Confidentiality Requested:
☐ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1130536

Form ACO-1
August 2013
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: Ron Nelson
Purchaser: Coffeyville Resources

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
☐ Plug Back ☐ Conv. to GSW ☐ Conv. to Producer

☐ Commingled Permit #:
☐ Dual Completion Permit #:
☐ SWD Permit #:
☐ ENHR Permit #:
☐ GSW Permit #:

03/15/2013	03/21/2013	03/22/2013
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-195-22855-00-00
Spot Description:
SW SE SE NW Sec. 26 Twp. 11 S. R. 23 ☐ East ☑ West
2370 Feet from ☑ North / ☐ South Line of Section
2225 Feet from ☐ East / ☑ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☑ NW ☐ SE ☐ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Trego
Lease Name: Tammy 'A' Unit Well #: 1
Field Name:
Producing Formation: LKC
Elevation: Ground: 2382 Kelly Bushing: 2390
Total Vertical Depth: 4150 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 221 Feet
Multiple Stage Cementing Collar Used? ☑ Yes ☐ No
If yes, show depth set: 1821 Feet
If Alternate II completion, cement circulated from: 1821
feet depth to: 0 w/ 155 sx cmt.

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

Chloride content: 22000 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

☑ **Confidentiality Requested**
Date: 05/28/2013
☑ **Confidential Release Date:** 05/28/2015
☑ **Wireline Log Received**
☑ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☐ I ☑ II ☐ III **Approved by:** NAOMI JAMES **Date:** 05/30/2013

1130536

Operator Name: Downing-Nelson Oil Co Inc Lease Name: Tammy 'A' Unit Well #: 1

Sec. 26 Twp. 11 S. R. 23 ☐ East ☑ West County: Trego

INSTRUCTIONS: Show important tops 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.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

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

List All E. Logs Run:
Attached

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

Name: Attached Top: Attached Datum: 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	221.17	Common	150	2% Gel % 3% CC
Production casing	7.875	5.5	14	4148.38	EA/2	150	

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	-			
	-			

Did you perform a hydraulic fracturing treatment on this well? ☐ Yes ☐ No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☐ No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? ☐ Yes ☐ No *(If No, fill out Page Three of the ACO-1)*

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
4	3730' - 3736'	250 gallons 15% Mud Acid	3730' - 3736'

TUBING RECORD: Size: 2.3750 Set At: 4034' Packer At: Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR.: 04/10/2013

Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	80	0	0		

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	Tammy 'A' Unit 1
Doc ID	1130536

All Electric Logs Run

Micro
Sonic
Dual Induction
Compensated Neutron Density

Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	Tammy 'A' Unit 1
Doc ID	1130536

Tops

Name	Top	Datum
Top Anhydrite	1838'	+550
Base Anhydrite	1880'	+510
Topeka	3380'	-990
Heebner	3596'	-1206
Toronto	3618'	-1228
LKC	3630'	-1472
BKC	3862'	-1472
Marmaton	3972'	-1582
Cherokee Shale	4017'	-1627
Cherokee Sand	4034'	-1644
Arbuckle	4072'	-1682

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. 6627

Date	Sec.	Twp.	Range	County	State	On Location	Finish
3-15-13	26	11	23	Trego	Ks		7:00 PM

Location Wakeeny, Ks - IN to HRA, 1E, 2½N, E/S

Lease Tammy "A" Unit | Well No. 1 | Owner

Contractor Discovery #3 | To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Type Job Surface | Charge To Downing - Nelson

Hole Size 12¼" | T.D. 223' | Street

Csg. 8 5/8" | Depth 222' | City State

Tbg. Size | Depth | The above was done to satisfaction and supervision of owner agent or contractor.

Tool | Depth | Cement Amount Ordered 150 sx Common 3% CC 2% Gel

Cement Left in Csg. 15' | Shoe Joint 15' | Common 150

Meas Line | Displace 13 BLS | Poz. Mix

EQUIPMENT

Pumptrk 16	No.	Cementer	
		Helper	Travis
Bulktrk 14	No.	Driver	
		Driver	
~~Bulktrk 10~~	No.	Driver	
		Driver	Rick

Gel. 3

Calcium 5

JOB SERVICES & REMARKS

Remarks: Cement did Circulate.

Hulls

Salt

Rat Hole | Flowseal

Mouse Hole | Kol-Seal

Centralizers | Mud CLR 48

Baskets | CFL-117 or CD110 CAF 38

D/V or Port Collar | Sand

Handling 158

Mileage

FLOAT EQUIPMENT

Guide Shoe

Centralizer

Baskets

AFU Inserts

Float Shoe

Latch Down

Pumptrk Charge Surface

Mileage 4/4

Tax

Discount

Total Charge

X Signature Allen Sartin

JOB LOG

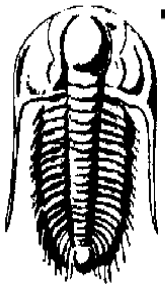
SWIFT Services, Inc.

DATE 3-22-13 | PAGE NO. 1

CUSTOMER	WELL NO.	LEASE	JOB TYPE	TICKET NO.
Downing & Nelson		Tammy 'A' Unit	Conv Longstring	23923

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS T	PUMPS C	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	DESCRIPTION OF OPERATION AND MATERIALS
								TD 4150 (Sfty 4148 1/2) 161.2
	1815					14#/ft	5 1/2	On location w/ Float Equip.
	1940							Start Casing - Insert Float Shoe w/ Fill-up
								L.D. Baffle SJ - 21' @ 4127'
								Cent - 1-3-5-7-9-11-55
	215							Basket #56 D.V #56 @ 1821' = 44 1/2 BBL
	2130							Drop ball & Set out
								Circ Csg & Rotate
								Fin circ - start 1st Stage
		5	12	32			300	Pump 500gal Mud Flush
		5	20				350	Pump 20BBL KCL Flush
		4 1/2					200	Start 150 SKS EA-2 cmt
			36				100	Fin cmt - Wash PH Line
		9						Drop D.V. L.D Plug Start Displ
		8 / 6	90 / 95	(100 1/2)			500 / 1500	Plug Down - Held - Release & Held
								Drop D.V opening device
								Plug Rat/Mouse Hole - 20 SKS
		5					1100 / 800	Open D.V with 1100 - Fill Flush
								Start 150 SKS SMD
								Fin cmt - Drop Closing Plug
		5						Start Displ Release
	2315						500 / 1300	Plug Down - Held - D.V. Closed
								2nd Stage complete
								Circ Cement in cellar
								Wash up & Rig up
	2400							

Thanks
Glen, Jon, & Isaac



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

Tammy A Unit #1

26 11s 23w Trego,KS

Start Date: 2013.03.19 @ 00:50:00
End Date: 2013.03.19 @ 08:55:00
Job Ticket #: 52065 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.03.25 @ 15:52:24

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

26 11s 23w Trego,KS

Tammy A Unit #1

Job Ticket: 52065 **DST#: 1**

Test Start: 2013.03.19 @ 00:50:00

GENERAL INFORMATION:

Formation: **LKC " C "**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 03:31:50
Time Test Ended: 08:55:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Jim Svaty
Unit No: 41

Interval: 3655.00 ft (KB) To 3676.00 ft (KB) (TVD)
Total Depth: 3676.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

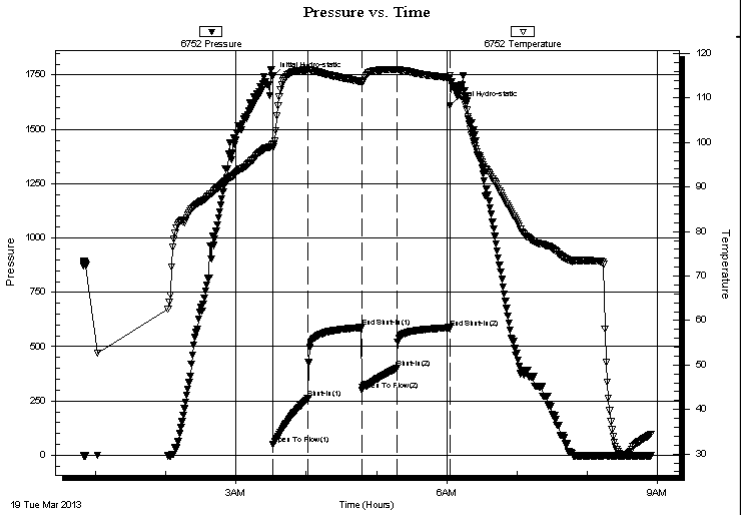
Reference Elevations: 2392.00 ft (KB)
2384.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6752 **Inside**

Press@RunDepth: 400.15 psig @ 3673.00 ft (KB)
Start Date: 2013.03.19 End Date: 2013.03.19
Start Time: 00:50:01 End Time: 08:54:30

Capacity: 8000.00 psig
Last Calib.: 2013.03.19
Time On Btm: 2013.03.19 @ 03:31:40
Time Off Btm: 2013.03.19 @ 06:03:00

TEST COMMENT: 30-IFP- BOB in 2 1/2 min.
45-ISIP- Surface Blow in 3 min. Building to 3 1/2".
30-FFP- BOB in 3 min.
45-FSIP- BOB in 12 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1744.52	99.65	Initial Hydro-static
1	51.44	98.92	Open To Flow (1)
30	263.93	116.31	Shut-In(1)
76	588.07	113.69	End Shut-In(1)
76	298.84	113.50	Open To Flow (2)
106	400.15	116.39	Shut-In(2)
152	587.74	114.54	End Shut-In(2)
152	1609.13	114.95	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
595.00	MCW 5%m 95%w	8.07
210.00	Gassy O&MCW 7%o 15%g 20%m 58%w	2.95
40.00	GCO 30%g 70%o	0.56
0.00	700 GIP	0.00

Gas Rates

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

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

26 11s 23w Trego,KS

Tammy A Unit #1

Job Ticket: 52065 **DST#: 1**

Test Start: 2013.03.19 @ 00:50:00

GENERAL INFORMATION:

Formation: **LKC " C "**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 03:31:50
Time Test Ended: 08:55:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Jim Svaty
Unit No: 41

Interval: 3655.00 ft (KB) To 3676.00 ft (KB) (TVD)
Total Depth: 3676.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

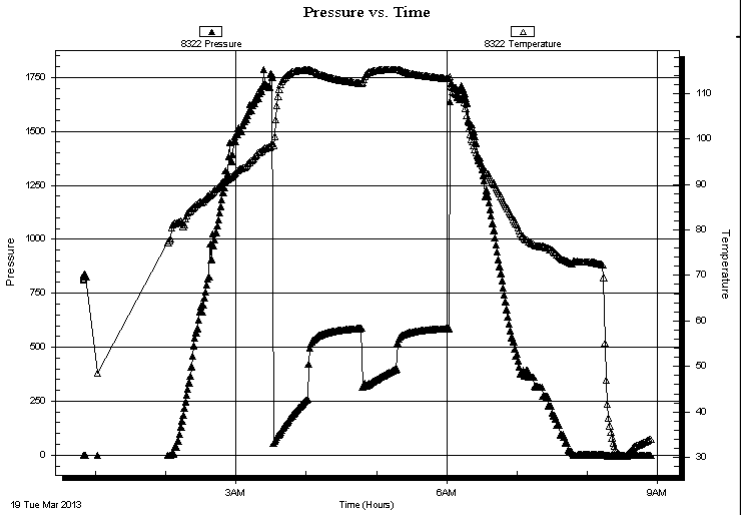
Reference Elevations: 2392.00 ft (KB)
2384.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8322 **Outside**

Press@RunDepth: psig @ 3673.00 ft (KB)
Start Date: 2013.03.19 End Date: 2013.03.19
Start Time: 00:50:01 End Time: 08:54:30

