



## DRILL STEM TEST REPORT

Prepared For: **Downing Nelson Oil Company Inc**

PO Box 1019  
Hays KS 67601

ATTN: Marc Downing

### **Giesick #1-25**

### **25-18s-16w Rush,KS**

Start Date: 2016.03.20 @ 23:35:00

End Date: 2016.03.21 @ 05:00:00

Job Ticket #: 65083                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2016.03.21 @ 16:45:24



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Downing Nelson Oil Company Inc

**25-18s-16w Rush, KS**

PO Box 1019  
Hays KS 67601

**Giesick #1-25**

Job Ticket: 65083

**DST#: 1**

ATTN: Marc Downing

Test Start: 2016.03.20 @ 23:35:00

## GENERAL INFORMATION:

Formation: **Reagan Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:16:30

Time Test Ended: 05:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 72

**Interval: 3501.00 ft (KB) To 3560.00 ft (KB) (TVD)**

Reference Elevations: 1964.00 ft (KB)

Total Depth: 3560.00 ft (KB) (TVD)

1953.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 6741 Inside**

Press@RunDepth: psig @ 3556.29 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.03.20

End Date:

2016.03.21

Last Calib.:

2016.03.21

Start Time: 23:35:05

End Time:

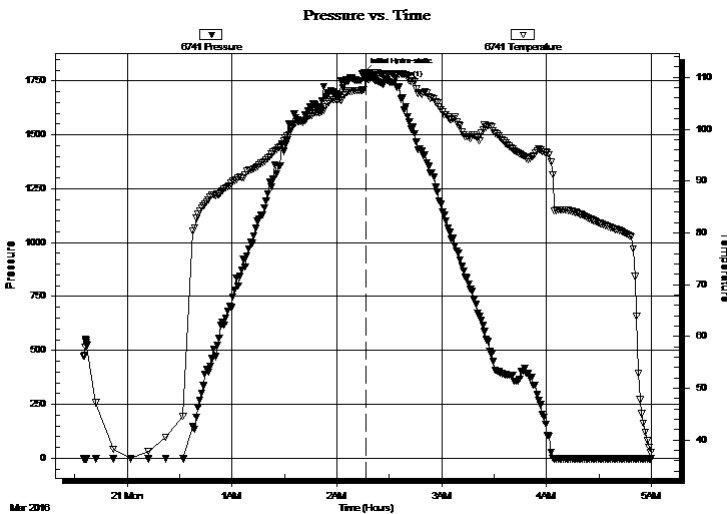
04:59:59

Time On Btm:

2016.03.21 @ 02:15:30

Time Off Btm:

TEST COMMENT: No packer seat on initial set/ Pull tool up / Fill hole/ No packer seat on second attempt/ Pull test



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1789.34	107.67	Initial Hydro-static
1	1761.52	109.52	Open To Flow (1)

## Recovery

Length (ft)	Description	Volume (bbl)
180.00	Mud 100%	1.43

## Gas Rates

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



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**25-18s-16w Rush,KS**

PO Box 1019  
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**Giesick #1-25**

Job Ticket: 65083

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Time Test Ended: 05:00:00

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Tester: Ken Sw inney

Unit No: 72

**Interval: 3501.00 ft (KB) To 3560.00 ft (KB) (TVD)**

Reference Elevations: 1964.00 ft (KB)

Total Depth: 3560.00 ft (KB) (TVD)

1953.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8960 Outside**

Press@RunDepth: psig @ 3557.29 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.03.20

End Date:

2016.03.21

Last Calib.:

2016.03.21

Start Time: 23:35:05

End Time:

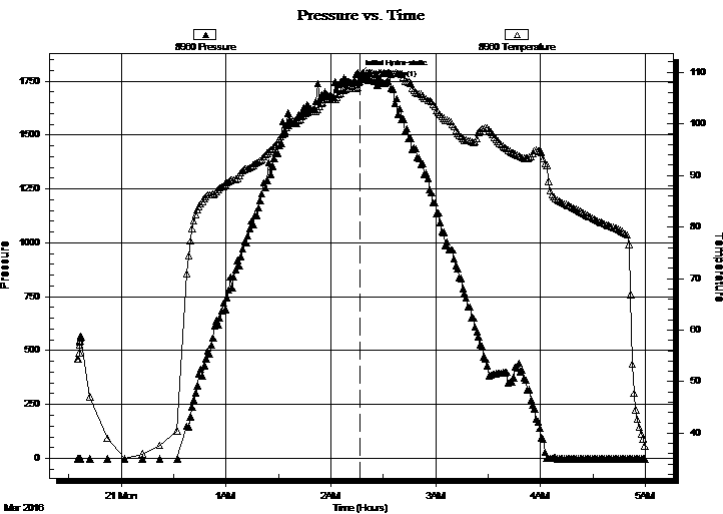
04:59:59

Time On Btm:

