



KANSAS CORPORATION COMMISSION 1113799
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: _____



Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

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

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

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

Date of First, Resumed Production, SWD or ENHR. _____ Producing Method: Flowing Pumping Gas Lift Other *(Explain)* _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	Erleka 2
Doc ID	1113799

Tops

Name	Top	Datum
Top Anhydrite	1596'	+646
Base Anhydrite	1638'	+604
Topeka	3309'	-1067
Heebner	3547'	-1305
Toronto	3566'	-1324
LKC	3586'	-1344
BKC	3825'	-1583
Marmaton	3906'	-1664
Cherokee Shale	3951'	-1709
Arbuckle	3964'	-1722

ALLIED OIL & GAS SERVICES, LLC 056484

Federal Tax I.D.# 20-5975804

SERVICE POINT:

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

Russell, Ks.

DATE <u>1-23-13</u>	SEC. <u>14</u>	TWP. <u>14 S</u>	RANGE <u>21 W</u>	CALLED OUT	ON LOCATION	JOB START <u>8:30 AM</u>	JOB FINISH <u>9:00 PM</u>
LEASE <u>FALCKA</u>	WELL# <u>2</u>	LOCATION <u>Ellis Ks. 4 S 30 W 2 S 1/2 W</u>				COUNTY <u>Trego</u>	STATE <u>Kansas</u>
OLD OR <u>NEWS</u> (Circle one)					<u>48 S DATA</u>		

CONTRACTOR Discovery Data Rig #3

TYPE OF JOB Surface

HOLE SIZE 12 1/4 TD. 221

CASING SIZE 8 5/8 New DEPTH 221

TUBING SIZE 23 # CSG DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOEJOINT

CEMENT LEFT IN CSG. 15'

PERFS.

DISPLACEMENT 13 1/2 / BBL

OWNER _____

CEMENT AMOUNT ORDERED 150 sx Conn.

22 BBL

COMMON 150 sx @ 17.90 2685.00

POZMIX @ _____

GEL 3 sx @ 23.40 70.20

CHLORIDE 5 sx @ 64.00 320.00

ASC @ _____

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

HANDLING 62.09 @ 2.48 401.98

MILEAGE 142.40 @ 2.60 500.24

TOTAL 3977.43

EQUIPMENT

PUMP TRUCK CEMENTER Glenn 1

417 HELPER Woody 2

BULK TRUCK

473 DRIVER Tiro TWS

BULK TRUCK DRIVER

REMARKS:

Ran 5 New Joints of 23 # 2 3/8 CSG,
Set @ 221. Rechecked circulation
+ Cement w/ 150 sx Conn, 22 sx 2 3/8 gel
Displaced / BBL behind Cement
Did circulate to Surface

THANKS

SERVICE

DEPTH OF JOB 221

PUMP TRUCK CHARGE 1572.25

EXTRA FOOTAGE @ _____

MILEAGE 142.40 @ 2.60 200.20

MANIFOLD @ _____

LT MT 26 @ 4.40 114.40

TOTAL 1826.85

CHARGE TO: Downing - Nelson Oil

STREET _____

CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

TOTAL 5804.28

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

PRINTED NAME GAVEN BASCHER

SIGNATURE Gaven Bascher

SALES TAX (If Any) 209.11

TOTAL CHARGES 5804.28

DISCOUNT 1607.79

IF PAID IN 30 DAYS

\$4196.49
before tax 85 1-24

JOB LOG

SWIFT Services, Inc.

DATE: 30 JAN 13 PAGE NO.

CUSTOMER: DOWNING & NELSON WELL NO. LEASE: ERIKA # 2 JOB TYPE: 5' 2" LONG STRING TICKET NO. 23800

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	1715							ON LOCATION
	1815							START PIPE 5 1/2" - 14" RTD @ 4070 SET @ 4069 SHAPE JT. 18.50' CENTRALIZERS 1, 3, 5, 7, 9, 11, 59 BASKET. 60 DV TOOL # 60 @ 1583
	1950				✓			DROP BALL CIRCULATE
	2015	6 1/2	12		✓		300	Pump 500 gal MUD FLUSH
		6 1/2	20		✓		300	Pump 20 BBL KCL FLUSH
	2020	4 1/2	36 1/2		✓			MIX 150 SX EA2
	2027							WASH OUT PUMP & LINES
	2030	6 1/2			✓			START DISPLACING PLUG
	2041	Ø	99		✓		1500	PLUG DOWN LATCH PLUG IN
	2049							RELEASE PSI - DRY
	2050							DROP DV OPENING TOOL
	2051		7.5					PLUG RH - MH (30 SX - 15 SX)
	2059				✓		1100	OPEN DV TOOL
	2100	6 1/2	20		✓			Pump 20 BBL KCL FLUSH
	2105	6 1/2	83		✓			MIX 150 SX SMD
	2123							WASH OUT PUMP & LINES
	2126	6 1/2			✓			START DISPLACING DV CLOSING PLUG
	2132	Ø	38 1/2		✓		1500	PLUG DOWN CLOSE DV TOOL
								CIRCULATE CEMENT TO SURFACE
	2134				✓			RELEASE PSI - DRY
	2139							WASH TRUCK
	2215							JOB COMPLETE.
								THANKS 1/15
								JASON JEFF DOWG



DRILL STEM TEST REPORT

Prepared For: **Downing Nelson Oil**

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

Erleka #2

14-14s-21w Trego KS

Start Date: 2013.01.27 @ 15:07:00

End Date: 2013.01.27 @ 22:34:09

Job Ticket #: 51582 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.02.01 @ 10:46:41

Downing Nelson Oil
14-14s-21w Trego KS
Erleka #2
DST # 1
KC "C-D"
2013.01.27



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Downing Nelson Oil

14-14s-21w Trego KS

PO Box 1019
Hays KS 67601

Erleka #2

Job Ticket: 51582

DST#: 1

ATTN: Ron Nelson

Test Start: 2013.01.27 @ 15:07:00

GENERAL INFORMATION:

Formation: **KC "C-D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:37:10

Time Test Ended: 22:34:09

Test Type: Conventional Bottom Hole (Initial)

Tester: Cody Bloedorn

Unit No: 41

Interval: 3600.00 ft (KB) To 3650.00 ft (KB) (TVD)

Reference Elevations: 2233.00 ft (KB)

Total Depth: 3650.00 ft (KB) (TVD)

2228.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6752

Inside

Press @ Run Depth: 111.04 psig @ 3637.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.01.27

End Date:

2013.01.27

Last Calib.:

2013.01.27

Start Time: 15:07:01

End Time:

22:34:10

Time On Btm:

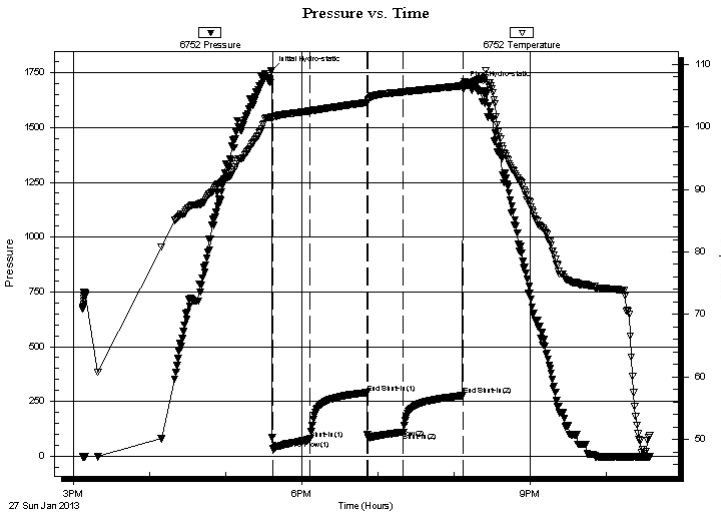
2013.01.27 @ 17:36:00

Time Off Btm:

