

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	HEBERLEIN 1-25
Doc ID	1412407

All Electric Logs Run

Micro
Sonic
Compensated Density Neutron
Dual Induction

Form	ACO1 - Well Completion
Operator	Downing-Nelson Oil Co Inc
Well Name	HEBERLEIN 1-25
Doc ID	1412407

Tops

Name	Top	Datum
Top Anhydrite	1676'	+659
Base Anhydrite	1717'	+618
Topeka	3364'	-1029
Heebner	3598'	-1263
Toronto	3614'	-1279
LKC	3635'	-1300
BKC	3880'	-1545
Marmaton	3946'	-1611
Cherokee Shale	3986'	-1651
Re-worked Arbuckle	3998'	-1663
Arbuckle	4011'	-1676



DRILL STEM TEST REPORT

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

PO Box 1019
Hays, KS 67601

ATTN: Marc Downing

Heberlein #1-25

25-13S-21W Trego,KS

Start Date: 2018.06.06 @ 16:48:37

End Date: 2018.06.06 @ 23:50:07

Job Ticket #: 63446 DST #: 1

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

Printed: 2018.06.08 @ 11:05:08



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co., Inc.

25-13S-21W Trego,KS

PO Box 1019
Hays, KS 67601

Heberlein #1-25

Job Ticket: 63446

DST#: 1

ATTN: Marc Dow ning

Test Start: 2018.06.06 @ 16:48:37

GENERAL INFORMATION:

Formation: **LKC "E"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:06:37

Time Test Ended: 23:50:07

Test Type: Conventional Bottom Hole (Initial)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 3700.00 ft (KB) To 3714.00 ft (KB) (TVD)

Reference Elevations: 2335.00 ft (KB)

Total Depth: 3714.00 ft (KB) (TVD)

2327.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition:

KB to GR/CF: 8.00 ft

Serial #: 6753

Outside

Press@RunDepth: 53.51 psig @ 3701.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.06.06

End Date:

2018.06.06

Last Calib.:

2018.06.06

Start Time: 16:48:42

End Time:

23:50:06

Time On Btm:

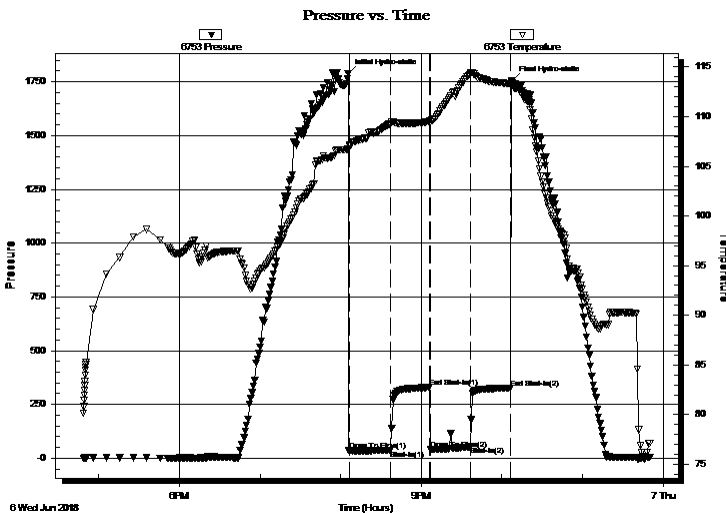
2018.06.06 @ 20:05:37

Time Off Btm:

2018.06.06 @ 22:07:37

TEST COMMENT: 30- IF- Surface blow Flushed tool Surface blow
30- IS- No blow
30- FF- Surface blow Flushed tool Surface blow
30- FS- No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1788.54	106.75	Initial Hydro-static
1	36.83	107.09	Open To Flow (1)
32	37.51	109.32	Shut-In(1)
61	329.56	109.53	End Shut-In(1)
62	39.78	109.48	Open To Flow (2)
91	53.51	114.33	Shut-In(2)
121	326.60	113.33	End Shut-In(2)
122	1756.12	113.38	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
80.00	M	0.84

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.