2016.03.21 @ 02:16:00

Time Off Btm:

TEST COMMENT: No packer seat on initial set/ Pull tool up / Fill hole/ No packer seat on second attempt/ Pull test



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1780.13	107.93	Initial Hydro-static
1	1764.47	108.15	Open To Flow (1)

## Recovery

Length (ft)	Description	Volume (bbl)
180.00	Mud 100%	1.43

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Dow ning Nelson Oil Company Inc

**25-18s-16w Rush,KS**

PO Box 1019  
Hays KS 67601

**Giesick #1-25**

Job Ticket: 65083

**DST#: 1**

ATTN: Marc Dow ning

Test Start: 2016.03.20 @ 23:35:00

## Tool Information

Drill Pipe:	Length: 3373.00 ft	Diameter: 3.80 inches	Volume: 47.31 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 47.90 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	3501.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval betw een Packers:	59.29 ft			
Tool Length:	79.29 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

**Length (ft) Serial No. Position Depth (ft) Accum. Lengths**

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut-In Tool	5.00			3486.00	
Hydraulic tool	5.00			3491.00	
Top Packer	5.00			3496.00	
Packer	5.00			3501.00	20.00 Bottom Of Top Packer
Anchor	2.00			3503.00	
Change Over Sub	1.00			3504.00	
Drill Pipe	31.29			3535.29	
Change Over Sub	1.00			3536.29	
Anchor	19.00			3555.29	
Recorder	1.00	6741	Inside	3556.29	
Recorder	1.00	8960	Outside	3557.29	
Bullnose	3.00			3560.29	59.29 Anchor Tool

**Total Tool Length: 79.29**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Downing Nelson Oil Company Inc

**25-18s-16w Rush, KS**

PO Box 1019  
Hays KS 67601

**Giesick #1-25**

Job Ticket: 65083

**DST#: 1**

ATTN: Marc Downing

Test Start: 2016.03.20 @ 23:35:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4500.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
180.00	Mud 100%	1.432

Total Length: 180.00 ft      Total Volume: 1.432 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

