

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

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

Gas  DH  EOR

OG  GSW

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 EOR  Conv. to SWD

Plug Back  Liner  Conv. to GSW  Conv. to Producer

Commingled Permit #: \_\_\_\_\_

Dual Completion Permit #: \_\_\_\_\_

SWD Permit #: \_\_\_\_\_

EOR Permit #: \_\_\_\_\_

GSW Permit #: \_\_\_\_\_

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: \_\_\_\_\_

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

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27  NAD83  WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical 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**

Confidentiality Requested

Date: \_\_\_\_\_

Confidential Release Date: \_\_\_\_\_

Wireline Log Received  Drill Stem Tests Received

Geologist Report / Mud Logs 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 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](mailto: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 <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 Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
--	---

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
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

1. Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

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> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
----------------	-------	---------	------------	--

Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	BLACK & GOLD 2-17
Doc ID	1418560

Tops

Name	Top	Datum
Top Anhydrite	1299'	+756
Base Anhydrite	1340'	+715
Topeka	3070'	-1015
Heebner	3320'	-1265
Toronto	3340'	-1285
LKC	3370'	-1315
BKC	3595'	-1540
Conglomerate Sand	3676'	-1621
Arbuckle	3700'	-1645



**Marc A. Downing**  
**Consulting Petroleum Geologist**

**Geologic Report**  
**Drilling Time and Sample Log**

**Operator** **Downing-Nelson Oil Co., Inc.**  
**Lease** **Black & Gold** No. **2-17**  
**API #** **15-051-26922-0000**  
**Field** **Experiment**  
**Location** **1650' FNL & 625' FWL**  
**Sec.** **17** **Twp.** **14s** **Rge.** **18w**  
**County** **Ellis** **State** **Kansas**

**Elevation**  
**KB** **2055**  
**DF** **2053**  
**GL** **2047**  
**Casing Record**  
**Surface** **8 5/8" @ 726'**  
**Production**  
**None**  
**Electrical Surveys**  
**CNDL, DIL**  
**MEL**

Formation	Sample tops	Log Tops	Datum	Struct Comp
Top Anhydrite	1298	1299	+756	-18
Base Anhydrite	1342	1340	+715	-14
Topeka	3064	3070	-1015	-12
Heebner	3316	3320	-1265	-12
Toronto	3336	3340	-1285	-5
LKC	3366	3370	-1315	-9
BKC	3589	3595	-1540	-7
Conglomerate Sand	3671	3676	-1621	Absent
Arbuckle	3696	3700	-1645	-47
Total Depth	3775	3775	-1720	

Drilling Contractor	Discovery Drilling, Rig #1
Commenced	8-1-18 Completed 8-8-18
Samples Saved From	3050 To RTD
Drilling Time Kept From	2950 To RTD
Samples Examined From	3050 To RTD
Geological Supervision From	3050 To RTD

**Summary and Recommendations**  
**Due to structural position, DST recovery, and log evaluation, it was decided to plug and abandon the well.**

Respectfully Submitted,  
 Marc A. Downing

**ROCK TYPES**  
 shale, gry  
 Carbon Sh

**ACCESSORIES**  
 Dopprim  
 Lmsr W7>

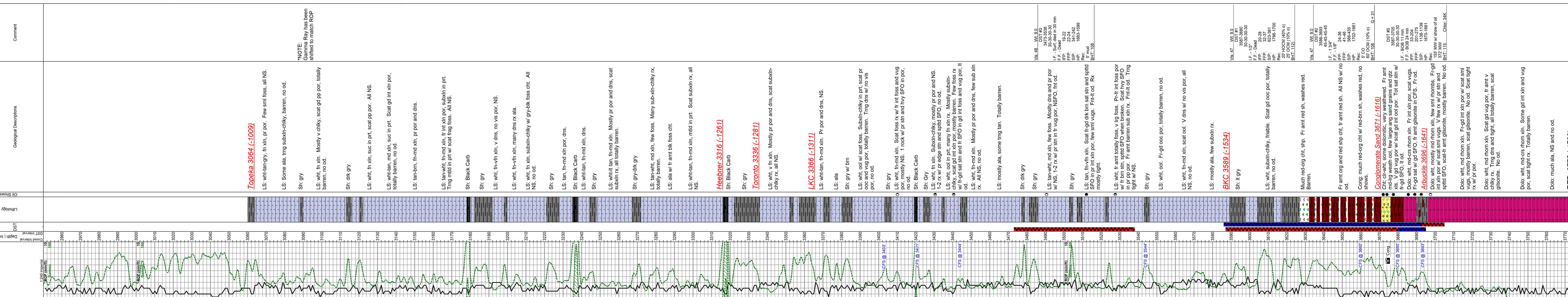
**OTHER SYMBOLS**  
 DST Int  
 DST alt  
 Core  
 Tail pipe

**MISC**  
 Dgi Daily Report  
 Digital Photo  
 Document  
 Folder  
 Link  
 Vertical Log File  
 Horizontal Log File  
 Core Log File  
 Drill Cuttings Rpt

**OIL SHOWS**  
 Even Shn 50-75 %  
 Spotted Shn 25-50 %  
 Questionable Shn  
 Dead Oil Shn  
 Fluorescence

**STRINGER**  
 Red shale

Printed by GEOstrip VC Striplog version 4.0.6.15 (www.grs.ca)





## DRILL STEM TEST REPORT

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

PO Box 1019  
Hays KS 67601

ATTN: Al Downing ,Marc Dow

### **Black Gold #2-17**

### **17-14s-18w Ellis,KS**

Start Date: 2018.08.06 @ 16:20:14

End Date: 2018.08.06 @ 22:18:38

Job Ticket #: 64241                      DST #: 1

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.08.10 @ 09:07:34



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

**17-14s-18w Ellis,KS**

PO Box 1019  
Hays KS 67601

**Black Gold #2-17**

Job Ticket: 64241

**DST#: 1**

ATTN: Al Dow ning ,Marc Dow

Test Start: 2018.08.06 @ 16:20:14

## GENERAL INFORMATION:

Formation: **Congl Sd**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:26:39

Time Test Ended: 22:18:38

Test Type: Conventional Bottom Hole (Initial)

Tester: Ray Schw ager

Unit No: 77

**Interval: 3587.00 ft (KB) To 3680.00 ft (KB) (TVD)**

Reference Elevations: 2055.00 ft (KB)

Total Depth: 3680.00 ft (KB) (TVD)

2047.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8360**

**Inside**

Press@RunDepth: 37.20 psig @ 3592.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.08.06

End Date:

2018.08.06

Last Calib.:

2018.08.06

Start Time:

16:20:14

End Time:

22:18:38

Time On Btm:

2018.08.06 @ 18:25:54

Time Off Btm:

2018.08.06 @ 20:33:09

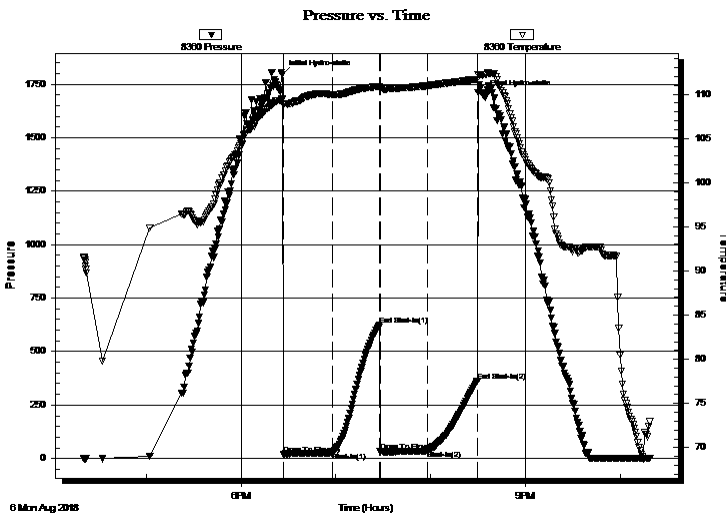
TEST COMMENT: 30-IFP-w k blow thru-out 1/2" blow

30-ISIP-no blow

30-FFP-no blow

30-FSIP-no blow

## PRESSURE SUMMARY



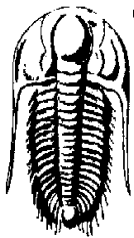
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1795.58	109.44	Initial Hydro-static
1	19.54	108.82	Open To Flow (1)
32	27.67	109.93	Shut-In(1)
62	623.29	110.87	End Shut-In(1)
62	32.10	110.66	Open To Flow (2)
92	37.20	110.95	Shut-In(2)
124	360.55	111.68	End Shut-In(2)
128	1700.41	112.18	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	HOCM 40% O60% M	0.15
25.00	OCM 10% O90% M	0.18

## Gas Rates

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



**TRILOBITE**  
TESTING, INC.

## DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

**17-14s-18w Ellis,KS**

PO Box 1019  
Hays KS 67601

**Black Gold #2-17**

Job Ticket: 64241

**DST#: 1**

ATTN: Al Dow ning ,Marc Dow

Test Start: 2018.08.06 @ 16:20:14

### GENERAL INFORMATION:

Formation: **Congl Sd**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:26:39

Time Test Ended: 22:18:38

**Interval: 3587.00 ft (KB) To 3680.00 ft (KB) (TVD)**

Total Depth: 3680.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)

Tester: Ray Schw ager

Unit No: 77

Reference Elevations: 2055.00 ft (KB)

2047.00 ft (CF)

KB to GR/CF: 8.00 ft

**Serial #: 8673 Outside**

Press@RunDepth: psig @ 3592.00 ft (KB)

Start Date: 2018.08.06

End Date:

2018.08.06

Capacity: 8000.00 psig

Last Calib.:

2018.08.06

Start Time: 16:20:42

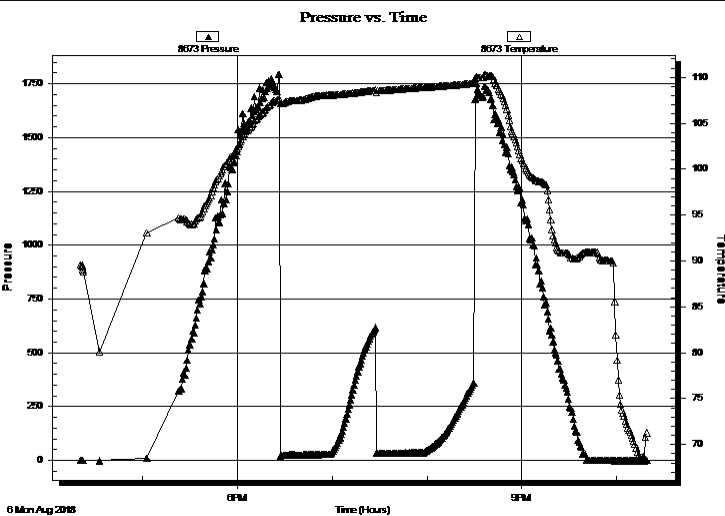
End Time:

22:19:06

Time On Btm:

Time Off Btm:

**TEST COMMENT:** 30-IFP-w k blow thru-out 1/2" blow  
30-ISIP-no blow  
30-FFP-no blow  
30-FSIP-no blow



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
20.00	HOCM 40% O60%M	0.15
25.00	OCM 10% O90%M	0.18

### Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Dow ning-Nelson Oil Co Inc

