1074150

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

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

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

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

Designate Type of Completion:

☑ New Well ☐ Re-Entry ☐ Workover

☐ Oil ☐ 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 #:

01/23/2012	01/30/2012	01/31/2012
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-145-21664-00-00
Spot Description:
S2 - SW - NW - SE Sec. 18 Twp. 20 S. R. 20 ☐ East ☑ West
1410 Feet from ☐ North / ☑ South Line of Section
2310 Feet from ☑ East / ☐ West Line of Section

Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☑ SE ☐ SW

County: Pawnee
Lease Name: Marvin Saxton Well #: 2-18
Field Name: Wildcat
Producing Formation: None
Elevation: Ground: 2201 Kelly Bushing: 2209
Total Depth: 4500 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 520 Feet
Multiple Stage Cementing Collar Used? ☐ Yes ☑ No
If yes, show depth set: Feet
If Alternate II completion, cement circulated from:
feet depth to: w/ sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 16000 ppm Fluid volume: 320 bbls
Dewatering method used: Evaporated

Location of fluid disposal if hauled offsite:

Operator Name:
Lease Name: License #:
Quarter Sec. Twp. S. R. ☐ East ☐ West
County: Permit #:

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

☐ **Letter of Confidentiality Received**
Date:
☐ **Confidential Release Date:**
☑ **Wireline Log Received**
☑ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** Deanna Garrisor **Date:** 03/12/2012

Side Two

1074150

Operator Name: Downing-Nelson Oil Co Inc Lease Name: Marvin Saxton Well #: 2-18

Sec. 18 Twp. 20 S. R. 20 ☐ East ☑ West County: Pawnee

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:
Attached

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Attached	Attached	Attached

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
Surface Pipe	12.25	8.625	23	520	Common	250	2% Gel & 3% CC

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
☐ Perforate ☐ Protect Casing ☐ Plug Back TD ☐ Plug Off Zone	-			
	-			

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

TUBING RECORD: Size: Set At: Packer At: Liner Run: ☐ 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:
☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)*

PRODUCTION INTERVAL:

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	Marvin Saxton 2-18
Doc ID	1074150

All Electric Logs Run

Sonic
Micro
Dual Induction
Compensated Neutron / Density

Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	Marvin Saxton 2-18
Doc ID	1074150

Tops

Name	Top	Datum
Top Anhydrite	1394'	+815
Base Anhydrite	1422'	+787
Heebner	3715'	-1506
LKC	3764'	-1555
BKC	4076'	-1867
Fort Scott	4264'	-2055
Cherokee Shale	4276'	-2114
Cherokee Sand	4323'	-2138
Mississippi	4347'	-2138
Osage	4373'	-2164
Gilmore City	4403'	-2194

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025 **Home Office P.O. Box 32 Russell, KS 67665** **No.** 452

Cell 785-324-1041

	Sec.	Twp.	Range	County	State	On Location	Finish
Date 1-24-12	18	20	20	Pawnee	Kansas		5:00am

Lease Marvin Saxton Well No. 2-18 Location Alexander 11S 1¼W Ninta

Contractor Discovery Drilling Rig 4

Type Job Surface

Hole Size 12¼ T.D. 520

Csg. 8⅝ 23lb Depth 520

Tbg. Size Depth

Tool Depth

Cement Left in Csg. 10-15' Shoe Joint

Meas Line Displace 32¼

EQUIPMENT

Pumptrk 9	No.	Cementer	Steve
		Helper	
Bulktrk 8	No.	Driver	Paul
		Driver	
Bulktrk	No.	Driver	Michael
		Driver	

JOB SERVICES & REMARKS

Remarks:

Rat Hole

Mouse Hole

Centralizers

Baskets

D/V or Port Collar

Cement did Circulate

Thank You

X Signature Michael

Owner

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.

Charge To Dawning Nelson

Street

City State

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Amount Ordered 250 Common 3%CC 2%Gel

Common 250

Poz. Mix

Gel. 5

Calcium 9

Hulls

Salt

Flowseal

Kol-Seal

Mud CLR 48

CFL-117 or CD110 CAF 38

Sand

Handling 264

Mileage

FLOAT EQUIPMENT

Guide Shoe

Centralizer

Baskets

AFU Inserts

Float Shoe

Latch Down

Pumptrk Charge Long Surface

Mileage 33

Tax

Discount

Total Charge

Quality Oilwell Cementing

ALLIED CEMENTING CO., LLC. 042373

Federal Tax I.D.# 20-5975804

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

SERVICE POINT: Great Bend KS

DATE 1-31-12	SEC. 18	TWP. 20	RANGE 20	CALLED OUT	ON LOCATION	JOB START 1100am	JOB FINISH 1200pm
LEASE Martin Gaston	WELL # 2-18		LOCATION Alexander KS 1½ miles South 1½ miles west Northnto			COUNTY Pawnee	STATE KS
OLD OR NEW (Circle one)							

CONTRACTOR Discovery Rig #4
TYPE OF JOB Rotary plug
HOLE SIZE 7⅞ T.D. 4500
CASING SIZE 8 5/8 DEPTH 520
TUBING SIZE DEPTH
DRILL PIPE 4½ DEPTH 1450
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT
CEMENT LEFT IN CSG. all
PERFS.
DISPLACEMENT freshwater/8.8 mud

OWNER Downing Nelson Oil Co, Inc

CEMENT

AMOUNT ORDERED 190 sx 60/40 4% gel

COMMON	108	@ 16.25	1755.00
POZMIX	72	@ 8.50	612.00
GEL	6	@ 21.25	127.50
CHLORIDE		@	
ASC		@	
HANDLING	186	@ 2.25	418.50
MILEAGE	186 x 53 x .11		879.78
		TOTAL	3792.78

EQUIPMENT

PUMP TRUCK # 398 CEMENTER Bob Roller
HELPER Jon P
BULK TRUCK # 341 DRIVER Kevin W.
BULK TRUCK # DRIVER

REMARKS:

1st plug at 1450' mix 50 sx
2nd plug at 550' mix 60 sx
3rd plug at 60' mix 20 sx
RH 30 sx mix
MH 20 sx mix

SERVICE

DEPTH OF JOB 1450
PUMP TRUCK CHARGE 1250.00
EXTRA FOOTAGE @
MILEAGE Hum 86 @ 7.00 602.00
MANIFOLD @
Hum 86 @ 4.00 344.00
TOTAL 2196.00

CHARGE TO: Downing Nelson Oil Co, Inc
STREET
CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

TOTAL

To Allied Cementing Co., 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.

SALES TAX (If Any)
TOTAL CHARGES 5988.78
70% 20% DISCOUNT 2110.64 IF PAID IN 30 DAYS
3878.14

PRINTED NAME
SIGNATURE
Thank you

DRILL STEM TEST REPORT

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

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

Marvin Saxton #2-18

18-20s-20w Pawnee,KS

Start Date: 2012.01.29 @ 08:30:07

End Date: 2012.01.29 @ 14:38:07

Job Ticket #: 46858 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.02.01 @ 13:07:44

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

Downing-Nelson Oil Co. Inc.

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

18-20s-20w Pawnee,KS

Marvin Saxton #2-18

Job Ticket: 46858 **DST#: 1**

Test Start: 2012.01.29 @ 08:30:07

GENERAL INFORMATION:

Formation: **Miss.**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 10:49:37
Time Test Ended: 14:38:07

Test Type: Conventional Bottom Hole (Initial)
Tester: Brett Dickinson
Unit No: 59

Interval: 4290.00 ft (KB) To 4356.00 ft (KB) (TVD)
Total Depth: 4356.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

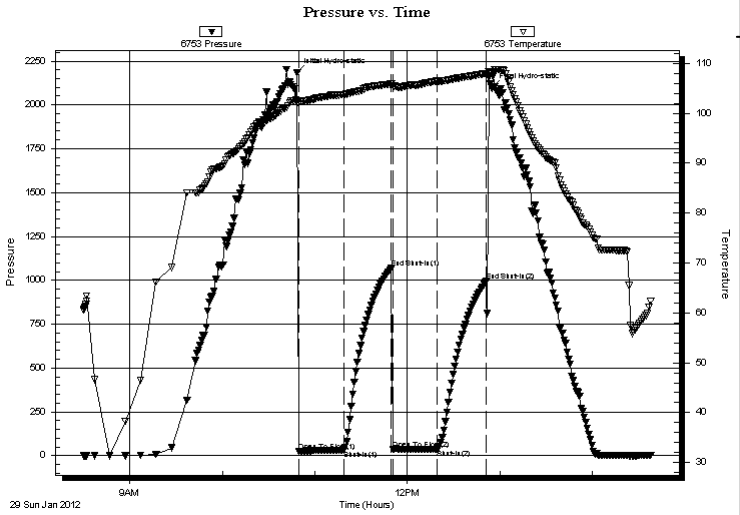
Reference Elevations: 2211.00 ft (KB)
2203.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6753 **Inside**

Press@RunDepth: 36.49 psig @ 4291.00 ft (KB)
Start Date: 2012.01.29 End Date: 2012.01.29
Start Time: 08:30:12 End Time: 14:38:06

Capacity: 8000.00 psig
Last Calib.: 2012.01.29
Time On Btm: 2012.01.29 @ 10:48:37
Time Off Btm: 2012.01.29 @ 12:54:37

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



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2185.18	102.55	Initial Hydro-static
1	24.97	101.86	Open To Flow (1)
30	31.00	103.69	Shut-In(1)
61	1071.94	105.87	End Shut-In(1)
62	35.93	105.52	Open To Flow (2)
91	36.49	106.45	Shut-In(2)
123	994.92	107.97	End Shut-In(2)
126	2096.73	108.18	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	VSOCM 5%O 95%M	0.15

Gas Rates

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

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

Downing-Nelson Oil Co. Inc.

