



KANSAS CORPORATION COMMISSION 1070996
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 # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

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

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

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

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

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

API No. 15 - _____

Spot Description: _____

_____-_____-_____- Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite: _____

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

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



1070996

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 Yes No
(Attach Additional Sheets)

Samples Sent to Geological Survey Yes No

Cores Taken Yes No

Electric Log Run Yes No

Electric Log Submitted Electronically Yes No
(If no, Submit Copy)

List All E. Logs Run:

Log Formation (Top), Depth and Datum Sample
Name Top Datum

CASING RECORD New 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
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> 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

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

Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	CMSS Unit 1-20
Doc ID	1070996

All Electric Logs Run

Micro
Sonic
Dual Induction
Compensated Density / Neutron

Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	CMSS Unit 1-20
Doc ID	1070996

Tops

Name	Top	Datum
Top Anhydrite	1360	+815
Base Anhydrite	1386	+789
Heebner	3691	-1516
LKC	3740	-1565
BKC	4059	-1884
Fort Scott	4244	-2069
Cherokee Shale	4260	-2085
Mississippian	4310	-2135
Osage	4328	-2153

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

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

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

No. 117

Date	11-12-11	Sec.	20	Twp.	20	Range	20	County	Pawnee	State	Kansas	On Location		Finish	7:15 PM	
Lease	CMS Unit		Well No.	1-20		Location		Alexander 125 1/2 W								
Contractor	Discovery Drilling Rig 4							Owner								
Type Job	Surface							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.								
Hole Size	12 1/4		T.D.	1161		Charge To		Downing Nelson								
Csg.	88 23lb		Depth	1161		Street										
Tbg. Size			Depth			City		State								
Tool			Depth			The above was done to satisfaction and supervision of owner agent or contractor.										
Cement Left in Csg.	42.51		Shoe Joint	42.51		Cement Amount Ordered		450 Common 30cc 2864								
Meas Line			Displace	71 1/2 Bbl												

EQUIPMENT

Pumptrk	5	No.	Cementer	Steve	Common	450
Bulktrk	13	No.	Helper	Steve	Poz. Mix	
Bulktrk		No.	Driver	Brett	Gel.	9
Bulktrk		No.	Driver	Brian S	Calcium	16

JOB SERVICES & REMARKS

Remarks:	Hulls
Rat Hole	Salt
Mouse Hole	Flowseal
Centralizers	Kol-Seal
Baskets	Mud CLR 48
D/V or Port Collar	CFL-117 or CD110 CAF 38

Cement did Circulate

Sand	
Handling	475
Mileage	

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
Ballo Plate	
Rubber Plug	88
Pumptrk Charge	Day Surface
Mileage	31

Thank you

Signature	<i>[Signature]</i>	Tax	
		Discount	
		Total Charge	

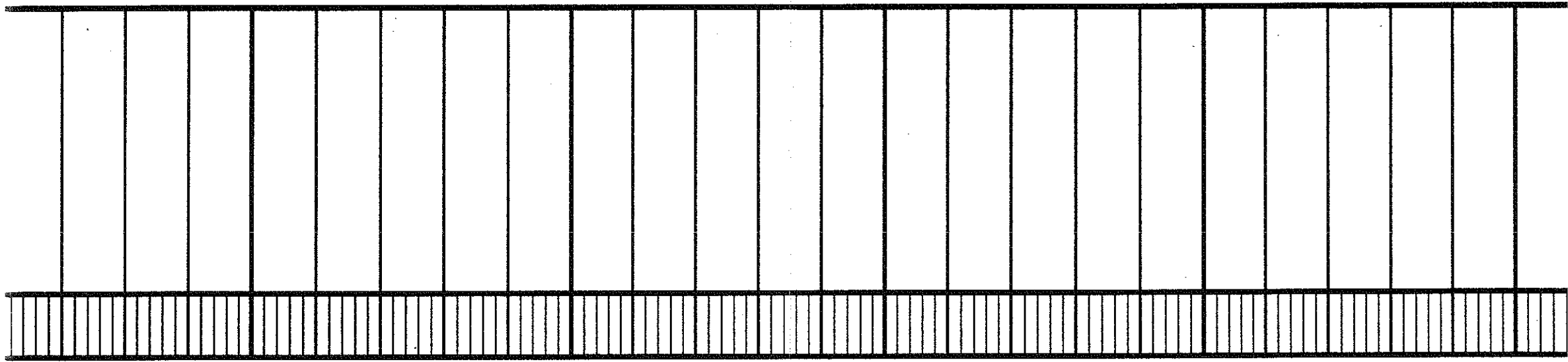
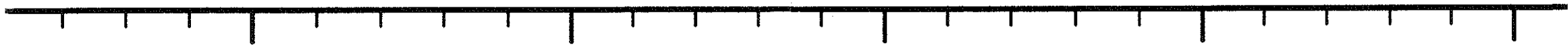
JOB LOG

SWIFT Services, Inc.

DATE 21 NOV 11 PAGE NO.

CUSTOMER Downing & Nelson WELL NO. 1-20 LEASE CMSS unit JOB TYPE cement long string TICKET NO. 22447

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
								1755 lbs SA-2 w/ # Flacle 104 jts 14" 5 1/2"
								RTD - 4338 total pipe 4339' shoejt 42'
								set @ 4295.
								Centralizers 1, 3, 5, 7, 9, 11 Basket 11
								no post COLLAR - Packer shoe
	1930							on loc TRK 114
	2030							Drop ball start 14" 5 1/2" casing in well
	2220							circulate well
	2245							Drop ball - set packer shoe
	2250	4 3/4	12				200	Pump 500 gal mid flush
		4 3/4	20				200	Pump 20 bbl KCL flush
	2304		15					Plug RH - MH 305 lbs - 205 lbs
	2310	4 3/4	27				250	Mix 125 lbs SA-2 @ 15.3 PPG
	2320							Drop latch down plug
								wash out pump & line
	2325	6 3/4					200	Displace plug
		6 3/4	94				850	
	2345	6 3/4	105				1500	Land plug
	2348							Release pressure to truck - dried up
	2350							wash up truck
								RACK UP
	11-22-2011							Job complete
	0015							Thanks
								Joe Dave & Blaine



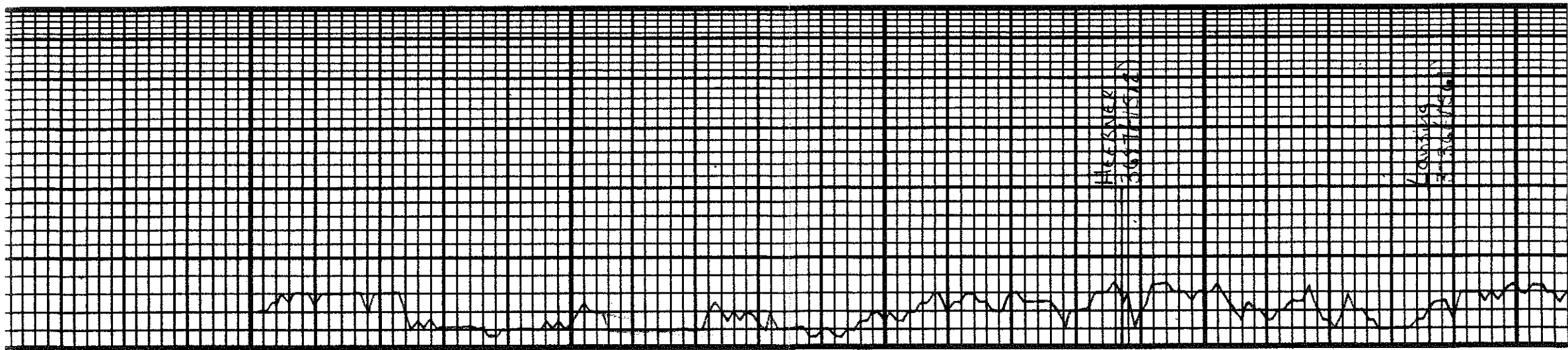
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3600

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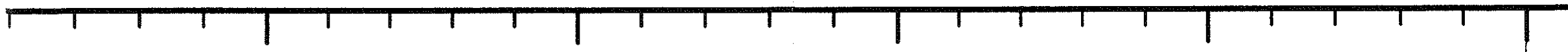
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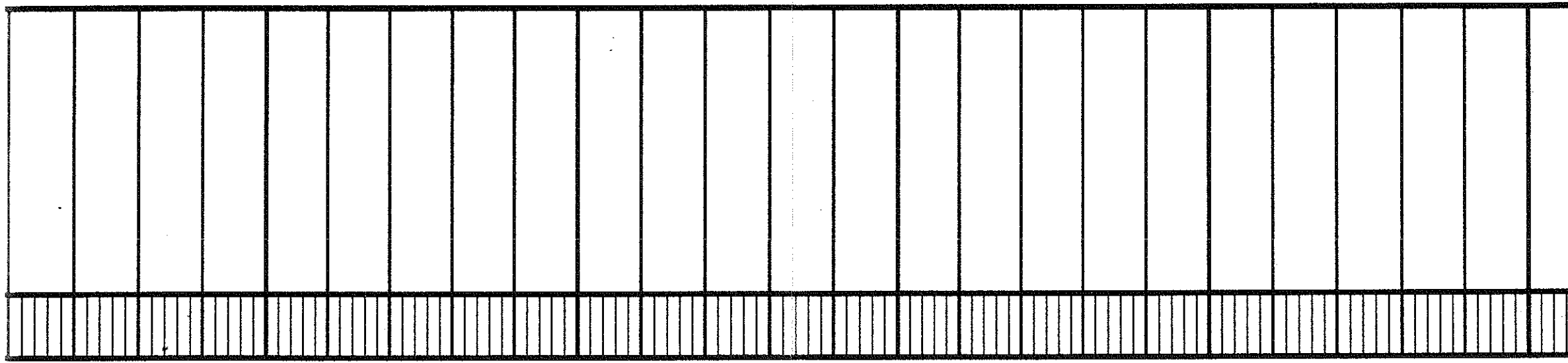


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30-11-1971

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30-11-1971



Vis: 57 wt: 9.2
DST # 1
4772-4712



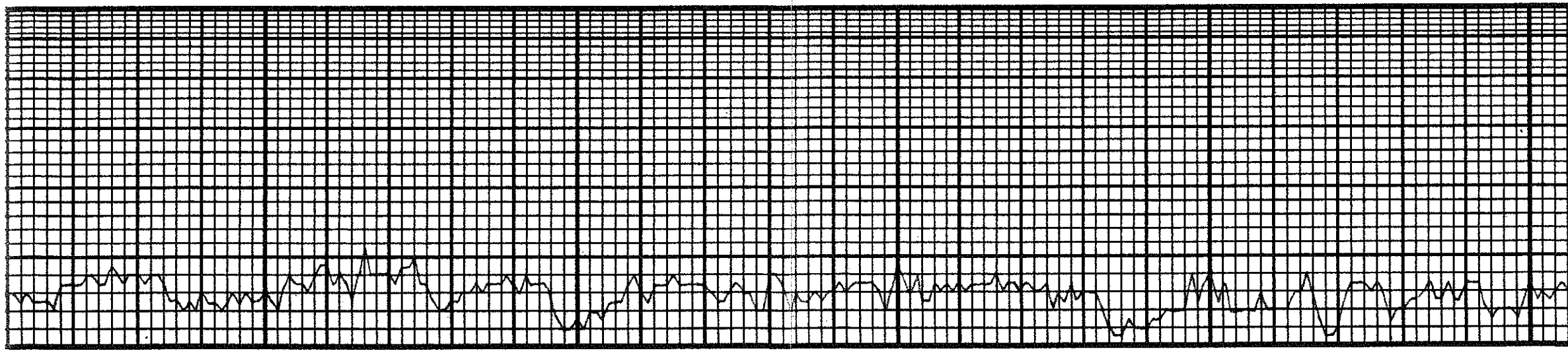
3800

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3900

50

4000





DRILL STEM TEST REPORT

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

PO Box 1019
Hays, KS 67601

ATTN: Marc Downing

CMSS Unit #1-20

20-20s-20w Pawnee,KS

Start Date: 2011.11.17 @ 20:34:00

End Date: 2011.11.18 @ 03:40:00

Job Ticket #: 44672 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2011.11.22 @ 09:55:14



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Downing Nelson Oil Co. Inc

20-20s-20w Pawnee, KS

PO Box 1019
Hays, KS 67601

CMSS Unit #1-20

Job Ticket: 44672

DST#: 1

ATTN: Marc Downing

Test Start: 2011.11.17 @ 20:34:00

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:46:30

Time Test Ended: 03:40:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Cody Bloedorn

Unit No: 54

Interval: 4273.00 ft (KB) To 4313.00 ft (KB) (TVD)

Reference Elevations: 2161.00 ft (KB)

Total Depth: 4313.00 ft (KB) (TVD)