**17-14s-18w Ellis,KS**

PO Box 1019  
Hays KS 67601

**Black Gold #2-17**

Job Ticket: 64241

**DST#: 1**

ATTN: Al Dow ning ,Marc Dow

Test Start: 2018.08.06 @ 16:20:14

## Tool Information

Drill Pipe:	Length: 3276.00 ft	Diameter: 3.80 inches	Volume: 45.95 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 310.00 ft	Diameter: 2.75 inches	Volume: 2.28 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 48.23 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3587.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval betw een Packers:	93.00 ft			
Tool Length:	114.00 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			3567.00	
Shut In Tool	5.00			3572.00	
Hydraulic tool	5.00			3577.00	
Packer	5.00			3582.00	21.00 Bottom Of Top Packer
Packer	5.00			3587.00	
Stubb	1.00			3588.00	
Perforations	4.00			3592.00	
Recorder	0.00	8360	Inside	3592.00	
Recorder	0.00	8673	Outside	3592.00	
Blank Spacing	65.00			3657.00	
Perforations	20.00			3677.00	
Bullnose	3.00			3680.00	93.00 Bottom Packers & Anchor

**Total Tool Length: 114.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Dow ning-Nelson Oil Co Inc

**17-14s-18w Ellis,KS**

PO Box 1019  
Hays KS 67601

**Black Gold #2-17**

Job Ticket: 64241

**DST#: 1**

ATTN: Al Dow ning ,Marc Dow

Test Start: 2018.08.06 @ 16:20:14

### 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: 47.00 sec/qt

Cushion Volume:

bbf

Water Loss: 9.50 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbf
20.00	HOCM 40%O60%M	0.147
25.00	OCM 10%O90%M	0.184

Total Length: 45.00 ft      Total Volume: 0.331 bbf

Num Fluid Samples: 0

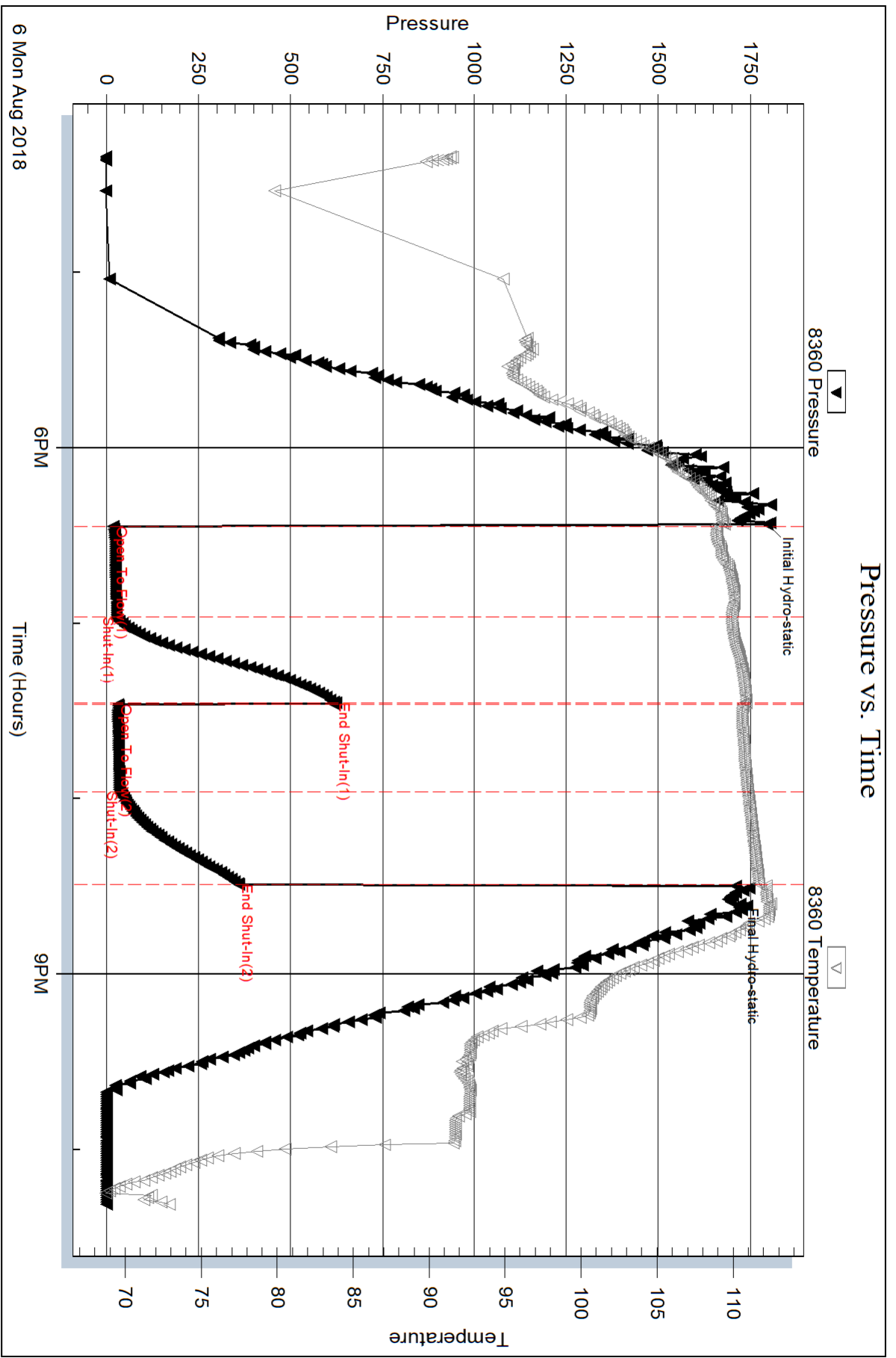
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

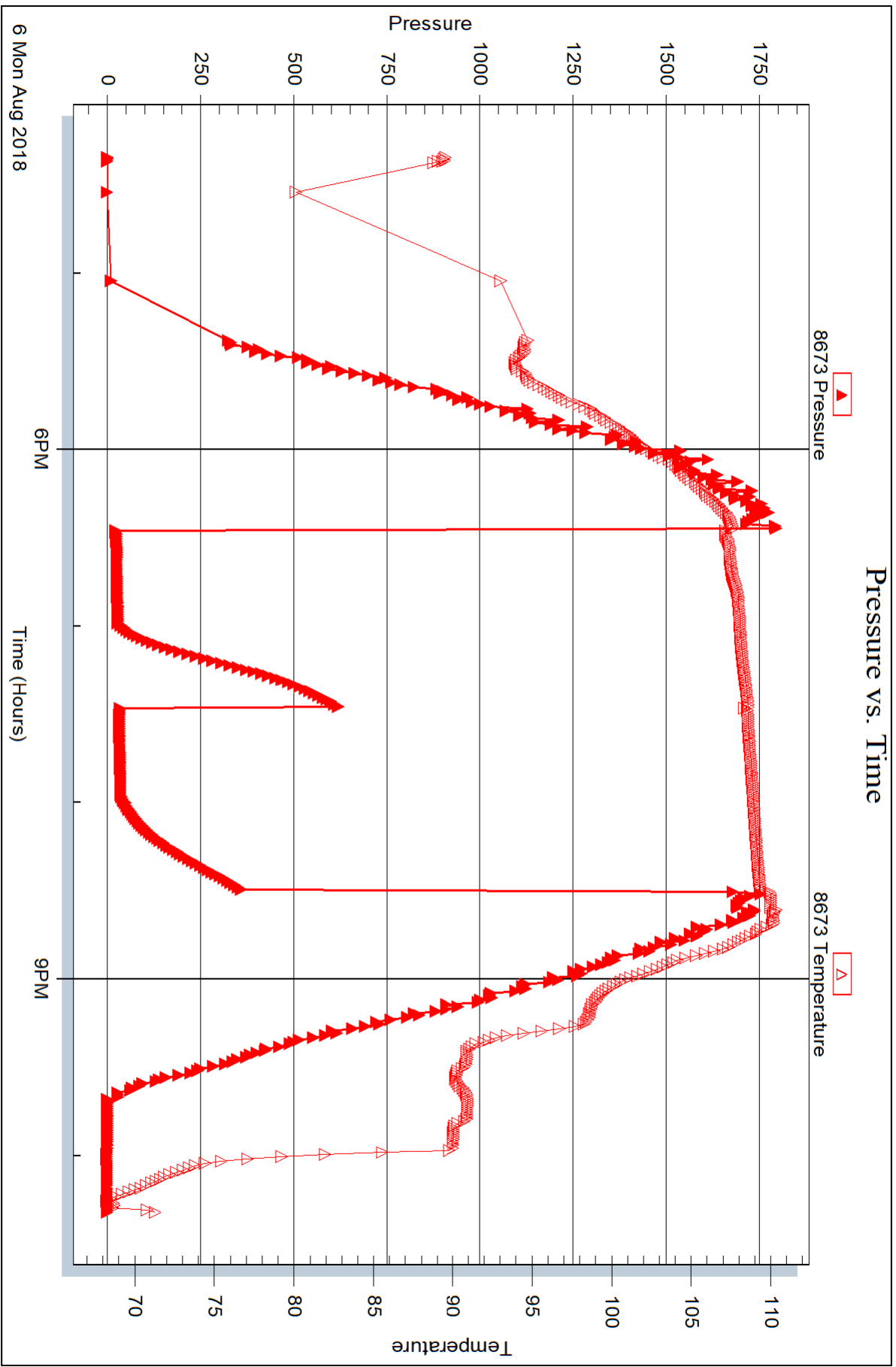


Serial #: 8673

Outside Dow nting-Nelson Oil Co Inc

Black Gold #2-17

DST Test Number: 1





## DRILL STEM TEST REPORT

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

PO Box 1019  
Hays KS 67601

ATTN: Al Downing ,Marc Dow

### **Black Gold #2-17**

### **17-14s-18w Ellis,KS**

Start Date: 2018.08.07 @ 05:25:09

End Date: 2018.08.07 @ 12:43:33

Job Ticket #: 64242                      DST #: 2

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.08.10 @ 09:07:09



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

**17-14s-18w Ellis,KS**

PO Box 1019  
Hays KS 67601

**Black Gold #2-17**

Job Ticket: 64242

**DST#: 2**

ATTN: Al Dow ning ,Marc Dow

Test Start: 2018.08.07 @ 05:25:09

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:44:49

Time Test Ended: 12:43:33

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schw ager

Unit No: 77

**Interval: 3586.00 ft (KB) To 3693.00 ft (KB) (TVD)**

Reference Elevations: 2055.00 ft (KB)

Total Depth: 3693.00 ft (KB) (TVD)

2047.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8360**

**Inside**

Press@RunDepth: 45.93 psig @ 3596.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.08.07

End Date:

2018.08.07

Last Calib.:

2018.08.07

Start Time:

05:25:09

End Time:

12:43:33

Time On Btm:

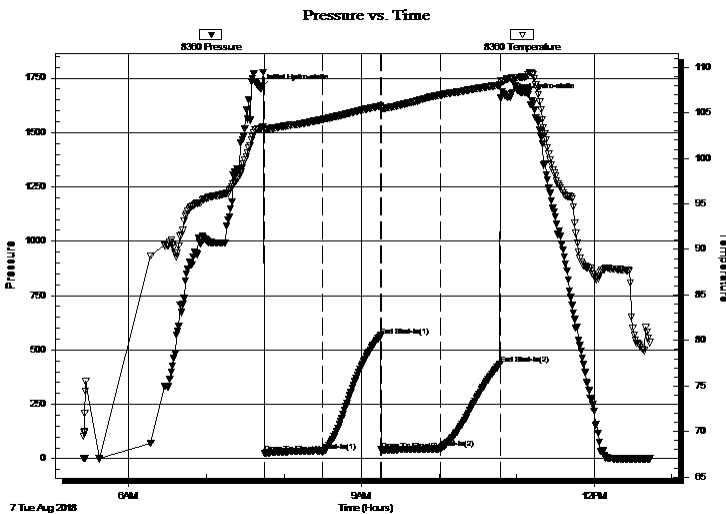
2018.08.07 @ 07:42:04

Time Off Btm:

2018.08.07 @ 10:52:33

**TEST COMMENT:** 45-IFP-w eak blow thru-out 1/2" to 1 3/4" blow  
45-ISIP-no blow  
45-FFP-surface to 1/8" blow  
45-FSIP-no blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1701.94	103.29	Initial Hydro-static
3	24.48	103.11	Open To Flow (1)
48	36.37	104.26	Shut-In(1)
93	566.09	105.72	End Shut-In(1)
93	40.60	105.50	Open To Flow (2)
139	45.93	106.94	Shut-In(2)
185	434.86	108.04	End Shut-In(2)
191	1660.92	108.69	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	CO	0.04
60.00	OCM 10%O90%M	0.44

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE**  
TESTING, INC.