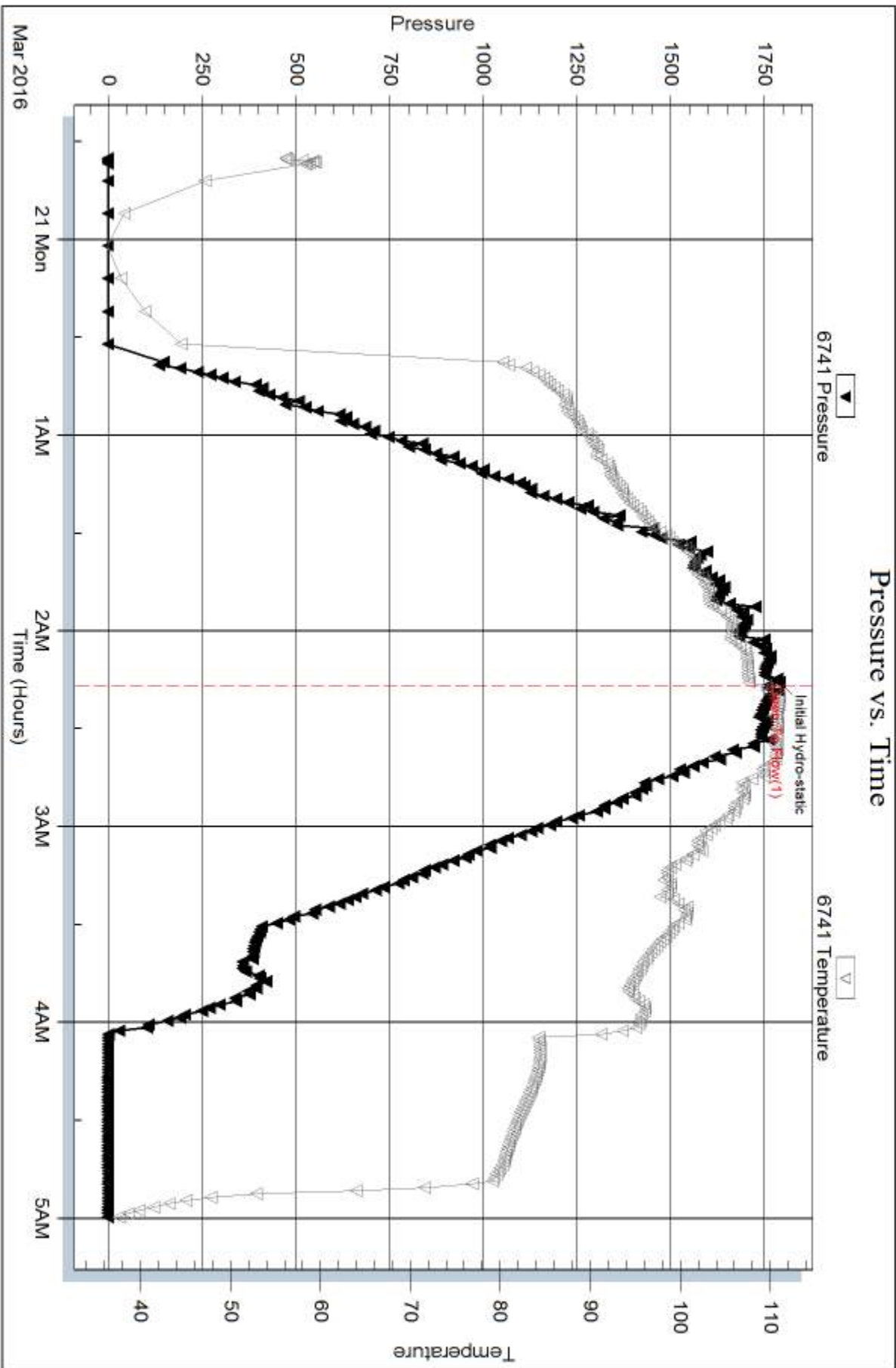
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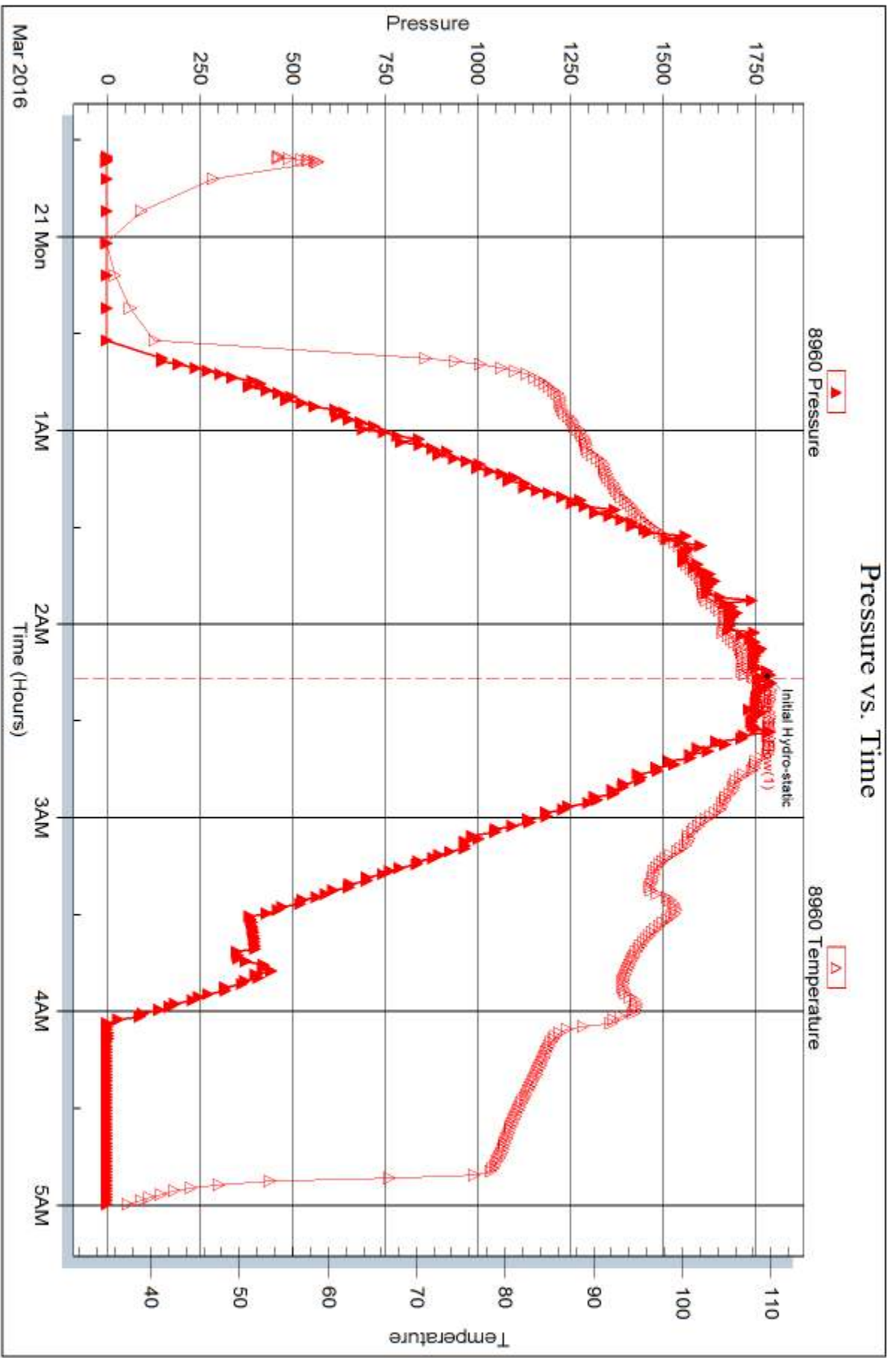
Inside