2153.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8736 Outside

Press @ Run Depth: 54.45 psig @ 4310.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.11.17

End Date:

2011.11.18

Last Calib.:

2011.11.18

Start Time: 20:34:05

End Time:

03:39:59

Time On Btm:

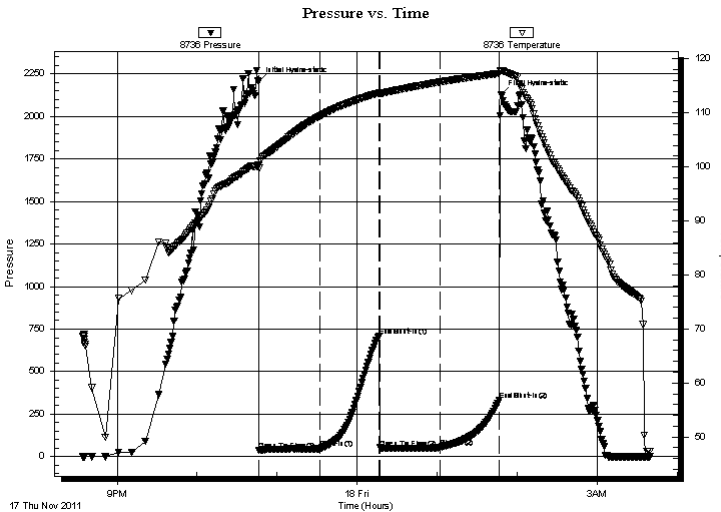
2011.11.17 @ 22:46:00

Time Off Btm:

2011.11.18 @ 01:48:00

TEST COMMENT: 45 - IF- 2" blow
45 - IS- No blow back
45 - FF- 1 1/2" blow
45 - FS- No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2204.06	100.32	Initial Hydro-static
1	37.52	99.76	Open To Flow (1)
46	47.76	109.41	Shut-In (1)
91	706.24	113.68	End Shut-In (1)
91	51.28	113.57	Open To Flow (2)
136	54.45	115.69	Shut-In (2)
181	330.89	117.31	End Shut-In (2)
182	2130.52	117.86	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	VSOCM, 5%O, 95%M	0.28

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing Nelson Oil Co. Inc

20-20s-20w Pawnee,KS

PO Box 1019
Hays, KS 67601

CMSS Unit #1-20

Job Ticket: 44672

DST#: 1

ATTN: Marc Downing

Test Start: 2011.11.17 @ 20:34:00

Tool Information

Drill Pipe:	Length: 4226.00 ft	Diameter: 3.80 inches	Volume: 59.28 bbl	Tool Weight: 2500.00 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: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 59.43 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4273.00 ft			Final 59000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	40.00 ft			
Tool Length:	68.00 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			4246.00	
Shut In Tool	5.00			4251.00	
Hydraulic tool	5.00			4256.00	
Jars	5.00			4261.00	
Safety Joint	2.00			4263.00	
Packer	5.00			4268.00	28.00 Bottom Of Top Packer
Packer	5.00			4273.00	
Stubb	1.00			4274.00	
Perforations	2.00			4276.00	
Change Over Sub	1.00			4277.00	
Drill Pipe	31.00			4308.00	
Change Over Sub	1.00			4309.00	
Perforations	1.00			4310.00	
Recorder	0.00	8673	Inside	4310.00	
Recorder	0.00	8736	Outside	4310.00	
Bullnose	3.00			4313.00	40.00 Bottom Packers & Anchor
Total Tool Length:	68.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing Nelson Oil Co. Inc

20-20s-20w Pawnee,KS

PO Box 1019
Hays, KS 67601

CMSS Unit #1-20

Job Ticket: 44672

DST#: 1

ATTN: Marc Downing

Test Start: 2011.11.17 @ 20:34:00

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: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.76 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
40.00	VSOCM, 5%O, 95%M	0.279

Total Length: 40.00 ft Total Volume: 0.279 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

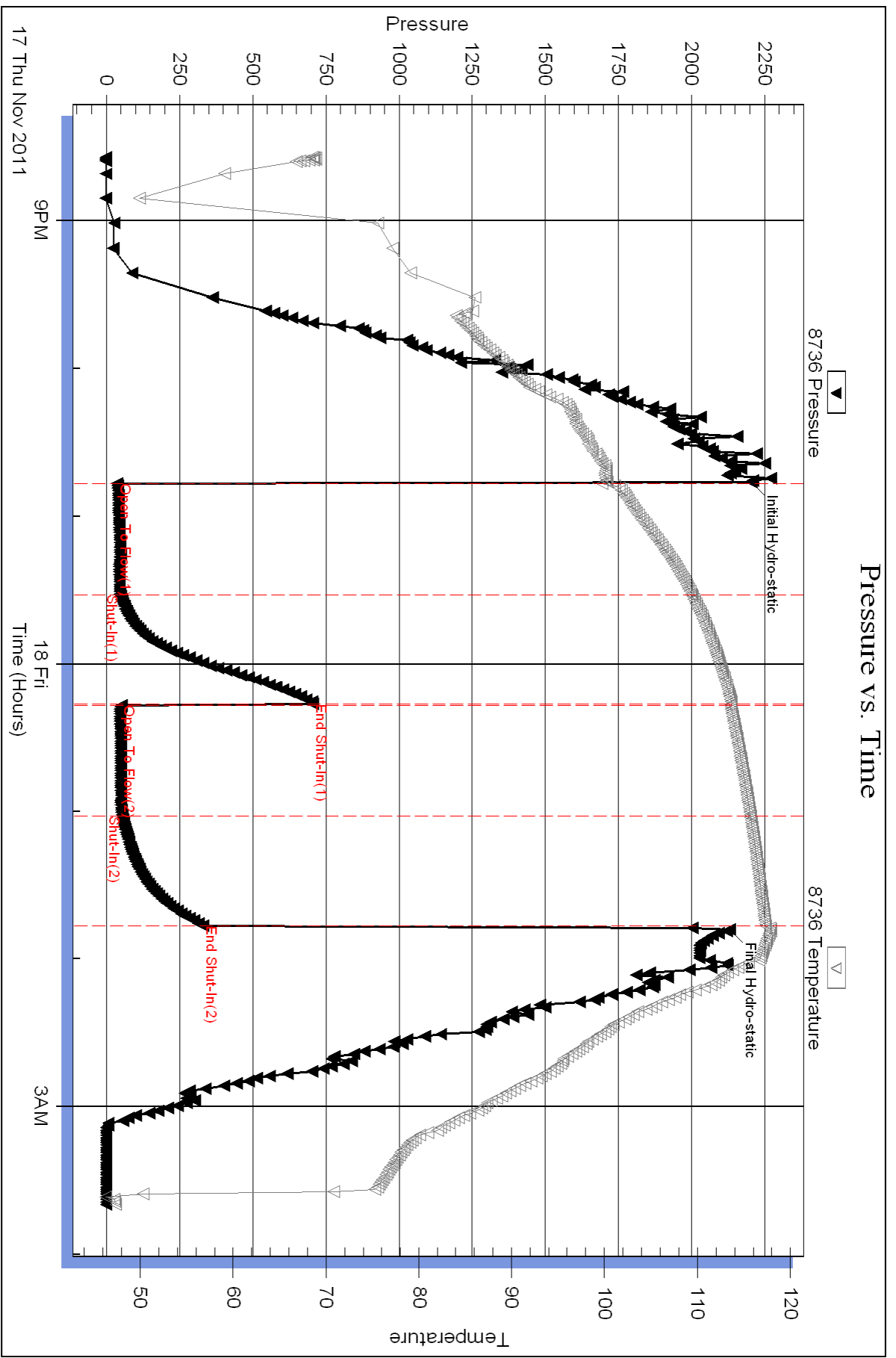
Recovery Comments:

Serial #: 8736

Outside Downing Nelson Oil Co. Inc

CMSS Unit #1-20

DST Test Number: 1



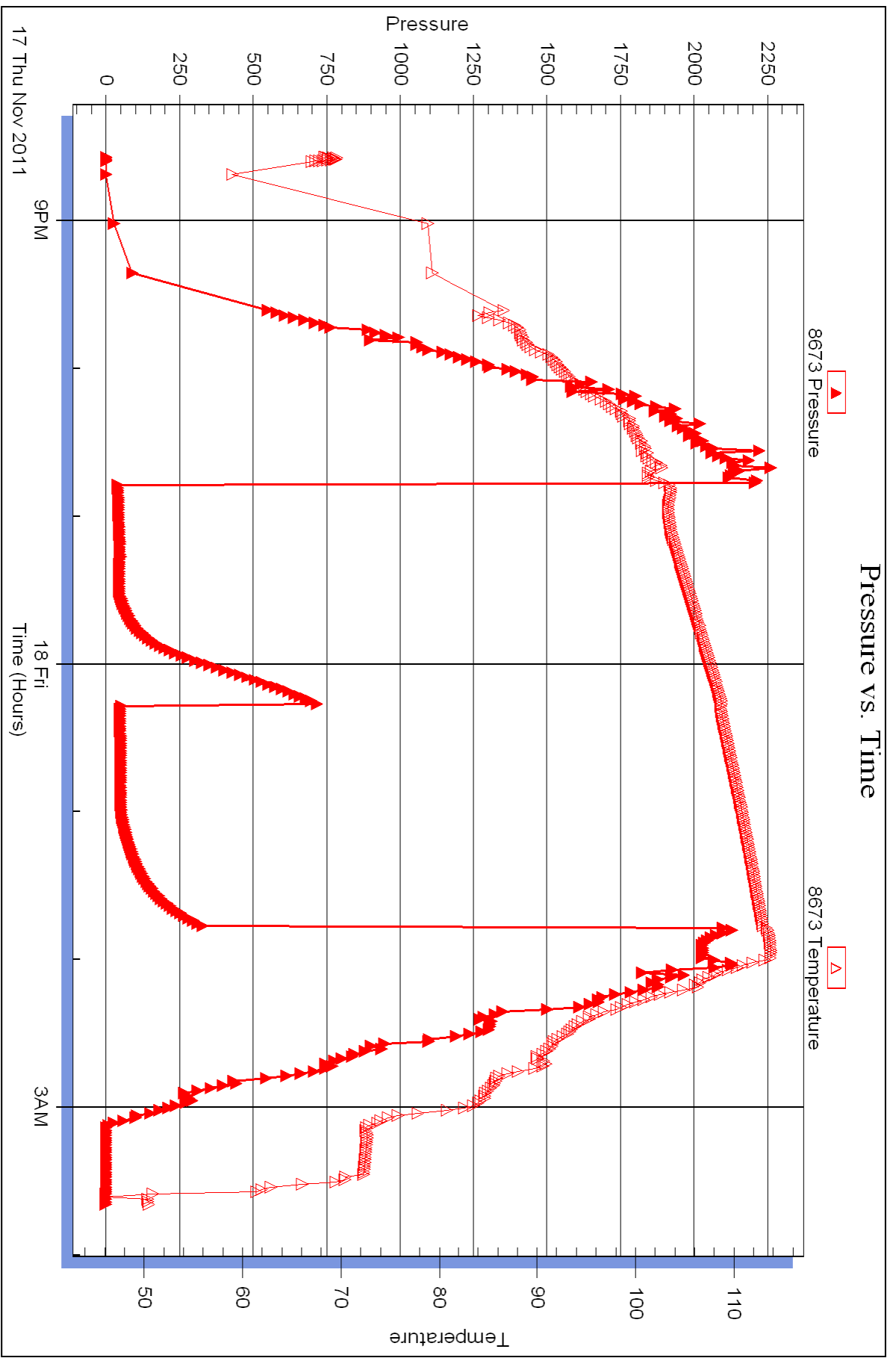
Serial #: 8673

Inside

Downing Nelson Oil Co. Inc

OWSS Unit #1-20

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 44672

Printed: 2011.11.22 @ 09:55:16



DRILL STEM TEST REPORT

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

PO Box 1019
Hays, KS 67601

ATTN: Marc Downing

CMSS Unit #1-20

20-20s-20w Pawnee,KS

Start Date: 2011.11.18 @ 09:28:00

End Date: 2011.11.18 @ 14:54:00

Job Ticket #: 44673 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2011.11.22 @ 09:54:31



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Downing Nelson Oil Co. Inc

20-20s-20w Pawnee, KS

PO Box 1019
Hays, KS 67601

CMSS Unit #1-20

Job Ticket: 44673

DST#: 2

ATTN: Marc Downing

Test Start: 2011.11.18 @ 09:28:00

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:16:00

Time Test Ended: 14:54:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Cody Bloedorn

Unit No: 54

Interval: 4312.00 ft (KB) To 4319.00 ft (KB) (TVD)

Reference Elevations: 2161.00 ft (KB)

Total Depth: 4319.00 ft (KB) (TVD)

2153.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8736 Outside

Press @ Run Depth: 28.98 psig @ 4316.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.11.18

End Date:

2011.11.18

Last Calib.:

2011.11.18

Start Time: 09:28:05

End Time:

14:53:59

Time On Btm:

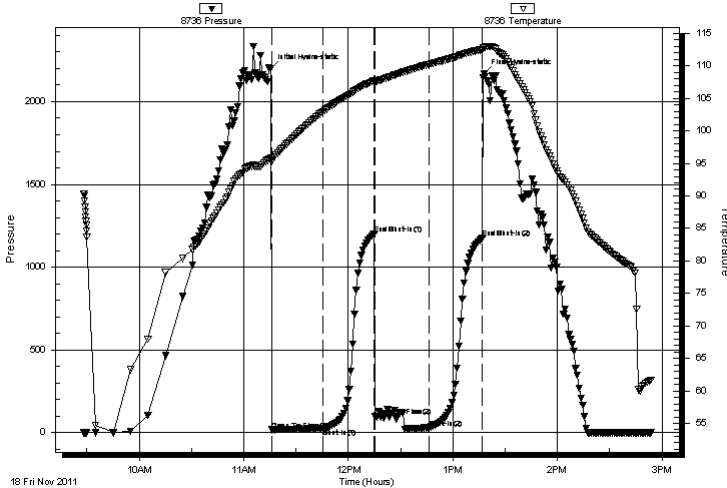
2011.11.18 @ 11:15:30

Time Off Btm:

2011.11.18 @ 13:18:00

TEST COMMENT: 30 - IF- 1/4" blow
30 - IS- No blow back
30 - FF- 1/8" blow
30 - FS- No blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2198.93	95.81	Initial Hydro-static
1	16.37	95.23	Open To Flow (1)
30	25.10	102.97	Shut-In(1)
60	1202.79	107.74	End Shut-In(1)
60	97.91	107.52	Open To Flow (2)
91	28.98	110.21	Shut-In(2)
122	1175.94	112.54	End Shut-In(2)
123	2167.21	112.85	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
35.00	VSOCM, 5%O, 95%M	0.21

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Downing Nelson Oil Co. Inc

20-20s-20w Pawnee, KS

PO Box 1019
Hays, KS 67601

CMSS Unit #1-20

Job Ticket: 44673

DST#: 2

ATTN: Marc Downing

Test Start: 2011.11.18 @ 09:28:00

GENERAL INFORMATION:

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Reference Elevations: 2161.00 ft (KB)

Total Depth: 4319.00 ft (KB) (TVD)

2153.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8673 Inside

Press @ Run Depth: psig @ 4316.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.11.18

End Date:

2011.11.18

Last Calib.:

2011.11.18

Start Time: 09:28:02

End Time:

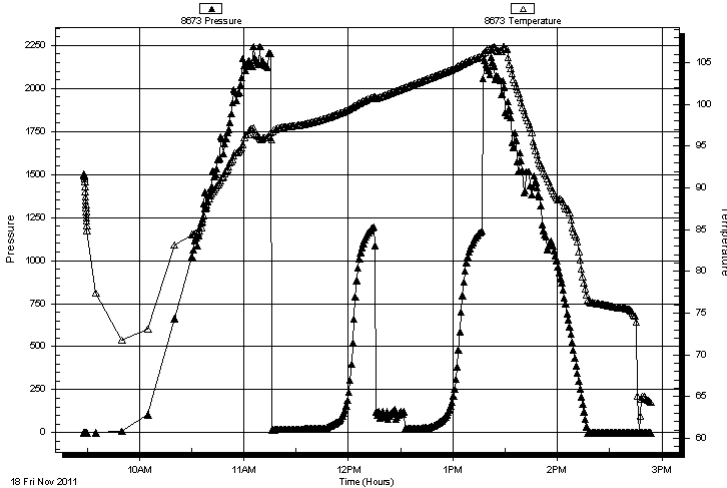
14:54:00

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 - IF- 1/4" blow
30 - IS- No blow back
30 - FF- 1/8" blow
30 - FS- No blow back

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Gas Rates

Length (ft)	Description	Volume (bbl)
35.00	VSOCM, 5%O, 95%M	0.21

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing Nelson Oil Co. Inc

20-20s-20w Pawnee, KS

PO Box 1019
Hays, KS 67601

CMSS Unit #1-20

Job Ticket: 44673

DST#: 2

ATTN: Marc Downing

Test Start: 2011.11.18 @ 09:28:00

Tool Information

Drill Pipe:	Length: 4258.00 ft	Diameter: 3.80 inches	Volume: 59.73 bbl	Tool Weight: 2500.00 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: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 59.88 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	4312.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	7.00 ft			
Tool Length:	35.00 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			4285.00	
Shut In Tool	5.00			4290.00	
Hydraulic tool	5.00			4295.00	
Jars	5.00			4300.00	
Safety Joint	2.00			4302.00	
Packer	5.00			4307.00	28.00 Bottom Of Top Packer
Packer	5.00			4312.00	
Stubb	1.00			4313.00	
Perforations	3.00			4316.00	
Recorder	0.00	8673	Inside	4316.00	
Recorder	0.00	8736	Outside	4316.00	
Bullnose	3.00			4319.00	7.00 Bottom Packers & Anchor

Total Tool Length: 35.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing Nelson Oil Co. Inc

20-20s-20w Pawnee,KS

PO Box 1019
Hays, KS 67601

CMSS Unit #1-20

Job Ticket: 44673

DST#: 2

ATTN: Marc Downing

Test Start: 2011.11.18 @ 09:28:00

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: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.76 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
35.00	VSOCM, 5%O, 95%M	0.209

Total Length: 35.00 ft Total Volume: 0.209 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

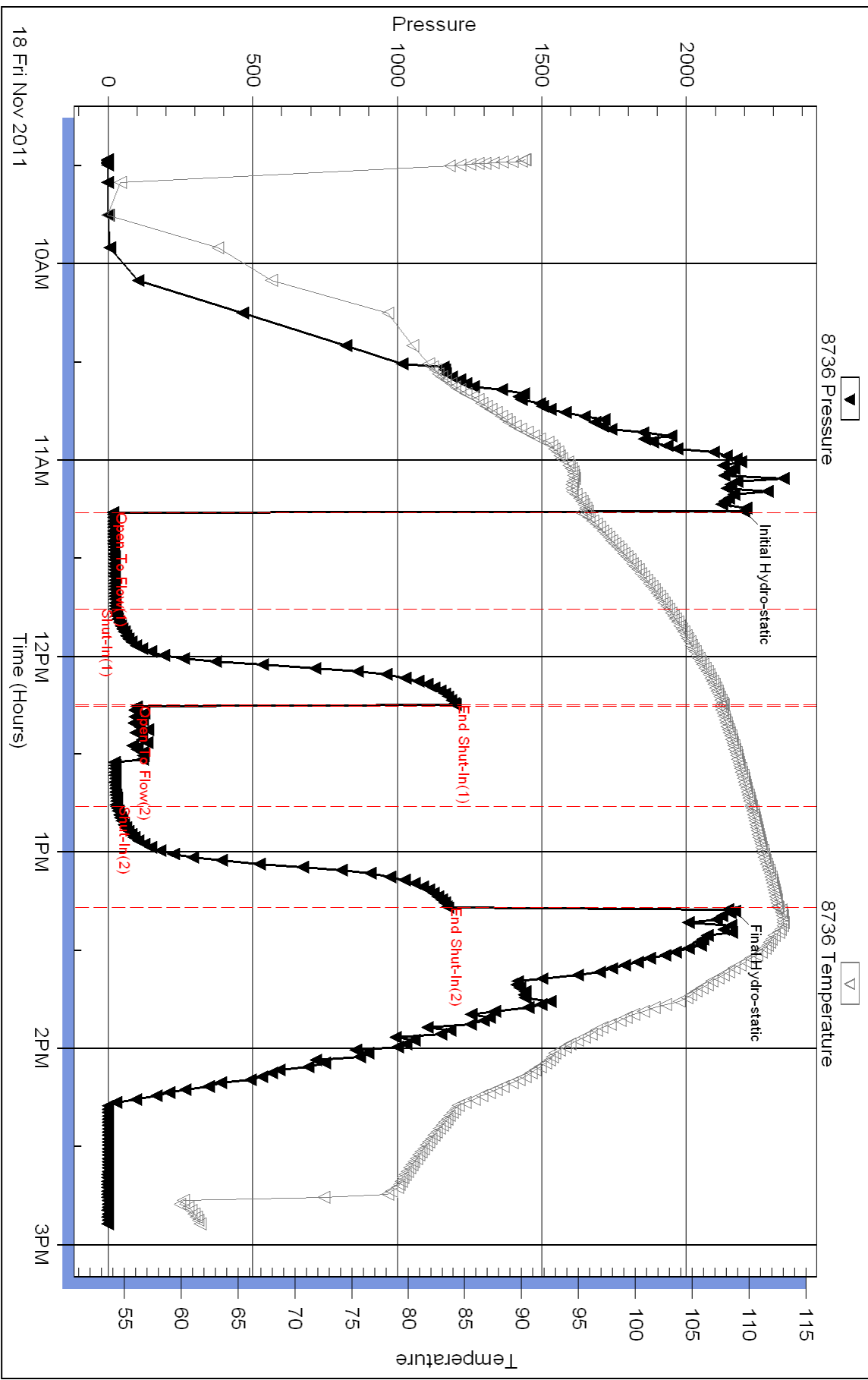
Serial #: 8736

Outside Downing Nelson Oil Co. Inc

OMSS Unit #1-20

DST Test Number: 2

Pressure vs. Time



Serial #: 8673

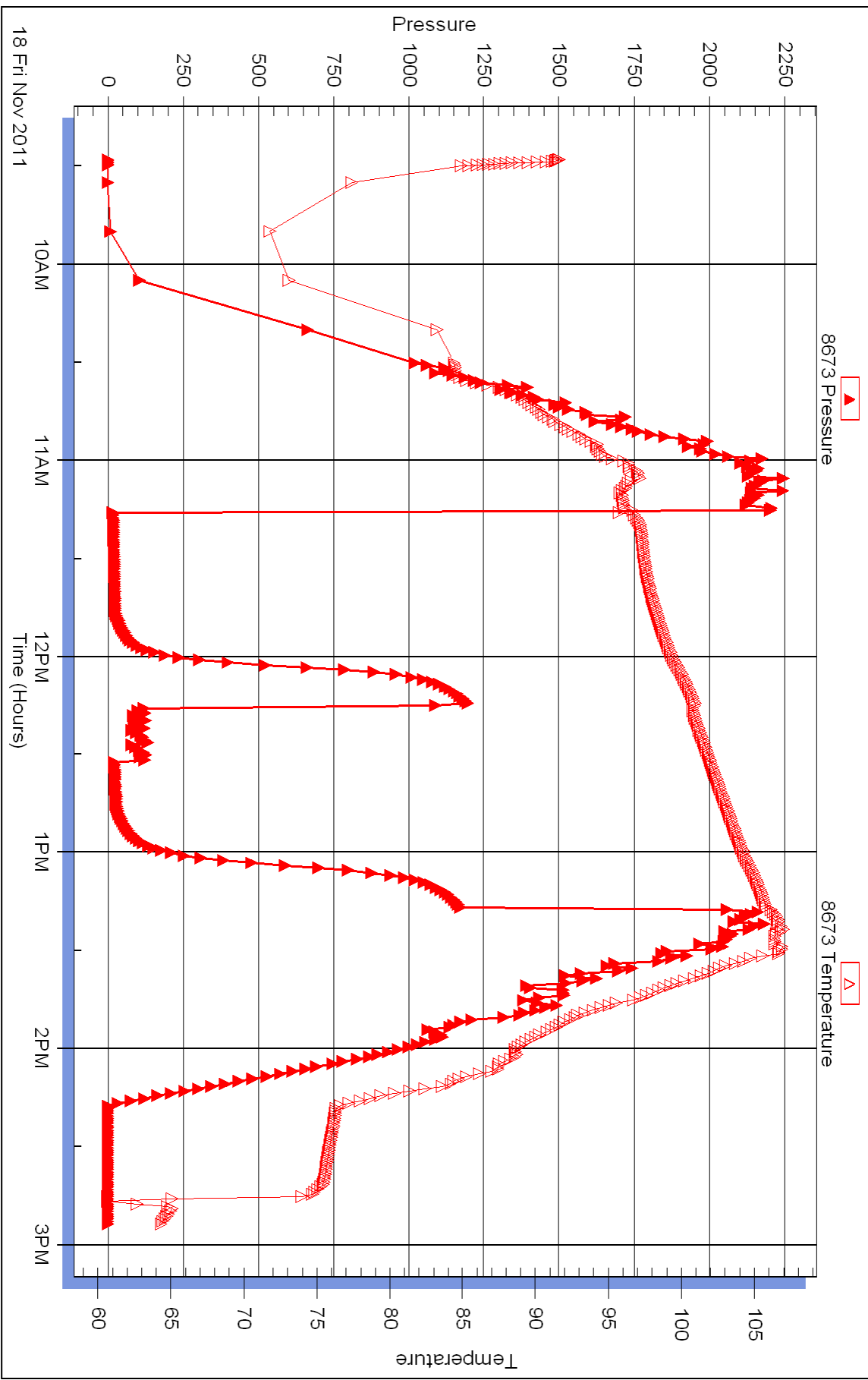
Inside

Downing Nelson Oil Co. Inc

CMSS Unit #1-20

DST Test Number: 2

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 44673

Printed: 2011.11.22 @ 09:54:34



DRILL STEM TEST REPORT

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

PO Box 1019
Hays, KS 67601

ATTN: Marc Downing

CMSS Unit #1-20

20-20s-20w Pawnee,KS

Start Date: 2011.11.18 @ 22:11:00

End Date: 2011.11.19 @ 05:19:30

Job Ticket #: 44674 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2011.11.22 @ 09:53:54