2013.01.27 @ 20:06:50

TEST COMMENT: 30 - IF- B.O.B. instantly
45 - IS- 3" return
30 - FF- B.O.B. in 2 Minutes
45 - FS- 1 3/4" return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1758.47	101.55	Initial Hydro-static
2	33.98	101.58	Open To Flow (1)
31	77.20	102.55	Shut-In(1)
75	288.66	103.92	End Shut-In(1)
76	84.59	104.23	Open To Flow (2)
104	111.04	105.59	Shut-In(2)
151	276.43	106.60	End Shut-In(2)
151	1689.17	106.79	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	GSOCWM, 5%G, 5%O, 20%W, 70%M	1.74
93.00	GO, 20%G, 80%O	1.30

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing Nelson Oil

14-14s-21w Trego KS

PO Box 1019
Hays KS 67601

Erleka #2

Job Ticket: 51582

DST#: 1

ATTN: Ron Nelson

Test Start: 2013.01.27 @ 15:07:00

Tool Information

Drill Pipe:	Length: 3612.00 ft	Diameter: 3.80 inches	Volume: 50.67 bbl	Tool Weight:	2000.00 lb	
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	30000.00 lb	
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	60000.00 lb	
			Total Volume:	50.67 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial	53000.00 lb	
Depth to Top Packer:	3600.00 ft			Final	55000.00 lb	
Depth to Bottom Packer:	ft					
Interval between Packers:	50.00 ft					
Tool Length:	71.00 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			3580.00	
Shut In Tool	5.00			3585.00	
Hydraulic tool	5.00			3590.00	
Packer	5.00			3595.00	21.00 Bottom Of Top Packer
Packer	5.00			3600.00	
Stubb	1.00			3601.00	
Perforations	3.00			3604.00	
Change Over Sub	1.00			3605.00	
Perforations	31.00			3636.00	
Change Over Sub	1.00			3637.00	
Recorder	0.00	6752	Inside	3637.00	
Recorder	0.00	8322	Outside	3637.00	
Perforations	10.00			3647.00	
Bullnose	3.00			3650.00	50.00 Bottom Packers & Anchor

Total Tool Length: 71.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing Nelson Oil

14-14s-21w Trego KS

PO Box 1019
Hays KS 67601

Erleka #2

Job Ticket: 51582

DST#: 1

ATTN: Ron Nelson

Test Start: 2013.01.27 @ 15:07:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
124.00	GSOCWM, 5%G, 5%O, 20%W, 70%M	1.739
93.00	GO, 20%G, 80%O	1.305