Downing Nelson Oil Company Inc

Giesick #1-25

DST Test Number: 1







## DRILL STEM TEST REPORT

Prepared For: **Downing Nelson Oil Company Inc**

PO Box 1019  
Hays KS 67601

ATTN: Marc Downing

### **Giesick #1-25**

### **25-18s-16w Rush,KS**

Start Date: 2016.03.21 @ 05:23:00

End Date: 2016.03.21 @ 12:24:30

Job Ticket #: 65084                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2016.03.21 @ 16:43:16





**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Dow ning Nelson Oil Company Inc

**25-18s-16w Rush,KS**

PO Box 1019  
Hays KS 67601

**Giesick #1-25**

Job Ticket: 65084

**DST#: 2**

ATTN: Marc Dow ning

Test Start: 2016.03.21 @ 05:23:00

## GENERAL INFORMATION:

Formation: **Reagan Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:22:30

Time Test Ended: 12:24:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Sw inney

Unit No: 72

**Interval: 3482.00 ft (KB) To 3560.00 ft (KB) (TVD)**

Reference Elevations: 1964.00 ft (KB)

Total Depth: 3560.00 ft (KB) (TVD)

1953.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 6741**

**Inside**

Press@RunDepth: 264.88 psig @ 3556.79 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.03.21

End Date:

2016.03.21

Last Calib.:

2016.03.21

Start Time: 05:23:05

End Time:

12:24:29

Time On Btm:

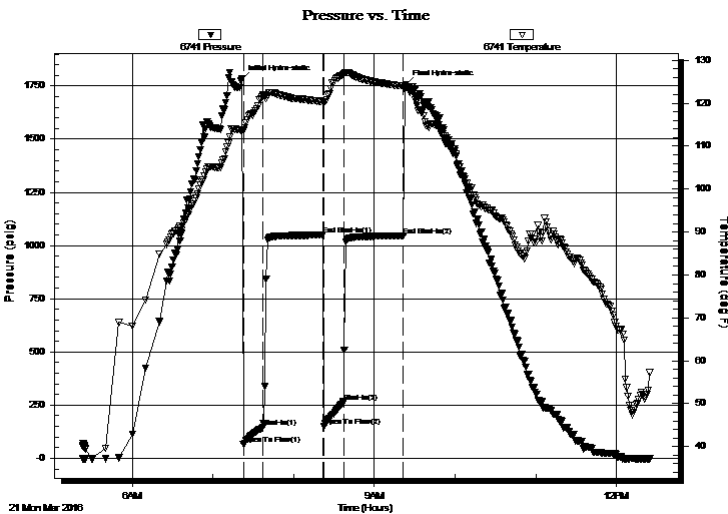
2016.03.21 @ 07:21:30

Time Off Btm:

2016.03.21 @ 09:23:30

**TEST COMMENT:** 15 minute IFP BOB in 3 minutes  
45 minute ISI Blow back built to 2 1/2"  
15 minute FFP BOB in 2 minutes 45 seconds  
45 minute FSI Blow back built to 6"

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1781.74	113.74	Initial Hydro-static
1	67.07	113.70	Open To Flow (1)
16	144.59	121.79	Shut-In(1)
60	1048.68	120.38	End Shut-In(1)
61	148.46	120.17	Open To Flow (2)
76	264.88	126.74	Shut-In(2)
120	1045.96	123.97	End Shut-In(2)
122	1755.98	123.73	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	945' GIP	0.00
315.00	OCMW Oil 10% Mud 20% Water 70%	3.33
189.00	OCWM Oil 10% Water 40% Mud 50%	2.65
63.00	OCM Oil 5% Mud 95%	0.88

