

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 Recompletion Date \_\_\_\_\_ 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) (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	Brack 1-24
Doc ID	1302490

Tops

Name	Top	Datum
Top Anhydrite	942'	+990
Base Anhydrite	NA	NA
Topeka	2916'	-984
Heebner	3161'	-1229
Toronto	3179'	-1247
Douglas Shale	3197'	-1265
Brown Lime	3229'	-1297
LKC	3243'	-1311
BKC	3456'	-1524
Reagan Sand	3491'	-1559



# 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. 1335

Date	3-25-16	Sec.	24	Twp.	18	Range	16	County	Rush	State	Ks	On Location		Finish	12:00AM
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Location Albert, Ks - 2w, N1 Info

Lease	Brack	Well No.	1-24	Owner	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.
Contractor	Integrity	#	17	Charge To	Downing - Nelson
Type Job	Surface	T.D.	94.7'	Street	
Hole Size	12 1/4"	Depth	<del>94.7</del> 93.7'	City	
Csg.	8 5/8"	Depth		State	
Tbg. Size		Depth		The above was done to satisfaction and supervision of owner agent or contractor.	
Tool		Depth		Cement Amount Ordered	380 70/30 poz 3% CC
Cement Left in Csg.	30'	Shoe Joint	30'	Displace	57 3/4 BLS 2% Gel

**EQUIPMENT**

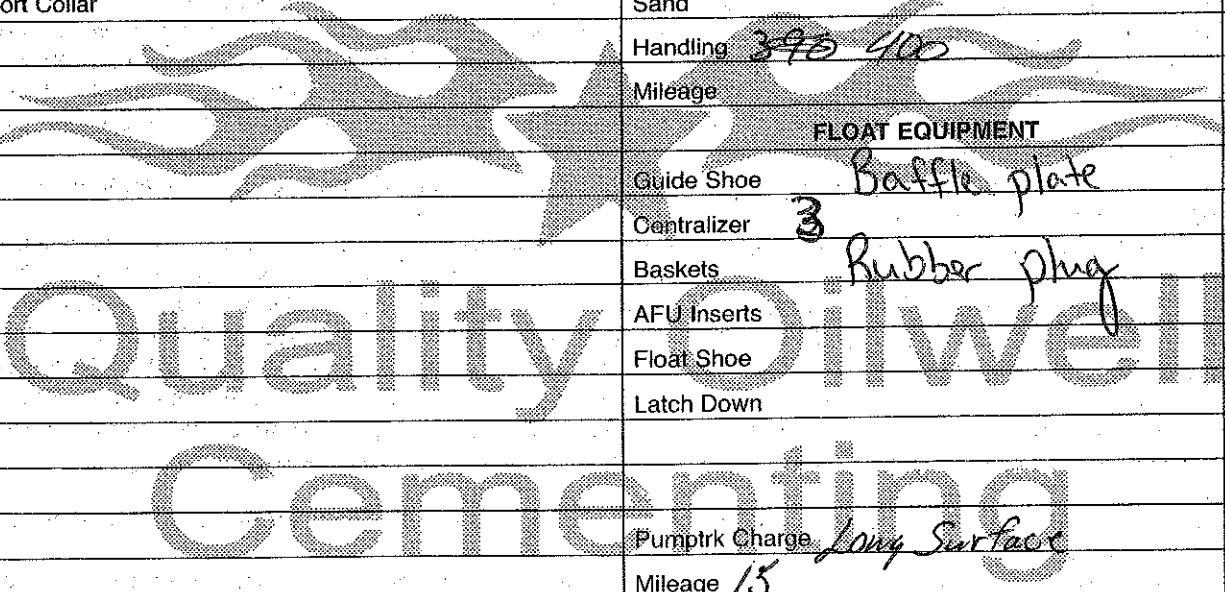
Pumptrk	20	No.		Cementer Helper	Craig	Common	266
Bulktrk	4	No.		Driver	Brett	Poz. Mix	1/4
Bulktrk	p.u.	No.		Driver	Rick	Gel.	7
				Driver		Calcium	13

**JOB SERVICES & REMARKS**

Remarks:	Cement did Circulate	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	390 400
		Mileage	

**FLOAT EQUIPMENT**

Guide Shoe	Baffle plate
Centralizer	3
Baskets	Rubber plug
AFU Inserts	
Float Shoe	
Latch Down	



Pumptrk Charge Long Surface  
Mileage 15

Signature	<i>[Signature]</i>	Tax	
		Discount	
		Total Charge	

# 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. 1337

Date	4-2-16	Sec.	24	Twp.	18	Range	16	County	Rush	State	Ks	On Location		Finish	9:15 AM
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Lease **Brack** Location **Albert, Ks - 2w, N1/4 into**

Well No. **1-24** Owner **To Quality Oilwell Cementing, Inc.**

Contractor **Integrity #17** 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 **Plug** Charge To **Downing - Nelson**

Hole Size **7 7/8"** T.D. **3568'** Street

Csg. Depth **900'** City State

Tbg. Size **4 1/2" D.P.** Depth **900'** The above was done to satisfaction and supervision of owner agent or contractor.

Tool Depth Cement Amount Ordered **140 60/40 4% Gel 1/4 flb**

Cement Left in Csg. Shoe Joint

Meas Line Displace **H2O**

EQUIPMENT		
Pumptrk <b>20</b>	No. Cementer Helper <b>Brett</b>	Common <b>84</b>
Bulktrk <b>9</b>	No. Driver <b>Dougy</b>	Poz. Mix <b>56</b>
Bulktrk <b>pu</b>	No. Driver <b>Rick</b>	Gel. <b>5</b>
		Calcium

**JOB SERVICES & REMARKS**

Remarks: **50 sx - 900'** Halls  
**40 sx - 300'** Salt  
**20 sx - 60'** Flowseal **35 #**  
**30 sx - Rathole** Kol-Seal  
 Mud CLR 48  
 CFL-117 or CD110 CAF 38

D/V or Port Collar Sand

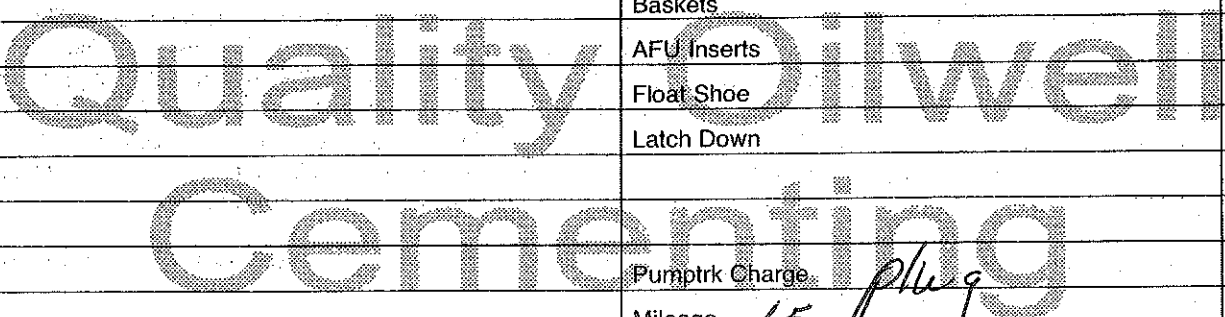
**Cement did Circulate** Handling **145**

**FLOAT EQUIPMENT**

Guide Shoe  
 Centralizer  
 Baskets  
 AFU Inserts  
 Float Shoe  
 Latch Down

Pumptrk Charge **plug**  
 Mileage **15**

X Signature <b>[Signature]</b>	Tax
	Discount
	Total Charge





## DRILL STEM TEST REPORT

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

PO Box 1019  
Hays Kansas 67601

ATTN: Marc Downing

### **Brack #1-24**

### **28-18s-16w Rush,KS**

Start Date: 2016.03.30 @ 09:07:00

End Date: 2016.03.30 @ 15:14:30

Job Ticket #: 65085                      DST #: 1

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2016.04.04 @ 09:54:57

Downing Nelson Oil Company Inc

28-18s-16w Rush,KS

Brack #1-24

DST # 1

Reagan Sand

2016.03.30



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Dow ning Nelson Oil Compay Inc

