

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. 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
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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
<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:	
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Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	LA-SE-BA UNIT 1-4
Doc ID	1407796

Tops

Name	Top	Datum
Top Anhydrite	1638'	+584
Base Anhydrite	1676'	+546
Topeka	3261'	-1039
Heebner	3489'	-1267
Toronto	3508'	-1286
LKC	3520'	-1298
BKC	3765'	-1543
Marmaton	3828'	-1606
Cherokee Shale	3867'	-1645
Arbuckle	3882'	-1660



DRILL STEM TEST REPORT

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

PO Box 1019
Hays, KS 67601

ATTN: Marc Downing

La-Se-Ba Unit #1-4

4-13S-21W Trego, KS

Start Date: 2018.03.26 @ 22:55:08

End Date: 2018.03.27 @ 05:17:59

Job Ticket #: 63417 DST #: 1

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

Printed: 2018.03.29 @ 08:53:26



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co., Inc.

4-13S-21W Trego, KS

PO Box 1019
Hays, KS 67601

La-Se-Ba Unit #1-4

ATTN: Marc Dow ning

Job Ticket: 63417

DST#: 1

Test Start: 2018.03.26 @ 22:55:08

GENERAL INFORMATION:

Formation: **LKC "E"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:47:44

Time Test Ended: 05:17:59

Test Type: Conventional Bottom Hole (Initial)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 3586.00 ft (KB) To 3600.00 ft (KB) (TVD)

Reference Elevations: 2222.00 ft (KB)

Total Depth: 3600.00 ft (KB) (TVD)

2214.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8524 Outside

Press@RunDepth: 48.87 psig @ 3587.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.03.26

End Date:

2018.03.27

Last Calib.:

2018.03.27

Start Time: 22:55:09

End Time:

05:17:59

Time On Btm:

2018.03.27 @ 01:47:29

Time Off Btm:

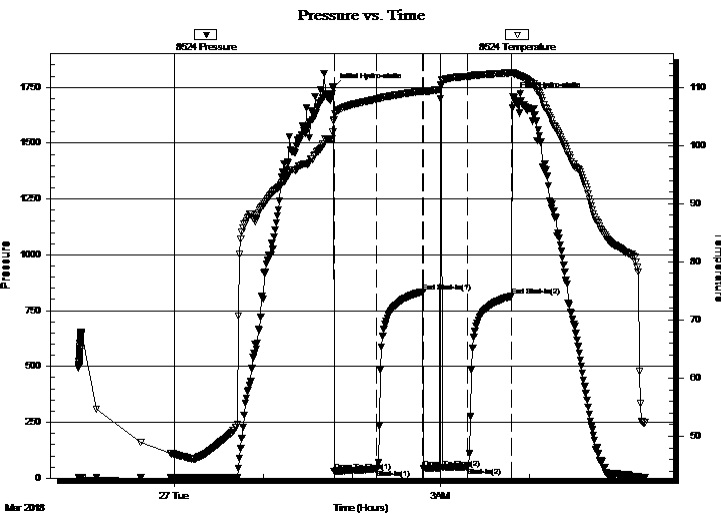
2018.03.27 @ 03:48:44

TEST COMMENT: 30- IF- Weak blow .5"

30- IS- No blow

30- FF- Very weak surface blow . Flushed tool. Weak surface blow died 2mins

30- FSI- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1749.19	104.30	Initial Hydro-static
1	31.25	104.42	Open To Flow (1)
30	40.31	107.92	Shut-In(1)
61	835.10	109.35	End Shut-In(1)
61	43.00	109.21	Open To Flow (2)
91	48.87	111.84	Shut-In(2)
121	814.63	112.48	End Shut-In(2)
122	1707.86	112.43	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	M	0.27

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.

4-13S-21W Trego, KS

PO Box 1019
Hays, KS 67601

La-Se-Ba Unit #1-4

Job Ticket: 63417

DST#: 1

ATTN: Marc Dow ning

Test Start: 2018.03.26 @ 22:55:08

Tool Information

Drill Pipe:	Length: 3550.00 ft	Diameter: 3.82 inches	Volume: 50.32 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 32.00 ft	Diameter: 2.25 inches	Volume: 0.16 bbl	Weight to Pull Loose: 66000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3586.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval betw een Packers:	14.00 ft			
Tool Length:	34.00 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	20.00 Bottom Of Top Packer
Packer	4.00			3586.00	
Stubb	1.00			3587.00	
Recorder	0.00	6771	Inside	3587.00	
Recorder	0.00	8524	Outside	3587.00	
Perforations	10.00			3597.00	
Bullnose	3.00			3600.00	14.00 Bottom Packers & Anchor
Total Tool Length:	34.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co., Inc.

4-13S-21W Trego, KS

PO Box 1019
Hays, KS 67601

La-Se-Ba Unit #1-4

Job Ticket: 63417

DST#: 1

ATTN: Marc Dow ning

Test Start: 2018.03.26 @ 22:55:08

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: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.59 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
40.00	M	0.271

