sand  
xylite v. fine in white mud  
sh. fine scale - some N.S.

sh. blk carb  
DNS gray micry/lvs N.S.

sh. dk gray

LS wh. sm to med. fass w/ sh. int. bed  
fine scale - some blk carb  
sh. 100% fine, 1-2 brn int. fass  
oxy.

sh. blk carb

sh. blk dk gray & gray

sm brn - gray

DNS tan - brn ls w/ grn - gray  
sh. N.S. 1-2 pcs fass w/ sh.

int. to sh. 90% N.S.  
sh. v. dk gray

sh. gray v. fine sh. - some  
N.S. sh. 100%

sh. blk carb

gray - gray sh. sm dk gray  
v. clayey

LS tan - gray sh. sm dk gray  
LS clayey pr. N.S. fine tan  
sh. 100%

sh. brn gray

sh. blk carb v. dk gray

LS tan - wh. v. fine xylite  
pr. v. fine N.S.

sh. blk carb  
LS wh. fine xylite  
brn

LS tan v. fine sh. v. fine xylite  
pr. xylite, N.S. w/ clay tan

sh. 100% fine, dk gray sh. 5-6  
LS brn - some tan - micry/lvs  
pr. v. fine N.S.

sh. gray dk gray brn v. sh. sh. 100%

sh. blk carb

mostly wh. tan v. fine sh. 100%

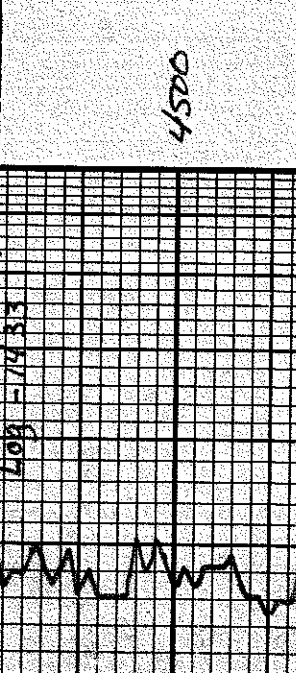
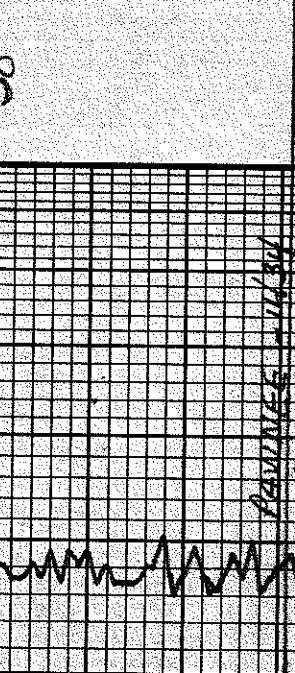
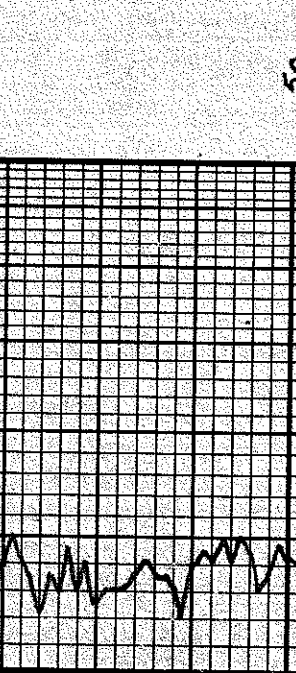
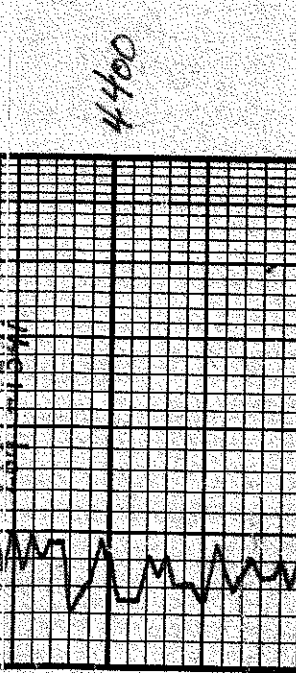
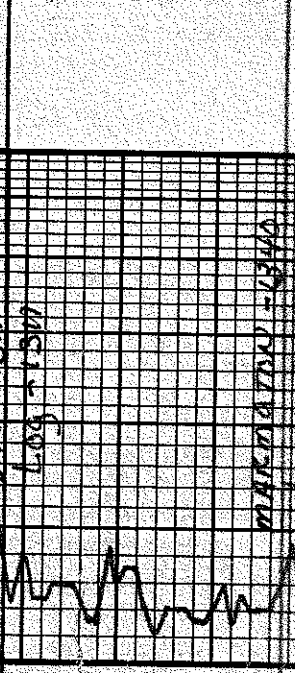
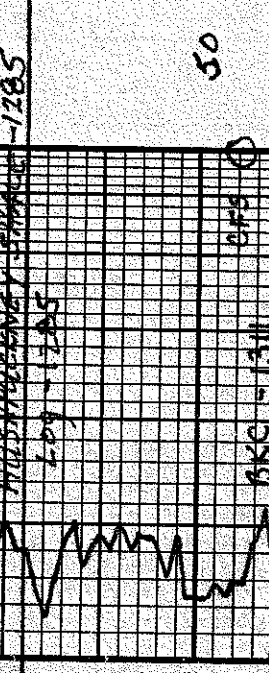
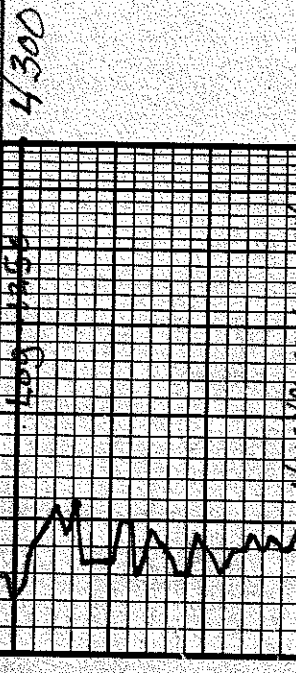
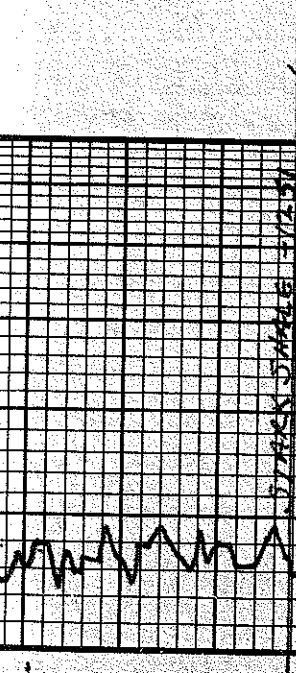
v. fine - fine xylite, pr. v. fine  
100% fass LS sm v. fine sh. 100%