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

18-20s-20w Pawnee,KS

Marvin Saxton #2-18

Job Ticket: 46858 **DST#: 1**

Test Start: 2012.01.29 @ 08:30:07

GENERAL INFORMATION:

Formation: **Miss.**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 10:49:37
Time Test Ended: 14:38:07

Test Type: Conventional Bottom Hole (Initial)
Tester: Brett Dickinson
Unit No: 59

Interval: 4290.00 ft (KB) To 4356.00 ft (KB) (TVD)
Total Depth: 4356.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

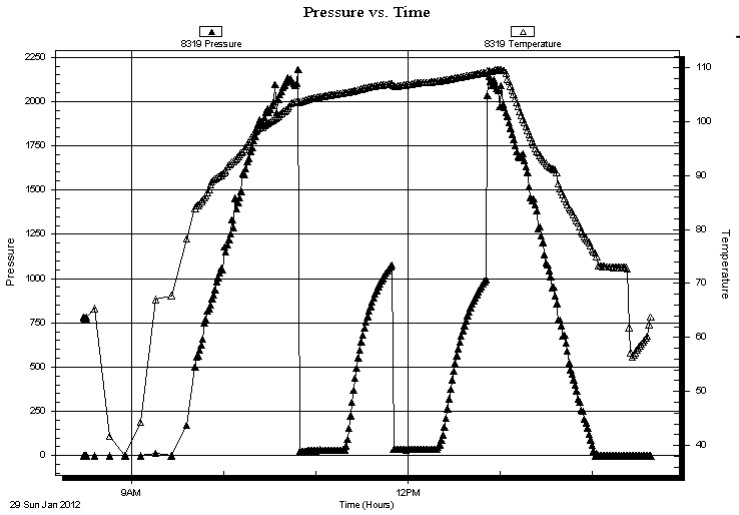
Reference Elevations: 2211.00 ft (KB)
2203.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8319 **Outside**

Press@RunDepth: psig @ 4291.00 ft (KB)
Start Date: 2012.01.29 End Date: 2012.01.29
Start Time: 08:29:11 End Time: 14:37:35

Capacity: 8000.00 psig
Last Calib.: 2012.01.29
Time On Btm:
Time Off Btm:

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



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
30.00	VSOCM 5%O 95%M	0.15

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

TRILOBITE TESTING, INC.

Downing-Nelson Oil Co. Inc.

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

18-20s-20w Pawnee,KS

Marvin Saxton #2-18

Job Ticket: 46858 **DST#: 1**

Test Start: 2012.01.29 @ 08:30:07

Tool Information

Drill Pipe:	Length:	4266.00 ft	Diameter:	3.80	inches	Volume:	59.84	bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length:	ft	Diameter:	2.70	inches	Volume:	-	bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length:	30.00 ft	Diameter:	2.25	inches	Volume:	0.15	bbl	Weight to Pull Loose:	60000.00 lb
						Total Volume:	-	bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		34.00 ft							String Weight: Initial	58000.00 lb
Depth to Top Packer:		4290.00 ft							Final	58000.00 lb
Depth to Bottom Packer:		ft								
Interval between Packers:		66.00 ft								
Tool Length:		94.00 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			4263.00		
Shut In Tool	5.00			4268.00		
Hydraulic tool	5.00			4273.00		
Jars	5.00			4278.00		
Safety Joint	2.00			4280.00		
Packer	5.00			4285.00	28.00	Bottom Of Top Packer
Packer	5.00			4290.00		
Stubb	1.00			4291.00		
Recorder	0.00	6753	Inside	4291.00		
Recorder	0.00	8319	Outside	4291.00		
Perforations	4.00			4295.00		
Change Over Sub	1.00			4296.00		
Drill Pipe	31.00			4327.00		
Change Over Sub	1.00			4328.00		
Perforations	25.00			4353.00		
Bullnose	3.00			4356.00	66.00	Bottom Packers & Anchor
Total Tool Length:	**94.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

TRILOBITE TESTING, INC.

Downing-Nelson Oil Co. Inc.

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

18-20s-20w Pawnee,KS

Marvin Saxton #2-18

Job Ticket: 46858 **DST#: 1**

Test Start: 2012.01.29 @ 08:30:07

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 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4600.00 ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	VSOCM 5%O 95%M	0.148

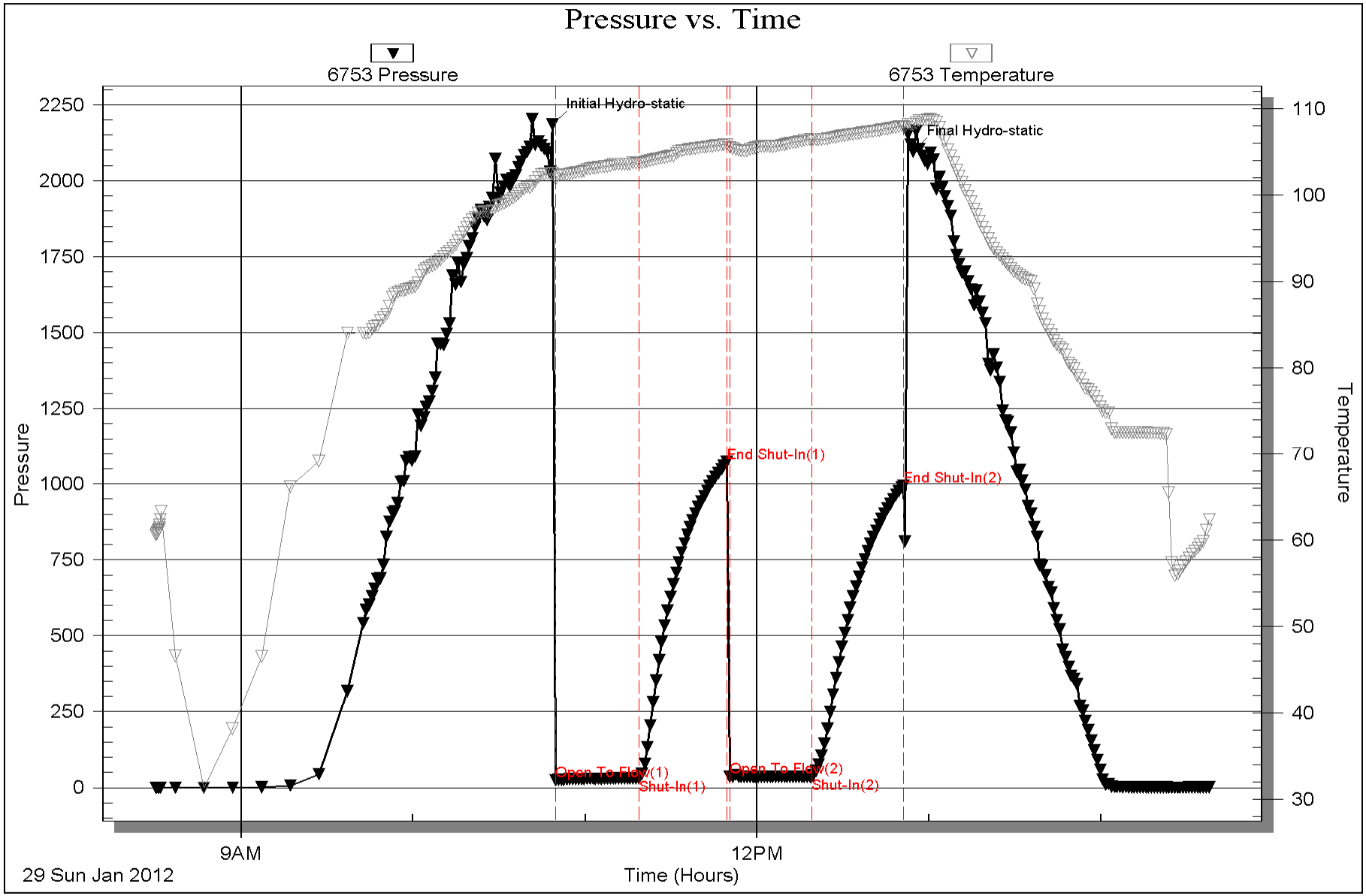
Total Length: 30.00 ft Total Volume: 0.148 bbl

