

DRILL STEM TEST REPORT

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

PO Box 1019
Hays KS 67601

ATTN: Ron Nelson

Pivonka #1-33

33-17s-18w Rush,KS

Start Date: 2013.03.28 @ 07:25:45

End Date: 2013.03.28 @ 14:08:09

Job Ticket #: 52553 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.04.02 @ 09:46:33



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

33-17s-18w Rush,KS

PO Box 1019
Hays KS 67601

Pivonka #1-33

Job Ticket: 52553

DST#: 1

ATTN: Ron Nelson

Test Start: 2013.03.28 @ 07:25:45

GENERAL INFORMATION:

Formation: **LKC "C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:34:25

Time Test Ended: 14:08:09

Test Type: Conventional Bottom Hole (Initial)

Tester: Ray Schwager

Unit No: 42

Interval: 3480.00 ft (KB) To 3508.00 ft (KB) (TVD)

Total Depth: 3508.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2093.00 ft (KB)

2085.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8369 Inside

Press@RunDepth: 43.57 psig @ 3485.00 ft (KB)

Start Date: 2013.03.28

End Date:

2013.03.28

Start Time: 07:25:45

End Time:

14:08:09

Capacity: 8000.00 psig

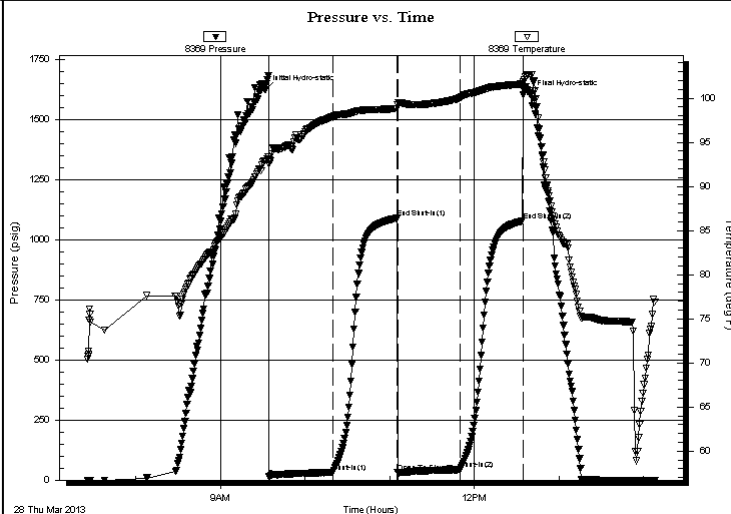
Last Calib.: 2013.03.28

Time On Btm: 2013.03.28 @ 09:31:55

Time Off Btm: 2013.03.28 @ 12:39:39

TEST COMMENT: 45-IFP-w k to strg in 18 min, started 1/2" bl
45-ISIP-no bl bk
45-FFP-fr to strg in 11 min, started 4" bl
45-FSIP-very w k surface bl bk, end of shut-in

PRESSURE SUMMARY



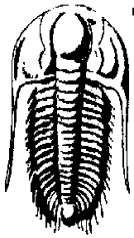
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1623.23	92.90	Initial Hydro-static
3	13.57	92.53	Open To Flow (1)
48	32.34	97.92	Shut-In (1)
93	1088.81	98.84	End Shut-In (1)
94	32.99	99.24	Open To Flow (2)
138	43.57	100.05	Shut-In (2)
183	1076.48	101.61	End Shut-In (2)
188	1604.39	102.69	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	665'GIP	0.00
60.00	HO&GCM 20%G30%O50%M	0.57
20.00	CO	0.28

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

33-17s-18w Rush,KS

PO Box 1019
Hays KS 67601

Pivonka #1-33

Job Ticket: 52553

DST#: 1

ATTN: Ron Nelson

Test Start: 2013.03.28 @ 07:25:45

GENERAL INFORMATION:

Formation: **LKC "C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:34:25

Time Test Ended: 14:08:09

Test Type: Conventional Bottom Hole (Initial)

Tester: Ray Schwager

Unit No: 42

Interval: 3480.00 ft (KB) To 3508.00 ft (KB) (TVD)