all N.S.

micry/lvs wh. tan v. fine  
sh. 100%

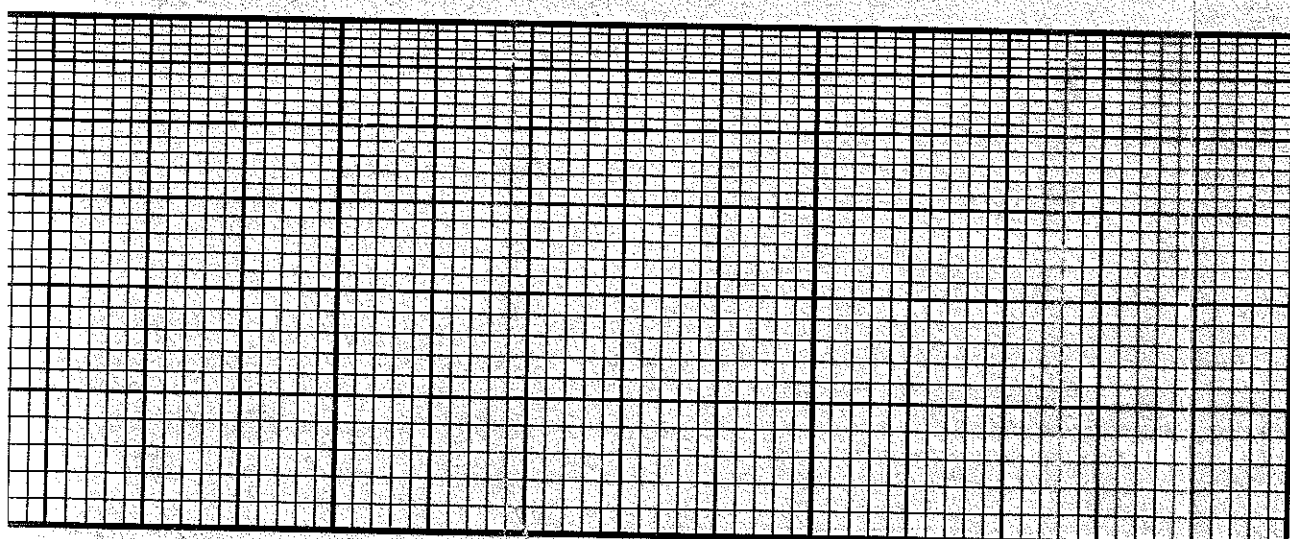
sh. blk carb dk gray

sh. blk carb



DST # 2  
4330' - 4354'  
30" 45" - 30" 45"  
1st op BOB 1"  
1st S.I. BOB 4 1/2"  
2nd op BOB 1/2"  
GTS 20" in TSTM  
2nd S.I. BOB 5"  
IFP 223-409  
FFP 442-672  
SIP 1185-1115  
HP 2181 - 2126  
REC: GTS  
1798' CGO (25909)  
124' HMC0  
(75% air 25% water)  
BHT 138°  
GRAV 38°