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Downing Nelson Oil Co. Inc

20-20s-20w Pawnee, KS

PO Box 1019
Hays, KS 67601

CMSS Unit #1-20

Job Ticket: 44674

DST#: 3

ATTN: Marc Downing

Test Start: 2011.11.18 @ 22:11:00

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:17:00

Time Test Ended: 05:19:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Cody Bloedorn

Unit No: 54

Interval: 4312.00 ft (KB) To 4326.00 ft (KB) (TVD)

Reference Elevations: 2161.00 ft (KB)

Total Depth: 4326.00 ft (KB) (TVD)

2153.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8736 Outside

Press @ Run Depth: 1605.56 psig @ 4323.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.11.18

End Date:

2011.11.19

Last Calib.:

2011.11.19

Start Time: 22:11:05

End Time:

05:19:29

Time On Btm:

2011.11.19 @ 00:16:00

Time Off Btm:

2011.11.19 @ 02:48:30

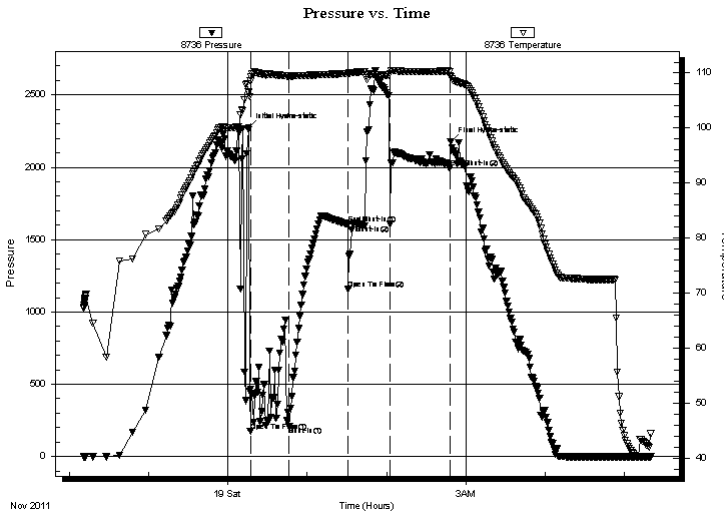
TEST COMMENT: 30 - IF- Slid 15' to btm, 6" blow, tool opened early 2 x's.

45 - IS- No blow back

30 - FF- Surge and died, w aited 15 Min, Flushed tool, surged and died

45 - FS- No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2274.04	106.46	Initial Hydro-static
1	176.23	108.51	Open To Flow (1)
31	211.37	109.42	Shut-In(1)
75	1606.42	109.94	End Shut-In(1)
75	1160.32	109.81	Open To Flow (2)
107	1605.56	109.96	Shut-In(2)
152	1994.78	109.58	End Shut-In(2)
153	2176.80	109.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
293.00	Mud, 100%M	3.83

* 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

20-20s-20w Pawnee,KS

PO Box 1019
Hays, KS 67601

CMSS Unit #1-20

Job Ticket: 44674

DST#: 3

ATTN: Marc Downing

Test Start: 2011.11.18 @ 22:11:00

Tool Information

Drill Pipe:	Length: 4258.00 ft	Diameter: 3.80 inches	Volume: 59.73 bbl	Tool Weight: 2500.00 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: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 64000.00 lb
			<u>Total Volume: 59.88 bbl</u>	Tool Chased 15.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4312.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	14.00 ft			
Tool Length:	42.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: Tool opened early and slid 15' to bottom, had to work tool up and down to get to bottom. Flushed tool and second open.

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4285.00	
Shut In Tool	5.00			4290.00	
Hydraulic tool	5.00			4295.00	
Jars	5.00			4300.00	
Safety Joint	2.00			4302.00	
Packer	5.00			4307.00	28.00 Bottom Of Top Packer
Packer	5.00			4312.00	
Stubb	1.00			4313.00	
Perforations	10.00			4323.00	
Recorder	0.00	8673	Inside	4323.00	
Recorder	0.00	8736	Outside	4323.00	
Bullnose	3.00			4326.00	14.00 Bottom Packers & Anchor

Total Tool Length: 42.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing Nelson Oil Co. Inc

20-20s-20w Pawnee,KS

PO Box 1019
Hays, KS 67601

CMSS Unit #1-20

Job Ticket: 44674

DST#: 3

ATTN: Marc Downing

Test Start: 2011.11.18 @ 22:11:00

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: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.76 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
293.00	Mud, 100%M	3.828

Total Length: 293.00 ft Total Volume: 3.828 bbl

Num Fluid Samples: 0

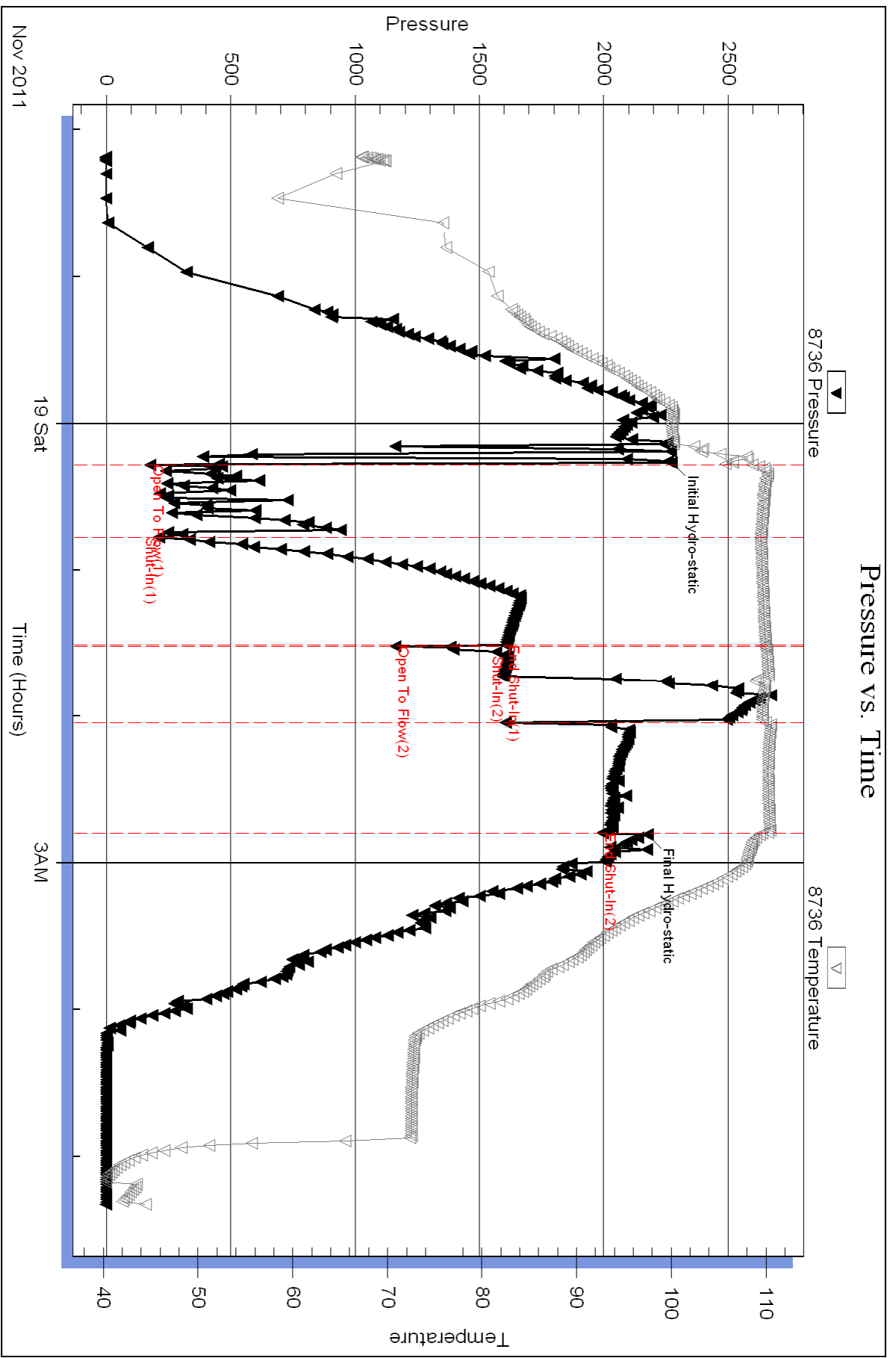
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



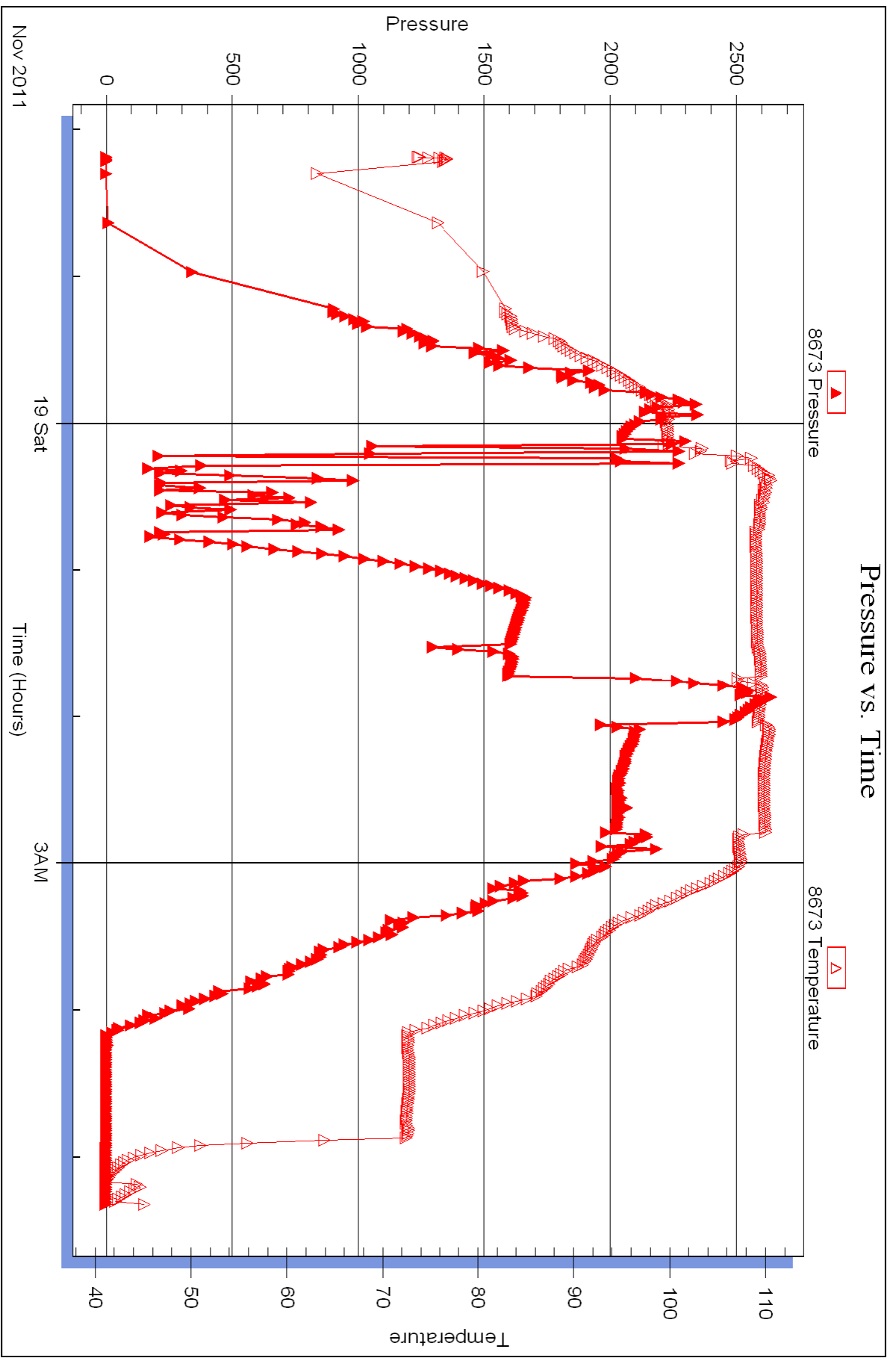
Serial #: 8673

Inside

Downing Nelson Oil Co. Inc

CMSS Unit #1-20

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 44674

Printed: 2011.11.22 @ 09:53:56



DRILL STEM TEST REPORT

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

PO Box 1019
Hays, KS 67601

ATTN: Marc Downing

CMSS Unit #1-20

20-20s-20w Pawnee,KS

Start Date: 2011.11.19 @ 10:37:05

End Date: 2011.11.19 @ 16:49:35

Job Ticket #: 44690 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2011.11.22 @ 09:53:10