Reference Elevations: 2093.00 ft (KB)

Total Depth: 3508.00 ft (KB) (TVD)

2085.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8700 Outside

Press@RunDepth: psig @ 3485.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.03.28

End Date:

2013.03.28

Last Calib.:

2013.03.28

Start Time: 07:26:15

End Time:

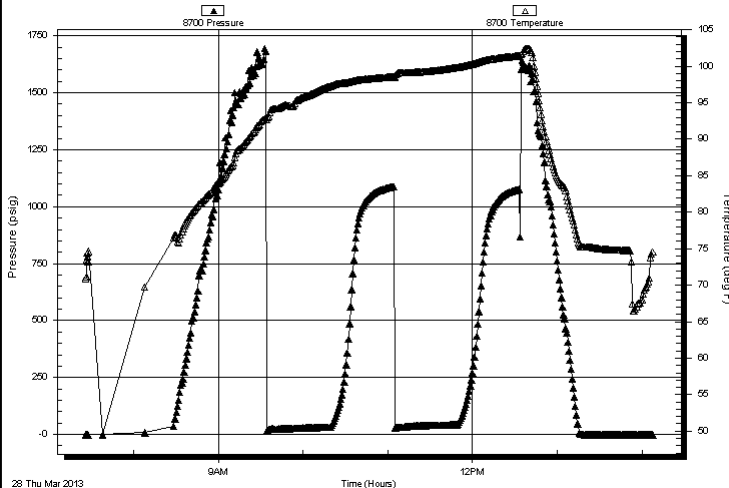
14:07:24

Time On Btm:

Time Off Btm:

TEST COMMENT: 45-IFP-w k to strg in 18 min, started 1/2" bl
45-ISIP-no bl bk
45-FFP-fr to strg in 11 min, started 4" bl
45-FSIP-very w k surface bl bk, end of shut-in

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
0.00	665'GIP	0.00
60.00	HO&GCM 20%G30%O50%M	0.57
20.00	CO	0.28

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing-Nelson Oil Co Inc

33-17s-18w Rush,KS

PO Box 1019
Hays KS 67601

Pivonka #1-33

Job Ticket: 52553

DST#: 1

ATTN: Ron Nelson

Test Start: 2013.03.28 @ 07:25:45

Tool Information

Drill Pipe:	Length:	3446.00 ft	Diameter:	3.80 inches	Volume:	48.34 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length:	30.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:	60000.00 lb
					Total Volume:	48.49 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		17.00 ft					String Weight: Initial	50000.00 lb
Depth to Top Packer:		3480.00 ft					Final	51000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		28.00 ft						
Tool Length:		49.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Change Over Sub	1.00			3460.00	
Shut In Tool	5.00			3465.00	
Hydraulic tool	5.00			3470.00	
Packer	5.00			3475.00	21.00 Bottom Of Top Packer
Packer	5.00			3480.00	
Stubb	1.00			3481.00	
Perforations	4.00			3485.00	
Recorder	0.00	8369	Inside	3485.00	
Recorder	0.00	8700	Outside	3485.00	
Perforations	20.00			3505.00	
Bullnose	3.00			3508.00	28.00 Bottom Packers & Anchor

Total Tool Length: 49.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co Inc

33-17s-18w Rush,KS

PO Box 1019
Hays KS 67601

Pivonka #1-33

Job Ticket: 52553

DST#: 1

ATTN: Ron Nelson

Test Start: 2013.03.28 @ 07:25:45

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 50.00 sec/qt

Water Loss: 7.58 in³

Resistivity: ohm.m

Salinity: 3500.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

38 deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	665'GIP	0.000
60.00	HO&GCM 20%G30%O50%M	0.568
20.00	CO	0.281