Total Length: 40.00 ft

Total Volume: 0.271 bbl

Num Fluid Samples: 0

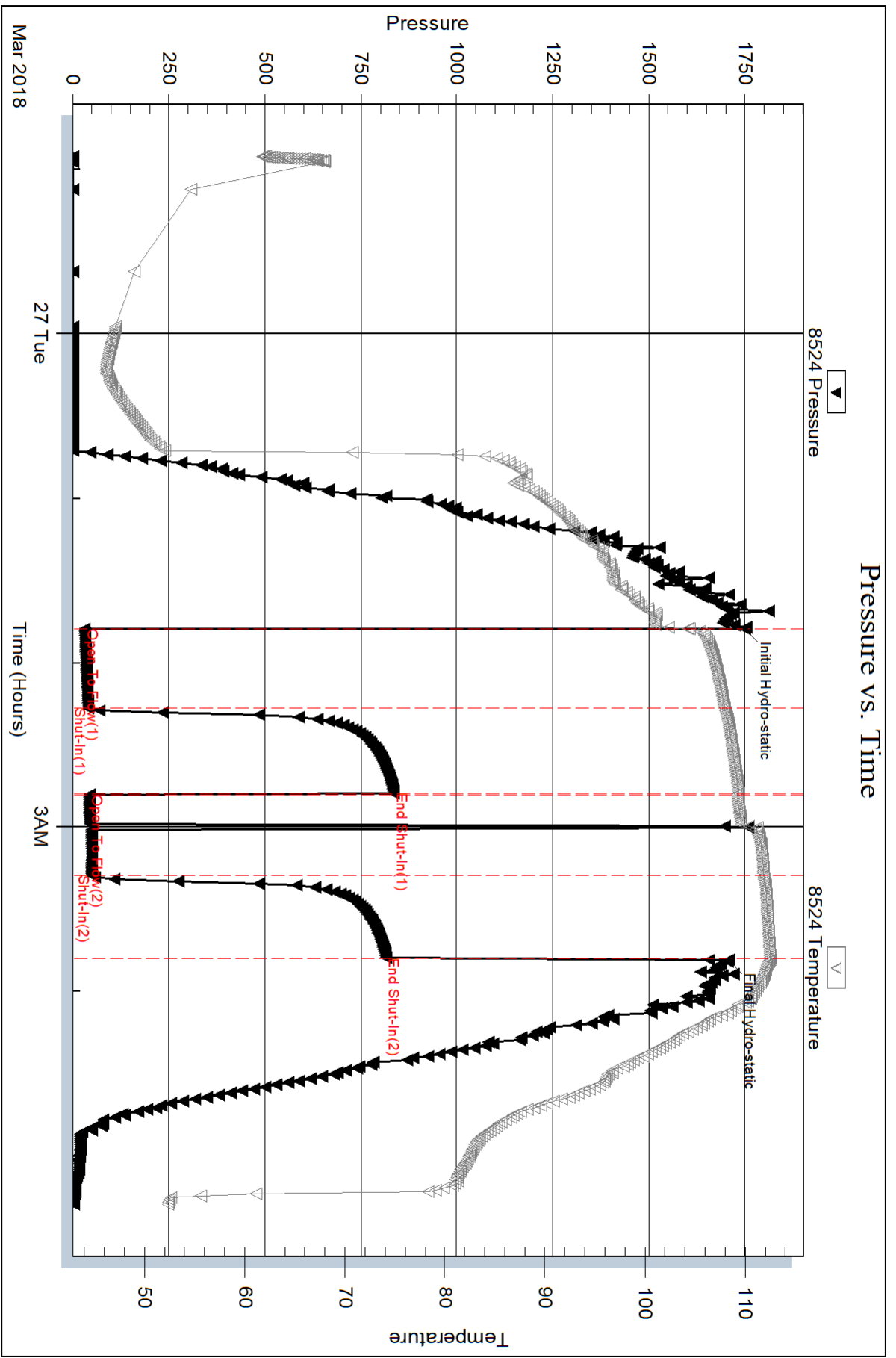
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