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

**17-14s-18w Ellis,KS**

PO Box 1019  
Hays KS 67601

**Black Gold #2-17**

Job Ticket: 64242

**DST#: 2**

ATTN: Al Dow ning ,Marc Dow

Test Start: 2018.08.07 @ 05:25:09

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:44:49

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2047.00 ft (CF)

Hole Diameter: 7.88 inchesHole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8673 Outside**

Press@RunDepth: psig @ 3596.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.08.07 End Date: 2018.08.07

Last Calib.: 2018.08.07

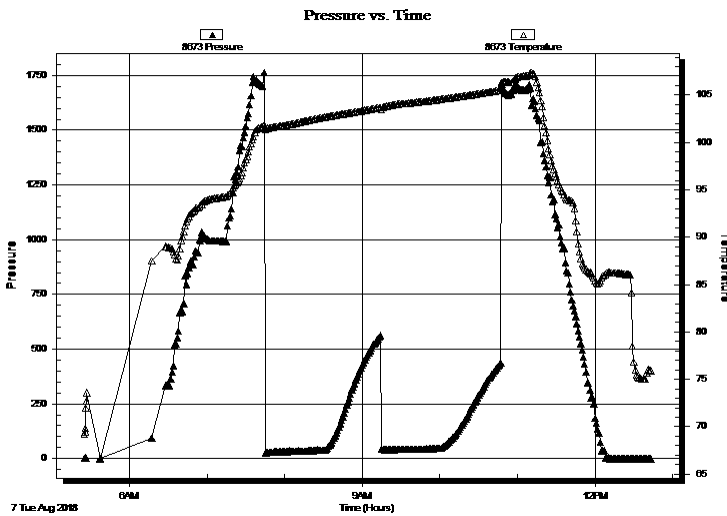
Start Time: 05:25:26 End Time: 12:43:50

Time On Btm:

Time Off Btm:

**TEST COMMENT:** 45-IFP-w eak blow thru-out 1/2" to 1 3/4" blow  
45-ISIP-no blow  
45-FFP-surface to 1/8" blow  
45-FSIP-no blow

## PRESSURE SUMMARY



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

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	CO	0.04
60.00	OCM 10%O90%M	0.44

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Dow ning-Nelson Oil Co Inc

**17-14s-18w Ellis,KS**

PO Box 1019  
Hays KS 67601

**Black Gold #2-17**

Job Ticket: 64242

**DST#: 2**

ATTN: Al Dow ning ,Marc Dow

Test Start: 2018.08.07 @ 05:25:09

## Tool Information

Drill Pipe:	Length: 3276.00 ft	Diameter: 3.80 inches	Volume: 45.95 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 310.00 ft	Diameter: 2.75 inches	Volume: 2.28 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	65000.00 lb
			<u>Total Volume: 48.23 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial	53000.00 lb
Depth to Top Packer:	3586.00 ft			Final	53000.00 lb
Depth to Bottom Packer:	ft				
Interval betw een Packers:	107.00 ft				
Tool Length:	128.00 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			3566.00	
Shut In Tool	5.00			3571.00	
Hydraulic tool	5.00			3576.00	
Packer	5.00			3581.00	21.00 Bottom Of Top Packer
Packer	5.00			3586.00	
Stubb	1.00			3587.00	
Perforations	9.00			3596.00	
Recorder	0.00	8360	Inside	3596.00	
Recorder	0.00	8673	Outside	3596.00	
Blank Spacing	94.00			3690.00	
Bullnose	3.00			3693.00	107.00 Bottom Packers & Anchor

**Total Tool Length: 128.00**





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Dow ning-Nelson Oil Co Inc

**17-14s-18w Ellis,KS**

PO Box 1019  
Hays KS 67601

**Black Gold #2-17**

Job Ticket: 64242

**DST#: 2**

ATTN: Al Dow ning ,Marc Dow

Test Start: 2018.08.07 @ 05:25:09

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

31 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.49 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	CO	0.037
60.00	OCM 10%O90%M	0.441

Total Length: 65.00 ft      Total Volume: 0.478 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

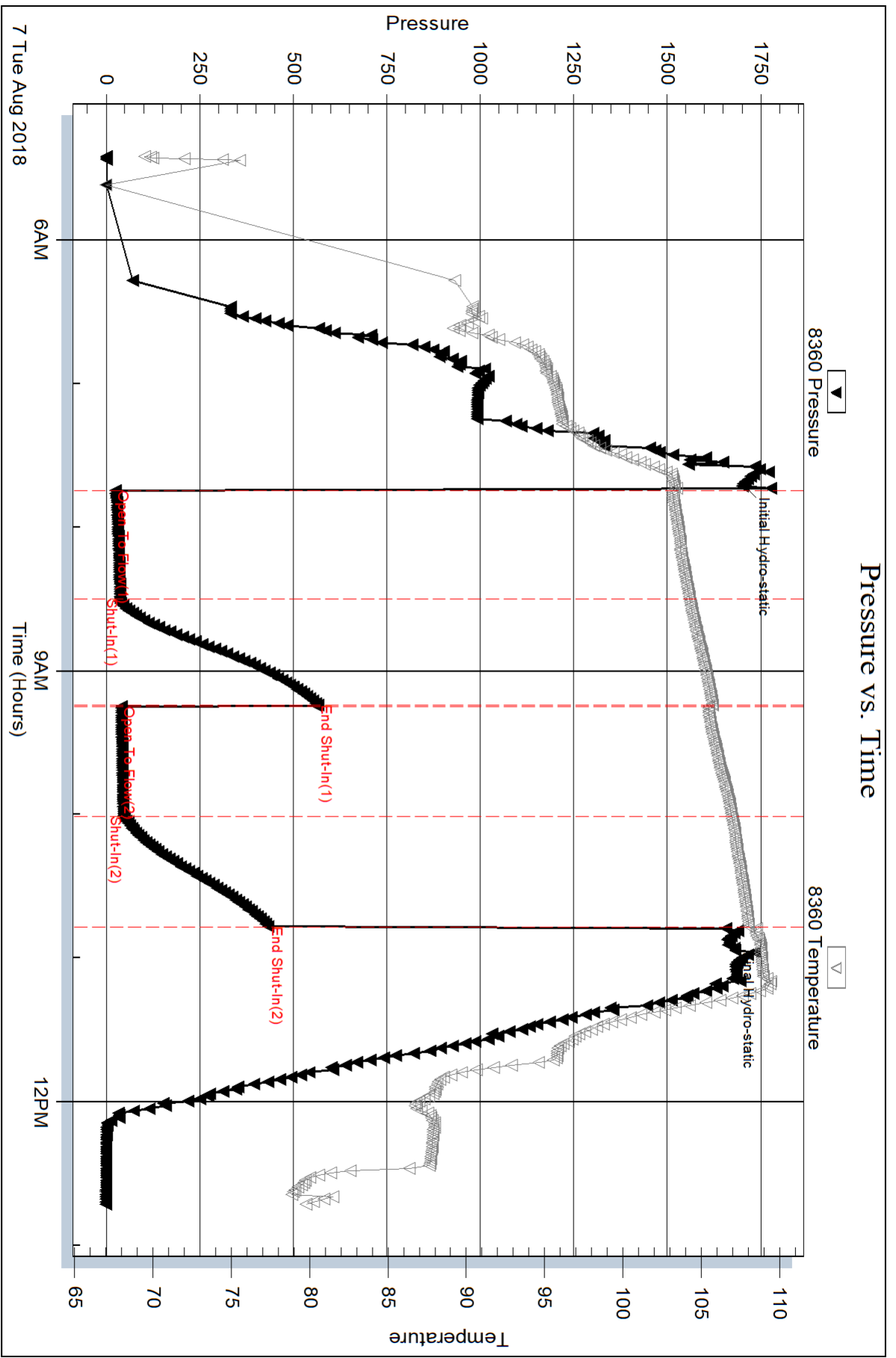
Serial #: 8360

Inside

Dow nng-Nelson Oil Co Inc

Black Gold #2-17

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 64242

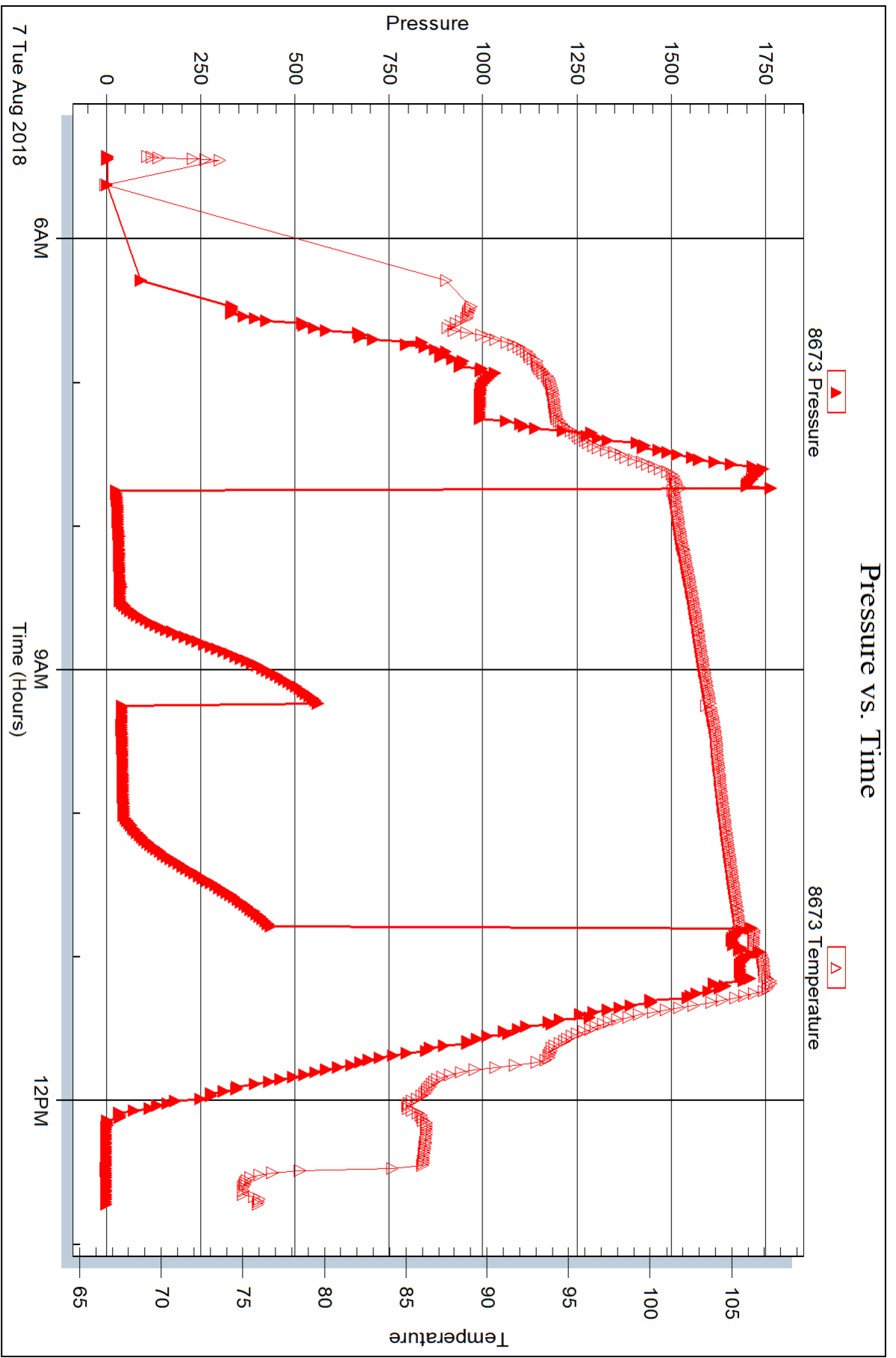
Printed: 2018.08.10 @ 09:07:10

Serial #: 8673

Outside Dow nng-Nelson Oil Co Inc

Black Gold #2-17

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 64242

Printed: 2018.08.10 @ 09:07:10



## DRILL STEM TEST REPORT

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

PO Box 1019  
Hays KS 67601

ATTN: Al Downing ,Marc Dow

### **Black Gold #2-17**

### **17-14s-18w Ellis,KS**

Start Date: 2018.08.08 @ 00:25:36

End Date: 2018.08.08 @ 06:02:15

Job Ticket #: 64243                      DST #: 3

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.08.10 @ 09:06:41



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

**17-14s-18w Ellis,KS**

PO Box 1019  
Hays KS 67601

**Black Gold #2-17**

Job Ticket: 64243

**DST#: 3**

ATTN: Al Dow ning ,Marc Dow

Test Start: 2018.08.08 @ 00:25:36

## GENERAL INFORMATION:

Formation: **LKC H-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:03:16

Time Test Ended: 06:02:15

Test Type: Conventional Straddle (Reset)