**28-18s-16w Rush,KS**

PO Box 1019  
Hays Kansas 67601

**Brack #1-24**

Job Ticket: 65085

**DST#: 1**

ATTN: Marc Dow ning

Test Start: 2016.03.30 @ 09:07:00

## GENERAL INFORMATION:

Formation: **Reagan Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:07:30

Time Test Ended: 15:14:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Sw inney

Unit No: 72

**Interval: 3437.00 ft (KB) To 3507.00 ft (KB) (TVD)**

Reference Elevations: 1932.00 ft (KB)

Total Depth: 3507.00 ft (KB) (TVD)

1921.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 6741 Inside**

Press@RunDepth: 72.29 psig @ 3502.64 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.03.30

End Date:

2016.03.30

Last Calib.:

2016.03.30

Start Time: 09:07:05

End Time:

15:14:29

Time On Btm:

2016.03.30 @ 11:05:30

Time Off Btm:

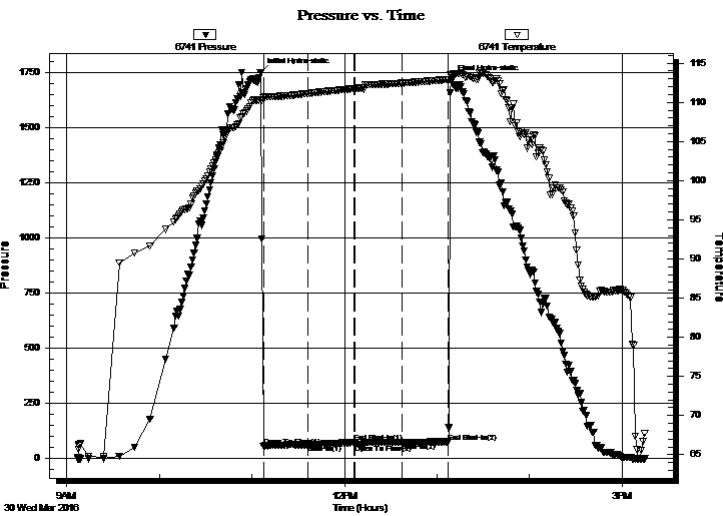
2016.03.30 @ 13:09:00

TEST COMMENT: IIFP Blow at 1" at open built to 2" then died to 1/2"

FFP No blow back

FiFP No blow Flush tool good surge then dead

FSI No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1749.50	110.36	Initial Hydro-static
2	55.45	110.59	Open To Flow (1)
31	61.09	111.13	Shut-In(1)
61	71.34	111.73	End Shut-In(1)
62	62.47	111.75	Open To Flow (2)
92	72.29	112.46	Shut-In(2)
122	74.56	112.90	End Shut-In(2)
124	1718.03	113.52	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	Mud 100%	0.30

## Gas Rates

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





**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Downing Nelson Oil Company Inc

**28-18s-16w Rush, KS**

PO Box 1019  
Hays Kansas 67601

**Brack #1-24**

Job Ticket: 65085

**DST#: 1**

ATTN: Marc Downing

Test Start: 2016.03.30 @ 09:07:00

## GENERAL INFORMATION:

Formation: **Reagan Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:07:30

Time Test Ended: 15:14:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 72

**Interval: 3437.00 ft (KB) To 3507.00 ft (KB) (TVD)**

Reference Elevations: 1932.00 ft (KB)

Total Depth: 3507.00 ft (KB) (TVD)

1921.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8960 Outside**

Press@RunDepth: 73.82 psig @ 3503.64 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.03.30

End Date:

2016.03.30

Last Calib.:

2016.03.30

Start Time: 09:07:05

End Time:

15:14:29

Time On Btm:

2016.03.30 @ 11:05:30

Time Off Btm:

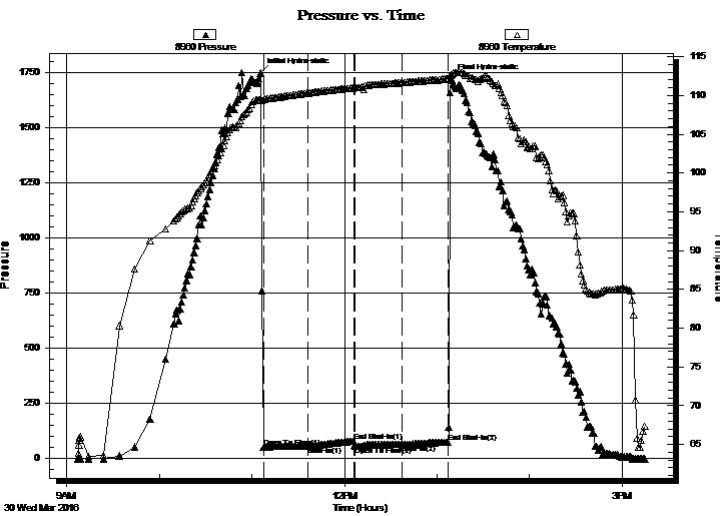
2016.03.30 @ 13:09:00

TEST COMMENT: IIFP Blow at 1" at open built to 2" then died to 1/2"

FFP No blow back

FiFP No blow Flush tool good surge then dead

FSI No blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1746.08	109.52	Initial Hydro-static
2	50.01	109.44	Open To Flow (1)
31	54.98	110.33	Shut-In(1)
61	77.77	110.98	End Shut-In(1)
62	55.38	110.98	Open To Flow (2)
92	62.07	111.66	Shut-In(2)
122	73.82	112.16	End Shut-In(2)
124	1719.59	112.62	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	Mud 100%	0.30

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Downing Nelson Oil Company Inc

**28-18s-16w Rush, KS**

PO Box 1019  
Hays Kansas 67601

**Brack #1-24**

Job Ticket: 65085

**DST#: 1**

ATTN: Marc Downing

Test Start: 2016.03.30 @ 09:07:00

## Tool Information

Drill Pipe:	Length: 3305.00 ft	Diameter: 3.80 inches	Volume: 46.36 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:	48000.00 lb
			<u>Total Volume: 46.95 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial	42000.00 lb
Depth to Top Packer:	3437.00 ft			Final	42000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	69.64 ft				
Tool Length:	89.64 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments: 65085 DNOC Brack #1-24 DST #1

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut-In Tool	5.00			3422.00	
Hydraulic tool	5.00			3427.00	
Top Packer	5.00			3432.00	
Packer	5.00			3437.00	20.00 Bottom Of Top Packer
Anchor	2.00			3439.00	
Change Over Sub	1.00			3440.00	
Drill Pipe	31.64			3471.64	
Change Over Sub	1.00			3472.64	
Anchor	29.00			3501.64	
Recorder	1.00	6741	Inside	3502.64	
Recorder	1.00	8960	Outside	3503.64	
Bullnose	3.00			3506.64	69.64 Anchor Tool

**Total Tool Length: 89.64**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Downing Nelson Oil Company Inc

**28-18s-16w Rush, KS**

PO Box 1019  
Hays Kansas 67601

**Brack #1-24**

Job Ticket: 65085

**DST#: 1**

ATTN: Marc Downing

Test Start: 2016.03.30 @ 09:07:00

### 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: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.39 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1800.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	Mud 100%	0.295

Total Length: 60.00 ft      Total Volume: 0.295 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6741