Total Length: 80.00 ft

Total Volume: 0.849 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

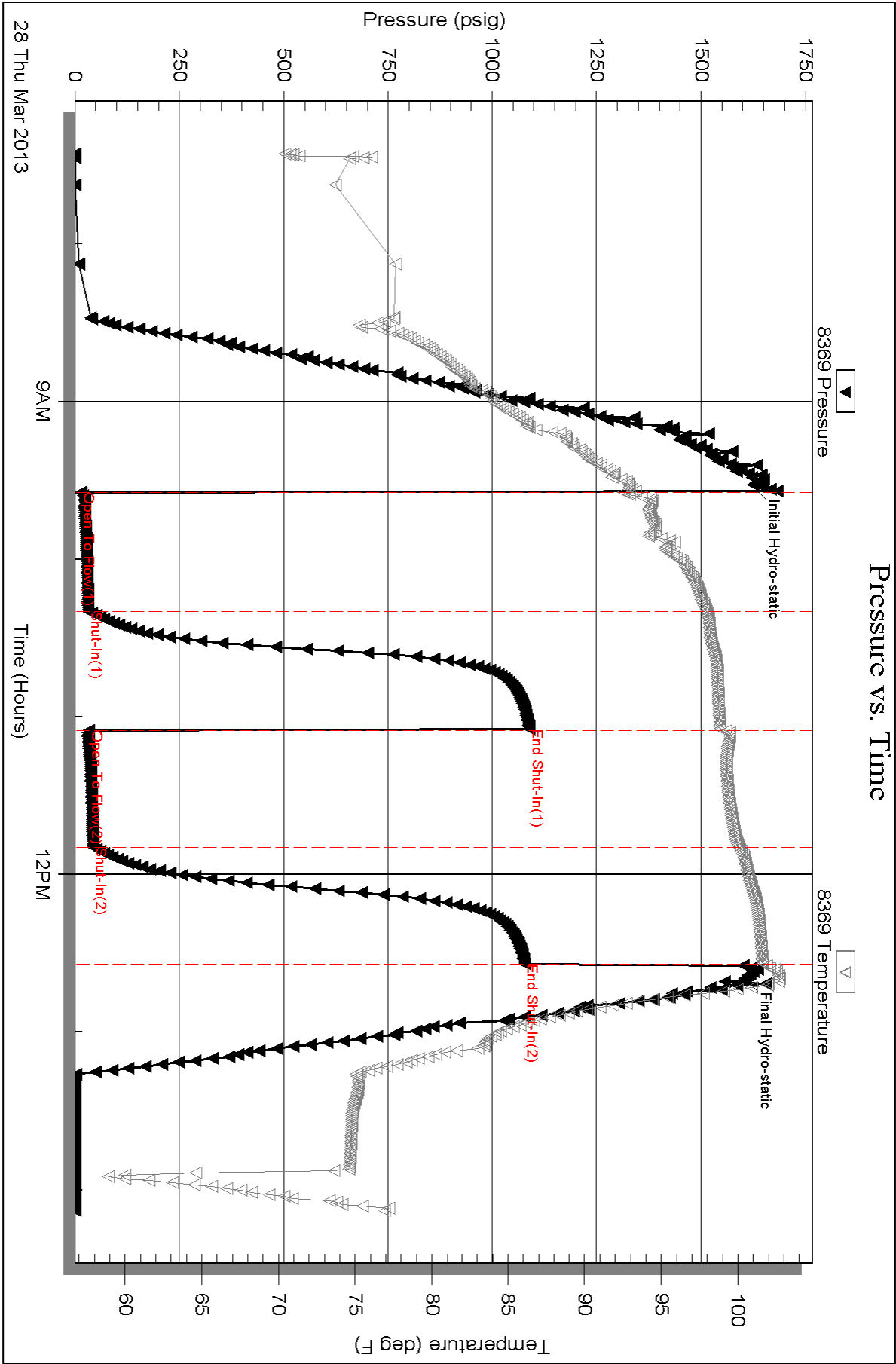
Serial #: 8369

Inside

Dow nung-Nelson Oil Co Inc

Fvonka #1-33

DST Test Number: 1



Serial #: 8700

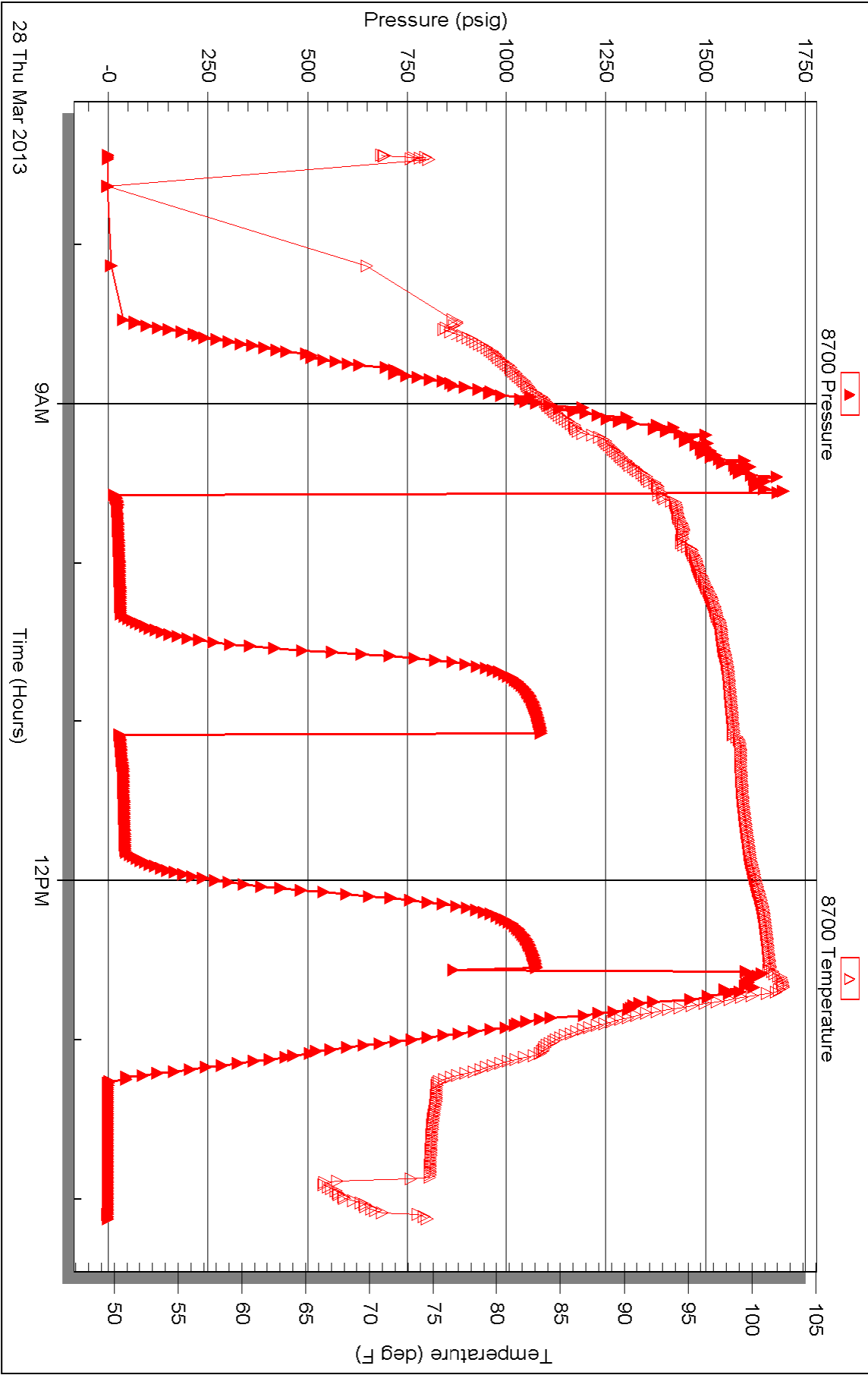
Outside

Dow nung-Nelson Oil Co Inc

Fvonka #1-33

DST Test Number: 1

Pressure vs. Time





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52553

Well Name & No. Pivonka #1-33 Test No. 1 Date 3-28-13
 Company Downing-Nelson Oil Co Inc Elevation 2093 KB 2085 GL
 Address PO Box 1019 Hays, Ks 67601
 Co. Rep / Geo. MARC Downing Rig Discovery rig 4
 Location: Sec. 33 Twp. 17⁵ Rge. 18^w Co. Rush State Ks