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

Laboratory Name: Laboratory Location:

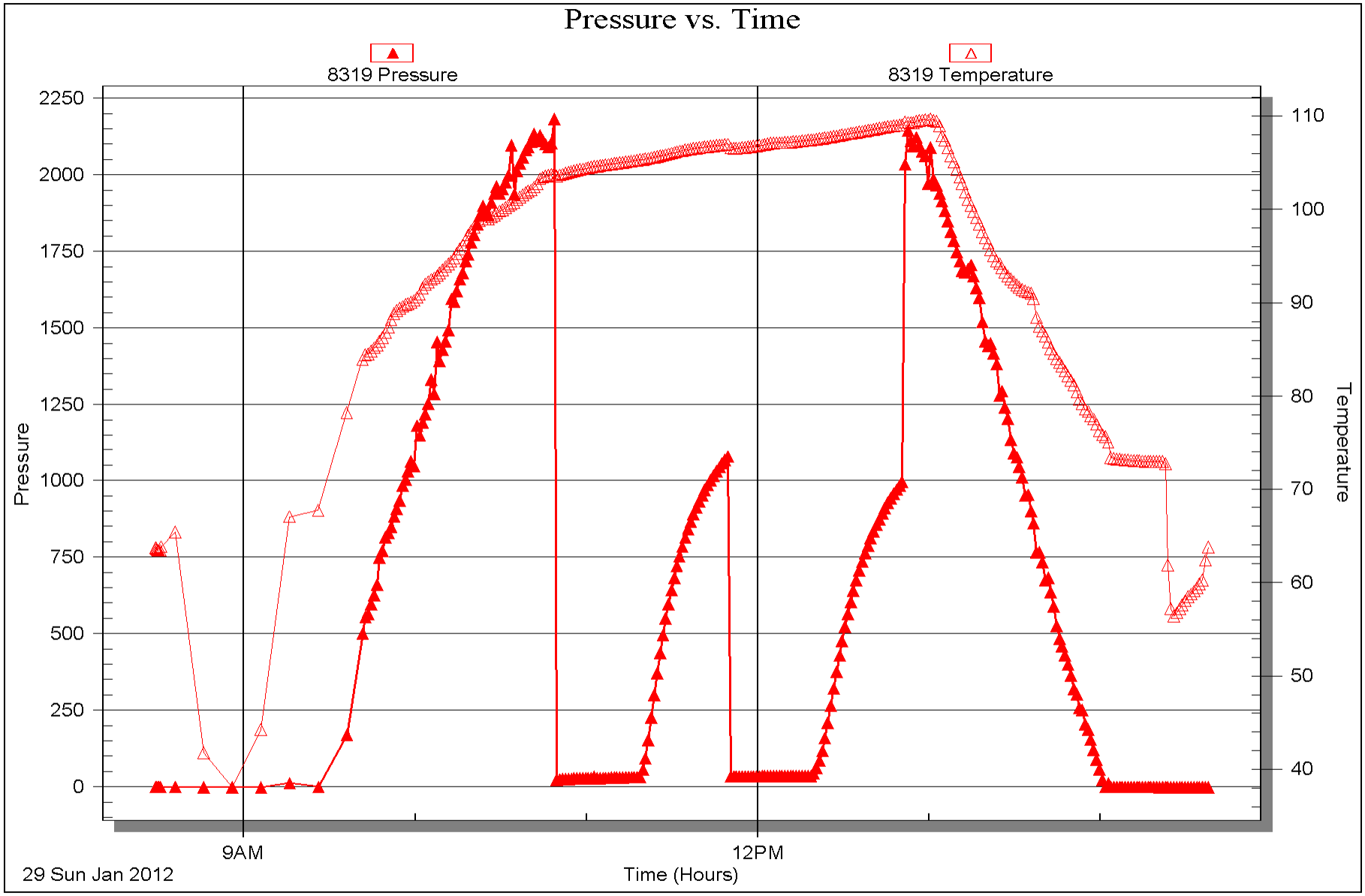
Recovery Comments:

Serial #: 6753 **Inside** Downing-Nelson Oil Co. Inc. Marvin Saxton #2-18 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 46858 Printed: 2012.02.01 @ 13:07:46

Serial #: 8319 **Outside** Dow ning-Nelson Oil Co. Inc. Marvin Saxton #2-18 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 46858 Printed: 2012.02.01 @ 13:07:47

DRILL STEM TEST REPORT

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

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

Marvin Saxton #2-18

18-20s-20w Pawnee,KS

Start Date: 2012.01.29 @ 21:15:40

End Date: 2012.01.30 @ 03:47:10

Job Ticket #: 46859 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.02.01 @ 13:06:29

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

Downing-Nelson Oil Co. Inc.

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

18-20s-20w Pawnee,KS

Marvin Saxton #2-18

Job Ticket: 46859 **DST#: 2**

Test Start: 2012.01.29 @ 21:15:40

GENERAL INFORMATION:

Formation: **Miss**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:03:40
Time Test Ended: 03:47:10

Test Type: Conventional Bottom Hole (Reset)
Tester: Brett Dickinson
Unit No: 59

Interval: 4353.00 ft (KB) To 4371.00 ft (KB) (TVD)
Total Depth: 4371.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

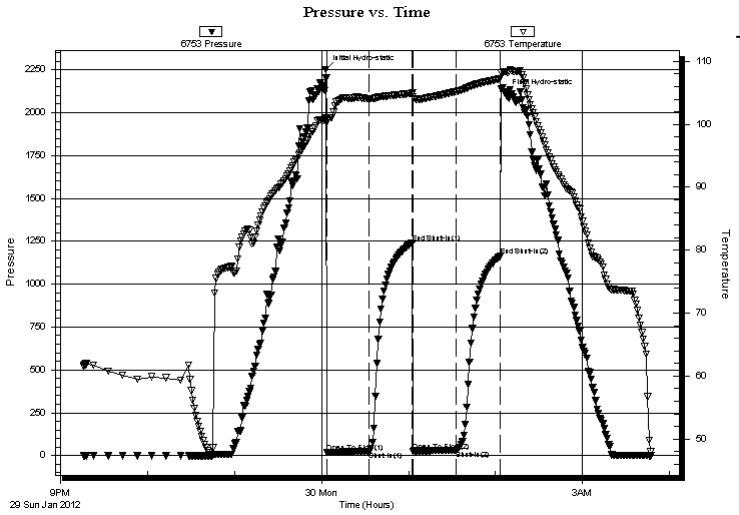
Reference Elevations: 2211.00 ft (KB)
2203.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6753 **Inside**

Press@RunDepth: 31.99 psig @ 4354.00 ft (KB)
Start Date: 2012.01.29 End Date: 2012.01.30
Start Time: 21:15:45 End Time: 03:47:09

Capacity: 8000.00 psig
Last Calib.: 2012.01.30
Time On Btm: 2012.01.30 @ 00:02:40
Time Off Btm: 2012.01.30 @ 02:06:40

TEST COMMENT: IF-Very weak surface blow
ISI-No blow
FF-Very weak surface blow
FSI-No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2252.12	101.03	Initial Hydro-static
1	20.18	100.30	Open To Flow (1)
30	24.28	104.08	Shut-In(1)
60	1241.22	104.95	End Shut-In(1)
61	27.75	104.46	Open To Flow (2)
91	31.99	105.23	Shut-In(2)
121	1162.55	107.24	End Shut-In(2)
124	2110.50	108.36	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	VSOCM 5%O 95%M	0.07

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

Downing-Nelson Oil Co. Inc.
PO Box 1019
Hays KS 67601

ATTN: Marc Downing

18-20s-20w Pawnee,KS

Marvin Saxton #2-18

Job Ticket: 46859 **DST#: 2**

Test Start: 2012.01.29 @ 21:15:40

GENERAL INFORMATION:

Formation: **Miss**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:03:40
Time Test Ended: 03:47:10

Test Type: Conventional Bottom Hole (Reset)
Tester: Brett Dickinson
Unit No: 59

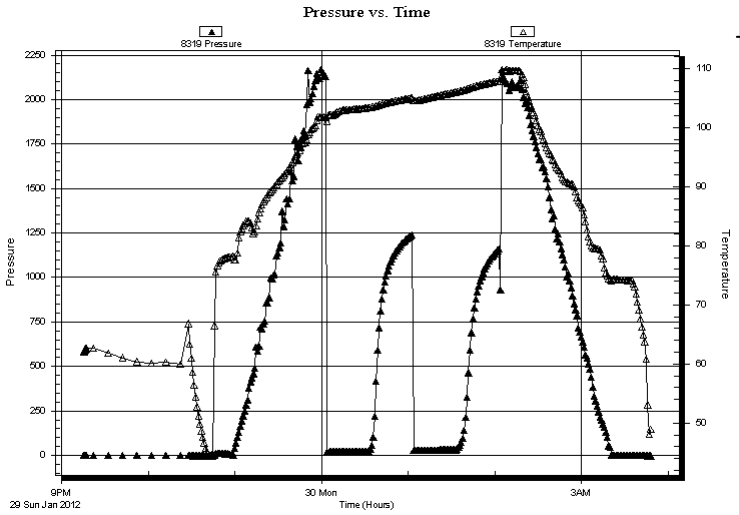
Interval: 4353.00 ft (KB) To 4371.00 ft (KB) (TVD)
Total Depth: 4371.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2211.00 ft (KB)
2203.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8319 **Outside**

Press@RunDepth:	psig @	4354.00 ft (KB)		Capacity:	8000.00 psig
Start Date:	2012.01.29	End Date:	2012.01.30	Last Calib.:	2012.01.30
Start Time:	21:15:15	End Time:	03:47:39	Time On Btm:	
				Time Off Btm:	

TEST COMMENT: IF-Very weak surface blow
ISI-No blow
FF-Very weak surface blow
FSI-No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
15.00	VSOCM 5%O 95%M	0.07

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

TRILOBITE TESTING, INC.