25-13S-21W Trego,KS

PO Box 1019
Hays, KS 67601

Heberlein #1-25

Job Ticket: 63446

DST#: 1

ATTN: Marc Dow ning

Test Start: 2018.06.06 @ 16:48:37

Tool Information

Drill Pipe:	Length: 3678.00 ft	Diameter: 3.82 inches	Volume: 52.14 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: 90000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 5.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3700.00 ft			Final 54000.00 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			3681.00	
Shut In Tool	5.00			3686.00	
Hydraulic tool	5.00			3691.00	
Packer	5.00			3696.00	20.00 Bottom Of Top Packer
Packer	4.00			3700.00	
Stubb	1.00			3701.00	
Recorder	0.00	6771	Inside	3701.00	
Recorder	0.00	6753	Outside	3701.00	
Perforations	10.00			3711.00	
Bullnose	3.00			3714.00	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.

25-13S-21W Trego,KS

PO Box 1019
Hays, KS 67601

Heberlein #1-25

Job Ticket: 63446

DST#: 1

ATTN: Marc Dow ning

Test Start: 2018.06.06 @ 16:48:37

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4800.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
80.00	M	0.838

Total Length: 80.00 ft

Total Volume: 0.838 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

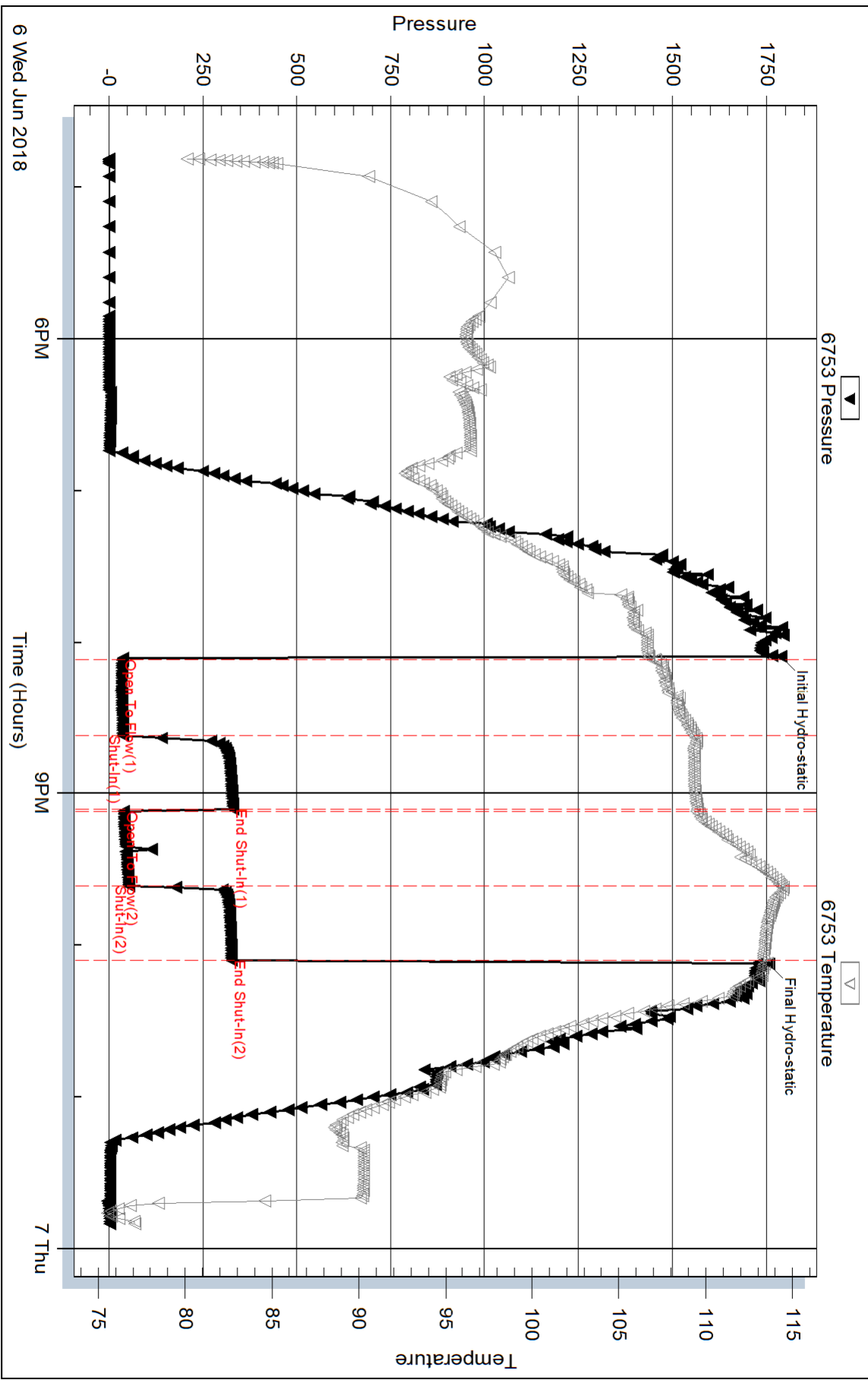
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