Interval Tested 3480-3508 Zone Tested LKC "C"
 Anchor Length 28 Drill Pipe Run 3446 Mud Wt. 8.8
 Top Packer Depth 3475 Drill Collars Run 30 Vis 50
 Bottom Packer Depth 3480 Wt. Pipe Run - WL 7.6
 Total Depth 3508 Chlorides 3500 ppm System LCM 3#

Blow Description IFP - WEAK TO STRONG IN 18 MIN STARTED 1/2"
ISTP - NO BLOW
FFP - FAIR TO STRONG IN 11 MIN STARTED 4"
FSIP - Very WEAK SURFACE BLOW BLOW, end of shut-in

Rec	Feet of	%gas	%oil	%water	%mud
<u>665</u>	<u>GTP</u>				
<u>20</u>	<u>CO</u>				
<u>60</u>	<u>H0+GCM</u>	<u>20</u>	<u>30</u>	<u>50</u>	

Rec Total 80 BHT 101 Gravity 38 API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic <u>1623</u>	☒ Test <u>1150</u>	T-On Location <u>0555</u>
(B) First Initial Flow <u>13</u>	☐ Jars	T-Started <u>0725</u>
(C) First Final Flow <u>32</u>	☐ Safety Joint	T-Open <u>0935</u>
(D) Initial Shut-In <u>1088</u>	☐ Circ Sub	T-Pulled <u>1235</u>
(E) Second Initial Flow <u>32</u>	☐ Hourly Standby	T-Out <u>1408</u>
(F) Second Final Flow <u>43</u>	☒ Mileage <u>55RT</u> 85.25	Comments
(G) Final Shut-In <u>1076</u>	☐ Sampler	
(H) Final Hydrostatic <u>1604</u>	☐ Straddle	
	☐ Shale Packer	☐ Ruined Shale Packer
	☐ Extra Packer	☐ Ruined Packer
	☐ Extra Recorder	☐ Extra Copies
	☐ Day Standby	Sub Total <u>0</u>
	☐ Accessibility	Total <u>1235.25</u>
	Sub Total <u>1235.25</u>	MP/DST Disc't

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

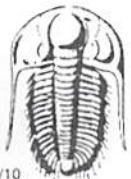
Approved By

Our Representative

Ray Schwager

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. **52167**

Well Name & No. Pivonka #1-33 Test No. _____ Date 3-29-13
 Company Downing - Nelson Oil Co Inc Elevation _____ KB _____ GL _____
 Address _____
 Co. Rep / Geo. Marc Downing Rig Discovery #4
 Location: Sec. 33 Twp. 17s Rge. 18w Co. Rush State KS

Interval Tested _____ Zone Tested _____
 Anchor Length _____ Drill Pipe Run _____ Mud Wt. _____
 Top Packer Depth _____ Drill Collars Run _____ Vis _____
 Bottom Packer Depth _____ Wt. Pipe Run _____ WL _____
 Total Depth _____ Chlorides _____ ppm System _____ LCM _____

Blow Description Picked up tools @ 3-29-13 @ 3:00pm

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 _____	Feet of _____	%gas _____	%oil _____	%water _____	%mud _____

Rec Total _____ BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic _____ ☐ Test _____ T-On Location _____
 (B) First Initial Flow _____ ☐ Jars _____ T-Started _____
 (C) First Final Flow _____ ☐ Safety Joint _____ T-Open _____
 (D) Initial Shut-In _____ ☐ Circ Sub _____ T-Pulled _____
 (E) Second Initial Flow _____ ☐ Hourly Standby _____ T-Out _____
 (F) Second Final Flow _____ ☒ Mileage 55 RT 85.25 Comments _____
 (G) Final Shut-In _____ ☐ Sampler _____
 (H) Final Hydrostatic _____ ☐ Straddle _____
☐ Shale Packer _____
☐ Extra Packer _____
☐ Extra Recorder _____
☒ Day Standby over 24 hrs
☐ Accessibility _____

Initial Open _____
 Initial Shut-In _____
 Final Flow _____
 Final Shut-In _____
 Sub Total 85.25
 Total 85.25
 MP/DST Disc't _____

Approved By _____ Our Representative Cody Blg
 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.