Downing-Nelson Oil Co. Inc.

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

18-20s-20w Pawnee,KS

Marvin Saxton #2-18

Job Ticket: 46859 **DST#: 2**

Test Start: 2012.01.29 @ 21:15:40

Tool Information

Drill Pipe:	Length:	4324.00 ft	Diameter:	3.80	inches	Volume:	60.65	bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length:	ft	Diameter:	2.70	inches	Volume:	-	bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length:	30.00 ft	Diameter:	2.25	inches	Volume:	0.15	bbl	Weight to Pull Loose:	52000.00 lb
						Total Volume:	-	bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		29.00 ft							String Weight: Initial	52000.00 lb
Depth to Top Packer:		4353.00 ft							Final	52000.00 lb
Depth to Bottom Packer:		ft								
Interval between Packers:		18.00 ft								
Tool Length:		46.00 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			4326.00		
Shut In Tool	5.00			4331.00		
Hydraulic tool	5.00			4336.00		
Jars	5.00			4341.00		
Safety Joint	2.00			4343.00		
Packer	5.00			4348.00	28.00	Bottom Of Top Packer
Packer	5.00			4353.00		
Stubb	1.00			4354.00		
Recorder	0.00	6753	Inside	4354.00		
Recorder	0.00	8319	Outside	4354.00		
Perforations	14.00			4368.00		
Bullnose	3.00			4371.00	18.00	Bottom Packers & Anchor
Total Tool Length:	**46.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

TRILOBITE TESTING, INC.

Downing-Nelson Oil Co. Inc.

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

18-20s-20w Pawnee,KS

Marvin Saxton #2-18

Job Ticket: 46859 **DST#: 2**

Test Start: 2012.01.29 @ 21:15:40

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:	7.96 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4600.00 ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

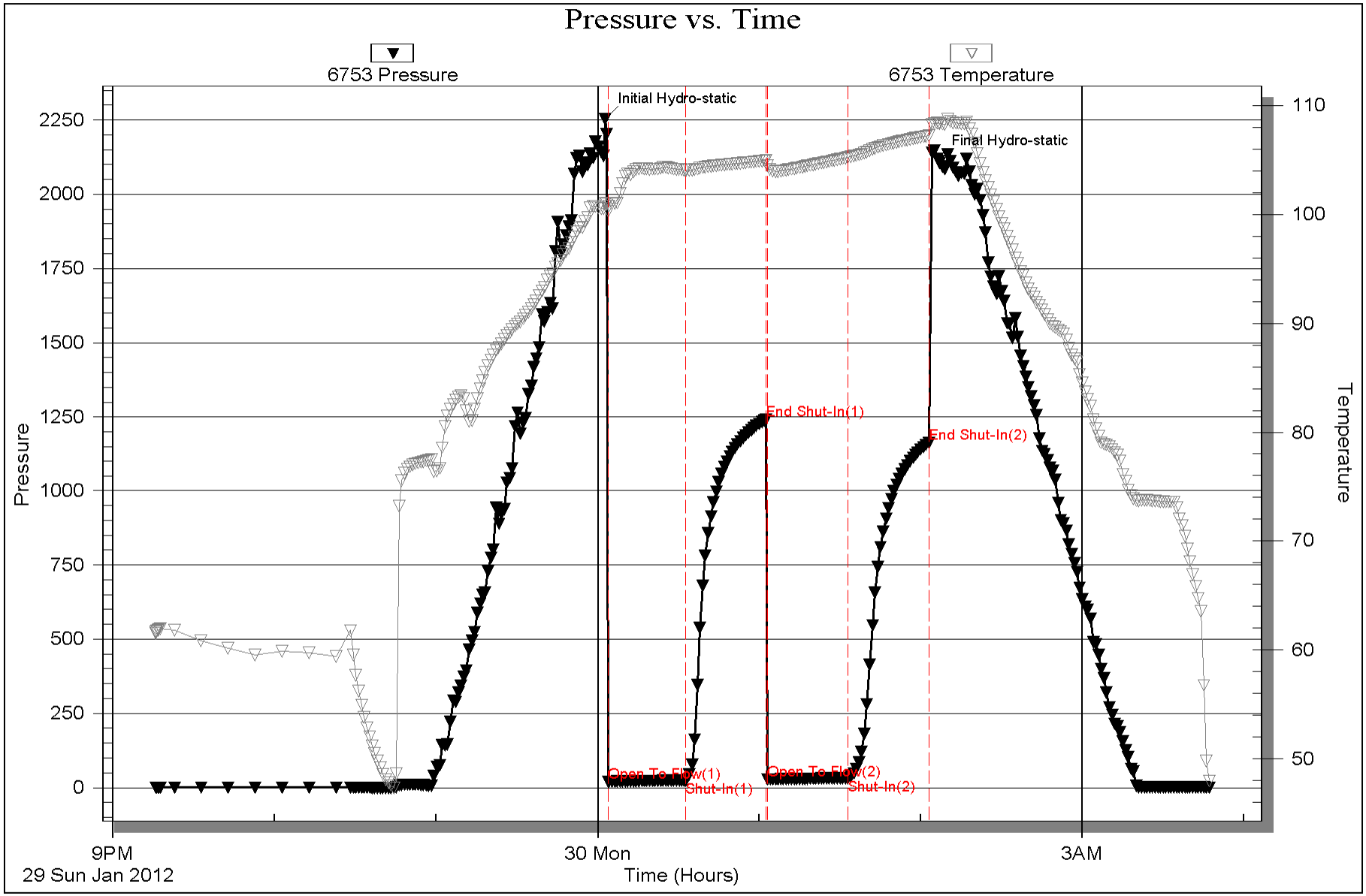
Length ft	Description	Volume bbl
15.00	VSOCM 5%O 95%M	0.074

Total Length: 15.00 ft Total Volume: 0.074 bbl

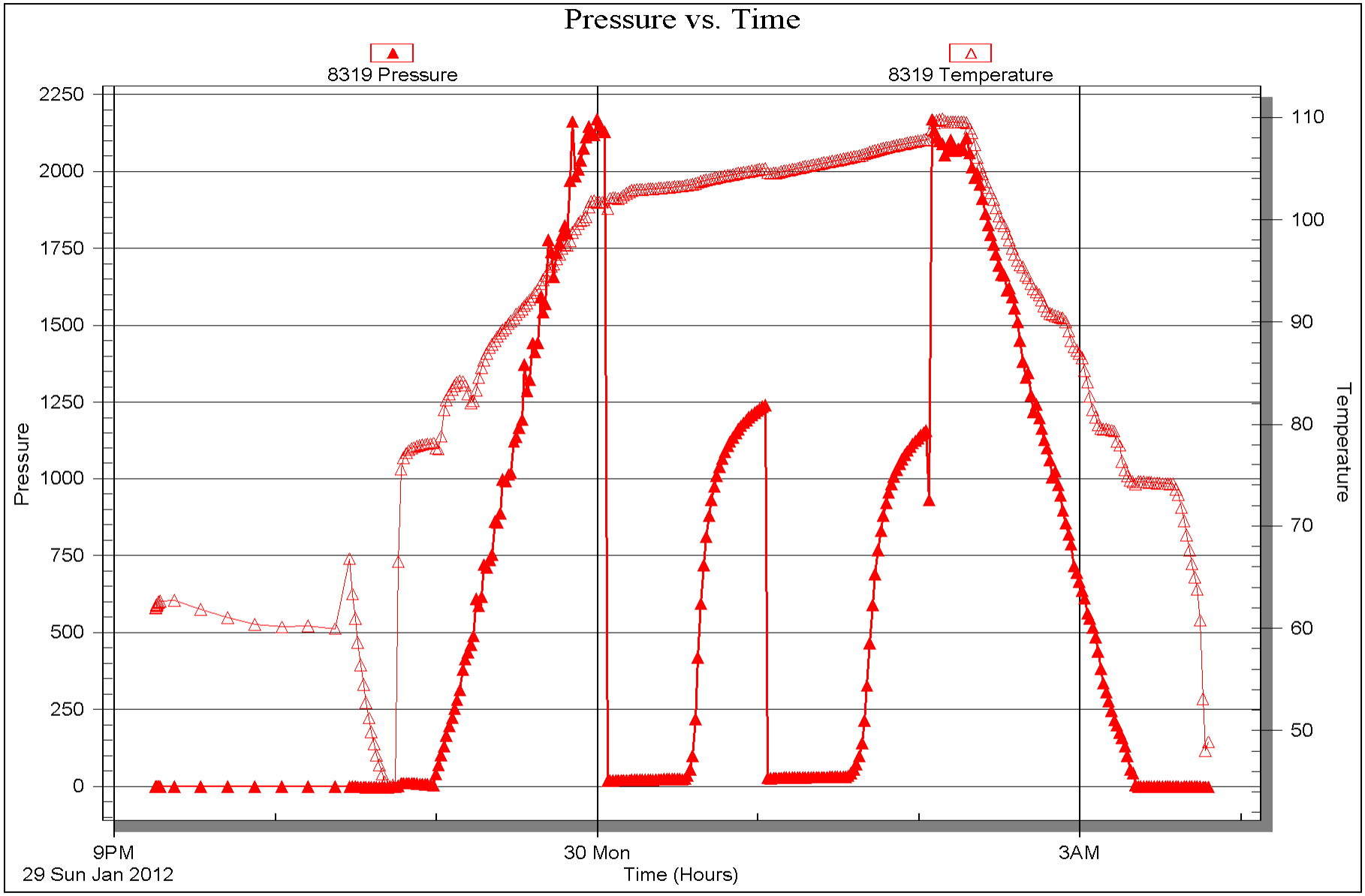
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
6753 Pressure
6753 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure
Temperature
2250
2000
1750
1500
1250
1000
750
500
250
0
110
100
90
80
70
60
50
9PM
29 Sun Jan 2012
30 Mon
3AM
Time (Hours)