Tester: Ray Schw ager

Unit No: 77

**Interval: 3473.00 ft (KB) To 3538.00 ft (KB) (TVD)**

Reference Elevations: 2055.00 ft (KB)

Total Depth: 3775.00 ft (KB) (TVD)

2047.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8360**

**Inside**

Press@RunDepth: 24.23 psig @ 3483.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.08.08

End Date:

2018.08.08

Last Calib.:

2018.08.08

Start Time: 00:25:36

End Time:

06:02:15

Time On Btm:

2018.08.08 @ 02:02:01

Time Off Btm:

2018.08.08 @ 04:11:01

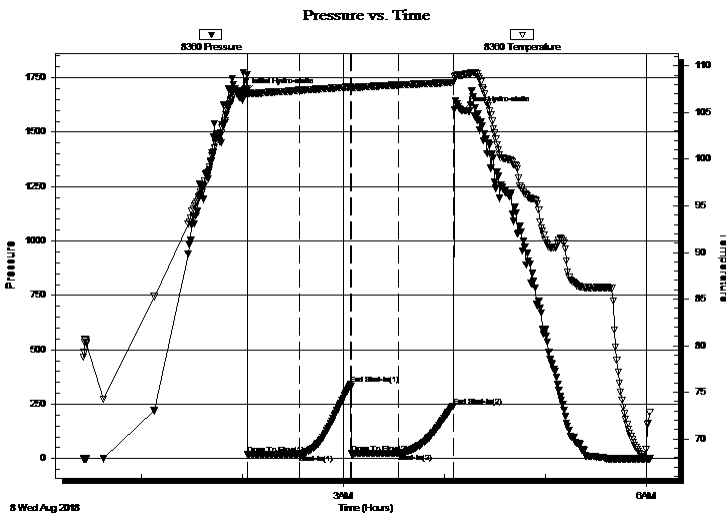
TEST COMMENT: 30-IFP-surface blow died in 10 min

30-ISIP-no blow

30-FFP-no blow

30-FSIP-no blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1683.40	107.51	Initial Hydro-static
2	18.64	106.90	Open To Flow (1)
32	22.11	107.38	Shut-In(1)
63	340.89	107.75	End Shut-In(1)
63	22.46	107.63	Open To Flow (2)
91	24.23	107.96	Shut-In(2)
124	241.87	108.24	End Shut-In(2)
129	1599.05	109.02	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud	0.04

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE TESTING, INC.**

## DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

**17-14s-18w Ellis,KS**

PO Box 1019  
Hays KS 67601

**Black Gold #2-17**

Job Ticket: 64243

**DST#: 3**

ATTN: Al Dow ning ,Marc Dow

Test Start: 2018.08.08 @ 00:25:36

### GENERAL INFORMATION:

Formation: **LKC H-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:03:16

Time Test Ended: 06:02:15

**Interval: 3473.00 ft (KB) To 3538.00 ft (KB) (TVD)**

Total Depth: 3775.00 ft (KB) (TVD)

Hole Diameter: 7.88 inchesHole Condition: Fair

Test Type: Conventional Straddle (Reset)

Tester: Ray Schw ager

Unit No: 77

Reference Elevations: 2055.00 ft (KB)

2047.00 ft (CF)

KB to GR/CF: 8.00 ft

**Serial #: 8673**

**Outside**

Press@RunDepth: psig @ 3483.00 ft (KB)

Start Date: 2018.08.08

End Date: 2018.08.08

Capacity: 8000.00 psig

Last Calib.: 2018.08.08

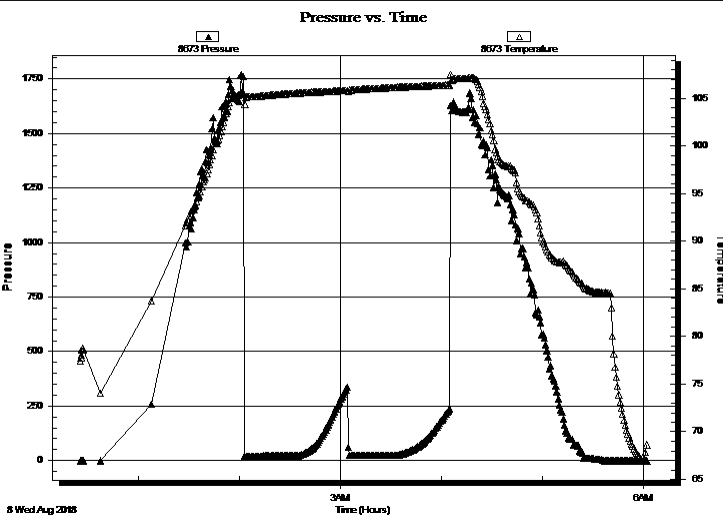
Start Time: 00:25:52

End Time: 06:02:16

Time On Btm:

Time Off Btm:

TEST COMMENT: 30-IFP-surface blow died in 10 min  
30-ISIP-no blow  
30-FFP-no blow  
30-FSIP-no blow



### PRESSURE SUMMARY

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

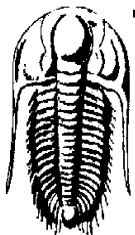
### Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud	0.04

### Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE**  
TESTING, INC.

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

PO Box 1019  
Hays KS 67601

ATTN: Al Dow ning ,Marc Dow

**17-14s-18w Ellis,KS**

**Black Gold #2-17**

Job Ticket: 64243

**DST#: 3**

Test Start: 2018.08.08 @ 00:25:36

### GENERAL INFORMATION:

Formation: **LKC H-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:03:16

Time Test Ended: 06:02:15

Test Type: Conventional Straddle (Reset)

Tester: Ray Schw ager

Unit No: 77

**Interval: 3473.00 ft (KB) To 3538.00 ft (KB) (TVD)**

Total Depth: 3775.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2055.00 ft (KB)

2047.00 ft (CF)

KB to GR/CF: 8.00 ft

**Serial #: 8373**

**Below (Straddle)**

Press@RunDepth: psig @ 3553.00 ft (KB)

Start Date: 2018.08.08 End Date: 2018.08.08

Start Time: 00:25:19 End Time: 06:01:58

Capacity: 8000.00 psig

Last Calib.: 2018.08.08

Time On Btm:

Time Off Btm:

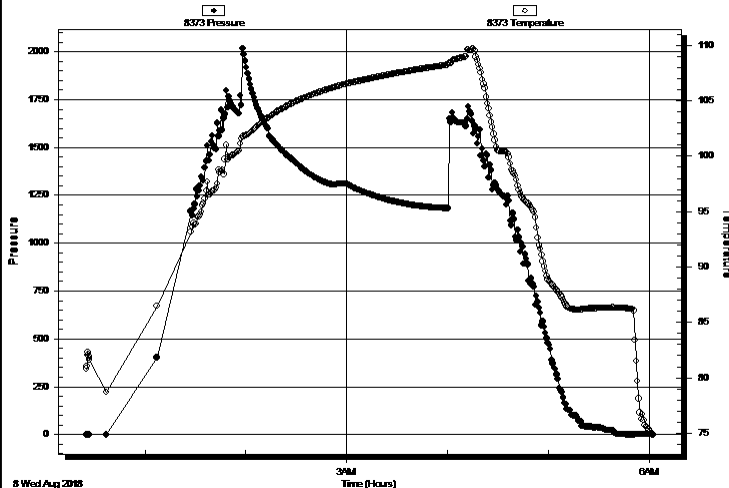
**TEST COMMENT:** 30-IFP-surface blow died in 10 min

30-ISIP-no blow

30-FFP-no blow

30-FSIP-no blow

Pressure vs. Time



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud	0.04

\* Recovery from multiple tests

### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Dow ning-Nelson Oil Co Inc

**17-14s-18w Ellis,KS**

PO Box 1019  
Hays KS 67601

**Black Gold #2-17**

Job Ticket: 64243

**DST#: 3**

ATTN: Al Dow ning ,Marc Dow

Test Start: 2018.08.08 @ 00:25:36

## Tool Information

Drill Pipe:	Length: 3147.00 ft	Diameter: 3.80 inches	Volume: 44.14 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 310.00 ft	Diameter: 2.75 inches	Volume: 2.28 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	65000.00 lb
			<u>Total Volume: 46.42 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial	53000.00 lb
Depth to Top Packer:	3473.00 ft			Final	53000.00 lb
Depth to Bottom Packer:	3538.00 ft				
Interval betw een Packers:	65.00 ft				
Tool Length:	327.00 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	1.00			3453.00	
Shut In Tool	5.00			3458.00	
Hydraulic tool	5.00			3463.00	
Packer	5.00			3468.00	21.00 Bottom Of Top Packer
Packer	5.00			3473.00	
Stubb	1.00			3474.00	
Perforations	9.00			3483.00	
Recorder	0.00	8360	Inside	3483.00	
Recorder	0.00	8673	Outside	3483.00	
Blank Spacing	33.00			3516.00	
Perforations	18.00			3534.00	
Blank Off Sub	1.00			3535.00	
Blank Spacing	3.00			3538.00	65.00 Tool Interval
Packer	5.00			3543.00	
Stubb	1.00			3544.00	
Perforations	9.00			3553.00	
Recorder	0.00	8373	Below	3553.00	
Blank Spacing	223.00			3776.00	
Bullnose	3.00			3779.00	241.00 Bottom Packers & Anchor

**Total Tool Length: 327.00**





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Dow ning-Nelson Oil Co Inc

**17-14s-18w Ellis,KS**

PO Box 1019  
Hays KS 67601

**Black Gold #2-17**

Job Ticket: 64243

**DST#: 3**

ATTN: Al Dow ning ,Marc Dow

Test Start: 2018.08.08 @ 00:25:36

### 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: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.33 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
5.00	Mud	0.037