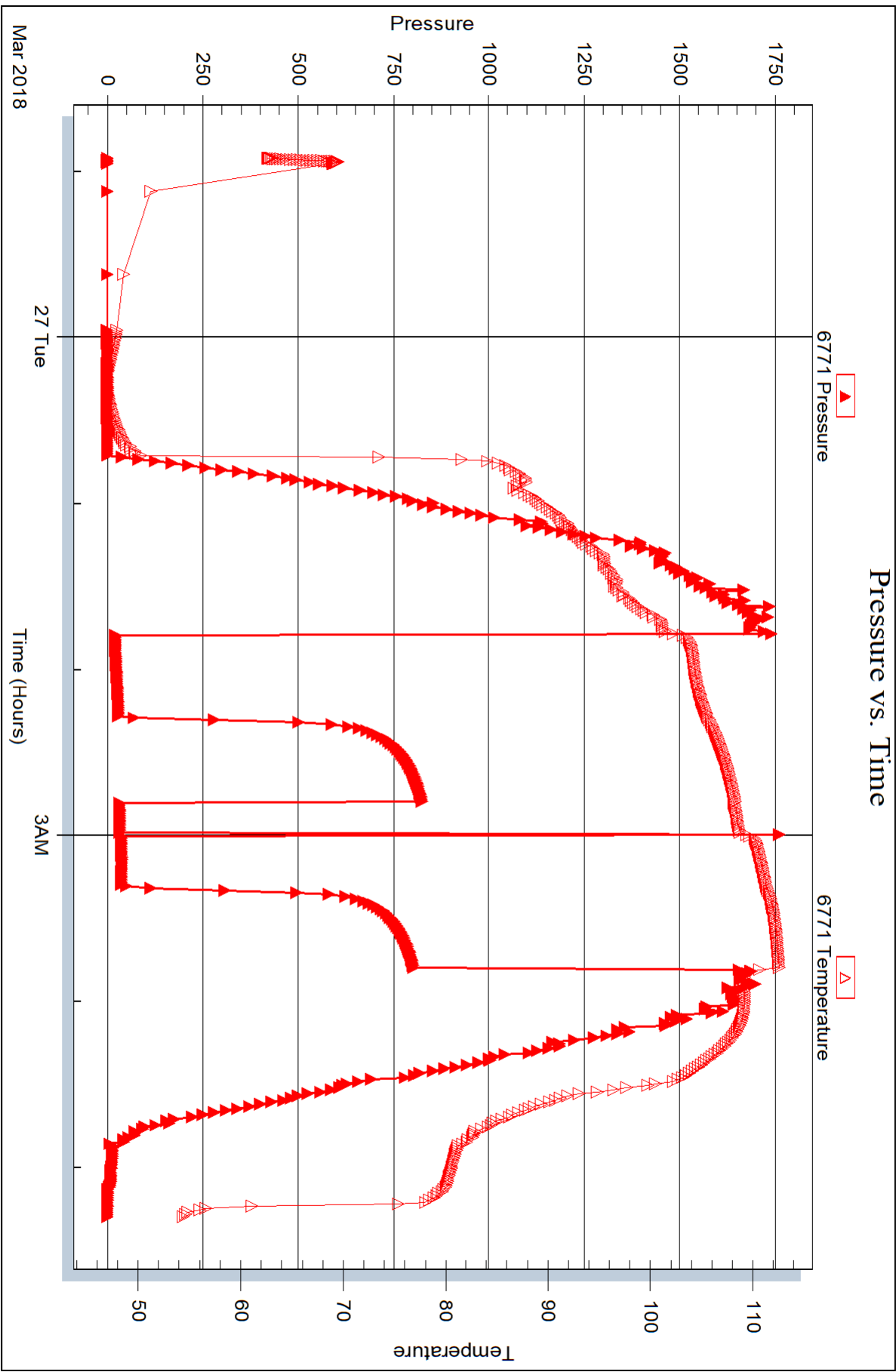
Serial #: 6771

Inside

Dow n/mg-Nelson Oil Co., Inc.

La-Se-Ba Unit #1-4

DST Test Number: 1





DRILL STEM TEST REPORT

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

PO Box 1019
Hays, KS 67601

ATTN: Marc Downing

La-Se-Ba Unit #1-4

4-13S-21W Trego, KS

Start Date: 2018.03.28 @ 01:30:53

End Date: 2018.03.28 @ 07:03:29

Job Ticket #: 63418 DST #: 2

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

Printed: 2018.03.29 @ 08:52:53



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co., Inc.

4-13S-21W Trego, KS

PO Box 1019
Hays, KS 67601

La-Se-Ba Unit #1-4

Job Ticket: 63418

DST#: 2

ATTN: Marc Dow ning

Test Start: 2018.03.28 @ 01:30:53

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:30:59

Time Test Ended: 07:03:29

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 3835.00 ft (KB) To 3865.00 ft (KB) (TVD)

Reference Elevations: 2222.00 ft (KB)

Total Depth: 3865.00 ft (KB) (TVD)

2214.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8524 Outside

Press@RunDepth: 61.20 psig @ 3836.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.03.28

End Date:

2018.03.28

Last Calib.:

2018.03.28

Start Time: 01:30:54

End Time:

07:03:29

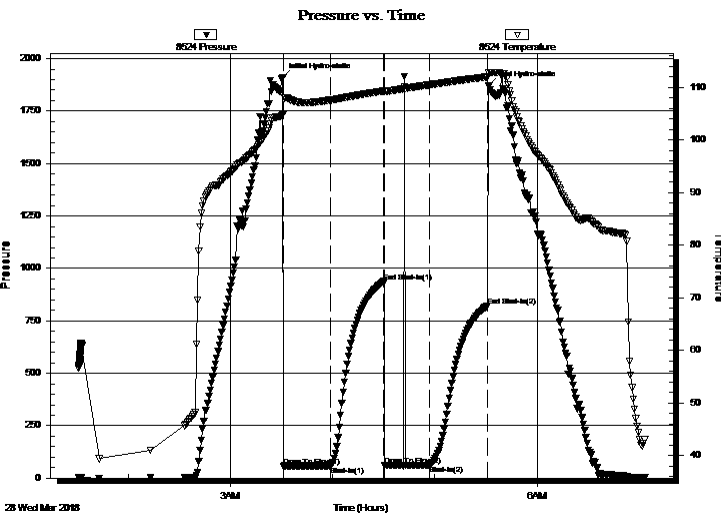
Time On Btm:

2018.03.28 @ 03:30:44

Time Off Btm:

2018.03.28 @ 05:31:44

TEST COMMENT: 30- IF- Weal surface blow
30- IS- No blow
30- FF- No blow . Flushed tool. No blow
30- FS- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1908.53	104.90	Initial Hydro-static
1	56.35	104.83	Open To Flow (1)
28	58.88	107.59	Shut-In(1)
60	937.04	109.35	End Shut-In(1)
60	59.72	109.17	Open To Flow (2)
86	61.20	110.50	Shut-In(2)
120	821.19	112.02	End Shut-In(2)
121	1868.98	112.85	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	M	0.41

* 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.

4-13S-21W Trego, KS

PO Box 1019
Hays, KS 67601

La-Se-Ba Unit #1-4

Job Ticket: 63418

DST#: 2

ATTN: Marc Dow ning

Test Start: 2018.03.28 @ 01:30:53

Tool Information

Drill Pipe:	Length: 3805.00 ft	Diameter: 3.82 inches	Volume: 53.94 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 32.00 ft	Diameter: 2.25 inches	Volume: 0.16 bbl	Weight to Pull Loose: 66000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 5.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3835.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval betw een Packers:	30.00 ft			
Tool Length:	50.00 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			3816.00	
Shut In Tool	5.00			3821.00	
Hydraulic tool	5.00			3826.00	
Packer	5.00			3831.00	20.00 Bottom Of Top Packer
Packer	4.00			3835.00	
Stubb	1.00			3836.00	
Recorder	0.00	6771	Inside	3836.00	
Recorder	0.00	8524	Outside	3836.00	
Perforations	26.00			3862.00	
Bullnose	3.00			3865.00	30.00 Bottom Packers & Anchor
Total Tool Length:	50.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co., Inc.