Total Length: 217.00 ft

Total Volume: 3.044 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

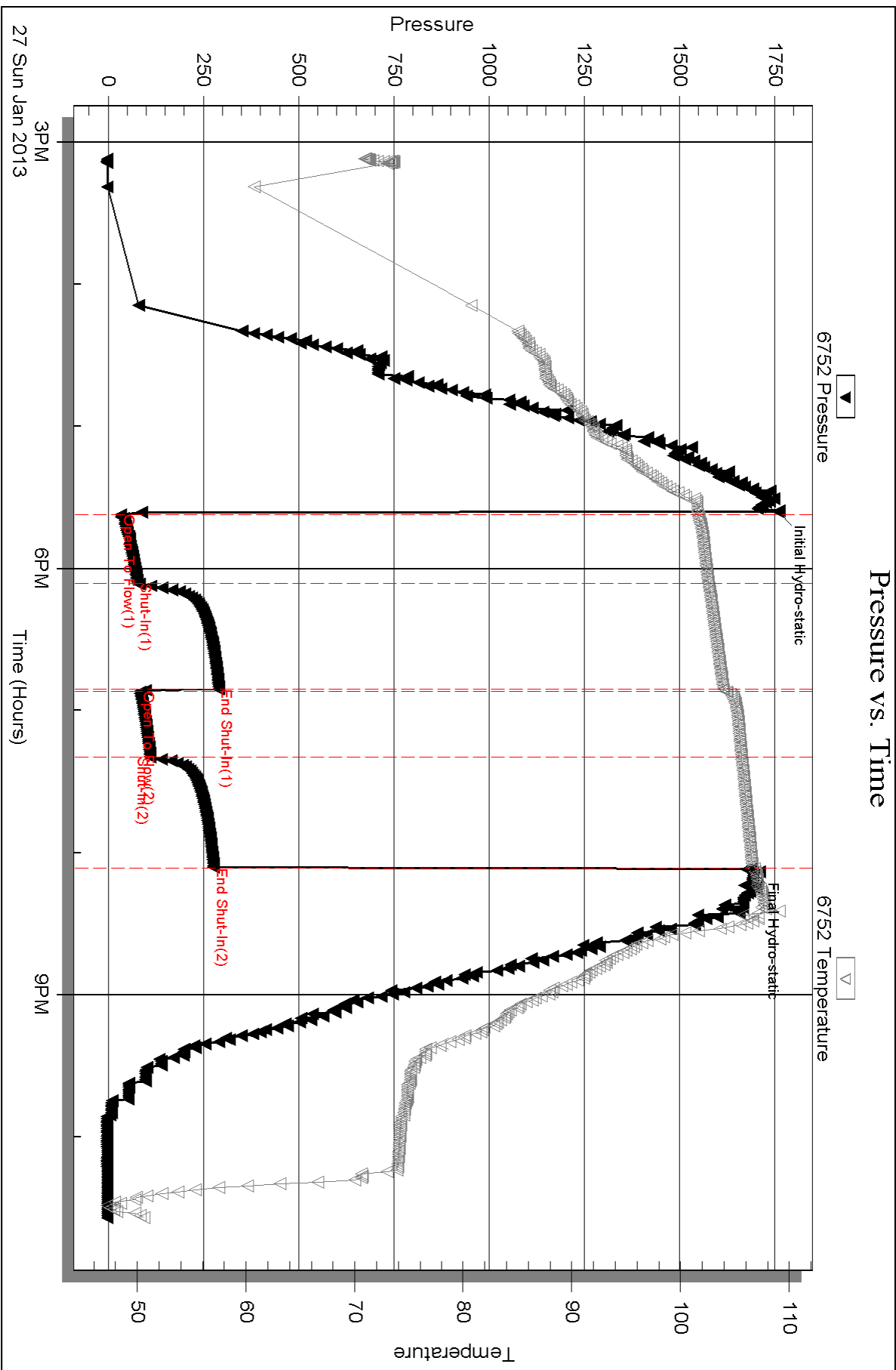
Serial #: 6752

Inside

Downing Nelson Oil

Eleka #2

DST Test Number: 1

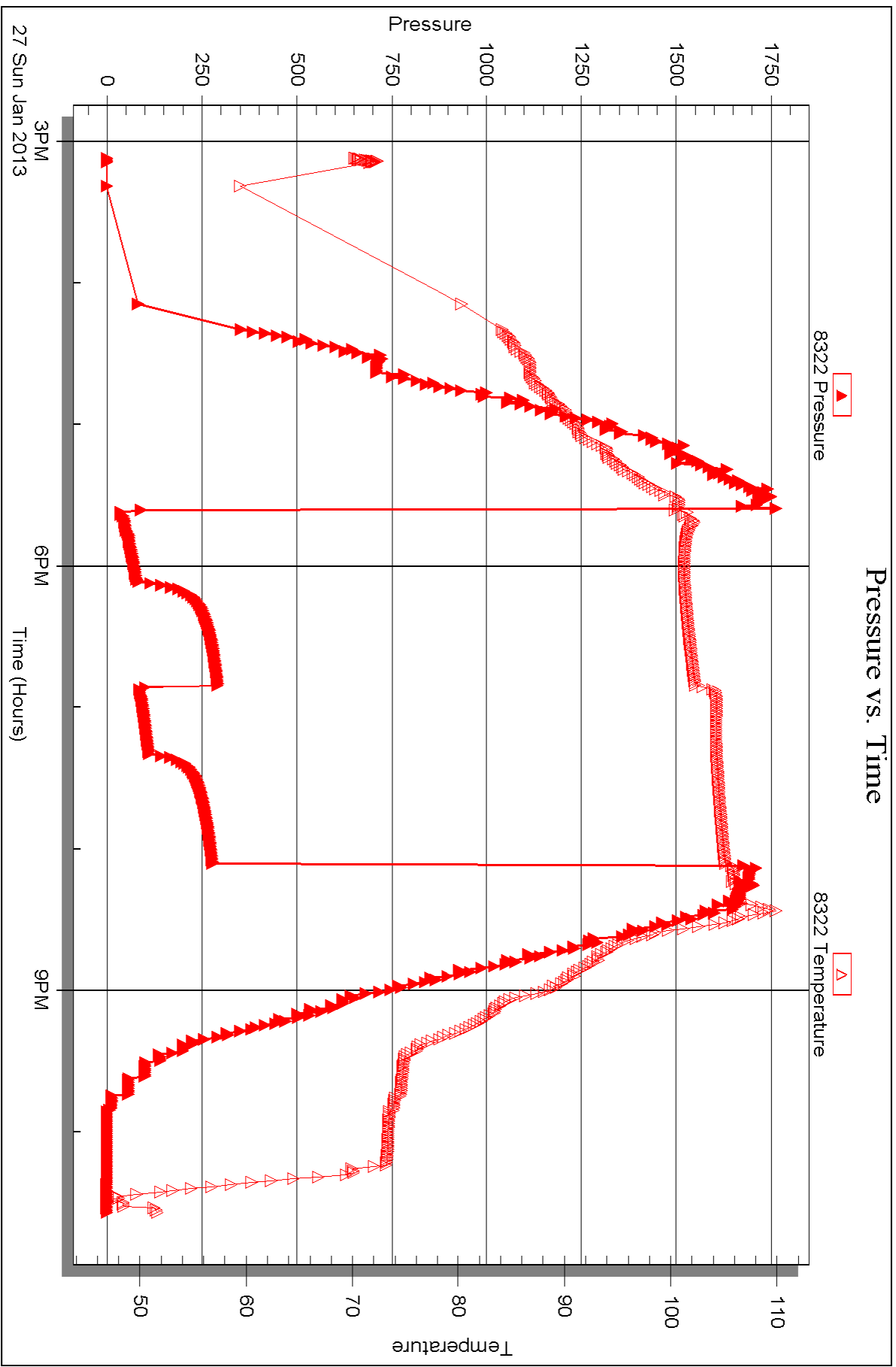


Serial #: 8322

Outside Downing Nelson Oil

Eleka #2

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Downing Nelson Oil**

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

Erleka #2

14-14s-21w Trego KS

Start Date: 2013.01.28 @ 22:45:00

End Date: 2013.01.29 @ 05:52:20

Job Ticket #: 51583 DST #: 2

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

Printed: 2013.02.01 @ 10:36:14



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Downing Nelson Oil
 PO Box 1019
 Hays KS 67601
 ATTN: Ron Nelson

14-14s-21w Trego KS
Erleka #2
 Job Ticket: 51583 **DST#: 2**
 Test Start: 2013.01.28 @ 22:45:00

GENERAL INFORMATION:

Formation: **Marmaton**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 00:39:50
 Time Test Ended: 05:52:20
 Interval: **3907.00 ft (KB) To 3946.00 ft (KB) (TVD)**
 Total Depth: 3946.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Cody Bloedorn
 Unit No: 41
 Reference Elevations: 2233.00 ft (KB)
 2228.00 ft (CF)
 KB to GR/CF: 5.00 ft

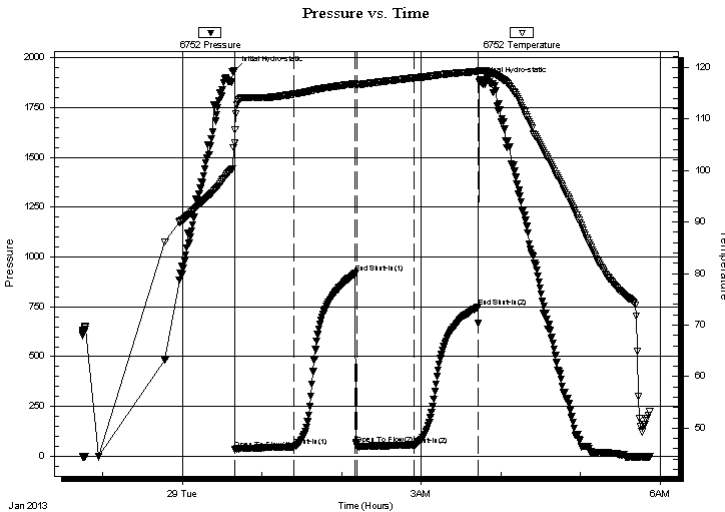
Serial #: 6752

Inside

Press @ Run Depth: 56.18 psig @ 3943.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.01.28 End Date: 2013.01.29 Last Calib.: 2013.01.29
 Start Time: 22:45:01 End Time: 05:52:20 Time On Btm: 2013.01.29 @ 00:39:30
 Time Off Btm: 2013.01.29 @ 03:43:30

TEST COMMENT: 45 - IF- 3 3/4" blow
 45 - IS- Surface return.
 45 - FF- 1 1/4" blow
 45 - FS- No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1933.76	105.37	Initial Hydro-static
1	36.70	107.87	Open To Flow (1)
45	47.75	114.78	Shut-In(1)
91	917.60	116.80	End Shut-In(1)
92	59.39	116.64	Open To Flow (2)
136	56.18	117.91	Shut-In(2)
183	750.04	119.16	End Shut-In(2)
184	1879.57	119.35	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
66.00	HOCM, 40%O,60%M	0.93