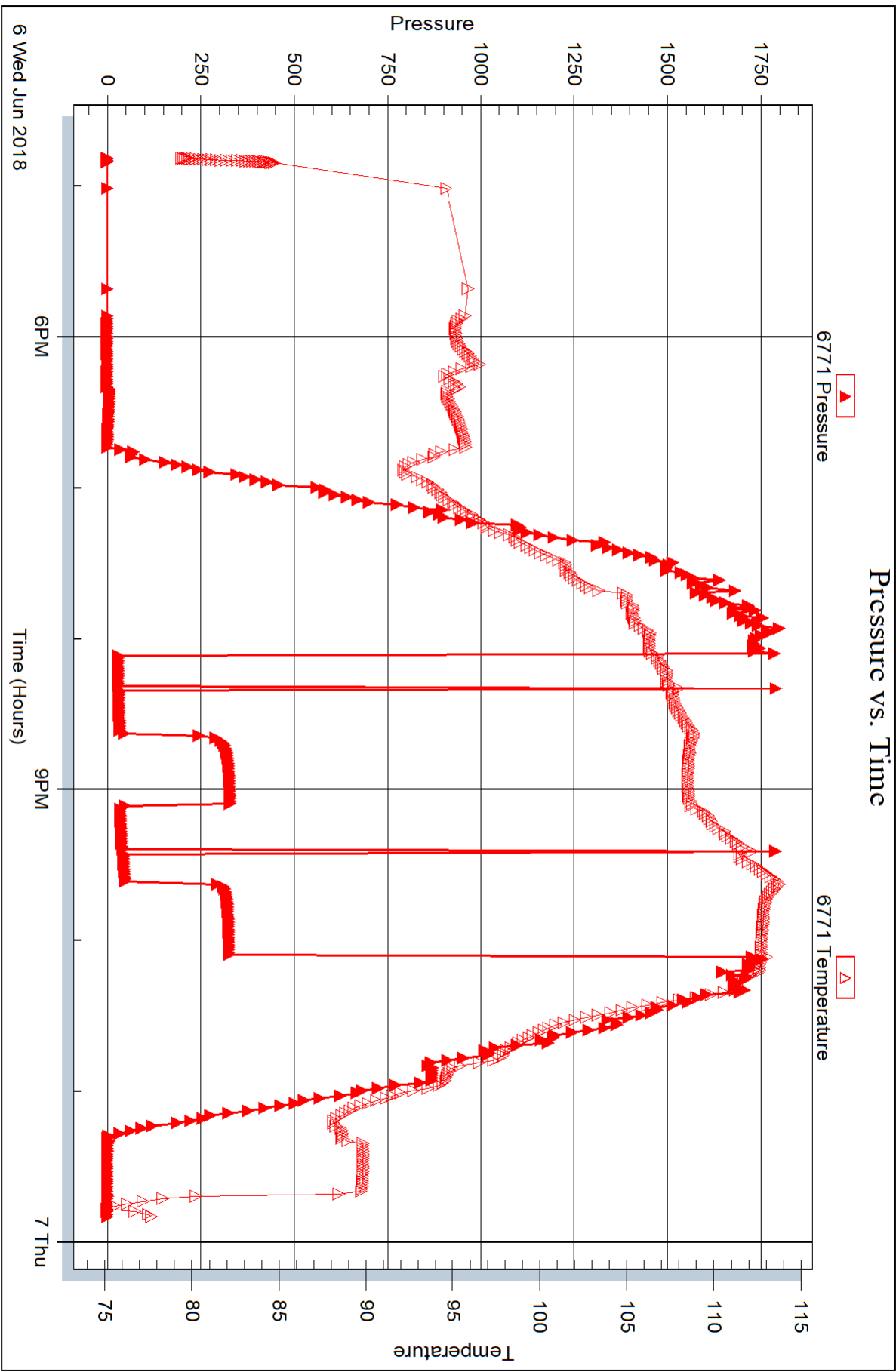
Serial #: 6771

Inside

Dow nung-Nelson Oil Co., Inc.