4-13S-21W Trego, KS

PO Box 1019
Hays, KS 67601

La-Se-Ba Unit #1-4

Job Ticket: 63418

DST#: 2

ATTN: Marc Dow ning

Test Start: 2018.03.28 @ 01:30:53

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: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
50.00	M	0.413

Total Length: 50.00 ft

Total Volume: 0.413 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

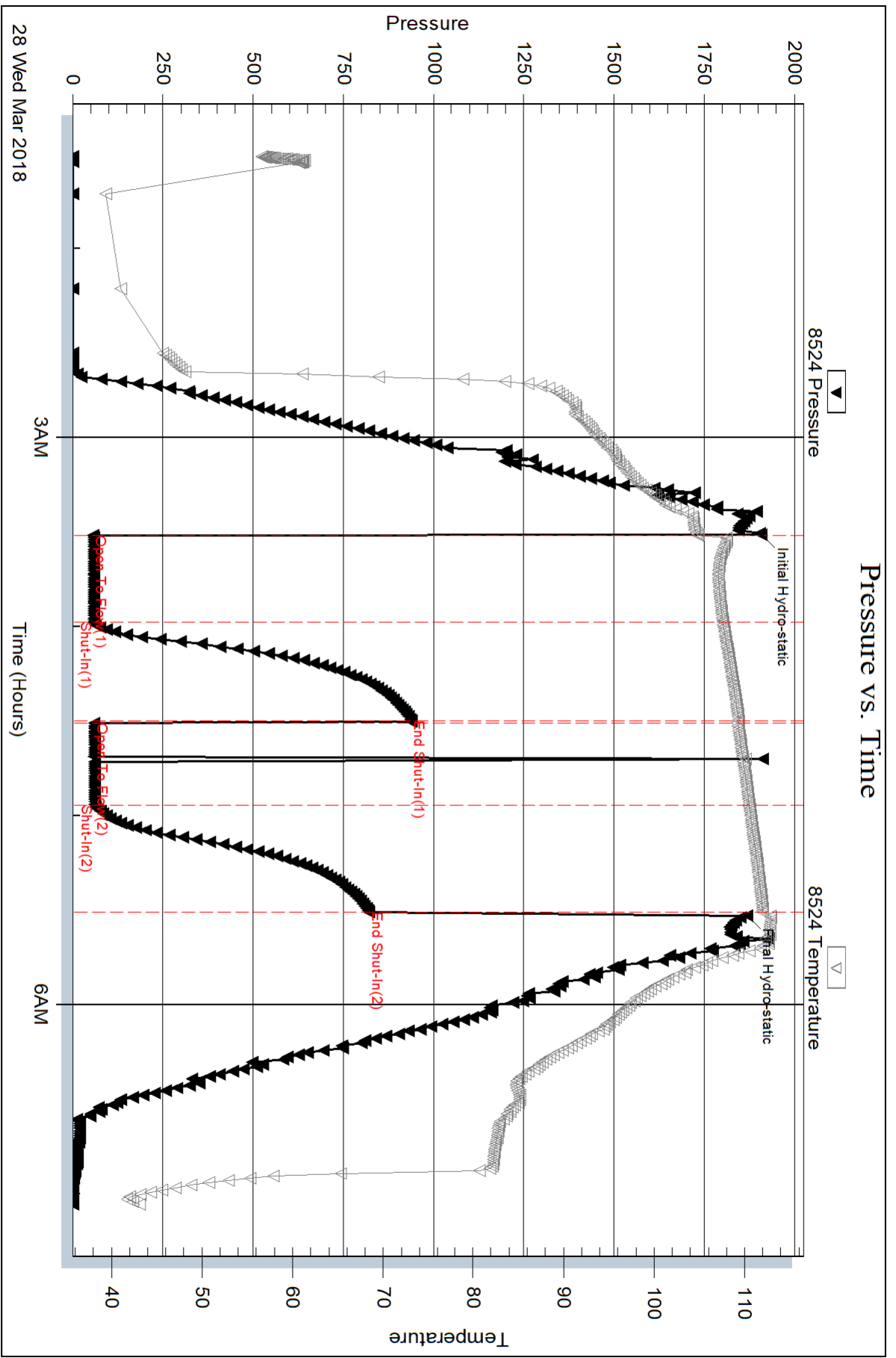
Recovery Comments:

Serial #: 8524

Outside Dow nting-Nelson Oil Co., Inc.