* 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

14-14s-21w Trego KS

PO Box 1019
Hays KS 67601

Erleka #2

Job Ticket: 51583

DST#: 2

ATTN: Ron Nelson

Test Start: 2013.01.28 @ 22:45:00

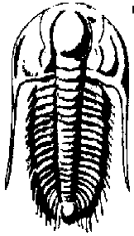
Tool Information

Drill Pipe:	Length: 3897.00 ft	Diameter: 3.80 inches	Volume: 54.66 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume: 54.66 bbl</u>	Tool Chased	15.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial	55000.00 lb
Depth to Top Packer:	3907.00 ft			Final	56000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	39.00 ft				
Tool Length:	60.00 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			3887.00	
Shut In Tool	5.00			3892.00	
Hydraulic tool	5.00			3897.00	
Packer	5.00			3902.00	21.00 Bottom Of Top Packer
Packer	5.00			3907.00	
Stubb	1.00			3908.00	
Perforations	2.00			3910.00	
Change Over Sub	1.00			3911.00	
Perforations	31.00			3942.00	
Change Over Sub	1.00			3943.00	
Recorder	0.00	6752	Inside	3943.00	
Recorder	0.00	8322	Outside	3943.00	
Bullnose	3.00			3946.00	39.00 Bottom Packers & Anchor

Total Tool Length: 60.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing Nelson Oil

14-14s-21w Trego KS

PO Box 1019
Hays KS 67601

Erleka #2

Job Ticket: 51583

DST#: 2

ATTN: Ron Nelson

Test Start: 2013.01.28 @ 22:45:00

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: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
66.00	HOCM, 40%O,60%M	0.926

Total Length: 66.00 ft Total Volume: 0.926 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