## Gas Rates

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Dow ning Nelson Oil Company Inc

**25-18s-16w Rush,KS**

PO Box 1019  
Hays KS 67601

**Giesick #1-25**

Job Ticket: 65084

**DST#: 2**

ATTN: Marc Dow ning

Test Start: 2016.03.21 @ 05:23:00

## GENERAL INFORMATION:

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Time Tool Opened: 07:22:30

Time Test Ended: 12:24:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Sw inney

Unit No: 72

**Interval: 3482.00 ft (KB) To 3560.00 ft (KB) (TVD)**

Reference Elevations: 1964.00 ft (KB)

Total Depth: 3560.00 ft (KB) (TVD)

1953.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8960 Outside**

Press@RunDepth: 1047.75 psig @ 3557.79 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.03.21

End Date:

2016.03.21

Last Calib.:

2016.03.21

Start Time: 05:23:05

End Time:

12:24:29

Time On Btm:

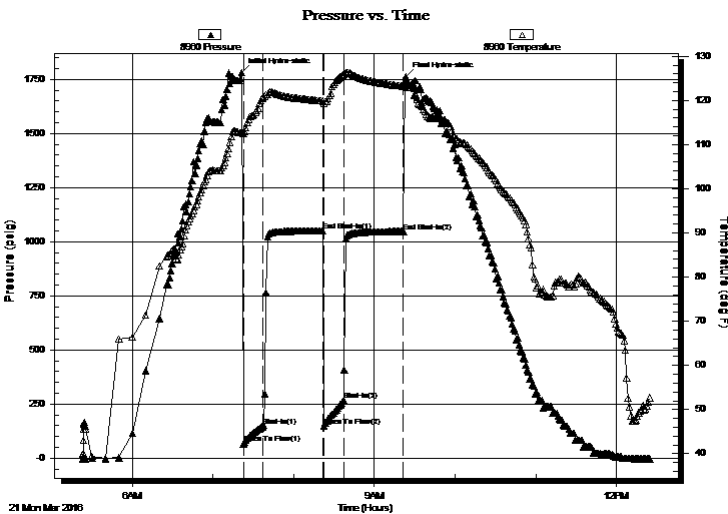
2016.03.21 @ 07:21:30

Time Off Btm:

2016.03.21 @ 09:23:30

**TEST COMMENT:** 15 minute IFP BOB in 3 minutes  
45 minute ISI Blow back built to 2 1/2"  
15 minute FFP BOB in 2 minutes 45 seconds  
45 minute FSI Blow back built to 6"

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1782.42	112.74	Initial Hydro-static
1	66.82	112.46	Open To Flow (1)
16	146.47	120.65	Shut-In(1)
60	1050.42	119.85	End Shut-In(1)
61	149.01	119.35	Open To Flow (2)
76	265.81	125.80	Shut-In(2)
120	1047.75	123.22	End Shut-In(2)
122	1763.54	123.36	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	945' GIP	0.00
315.00	OCMW Oil 10% Mud 20% Water 70%	3.33
189.00	OCWM Oil 10% Water 40% Mud 50%	2.65
63.00	OCM Oil 5% Mud 95%	0.88

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Dow ning Nelson Oil Company Inc

**25-18s-16w Rush,KS**

PO Box 1019  
Hays KS 67601

**Giesick #1-25**

Job Ticket: 65084

**DST#: 2**

ATTN: Marc Dow ning

Test Start: 2016.03.21 @ 05:23:00

## Tool Information

Drill Pipe:	Length: 3373.00 ft	Diameter: 3.80 inches	Volume: 47.31 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose:	50000.00 lb
			<u>Total Volume: 47.90 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial	42000.00 lb
Depth to Top Packer:	3482.00 ft			Final	45000.00 lb
Depth to Bottom Packer:	ft				
Interval betw een Packers:	78.79 ft				
Tool Length:	98.79 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments: Ruined packer

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut-In Tool	5.00			3467.00	
Hydraulic tool	5.00			3472.00	
Top Packer	5.00			3477.00	
Packer	5.00			3482.00	20.00 Bottom Of Top Packer
Anchor	7.00			3489.00	
Change Over Sub	1.00			3490.00	
Drill Pipe	31.79			3521.79	
Change Over Sub	1.00			3522.79	
Anchor	33.00			3555.79	
Recorder	1.00	6741	Inside	3556.79	
Recorder	1.00	8960	Outside	3557.79	
Bullnose	3.00			3560.79	78.79 Anchor Tool