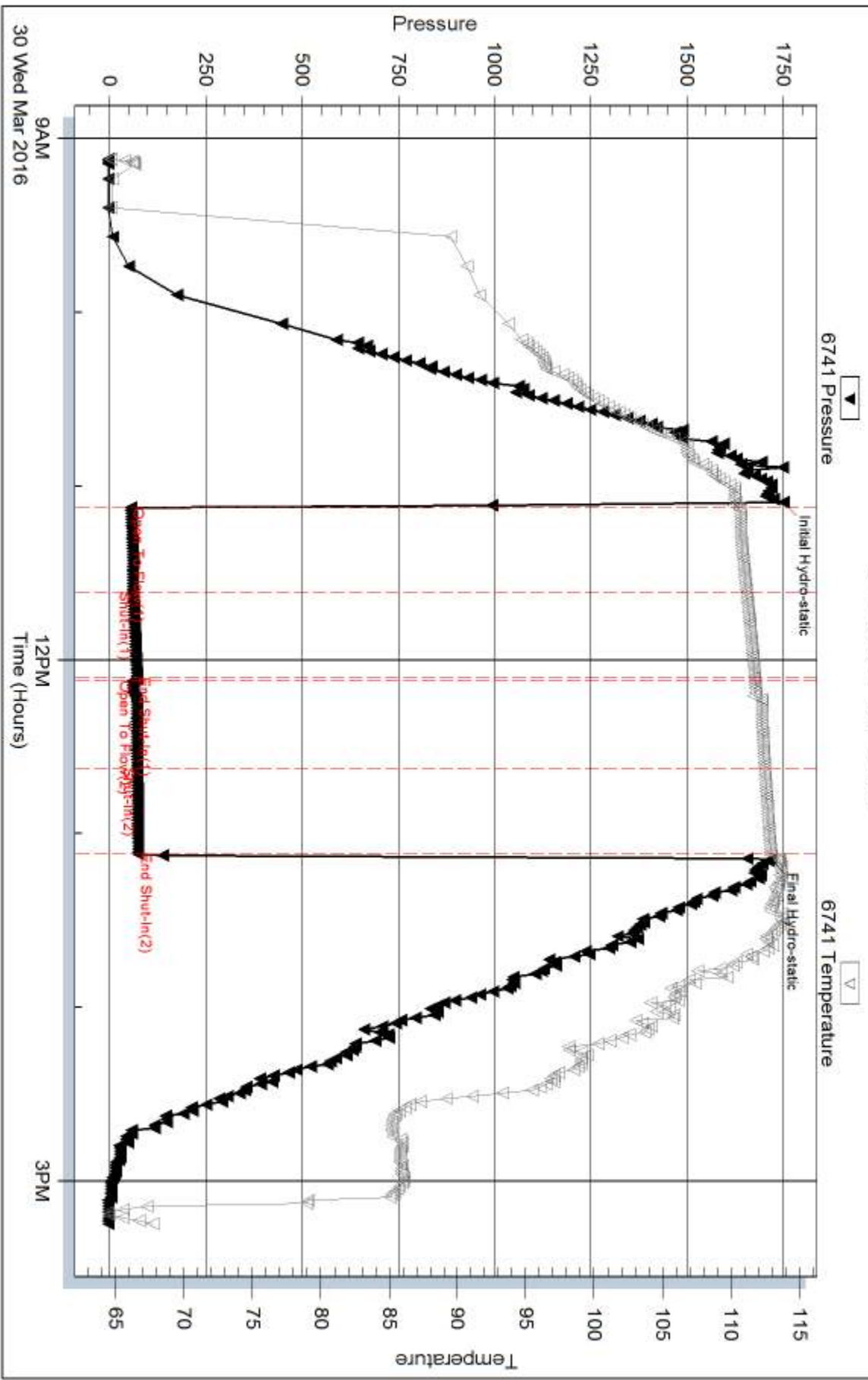
Inside

Downing Nelson Oil Company Inc

Brack #1-24

DST Test Number: 1

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 65085

Printed: 2016.04.04 @ 09:54:59

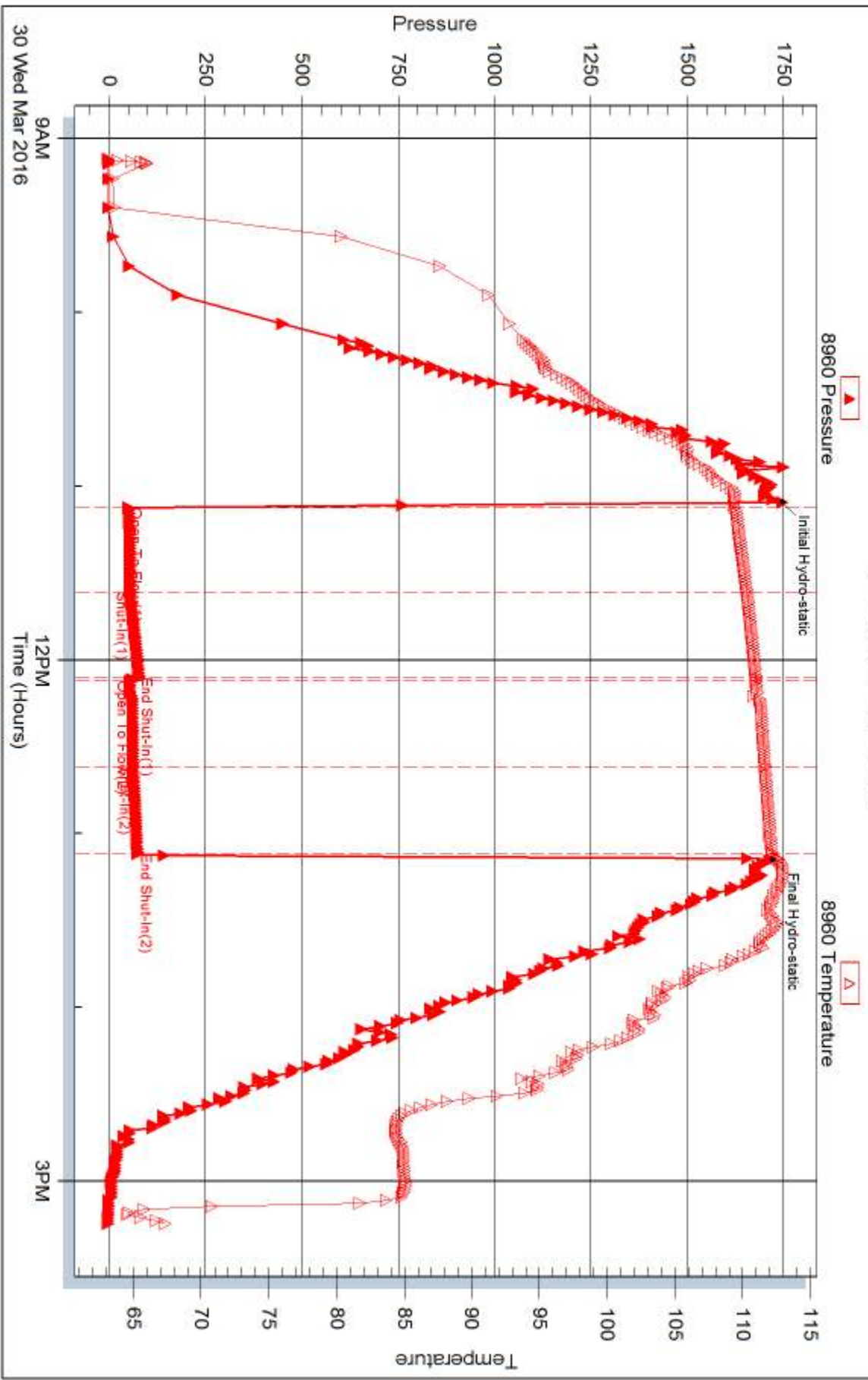
Serial #: 8960

Outside Dow n ing Nelson Oil Company Inc

Brack #1-24

DST Test Number: 1

### Pressure vs. Time





## DRILL STEM TEST REPORT

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

PO Box 1019  
Hays Kansas 67601

ATTN: Marc Downing

### **Brack #1-24**

### **28-18s-16w Rush,KS**

Start Date: 2016.03.31 @ 13:32:00

End Date: 2016.03.31 @ 19:33:30

Job Ticket #: 65086                      DST #: 2

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2016.04.04 @ 09:53:38



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Downing Nelson Oil Company Inc