Heberlein #1-25

DST Test Number: 1





DRILL STEM TEST REPORT

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

PO Box 1019
Hays, KS 67601

ATTN: Marc Downing

Heberlein #1-25

25-13S-21W Trego,KS

Start Date: 2018.06.08 @ 04:23:19

End Date: 2018.06.08 @ 10:25:49

Job Ticket #: 63447 DST #: 2

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

Printed: 2018.06.08 @ 11:03:40



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co., Inc.

25-13S-21W Trego,KS

PO Box 1019
Hays, KS 67601

Heberlein #1-25

Job Ticket: 63447

DST#: 2

ATTN: Marc Dow ning

Test Start: 2018.06.08 @ 04:23:19

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:58:19

Time Test Ended: 10:25:49

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 3986.00 ft (KB) To 4025.00 ft (KB) (TVD)

Reference Elevations: 2335.00 ft (KB)

Total Depth: 4025.00 ft (KB) (TVD)

2327.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 6753 Outside

Press@RunDepth: 546.65 psig @ 3987.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.06.08

End Date:

2018.06.08

Last Calib.:

2018.06.08

Start Time: 04:23:24

End Time:

10:25:48

Time On Btm:

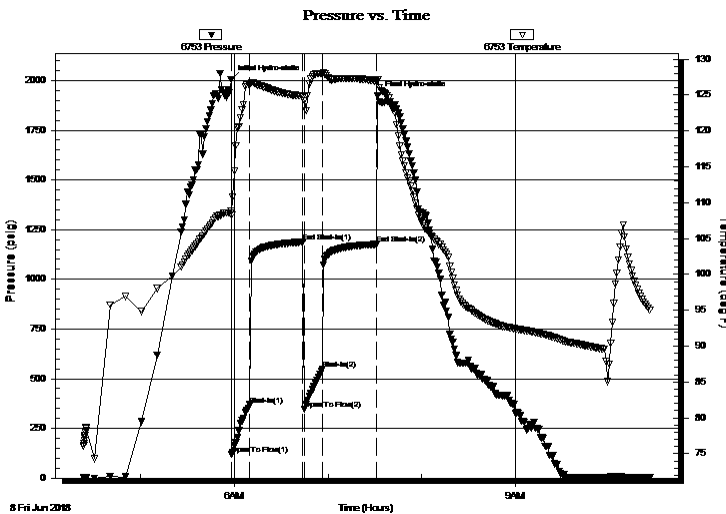
2018.06.08 @ 05:57:49

Time Off Btm:

2018.06.08 @ 07:31:49

TEST COMMENT: 15- IF- BOB 1 min (75")
30- IS- No blow
15- FF- BOB 2 mins (57")
30- FSI- No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2005.62	108.78	Initial Hydro-static
1	119.88	108.31	Open To Flow (1)
12	369.38	126.54	Shut-In(1)
46	1187.27	124.82	End Shut-In(1)
47	347.89	124.21	Open To Flow (2)
59	546.65	128.00	Shut-In(2)
93	1176.32	126.90	End Shut-In(2)
94	1924.55	127.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1236.00	GWMCO, 15%G 30%W 15%M 40%O	17.22
0.00	95' GIP	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

Dow ning-Nelson Oil Co., Inc.

25-13S-21W Trego,KS

PO Box 1019
Hays, KS 67601

Heberlein #1-25

Job Ticket: 63447

DST#: 2

ATTN: Marc Dow ning

Test Start: 2018.06.08 @ 04:23:19

Tool Information

Drill Pipe:	Length: 3963.00 ft	Diameter: 3.82 inches	Volume: 56.18 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: 63000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 59000.00 lb
Depth to Top Packer:	3986.00 ft			Final 61000.00 lb
Depth to Bottom Packer:	ft			
Interval betw een Packers:	39.00 ft			
Tool Length:	59.00 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			3967.00	
Shut In Tool	5.00			3972.00	
Hydraulic tool	5.00			3977.00	
Packer	5.00			3982.00	20.00 Bottom Of Top Packer
Packer	4.00			3986.00	
Stubb	1.00			3987.00	
Recorder	0.00	6771	Inside	3987.00	
Recorder	0.00	6753	Outside	3987.00	
Perforations	2.00			3989.00	
Change Over Sub	1.00			3990.00	
Drill Pipe	31.00			4021.00	
Change Over Sub	1.00			4022.00	
Bullnose	3.00			4025.00	39.00 Bottom Packers & Anchor

Total Tool Length: 59.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil Co., Inc.