**Total Tool Length: 98.79**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Downing Nelson Oil Company Inc

**25-18s-16w Rush, KS**

PO Box 1019  
Hays KS 67601

**Giesick #1-25**

Job Ticket: 65084

**DST#: 2**

ATTN: Marc Downing

Test Start: 2016.03.21 @ 05:23:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

38000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4500.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
0.00	945' GIP	0.000
315.00	OCMW Oil 10% Mud 20% Water 70%	3.325
189.00	OCWM Oil 10% Water 40% Mud 50%	2.651
63.00	OCM Oil 5% Mud 95%	0.884

Total Length: 567.00 ft

Total Volume: 6.860 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

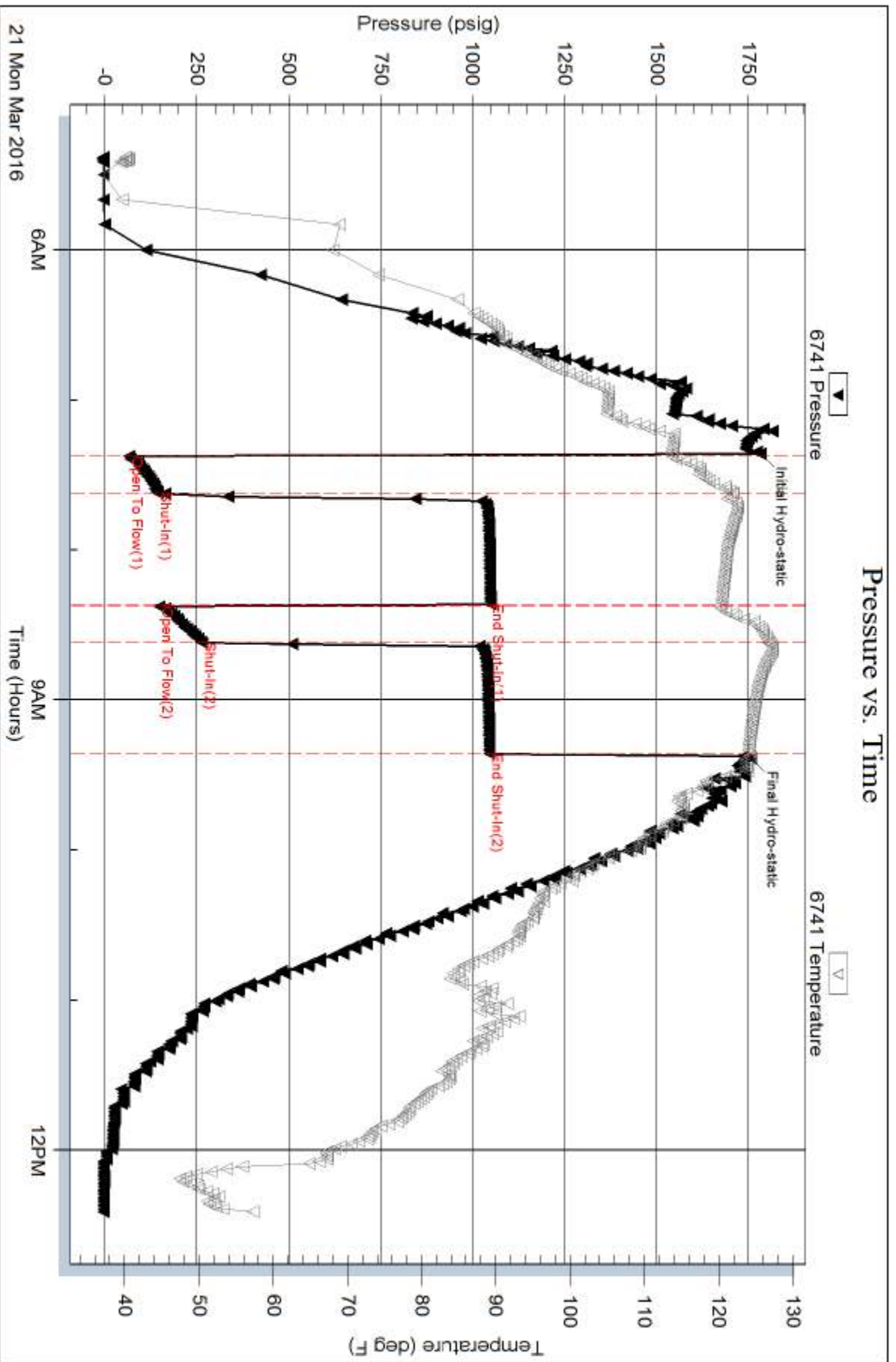
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time