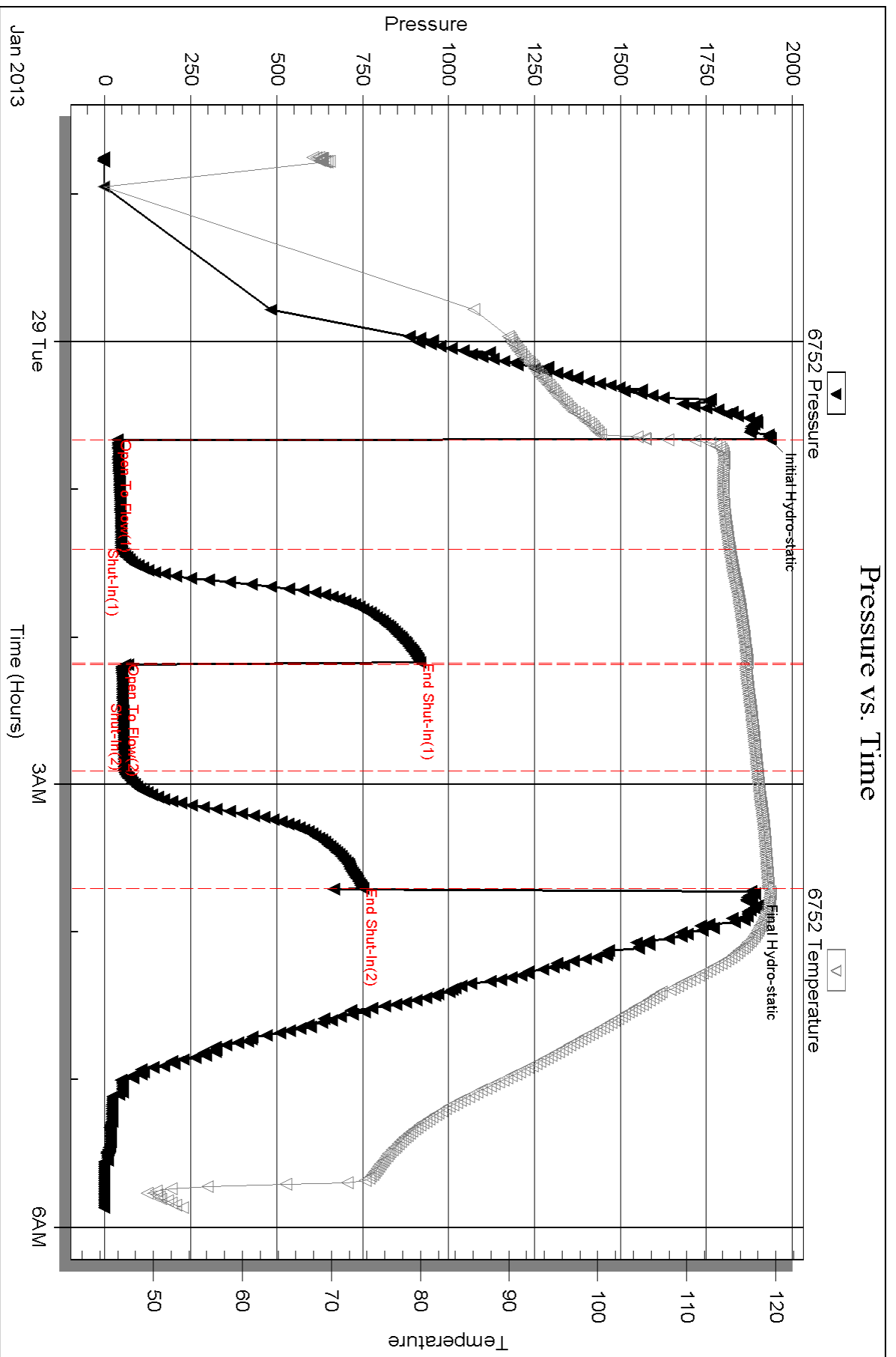
Serial #: 6752

Inside

Downing Nelson Oil

Eleka #2

DST Test Number: 2



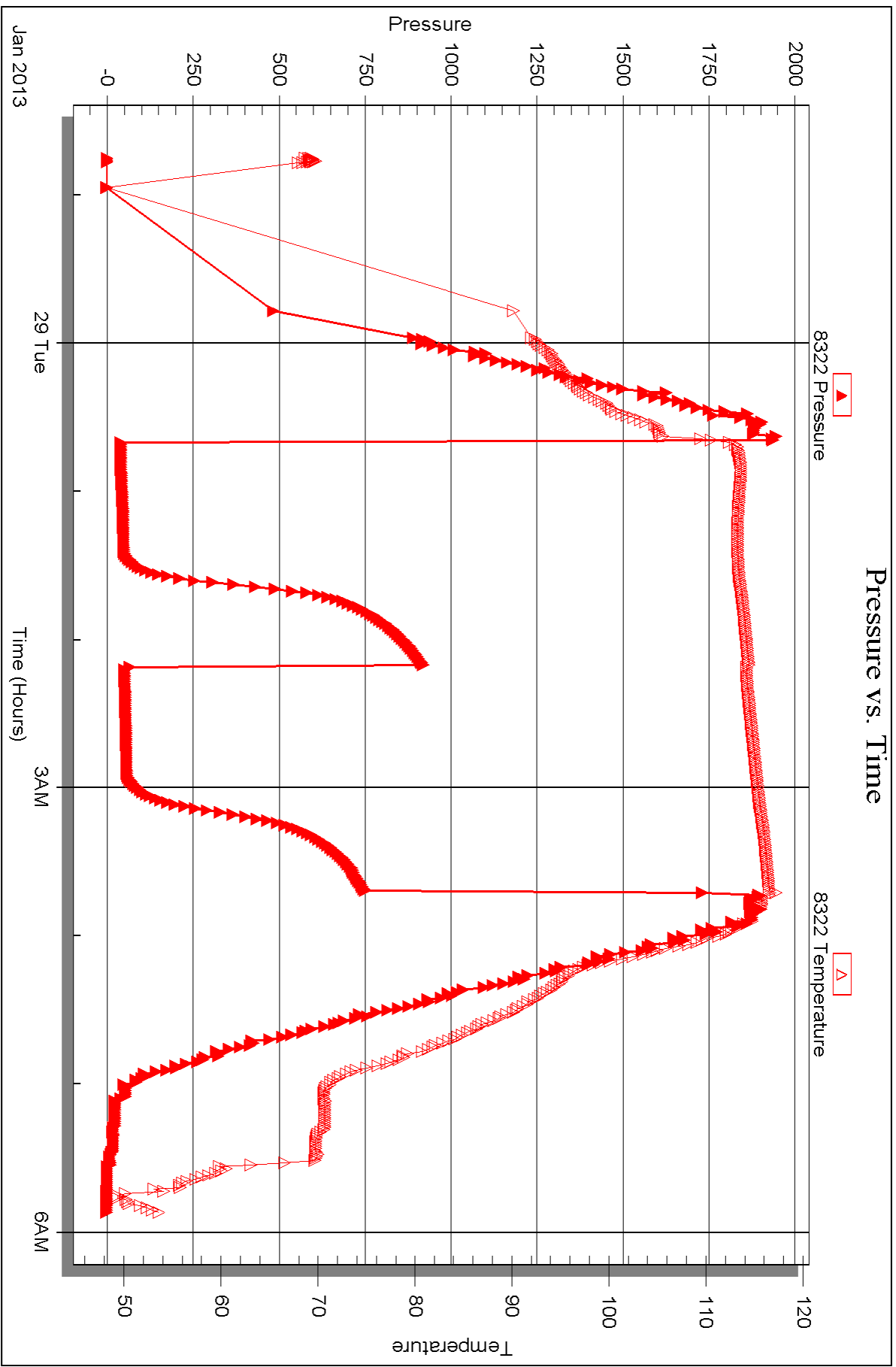
Serial #: 8322

Outside

Downing Nelson Oil

Eleka #2

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Downing Nelson Oil**

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

Erleka #2

14-14s-21w Trego KS

Start Date: 2013.01.29 @ 12:45:00

End Date: 2013.01.29 @ 20:08:39

Job Ticket #: 51584 DST #: 3

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

Printed: 2013.02.01 @ 10:34:44



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Downing Nelson Oil

14-14s-21w Trego KS

PO Box 1019
Hays KS 67601

Erleka #2

Job Ticket: 51584

DST#: 3

ATTN: Ron Nelson

Test Start: 2013.01.29 @ 12:45:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:02:20

Time Test Ended: 20:08:39

Test Type: Conventional Bottom Hole (Reset)

Tester: Cody Bloedorn

Unit No: 41

Interval: 3937.00 ft (KB) To 3976.00 ft (KB) (TVD)

Reference Elevations: 2233.00 ft (KB)

Total Depth: 3976.00 ft (KB) (TVD)

2228.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6752 Inside

Press @ Run Depth: 147.56 psig @ 3973.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.01.29

End Date:

2013.01.29

Last Calib.:

2013.01.29

Start Time: 12:45:01

End Time:

20:08:40

Time On Btm:

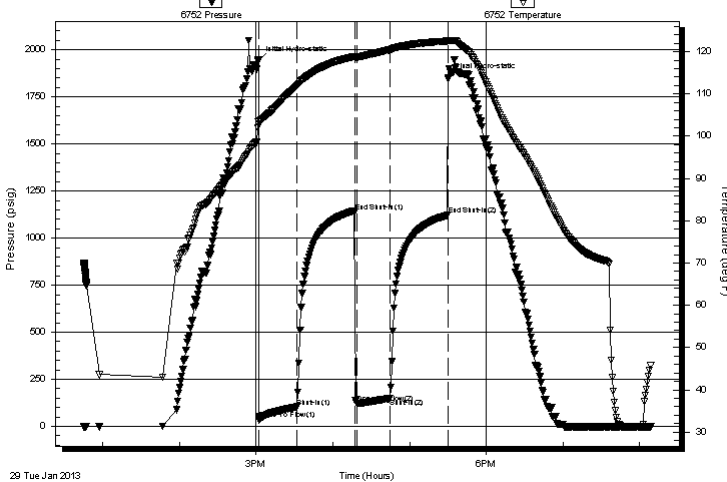
2013.01.29 @ 15:01:40

Time Off Btm:

2013.01.29 @ 17:30:00

TEST COMMENT: 30 - IF- B.O.B. in 5 Minutes.
45 - IS- Surface return.
30 - FF- B.O.B. in 6 Minutes.
45 - FS- Surface return

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1945.28	103.47	Initial Hydro-static
1	35.30	103.43	Open To Flow (1)
30	103.77	111.95	Shut-In(1)
76	1140.56	118.83	End Shut-In(1)
77	123.82	118.69	Open To Flow (2)
103	147.56	120.47	Shut-In(2)
148	1121.63	122.50	End Shut-In(2)
149	1853.60	122.64	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	HOCM, 40%O, 60%M	1.74
186.00	GO, 20%G, 80%O	2.61
0.00	186' of G.I.P.	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

14-14s-21w Trego KS

PO Box 1019
Hays KS 67601

Erleka #2

Job Ticket: 51584

DST#: 3

ATTN: Ron Nelson

Test Start: 2013.01.29 @ 12:45:00

Tool Information

Drill Pipe:	Length: 3928.00 ft	Diameter: 3.80 inches	Volume: 55.10 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	62000.00 lb
			<u>Total Volume: 55.10 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial	58000.00 lb
Depth to Top Packer:	3937.00 ft			Final	58000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	39.00 ft				
Tool Length:	60.00 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			3917.00	
Shut In Tool	5.00			3922.00	
Hydraulic tool	5.00			3927.00	
Packer	5.00			3932.00	21.00 Bottom Of Top Packer
Packer	5.00			3937.00	
Stubb	1.00			3938.00	
Perforations	2.00			3940.00	
Change Over Sub	1.00			3941.00	
Perforations	31.00			3972.00	
Change Over Sub	1.00			3973.00	
Recorder	0.00	6752	Inside	3973.00	
Recorder	0.00	8322	Outside	3973.00	
Bullnose	3.00			3976.00	39.00 Bottom Packers & Anchor

Total Tool Length: 60.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing Nelson Oil

14-14s-21w Trego KS

PO Box 1019
Hays KS 67601

Erleka #2

Job Ticket: 51584

DST#: 3

ATTN: Ron Nelson

Test Start: 2013.01.29 @ 12:45:00

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: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
124.00	HOCM, 40%O, 60%M	1.739
186.00	GO, 20%G, 80%O	2.609
0.00	186' of G.I.P.	0.000

Total Length: 310.00 ft Total Volume: 4.348 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity = 38