Total Length: 5.00 ft      Total Volume: 0.037 bbl

Num Fluid Samples: 0

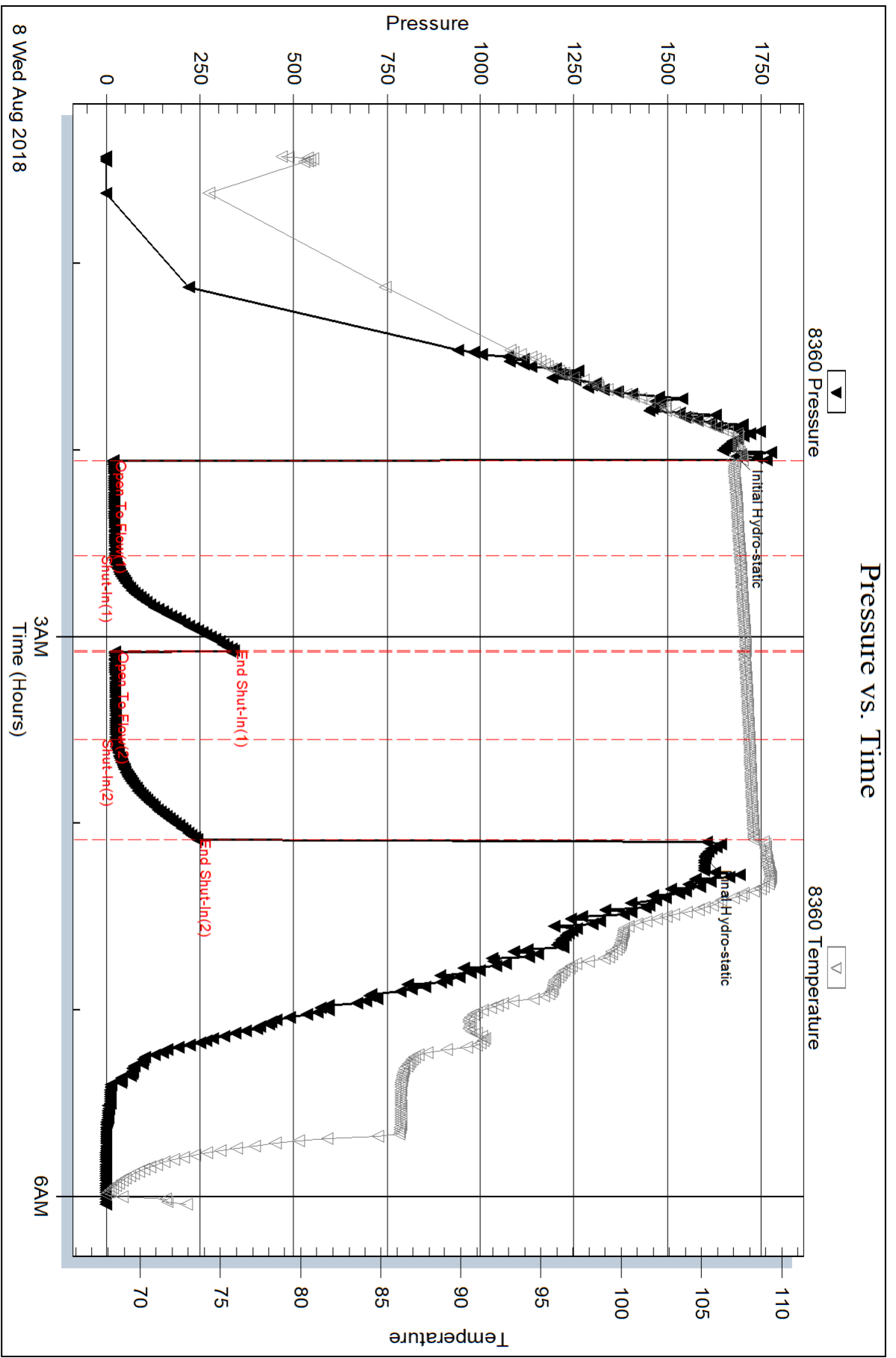
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



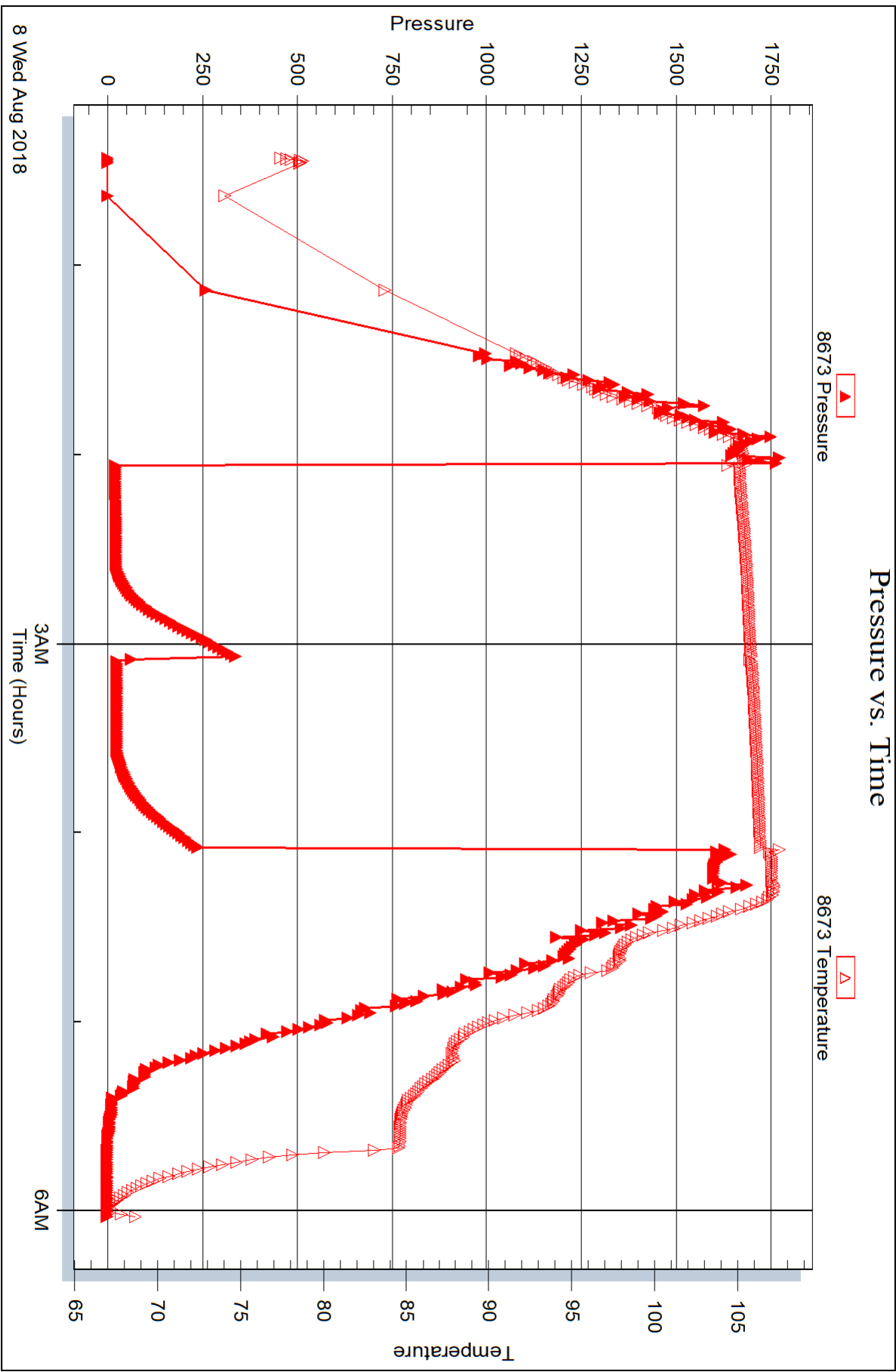
Serial #: 8673

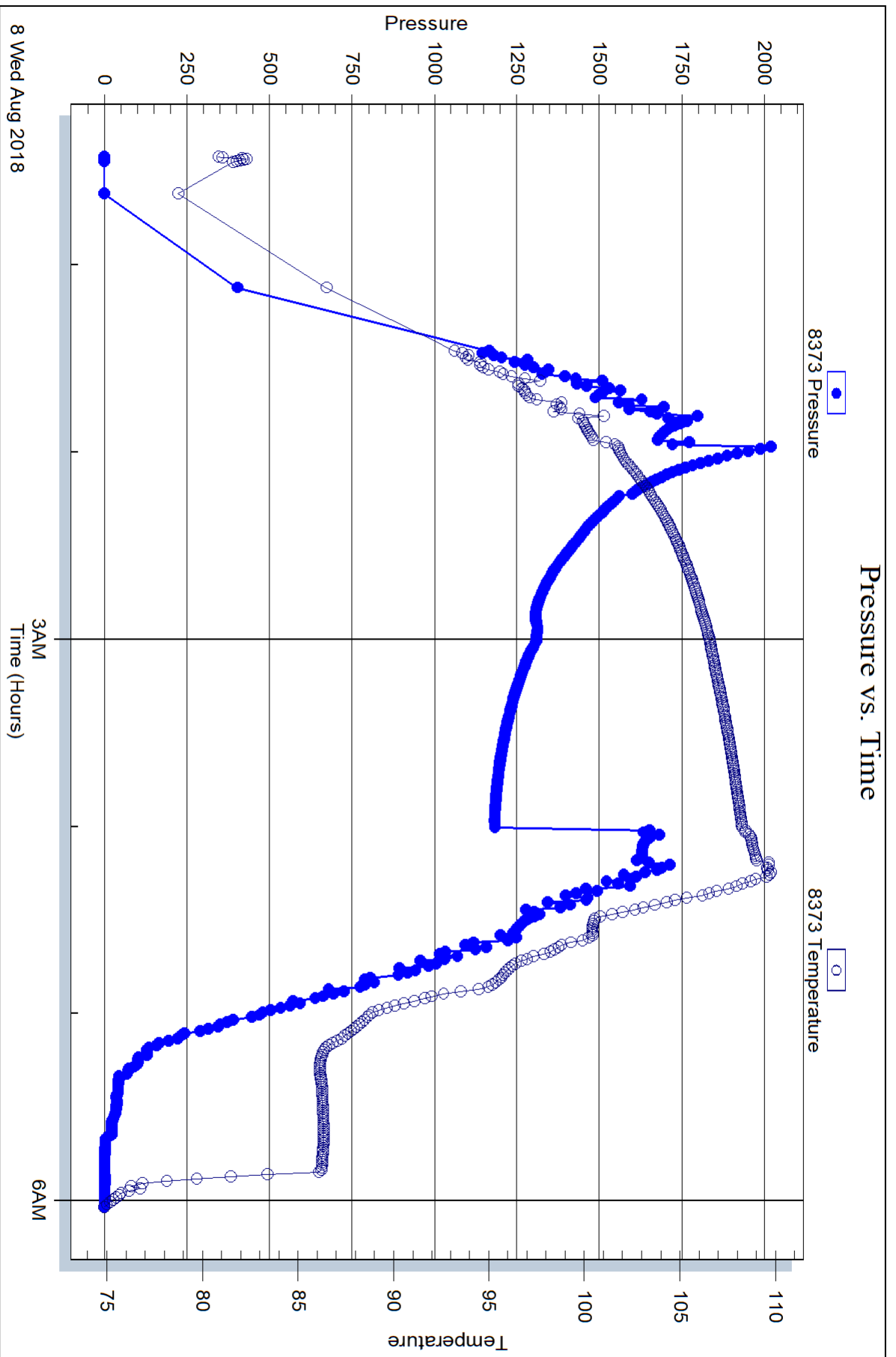
Outside

Dow n/n-g-Nelson Oil Co Inc

Black Gold #2-17

DST Test Number: 3







## DRILL STEM TEST REPORT

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

PO Box 1019  
Hays KS 67601

ATTN: Al Downing ,Marc Dow

### **Black Gold #2-17**

### **17-14s-18w Ellis,KS**

Start Date: 2018.08.08 @ 06:40:38

End Date: 2018.08.08 @ 13:36:47

Job Ticket #: 64244                      DST #: 4

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.08.10 @ 09:06:04



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

**17-14s-18w Ellis,KS**

PO Box 1019  
Hays KS 67601

**Black Gold #2-17**

Job Ticket: 64244

**DST#: 4**

ATTN: Al Dow ning ,Marc Dow

Test Start: 2018.08.08 @ 06:40:38

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:12:03

Time Test Ended: 13:36:47

Test Type: Conventional Straddle (Reset)