Capacity: 8000.00 psig
Last Calib.: 2013.03.19
Time On Btm:
Time Off Btm:

TEST COMMENT: 30-IFP- BOB in 2 1/2 min.
45-ISIP- Surface Blow in 3 min. Building to 3 1/2".
30-FFP- BOB in 3 min.
45-FSIP- BOB in 12 min.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
595.00	MCW 5%m 95%w	8.07
210.00	Gassy O&MCW 7%o 15%g 20%m 58%w	2.95
40.00	GCO 30%g 70%o	0.56
0.00	700 GIP	0.00

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co Inc

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

26 11s 23w Trego,KS

Tammy A Unit #1

Job Ticket: 52065 **DST#: 1**

Test Start: 2013.03.19 @ 00:50:00

Tool Information

Drill Pipe:	Length:	3612.00 ft	Diameter:	3.80 inches	Volume:	50.67 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.75 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	30.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	
					Total Volume:	50.82 bbl	

Drill Pipe Above KB:	7.00 ft
Depth to Top Packer:	3655.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	21.00 ft
Tool Length:	41.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:		2500.00 lb
Weight set on Packer:		25000.00 lb
Weight to Pull Loose:		65000.00 lb
Tool Chased		0.00 ft
String Weight:	Initial	57000.00 lb
	Final	61000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			3640.00		
Hydraulic tool	5.00			3645.00		
Packer	5.00			3650.00	20.00	Bottom Of Top Packer
Packer	5.00			3655.00		
Stubb	1.00			3656.00		
Perforations	17.00			3673.00		
Recorder	0.00	6752	Inside	3673.00		
Recorder	0.00	8322	Outside	3673.00		
Bullnose	3.00			3676.00	21.00	Bottom Packers & Anchor
Total Tool Length:	**41.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co Inc

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

26 11s 23w Trego,KS

Tammy A Unit #1

Job Ticket: 52065 **DST#: 1**

Test Start: 2013.03.19 @ 00:50:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	39 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	125000 ppm
Viscosity:	51.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.92 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2000.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
595.00	MCW 5%m 95%w	8.073
210.00	Gassy O&MCW 7%o 15%g 20%m 58%w	2.946
40.00	GCO 30%g 70%o	0.561
0.00	700 GIP	0.000

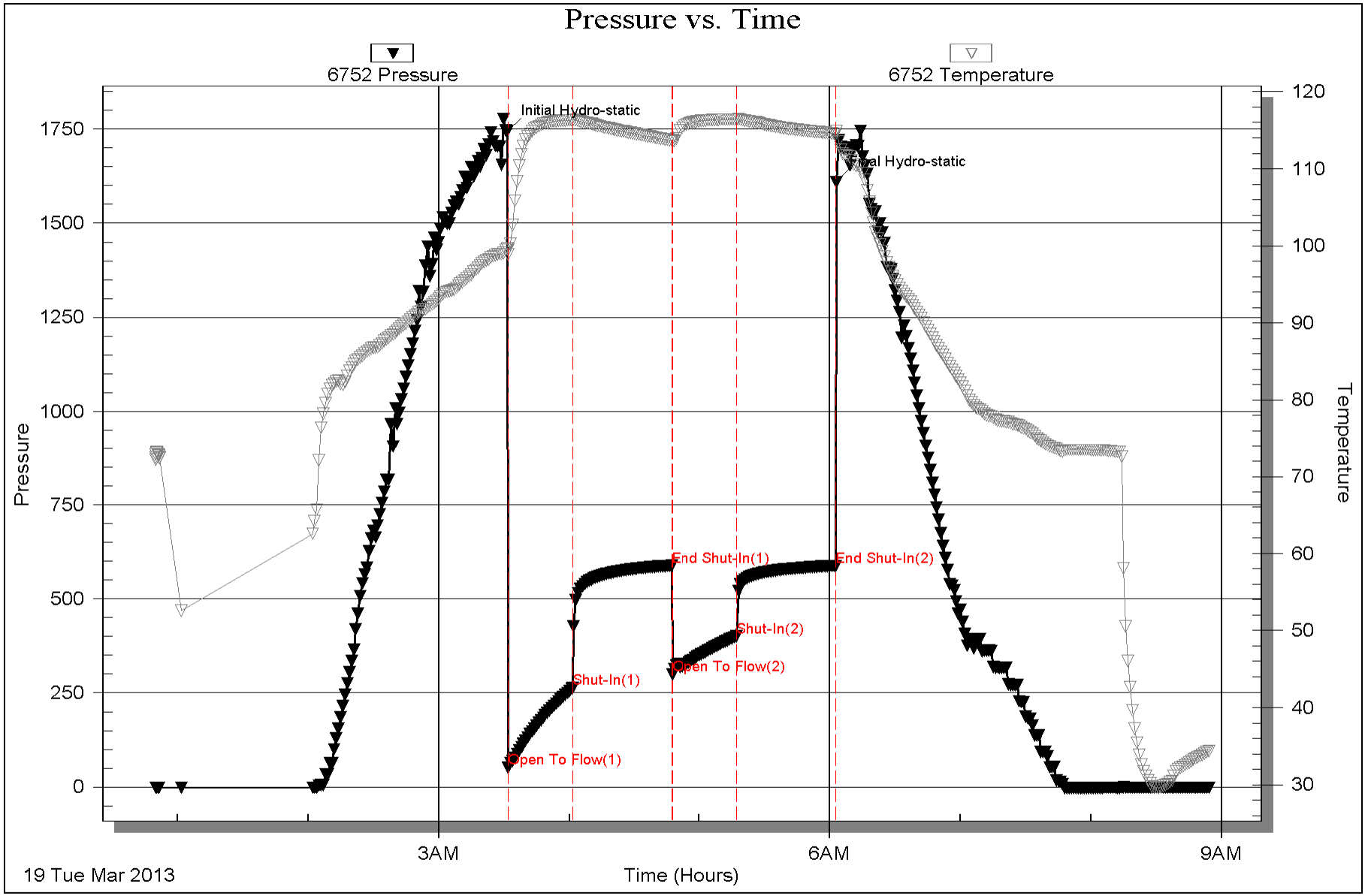
Total Length: 845.00 ft Total Volume: 11.580 bbl

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

Laboratory Name: Laboratory Location:

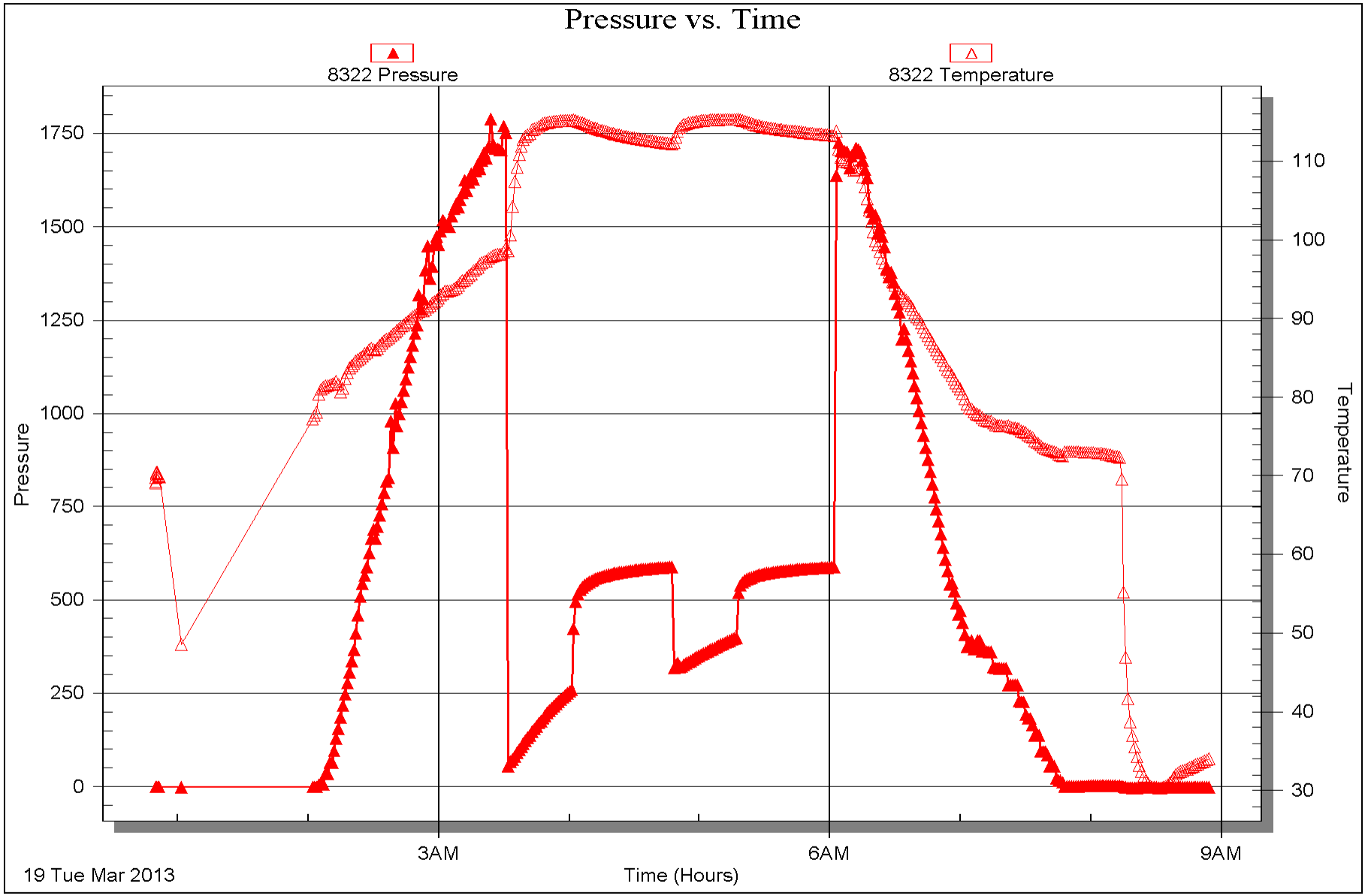
Recovery Comments: .150 @ 32

Serial #: 6752 **Inside** Dow ning-Nelson Oil Co Inc Tammy A Unit #1 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 52065 Printed: 2013.03.25 @ 15:52:26

Serial #: 8322 **Outside** Dow ning-Nelson Oil Co Inc Tammy A Unit #1 DST Test Number: 1



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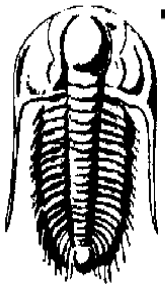


TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

Tammy A Unit #1

26 11s 23w Trego,KS

Start Date: 2013.03.19 @ 14:49:00
End Date: 2013.03.19 @ 21:51:00
Job Ticket #: 52066 DST #: 2

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.03.25 @ 15:51:39

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

26 11s 23w Trego,KS

Tammy A Unit #1

Job Ticket: 52066 **DST#: 2**

Test Start: 2013.03.19 @ 14:49:00

GENERAL INFORMATION:

Formation: **LKC " D "**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:04:50
Time Test Ended: 21:51:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty
Unit No: 41

Interval: 3678.00 ft (KB) To 3699.00 ft (KB) (TVD)
Total Depth: 3699.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