Serial #: 8319 **Outside** Dow ning-Nelson Oil Co. Inc. Marvin Saxton #2-18 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 46859 Printed: 2012.02.01 @ 13:06:32

DRILL STEM TEST REPORT

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

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

Marvin Saxton #2-18

18-20s-20w Pawnee,KS

Start Date: 2012.01.30 @ 21:45:55

End Date: 2012.01.31 @ 04:30:10

Job Ticket #: 46860 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.02.01 @ 13:05:11

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

Downing-Nelson Oil Co. Inc.

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

18-20s-20w Pawnee,KS

Marvin Saxton #2-18

Job Ticket: 46860 **DST#: 3**

Test Start: 2012.01.30 @ 21:45:55

GENERAL INFORMATION:

Formation: **Miss.**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 23:56:55
Time Test Ended: 04:30:10

Test Type: Conventional Straddle (Initial)
Tester: Brett Dickinson
Unit No: 59

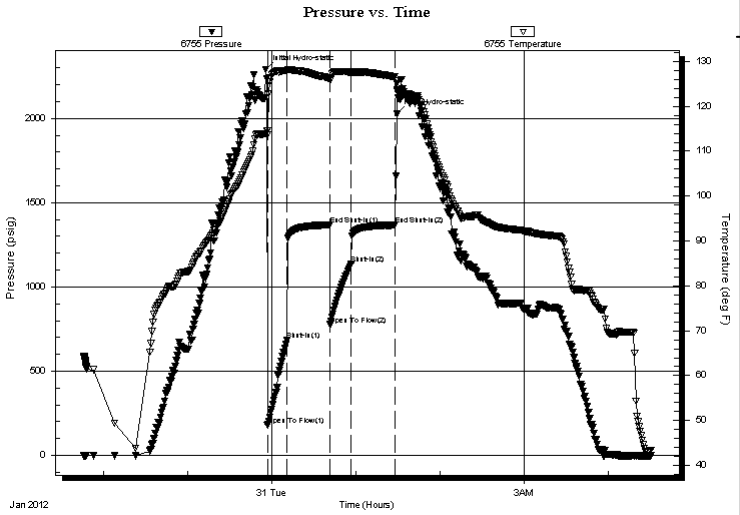
Interval: 4365.00 ft (KB) To 4380.00 ft (KB) (TVD)
Total Depth: 4500.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2211.00 ft (KB)
2203.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6755 **Outside**

Press@RunDepth:	1135.19 psig @	4376.00 ft (KB)		Capacity:	8000.00 psig
Start Date:	2012.01.30	End Date:	2012.01.31	Last Calib.:	2012.01.31
Start Time:	21:45:57	End Time:	04:30:10	Time On Btm:	2012.01.30 @ 23:55:40
				Time Off Btm:	2012.01.31 @ 01:29:10

TEST COMMENT: IF-BOB in 1 min
ISI-No blow
FF-BOB in 1 min
FSI-No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2290.82	113.90	Initial Hydro-static
2	179.10	113.67	Open To Flow (1)
16	684.98	128.01	Shut-In(1)
46	1368.21	126.24	End Shut-In(1)
46	776.40	125.92	Open To Flow (2)
61	1135.19	127.61	Shut-In(2)
93	1367.45	126.55	End Shut-In(2)
94	2026.33	123.72	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1885.00	water	26.17
300.00	VSOCW 2%O 98%W	4.21
120.00	VSOWCM 5%O 40%W 55%M	1.68
120.00	VSOWCM 5%O 5%W 90%M	1.68

Gas Rates

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

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

Downing-Nelson Oil Co. Inc.

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

18-20s-20w Pawnee,KS

Marvin Saxton #2-18

Job Ticket: 46860 **DST#: 3**

Test Start: 2012.01.30 @ 21:45:55

GENERAL INFORMATION:

Formation: **Miss.**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 23:56:55
Time Test Ended: 04:30:10

Test Type: Conventional Straddle (Initial)
Tester: Brett Dickinson
Unit No: 59

Interval: 4365.00 ft (KB) To 4380.00 ft (KB) (TVD)
Total Depth: 4500.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

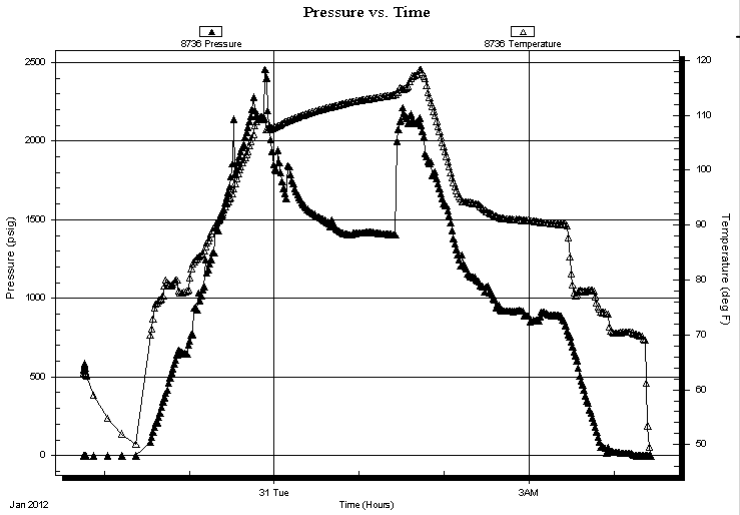
Reference Elevations: 2211.00 ft (KB)
2203.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8736 **Below (Straddle)**

Press@RunDepth: psig @ 4403.00 ft (KB)
Start Date: 2012.01.30 End Date: 2012.01.31
Start Time: 21:45:30 End Time: 04:25:54

Capacity: 8000.00 psig
Last Calib.: 2012.01.31
Time On Btm:
Time Off Btm:

TEST COMMENT: IF-BOB in 1 min
ISI-No blow
FF-BOB in 1 min
FSI-No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
1885.00	water	26.17
300.00	VSOCW 2%O 98%W	4.21
120.00	VSOWCM 5%O 40%W 55%M	1.68
120.00	VSOWCM 5%O 5%W 90%M	1.68

Gas Rates

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

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

Downing-Nelson Oil Co. Inc.