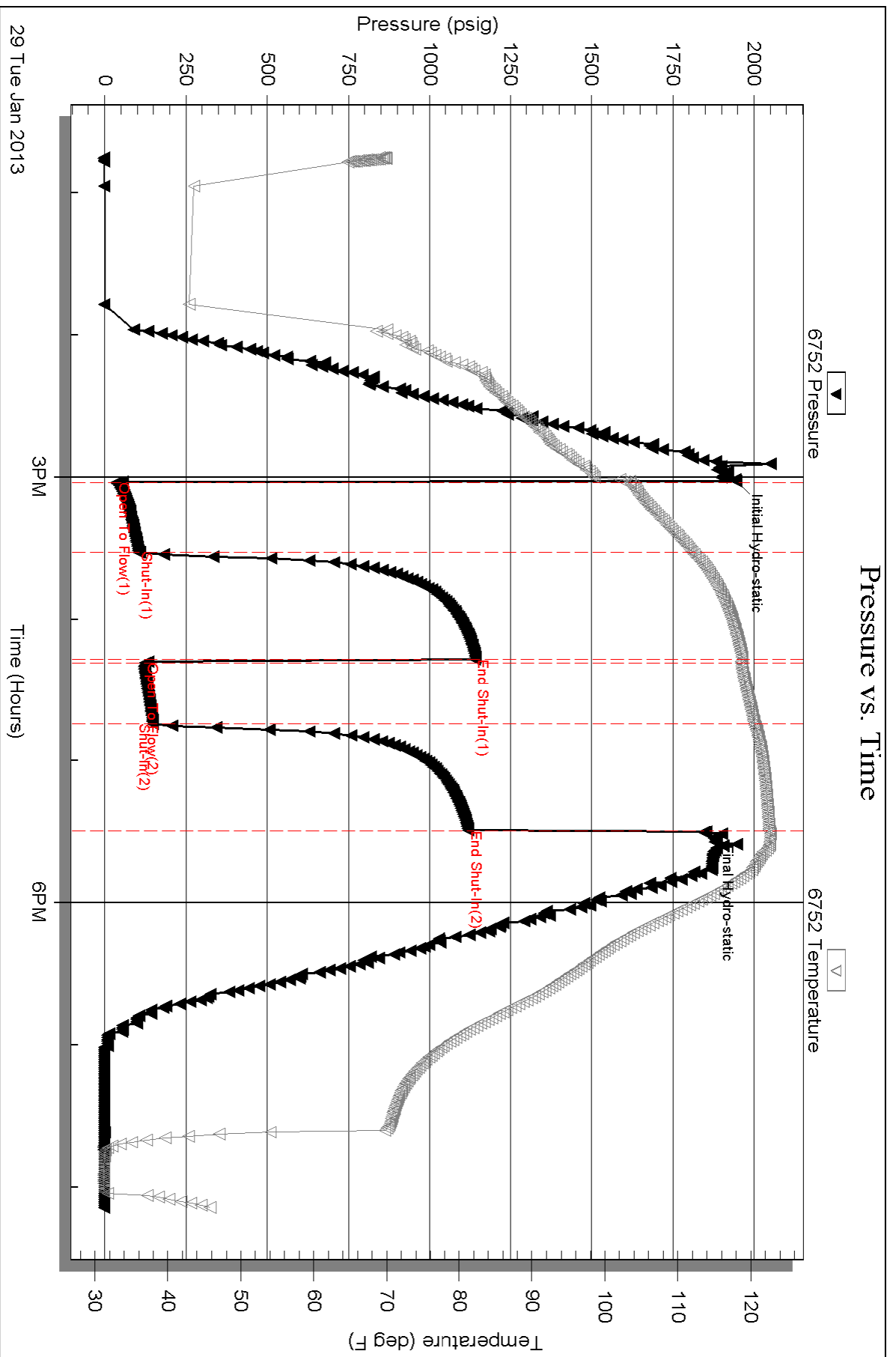
Serial #: 6752

Inside

Downing Nelson Oil

Eleka #2

DST Test Number: 3

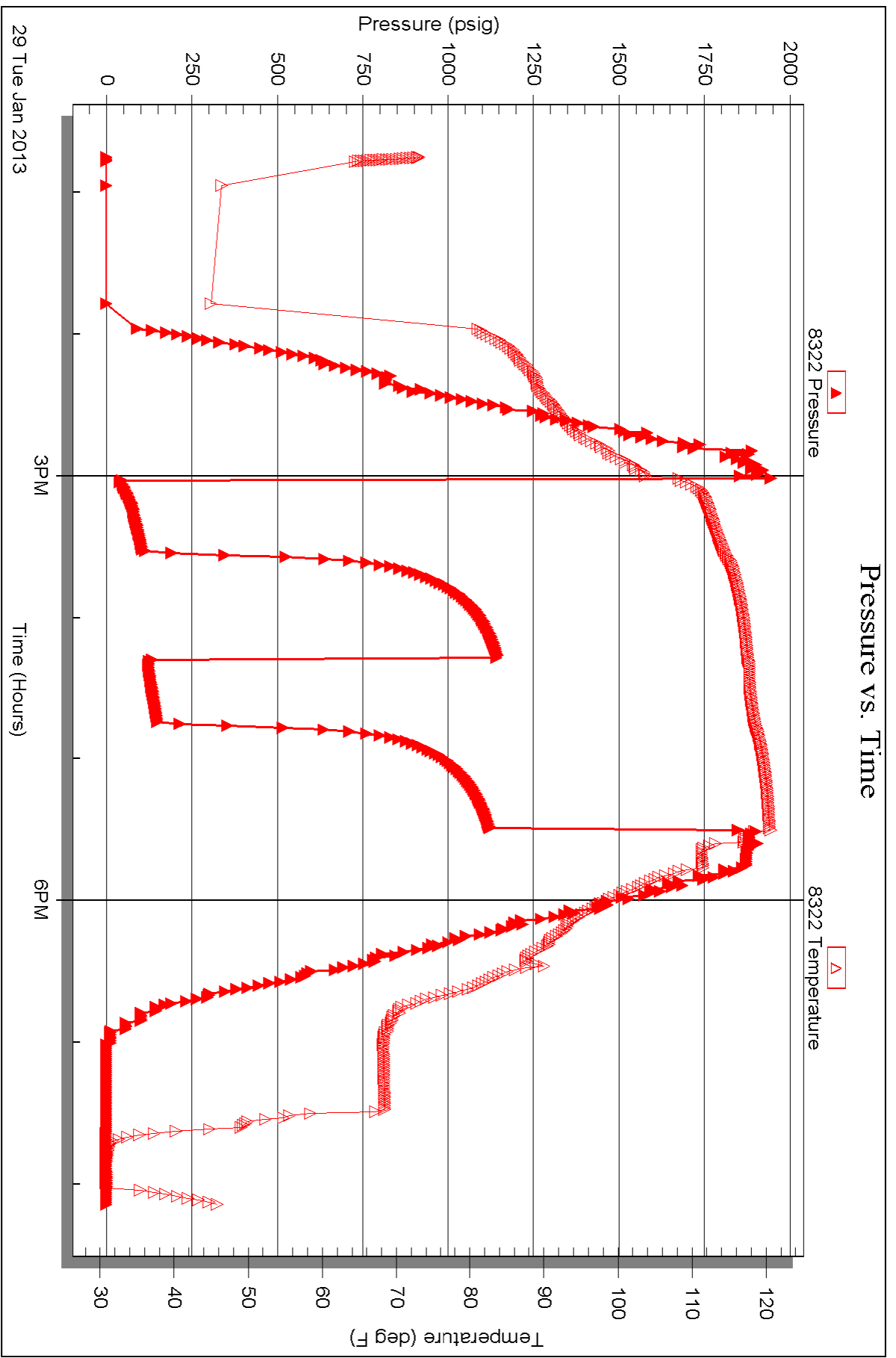


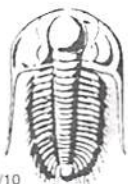
Serial #: 8322

Outside Downing Nelson Oil

Eleka #2

DST Test Number: 3





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 51582

Well Name & No. Erleka #2 Test No. 1 Date 1-27-13
 Company Downing Nelson Oil Elevation 2233 KB 2228 GL
 Address Po Box 1019, Hays KS, 67601
 Co. Rep / Geo. Gator Rig Discovery #3
 Location: Sec. 14 Twp. 14S Rge. 21W Co. Trego State KS