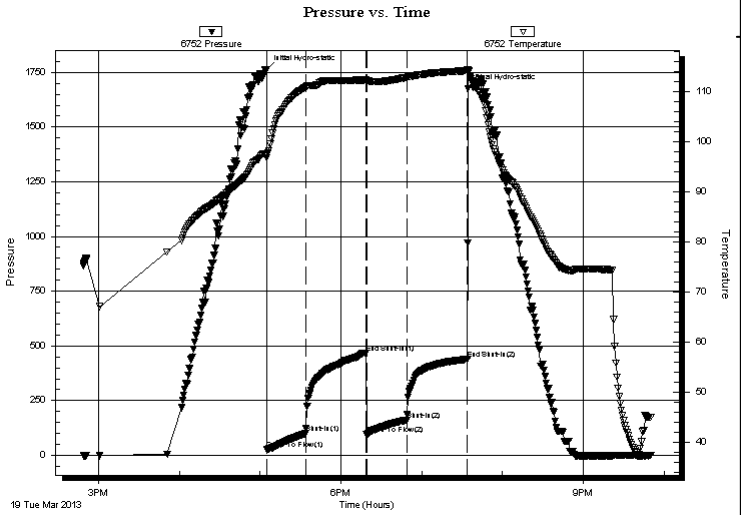
Reference Elevations: 2392.00 ft (KB)
2384.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6752 **Inside**

Press@RunDepth: 161.12 psig @ 3696.00 ft (KB)
Start Date: 2013.03.19 End Date: 2013.03.19
Start Time: 14:49:01 End Time: 21:50:20

Capacity: 8000.00 psig
Last Calib.: 2013.03.19
Time On Btm: 2013.03.19 @ 17:04:40
Time Off Btm: 2013.03.19 @ 19:34:20

TEST COMMENT: 30-IF- BOB in 3 min.
45-ISI- Surface Blow Building to 5 1/2"
30-FF- BOB in 3 min.
45-FSI- BOB in 14 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1762.18	97.50	Initial Hydro-static
1	25.10	96.82	Open To Flow (1)
30	99.52	110.91	Shut-In(1)
74	467.56	112.30	End Shut-In(1)
75	94.26	112.21	Open To Flow (2)
105	161.12	112.83	Shut-In(2)
150	439.08	114.13	End Shut-In(2)
150	1674.43	114.32	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
189.00	MCW 10%m 90%w	2.38
63.00	W&MCO 10%w 20%m 70%o	0.88
103.00	CO 100%	1.44
0.00	1217 GIP	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

26 11s 23w Trego,KS

Tammy A Unit #1

Job Ticket: 52066 **DST#: 2**

Test Start: 2013.03.19 @ 14:49:00

GENERAL INFORMATION:

Formation: **LKC " D "**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:04:50
Time Test Ended: 21:51:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty
Unit No: 41

Interval: 3678.00 ft (KB) To 3699.00 ft (KB) (TVD)
Total Depth: 3699.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

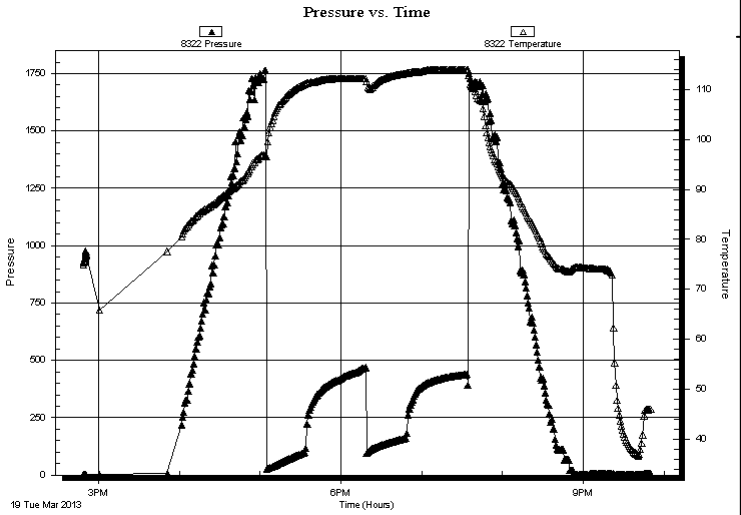
Reference Elevations: 2392.00 ft (KB)
2384.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8322 **Outside**

Press@RunDepth: psig @ 3696.00 ft (KB)
Start Date: 2013.03.19 End Date: 2013.03.19
Start Time: 14:49:01 End Time: 21:50:20

Capacity: 8000.00 psig
Last Calib.: 2013.03.19
Time On Btm:
Time Off Btm:

TEST COMMENT: 30-IF- BOB in 3 min.
45-ISI- Surface Blow Building to 5 1/2"
30-FF- BOB in 3 min.
45-FSI- BOB in 14 min.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
189.00	MCW 10%m 90%w	2.38
63.00	W&MCO 10%w 20%m 70%o	0.88
103.00	CO 100%	1.44
0.00	1217 GIP	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co Inc

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

26 11s 23w Trego,KS

Tammy A Unit #1

Job Ticket: 52066 **DST#: 2**

Test Start: 2013.03.19 @ 14:49:00

Tool Information

Drill Pipe:	Length:	3645.00 ft	Diameter:	3.80 inches	Volume:	51.13 bbl	Tool Weight:		2500.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.75 inches	Volume:	0.00 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:		61000.00 lb
					Total Volume:	51.28 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		17.00 ft					String Weight:	Initial	58000.00 lb
Depth to Top Packer:		3678.00 ft						Final	60000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		21.00 ft							
Tool Length:		41.00 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			3663.00		
Hydraulic tool	5.00			3668.00		
Packer	5.00			3673.00	20.00	Bottom Of Top Packer
Packer	5.00			3678.00		
Stubb	1.00			3679.00		
Perforations	17.00			3696.00		
Recorder	0.00	6752	Inside	3696.00		
Recorder	0.00	8322	Outside	3696.00		
Bullnose	3.00			3699.00	21.00	Bottom Packers & Anchor
Total Tool Length:	**41.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co Inc

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

26 11s 23w Trego,KS

Tammy A Unit #1

Job Ticket: 52066 **DST#: 2**

Test Start: 2013.03.19 @ 14:49:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	38 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	41000 ppm
Viscosity:	57.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.94 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4000.00 ppm				
Filter Cake:	2.00 inches				

Recovery Information

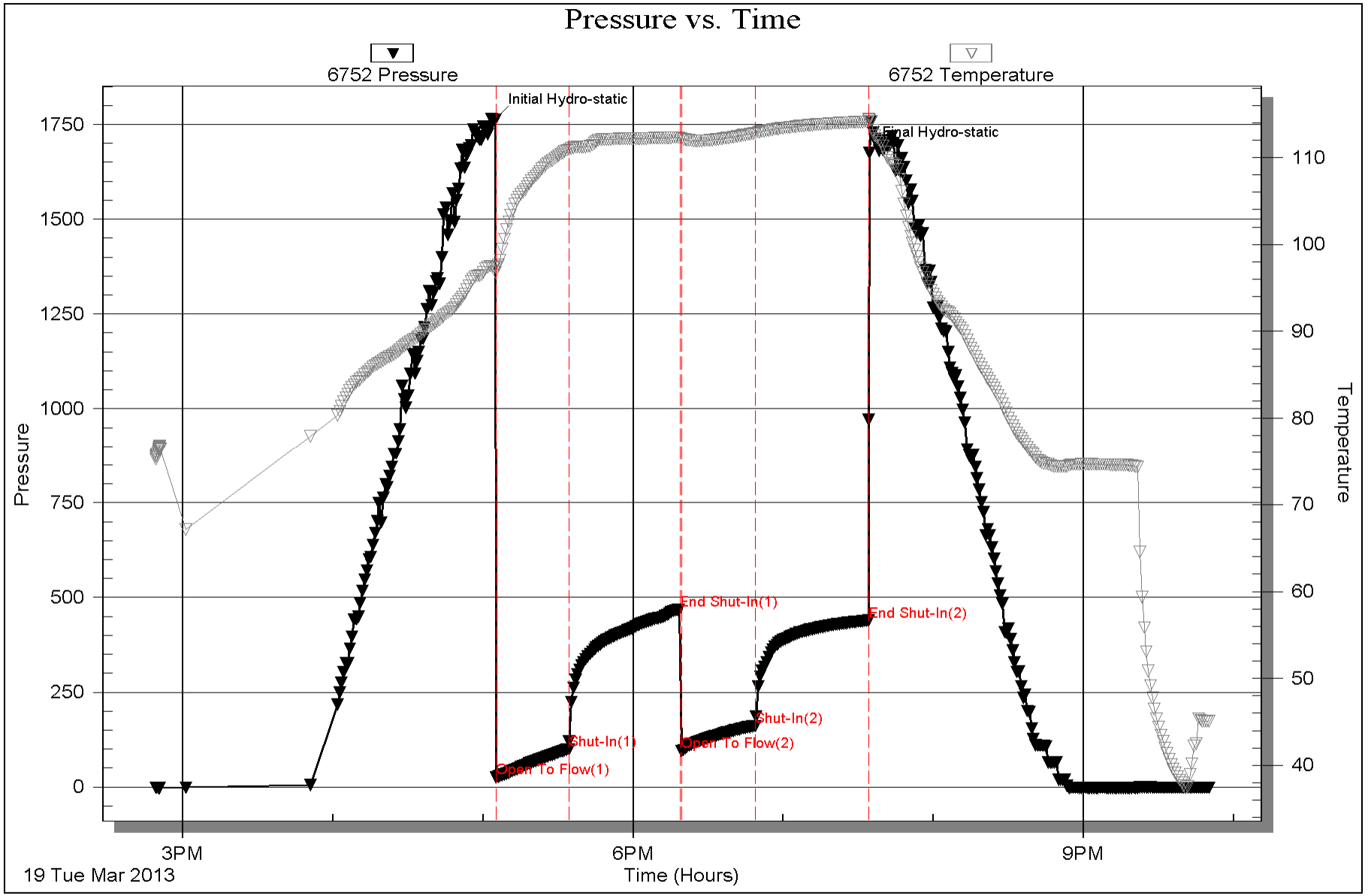
Recovery Table

Length ft	Description	Volume bbl
189.00	MCW 10%m 90%w	2.378
63.00	W&MCO 10%w 20%m 70%o	0.884
103.00	CO 100%	1.445
0.00	1217 GIP	0.000