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

18-20s-20w Pawnee,KS

Marvin Saxton #2-18

Job Ticket: 46860 **DST#: 3**

Test Start: 2012.01.30 @ 21:45:55

GENERAL INFORMATION:

Formation: **Miss.**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 23:56:55
Time Test Ended: 04:30:10

Test Type: Conventional Straddle (Initial)
Tester: Brett Dickinson
Unit No: 59

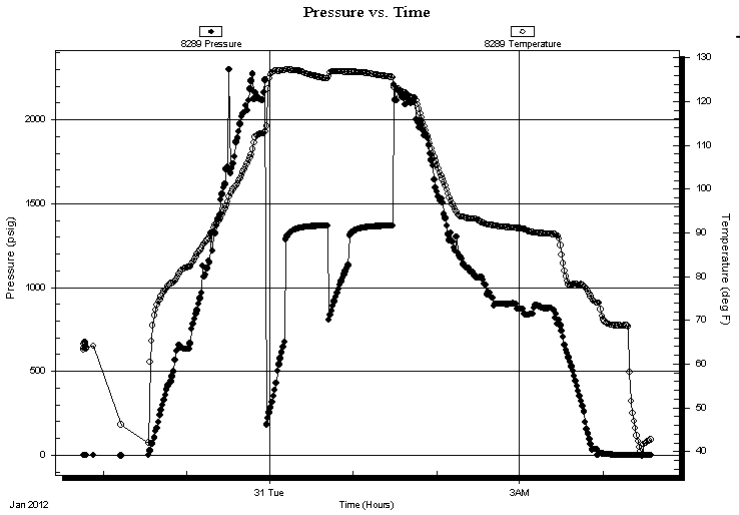
Interval: 4365.00 ft (KB) To 4380.00 ft (KB) (TVD)
Total Depth: 4500.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2211.00 ft (KB)
2203.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8289 **Inside**

Press@RunDepth:	psig @	4376.00 ft (KB)		Capacity:	8000.00 psig
Start Date:	2012.01.30	End Date:	2012.01.31	Last Calib.:	1899.12.30
Start Time:	21:45:27	End Time:	04:34:25	Time On Btm:	
				Time Off Btm:	

TEST COMMENT:
IF-BOB in 1 min
ISI-No blow
FF-BOB in 1 min
FSI-No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
1885.00	water	26.17
300.00	VSOCW 2%O 98%W	4.21
120.00	VSOWCM 5%O 40%W 55%M	1.68
120.00	VSOWCM 5%O 5%W 90%M	1.68

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

TRILOBITE TESTING, INC.

Downing-Nelson Oil Co. Inc.

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

18-20s-20w Pawnee,KS

Marvin Saxton #2-18

Job Ticket: 46860 **DST#: 3**

Test Start: 2012.01.30 @ 21:45:55

Tool Information

Drill Pipe:	Length:	4353.00 ft	Diameter:	3.80 inches	Volume:	61.06 bbl	Tool Weight:		2500.00 lb
Heavy Wt. Pipe:	Length:	ft	Diameter:	2.70 inches	Volume:	- bbl	Weight set on Packer:		25000.00 lb
Drill Collar:	Length:	30.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:		80000.00 lb
					Total Volume:	- bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		50.00 ft					String Weight:	Initial	58000.00 lb
Depth to Top Packer:		4365.00 ft						Final	70000.00 lb
Depth to Bottom Packer:		4380.00 ft							
Interval between Packers:		15.00 ft							
Tool Length:		167.00 ft							
Number of Packers:		3	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	5.00			4338.00		
Shut In Tool	5.00			4343.00		
Hydraulic tool	5.00			4348.00		
Jars	5.00			4353.00		
Safety Joint	2.00			4355.00		
Packer	5.00			4360.00	32.00	Bottom Of Top Packer
Packer	5.00			4365.00		
Stubb	1.00			4366.00		
Perforations	10.00			4376.00		
Recorder	0.00	8289	Inside	4376.00		
Recorder	0.00	6755	Outside	4376.00		
Blank Off Sub	1.00			4377.00		
Blank Spacing	3.00			4380.00	15.00	Tool Interval
Packer	1.00			4381.00		
Perforations	21.00			4402.00		
Change Over Sub	1.00			4403.00		
Recorder	0.00	8736	Below	4403.00		
Blank Spacing	93.00			4496.00		
Change Over Sub	1.00			4497.00		
Bullnose	3.00			4500.00	120.00	Bottom Packers & Anchor
Total Tool Length:	**167.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil Co. Inc.

PO Box 1019
Hays KS 67601

ATTN: Marc Downing

18-20s-20w Pawnee,KS

Marvin Saxton #2-18

Job Ticket: 46860 **DST#: 3**

Test Start: 2012.01.30 @ 21:45:55

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:	59.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	10.37 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1885.00	water	26.168
300.00	VSOCW 2%O 98%W	4.208
120.00	VSOWCM 5%O 40%W 55%M	1.683
120.00	VSOWCM 5%O 5%W 90%M	1.683

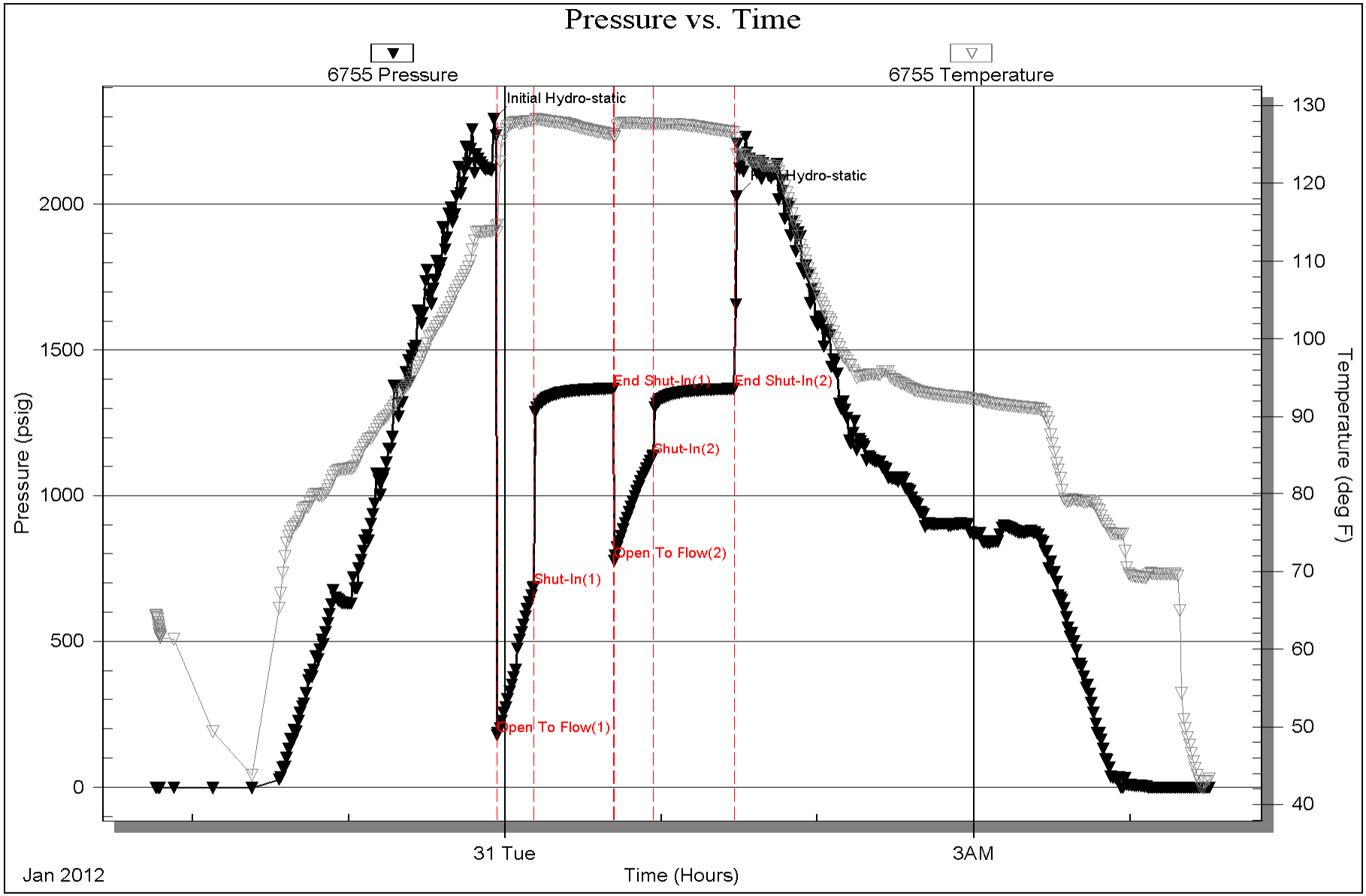
Total Length: 2425.00 ft Total Volume: 33.742 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

Serial #: 6755 **Outside** Downing-Nelson Oil Co. Inc. Marvin Saxton #2-18 DST Test Number: 3