La-Se-Ba Unit #1-4

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 63418

Printed: 2018.03.29 @ 08:52:54

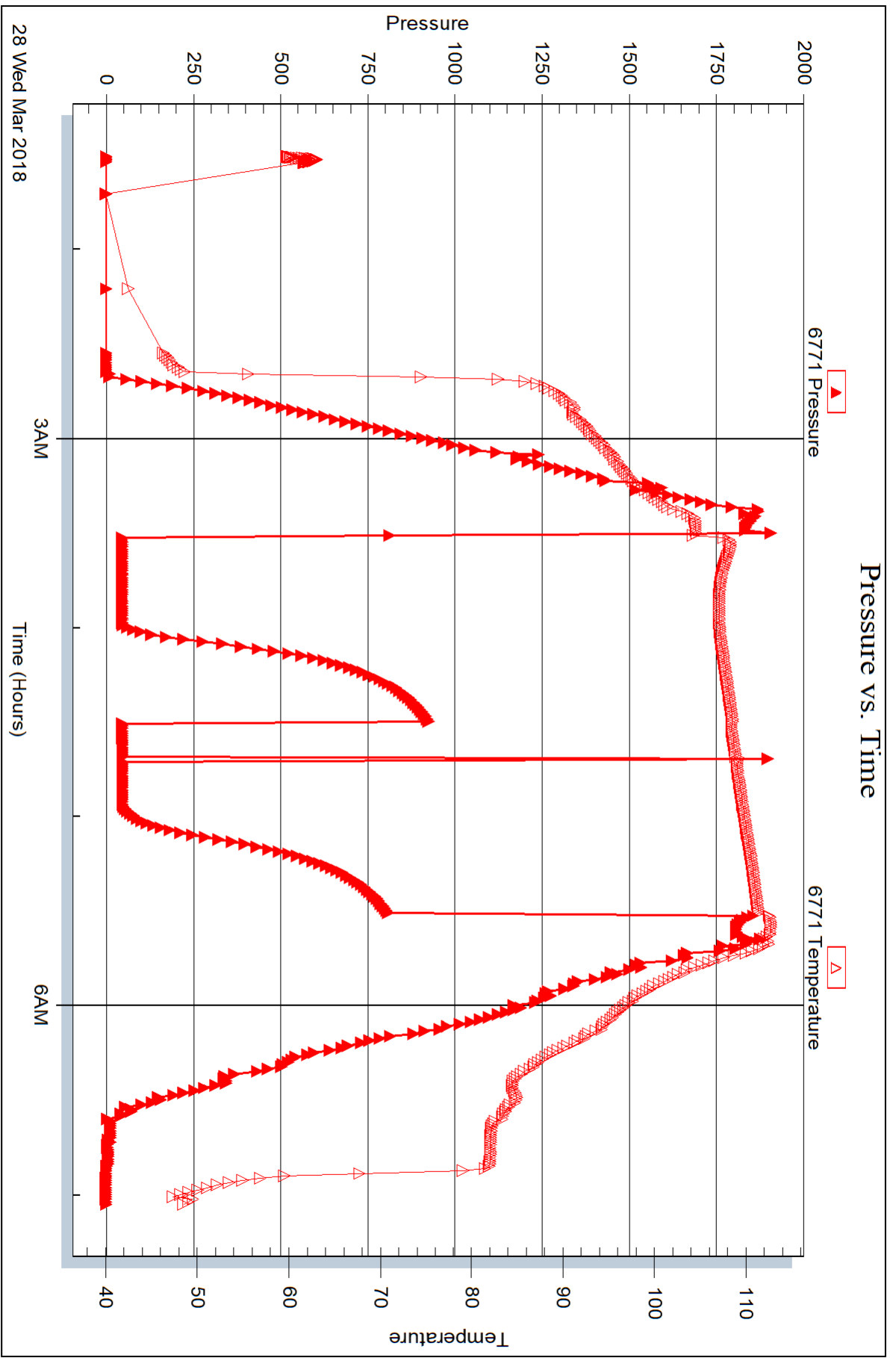
Serial #: 6771

Inside

Dow nting-Nelson Oil Co., Inc.

La-Se-Ba Unit #1-4

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 63418

Printed: 2018.03.29 @ 08:52:54



DRILL STEM TEST REPORT

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

PO Box 1019
Hays, KS 67601

ATTN: Marc Downing

La-Se-Ba Unit #1-4

4-13S-21W Trego, KS

Start Date: 2018.03.28 @ 13:50:09

End Date: 2018.03.28 @ 20:04:30

Job Ticket #: 63419 DST #: 3

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

Printed: 2018.03.29 @ 08:51:42



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co., Inc.

4-13S-21W Trego, KS

PO Box 1019
Hays, KS 67601

La-Se-Ba Unit #1-4

ATTN: Marc Dow ning

Job Ticket: 63419

DST#: 3

Test Start: 2018.03.28 @ 13:50:09

GENERAL INFORMATION:

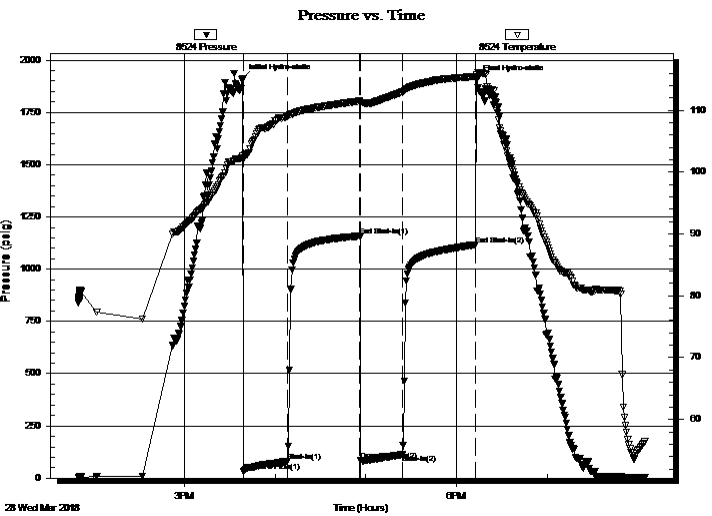
Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 15:39:00
 Time Test Ended: 20:04:30
 Interval: **3860.00 ft (KB) To 3896.00 ft (KB) (TVD)**
 Total Depth: 3896.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brannan Lonsdale
 Unit No: 73
 Reference Elevations: 2222.00 ft (KB)
 2214.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8524

Outside

Press@RunDepth: 112.90 psig @ 3861.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2018.03.28 End Date: 2018.03.28 Last Calib.: 2018.03.28
 Start Time: 13:50:10 End Time: 20:04:30 Time On Btm: 2018.03.28 @ 15:38:45
 Time Off Btm: 2018.03.28 @ 18:13:30

TEST COMMENT: 30- IF- BOB 18mins(17.5")
 45- IS- No blow
 30- FF- BOB 17mins(18.25")
 45- FSI- .5" blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1912.92	102.61	Initial Hydro-static
1	33.23	102.08	Open To Flow (1)
30	81.98	109.03	Shut-In(1)
78	1158.29	111.46	End Shut-In(1)
78	84.03	111.23	Open To Flow (2)
106	112.90	112.95	Shut-In(2)
154	1116.42	115.45	End Shut-In(2)
155	1905.73	115.78	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
190.00	SGMCO, 5%G 35%M 60%O	2.40
32.00	CGO, 20%G 80%O	0.45
0.00	95' GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co., Inc.

4-13S-21W Trego, KS

PO Box 1019
Hays, KS 67601

La-Se-Ba Unit #1-4

Job Ticket: 63419

DST#: 3

ATTN: Marc Dow ning

Test Start: 2018.03.28 @ 13:50:09

Tool Information

Drill Pipe:	Length: 3836.00 ft	Diameter: 3.82 inches	Volume: 54.38 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 32.00 ft	Diameter: 2.25 inches	Volume: 0.16 bbl	Weight to Pull Loose: 62000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3860.00 ft			Final 61000.00 lb
Depth to Bottom Packer:	ft			
Interval betw een Packers:	36.00 ft			
Tool Length:	56.00 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			3841.00	
Shut In Tool	5.00			3846.00	
Hydraulic tool	5.00			3851.00	
Packer	5.00			3856.00	20.00 Bottom Of Top Packer
Packer	4.00			3860.00	
Stubb	1.00			3861.00	
Recorder	0.00	6771	Inside	3861.00	
Recorder	0.00	8524	Outside	3861.00	
Perforations	32.00			3893.00	
Bullnose	3.00			3896.00	36.00 Bottom Packers & Anchor
Total Tool Length:	56.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co., Inc.