25-13S-21W Trego, KS

PO Box 1019
Hays, KS 67601

Heberlein #1-25

Job Ticket: 63447

DST#: 2

ATTN: Marc Downing

Test Start: 2018.06.08 @ 04:23:19

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

14000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.58 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
1236.00	GWMCO, 15%G 30%W 15%M 40%O	17.225
0.00	95' GIP	0.000

Total Length: 1236.00 ft Total Volume: 17.225 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

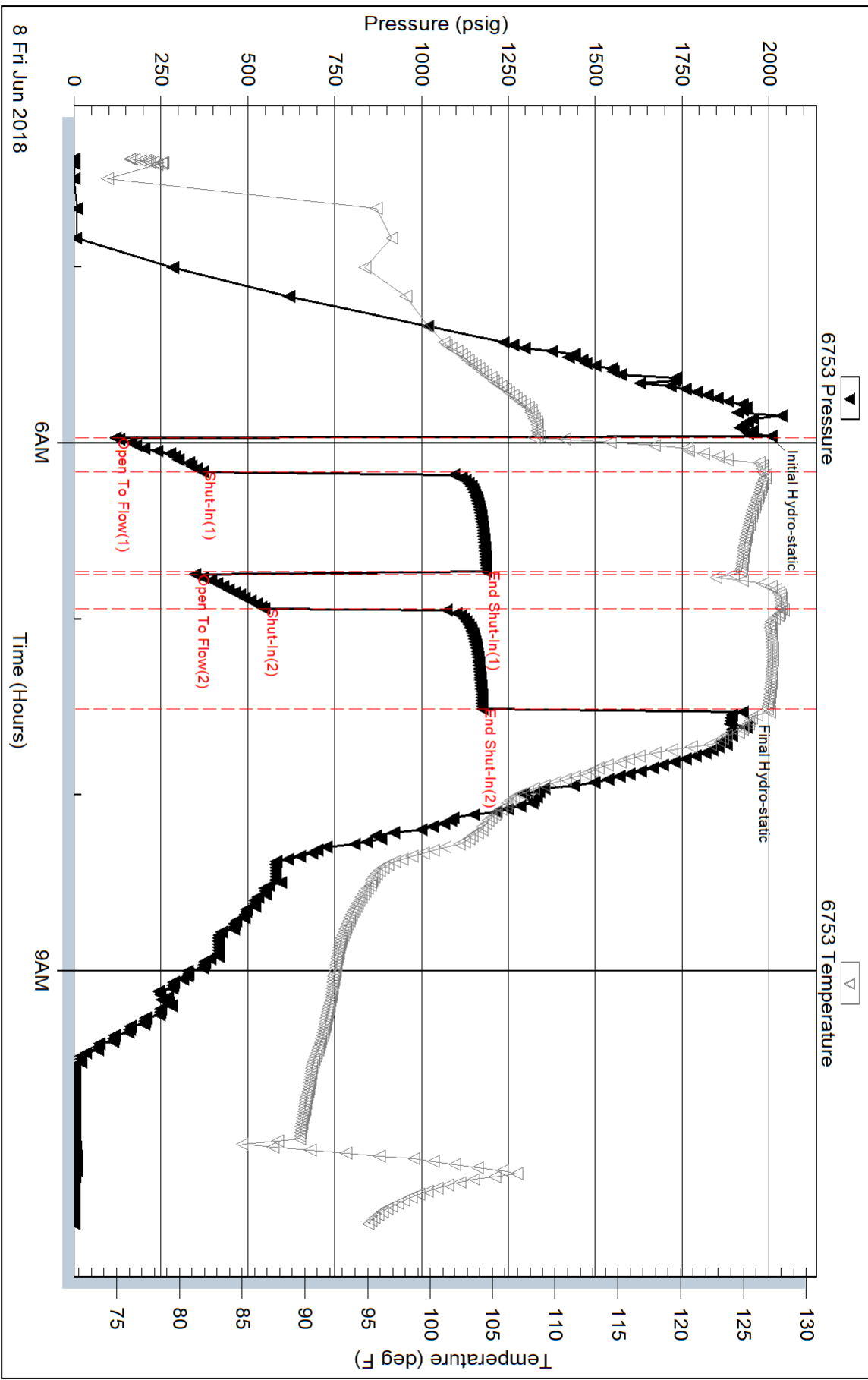
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .46@73deg