Tester: Ray Schw ager

Unit No: 77

**Interval: 3587.00 ft (KB) To 3705.00 ft (KB) (TVD)**

Reference Elevations: 2055.00 ft (KB)

Total Depth: 3775.00 ft (KB) (TVD)

2047.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8360**

**Inside**

Press@RunDepth: 275.91 psig @ 3592.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.08.08

End Date:

2018.08.08

Last Calib.:

2018.08.08

Start Time: 06:40:38

End Time:

13:36:47

Time On Btm:

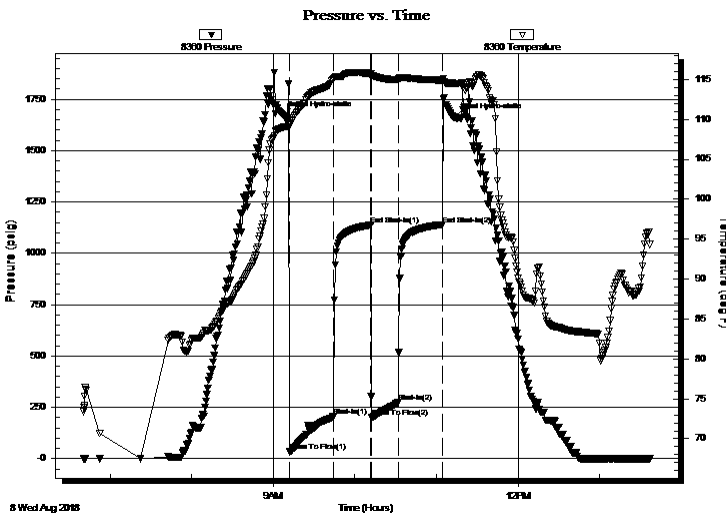
2018.08.08 @ 09:07:33

Time Off Btm:

2018.08.08 @ 11:13:17

**TEST COMMENT:** 30-IFP-BOB in 11 min  
30-ISIP-no blow  
30-FFP-w k to BOB in 24 min  
30-FSIP-no blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1670.01	109.01	Initial Hydro-static
5	33.83	109.04	Open To Flow (1)
37	204.33	115.05	Shut-In(1)
65	1138.27	115.74	End Shut-In(1)
65	201.84	115.48	Open To Flow (2)
85	275.91	114.97	Shut-In(2)
117	1139.80	114.88	End Shut-In(2)
126	1661.03	114.50	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
155.00	MW 40%M60%W w /slight show of oil	1.14
372.00	MW 80%w 20%M	4.18

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE TESTING, INC.**

**DRILL STEM TEST REPORT**

Dow ning-Nelson Oil Co Inc

**17-14s-18w Ellis,KS**

PO Box 1019  
Hays KS 67601

**Black Gold #2-17**

Job Ticket: 64244      **DST#: 4**

ATTN: Al Dow ning ,Marc Dow

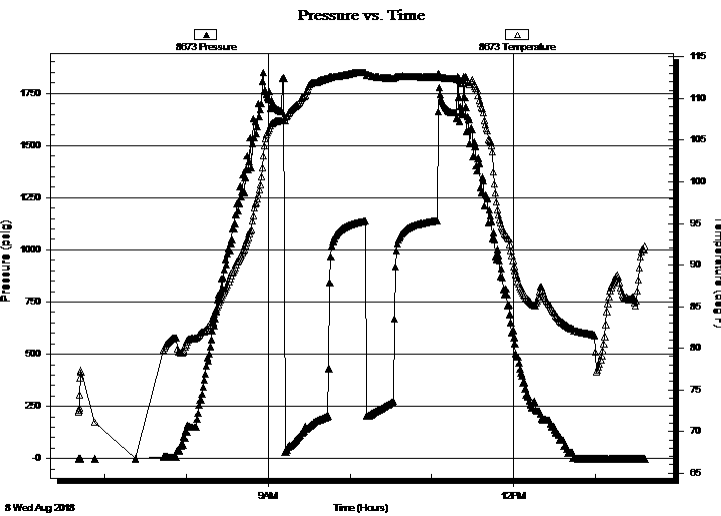
Test Start: 2018.08.08 @ 06:40:38

**GENERAL INFORMATION:**

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 09:12:03  
 Time Test Ended: 13:36:47  
 Interval: **3587.00 ft (KB) To 3705.00 ft (KB) (TVD)**  
 Total Depth: 3775.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Straddle (Reset)  
 Tester: Ray Schw ager  
 Unit No: 77  
 Reference Elevations: 2055.00 ft (KB)  
 2047.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8673      Outside**  
 Press@RunDepth:      psig @      3592.00 ft (KB)      Capacity:      8000.00 psig  
 Start Date:      2018.08.08      End Date:      2018.08.08      Last Calib.:      2018.08.08  
 Start Time:      06:40:53      End Time:      13:36:47      Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** 30-IFP-BOB in 11 min  
 30-ISIP-no blow  
 30-FFP-w k to BOB in 24 min  
 30-FSIP-no blow



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

Recovery		
Length (ft)	Description	Volume (bbl)
155.00	MW 40%M60%W w /slight show of oil	1.14
372.00	MW 80%w 20%M	4.18

\* Recovery from multiple tests

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



# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

**17-14s-18w Ellis,KS**

PO Box 1019  
Hays KS 67601

**Black Gold #2-17**

Job Ticket: 64244

**DST#: 4**

ATTN: Al Dow ning ,Marc Dow

Test Start: 2018.08.08 @ 06:40:38

### GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:12:03

Time Test Ended: 13:36:47

**Interval: 3587.00 ft (KB) To 3705.00 ft (KB) (TVD)**

Total Depth: 3775.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Straddle (Reset)

Tester: Ray Schw ager

Unit No: 77

Reference Elevations: 2055.00 ft (KB)

2047.00 ft (CF)

KB to GR/CF: 8.00 ft

**Serial #: 8373 Below (Straddle)**

Press@RunDepth: psig @ 3712.00 ft (KB)

Start Date: 2018.08.08

End Date:

2018.08.08

Start Time: 06:40:56

End Time:

13:37:20

Capacity: 8000.00 psig

Last Calib.:

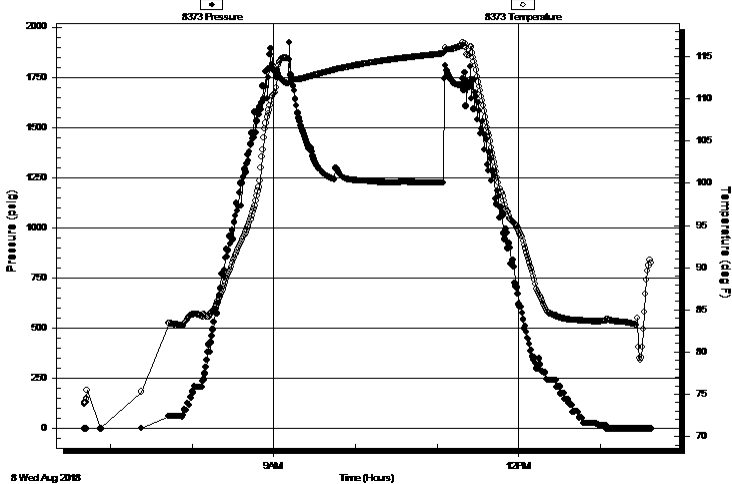
2018.08.08

Time On Btm:

Time Off Btm:

TEST COMMENT: 30-IFP-BOB in 11 min  
30-ISIP-no blow  
30-FFP-w k to BOB in 24 min  
30-FSIP-no blow

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
155.00	MW 40%M60%W w /slight show of oil	1.14
372.00	MW 80%w 20%M	4.18

\* Recovery from multiple tests

Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Dow ning-Nelson Oil Co Inc

**17-14s-18w Ellis,KS**

PO Box 1019  
Hays KS 67601

**Black Gold #2-17**

Job Ticket: 64244

**DST#: 4**

ATTN: Al Dow ning ,Marc Dow

Test Start: 2018.08.08 @ 06:40:38

## Tool Information

Drill Pipe:	Length: 3272.00 ft	Diameter: 3.80 inches	Volume: 45.90 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 310.00 ft	Diameter: 2.75 inches	Volume: 2.28 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 48.18 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 53000.00 lb
Depth to Top Packer:	3587.00 ft			Final 57000.00 lb
Depth to Bottom Packer:	3705.00 ft			
Interval betw een Packers:	118.00 ft			
Tool Length:	214.00 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	1.00			3567.00	
Shut In Tool	5.00			3572.00	
Hydraulic tool	5.00			3577.00	
Packer	5.00			3582.00	21.00 Bottom Of Top Packer
Packer	5.00			3587.00	
Stubb	1.00			3588.00	
Perforations	4.00			3592.00	
Recorder	0.00	8360	Inside	3592.00	
Recorder	0.00	8673	Outside	3592.00	
Blank Spacing	96.00			3688.00	
Perforations	13.00			3701.00	
Blank Off Sub	1.00			3702.00	
Blank Spacing	3.00			3705.00	118.00 Tool Interval
Packer	5.00			3710.00	
Stubb	1.00			3711.00	
Perforations	1.00			3712.00	
Recorder	0.00	8373	Below	3712.00	
Blank Spacing	65.00			3777.00	
Bullnose	3.00			3780.00	75.00 Bottom Packers & Anchor

**Total Tool Length: 214.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Dow ning-Nelson Oil Co Inc

**17-14s-18w Ellis,KS**

PO Box 1019  
Hays KS 67601

**Black Gold #2-17**

Job Ticket: 64244

**DST#: 4**

ATTN: Al Dow ning ,Marc Dow

Test Start: 2018.08.08 @ 06:40:38

## 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:

34000 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbf

Water Loss: 10.36 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbf
155.00	MW 40%M60%W w /slight show of oil	1.139
372.00	MW 80%w 20%M	4.183