**28-18s-16w Rush, KS**

PO Box 1019  
Hays Kansas 67601

**Brack #1-24**

Job Ticket: 65086

**DST#: 2**

ATTN: Marc Downing

Test Start: 2016.03.31 @ 13:32:00

## GENERAL INFORMATION:

Formation: **Reagan Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:31:30

Time Test Ended: 19:33:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 72

**Interval: 3436.00 ft (KB) To 3538.00 ft (KB) (TVD)**

Reference Elevations: 1932.00 ft (KB)

Total Depth: 3538.00 ft (KB) (TVD)

1921.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 6741**

**Inside**

Press@RunDepth: 94.62 psig @ 3534.05 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.03.31

End Date:

2016.03.31

Last Calib.:

2016.03.31

Start Time:

13:32:05

End Time:

19:33:29

Time On Btm:

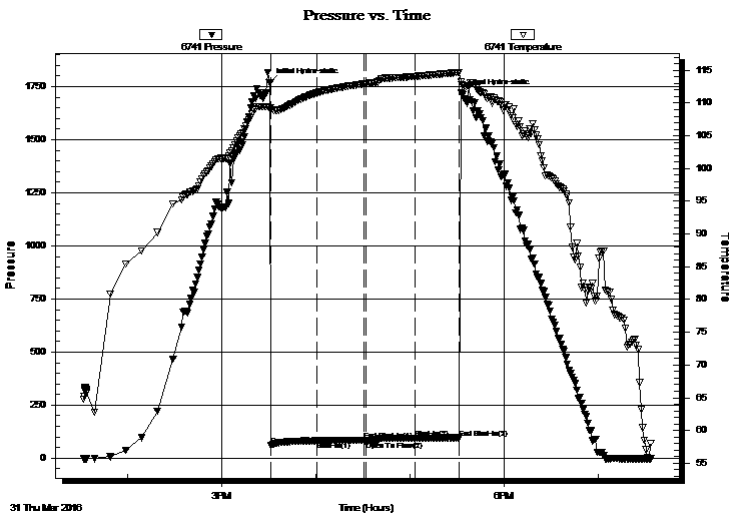
2016.03.31 @ 15:31:00

Time Off Btm:

2016.03.31 @ 17:33:00

**TEST COMMENT:** IFP Blow built to 3 1/4" then died to 2"  
ISI No blow back  
FFP No blow - Flush tool - good surge then dead  
FSI No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1769.34	109.23	Initial Hydro-static
1	59.71	108.83	Open To Flow (1)
30	81.59	111.56	Shut-In(1)
60	85.87	112.93	End Shut-In(1)
61	81.90	112.96	Open To Flow (2)
92	94.62	114.06	Shut-In(2)
121	95.99	114.68	End Shut-In(2)
122	1716.92	112.84	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
75.00	Mud 100%	0.37

## Gas Rates

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Downing Nelson Oil Company Inc

**28-18s-16w Rush, KS**

PO Box 1019  
Hays Kansas 67601

**Brack #1-24**

Job Ticket: 65086

**DST#: 2**

ATTN: Marc Downing

Test Start: 2016.03.31 @ 13:32:00

## GENERAL INFORMATION:

Formation: **Reagan Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:31:30

Time Test Ended: 19:33:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 72

**Interval: 3436.00 ft (KB) To 3538.00 ft (KB) (TVD)**

Reference Elevations: 1932.00 ft (KB)

Total Depth: 3538.00 ft (KB) (TVD)

1921.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8960 Outside**

Press@RunDepth: 97.89 psig @ 3535.05 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.03.31

End Date:

2016.03.31

Last Calib.:

2016.03.31

Start Time: 13:32:05

End Time:

19:32:59

Time On Btm:

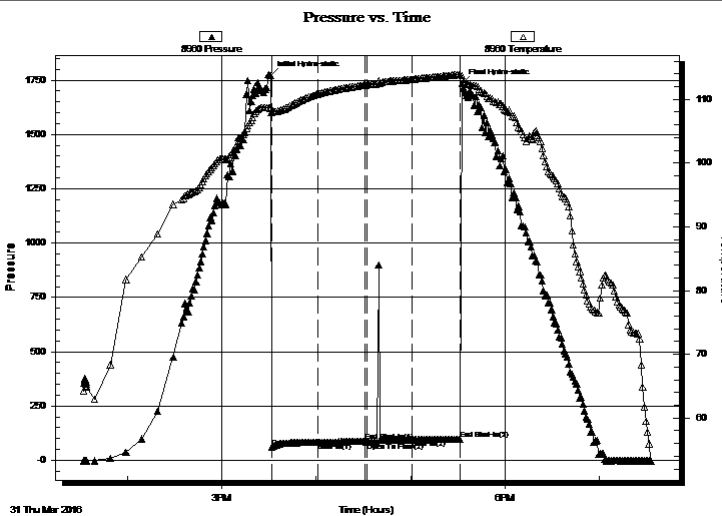
2016.03.31 @ 15:31:00

Time Off Btm:

2016.03.31 @ 17:32:30

**TEST COMMENT:** IFP Blow built to 3 1/4" then died to 2"  
ISI No blow back  
FFP No blow - Flush tool - good surge then dead  
FSI No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1770.97	108.55	Initial Hydro-static
1	61.97	107.89	Open To Flow (1)
30	82.26	110.83	Shut-In(1)
60	88.61	112.24	End Shut-In(1)
61	83.31	112.27	Open To Flow (2)
90	95.10	113.14	Shut-In(2)
121	97.89	113.91	End Shut-In(2)
122	1735.24	113.70	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
75.00	Mud 100%	0.37

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Downing Nelson Oil Company Inc

**28-18s-16w Rush, KS**

PO Box 1019  
Hays Kansas 67601

**Brack #1-24**

Job Ticket: 65086

**DST#: 2**

ATTN: Marc Downing

Test Start: 2016.03.31 @ 13:32:00

## Tool Information

Drill Pipe:	Length: 3305.00 ft	Diameter: 3.80 inches	Volume: 46.36 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: 46.95 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	3436.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	102.05 ft			
Tool Length:	122.05 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut-In Tool	5.00			3421.00	
Hydraulic tool	5.00			3426.00	
Top Packer	5.00			3431.00	
Packer	5.00			3436.00	20.00 Bottom Of Top Packer
Anchor	3.00			3439.00	
Change Over Sub	1.00			3440.00	
Drill Pipe	63.05			3503.05	
Change Over Sub	1.00			3504.05	
Anchor	29.00			3533.05	
Recorder	1.00	6741	Inside	3534.05	
Recorder	1.00	8960	Outside	3535.05	
Bullnose	3.00			3538.05	102.05 Anchor Tool

**Total Tool Length: 122.05**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Downing Nelson Oil Company Inc

**28-18s-16w Rush, KS**

PO Box 1019  
Hays Kansas 67601

**Brack #1-24**

Job Ticket: 65086

**DST#: 2**

ATTN: Marc Downing

Test Start: 2016.03.31 @ 13:32:00

### 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: 7.39 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1700.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
75.00	Mud 100%	0.369