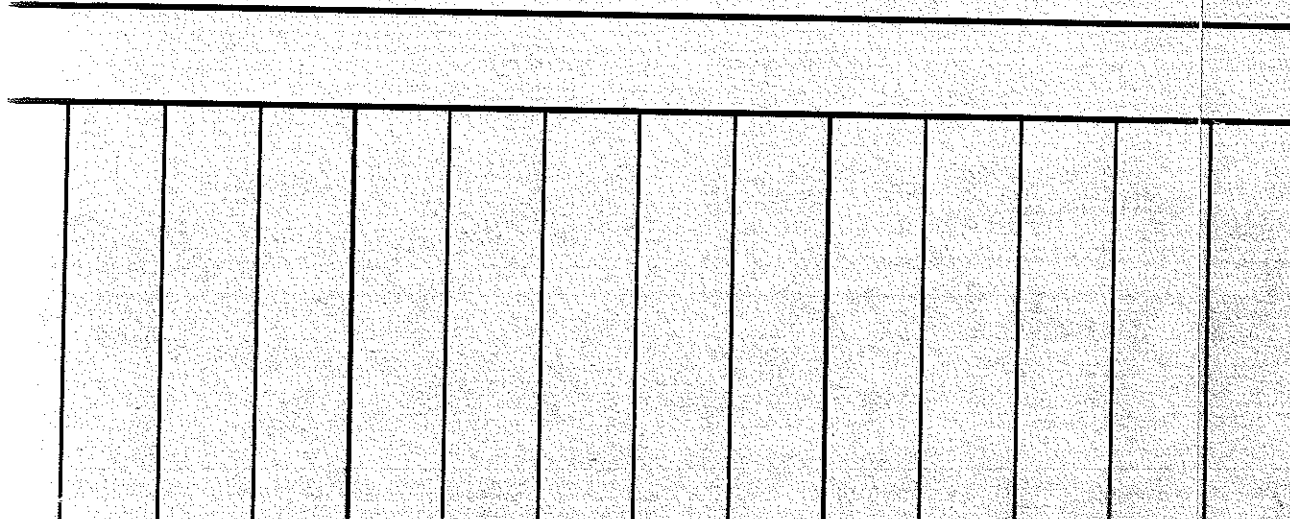
D  
S  
T  
#  
2



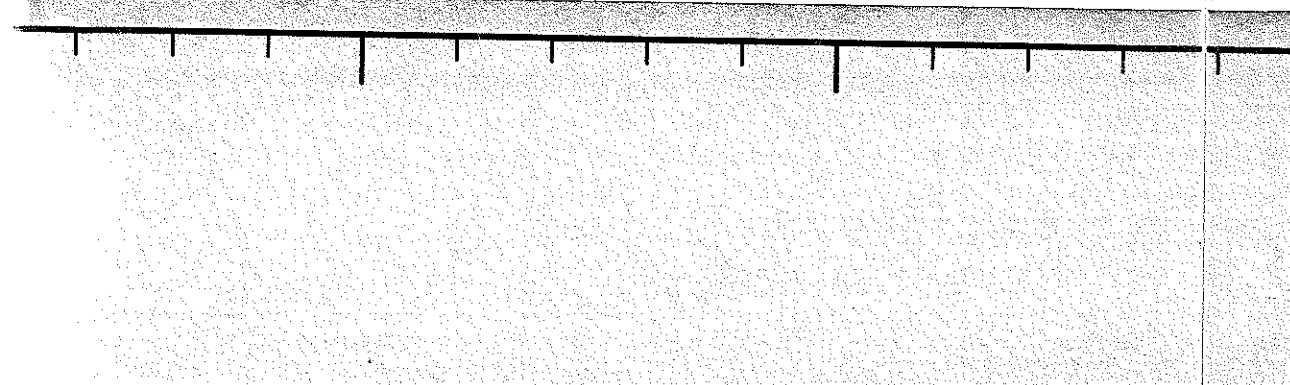
5" 10" 15" 20" 25"  
 DRILLING TIME Minutes/Foot  
 Rate of Penetration Decreases



LITHOLOGY



SAMPLE DESCRIPTIONS



OIL SHOWS

OPERATOR D. D. OGIL  
 LEASE HOCKESSMITH - KORBNER #129 IP LKC  
 ELEVATION 3042' KB RTD 4710'  
 LOCATION 1320' E 36<sup>th</sup> 1945' E 4th  
 SEC 29 TWP 9 S RING 3/22  
 COUNTY THOMAS STATE KANSAS

DEPTH

REMARKS