Interval Tested 3600 - 3650 Zone Tested KC "C-D"
 Anchor Length 50' Drill Pipe Run 3612 Mud Wt. 8.6
 Top Packer Depth 3595 Drill Collars Run 31 Vis 53
 Bottom Packer Depth 3600 Wt. Pipe Run — WL 8.8
 Total Depth 3650 Chlorides 2,000 ppm System LCM —

Blow Description IF - B.O.B. instantly
FSI - 3 1/4" return
FF - B.O.B. in 2 Minutes
FSI - 1 3/4" return

Rec	Feet of	%gas	%oil	%water	%mud
<u>124</u>	<u>GSOCWM</u>	<u>5</u>	<u>5</u>	<u>20</u>	<u>70</u>
<u>93</u>	<u>GO</u>	<u>20</u>	<u>80</u>		

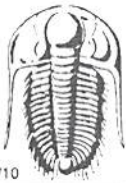
Rec Total 217' BHT 106° Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1758 Test 1150 T-On Location 105pm
 (B) First Initial Flow 33 Jars — T-Started 3:07pm
 (C) First Final Flow 77 Safety Joint — T-Open 5:36pm
 (D) Initial Shut-In 288 Circ Sub — T-Pulled 8:06pm
 (E) Second Initial Flow 84 Hourly Standby — T-Out 10:34pm
 (F) Second Final Flow 111 Mileage 60 RT 93 Comments —
 (G) Final Shut-In 276 Sampler —
 (H) Final Hydrostatic 1689 Straddle — Ruined Shale Packer —

Initial Open 30 Shale Packer — Ruined Packer —
 Initial Shut-In 45 Extra Packer — Extra Copies —
 Final Flow 30 Extra Recorder — Sub Total 0
 Final Shut-In 45 Day Standby — Total 1243
 Accessibility — MP/DST Disc't —
 Sub Total 1243

Approved By — Our Representative Cody B. Bolden

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 51583

Well Name & No. Erleka #2 Test No. 2 Date 1-28-13
 Company Dawny Nelson Oil Elevation 2233 KB 2228 GL
 Address Po Box 1019, Hays KS, 67601
 Co. Rep / Geo. Gator Rig Discovery #3
 Location: Sec. 14 Twp. 14S Rge. 21W Co. Trego State KS

Interval Tested 3907-3946 Zone Tested Marmaton
 Anchor Length 39' Drill Pipe Run 3897' Mud Wt. 8.7
 Top Packer Depth 3902 Drill Collars Run — Vis 53
 Bottom Packer Depth 3907 Wt. Pipe Run — WL 8.0
 Total Depth 3946 Chlorides 4,000 ppm System LCM —
 Blow Description IF- 3 3/4" blow
ISI- Surface blow back
FF- 1 1/4" blow
FSI- No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>66</u>	<u>HOCM</u>	<u>40</u>		<u>60</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 66 BHT 119° Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>1933</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>10:34pm</u>
(B) First Initial Flow <u>36</u>	<input type="checkbox"/> Jars	T-Started <u>10:45pm</u>
(C) First Final Flow <u>47</u>	<input type="checkbox"/> Safety Joint	T-Open <u>12:40am</u>
(D) Initial Shut-In <u>917</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>3:40am</u>
(E) Second Initial Flow <u>59</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>5:53am</u>
(F) Second Final Flow <u>56</u>	<input checked="" type="checkbox"/> Mileage <u>60RT</u> 93	Comments
(G) Final Shut-In <u>750</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1879</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>45</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>45</u>	<input checked="" type="checkbox"/> Day Standby <u>over 2 hrs</u>	Total <u>1243</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1243</u>	

Approved By _____ Our Representative Cody Blair

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 51584

Well Name & No. Erleka #2 Test No. 3 Date 1-29¹³
 Company Downing Nelson Oil Elevation 2233 KB 2228 GL
 Address Po Box 1019, Hays KS, 67601
 Co. Rep / Geo. Gator Rig Discovery #3
 Location: Sec. 14 Twp. 14s Rge. 21w Co. Trego State KS

Interval Tested 3937-3976 Zone Tested Arbuckle
 Anchor Length 39' Drill Pipe Run 3928' Mud Wt. 8.7
 Top Packer Depth 3932 Drill Collars Run — Vis 53
 Bottom Packer Depth 3937 Wt. Pipe Run — WL 8.0
 Total Depth 3976 Chlorides 4,000 ppm System LCM —

Blow Description IF - B.O.B. in 5 Minutes
ISI - Surface return
FF - B.O.B. in 6 Minutes
FSI - Surface return

Rec	Feet of	%gas	%oil	%water	%mud
<u>124</u>	<u>HOCM</u>	<u>40</u>		<u>60</u>	
<u>186</u>	<u>60</u>	<u>20</u>	<u>80</u>		
	<u>186' of G.I.P.</u>				

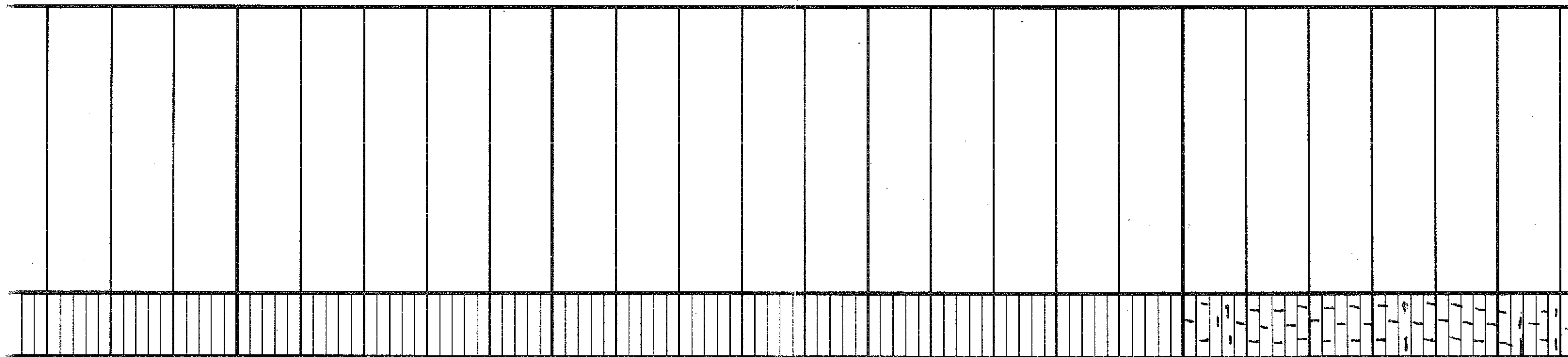
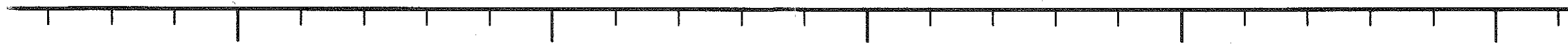
Rec Total 310' BHT 1220 Gravity 38 API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1945 Test 1150 T-On Location 12:31 pm
 (B) First Initial Flow 35 Jars — T-Started 12:45 pm
 (C) First Final Flow 103 Safety Joint — T-Open 3:02 pm
 (D) Initial Shut-In 1146 Circ Sub — T-Pulled 5:30 pm
 (E) Second Initial Flow 123 Hourly Standby — T-Out 8:08 pm
 (F) Second Final Flow 147 Mileage 60 RT 93 Comments —
 (G) Final Shut-In ~~1121~~ 1121 Sampler —
 (H) Final Hydrostatic 1853 Straddle — Ruined Shale Packer —