Total Length: 527.00 ft

Total Volume: 5.322 bbl

Num Fluid Samples: 0

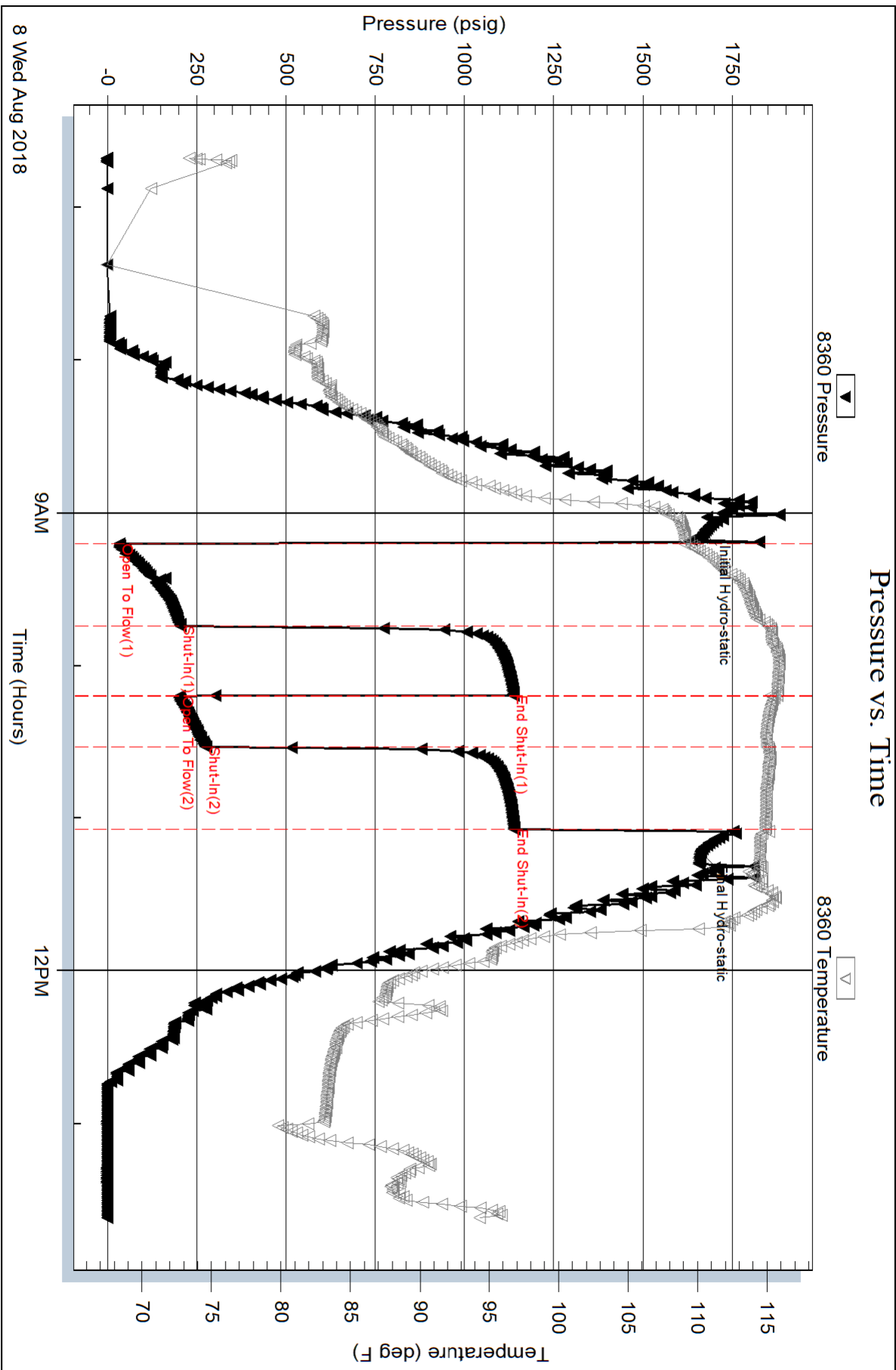
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .2@70F



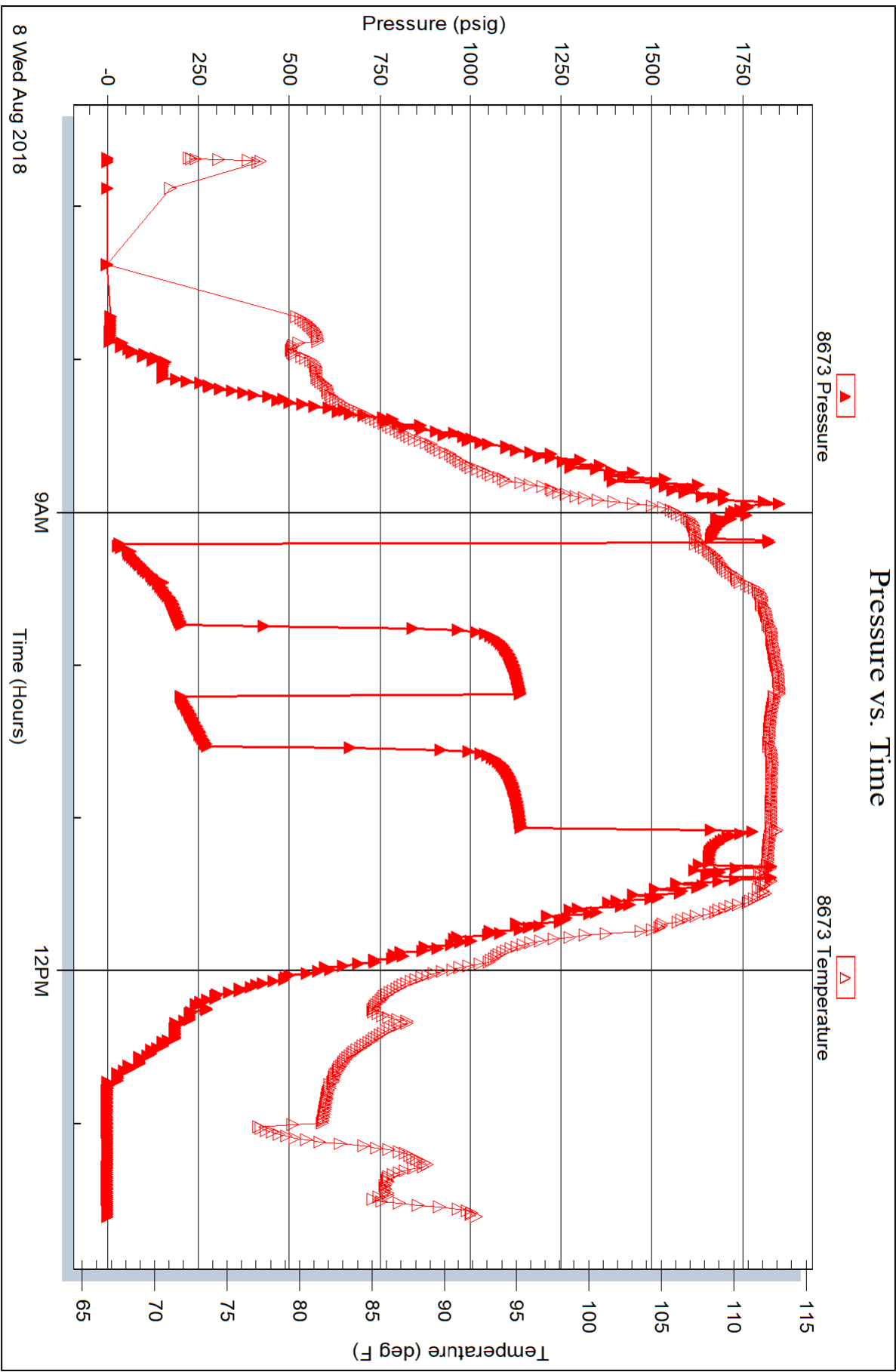
Serial #: 8673

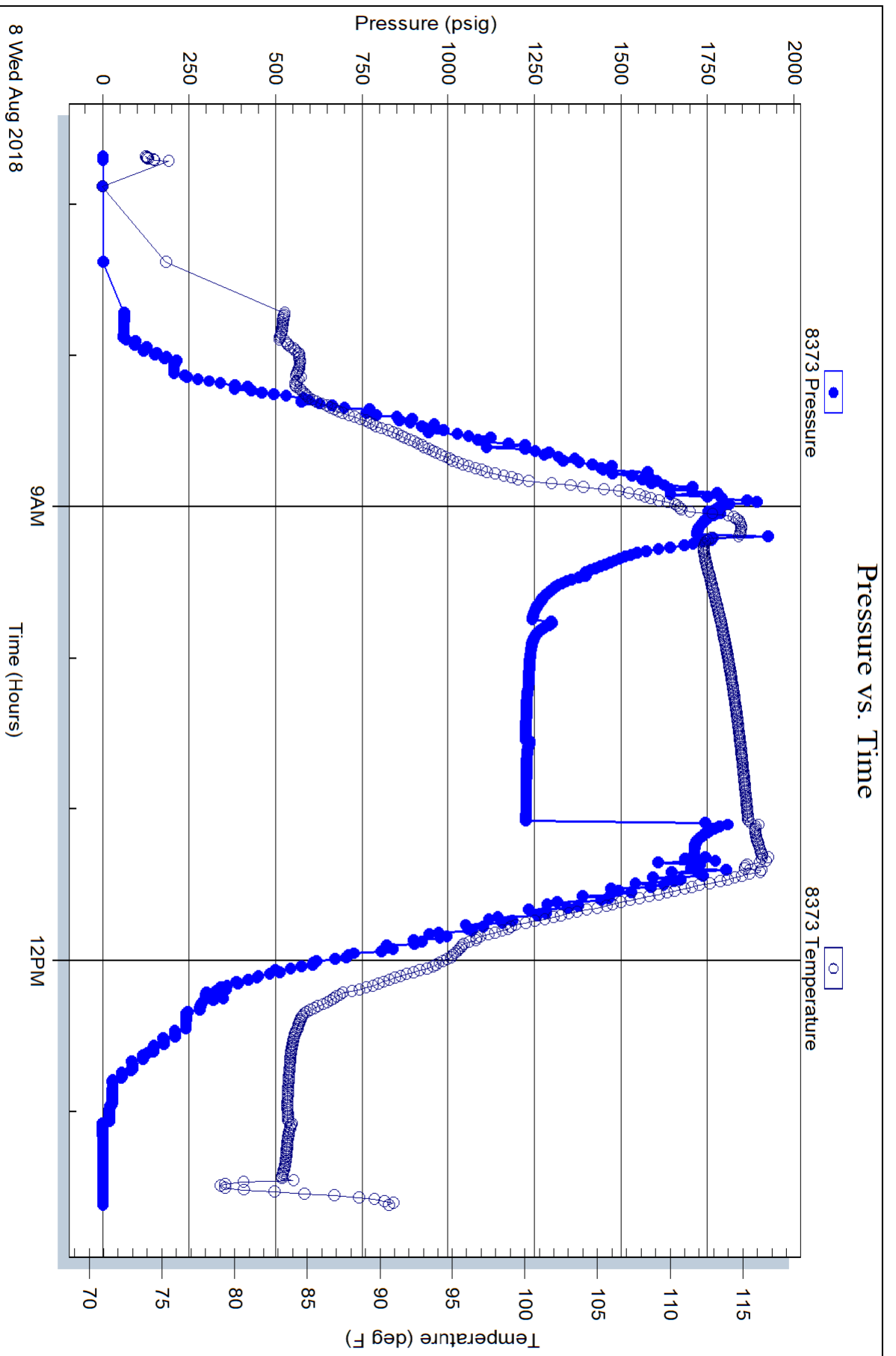
Outside

Dow nting-Nelson Oil Co Inc

Black Gold #2-17

DST Test Number: 4







# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 64241

Well Name & No. Black Gold #2-17 Test No. 1 Date 8-6-18  
 Company Downing-Nelson Oil Co Inc Elevation 2055 KB 2047 GL  
 Address PO Box 1019 Hays, Ks 67601  
 Co. Rep / Geo. MARC Downing Rig Discovery rig 1  
 Location: Sec. 17 Twp 14<sup>s</sup> Rge. 18<sup>w</sup> Co. ELLIS State Ks

Interval Tested 3587-3680 Zone Tested Congle sd.  
 Anchor Length 93 Drill Pipe Run 3276 Mud Wt. 9.1  
 Top Packer Depth 3582 Drill Collars Run - Vis 47  
 Bottom Packer Depth 3587 Wt. Pipe Run 310 WL 9.6  
 Total Depth 3680 Chlorides 5000 ppm System LCM 3/4<sup>#</sup>

Blow Description IFP - Weak Blow then-out 1/2" Blow  
ISIP - NO Blow  
FFP - NO Blow  
FSIP - NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>HOCM</u>	<u>40</u>		<u>60</u>	
<u>25</u>	<u>OCM</u>	<u>10</u>		<u>90</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

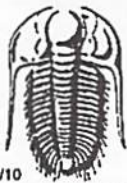
Rec Total 45 BHT 111 Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic 1795  Test 1050 T-On Location 1330  
 (B) First Initial Flow 19  Jars \_\_\_\_\_ T-Started 1620  
 (C) First Final Flow 27  Safety Joint \_\_\_\_\_ T-Open 1825  
 (D) Initial Shut-In 623  Circ Sub \_\_\_\_\_ T-Pulled 2025  
 (E) Second Initial Flow 32  Hourly Standby \_\_\_\_\_ T-Out 2218  
 (F) Second Final Flow 37  Mileage 15 RT 15 Comments \_\_\_\_\_  
 (G) Final Shut-In 360  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1700  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_