4-13S-21W Trego, KS

PO Box 1019
Hays, KS 67601

La-Se-Ba Unit #1-4

Job Ticket: 63419

DST#: 3

ATTN: Marc Dow ning

Test Start: 2018.03.28 @ 13:50:09

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36 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: 3000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
190.00	SGMCO, 5%G 35%M 60%O	2.397
32.00	CGO, 20%G 80%O	0.454
0.00	95' GIP	0.000

Total Length: 222.00 ft Total Volume: 2.851 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

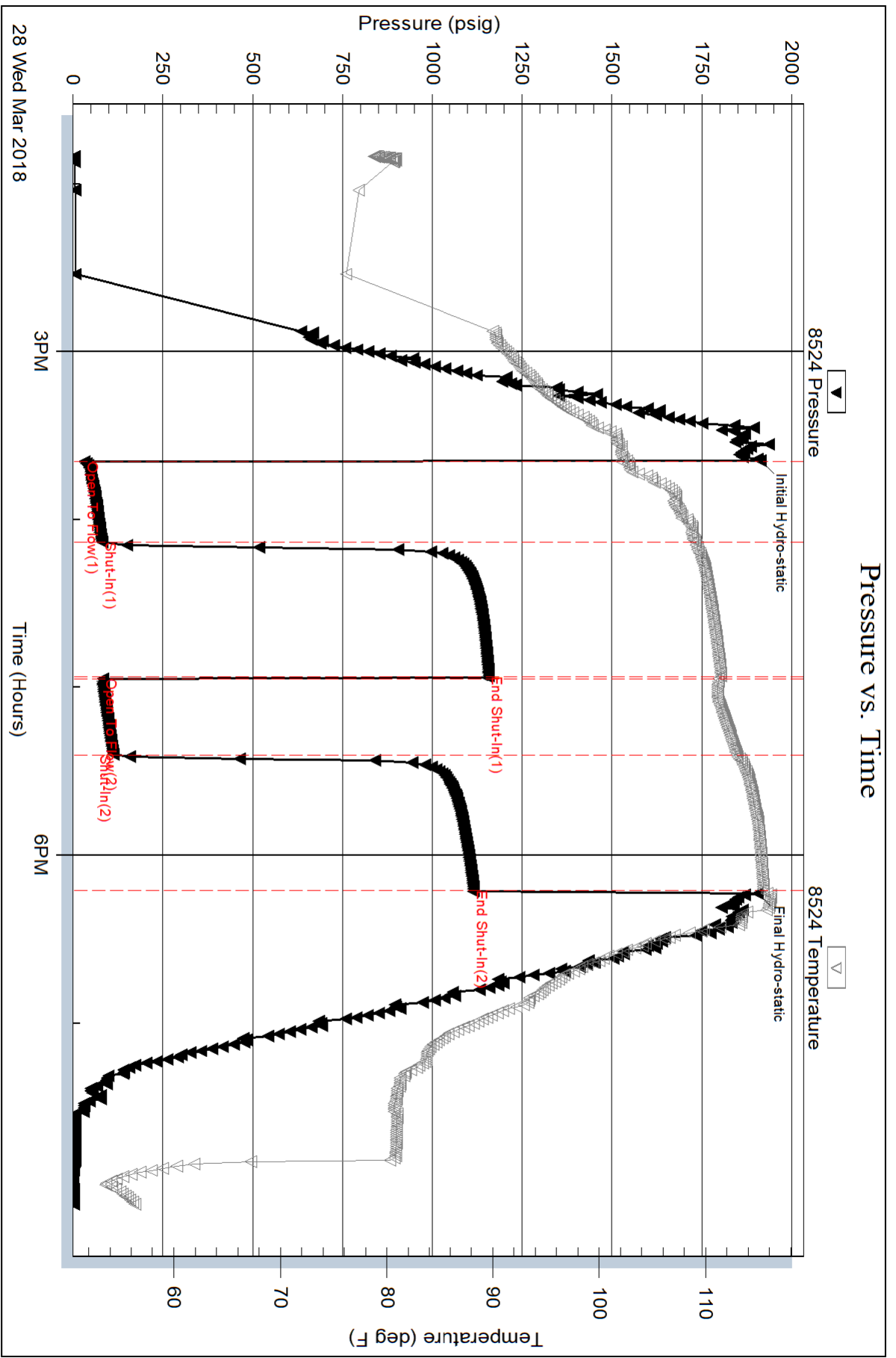
Recovery Comments:

Serial #: 8524

Outside Dow nting-Nelson Oil Co., Inc.