Initial Open 30 Shale Packer — Ruined Packer —
 Initial Shut-In 45 Extra Packer — Extra Copies —
 Final Flow 30 Extra Recorder — Sub Total 0
 Final Shut-In 45 Day Standby — Total 1243
 Accessibility — MP/DST Disc't —
 Sub Total 1243

Approved By — Our Representative Cody Blum

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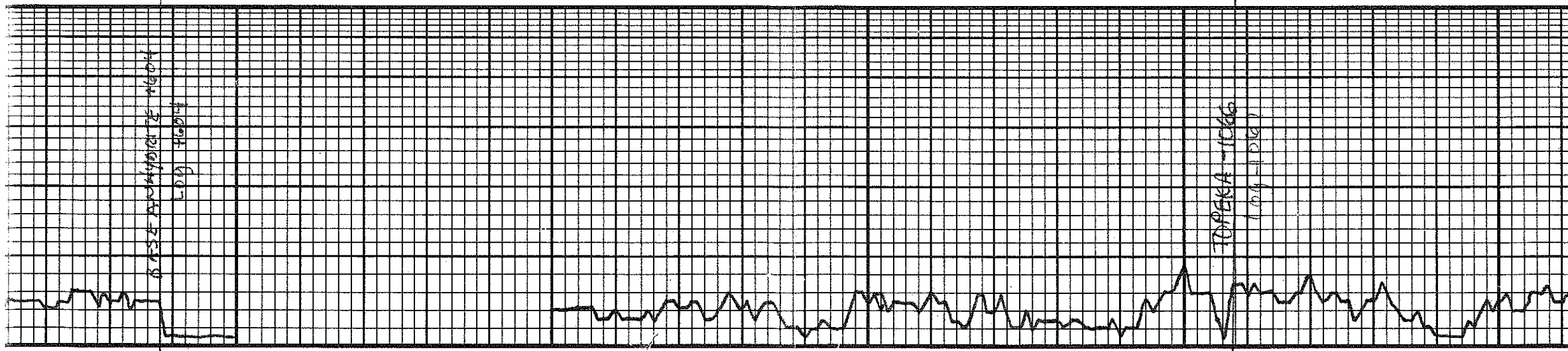
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3200

50

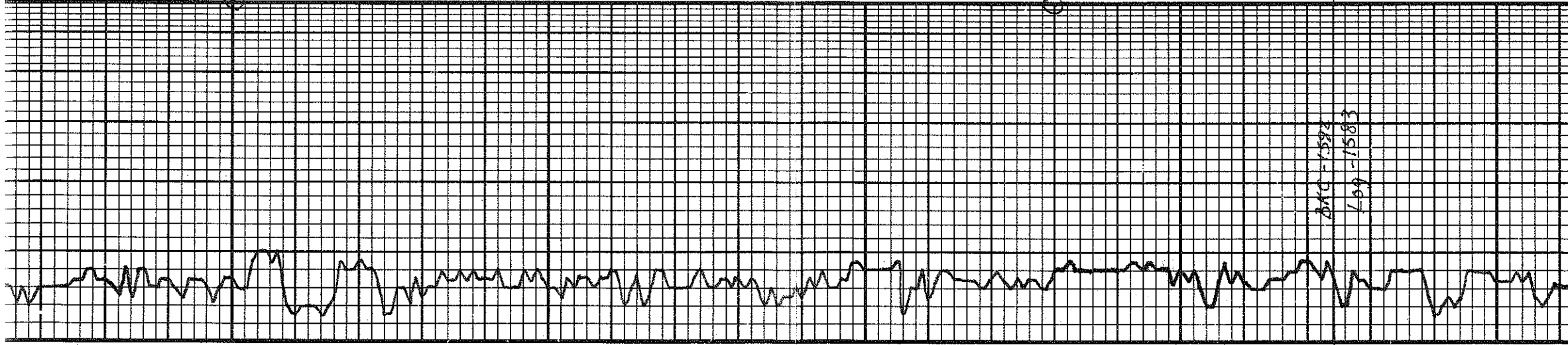
3300

50



BASE ANTIPODITE 1604
100 1604

TOPEKA 1066
100 1066



2010-1582
159-1583

Ass. 5th, buy, sm gassy when Baker, sm sub in p... sm frag v in xylo dms prp NS w/sm chl	5h 94 LS tan mst v in xylo dms 1-2 ps from sm w/ loss of th rot frag. f... 100% sm 1 ps 50%	g h s v d k g e t v dms w h m m c o p l a s n s n s m o o d sh 94 LS tan m o x y l o, s l a s s f r a g, f r a g c h k y m p t, 1-2 p s 3 5 t o, m o o d, m s t b a r r e n, f r a g m i c r o x y l o v u d g N S.	sh 94. d n 94 LS w h, f r a x y l o p r i n c i p l e N S.	LS a g w / t w s c d t h s s LS a g w / t w s c d t h s s	sh v a n g r y sh 94. B a m LS tan - w h f a s s e t d f a s s e r f a m a t p r p n s f r a g m i c r o x y l o d n s w / w h c h l	sh v d e g r y LS w h m o - f r a x y l o d n s p r m a y / f 1-2 p s r a r e b l u e s m w s t o, h o d f r a g m i c r o x y l o v u d m s N S.	sh v d e g r y 1 9 4 B a m LS tan - g r y f r a x y l o p r i n c i p l e N S. w / f w p l s a d d r e s s a l l n s. w / w h c h l sh 94 B e n LS g r y - w h m i c r o x y l o v u d g n o a p p l n s.	LS a g f r e c l r sh B e n c a r s sh s g r a a e n, e o c h k y f a n c y p o d n s. s m o t r a g v t r a x y l o n s.	sh s r o B a m g y m i c r o x y l o w h a s v u d m s u p p N S. sh r o B a m LS tan g r y v f r a x y l o v d m s n o a p p n s - w i s m w h c h l sh r o g r y B e n
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50

3700

50

3800

50

1
1/4 3.4 w...
IFP 33-77
FFP 84-111
SIP 288-276
HP 1758-1689
REC: 93 'C.G.O.
124' 650C w m
5% G: 59.0: 20% W:
70% m a o
B A T 106°
Very heavy oil
less than 20 gram