Initial Open 30  Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Initial Shut-In 30  Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Final Flow 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Final Shut-In 30  Day Standby \_\_\_\_\_ Total 1065  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1065

Approved By \_\_\_\_\_ Our Representative Ray Schwagerl Thank you

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



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 64242

Well Name & No. Black Gold #2-17 Test No. 2 Date 8-7-18  
 Company Downing-Nelson Oil Co Inc Elevation 2055 KB 2047 GL  
 Address PO Box 1019 Hays Ks 67601  
 Co. Rep / Geo. MARC Downing Rig Discovery rig 1  
 Location: Sec. 17 Twp 14<sup>s</sup> Rge. 18<sup>w</sup> Co. ELLIS State Ks

Interval Tested 3586-3693 Zone Tested Arbuckle  
 Anchor Length 107 Drill Pipe Run 3276 Mud Wt. 9.1  
 Top Packer Depth 3581 Drill Collars Run - Vis 47  
 Bottom Packer Depth 3586 Wt. Pipe Run 310 WL 9.6  
 Total Depth 3693 Chlorides 5000 ppm System LCM 3/4 #  
 Blow Description IFP - WEAK Blow thru-out 1/2" to 1 3/4" Blow  
ISIP - NO Blow  
FFP - SURFACE TO 1/8" Blow  
FSIP - NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>CO</u>				
<u>60</u>	<u>OCM</u>		<u>10</u>		<u>90</u>

Rec Total 65 BHT 108 Gravity 31 API RW - @ - °F Chlorides - ppm  
 (A) Initial Hydrostatic 1701  Test 1050 T-On Location 0435  
 (B) First Initial Flow 24  Jars \_\_\_\_\_ T-Started 0525  
 (C) First Final Flow 36  Safety Joint \_\_\_\_\_ T-Open 0745  
 (D) Initial Shut-In 566  Circ Sub \_\_\_\_\_ T-Pulled 1045  
 (E) Second Initial Flow 40  Hourly Standby \_\_\_\_\_ T-Out 1243  
 (F) Second Final Flow 45  Mileage 15 RT <sup>15</sup> Comments \_\_\_\_\_  
 (G) Final Shut-In 434  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1660  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1065

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

Sub Total 0  
 Total 1065  
 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative Ray Schwager *Thank you*

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 64243

Well Name & No. BLACK Gold #2-17 Test No. 3 Date 8-7-18  
 Company Downing-Nelson Oil Co Inc Elevation 2055 KB 2047 GL  
 Address PO Box 1019 Hays Ks 67601  
 Co. Rep / Geo. MARC Downing Rig DISCOVERY rig 1  
 Location: Sec. 17 Twp 14<sup>s</sup> Rge. 18<sup>w</sup> Co. ELLIS State Ks

Interval Tested 3473-3538 Zone Tested LKC H-J  
 Anchor Length 65' Drill Pipe Run 3147 Mud Wt. 9.1  
 Top Packer Depth 3468-3473 Drill Collars Run — Vls 48  
 Bottom Packer Depth 3538 Wt. Pipe Run 310 WL 10.4  
 Total Depth 3775 Chlorides 5000 ppm System LCM 1 1/2 #

Blow Description TFP - SURFACE Blow died in 10 min  
ISTP - NO Blow  
FFP - NO Blow  
FSIP - NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Mud</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 5 BHT 108 Gravity — API RW — @ —° F Chlorides — ppm

(A) Initial Hydrostatic 1683  Test 1050 T-On Location 2330  
 (B) First Initial Flow 18  Jars \_\_\_\_\_ T-Started 0025 8<sup>th</sup>  
 (C) First Final Flow 22  Safety Joint \_\_\_\_\_ T-Open 0200  
 (D) Initial Shut-In 340  Circ Sub \_\_\_\_\_ T-Pulled 0400  
 (E) Second Initial Flow 22  Hourly Standby \_\_\_\_\_ T-Out 0602  
 (F) Second Final Flow 24  Mileage 15 Comments \_\_\_\_\_  
 (G) Final Shut-In 241  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1599  Straddle 600  Ruined Shale Packer \_\_\_\_\_

Initial Open 30  Shale Packer \_\_\_\_\_  
 Initial Shut-In 30  Extra Packer \_\_\_\_\_  
 Final Flow 30  Extra Recorder \_\_\_\_\_  
 Final Shut-In 30  Day Standby \_\_\_\_\_  
 Sub Total 1665  Accessibility \_\_\_\_\_  
 Sub Total 1665  Ruined Packer \_\_\_\_\_  
 Sub Total 0  Extra Copies \_\_\_\_\_  
 Total 1665 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative Ray Schwager Thank you

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 64244

Well Name & No. Black Gold #2-17 Test No. 4 Date 8-8-18  
 Company Downing-Nelson Oil Co Inc Elevation 2055 KB 2047 GL  
 Address PO Box 1019 Hays Ks 67601  
 Co. Rep / Geo. MARC Downing Rig Discovery rig 1  
 Location: Sec. 17 Twp 14<sup>s</sup> Rge. 18<sup>w</sup> Co. Ellis State K

Interval Tested 3587-3705 Zone Tested Arbuckle  
 Anchor Length 118 Drill Pipe Run 3272 Mud Wt. 9.1  
 Top Packer Depth 3587-3582 Drill Collars Run — Vis 48  
 Bottom Packer Depth 3705 Wt. Pipe Run 310 WL 10.4  
 Total Depth 3775 Chlorides 5000 ppm System LCM 1 1/2 #

Blow Description IFP - BOBIN 11min  
TSTP - NO Blow  
FFP - WEAK TO BOBIN 24min  
FSTP - NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>155</u>	<u>MW w/slight show of oil</u>			<u>60</u>	<u>40</u>
<u>372</u>	<u>MW</u>			<u>80</u>	<u>20</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 527 BHT 1 Gravity ✓ API RW .2 @ 70 ° F Chlorides 34000 ppm  
 (A) Initial Hydrostatic 1670  Test 1050 T-On Location 0600  
 (B) First Initial Flow 33  Jars \_\_\_\_\_ T-Started 0640  
 (C) First Final Flow 204  Safety Joint \_\_\_\_\_ T-Open 0910  
 (D) Initial Shut-In 1138  Circ Sub \_\_\_\_\_ T-Pulled 1110  
 (E) Second Initial Flow 201  Hourly Standby \_\_\_\_\_ T-Out 1336  
 (F) Second Final Flow 275  Mileage \_\_\_\_\_ Comments \_\_\_\_\_  
 (G) Final Shut-In 1139  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1661  Straddle 600  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1650  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1650

Approved By \_\_\_\_\_ Our Representative RAY SCHWAGER Thank you

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CHARGE TO: Downing & Nelson  
 ADDRESS:  
 CITY, STATE, ZIP CODE:

TICKET 27357

PAGE 1 OF 1

SERVICE LOCATIONS 1. <u>Hays, KS</u>	WELL/PROJECT NO. <u>2-17</u>	LEASE <u>Black Gold</u>	COUNTY/PARISH <u>Ellis</u>	STATE <u>KS</u>	CITY	DATE <u>08/02/18</u>	OWNER
2. <u>Ness City, KS</u>	TICKET TYPE <input checked="" type="checkbox"/> SERVICE <input type="checkbox"/> SALES	CONTRACTOR <u>Discovery Drilling</u>	RIG NAME/NO. <u>#1</u>	SHIPPED VIA <u>CT</u>	DELIVERED TO <u>Location</u>	ORDER NO.	
3.	WELL TYPE <u>0.1</u>	WELL CATEGORY <u>Development</u>	JOB PURPOSE <u>Cement Long String of Surface</u>	WELL PERMIT NO.	WELL LOCATION		
4.	REFERRAL LOCATION	INVOICE INSTRUCTIONS					

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.		U/M		UNIT PRICE	AMOUNT	
		LOC	ACCT	DF								
575		1			MILEAGE #113	10	mi			5.00	50	00
576D		1			Pump Charge - Deep Surface	1	EA			1300.00	1300	00
290		1			D-Air	5	gal			42.00	210	00
325		2			Standard Cement	350	SKS	32900	lbs	13.00	4550	00
278		2			Calcium Chloride (3%)	16	SKS	800	lbs	40.00	640	00
279		2			Bentonite Gel (2%)	7	SKS	700	lbs	30.00	210	00
581		2			Service Charge Cement	350	SKS	34400	lbs	1.75	612	50
583		2			Drayage	40	mi	688	T/M	0.85	584	00
											8157	30
											815	73
											7341	57
											353	43
											7695	00

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

X [Signature]  
 DATE SIGNED: TIME SIGNED:  A.M.  P.M.

REMIT PAYMENT TO:  
 SWIFT SERVICES, INC.  
 P.O. BOX 466  
 NESS CITY, KS 67560  
 785-798-2300

SURVEY	AGREE	UN-DECIDED	DIS-AGREE	PAGE TOTAL	8157.30
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?					815.73
WE UNDERSTOOD AND MET YOUR NEEDS?				102.00	
OUR SERVICE WAS PERFORMED WITHOUT DELAY?				5%	7341.57
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?				ELLIS TAX 7.0%	353.43
ARE YOU SATISFIED WITH OUR SERVICE? <input type="checkbox"/> YES <input type="checkbox"/> NO				TOTAL	7695.00
<input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND					

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR: [Signature] APPROVAL:

Thank You!

JOB LOG

SWIFT Services, Inc.

DATE

08/02/18

PAGE NO.

1

CUSTOMER	WELL NO.	LEASE		JOB TYPE	DESCRIPTION OF OPERATION AND MATERIALS		
		Black of Gold					
CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)	CASING
				T	C		
Domingo + Nelson	2-17				Deep Surface		
0600					On location, setup truck.		
					17 Jts of 8 5/8" x 23 # 730'		
					Start Running Pipe		
0850					Break Circulation		
0900	5	12			200 Pump Water ahead		
0920	5	85			250 Start Cmt, Mix @ 14.7 #		
0940	5	45 1/4			Fin Cmt, Start Displacement.		
					400 Fin Displacement		
0945					Cmt Circulated to Surface.		
					Shut in, Release Truck		
					Wash up		
					Rack up		
1000					Job Complete		
					Thanks		
					Jon, Austin, Isaac		

# SWIFT Services, Inc.

DATE <b>08/08/18</b>	PAGE NO. <b>1</b>
TICKET NO. <b>27361</b>	

OWNER <b>Rowning + Nelson</b>		WELL NO. <b>2-17</b>		LEASE <b>Black &amp; Gold</b>		JOB TYPE <b>A.T.A.</b>		DATE <b>08/08/18</b>		PAGE NO. <b>1</b>	
CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS			
				T	C	TUBING	CASING				
	1630							On location, set up trucks			
								1 <sup>st</sup> Plug @ 31680' w/ 50 SKS			
	1715	4	10				300	Start Water ahead			
		4	13				300	Start Cmt			
		4	3 1/2					Pump Water behind			
	1730							Have Rig Pump 42 bbl mud			
								2 <sup>nd</sup> Plug @ 1320' w/ 50 SKS			
	1930	4	10				200	Start Water ahead			
		4	13				200	Pump Cmt			
	1940	4	5					Pump Water behind			
	2000	4	5				100	3 <sup>rd</sup> Plug @ 780' w/ 150 SKS			
		4	39				100	Start Water ahead			
		4	2					Pump Cmt			
	2015							Pump Water behind			
	2130	3/4	2 1/2					4 <sup>th</sup> Plug @ 40' w/ 10 SKS			
								Pump Cmt, Top off 8 5/8"			
	2135	3	8					Plug RH w/ 30 SKS			
	2145	3	4					Plug MH w/ 15 SKS			
								Washup Truck			
								Rack up			
	2200							Job Complete			

Thanks,  
Jan, Austin, Isaac