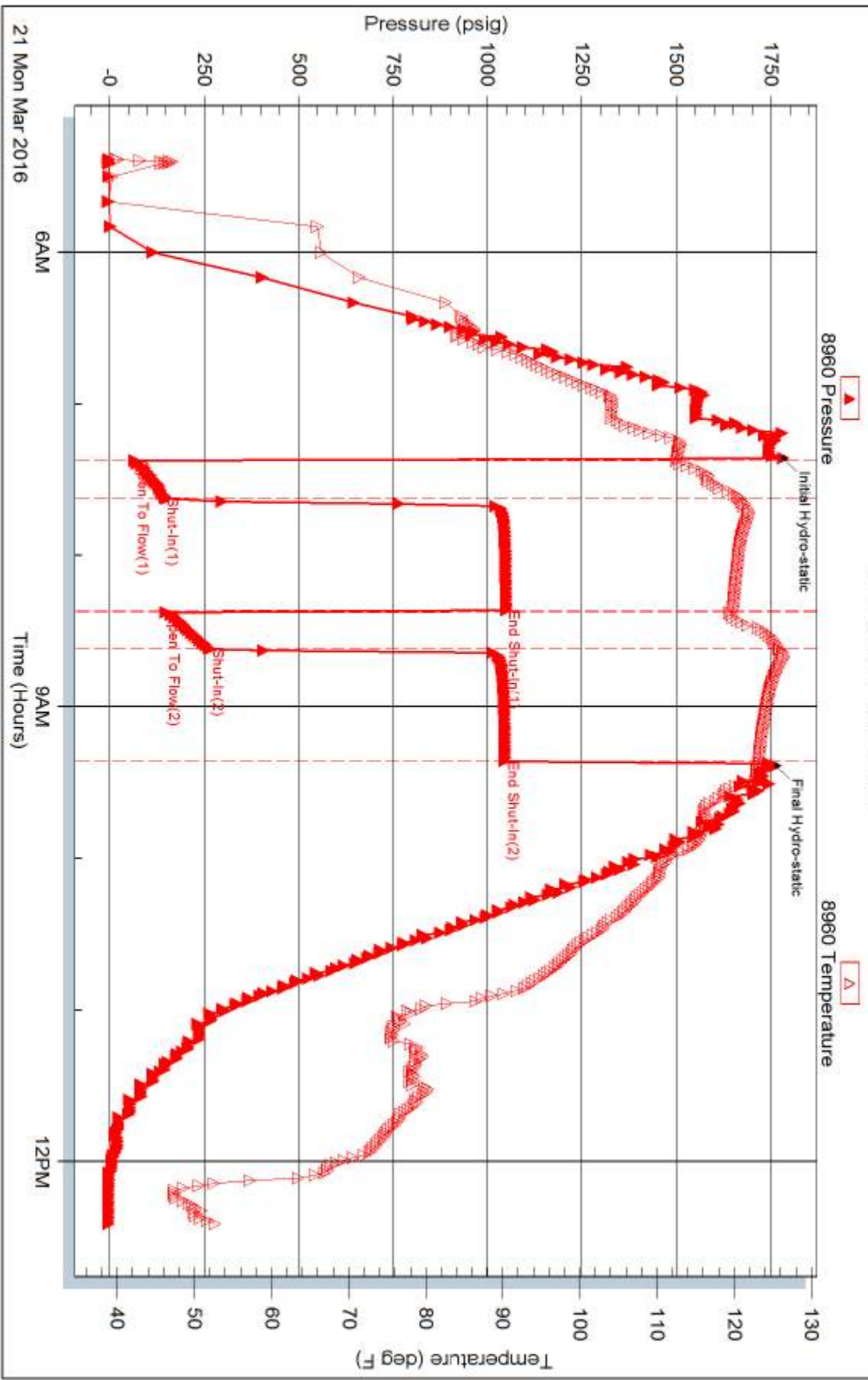
Serial #: 8960

Outside Dow n ing Nelson Oil Company Inc

Giesick #1-25

DST Test Number: 2

### Pressure vs. Time



Triobrite Testing, Inc

Ref. No: 65084

Printed: 2016.03.21 @ 16:43:52



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **65083**

4/10

Well Name & No. Giesick 1-25 Test No. 1 Date 20 MAR 16  
 Company Downing Nelson Oil Company Inc. Elevation 1964 KB 1953 GL  
 Address PO Box 1019 Hays Kansas 67601  
 Co. Rep / Geo. Marc Downing Rig Integrity Rig 7  
 Location: Sec. 25 Twp. 18S Rge. 16W Co. Rush State KS