Total Length: 75.00 ft      Total Volume: 0.369 bbl

Num Fluid Samples: 0

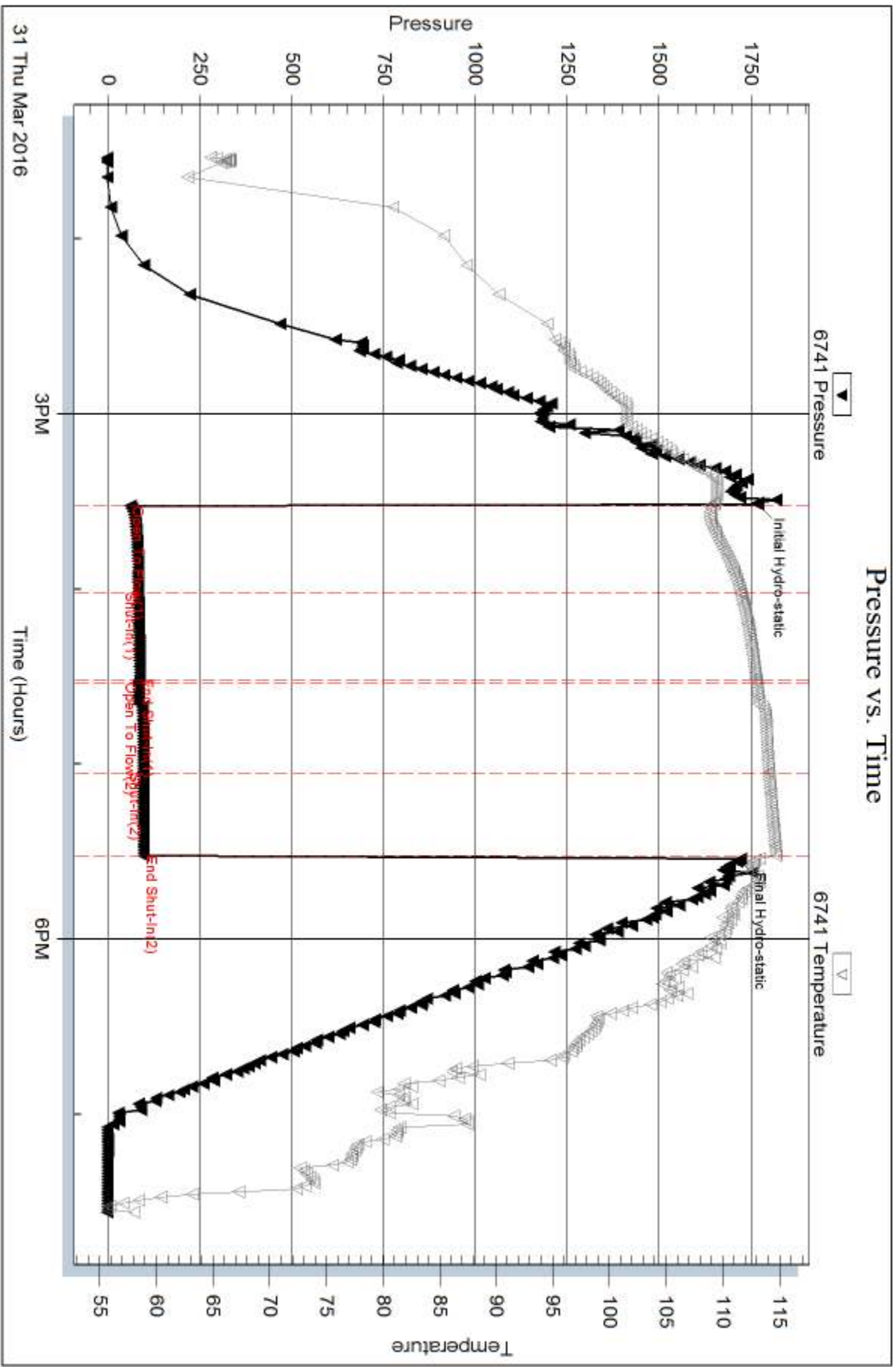
Num Gas Bombs: 0

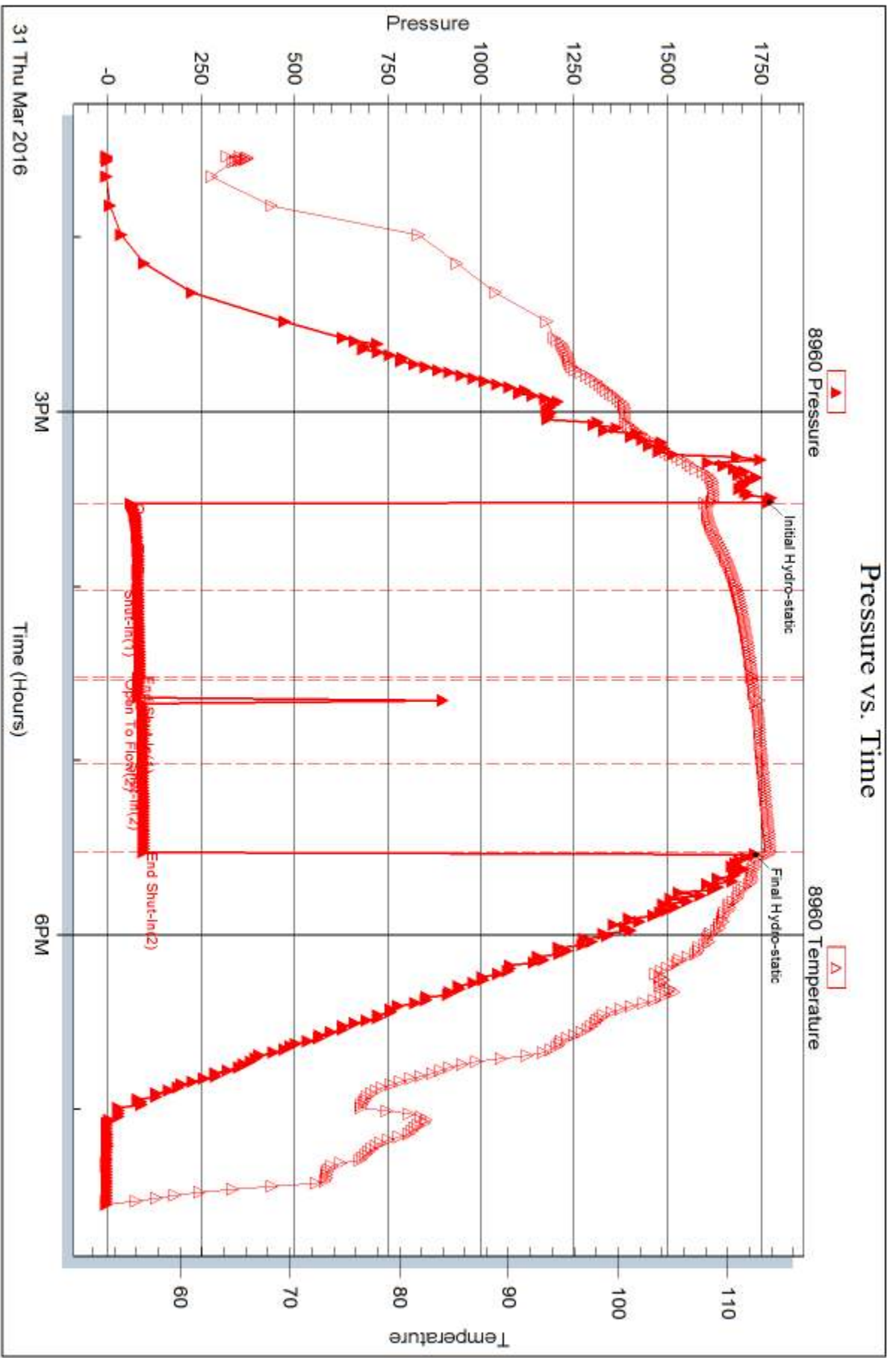
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

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

PO Box 1019  
Hays Kansas 67601

ATTN: Marc Downing

### **Brack #1-24**

### **28-18s-16w Rush,KS**

Start Date: 2016.04.01 @ 17:05:00

End Date: 2016.04.01 @ 23:32:30

Job Ticket #: 65087                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2016.04.04 @ 09:53:03