Total Length: 355.00 ft Total Volume: 4.707 bbl

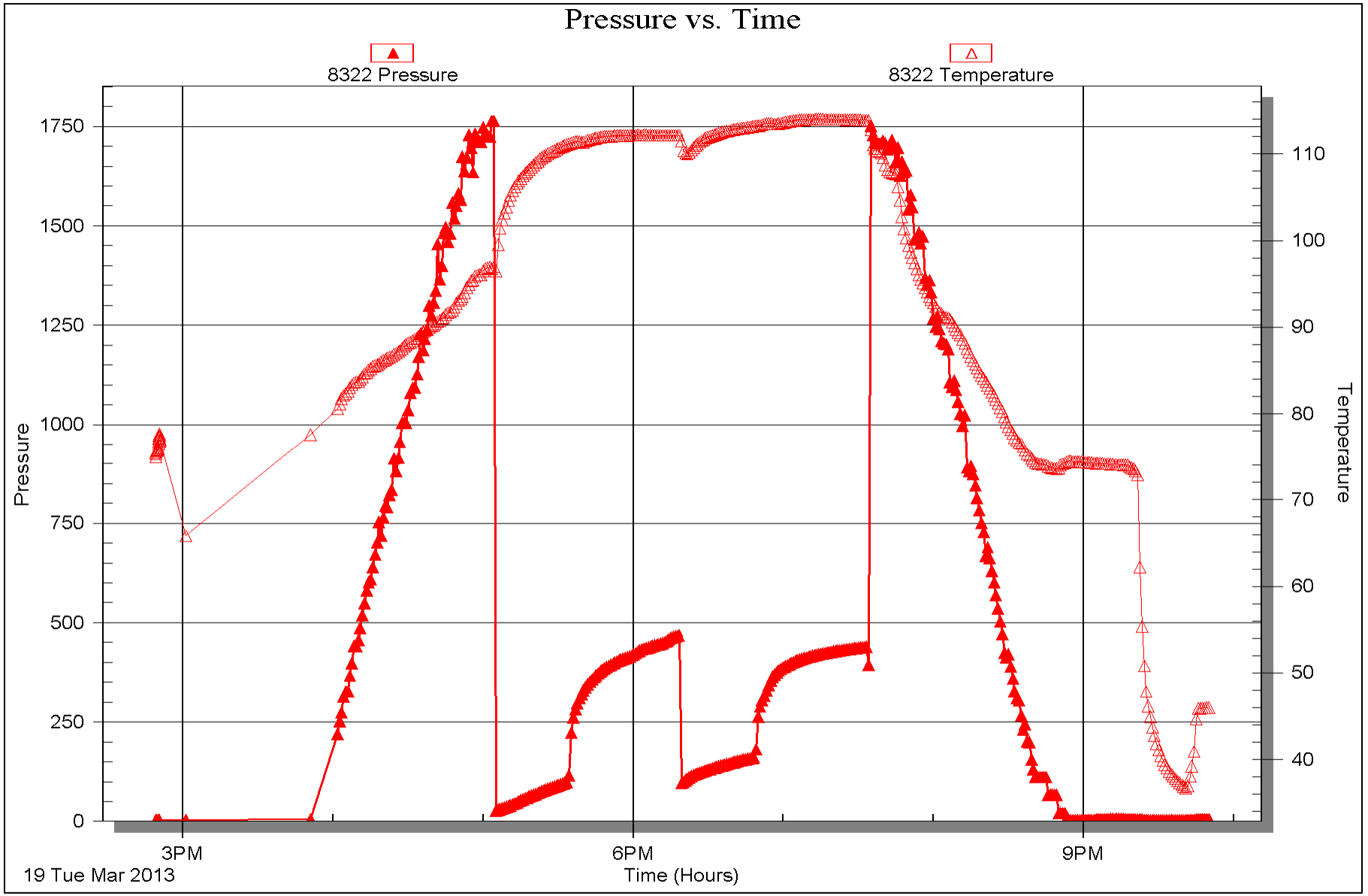
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: .274 @ 45

Serial #: 6752 **Inside** Downing-Nelson Oil Co Inc Tammy A Unit #1 DST Test Number: 2

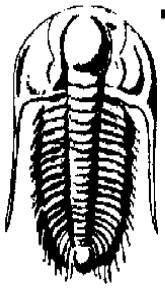


Trilobite Testing, Inc Ref. No: 52066 Printed: 2013.03.25 @ 15:51:42

Serial #: 8322 **Outside** Dow ning-Nelson Oil Co Inc Tammy A Unit #1 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 52066 Printed: 2013.03.25 @ 15:51:42



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

Tammy A Unit #1

26 11s 23w Trego,KS

Start Date: 2013.03.20 @ 06:42:00
End Date: 2013.03.20 @ 14:22:00
Job Ticket #: 52067 DST #: 3

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.03.25 @ 15:51:06

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

26 11s 23w Trego,KS

Tammy A Unit #1

Job Ticket: 52067 **DST#: 3**

Test Start: 2013.03.20 @ 06:42:00

GENERAL INFORMATION:

Formation: **LKC " E F & G "**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 08:45:00
Time Test Ended: 14:22:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty
Unit No: 41

Interval: 3697.00 ft (KB) To 3752.00 ft (KB) (TVD)
Total Depth: 3752.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

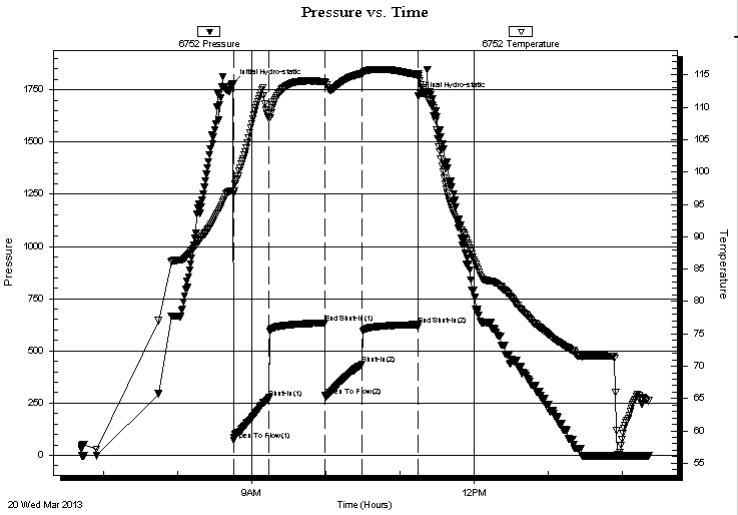
Reference Elevations: 2392.00 ft (KB)
2384.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6752 **Inside**

Press@RunDepth: 435.54 psig @ 3715.00 ft (KB)
Start Date: 2013.03.20 End Date: 2013.03.20
Start Time: 06:42:01 End Time: 14:21:40

Capacity: 8000.00 psig
Last Calib.: 2013.03.20
Time On Btm: 2013.03.20 @ 08:44:40
Time Off Btm: 2013.03.20 @ 11:14:50

TEST COMMENT: 30-IFP- BOB in 2 min.
45-ISIP- BOB in 6 min.
30-FFP- BOB in 2 min. Gas to Surface on Shut In
45-FSIP- BOB in 11 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1776.96	97.01	Initial Hydro-static
1	71.75	96.69	Open To Flow (1)
30	275.47	108.19	Shut-In(1)
75	633.53	113.90	End Shut-In(1)
75	285.28	113.75	Open To Flow (2)
105	435.54	115.25	Shut-In(2)
150	625.99	114.99	End Shut-In(2)
151	1719.37	115.17	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
318.00	MCO 20%m 80%o	4.19
1036.00	GCO 20%g 80%o	14.53
0.00	Gas to Surface	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

26 11s 23w Trego,KS

Tammy A Unit #1

Job Ticket: 52067 **DST#: 3**

Test Start: 2013.03.20 @ 06:42:00

GENERAL INFORMATION:

Formation: **LKC " E F & G "**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 08:45:00
Time Test Ended: 14:22:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty
Unit No: 41

Interval: 3697.00 ft (KB) To 3752.00 ft (KB) (TVD)
Total Depth: 3752.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

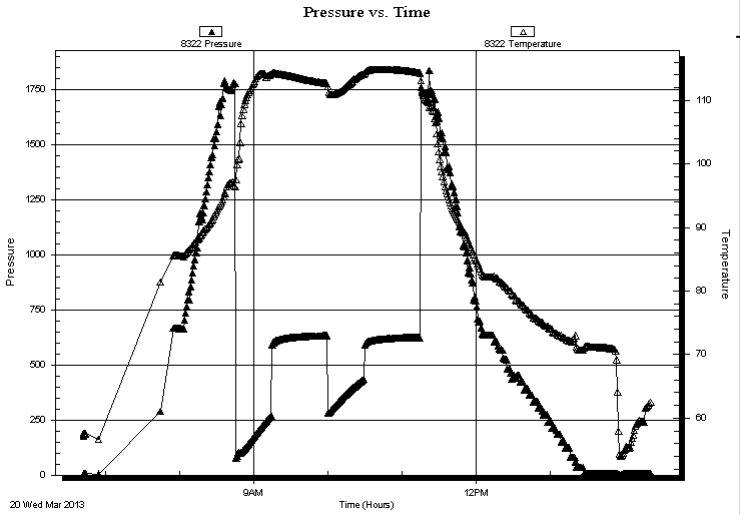
Reference Elevations: 2392.00 ft (KB)
2384.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8322 **Outside**

Press@RunDepth: psig @ 3715.00 ft (KB)
Start Date: 2013.03.20 End Date: 2013.03.20
Start Time: 06:42:01 End Time: 14:21:40

Capacity: 8000.00 psig
Last Calib.: 2013.03.20
Time On Btm:
Time Off Btm:

TEST COMMENT: 30-IFP- BOB in 2 min.
45-ISIP- BOB in 6 min.
30-FFP- BOB in 2 min. Gas to Surface on Shut In
45-FSIP- BOB in 11 min.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
318.00	MCO 20%m 80%o	4.19
1036.00	GCO 20%g 80%o	14.53
0.00	Gas to Surface	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co Inc

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

26 11s 23w Trego,KS

Tammy A Unit #1

Job Ticket: 52067 **DST#: 3**

Test Start: 2013.03.20 @ 06:42:00

Tool Information

Drill Pipe:	Length:	3675.00 ft	Diameter:	3.80 inches	Volume:	51.55 bbl	Tool Weight:		2500.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.75 inches	Volume:	0.00 bbl	Weight set on Packer:		25000.00 lb
Drill Collar:	Length:	30.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:		65000.00 lb
					Total Volume:	51.70 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		28.00 ft					String Weight:	Initial	59000.00 lb
Depth to Top Packer:		3697.00 ft						Final	62000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		55.00 ft							
Tool Length:		75.00 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			3682.00		
Hydraulic tool	5.00			3687.00		
Packer	5.00			3692.00	20.00	Bottom Of Top Packer
Packer	5.00			3697.00		
Stubb	1.00			3698.00		
Perforations	17.00			3715.00		
Recorder	0.00	6752	Inside	3715.00		
Recorder	0.00	8322	Outside	3715.00		
Change Over Sub	1.00			3716.00		
Blank Spacing	32.00			3748.00		
Change Over Sub	1.00			3749.00		
Bullnose	3.00			3752.00	55.00	Bottom Packers & Anchor
Total Tool Length:	**75.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co Inc

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

26 11s 23w Trego,KS

Tammy A Unit #1

Job Ticket: 52067 **DST#: 3**

Test Start: 2013.03.20 @ 06:42:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	37 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	52.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.58 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	6000.00 ppm				
Filter Cake:	1.50 inches				