Interval Tested 3501-3560 Zone Tested Reggan Sand  
 Anchor Length 5-9 Drill Pipe Run 3373 Mud Wt. 9.3  
 Top Packer Depth 3496 Drill Collars Run 120 Vis 50  
 Bottom Packer Depth 3501 Wt. Pipe Run - WL 7.2  
 Total Depth 3560 Chlorides 4500 ppm System LCM 3#  
 Blow Description No packer seat first set / pull up fill hole /  
No packer seat on reset

Rec	Feet of	%gas	%oil	%water	%mud
<u>180</u>	<u>Mud</u>			<u>100</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 180 BHT 110 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1789  Test 850 T-On Location 9:57 pm  
 (B) First Initial Flow \_\_\_\_\_  Jars \_\_\_\_\_ T-Started 11:35 pm  
 (C) First Final Flow \_\_\_\_\_  Safety Joint \_\_\_\_\_ T-Open 2:16 am  
 (D) Initial Shut-In \_\_\_\_\_  Circ Sub \_\_\_\_\_ T-Pulled 2:30 am  
 (E) Second Initial Flow \_\_\_\_\_  Hourly Standby \_\_\_\_\_ T-Out 5:00 am  
 (F) Second Final Flow \_\_\_\_\_  Mileage 36 27 Comments \_\_\_\_\_  
 (G) Final Shut-In \_\_\_\_\_  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic \_\_\_\_\_  Straddle \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Initial Open \_\_\_\_\_  Extra Packer \_\_\_\_\_  
 Initial Shut-In \_\_\_\_\_  Extra Recorder \_\_\_\_\_  
 Final Flow \_\_\_\_\_  Day Standby \_\_\_\_\_  
 Final Shut-In \_\_\_\_\_  Accessibility \_\_\_\_\_  
 Sub Total 877 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_

Our Representative [Signature]

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. **65084**

Well Name & No. Giesick 1-25 Test No. 2 Date 21 MAR 16  
 Company Downing Nelson Oil Company Inc Elevation 1964 KB 1953 GL  
 Address PO Box 1019 Hays Kansas 67601  
 Co. Rep / Geo. Marc Downing Rig Integrity Rig 7  
 Location: Sec. 25 Twp. 185 Rge. 16W Co. Rush State KS

Interval Tested 3482-3560 Zone Tested Reagan Sand  
 Anchor Length 78 Drill Pipe Run 3373 Mud Wt. 9.3  
 Top Packer Depth 3477 Drill Collars Run 120 Vis 50  
 Bottom Packer Depth 3482 Wt. Pipe Run - WL 7.2  
 Total Depth 3560 Chlorides 4500 ppm System LCM 3#

Blow Description Initial flow blow built to bottom of bucket in 3 minutes  
Initial shut in blow back built to 2 1/2 inches  
Final flow blow built to bottom of bucket in 2 minutes 45 seconds  
Final shut in blow back built to 6 inches

Rec	Feet of	%gas	%oil	%water	%mud
<u>945</u>	<u>Gas in pipe</u>	<u>100</u>			
<u>315</u>	<u>Oil cut Muddy Water</u>		<u>10</u>	<u>70</u>	<u>20</u>
<u>189</u>	<u>Oil cut watery mud</u>		<u>10</u>	<u>40</u>	<u>50</u>
<u>63</u>	<u>oil cut mud</u>		<u>5</u>		<u>95</u>

Rec Total 567 BHT 127 Gravity \_\_\_\_\_ API RW .7 @ 63 °F Chlorides 38,000 ppm

(A) Initial Hydrostatic 1781  Test 1050 T-On Location \_\_\_\_\_  
 (B) First Initial Flow 67  Jars \_\_\_\_\_ T-Started 5:23 am  
 (C) First Final Flow 144  Safety Joint \_\_\_\_\_ T-Open 7:22 am  
 (D) Initial Shut-In 1048  Circ Sub \_\_\_\_\_ T-Pulled 9:22 am  
 (E) Second Initial Flow 148  Hourly Standby \_\_\_\_\_ T-Out 12:25  
 (F) Second Final Flow 264  Mileage 36 Comments \_\_\_\_\_  
 (G) Final Shut-In 1045  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1755  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer 320  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 320  
 Day Standby \_\_\_\_\_ Total 1370  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1050

Initial Open 15  
 Initial Shut-In 45  
 Final Flow 15  
 Final Shut-In 45

Approved By [Signature] Our Representative [Signature]

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.