Pressure vs. Time



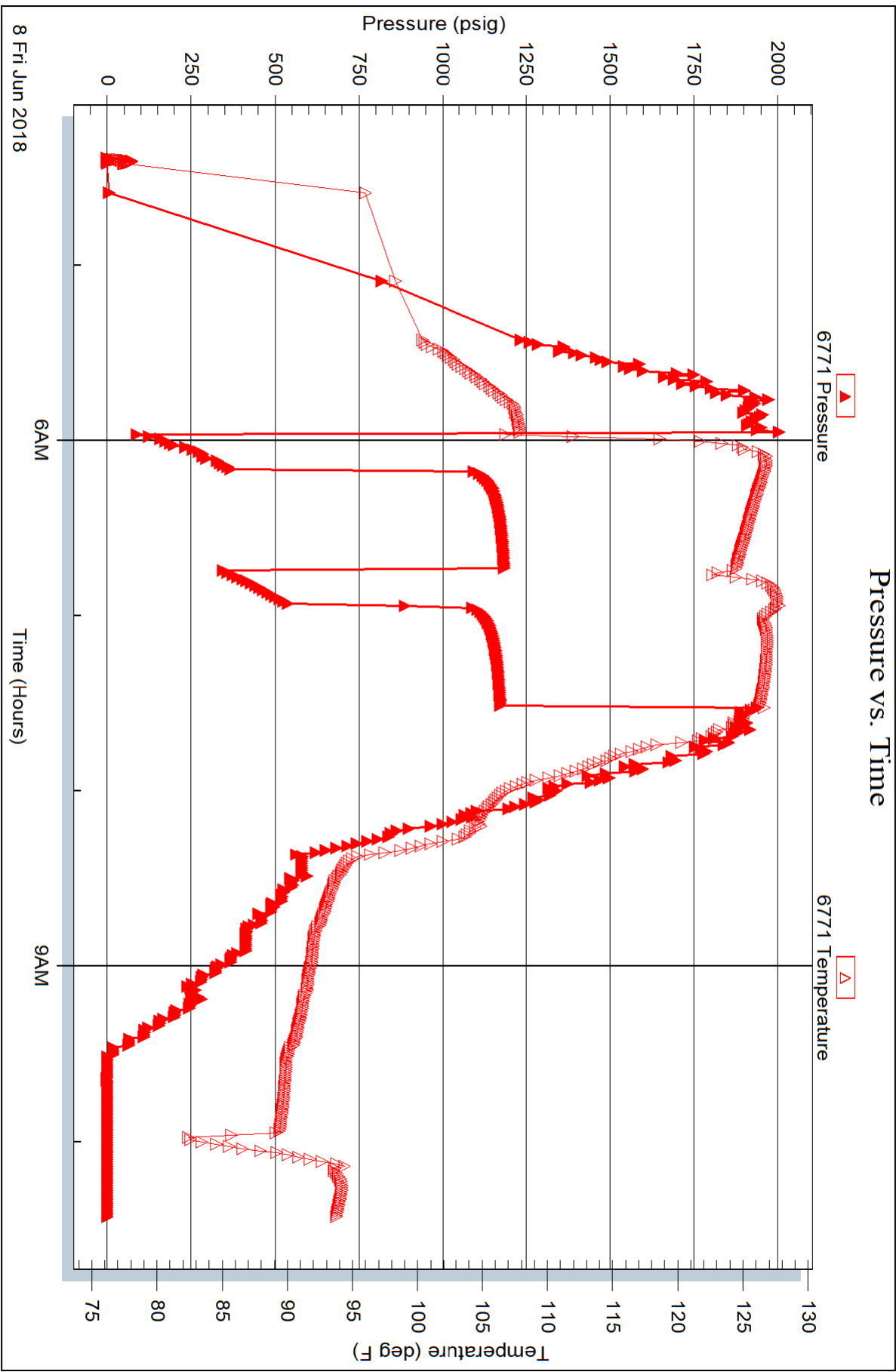
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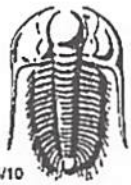
Inside

Dow nina-Nelson Oil Co., Inc.