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Downing Nelson Oil Co. Inc

20-20s-20w Pawnee, KS

PO Box 1019
Hays, KS 67601

CMSS Unit #1-20

Job Ticket: 44690

DST#: 4

ATTN: Marc Downing

Test Start: 2011.11.19 @ 10:37:05

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:57:20

Time Test Ended: 16:49:35

Test Type: Conventional Bottom Hole (Reset)

Tester: Jason McLemore

Unit No: 54

Interval: 4313.00 ft (KB) To 4326.00 ft (KB) (TVD)

Reference Elevations: 2161.00 ft (KB)

Total Depth: 4326.00 ft (KB) (TVD)

2153.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8673

Inside

Press @ Run Depth: 118.74 psig @ 4314.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.11.19 End Date: 2011.11.19

Last Calib.: 2011.11.22

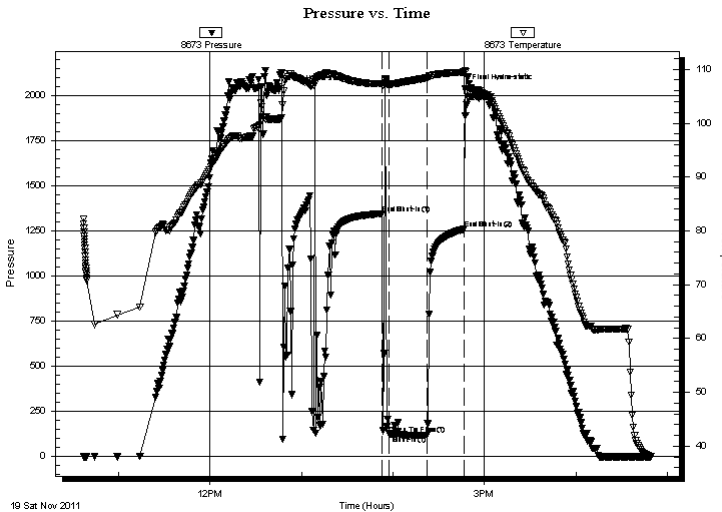
Start Time: 10:37:07 End Time: 16:49:35

Time On Btm: 2011.11.19 @ 12:45:05

Time Off Btm: 2011.11.19 @ 14:47:20

TEST COMMENT: IFP-20' Fill in Hble, Slid Tool, Plugging Action, Flush Tool
ISI-Dead
FFP-Dead, Flush Tool, Surface Blow, Lasted Throughout
FSI-Dead

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2031.52	100.71	Initial Hydro-static
68	1344.97	107.27	End Shut-In(1)
73	126.91	107.21	Open To Flow (1)
98	118.74	108.41	Shut-In(1)
122	1259.97	109.47	End Shut-In(2)
123	2040.20	109.79	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	VSOCM-3%O-97%M	1.40
70.00	Drilling Mud	0.98

* 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

20-20s-20w Pawnee, KS

PO Box 1019
Hays, KS 67601

CMSS Unit #1-20

Job Ticket: 44690

DST#: 4

ATTN: Marc Downing

Test Start: 2011.11.19 @ 10:37:05

Tool Information

Drill Pipe:	Length: 4258.00 ft	Diameter: 3.80 inches	Volume: 59.73 bbl	Tool Weight: 2500.00 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: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 59.88 bbl</u>	Tool Chased 20.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4313.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	13.00 ft			
Tool Length:	41.00 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			4286.00	
Shut In Tool	5.00			4291.00	
Hydraulic tool	5.00			4296.00	
Jars	5.00			4301.00	
Safety Joint	2.00			4303.00	
Packer	5.00			4308.00	28.00 Bottom Of Top Packer
Packer	5.00			4313.00	
Stubb	1.00			4314.00	
Recorder	0.00	8673	Inside	4314.00	
Recorder	0.00	8736	Outside	4314.00	
Perforations	9.00			4323.00	
Bullnose	3.00			4326.00	13.00 Bottom Packers & Anchor

Total Tool Length: 41.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing Nelson Oil Co. Inc

20-20s-20w Pawnee,KS

PO Box 1019
Hays, KS 67601

CMSS Unit #1-20

Job Ticket: 44690

DST#: 4

ATTN: Marc Downing

Test Start: 2011.11.19 @ 10:37:05

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.57 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	VSOCM-3%O-97%M	1.401
70.00	Drilling Mud	0.982

Total Length: 190.00 ft Total Volume: 2.383 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

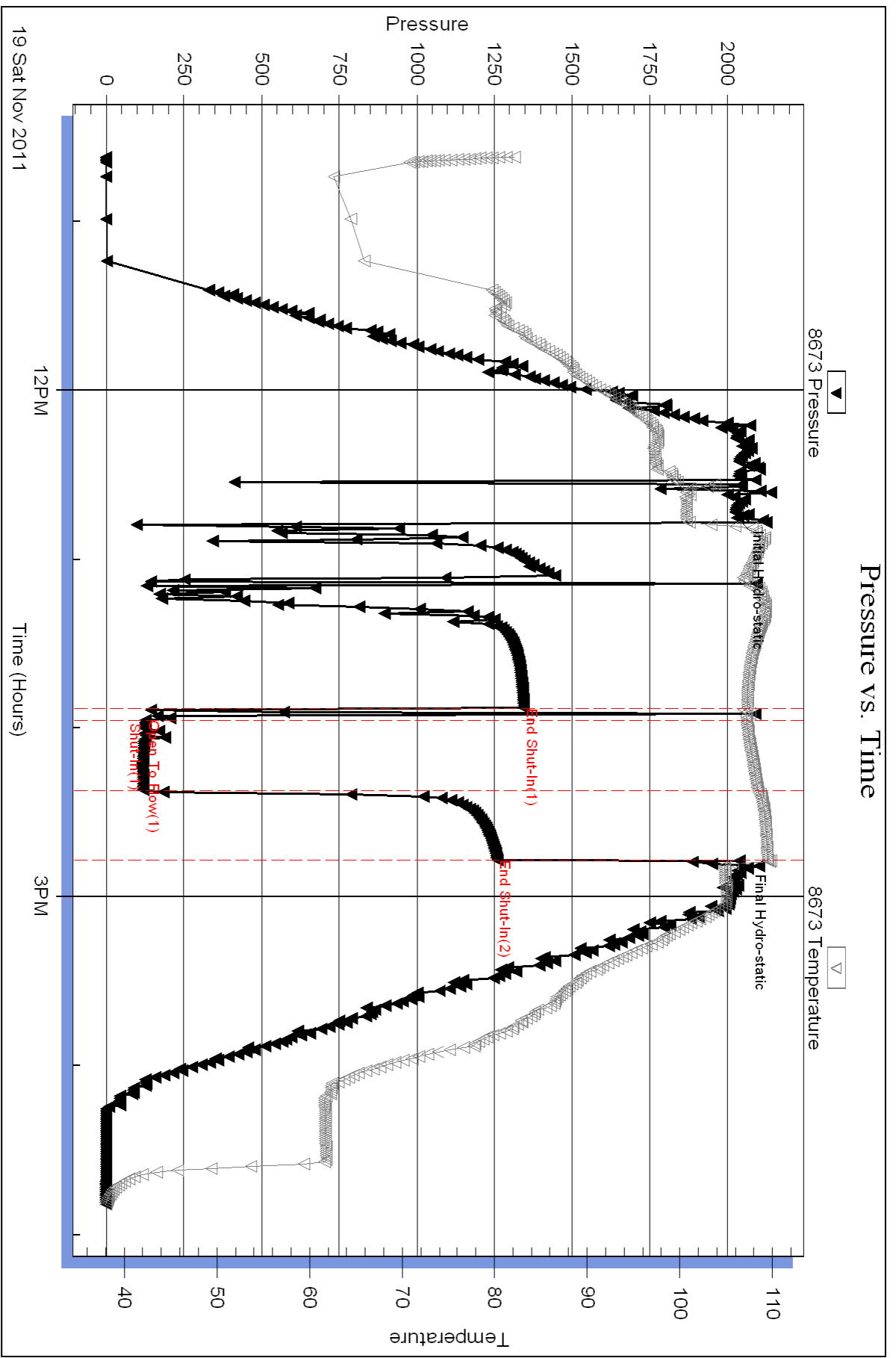
Serial #: 8673

Inside

Downing Nelson Oil Co. Inc

OWSS Unit #1-20

DST Test Number: 4

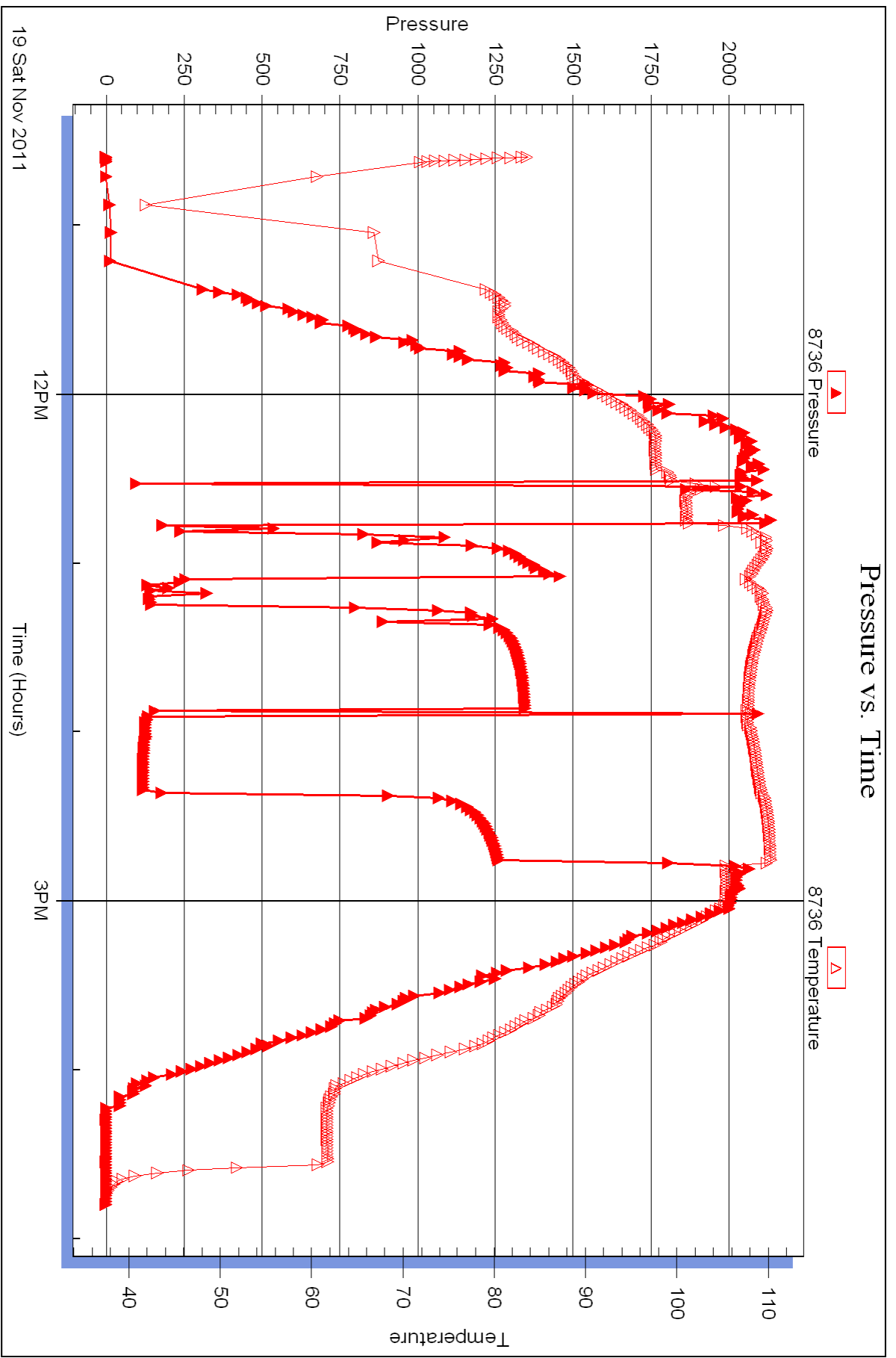


Serial #: 8736

Outside Downing Nelson Oil Co. Inc

OWSS Unit #1-20

DST Test Number: 4



Triobite Testing, Inc

Ref. No: 44690

Printed: 2011.11.22 @ 09:53:12



DRILL STEM TEST REPORT

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

PO Box 1019
Hays, KS 67601

ATTN: Marc Downing

CMSS Unit #1-20

20-20s-20w Pawnee,KS

Start Date: 2011.11.20 @ 03:04:52

End Date: 2011.11.20 @ 10:37:52

Job Ticket #: 44691 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2011.11.22 @ 09:52:35