Recovery Information

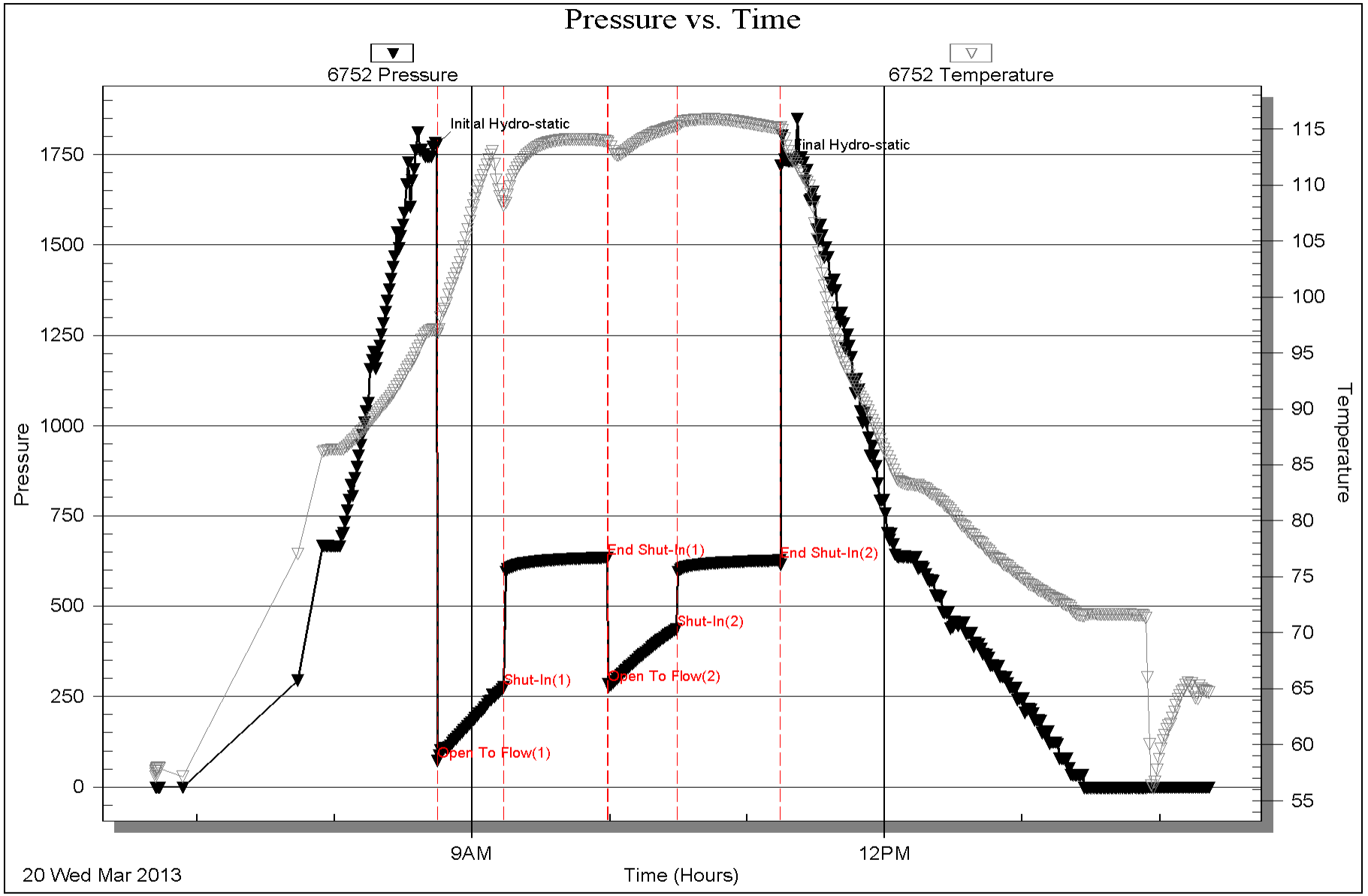
Recovery Table

Length ft	Description	Volume bbl
318.00	MCO 20%m 80%o	4.187
1036.00	GCO 20%g 80%o	14.532
0.00	Gas to Surface	0.000

Total Length: 1354.00 ft Total Volume: 18.719 bbl

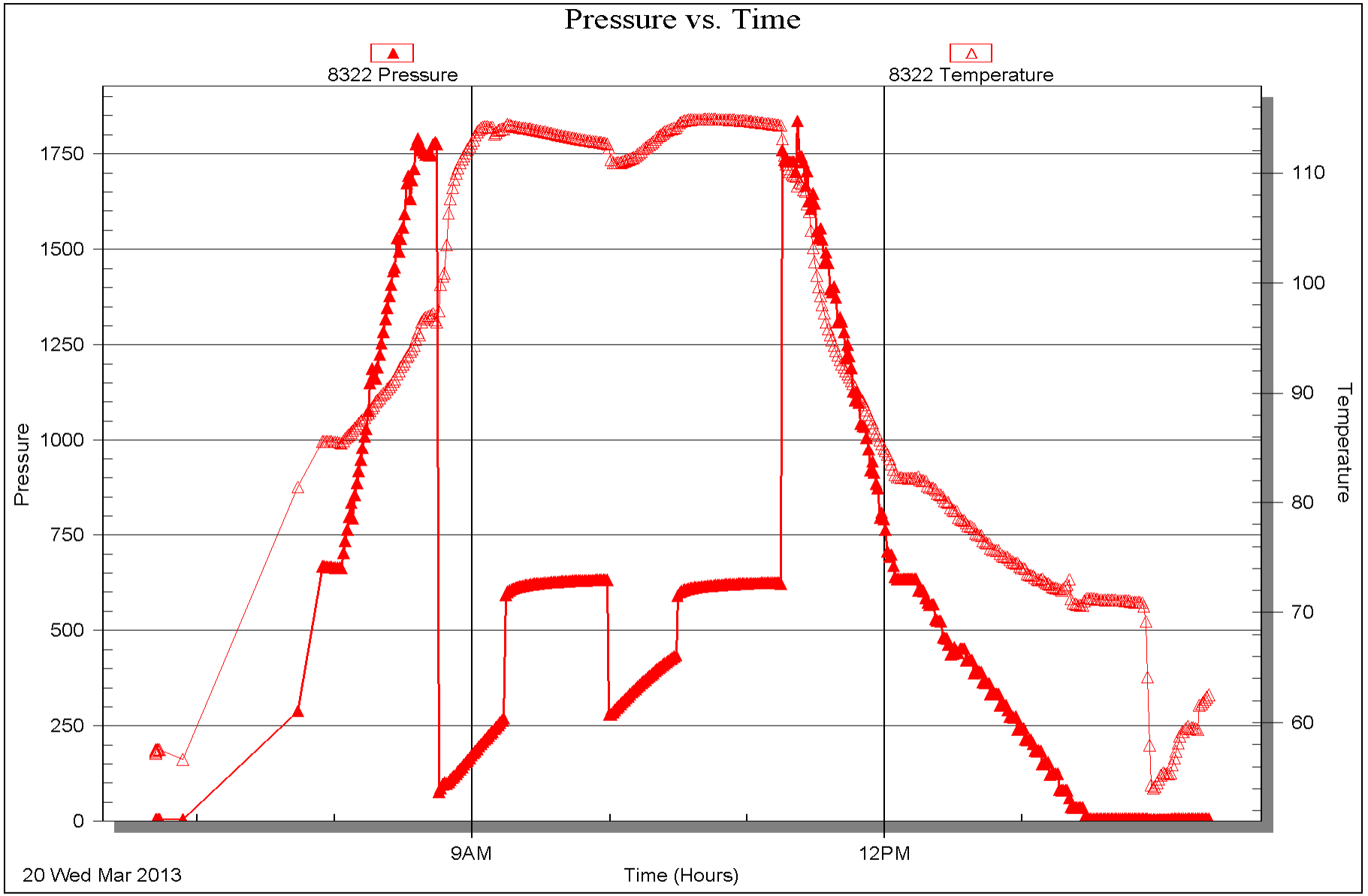
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 6752 **Inside** Dow ning-Nelson Oil Co Inc Tammy A Unit #1 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 52067 Printed: 2013.03.25 @ 15:51:09

Serial #: 8322 **Outside** Dow ning-Nelson Oil Co Inc Tammy A Unit #1 DST Test Number: 3



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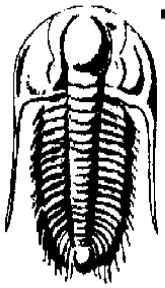


TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

Tammy A Unit #1

26 11s 23w Trego,KS

Start Date: 2013.03.21 @ 02:45:00
End Date: 2013.03.21 @ 10:15:00
Job Ticket #: 52068 DST #: 4

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.03.25 @ 15:50:27

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

26 11s 23w Trego,KS

Tammy A Unit #1

Job Ticket: 52068 **DST#: 4**

Test Start: 2013.03.21 @ 02:45:00

GENERAL INFORMATION:

Formation: **LKC " H - K "**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:31:30
Time Test Ended: 10:15:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty
Unit No: 41

Interval: 3781.00 ft (KB) To 3845.00 ft (KB) (TVD)
Total Depth: 3845.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

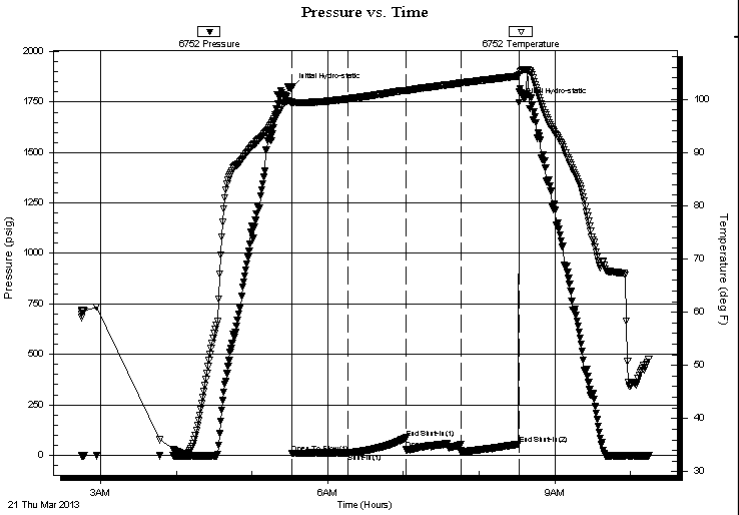
Reference Elevations: 2392.00 ft (KB)
2384.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6752 **Inside**

Press@RunDepth: 51.89 psig @ 3808.00 ft (KB)
Start Date: 2013.03.21 End Date: 2013.03.21
Start Time: 02:45:01 End Time: 10:14:20

Capacity: 8000.00 psig
Last Calib.: 2013.03.21
Time On Btm: 2013.03.21 @ 05:31:20
Time Off Btm: 2013.03.21 @ 08:31:40

TEST COMMENT: 45-IFP- Surface Blow Building to 1" in 10 min.
45-ISIP- No Blow
45-FFP- No Blow
45-FSIP- No Blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1823.22	99.56	Initial Hydro-static
1	10.21	99.16	Open To Flow (1)
45	12.16	100.09	Shut-In(1)
91	86.24	101.70	End Shut-In(1)
91	27.54	101.68	Open To Flow (2)
135	51.89	103.06	Shut-In(2)
181	56.06	104.38	End Shut-In(2)
181	1746.46	104.68	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	Oil Speck Mud 100%	0.01

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

26 11s 23w Trego,KS

Tammy A Unit #1

Job Ticket: 52068 **DST#: 4**

Test Start: 2013.03.21 @ 02:45:00

GENERAL INFORMATION:

Formation: **LKC " H - K "**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:31:30
Time Test Ended: 10:15:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Jim Svaty
Unit No: 41

Interval: 3781.00 ft (KB) To 3845.00 ft (KB) (TVD)
Total Depth: 3845.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

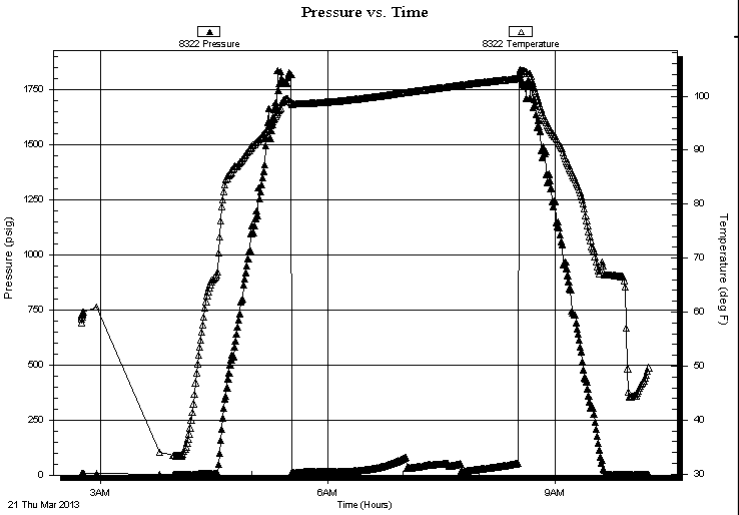
Reference Elevations: 2392.00 ft (KB)
2384.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8322 **Outside**