Heberlein #1-25

DST Test Number: 2





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63446

Well Name & No. Heberlein #1-25 Test No. 1 Date 6/6/18
 Company Downing-Nelson Oil Co, Inc. Elevation 2335 KB 2327 GL
 Address PO Box 1019 Hays, KS 67601
 Co. Rep / Geo. Marc Downing Rig Discovery #4
 Location: Sec. 25 Twp 13 S Rge. 21 W Co. Trego State KS

Interval Tested 3700-3714 Zone Tested LKC "E"
 Anchor Length 14' Drill Pipe Run 2678 Mud Wt. 8.8
 Top Packer Depth 2695 Drill Collars Run 32 Vis 52
 Bottom Packer Depth 3700 Wt. Pipe Run --- WL 8.0
 Total Depth 3714 Chlorides 4,800 ppm System LCM 1#

Blow Description IF - Surface blow Flushed tool Surface blow
ISI - No blow
FF - Surface blow Flushed tool Surface blow
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>80</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

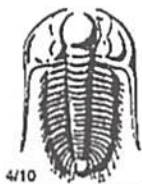
Rec Total 80' BHT 113° Gravity --- API RW --- @ --- °F Chlorides --- ppm

(A) Initial Hydrostatic <u>1789</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>1540</u>
(B) First Initial Flow <u>37</u>	<input type="checkbox"/> Jars <u>---</u>	T-Started <u>1648</u>
(C) First Final Flow <u>38</u>	<input type="checkbox"/> Safety Joint <u>---</u>	T-Open <u>2005</u>
(D) Initial Shut-In <u>330</u>	<input type="checkbox"/> Circ Sub <u>---</u>	T-Pulled <u>2205</u>
(E) Second Initial Flow <u>40</u>	<input type="checkbox"/> Hourly Standby <u>---</u>	T-Out <u>2350</u>
(F) Second Final Flow <u>54</u>	<input checked="" type="checkbox"/> Mileage <u>50 RT</u> 50	Comments <u>---</u>
(G) Final Shut-In <u>327</u>	<input type="checkbox"/> Sampler <u>---</u>	<input type="checkbox"/> Ruined Shale Packer <u>---</u>
(H) Final Hydrostatic <u>1756</u>	<input type="checkbox"/> Straddle <u>---</u>	<input type="checkbox"/> Ruined Packer <u>---</u>

Initial Open 30 Extra Packer ---
 Initial Shut-In 30 Extra Recorder ---
 Final Flow 30 Day Standby ---
 Final Shut-In 30 Accessibility ---
 Sub Total 1100

Approved By _____ Our Representative Brannan 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.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63447

Well Name & No. Heberlein #1-25 Test No. 2 Date 6/8/18
 Company Downing-Nelson Oil Co., Inc. Elevation 2335 KB 2327 GL
 Address PO Box 1019 Hays, KS 67601
 Co. Rep / Geo. Marc Downing Rig Discovery #4
 Location: Sec. 25 Twp 13 S Rge. 21 W Co. Trego State KS

Interval Tested 3986-4025 Zone Tested Arbuckle
 Anchor Length 39' Drill Pipe Run 3963 Mud Wt. 9.2
 Top Packer Depth 3981 Drill Collars Run 32 Vis 53
 Bottom Packer Depth 3986 Wt. Pipe Run _____ WL 9.6
 Total Depth 4025 Chlorides 6,000 ppm System LCM 1#
 Blow Description IF-BOB 1 min (75")
ISI- No blow
FF-BOB 2 mins (57")
FST- No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>1236</u>	<u>4 WMC0</u>	<u>15</u>	<u>40</u>	<u>30</u>	<u>15</u>
Rec _____	Feet of <u>95' QIP</u>	%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 1236 BHT 127° Gravity 32 API RW .46 @ 73 °F Chlorides 14,000 ppm
 (A) Initial Hydrostatic 2006 Test 1150 T-On Location 0400
 (B) First Initial Flow 120 Jars _____ T-Started 0423
 (C) First Final Flow 369 Safety Joint _____ T-Open 0558
 (D) Initial Shut-In 1187 Circ Sub _____ T-Pulled 0728
 (E) Second Initial Flow 348 Hourly Standby _____ T-Out 1626
 (F) Second Final Flow 547 Mileage 50 RT 50 Comments _____
 (G) Final Shut-In 1176 Sampler _____
 (H) Final Hydrostatic 1925 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 15 Extra Recorder _____ Sub Total 0
 Initial Shut-In 30 Day Standby _____ Total 1200
 Final Flow 15 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 30 Sub Total 1200

Approved By _____ Our Representative Brennan 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.