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Downing Nelson Oil Co. Inc

20-20s-20w Pawnee, KS

PO Box 1019
Hays, KS 67601

CMSS Unit #1-20

Job Ticket: 44691

DST#: 5

ATTN: Marc Downing

Test Start: 2011.11.20 @ 03:04:52

GENERAL INFORMATION:

Formation: **Mississippi-Osage**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:35:52

Time Test Ended: 10:37:52

Test Type: Conventional Bottom Hole (Reset)

Tester: Jason McLemore

Unit No: 54

Interval: 4254.00 ft (KB) To 4331.00 ft (KB) (TVD)

Reference Elevations: 2161.00 ft (KB)

Total Depth: 4331.00 ft (KB) (TVD)

2153.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8673

Inside

Press @ Run Depth: 152.89 psig @ 4323.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.11.20

End Date:

2011.11.20

Last Calib.: 2011.11.20

Start Time: 03:04:54

End Time:

10:37:52

Time On Btm: 2011.11.20 @ 05:17:22

Time Off Btm: 2011.11.20 @ 08:23:22

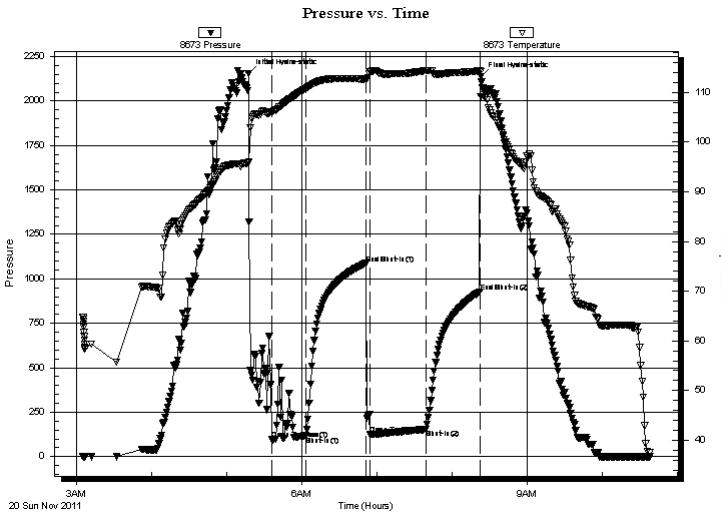
TEST COMMENT: IFP-Fair, Built to 9-1/2" With Plugging Action

ISI-Dead

FFP-Fair, Built to 9-1/2"

FSI-Dead

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2156.25	95.87	Initial Hydro-static
19	94.92	106.14	Open To Flow (1)
46	116.05	110.73	Shut-In(1)
94	1087.08	112.69	End Shut-In(1)
97	125.43	114.14	Open To Flow (2)
142	152.89	114.41	Shut-In(2)
185	927.91	114.34	End Shut-In(2)
186	2138.93	112.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
230.00	SOCM-10%O-90%M	2.94
0.00	60' Gas In Pipe	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

Downing Nelson Oil Co. Inc

20-20s-20w Pawnee,KS

PO Box 1019
Hays, KS 67601

CMSS Unit #1-20

Job Ticket: 44691

DST#: 5

ATTN: Marc Downing

Test Start: 2011.11.20 @ 03:04:52

Tool Information

Drill Pipe:	Length: 4224.00 ft	Diameter: 3.80 inches	Volume: 59.25 bbl	Tool Weight: 2500.00 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: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 59.40 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4254.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	77.00 ft			
Tool Length:	105.00 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			4227.00	
Shut In Tool	5.00			4232.00	
Hydraulic tool	5.00			4237.00	
Jars	5.00			4242.00	
Safety Joint	2.00			4244.00	
Packer	5.00			4249.00	28.00 Bottom Of Top Packer
Packer	5.00			4254.00	
Stubb	1.00			4255.00	
Perforations	3.00			4258.00	
Change Over Sub	1.00			4259.00	
Drill Pipe	63.00			4322.00	
Change Over Sub	1.00			4323.00	
Recorder	0.00	8673	Inside	4323.00	
Recorder	0.00	8736	Outside	4323.00	
Perforations	5.00			4328.00	
Bullnose	3.00			4331.00	77.00 Bottom Packers & Anchor
Total Tool Length:	105.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing Nelson Oil Co. Inc

20-20s-20w Pawnee,KS

PO Box 1019
Hays, KS 67601

CMSS Unit #1-20

Job Ticket: 44691

DST#: 5

ATTN: Marc Downing

Test Start: 2011.11.20 @ 03:04:52

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: 92.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 11.97 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 12000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
230.00	SOCM-10%O-90%M	2.944
0.00	60' Gas In Pipe	0.000

Total Length: 230.00 ft Total Volume: 2.944 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8673

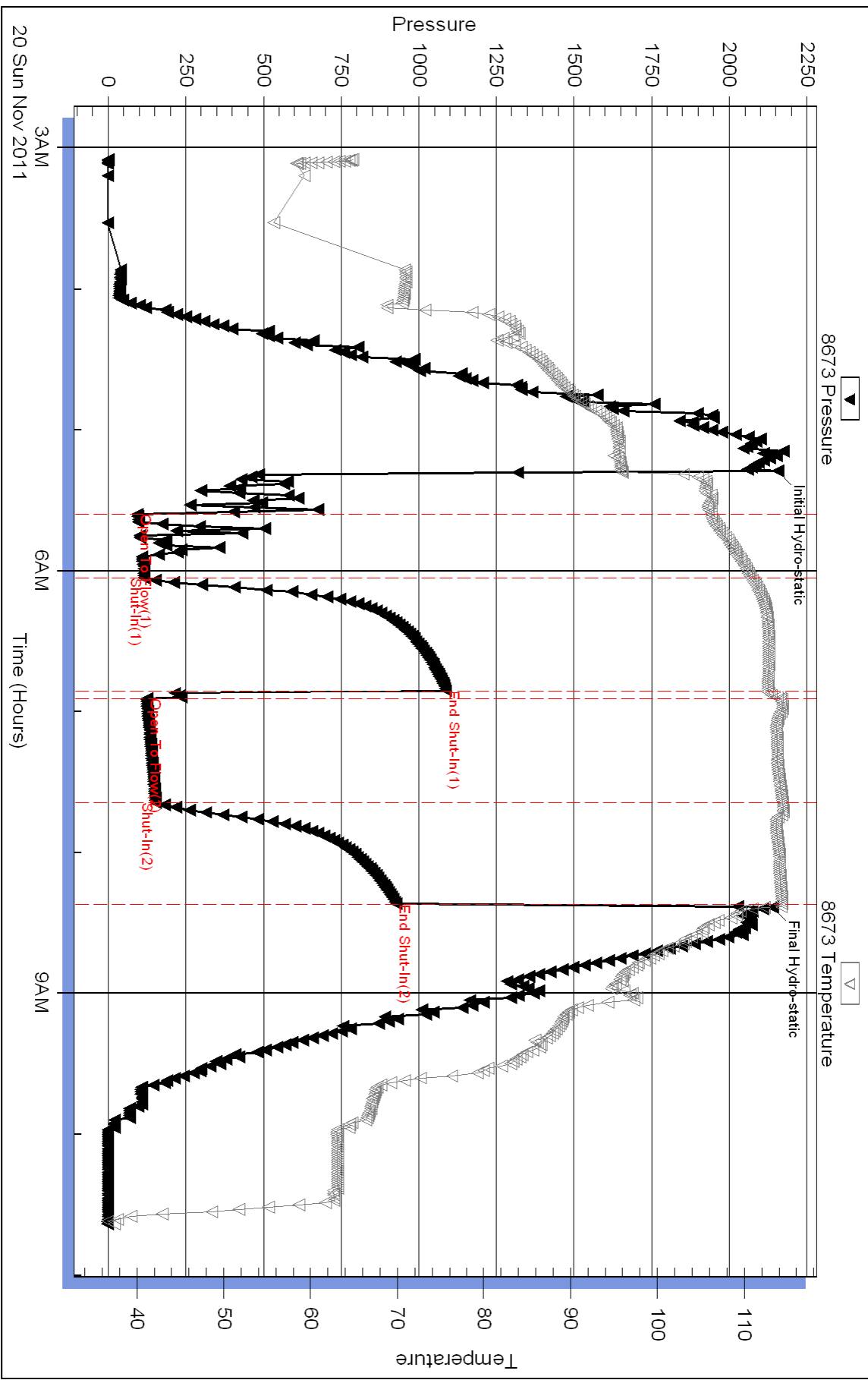
Inside

Downing Nelson Oil Co. Inc

OWSS Unit #1-20

DST Test Number: 5

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 44691

Printed: 2011.11.22 @ 09:52:37

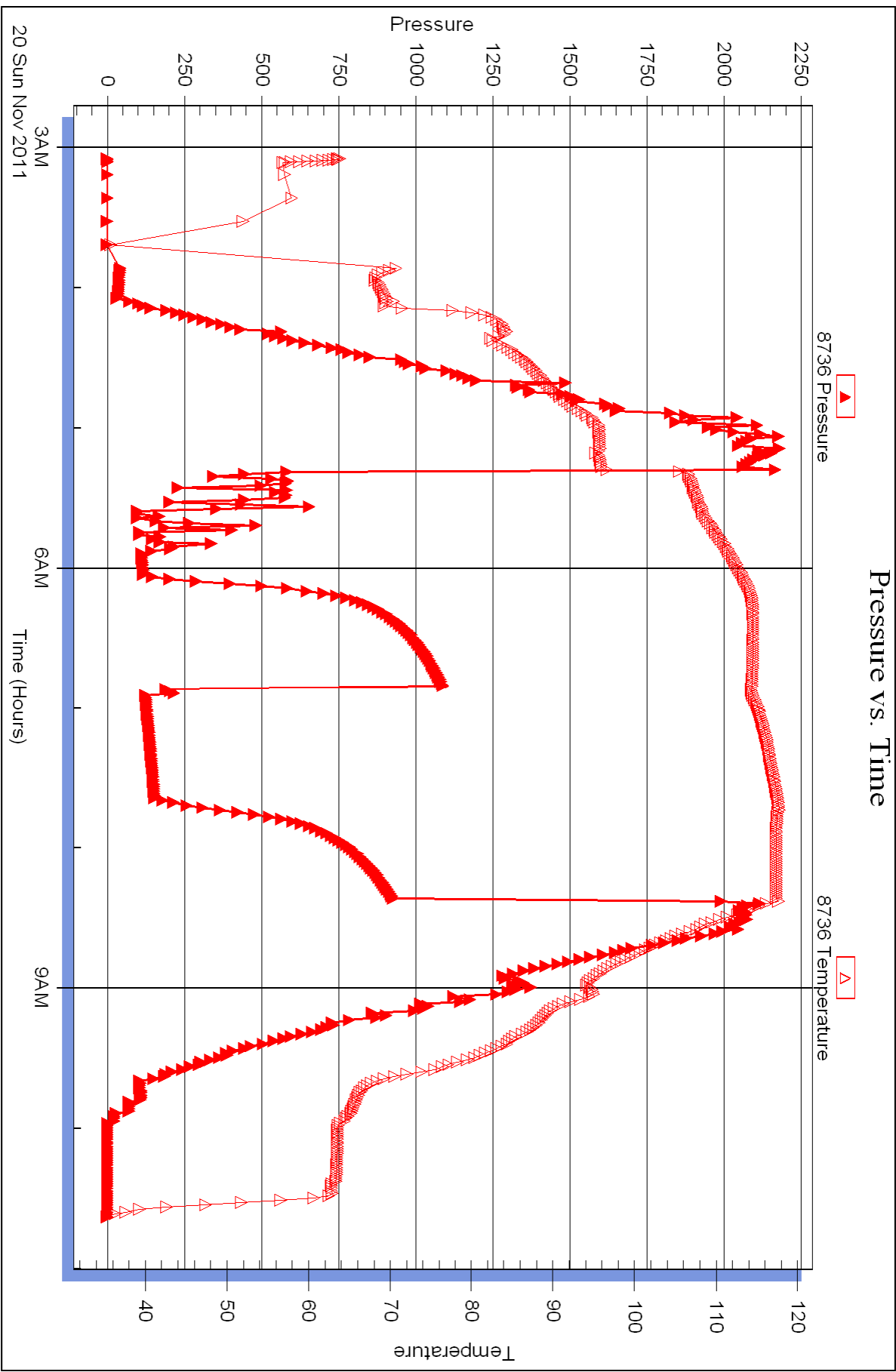
Serial #: 8736

Outside

Downing Nelson Oil Co. Inc

CMSS Unit #1-20

DST Test Number: 5





DRILL STEM TEST REPORT

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

PO Box 1019
Hays, KS 67601

ATTN: Marc Downing

CMSS Unit #1-20

20-20s-20w Pawnee,KS

Start Date: 2011.11.20 @ 17:12:33

End Date: 2011.11.21 @ 02:08:48

Job Ticket #: 44692 DST #: 6

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2011.11.22 @ 09:51:49



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Downing Nelson Oil Co. Inc

20-20s-20w Pawnee, KS

PO Box 1019
Hays, KS 67601

CMSS Unit #1-20

Job Ticket: 44692

DST#: 6

ATTN: Marc Downing

Test Start: 2011.11.20 @ 17:12:33

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:16:03

Time Test Ended: 02:08:48

Test Type: Conventional Bottom Hole (Reset)