Press@RunDepth: psig @ 3808.00 ft (KB)
Start Date: 2013.03.21 End Date: 2013.03.21
Start Time: 02:45:01 End Time: 10:14:20

Capacity: 8000.00 psig
Last Calib.: 2013.03.21
Time On Btm:
Time Off Btm:

TEST COMMENT: 45-IFP- Surface Blow Building to 1" in 10 min.
45-ISIP- No Blow
45-FFP- No Blow
45-FSIP- No Blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
2.00	Oil Speck Mud 100%	0.01

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co Inc

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

26 11s 23w Trego,KS

Tammy A Unit #1

Job Ticket: 52068 **DST#: 4**

Test Start: 2013.03.21 @ 02:45:00

Tool Information

Drill Pipe:	Length:	3738.00 ft	Diameter:	3.80 inches	Volume:	52.43 bbl	Tool Weight:		2500.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.75 inches	Volume:	0.00 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:		62000.00 lb
					Total Volume:	52.58 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		7.00 ft					String Weight:	Initial	60000.00 lb
Depth to Top Packer:		3781.00 ft						Final	60000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		64.00 ft							
Tool Length:		84.00 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Shut In Tool	5.00			3766.00		
Hydraulic tool	5.00			3771.00		
Packer	5.00			3776.00	20.00	Bottom Of Top Packer
Packer	5.00			3781.00		
Stubb	1.00			3782.00		
Perforations	26.00			3808.00		
Recorder	0.00	6752	Inside	3808.00		
Recorder	0.00	8322	Outside	3808.00		
Change Over Sub	1.00			3809.00		
Blank Spacing	32.00			3841.00		
Change Over Sub	1.00			3842.00		
Bullnose	3.00			3845.00	64.00	Bottom Packers & Anchor
Total Tool Length:	**84.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co Inc

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

26 11s 23w Trego,KS

Tammy A Unit #1

Job Ticket: 52068 **DST#: 4**

Test Start: 2013.03.21 @ 02:45:00

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:	52.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.59 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	6000.00 ppm				
Filter Cake:	1.50 inches				

Recovery Information

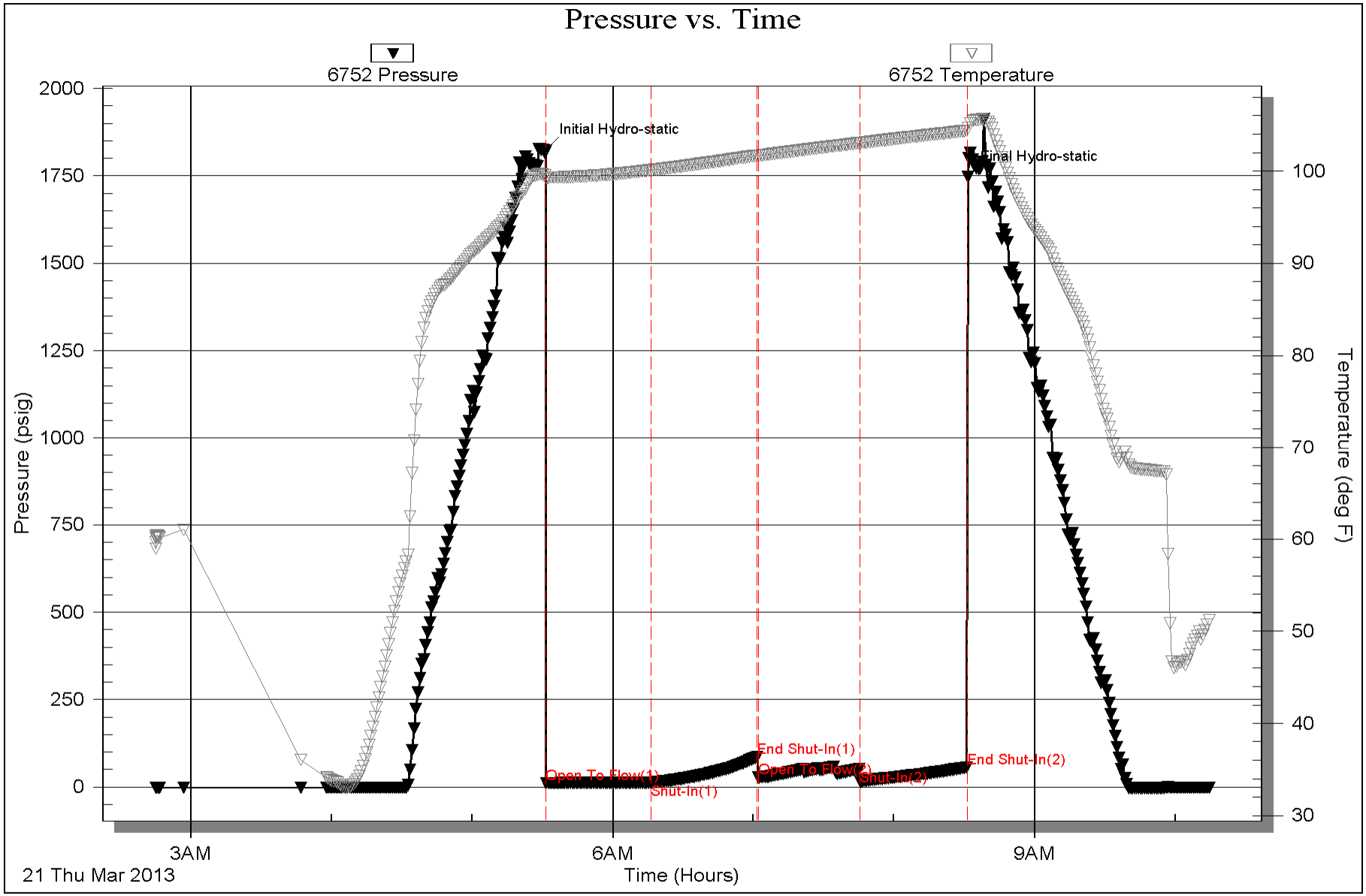
Recovery Table

Length ft	Description	Volume bbl
2.00	Oil Speck Mud 100%	0.010

Total Length: 2.00 ft Total Volume: 0.010 bbl

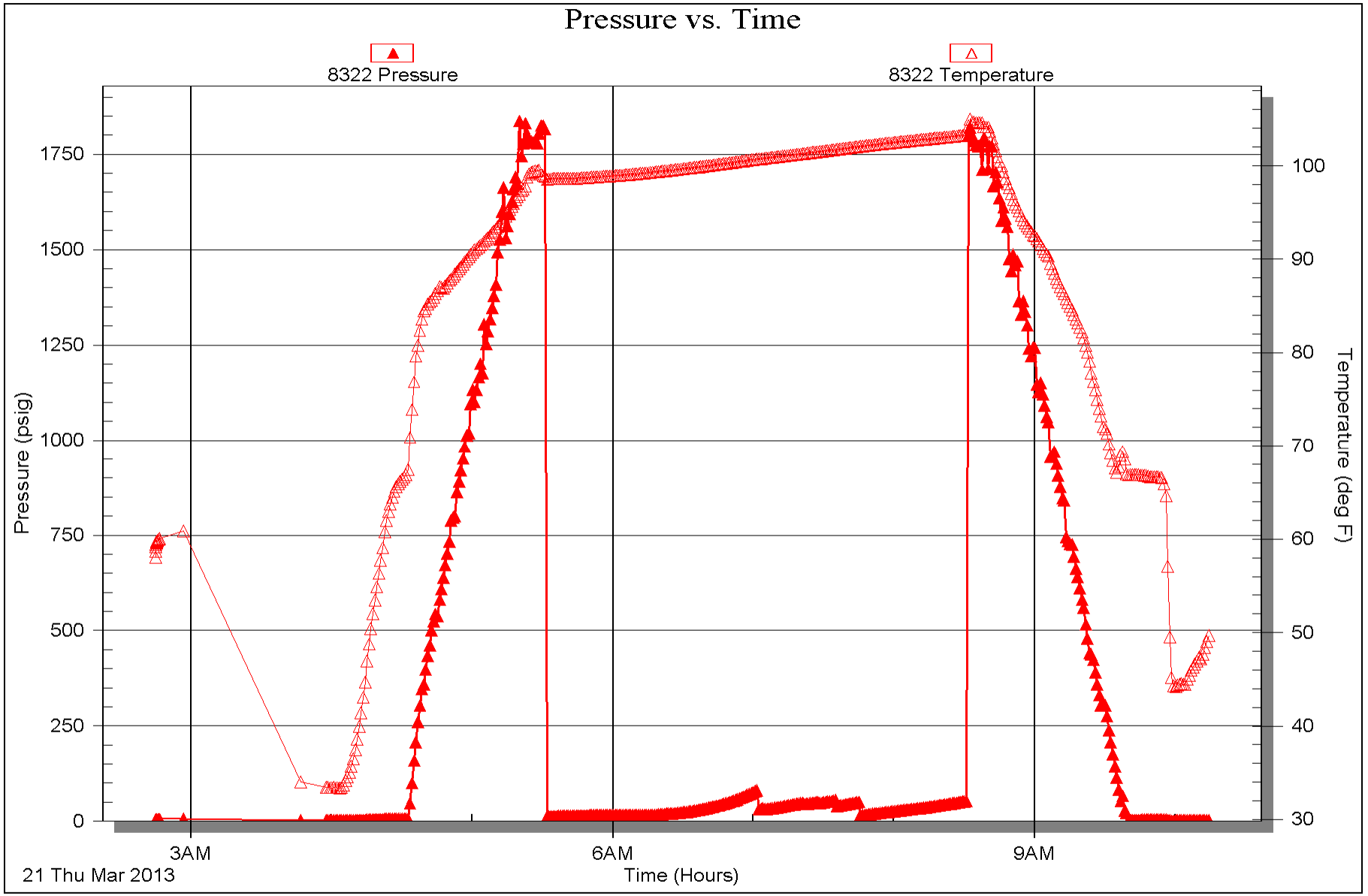
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 6752 **Inside** Dow ning-Nelson Oil Co Inc Tammy A Unit #1 DST Test Number: 4



Trilobite Testing, Inc Ref. No: 52068 Printed: 2013.03.25 @ 15:50:30

Serial #: 8322 **Outside** Dow ning-Nelson Oil Co Inc Tammy A Unit #1 DST Test Number: 4



Trilobite Testing, Inc Ref. No: 52068 Printed: 2013.03.25 @ 15:50:30

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 52065

Well Name & No. Tammy A #1 Test No. 1 Date 3-18-13

Company Downing-Nelson Oil Co. Inc. Elevation 2392 KB 2384 GL

Address P.O. Box 1019 Hays KS. 67601

Co. Rep / Geo Gator - 628 3449 623-3592 Rig Discovery #3

Location: Sec. 26 Twp. 11 S Rge. 23 W Co. Trego State KS.

Interval Tested 3655 - 3676 Zone Tested LKC "C"

Anchor Length 21 Drill Pipe Run 3612 Mud Wt. 8.8

Top Packer Depth 3650 Drill Collars Run 30 Vis 51

Bottom Packer Depth 3655 Wt. Pipe Run 0 WL 8.0

Total Depth 3676 Chlorides 2000 ppm System LCM 2

Blow Description IFP- BOB 2½ min.
ISIP - Surface Blow in 3 min. Building to 3½ in.
FFP - BOB in 3 min.
FSIP - BOB in 12 min.