Downing Nelson Oil Company Inc

28-18s-16w Rush,KS

Brack #1-24

DST # 3

Reagan Sand

2016.04.01



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Downing Nelson Oil Company Inc

**28-18s-16w Rush, KS**

PO Box 1019  
Hays Kansas 67601

**Brack #1-24**

Job Ticket: 65087

**DST#: 3**

ATTN: Marc Downing

Test Start: 2016.04.01 @ 17:05:00

## GENERAL INFORMATION:

Formation: **Reagan Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:01:30

Time Test Ended: 23:32:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 72

**Interval: 3436.00 ft (KB) To 3568.00 ft (KB) (TVD)**

Reference Elevations: 1932.00 ft (KB)

Total Depth: 3568.00 ft (KB) (TVD)

1921.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 6741**

**Inside**

Press@RunDepth: 115.45 psig @ 3564.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.04.01

End Date:

2016.04.01

Last Calib.:

2016.04.01

Start Time: 17:05:05

End Time:

23:32:29

Time On Btm:

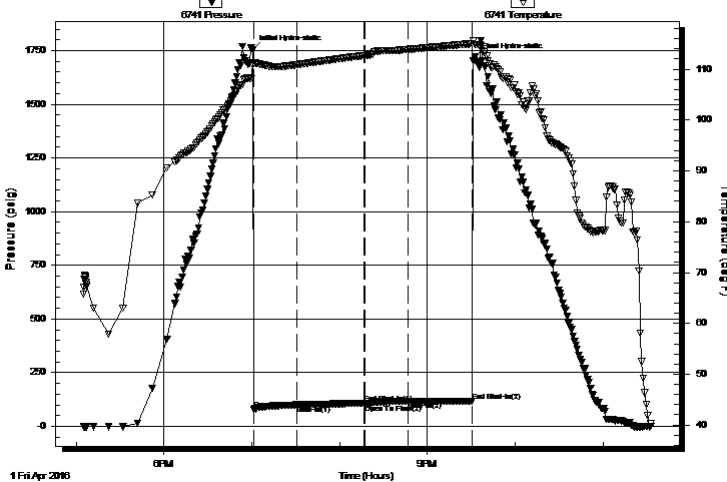
2016.04.01 @ 19:00:30

Time Off Btm:

2016.04.01 @ 21:32:30

**TEST COMMENT:** IFP Blow built to 4 1/4" by 22 min. then died to 3 1/2"  
ISI No blow back  
FFP No blow - Flush tool surface blow for 2 minutes  
FSI No blow back

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1752.79	110.83	Initial Hydro-static
1	77.06	111.17	Open To Flow (1)
31	99.48	110.89	Shut-In(1)
76	106.67	112.67	End Shut-In(1)
77	100.87	112.69	Open To Flow (2)
106	115.45	113.89	Shut-In(2)
150	115.48	115.03	End Shut-In(2)
152	1719.98	114.81	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
105.00	Mud 100%	0.52

## Gas Rates

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Downing Nelson Oil Company Inc

**28-18s-16w Rush, KS**

PO Box 1019  
Hays Kansas 67601

**Brack #1-24**

Job Ticket: 65087

**DST#: 3**

ATTN: Marc Downing

Test Start: 2016.04.01 @ 17:05:00

## GENERAL INFORMATION:

Formation: **Reagan Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:01:30

Time Test Ended: 23:32:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 72

**Interval: 3436.00 ft (KB) To 3568.00 ft (KB) (TVD)**

Reference Elevations: 1932.00 ft (KB)

Total Depth: 3568.00 ft (KB) (TVD)

1921.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

**Serial #: 8960 Outside**

Press@RunDepth: 114.46 psig @ 3565.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.04.01

End Date: 2016.04.01

Last Calib.: 2016.04.01

Start Time: 17:05:05

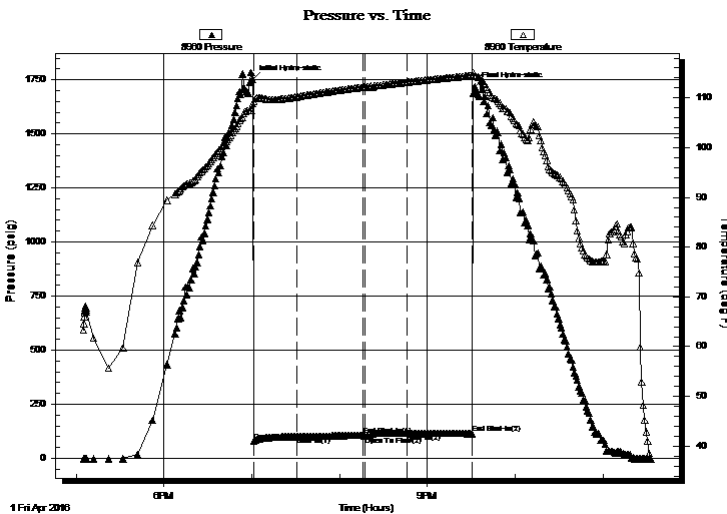
End Time: 23:32:29

Time On Btm: 2016.04.01 @ 19:00:30

Time Off Btm: 2016.04.01 @ 21:32:30

**TEST COMMENT:** IFP Blow built to 4 1/4" by 22 min. then died to 3 1/2"  
ISI No blow back  
FFP No blow - Flush tool surface blow for 2 minutes  
FSI No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1752.09	108.82	Initial Hydro-static
1	79.40	109.33	Open To Flow (1)
31	100.07	110.22	Shut-In(1)
76	106.95	112.17	End Shut-In(1)
77	101.99	112.21	Open To Flow (2)
106	115.18	113.16	Shut-In(2)
150	114.46	114.49	End Shut-In(2)
152	1719.99	114.52	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
105.00	Mud 100%	0.52

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Downing Nelson Oil Company Inc

**28-18s-16w Rush, KS**

PO Box 1019  
Hays Kansas 67601

**Brack #1-24**

Job Ticket: 65087

**DST#: 3**

ATTN: Marc Downing

Test Start: 2016.04.01 @ 17:05:00

## Tool Information

Drill Pipe:	Length: 3305.00 ft	Diameter: 3.50 inches	Volume: 39.33 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: 54000.00 lb
			<u>Total Volume: 39.92 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 43000.00 lb
Depth to Top Packer:	3436.00 ft			Final 43000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	132.00 ft			
Tool Length:	152.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut-In Tool	5.00			3421.00	
Hydraulic tool	5.00			3426.00	
Top Packer	5.00			3431.00	
Packer	5.00			3436.00	20.00 Bottom Of Top Packer
Anchor	5.00			3441.00	
Change Over Sub	1.00			3442.00	
Drill Pipe	95.00			3537.00	
Change Over Sub	1.00			3538.00	
Anchor	25.00			3563.00	
Recorder	1.00	6741	Inside	3564.00	
Recorder	1.00	8960	Outside	3565.00	
Bullnose	3.00			3568.00	132.00 Anchor Tool

**Total Tool Length: 152.00**





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Downing Nelson Oil Company Inc

**28-18s-16w Rush, KS**

PO Box 1019  
Hays Kansas 67601

**Brack #1-24**

Job Ticket: 65087

**DST#: 3**

ATTN: Marc Downing

Test Start: 2016.04.01 @ 17:05:00

### 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: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.59 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1900.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
105.00	Mud 100%	0.516

Total Length: 105.00 ft      Total Volume: 0.516 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