Tester: Jason McLemore

Unit No: 54

Interval: 4328.00 ft (KB) To 4338.00 ft (KB) (TVD)

Reference Elevations: 2161.00 ft (KB)

Total Depth: 4338.00 ft (KB) (TVD)

2153.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8673

Inside

Press @ Run Depth: 267.94 psig @ 4330.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.11.20

End Date:

2011.11.21

Last Calib.: 2011.11.21

Start Time: 17:12:35

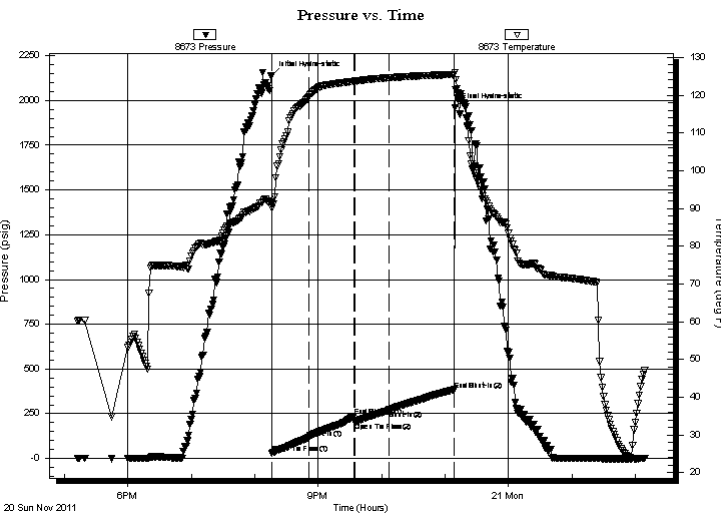
End Time:

02:08:48

Time On Btm: 2011.11.20 @ 20:15:48

Time Off Btm: 2011.11.20 @ 23:09:18

TEST COMMENT: IFP-Good Blow, BOB in 6-1/2 Mn.
ISI-Blow back BOB in 9 Mn.
FFP-Good Blow, BOB in 8-1/2 Mn.
FSI-Blow back BOB in 12 Mn.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2137.89	91.44	Initial Hydro-static
1	27.80	90.00	Open To Flow (1)
35	115.37	119.27	Shut-In(1)
79	236.46	123.67	End Shut-In(1)
79	204.86	123.64	Open To Flow (2)
111	267.94	124.60	Shut-In(2)
173	384.12	125.44	End Shut-In(2)
174	1958.55	126.01	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
90.00	Muddy Oil-75%O-25%M	0.98
840.00	Gassy Oil-20%G-80%O	11.78
0.00	870' Gas In Pipe	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

Downing Nelson Oil Co. Inc

20-20s-20w Pawnee,KS

PO Box 1019
Hays, KS 67601

CMSS Unit #1-20

Job Ticket: 44692

DST#: 6

ATTN: Marc Downing

Test Start: 2011.11.20 @ 17:12:33

Tool Information

Drill Pipe:	Length: 4287.00 ft	Diameter: 3.80 inches	Volume: 60.14 bbl	Tool Weight: 2500.00 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: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 60.29 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4328.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	10.00 ft			
Tool Length:	38.00 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			4301.00	
Shut In Tool	5.00			4306.00	
Hydraulic tool	5.00			4311.00	
Jars	5.00			4316.00	
Safety Joint	2.00			4318.00	
Packer	5.00			4323.00	28.00 Bottom Of Top Packer
Packer	5.00			4328.00	
Stubb	1.00			4329.00	
Perforations	1.00			4330.00	
Recorder	0.00	8673	Inside	4330.00	
Recorder	0.00	8736	Outside	4330.00	
Perforations	5.00			4335.00	
Bullnose	3.00			4338.00	10.00 Bottom Packers & Anchor

Total Tool Length: 38.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing Nelson Oil Co. Inc

20-20s-20w Pawnee,KS

PO Box 1019
Hays, KS 67601

CMSS Unit #1-20

Job Ticket: 44692

DST#: 6

ATTN: Marc Downing

Test Start: 2011.11.20 @ 17:12:33

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 92.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 11.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 12000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
90.00	Muddy Oil-75%O-25%M	0.980
840.00	Gassy Oil-20%G-80%O	11.783
0.00	870' Gas In Pipe	0.000

Total Length: 930.00 ft

Total Volume: bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8673

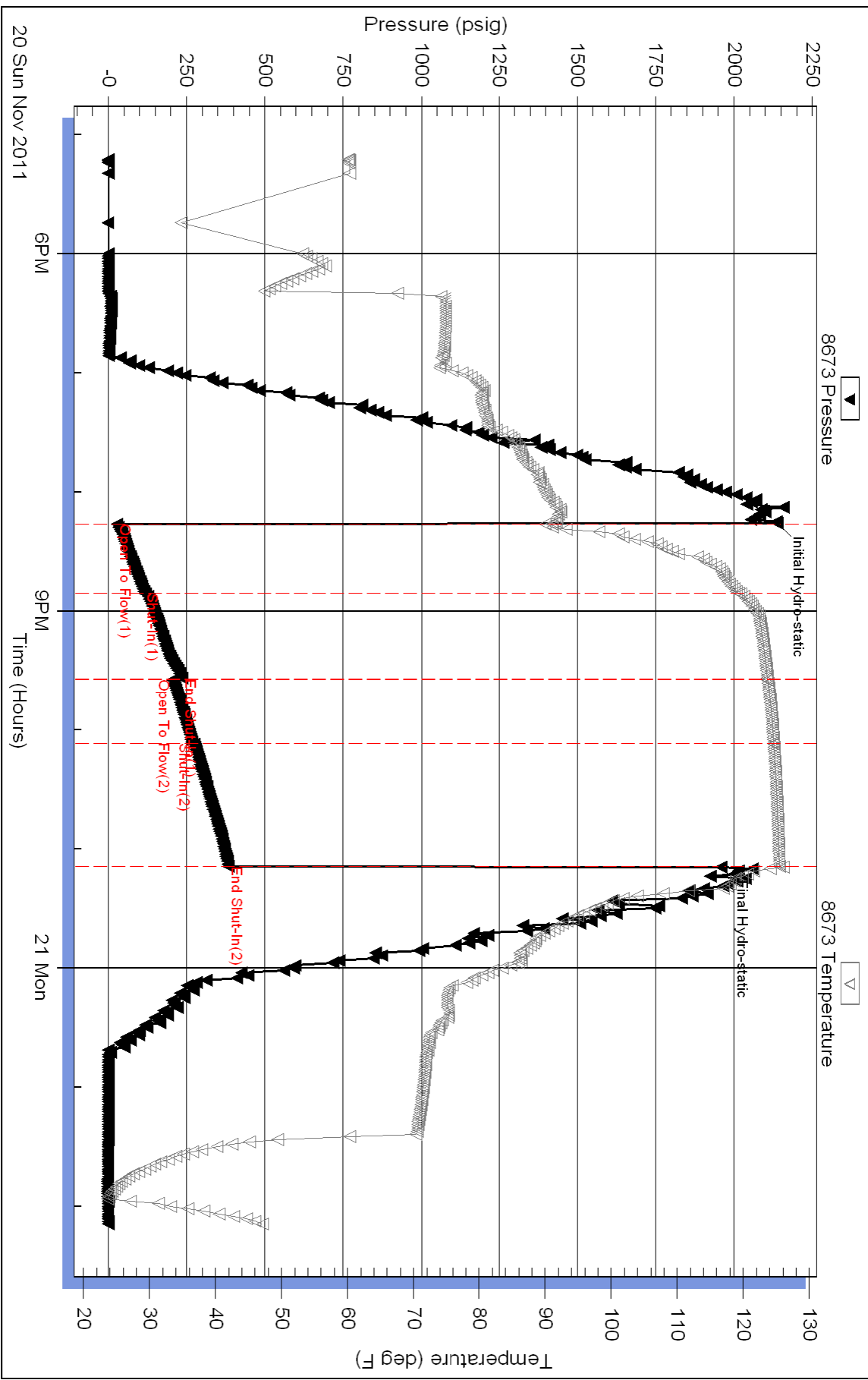
Inside

Downing Nelson Oil Co. Inc

OWSS Unit #1-20

DST Test Number: 6

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 44692

Printed: 2011.11.22 @ 09:51:51

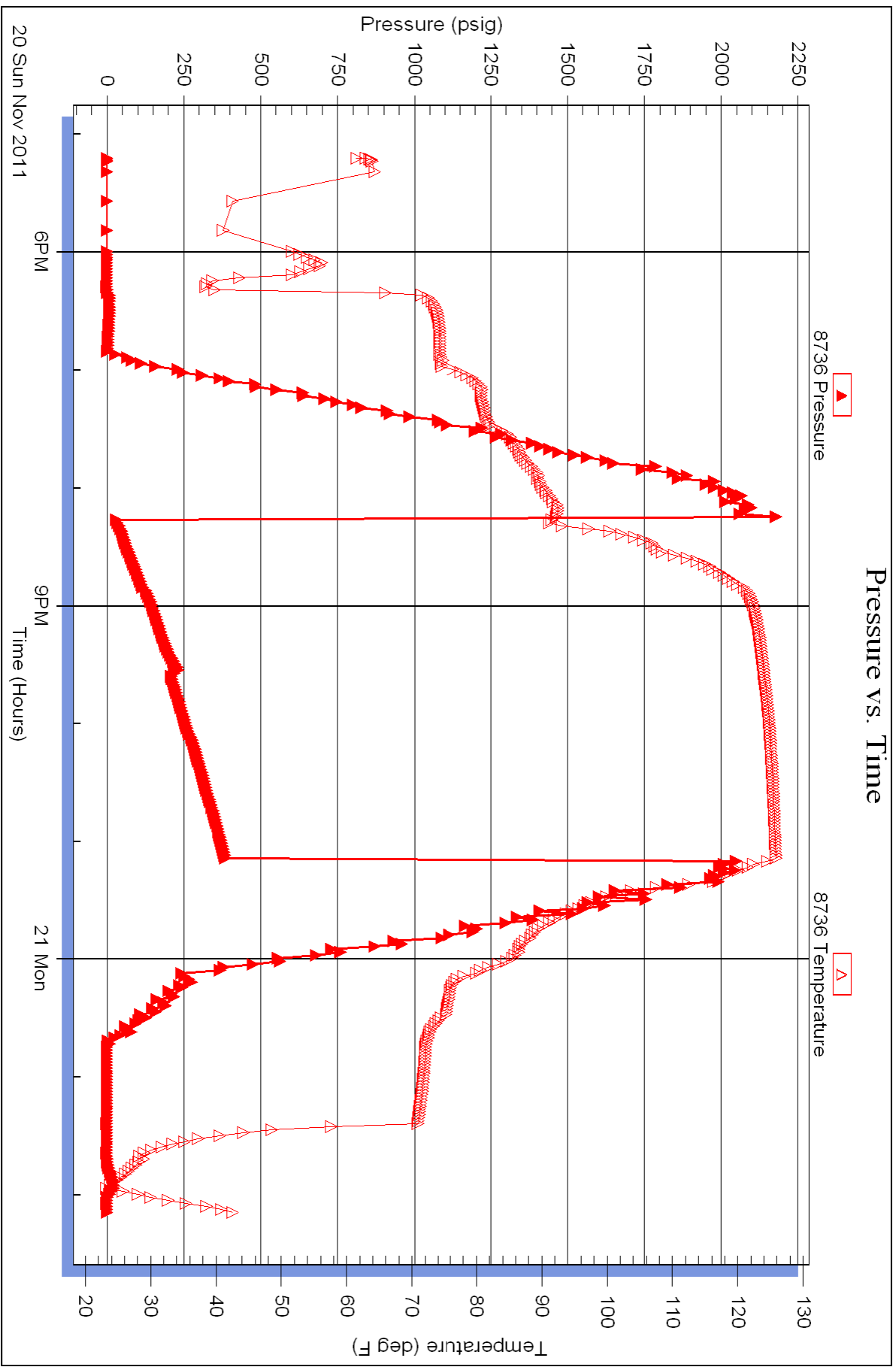
Serial #: 8736

Outside

Downing Nelson Oil Co. Inc

CMSS Unit #1-20

DST Test Number: 6





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

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NOV 21 2011
BY: _____

Test Ticket

NO. 44672

Well Name & No. CMSS Unit 1-20 Test No. 1 Date 11-17-11
 Company Downing Nelson Oil Co INC, Elevation 2161 KB 2153 GL
 Address Po Box 1019, Hays KS, 67601
 Co. Rep / Geo. Mark Downing Rig Discovery #4
 Location: Sec. 20 Twp. 20s Rge. 20w Co. Pawnee State KS