Rec 595	Feet of MCW		%gas	%oil 95	%water 5	%mud
Rec 210	Feet of Gassy OMCW	15	%gas	7 %oil	58 %water	20 %mud
Rec 40	Feet of GCO	30	%gas	70 %oil	%water	%mud
Rec	Feet of 700 SIP		%gas	%oil	%water	%mud
Rec	Feet of		%gas	%oil	%water	%mud

Rec Total 845 BHT 116 Gravity 39 API RW .150 @ 32 °F Chlorides 125000 ppm

(A) Initial Hydrostatic 1744	☒ Test	T-On Location 23:55
(B) First Initial Flow 51	☐ Jars	T-Started 00:50
(C) First Final Flow 263	☐ Safety Joint	T-Open 03:33
(D) Initial Shut-In 588	☐ Circ Sub	T-Pulled 06:03
(E) Second Initial Flow 298	☐ Hourly Standby	T-Out 08:55
(F) Second Final Flow 400	☒ Mileage 78 RT	Comments
(G) Final Shut-In 587	☐ Sampler	
(H) Final Hydrostatic 1609	☐ Straddle	☐ Ruined Shale Packer
	☐ Shale Packer	☐ Ruined Packer
Initial Open 30	☐ Extra Packer	☐ Extra Copies
Initial Shut-In 45	☐ Extra Recorder	Sub Total
Final Flow 30	☐ Day Standby	Total
Final Shut-In 45	☐ Accessibility	MP/DST Disc't
	Sub Total	

Thank You!

Approved By Our Representative Jim Svaty

7856395864

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 52066

Well Name & No. Tammy A Unit #1 Test No. 2 Date 3-19-13

Company Downing-Nelson Oil Co. Inc. Elevation 2392 KB 2384 GL

Address P.O. Box 1019 Hays Ks. 67601

Co. Rep / Geo. Gator Rig Discovery #3

Location: Sec. 26 Twp. 11S Rge. 23W Co. Trego State KS

Interval Tested 3678 - 3699 Zone Tested LKC "D"

Anchor Length 21 Drill Pipe Run 3645 Mud Wt. 9.0

Top Packer Depth 3673 Drill Collars Run 30 Vis 57

Bottom Packer Depth 3678 Wt. Pipe Run 0 WL 8.0

Total Depth 3699 Chlorides 4000 ppm System LCM 2

Blow Description IF- BOB in 3min.
ISI- Surface Blow Building to 5 1/2in. in 15min.
FF- BOB in 3min.
FSI- BOB in 14min.

Rec 189	Feet of MCW	%gas	%oil	90	%water 10	%mud
Rec 63	Feet of W & MCO	%gas 70	%oil 10	%water 20	%mud
Rec 103	Feet of CO	%gas 100	%oil	%water	%mud
Rec —	Feet of 1217 GIP	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 355 BHT 114 Gravity 38 API RW .274 @ 45 °F Chlorides 41,000 ppm

(A) Initial Hydrostatic	1762	☒ Test	1150	T-On Location	14:48
(B) First Initial Flow	25	☐ Jars		T-Started	14:49
(C) First Final Flow	99	☐ Safety Joint		T-Open	17:05
(D) Initial Shut-In	467	☐ Circ Sub		T-Pulled	19:35
(E) Second Initial Flow	94	☐ Hourly Standby		T-Out	21:51
(F) Second Final Flow	161	☒ Mileage 78 RT	120.90	Comments	
(G) Final Shut-In	439	☐ Sampler			
(H) Final Hydrostatic	1674	☐ Straddle		☐ Ruined Shale Packer	
		☐ Shale Packer		☐ Ruined Packer	
Initial Open	30	☐ Extra Packer		☐ Extra Copies	
Initial Shut-In	45	☐ Extra Recorder		Sub Total	0
Final Flow	30	☐ Day Standby		Total	1270.90
Final Shut-In	45	☐ Accessibility		MP/DST Disc't	
		Sub Total	1270.90		

Approved By _____ Our Representative _____

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 52067

Well Name & No. Tammy A unit #1 Test No. 3 Date 3-20-13

Company Downing-Nelson Oil Co Inc, Elevation 2392 KB 2384 GL

Address P.O. Box 1019 Hays KS. 67601

Co. Rep / Geo. ~~Gator~~ Rig Discovery ~~#3~~

Location: Sec. 26 Twp. 11S Rge. 23W Co. Trego State KS

Interval Tested 3697-3752 Zone Tested LKC "E F & G"

Anchor Length 55 Drill Pipe Run 3675 Mud Wt. 9.1

Top Packer Depth 3692 Drill Collars Run 30 Vis 52

Bottom Packer Depth 3697 Wt. Pipe Run ~~0~~ WL 7.6

Total Depth 3752 Chlorides 6000 ppm System LCM 1.5

Blow Description IFP- BOB in 2min
ISIP- BOB in 6min
FFP- BOB in 2min Gas to Surface on Shut In.
FSIP- BOB in 11min

Rec 318	Feet of MCO	%gas 80	%oil	%water 20	%mud	
Rec 1036	Feet of ~~G~~CO	%gas 20	%oil 80	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of Gas to Surface	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	

Rec Total 1354 BHT 115 Gravity ~~37~~37 API RW @ °F Chlorides ppm

(A) Initial Hydrostatic 1776	☒ Test 1150	T-On Location 06:40
(B) First Initial Flow 71	☐ Jars	T-Started 06:42
(C) First Final Flow 275	☐ Safety Joint	T-Open 08:45
(D) Initial Shut-In 633	☐ Circ Sub	T-Pulled 11:15
(E) Second Initial Flow 285	☐ Hourly Standby	T-Out 14:22
(F) Second Final Flow 435	☒ Mileage 78 RT 120.90	Comments
(G) Final Shut-In 625	☐ Sampler	
(H) Final Hydrostatic 1719	☐ Straddle	☐ Ruined Shale Packer
	☐ Shale Packer	☐ Ruined Packer
Initial Open 30	☐ Extra Packer	☐ Extra Copies
Initial Shut-In 45	☐ Extra Recorder	Sub Total 0
Final Flow 30	☐ Day Standby	Total 1270.90
Final Shut-In 45	☐ Accessibility	MP/DST Disc't
	Sub Total 1270.90	

Approved By Our Representative

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 52068

Well Name & No. Tammy A Unit #1 Test No. 4 Date 3-21-13

Company Downing-Nelson Oil Co. Inc. Elevation 2392 KB 2384 GL

Address P.O. Box 1019 Hays Ks. 67601

Co. Rep / Geo. Gator Rig Discovery #3

Location: Sec. 26 Twp. 11S Rge. 23W Co. Trego State KS

Interval Tested 3781 - 3845 Zone Tested LKC "H-K"

Anchor Length 64 Drill Pipe Run 3738 Mud Wt. 9.1

Top Packer Depth 3776 Drill Collars Run 30 Vis 52

Bottom Packer Depth 3781 Wt. Pipe Run ~~0~~ WL 7.6

Total Depth 3845 Chlorides 6000 ppm System LCM 1.5

Blow Description IFP - Surface Blow Building to 1in. in 10min.
ISIP - No Blow
FFP - No Blow
FSIP - No Blow

Rec 2	Feet of Oil Speck Mud	%gas	%oil	%water 100	%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 2 BHT 104 Gravity ____ API RW ____ @ ____ °F Chlorides ____ ppm

(A) Initial Hydrostatic 1823	☒ Test 1150	T-On Location 02:45
(B) First Initial Flow 10	☐ Jars	T-Started 02:45
(C) First Final Flow 12	☐ Safety Joint	T-Open 05:32
(D) Initial Shut-In ~~86~~	☐ Circ Sub	T-Pulled 08:32
(E) Second Initial Flow 51	☐ Hourly Standby	T-Out 10:15
(F) Second Final Flow 56	☒ Mileage 78 RT 120.90	Comments
(G) Final Shut-In 1746	☐ Sampler	
(H) Final Hydrostatic	☐ Straddle	☐ Ruined Shale Packer
	☐ Shale Packer	☐ Ruined Packer
Initial Open 45	☐ Extra Packer	☐ Extra Copies
Initial Shut-In 45	☐ Extra Recorder	Sub Total 0
Final Flow 45	☐ Day Standby	Total 1270.90
Final Shut-In 45	☐ Accessibility	MP/DST Disc't
	Sub Total 1270.90	

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.

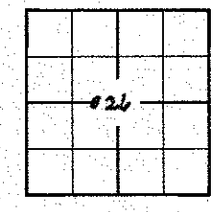
Marc Downing

Consulting Petroleum Geologist
1411 Washington Circle
Hays, Ks 67601
Phone: 620-428-1356 (cell) 785-621-2286

GEOLOGIC REPORT LOG

COMPANY Downing-Nelson Oil Co. Inc.

WELL Tammy 'A' #1 Unit
FIELD Wakeeney
LOCATION 2370' FNL & 2225' FWL
SEC. 26 TWP. 11s RGE. 23w
COUNTY TREGO
STATE KANSAS



PRODUCTION LKC

ELEVATION KB 2390'
DF
GL 2382'
Drilling Measured From: KB

Samples Saved From 3600 To: TD
Drilling Time From 3200 To: TD
Samples Examined From: 3600 To: TD
Geological Supervision From 3600 To Total Depth
Wellsite Geologist Ron Nelson
Electrical Surveys NABORS - DENSITY-NEUTRON, MICRO, DUAL IND., SONIC

OPERATOR ONOCI
CONTRACTOR DISCOVERY DRILLING Rig #3
COMM: 3-15-13 COMP: 3-22-13

CASING RECORD

SURF: 8 5/8" @ 221' PROD: 5 1/2" @ 4149'
TOTAL DEPTH DRILLERS: 4150'
TOTAL DEPTH LOG: 4150'

FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE TOP	ELECTRIC LOG TOP	SUB-SEA DATUM	STRUCTURAL POSITION
TOP ANHYDRITE	1838	1838	+552	-6
BASE ANHYDRITE	1877	1880	+510	-6
TOPEKA	3382	3380	-990	+12
HEEBNER	3598	3596	-1206	+13
TORONTO	3620	3618	-1228	+13
LKC	3633	3630	-1240	+13
BKC	3860	3862	-1472	+7
MARMATON	3972	3972	-1582	+2
CHEROKEE SHALE	4018	4017	-1627	+1
CHEROKEE SAND	4034	4034	-1644	+5
ARBUCKLE	4072	4072	-1682	+14

REFERENCE WELL FOR STRUCTURE Hount #1 (mone owwo) a dry hole ⊙
SW-SW-NE Section 26-11s-23w

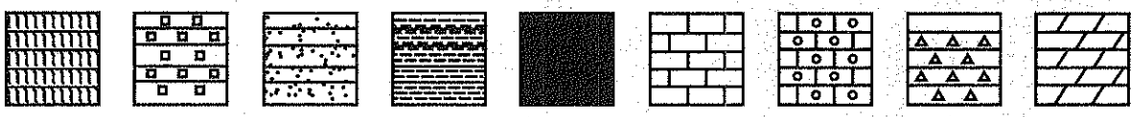
DRILL STEM TESTS

No.	Interval	IFP/Time	ISIP/Time	FFP/Time	FSIP/Time	IHP-FHP	RECOVERY

REMARKS AND RECOMMENDATIONS Based on samples shows, DSTs, & Log, Ran 5 1/2" Production pipe for multizone LKC completion.