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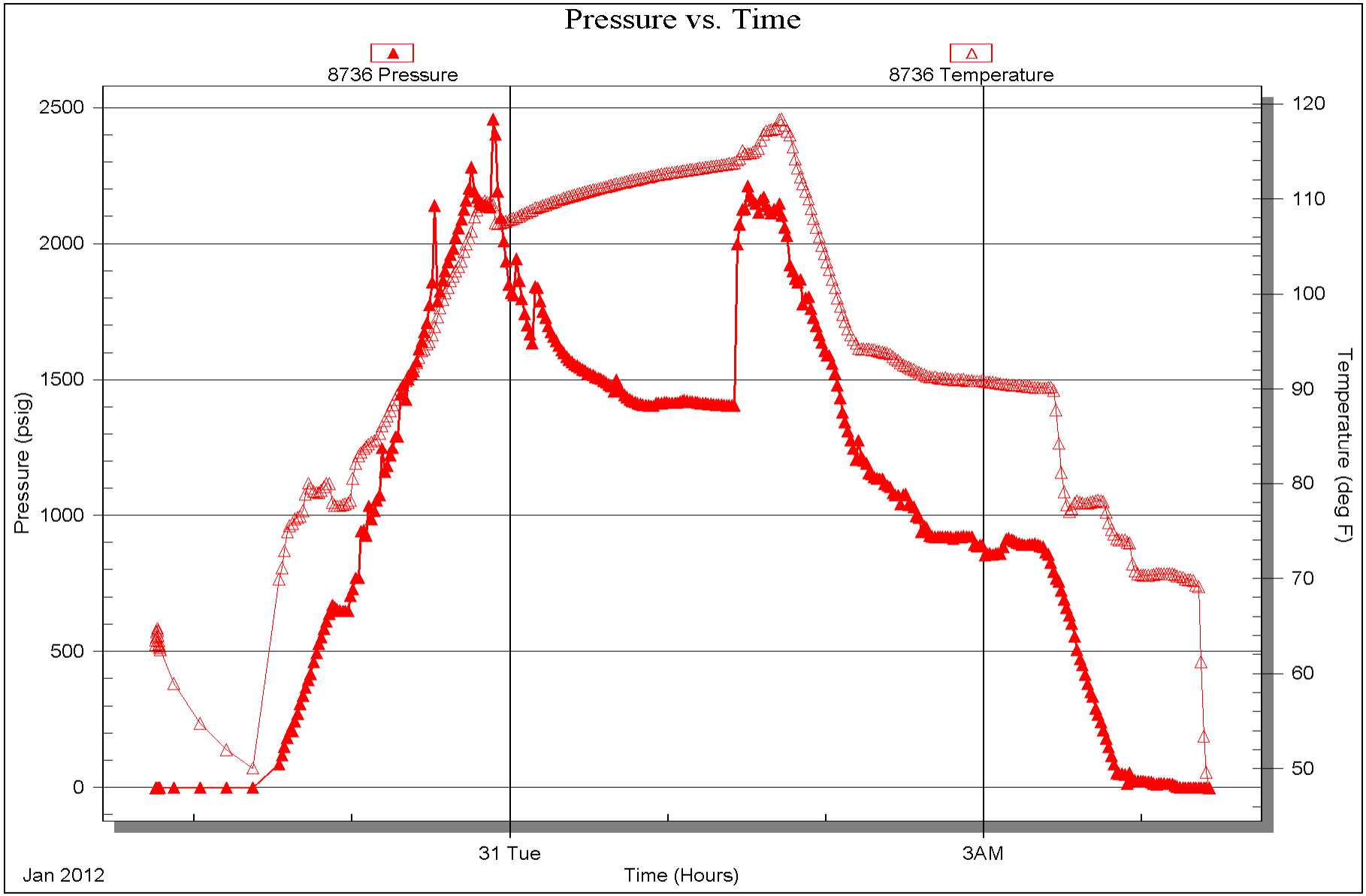
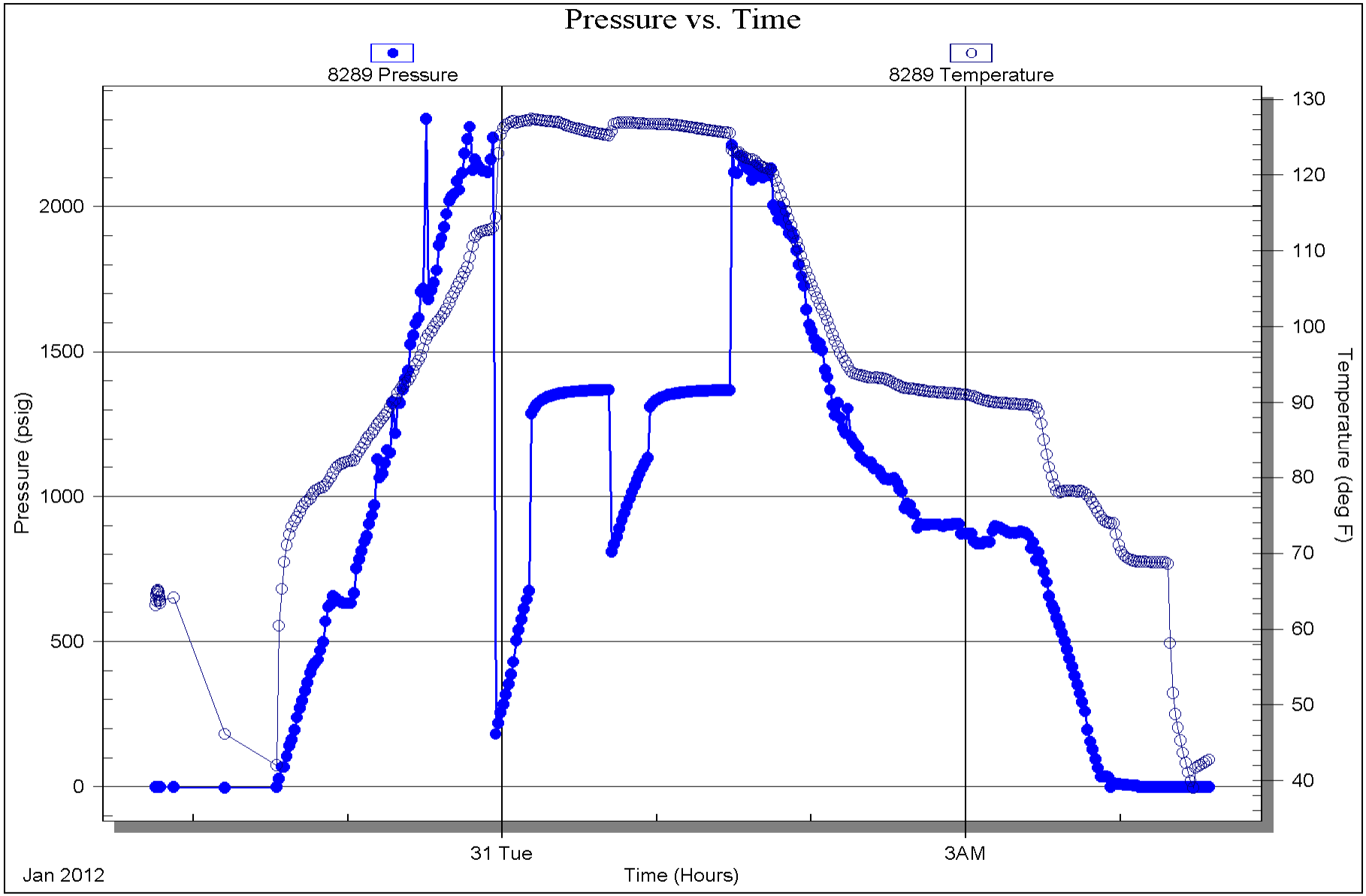

Pressure vs. Time
8736 Pressure
8736 Temperature
Pressure (psig)
2500
2000
1500
1000
500
0
Temperature (deg F)
120
110
100
90
80
70
60
50
31 Tue
3AM
Jan 2012
Time (Hours)

Serial #: 8289 **Inside** Downing-Nelson Oil Co. Inc. Marvin Saxton #2-18 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 46860 Printed: 2012.02.01 @ 13:05:15

TRILOBITE TESTING INC.
P.O. Box 1733 • Hays, Kansas 67601

4/10

RECEIVED JAN 31 2012 BY:

Test Ticket

NO. 46858

Well Name & No. Marvin Saxton 2-18 Test No. 1 Date 1/29/12
Company Downing-Nelson Oil Co Inc. Elevation 2211 KB 2203 GL
Address PO Box 1019 Hays KS 67601
Co. Rep / Geo. Marc Downing Rig Discovery #4
Location: Sec. 18 Twp. 20 Rge. 20 Co. Pawnee State ~~ES~~ KS

Interval Tested 4290-4356 Zone Tested Miss.
Anchor Length 66 Drill Pipe Run 4266 Mud Wt. 9.2
Top Packer Depth 4285 Drill Collars Run 30 Vis 53
Bottom Packer Depth 4290 Wt. Pipe Run — WL 8.0
Total Depth 4356 Chlorides 4,600 ppm System LCM 1½#
Blow Description IF- 3/4 in blow
ISI - No blow
FF - very weak surface blow
FSI - No blow

Rec 30	Feet of VSOCM	%gas 5	%oil	%water 95	%mud
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 108 Gravity ____ API RW ____ @ ____ °F Chlorides ____ ppm