Interval Tested 4273-4313 Zone Tested Mississippi
 Anchor Length 40' Drill Pipe Run 4226 Mud Wt. 9.2
 Top Packer Depth 4308 Drill Collars Run 31 Vis 57
 Bottom Packer Depth 4273 Wt. Pipe Run — WL 8.8
 Total Depth 4313 Chlorides 4500 ppm System LCM —

Blow Description IF- 2" blow
ISI- No blow back
FF- 1 1/2" blow
FSI- No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>40</u>	<u>VSOCM</u>	<u>5</u>	<u>—</u>	<u>95</u>	<u>—</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 40 BHT 117° Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2204</u>	<input checked="" type="checkbox"/> Test <u>1225'</u>	T-On Location <u>5:10 pm</u>
(B) First Initial Flow <u>37</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>8:34 pm</u>
(C) First Final Flow <u>47</u>	<input checked="" type="checkbox"/> Safety Joint <u>75'</u>	T-Open <u>10:46 pm</u>
(D) Initial Shut-In <u>706</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>1:46 am</u>
(E) Second Initial Flow <u>51</u>	<input type="checkbox"/> Hourly Standby <u>2 hr 50'</u>	T-Out <u>3:40 am</u>
(F) Second Final Flow <u>54</u>	<input checked="" type="checkbox"/> Mileage <u>62X2 124RT 173.60</u>	Comments <u>—</u>
(G) Final Shut-In <u>330</u>	<input type="checkbox"/> Sampler	<input type="checkbox"/> Ruined Shale Packer
(H) Final Hydrostatic <u>2130</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Packer

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

Extra Packer
 Extra Recorder
 Day Standby
 Accessibility

Sub Total 1773.60

MP/DST Disc't —

Approved By _____ Our Representative Cody Bloodorn

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



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

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NOV 21 2011

Test Ticket

NO. 44673

Well Name & No. CMSS Unit 1-20 Test No. 2 Date 11-18-11
 Company Downing Nelson Oil Co Inc, Elevation 2166 KB 2153 GL
 Address Po Box 1019, Hays KS, 67601
 Co. Rep / Geo. Mark Downing Rig Discovery #4
 Location: Sec. 20 Twp. 20S Rge. 20W Co. Pawnee State KS

Interval Tested 4312-4319 Zone Tested Miss
 Anchor Length 7' Drill Pipe Run 4258 Mud Wt. 9.2
 Top Packer Depth 4307 Drill Collars Run 31 Vis 57
 Bottom Packer Depth 4312 Wt. Pipe Run — WL 8.8
 Total Depth 4319 Chlorides 4500 ppm System LCM —

Blow Description IF - 1/4" blow
ISI - No blow back
FF - 1/8" blow
FSI - No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>35'</u>	<u>V SOCM</u>	<u>5</u>	<u>—</u>	<u>95</u>	<u>—</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 35 BHT 1120 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2198 Test 1225' T-On Location 8:05am
 (B) First Initial Flow 16 Jars 250 T-Started 9:28am
 (C) First Final Flow 25 Safety Joint 75' T-Open 11:16am
 (D) Initial Shut-In 1202 Circ Sub — T-Pulled ~~11:16am~~ 1:16pm
 (E) Second Initial Flow 97 Hourly Standby — T-Out 2:54pm
 (F) Second Final Flow 28 Mileage 124 RT 173.60 Comments —
 (G) Final Shut-In 1175 Sampler —
 (H) Final Hydrostatic 2167 Straddle — Ruined Shale Packer —
 Shale Packer — Ruined Packer —
 Extra Packer — Extra Copies —
 Extra Recorder — Sub Total 0
 Day Standby — Total 1723.60
 Accessibility — MP/DST Disc't —

Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30
 Sub Total 1723.60

Approved By _____ Our Representative Cody D. Boedorn

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NOV 21 2011

Test Ticket

NO. 44674

4/10

Well Name & No. CMSS unit 1-20 Test No. 3 Date 11-18-11
 Company Downing Nelson Oil Co. INC. Elevation 2161 KB 2153 GL
 Address Po Box 1019, Hays KS 67601
 Co. Rep / Geo. Mark Downing Rig Discovery #4
 Location: Sec. 20 Twp. 20s Rge. 20W Co. Pawnee State KS

Interval Tested 4312 - 4326 Zone Tested MISS
 Anchor Length 14' Drill Pipe Run 4258 Mud Wt. 9.2
 Top Packer Depth 4307 Drill Collars Run 31' Vis 57
 Bottom Packer Depth 4312 Wt. Pipe Run — WL 8.8
 Total Depth 4326 Chlorides 4500 ppm System LCM —

Blow Description IF - slid 15' to btm, 6" blow, Tool opened early 2xs
ISI - No blow back
FF - surged & died, flushed tool, surged & died
FSI - No blow back.

Rec	Feet of	%gas	%oil	%water	%mud
<u>293'</u>	<u>Mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 293' BHT 1090 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2274</u>	<input checked="" type="checkbox"/> Test <u>1225</u>	T-On Location <u>8:20 pm</u>
(B) First Initial Flow <u>148</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>10:11 pm</u>
(C) First Final Flow <u>211</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>12:16 am</u>
(D) Initial Shut-In <u>1606</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>2:46 am</u>
(E) Second Initial Flow <u>1160</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>5:20 am</u>
(F) Second Final Flow <u>1605</u>	<input checked="" type="checkbox"/> Mileage <u>62X2 173.60</u>	Comments
(G) Final Shut-In <u>1994</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2176</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer

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

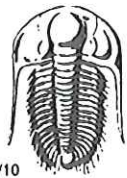
Shale Packer
 Extra Packer
 Extra Recorder
 Day Standby
 Accessibility

Sub Total 1723.60

Sub Total 1723.60

Approved By _____ Our Representative Cody B Holcomb

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

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NOV 21 2011

Test Ticket

NO. 44690

Well Name & No. CMSS Unit #1-20 BY: _____ Test No. 4 Date 11-19-11
 Company Downing Nelson Oil Inc. Elevation 2176 KB 2168 GL _____
 Address PO Box 1019, Hays, KS. 67601
 Co. Rep / Geo. Marc Downing Rig Discovery #4
 Location: Sec. 20 Twp. 20s Rge. 20w Co. Pawnee State KS

Interval Tested 4313-4326 Zone Tested Mississippi
 Anchor Length 13' Drill Pipe Run _____ Mud Wt. 9.2
 Top Packer Depth 4308 Drill Collars Run 30 Vis 49
 Bottom Packer Depth 4313 Wt. Pipe Run 0 WL 9.6
 Total Depth 4326 Chlorides 3,000 ppm System _____ LCM 1 1/2 #

Blow Description FIP-20' Fill, Plugging Action, Flush Tool
ISI-Dead
FIP-Dead, Flush Tool, Surface Blow, lasted throughout
FSI-Dead

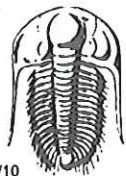
Rec	Feet of	%gas	%oil	%water	%mud
<u>70</u>	<u>Drilling Mud</u>				
<u>120</u>	<u>VSOCM</u>		<u>3</u>		<u>97</u>
____	____				
____	____				
____	____				

Rec Total 190 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2032 Test 1225 T-On Location 10:11
 (B) First Initial Flow _____ Jars 250 T-Started 10:35
 (C) First Final Flow _____ Safety Joint 75 T-Open 12:42
 (D) Initial Shut-In 1345 Circ Sub _____ T-Pulled 14:42
 (E) Second Initial Flow _____ Hourly Standby _____ T-Out 16:50
 (F) Second Final Flow 119 Mileage 124 rt 173 LpD Comments _____
 (G) Final Shut-In 1260 Sampler _____
 (H) Final Hydrostatic _____ Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 8
 Day Standby _____ Total 1723.60
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1723.60

Approved By _____ Our Representative Jason Mc Lemore Thank You

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



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED
NOV 21 2011
BY: _____

Test Ticket

NO. 44691

Well Name & No. CMSS unit #1-20 Test No. 5 Date 11-20-11
 Company Downing Nelson Oil Company, Inc. Elevation 2176 KB 2168 GL
 Address PO Box 1019, Hays, KS. 67601
 Co. Rep / Geo. Marc Downing Rig Discovery #4
 Location: Sec. 20 Twp. 20s Rge. 20w Co. Pawnee State Ks

Interval Tested 4254-4331 Zone Tested Mississippi
 Anchor Length 77 Drill Pipe Run 4224 Mud Wt. 9.2
 Top Packer Depth 4249 Drill Collars Run 31 Vis 92
 Bottom Packer Depth 4254 Wt. Pipe Run 0 WL 12.0
 Total Depth 4331 Chlorides 12,000 ppm System LCM
 Blow Description I FP - Fair Blow, Built to 9 1/2"
ISI - Dead
F FP - Fair Blow, Built to 9 1/2"
FSI - Dead

Rec	Feet of	%gas	%oil	%water	%mud
<u>230</u>	<u>SOCM</u>	<u>10</u>		<u>90</u>	
Rec	Feet of <u>60' GIP</u>	%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 230 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2156 Test 1225' T-On Location 2:28
 (B) First Initial Flow 95 Jars 250' T-Started 3:02
 (C) First Final Flow 116 Safety Joint 75' T-Open 5:12
 (D) Initial Shut-In 1087 Circ Sub _____ T-Pulled 8:12
 (E) Second Initial Flow 125 Hourly Standby _____ T-Out 10:36
 (F) Second Final Flow 153 Mileage 124 RP 173.60 Comments _____
 (G) Final Shut-In 928 Sampler _____
 (H) Final Hydrostatic 2139 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1723.60
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1723.60

Approved By _____ Our Representative Jason Proctor Thank you

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 44692

Well Name & No. CMSS Unit #1-20 Test No. 6 Date 11-21-11
 Company Downing Nelson Oil Company, Inc. Elevation 2176 KB 2168 GL
 Address PO Box 1019, Hays, KS. 67601
 Co. Rep / Geo. Marc Downing Rig Discovery #4
 Location: Sec. 20 Twp. 20s Rge. 20w Co. Pawnee State KS

Interval Tested 4328-4338 Zone Tested Mississippi - Osage
 Anchor Length 10' Drill Pipe Run 4288 Mud Wt. 9.2
 Top Packer Depth 4323 Drill Collars Run 31 Vis 92
 Bottom Packer Depth 4328 Wt. Pipe Run 0 WL 12.0
 Total Depth 4338 Chlorides 12,000 ppm System LCM
 Blow Description IFP - Good Blow, BOB in 6 1/2 min.
ISI - Blowback BOB in 9 min.
FFP - Good Blow, BOB in 8 1/2 min.
FSI - Blowback BOB in 12 min.

Rec	Feet of	%gas	%oil	%water	%mud
<u>840</u>	<u>Gassy oil</u>	<u>20</u>	<u>80</u>		
<u>90</u>	<u>Muddy oil</u>		<u>75</u>		<u>25</u>
	<u>890' GIP</u>				

Rec Total 930 BHT 125° Gravity 35 API RW @ °F Chlorides ppm
 (A) Initial Hydrostatic 2138 Test 1225' T-On Location 17:02
 (B) First Initial Flow 28 Jars 250' T-Started 17:10
 (C) First Final Flow 115 Safety Joint 75' T-Open 20:10
 (D) Initial Shut-In 236 Circ Sub T-Pulled 22:55
 (E) Second Initial Flow 205 Hourly Standby T-Out 2:06
 (F) Second Final Flow 268 Mileage 124 RT 173.60 Comments
 (G) Final Shut-In 384 Sampler Ruined Shale Packer
 (H) Final Hydrostatic 1959 Straddle Ruined Packer
 Extra Packer Extra Copies
 Extra Recorder
 Day Standby
 Accessibility
 Sub Total 1723.60 MP/DST Disc't
 Initial Open 30
 Initial Shut-In 45
 Final Flow 30
 Final Shut-In 45 60

Approved By _____ Our Representative Jason Mc Lamon

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Thank you!