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 485

Date	Sec.	Twp.	Range	County	State	On Location	Finish
6-2-18	25	13	21	Trego	KS		7:15 PM

Location Rega 2E 3 1/2 S E into

Lease Heberlein	Well No. 1-25	Owner
Contractor Discovery #4		To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.
Type Job Surface		
Hole Size 13 1/4	T.D. 222	Charge To Downing - Nelson
Csg. 8 5/8	Depth 220	Street
Tbg. Size	Depth	City State
Tool	Depth	The above was done to satisfaction and supervision of owner agent or contractor.
Cement Left in Csg. 20'	Shoe Joint	Cement Amount Ordered 150 80/20 3% cc 2% Gel
Meas Line	Displace 12 3/4 bbl	

EQUIPMENT

Pumptrk 20	No. Cementer	Common 120
	Helper Brett	Poz. Mix 30
Bulktrk	No. Driver David	Gel. 3
Bulktrk 3	No. Driver Jack	Calcium 6

JOB SERVICES & REMARKS

Remarks:	Hulls
Rat Hole	Salt
Mouse Hole	Flowseal
Centralizers	Kol-Seal
Baskets	Mud CLR 48
D/V or Port Collar	CFL-117 or CD110 CAF 38
	Sand
	Handling 159
	Mileage

FLOAT EQUIPMENT

Ran 220' 8 5/8 Est circulation	Guide Shoe
Mix 160 cc	Centralizer
Displaced 12 3/4 bbl	Baskets
	AFU Inserts
	Float Shoe
	Latch Down

Cement circulated!

Thank's

Pumptrk Charge Surface
Mileage 26

Signature John Dahl	Tax
	Discount
	Total Charge



PO Box 466
Ness City, KS 67560
OT: 785-798-2300

TICKET CONTINUATION

TICKET No. 27308

CUSTOMER: Downing & Nelson
WELL: 1-25, Hebelein
DATE: 06/09/18
PAGE: 2 OF 2

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	WELL		UNIT PRICE	AMOUNT
		LOC	ACCT	DF			QTY	U/M		
330		2				Swift Multi-Density Standard	225	SKS	16.25	3656.25
325		2				Standard Cement	150	SKS	13.00	1950.00
284		2				Calced	75	SKS	35.00	2625.00
283		2				Salt	800	lbs	0.20	160.00
292		2				Halad-322	70	lbs	8.00	560.00
276		2				Flocele	94	lbs	2.50	235.00
581		2				Service Charge Cement	375	SKS	1.75	656.25
583		2				Mileage Charge	30	MILES	0.85	25.50
							TON MILES	571.47		
CONTINUATION TOTAL										7948.25

JOB LOG

SWIFT Services, Inc.

DATE 06/09/18 PAGE NO. 1

CUSTOMER Downing & Nelson WELL NO. 1-25 LEASE Heberlein JOB TYPE 2 Stage Long String TICKET NO. 27308

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0520							On location w/float equipment RTD-4108' LTD-4107' 5 1/2" x 14" 97 Jts, Total Pipe - 4103.87 Insert - 4060.42' Centralizers - 1, 3, 5, 7, 9, 11, 57 Basket - 58 D.V. Tool - Top of 58 @ 1067'
	0530							Start Pipe / Float Equipment.
	0730							Break Circulation on Bottom.
	0800	4					400	Start Mud Flush
		4	12				400	Fin Mud Flush, Start KCL Spacers.
	0810	4	32				300	Fin KCL, Start EA-2 Cmt, Mix at 15.5" Vac Fin EA-2
		4	36					Drop Plug, Wash out Pump & Lines.
	0825	7					Vac	Start Displacement
		7	77				400	Catch Cmt
	0840	6	99				800 / 1300	Fin Displacement Lift 800# Land 1300# Release - Dry, Drop Bomb. Wait 15 min on water.
	0900	2	8					Plug Rathole w/30 SKS. SMD.
		2	5					Plug Mousehole w/15 SKS. SMD.
	0920						900	Open D.V. Tool
	0925	4 1/2					200	Start SMD
	0955		100				Vac	Fin SMD, Drop Plug Wash out Pump & Lines.
			3					
	1010						Vac	Start Displacement
		4 1/2	28				400	Catch Cmt
	1020	4 1/2	41				500	Fin Disp Lift 500# Land 1100# Release - Dry Circulated 25 SKS to pit. Washup Job Complete
	1030							

Thanks,
Jon, Austin, ISAAC