La-Se-Ba Unit #1-4

DST Test Number: 3



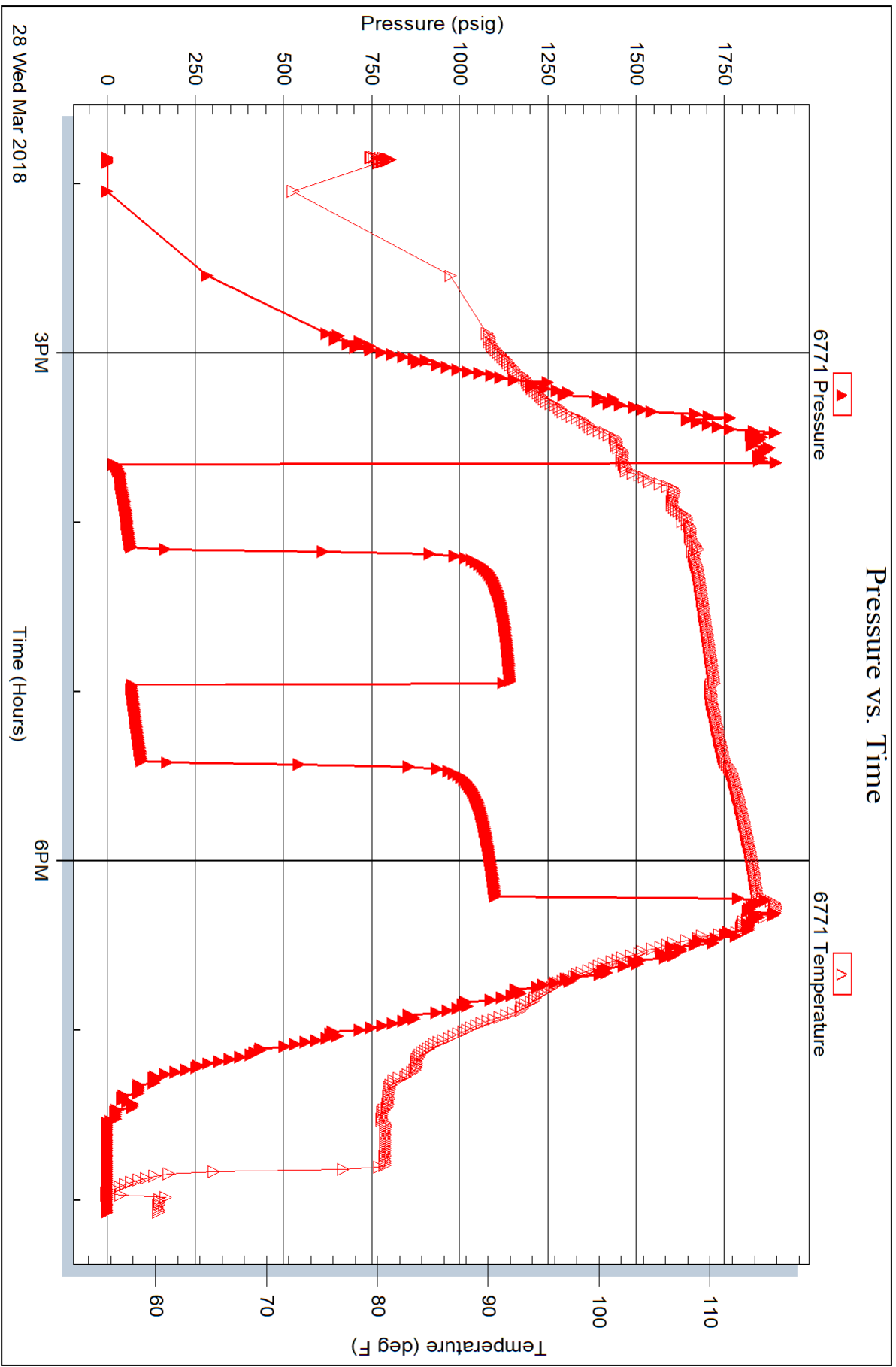
Serial #: 6771

Inside

Dow nting-Nelson Oil Co., Inc.

La-Se-Ba Unit #1-4

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 63419

Printed: 2018.03.29 @ 08:51:43



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63417

Well Name & No. La-Se-Ba Unit #1-4 Test No. 1 Date 3/26/18
 Company Dawning-Nelson Oil Co, Inc. Elevation 2222 KB 2214 GL
 Address PO Box 1019 Hays, KS 67601
 Co. Rep / Geo. Marc Dawning Rig Discovery #4
 Location: Sec. 4 Twp 13 S Rge. 21 W Co. Trego State KS

Interval Tested 3586-3600 Zone Tested LKC "E"
 Anchor Length 14' Drill Pipe Run 3550 Mud Wt. 8.7
 Top Packer Depth 3581 Drill Collars Run 32 Vis 60
 Bottom Packer Depth 3586 Wt. Pipe Run _____ WL 7.6
 Total Depth 3600 Chlorides 2000 ppm System LCM 2#

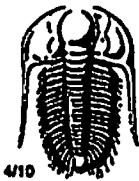
Blow Description IF - Weak blow 1/2"
ISJ - No blow
PF - Weak surface blow. Flushed tool. Weak surface blow died 2mins
FST - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>40</u>	<u>M</u>				
_____	_____				
_____	_____				
_____	_____				
_____	_____				

Rec Total 40' BHT 113° Gravity _____ API RW _____ @ _____ ° F Chlorides _____ ppm
 (A) Initial Hydrostatic 1749 Test 1050 T-On Location 2220
 (B) First Initial Flow 31 Jars _____ T-Started 2255
 (C) First Final Flow 40 Safety Joint _____ T-Open 3/27 0147
 (D) Initial Shut-In 835 Circ Sub _____ T-Pulled _____ 0347
 (E) Second Initial Flow 43 Hourly Standby _____ T-Out _____ 0517
 (F) Second Final Flow 49 Mileage 54 RT 54 Comments _____
 (G) Final Shut-In 815 Sampler _____
 (H) Final Hydrostatic 1708 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 30 Extra Recorder _____ Sub Total 0
 Initial Shut-In 30 Day Standby _____ Total 1104
 Final Flow 30 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 30 Sub Total 1104

Approved By _____ Our Representative Brian Lonsdale

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.



TRIOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63418

Well Name & No. La-Se-Ba Unit #1-4 Test No. 2 Date 3/28/18
 Company Downing-Nelson Oil Co, Inc. Elevation 2222 KB 2214 GL
 Address PO Box 1019 Hays, KS 67601
 Co. Rep / Geo. Marc Downing Rig Discovery #4
 Location: Sec. 4 Twp 13 S Rge. 21 Wco. Trego State KS

Interval Tested 3835-3865 Zone Tested Marmaton
 Anchor Length 30' Drill Pipe Run 3805 Mud Wt. 9.0
 Top Packer Depth 3830 Drill Collars Run 32 Vis 50
 Bottom Packer Depth 3835 Wt. Pipe Run — WL 8.0
 Total Depth 3865 Chlorides 300 ppm System LCM 1 1/2th

Blow Description IF-Weak surface blow
ISF-No blow
FF-No blow, Flushed tool No blow
FST-No blow

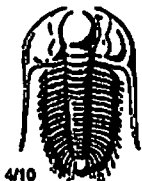
Rec	Feet of	%gas	%oil	%water	%mud
<u>50</u>	<u>M</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 50' BHT 112° Gravity — API RW — @ — F Chlorides — ppm
 (A) Initial Hydrostatic 1909 Test 1050 T-On Location 0120
 (B) First Initial Flow 56 Jars — T-Started 0130
 (C) First Final Flow 59 Safety Joint — T-Open 0329
 (D) Initial Shut-In 937 Circ Sub — T-Pulled 0529
 (E) Second Initial Flow 60 Hourly Standby — T-Out 0703
 (F) Second Final Flow 61 Mileage 54 BT 54 Comments —
 (G) Final Shut-In 821 Sampler —
 (H) Final Hydrostatic 1869 Straddle — Ruined Shale Packer —
 Shale Packer — Ruined Packer —
 Extra Packer — Extra Copies —
 Extra Recorder —

Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30
 Sub Total 1104
 Total 1104
 MP/DST Disc't —

Approved By — Our Representative Brian Lonsdale

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63419

Well Name & No. La-Se-Ba Unit #14 Test No. 3 Date 3/28/18
 Company Downing-Nelson Oil Co, Inc. Elevation 2222 KB 9214 GL
 Address PO Box 1019 Hays, KS 67601
 Co. Rep / Geo. Marc Downing Rig Discovery #4
 Location: Sec. 4 Twp 13 S Rge. 21 W Co. Trego State KS

Interval Tested 3860 - 3896 Zone Tested Arbuckle
 Anchor Length 36' Drill Pipe Run 3836 Mud Wt. 8.9
 Top Packer Depth 3855 Drill Collars Run 32 Vis 53
 Bottom Packer Depth 3860 Wt. Pipe Run _____ WL 8.0
 Total Depth 3896 Chlorides 3,080 ppm System LCM 1 1/2 #

Blow Description IF-BOB 18mins (17.5")
FST- No blow
FF-BOB 17mins (18.25")
FST- 1/2" blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>190</u>	<u>SGMCO</u>	<u>5</u>	<u>60</u>	<u>35</u>	
<u>32</u>	<u>CGO</u>	<u>20</u>	<u>80</u>		
	<u>95' ATP</u>				

Rec Total 222' BHT 115° Gravity 36 API RW _____ @ _____ °F Chlorides _____ ppm
 (A) Initial Hydrostatic 1913 Test 1050 T-On Location 1339
 (B) First Initial Flow 33 Jars _____ T-Started 1350
 (C) First Final Flow 82 Safety Joint _____ T-Open 1536
 (D) Initial Shut-In 1152 Circ Sub _____ T-Pulled 1808
 (E) Second Initial Flow 84 Hourly Standby _____ T-Out 2004
 (F) Second Final Flow 113 Mileage 54RT 54 Comments _____
 (G) Final Shut-In 1116 Sampler _____
 (H) Final Hydrostatic 1906 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 30 Extra Recorder _____ Sub Total 0
 Initial Shut-In 45 Day Standby _____ Total 1104
 Final Flow 30 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 45 Sub Total 1104

Approved By _____ Our Representative Brannon Lonsdale

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LOG

SWIFT Services, Inc.

DATE

03/22/18

PAGE NO.

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CUSTOMER

Downing-Nelson

WELL NO.

1-4

LEASE

LA-SE-BA Unit

JOB TYPE

Shallow Surface

TICKET NO.

27207

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	1930							On location, set up trucks Rig still Drilling
								221' of 8 5/8" 23#
								Hook up to Circulate.
	2100							Hook up to Swift
	2115	4	5			400		Start Water ahead.
		4				300		Start 150 SKS cement, 2% gel, 306 CC
		3 1/2	36			vac		Fin Cmt, Start Displacement
		3 1/2	6			200		Cmt Circulating
	2130	3 1/2	12 3/4			200		Fin Displacement
								Shut in, Release truck
								Wash up
								Rack up
	2145							Job Complete
								Thanks Jon, Austin, Kirby

LOG

SWIFT Services, Inc.

DATE 03/29/18 PAGE NO. 1

CUSTOMER		WELL NO.		LEASE		JOB TYPE		TICKET NO.	
Downing-Nelson		#1-4		LA-SE-BA Unit		Cement Longstring		27209	
CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS	
				T	C	TUBING	CASING		
	0240								On location w/ Float Equipment
									RTD - 3896
									Total Pipe - 3890.13, 5 1/2" x 14"
									Shoe It - 42.41
									Insert - 3845.59
									D.V. Tool - #54, @ 1629.17
									Centralizers - 1, 3, 5, 7, 9, 11, 53
									Basket - 54
	0445								Start Running Casing/Float Equip
	0700					1500			Break Circulation on Bottom, set packer shoe
	0745	5	12			400			Pump Mudflush
		5	20			400			Pump KCL Spacer
	0755	4							Pump Cmt, 150 SKS EA-2, @ 15.5
		4	36			Vac			Fin Cmt, Drop 1st Plug, Washout Pkt
	0803	8				Vac			Start Displacement
		7	75			500			Catch Cmt
	0815	6	95			900			Land Plug Lift PSI - 900
									Land PSI - 1500
	0820								Release, Dry
	0825								Drop Bump
			8						Plug Rathole w/ 30 SKS
			5						Plug Mousehole w/ 15 SKS
	0835					1200			Open D.V. Tool, Circ, wait on water
	0915	5 3/4				300			Start SMD Cmt
		4	82			Vac			End Cmt, Drop Plug
		6							Washout Pump + Lines
	0945	5	39 3/4			Vac			Start Displacement
						1100			Land Plug Lift 600
									Land 1100
	0950								Release, Dry (Circ 20 sacks to Pit)
									Wash up truck
									Rack up
	1015								Job Complete
									Thanks
									Jon, Austin, Kirby