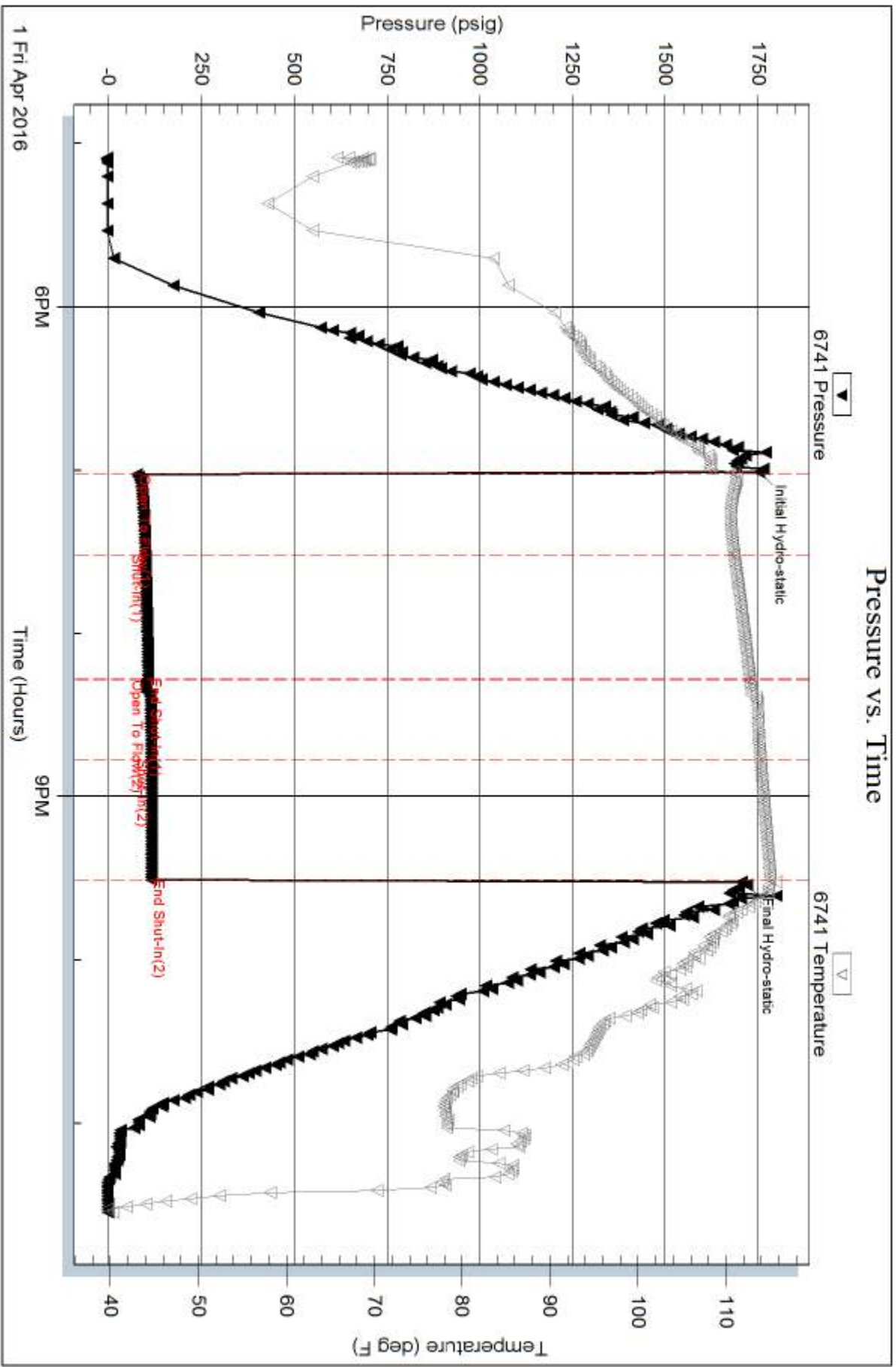
Serial #: 6741

Inside

Downing Nelson Oil Company Inc

Brack #1-24

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 65087

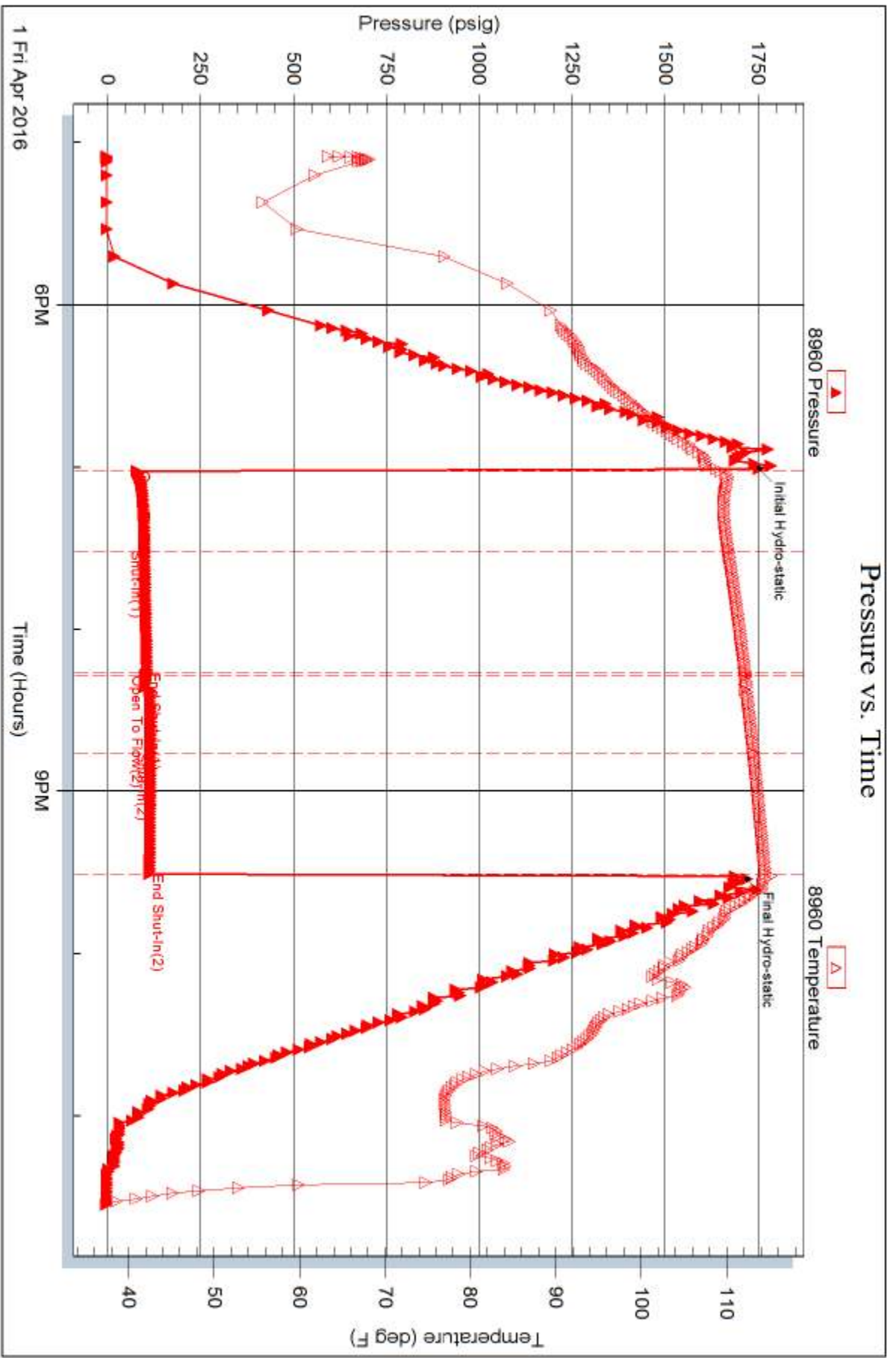
Printed: 2016.04.04 @ 09:53:04

Serial #: 8960

Outside Dow n ing Nelson Oil Company Inc

Brack #1-24

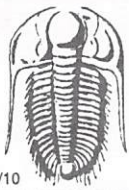
DST Test Number: 3



Triobite Testing, Inc

Ref. No: 65087

Printed: 2016.04.04 @ 09:53:04



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **65085**

Well Name & No. Brack #1-24 Test No. 1 Date 30 MAR 16  
 Company Downing Nelson Oil Company Inc Elevation 1932 KB 1921 GL  
 Address PO Box 1019 Hays Kansas 67601  
 Co. Rep/Geo. Marc Downing Rig Integrity Rig 7  
 Location: Sec. 27 Twp. 185 Rge. 16W Co. Rush State KS