(A) Initial Hydrostatic	2,185	☒ Test	1225	T-On Location	7:40
(B) First Initial Flow	25	☒ Jars	250	T-Started	8:30
(C) First Final Flow	31	☒ Safety Joint	75	T-Open	10:45
(D) Initial Shut-In	1,072	☐ Circ Sub		T-Pulled	12:45
(E) Second Initial Flow	36	☐ Hourly Standby		T-Out	14:40
(F) Second Final Flow	36	☒ Mileage	55 x 2 154	Comments	
(G) Final Shut-In	995	☐ Sampler			
(H) Final Hydrostatic	2,097	☐ Straddle		☐ Ruined Shale Packer	
		☐ Shale Packer		☐ Ruined Packer	
Initial Open	30	☐ Extra Packer		☐ Extra Copies	
Initial Shut-In	30	☐ Extra Recorder		Sub Total	Ø
Final Flow	30	☐ Day Standby		Total	1704
Final Shut-In	30	☐ Accessibility		MP/DST Disc't	
		Sub Total	1704		

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 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
4/10

RECEIVED JAN 31 2012 BY:

Test Ticket

NO. 46859

Well Name & No. Marvin Saxton #2-18 Test No. 2 Date 1/29/12
Company Downing-Nelson Oil Co Inc. Elevation 2211 KB 2203 GL
Address PO Box 1019 Hays KS 67601
Co. Rep / Geo. Marc Downing Rig Discovery #4
Location: Sec. 18 Twp. 20 Rge. 20 Co. Pawnee State KS

Interval Tested 4353 - 4371 Zone Tested Miss
Anchor Length 18 Drill Pipe Run Mud Wt. 9.2
Top Packer Depth 4348 Drill Collars Run 30 Vis 53
Bottom Packer Depth 4353 Wt. Pipe Run — WL 8.0
Total Depth 4371 Chlorides 4,600 ppm System LCM 1½

Blow Description IF - very weak surface blow
ISI - No blow
FF - very weak surface blow
FSI - No blow

Rec 15	Feet of VSOCM	%gas 5	%oil	%water 95	%mud
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 15 BHT 107 Gravity ____ API RW ____ @ ____ °F Chlorides ____ ppm

(A) Initial Hydrostatic	2,252	☒ Test	1225	T-On Location	19:30
(B) First Initial Flow	20	☒ Jars	250	T-Started	~~00:10~~ 21:15
(C) First Final Flow	24	☒ Safety Joint	75	T-Open	00:10
(D) Initial Shut-In	1,241	☐ Circ Sub		T-Pulled	2:10
(E) Second Initial Flow	28	☐ Hourly Standby		T-Out	3:50
(F) Second Final Flow	32	☒ Mileage	53 x 2 154	Comments	
(G) Final Shut-In	1,163	☐ Sampler			
(H) Final Hydrostatic	2,111	☐ Straddle		☐ Ruined Shale Packer	
		☐ Shale Packer		☐ Ruined Packer	
Initial Open	30	☐ Extra Packer		☐ Extra Copies	
Initial Shut-In	30	☐ Extra Recorder		Sub Total	Ø
Final Flow	30	☐ Day Standby		Total	1704
Final Shut-In	30	☐ Accessibility		MP/DST Disc't	
		Sub Total	1704		

Approved By ____ Our Representative ____

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

4/10

RECEIVED JAN 31 2012 BY:

Test Ticket

NO. 46860

Well Name & No. Marvin Saxton #2-18 Test No. 3 Date 1/30/12

Company Downing-Nelson Oil Co Inc. Elevation 2211 KB 2203 GL

Address PO Box 1019 Hays KS 67601

Co. Rep / Geo. Marc Downing Rig Discovery #4

Location: Sec. 18 Twp. 20 Rge. 20 Co. Pawnee State KS

Interval Tested 4365-4380 Zone Tested Miss.

Anchor Length 15 Drill Pipe Run 4357 Mud Wt. 9.2

Top Packer Depth 4360, 4365 Drill Collars Run 30 Vis 59

Bottom Packer Depth 4380 Wt. Pipe Run — WL 10.4

Total Depth 4500 Chlorides ppm System LCM

Blow Description IF- BOB in 1min
ISI- No blow
FF- BOB in 1min
FSI- No blow

Rec 120	Feet of VSOWCM	%gas 5	%oil 5	%water 90	%mud
Rec 120	Feet of VSOWCM	%gas 5	%oil 40	%water 55	%mud
Rec 300	Feet of VSOCW	%gas 2	%oil	98 %water	%mud
Rec 1885	Feet of water	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 2425 BHT 126 Gravity API RW .45 @ 35 °F Chlorides 32,000 ppm

(A) Initial Hydrostatic 2291	☒ Test 1225	T-On Location 21:20
(B) First Initial Flow 179	☒ Jars 250	T-Started 21:45
(C) First Final Flow 685	☒ Safety Joint 75	T-Open 23:55
(D) Initial Shut-In 1,368	☐ Circ Sub	T-Pulled 1:25
(E) Second Initial Flow 776	☐ Hourly Standby	T-Out 4:30
(F) Second Final Flow 1,135	☒ Mileage 55x2 154	Comments
(G) Final Shut-In 1,367	☐ Sampler	
(H) Final Hydrostatic 2,026	☒ Straddle 600	☐ Ruined Shale Packer
	☐ Shale Packer	☐ Ruined Packer
Initial Open 15	☐ Extra Packer	☐ Extra Copies
Initial Shut-In 30	☐ Extra Recorder	Sub Total Ø
Final Flow 15	☐ Day Standby	Total 2304
Final Shut-In 30	☐ Accessibility	MP/DST Disc't
	Sub Total 2304	

Approved By Our Representative Marc Downing

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.

Marc Downing
Consulting Petroleum Geologist
1411 Washington Circle
Hays, Ks 67601
Phone: 620-628-1556 (cell) 785-621-2286

GEOLOGIC REPORT LOG

COMPANY Downing-Nelson Oil Co., Inc.

WELL Marvin Stoltz #2-19

FIELD Wildcat

LOCATION 1706 FSL & 2310 FEL

SEC 19 TWP 20s RGE 20w

COUNTY Rooks

STATE Kansas

Rge 20w — Twp 20s — 19

PRODUCTION D&A

ELEVATION KB 2209, DF, GL 2201

Drilling Started 7-16-09 Total Depth 3600 TD

Drilling Finished 7-20-09 Rotary Total Depth 3600 TD

Drilling Contractor Murfin Drilling Co. Rig #9

Rotary Supervisor Mark Downing

Drilling Engineer Leo Thoman

CASING RECORD

SURF 8 5/8" @ 224 w/ 160 sx Class A

TOTAL DEPTH DRILLER 3600

TOTAL DEPTH LOG 3598

FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE LOG	ELECTRIC LOG	REFERENCE WELL	STRUCTURAL POSITION
Top Anhydrite	1196	1193	+1013	+13
Base Anhydrite	1212	1212	+1000	+13
Heebner	3113	3110	-904	+15
Lansing	3156	3154	-948	+11
Stark	3371	3369	-1163	+11
Pawnee Sd	3479	3478	-1272	+13
Cherokee Sd	3535	3534	-1328	+13
Cherokee Shale	3555	3553	-1347	+14
Mississippian	3574	3573	-1366	+14
Simpson	3586	3585	-1378	+14
Arbuckle Dolo	3596	3595	-1388	Mississippian

REFERENCE WELL FOR STRUCTURE CONOCO

Marvin Stoltz #1-19 T20S R20W SW-NW-SW-SW

DAILY FORMATION

DATE	DEPTH

BIT RECORD

No.	Size	Make	Type	Jets	Depth Out	Footage	Hours

DRILL STEM TESTS

No.	Interval	Open	Shut-In	Close	Shut-In	Recovery

REMARKS AND INTERPRETATION

LEGEND

Anhydrite, Salt, Dolomite, Shale, Lime, Chalcedony, Sandstone, Chert

DRILLING TIME IN MINUTES PER FOOT, Rate of Penetration Recorder

0" 10" 20" 30"

SCALE 1"=60'

DEPTH

LITHOLOGY

SAMPLE DESCRIPTIONS

OIL SHOWS

REMARKS

Heebner (3110'-904')

Lansing (3154'-948')

Stark (3369'-1163')

Pawnee Sd (3478'-1272')

Cherokee Sd (3534'-1328')

Cherokee Shale (3553'-1347')

Miss (3573'-1366') DST #1 (3574-3586) 20-60-60-60 IF: BOB in 1 min. FF: BOB in 1 min. ISIP: 1134 FSIP: 1134 Rec: 1000' Gas in Pipe 10' Clean Oil 1000' Total Fluid Sample Chamber: 2.1 cu ft Gas in Pipe 1800 cc Clean Oil

Simpson (3585'-1378')

Arbuckle Dolo (3595'-1388')

Total Depth (3598'-1391')

Mississippian

Arbuckle Dolo

Simpson

Cherokee Shale

Cherokee Sd

Pawnee Sd

Stark

Lansing

Heebner

Top Anhydrite

Base Anhydrite

Total Depth

Marc Downing