Ron Nelson

LEGEND



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

DRILLING TIME IN MINUTES PER FOOT

Rate of Penetration Decreases

5″ 10″ 15″

DEPTH

LITHOLOGY

SAMPLE DESCRIPTIONS

OIL SHOWS

REMARKS

1800

TOP ANHYDRITE +552
Log +559

50

BASE ANHYDRITE +513
Log +510

1900

3200

50

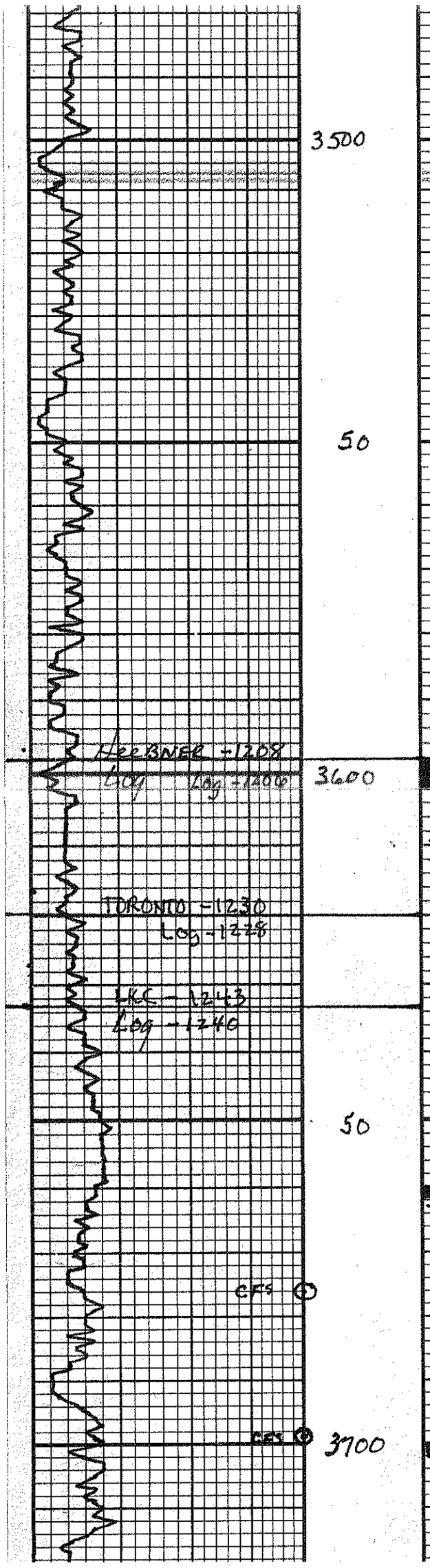
3300

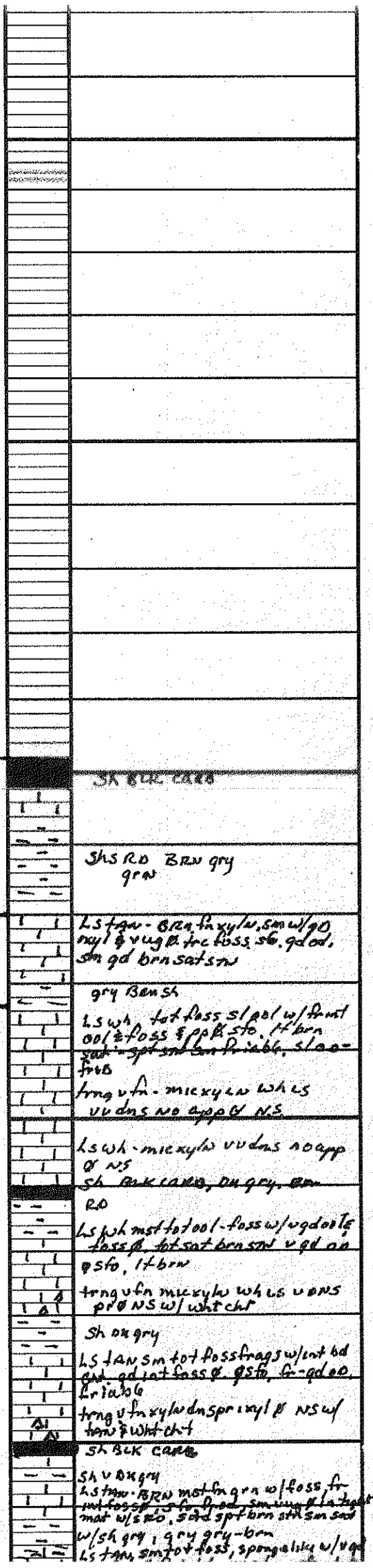
50

TOPEKA -996
Log - 990

3400

50





DST #1
3655'-3676'
30"-45"-30"-45"
1st op BOB 2½"
3½" SI Blow
2nd op BOB 2"
BOB SI Blow in 12"
IFP 51-263
FFP 298-400
SIP 588-587
HP 1744-1609
REC: 700' GIP
40' GCO
210' GOMCW
15%g; 70%o: 20%m: 55%w
595' MCW
34° Gravity 125,000 chlor

DST #2
3678'-3699'
30"-45"-30"-45"
1st op BOB 3"
5½" S.I. Blow
2nd op BOB 3"
BOB S.I. Blow in 1¼"
IFP 25-99
FFP 94-161
SIP 467-439
HP 1762-1674
REC 1217' gas
103' CGO
63' W&MCO
(70%o oil, 10%w, 20%m)
189' MCW
Gravity 38° CHLOR 41,000

DST #3
3697'-3752'
30"-45"-30"-45"
1st op BOB 2"
SI BOB 6"
2nd op BOB 2" - GTS - TSTM
SI BOB 11"
IFP 71-275
FFP 285-435
SIP 633-625
HP 1776-1719
REC: GTS - TSTM
318' MCO (20%m: 80%o)
1036' GCO (20g: 80%o)
Gravity 38°

DST #1

DST #2

D

CFS

50

CFS

3800

CFS

50

BKC -1470

Log -1472

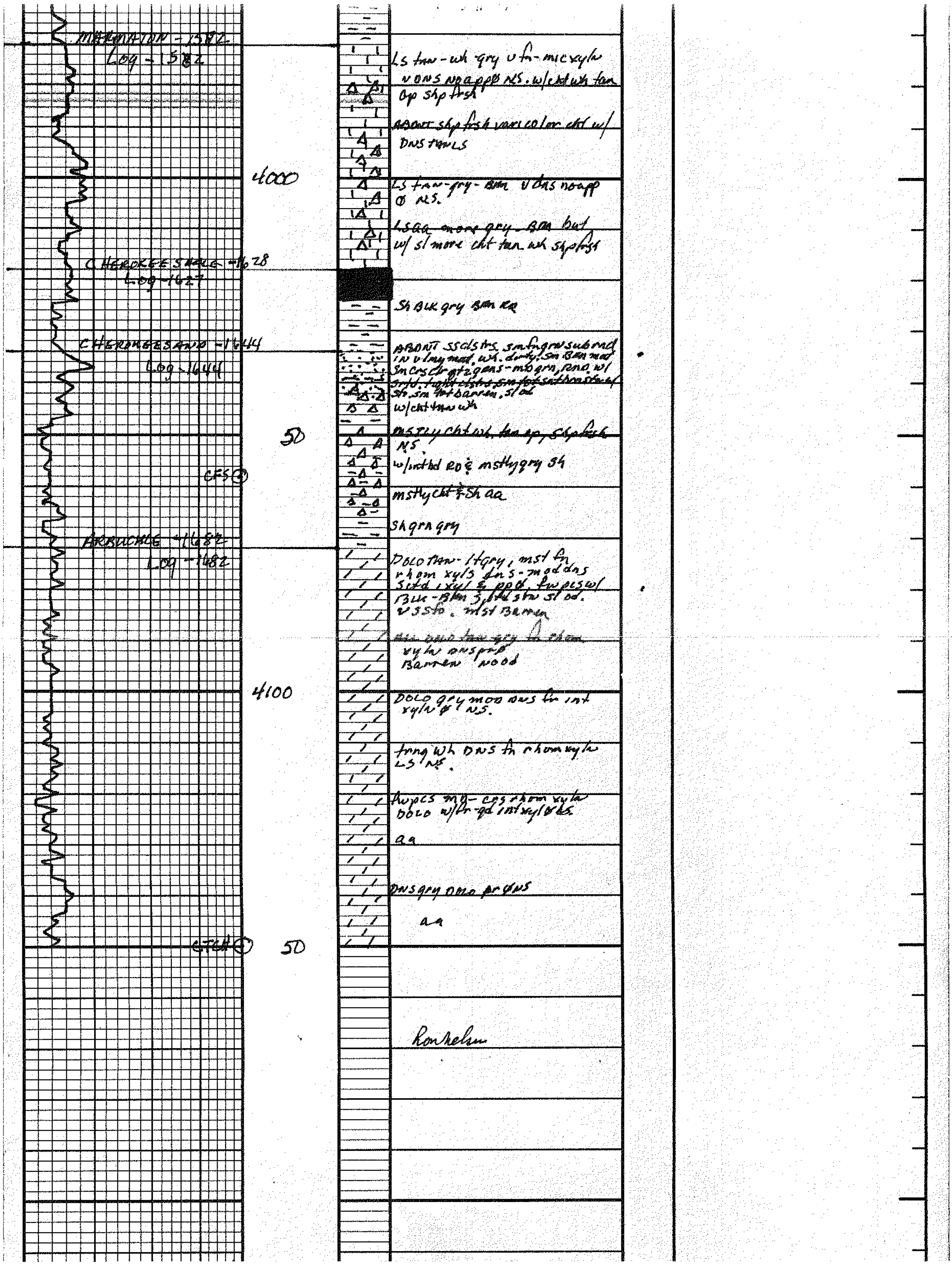
3900

50

DST #3

DST #4

DST #4
3781'-3845'
45"-45"-45"-45"
1st op 1" Blow
2nd op dead
IFP 10-12
FFP 27-51
SIP 86-96
HP 1823-1746
Rec: 2' O.S.M


MARMATON -1582
LOG -1582
4000
CHEROKEE SHALE -1628
LOG -1627
CHEROKEE SAND -1644
LOG -1644
50
CFS 1
ARBUCKLE -1682
LOG -1682
4100
CTCH 1
50
Ls tan-wh gry v fn-micxyln v DNS no app Ø NS. w/chtwh tan
Op shp frsh
ABDNT shp frsh varicolor cht w/ DNS tan LS
Ls tan-gry-Brn v dns no app Ø NS.
LS aa more gry - Brn but w/ sl more cht tan wh shp frsh
Sh Blk gry Brn Rd
ABDNT SS clstrs, sm fn grn subrnd, sm Brn med, sm crs clr qtz grns - mod grn, rnd, w/ Sh, sm Barren, sl od
w/ cht tan wh
mstly cht wh tan op, shp frsh NS.
w/ intbd Rd & mstly gry Sh
mstly cht & Sh aa
Sh grn gry
DOLO tan - lt gry, mst fn rhom xyls dns - mod dns
Blk-Brn stn sl od.
v sso. mst Barren
xyln dns Barren
DOLO gry mod dns fn int xyln Ø NS.
frmg wh DNS fn rhom xyln LS NS.
DOLO
aa
DNS gry DOLO pr Ø NS
aa
Ron Nelson

5" 10" 15" DRILLING TIME Minutes/Foot → Rate of Penetration Decreases	DEPTH	LITHOLOGY	SAMPLE DESCRIPTIONS	OIL SHOWS	REMARKS

CONTRACTOR Discovery Drilling Rig #3

LEASE Tammy 'A' #1 Unit IP LKC

ELEVATION 2390' GL RTD 4150'

LOCATION 2370' FNL & 2225' FWL

SEC 26 TWP 11S RNG 23W

COUNTY TREGO STATE KANSAS

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802

Kansas
Corporation Commission

Phone: 316-337-6200
Fax: 316-337-6211
http://kcc.ks.gov/

May 28, 2013

Ron Nelson
Downing-Nelson Oil Co Inc
PO BOX 1019
HAYS, KS 67601

Re: ACO1
API 15-195-22855-00-00
Tammy 'A' Unit 1
NW/4 Sec.26-11S-23W
Trego County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
Ron Nelson