Interval Tested 3437-3507 Zone Tested Reagan Sand  
 Anchor Length 70 Drill Pipe Run 3305 Mud Wt. 9.2  
 Top Packer Depth 3432 Drill Collars Run 120 Vis 55  
 Bottom Packer Depth 3437 Wt. Pipe Run - WL 7.4  
 Total Depth 3507 Chlorides 1800 ppm System LCM 2#

Blow Description Initial flow - Blow of 1" at open built to 2" died to 1/2"  
Initial shut in - no blow back  
Final flow - No blow - Flush tool - good surge then dead  
Final shut in - no blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>60</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 60 BHT 113 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1749  Test 1050 T-On Location 7:44 am  
 (B) First Initial Flow 55  Jars \_\_\_\_\_ T-Started 9:07 am  
 (C) First Final Flow 61  Safety Joint \_\_\_\_\_ T-Open 11:06 am  
 (D) Initial Shut-In 71  Circ Sub \_\_\_\_\_ T-Pulled 4:06 pm  
 (E) Second Initial Flow 62  Hourly Standby \_\_\_\_\_ T-Out 3:14 pm  
 (F) Second Final Flow 72  Mileage 34 25.50 Comments \_\_\_\_\_  
 (G) Final Shut-In 74  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1718  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_

Initial Open 30  
 Initial Shut-In 30  
 Final Flow 30  
 Final Shut-In 30  
 Sub Total 0  
 Total 1075.50  
 MP/DST Disc't \_\_\_\_\_  
 Sub Total 1075.50

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. **65086**

Well Name & No. Brack #1-24 Test No. 2 Date 31 MAR 16  
 Company Downing Nelson Oil Company Inc Elevation 1932 KB 1921 GL  
 Address PO Box 1019 Hays Kansas 67601  
 Co. Rep/Geo. Marc Downing Rig Integrity Rig 7  
 Location: Sec. 27 Twp. 18S Rge. 16W Co. Rush State KS

Interval Tested 3436-3538 Zone Tested Reagan Sand  
 Anchor Length 107 Drill Pipe Run 3305 Mud Wt. 9.3  
 Top Packer Depth 3431 Drill Collars Run 120 Vis 50  
 Bottom Packer Depth 3436 Wt. Pipe Run — WL -7.4  
 Total Depth 3538 Chlorides 1700 ppm System LCM 2#  
 Blow Description Initial flow blow built to 3 1/4 inch then died to 2"  
Initial shut in no blow back  
Final flow no blow flash fool good surge then dead  
Final shut in no blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>75</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 75 BHT 114 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1769  Test 1050 T-On Location 11:58 am  
 (B) First Initial Flow 59  Jars \_\_\_\_\_ T-Started 1:32 pm  
 (C) First Final Flow 81  Safety Joint \_\_\_\_\_ T-Open 3:32 pm  
 (D) Initial Shut-In 85  Circ Sub \_\_\_\_\_ T-Pulled 5:32 pm  
 (E) Second Initial Flow 81  Hourly Standby \_\_\_\_\_ T-Out 7:33 pm  
 (F) Second Final Flow 94  Mileage 34 25.50 Comments \_\_\_\_\_  
 (G) Final Shut-In 95  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1716  Straddle \_\_\_\_\_

Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Initial Open 30  
 Initial Shut-In 30  
 Final Flow 30  
 Final Shut-In 30  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1075.50  
 Sub Total 1075.50  
 Sub Total 0  
 Total 1075.50  
 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **65087**

Well Name & No. Brack #1-24 Test No. 3 Date 1 Apr 16  
 Company Downing Nelson Oil Company Inc Elevation 1932 KB 1921 GL  
 Address PO Box 1019 Hays Kansas 67601  
 Co. Rep / Geo. Marc Downing Rig Integrity Rig 7  
 Location: Sec. 27 Twp. 18S Rge. 16W Co. Rush State KS

Interval Tested 3436 - 3568 Zone Tested Reagan Sand  
 Anchor Length 132 Drill Pipe Run 3305 Mud Wt. 9.3  
 Top Packer Depth 3431 Drill Collars Run 120 Vis 52  
 Bottom Packer Depth 3436 Wt. Pipe Run - WL 7.6  
 Total Depth 3568 Chlorides 1900 ppm System LCM 2#

Blow Description Initial Flow - Blow built to 4 1/4 inch by 22 min then died to 3 1/2 inch  
Initial shut in - No blow back  
Final Flow - ~~blow~~ blow/Flush tool surface blow for 2 min  
Final shut in - No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>105</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 105 BHT 115 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>1752</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>3:41 pm</u>
(B) First Initial Flow <u>77</u>	<input type="checkbox"/> Jars _____	T-Started <u>5:08 pm</u>
(C) First Final Flow <u>99</u>	<input type="checkbox"/> Safety Joint _____	T-Open <u>7:05 pm</u>
(D) Initial Shut-In <u>106</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>9:35 pm</u>
(E) Second Initial Flow <u>100</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>11:36 pm</u>
(F) Second Final Flow <u>115</u>	<input checked="" type="checkbox"/> Mileage <u>34</u> <u>25.50</u>	Comments _____
(G) Final Shut-In <u>115</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>1719</u>	<input type="checkbox"/> Straddle _____	
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Ruined Packer _____
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder _____	<input type="checkbox"/> Extra Copies _____
Final Shut-In <u>45</u>	<input type="checkbox"/> Day Standby _____	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility _____	Total <u>1075.50</u>
	Sub Total <u>1075.50</u>	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.

Marc A. Downing		Geologic Report			
Consulting Petroleum Geologist		Drilling Time and Sample Log			
Operator Downing-Nelson Oil Co., Inc.		Elevation			
Lease Brack No. 1-24		KB 1932			
API # 15-165-22125-0000		DF 1924			
Field Otis-Albert		GL 1924		Casing Record Surface 8 5/8" @ 937'	
Location 618' FSL & 982' FWL		None		Production None	
Sec. 24 Twp. 18s Rge. 16w		None		Electrical Surveys None	
County Rush State Kansas		None			
Formation	Sample tops	Log Tops	Datum	Struct Comp	
Top Anhydrite	942		+990	+16	
Base Anhydrite	NA		NA	NA	
Topeka	2916		-984	NA	
Heebner	3161		-1229	NA	
Toronto	3179		-1247	NA	
Douglas Sh	3197		-1265	NA	
Brown Lime	3229		-1297	NA	
LKC	3243		-1311	NA	
BKC	3456		-1524	NA	
Reagan Sand	3491		-1559	+3	
Total Depth	3568		-1636		
Reference Well For Structural Comparison Ohio Oil SW SW GC Brack #1		Sec. 24-18s-15w			

Drilling Contractor	Integrity Drilling, Rig #7	
Commenced	3-24-16	Completed 4-2-16
Samples Saved From	3150	To RTD
Drilling Time Kept From	2800	To RTD
Samples Examined From	3150	To RTD
Geological Supervision From	2800	To RTD

### Summary and Recommendations

The Brack #1-24 was structurally high to nearby old producers and had good sample shows throughout most of the Reagan Sand. DST evaluation showed poor shut-in pressures due to depletion. Decision was made to plug and abandon.

Respectfully Submitted,

Marc A. Downing

