



## DRILL STEM TEST REPORT

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

PO Box 1019  
Hays KS 67601

ATTN: Ron Nelson

**7-10s-16w Rooks,KS**

**Ganoung-Charolais A #1-7**

Start Date: 2013.11.05 @ 17:55:42

End Date: 2013.11.05 @ 23:02:51

Job Ticket #: 54364                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.11.08 @ 08:24:17



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

**Ganoung-Charolais A #1-7**

PO Box 1019  
Hays KS 67601

**7-10s-16w Rooks,KS**

ATTN: Ron Nelson

Job Ticket: 54364

**DST#: 1**

Test Start: 2013.11.05 @ 17:55:42

## GENERAL INFORMATION:

Formation: **Topeka**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:13:07

Time Test Ended: 23:02:51

Test Type: Conventional Bottom Hole (Initial)

Tester: Ray Schwager

Unit No: 70

**Interval: 3001.00 ft (KB) To 3045.00 ft (KB) (TVD)**

Reference Elevations: 1947.00 ft (KB)

Total Depth: 3045.00 ft (KB) (TVD)

1939.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 8.00 ft

**Serial #: 8369 Inside**

Press @ Run Depth: 53.56 psig @ 3009.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.11.05 End Date: 2013.11.05

Last Calib.: 2013.11.05

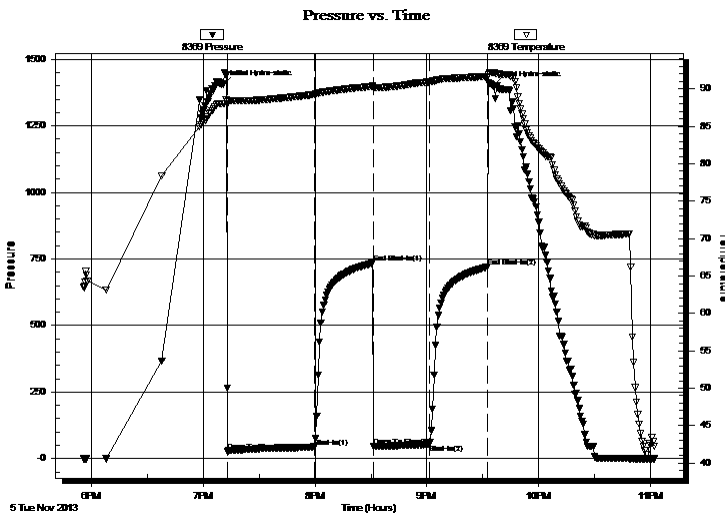
Start Time: 17:55:42 End Time: 23:02:51

Time On Btm: 2013.11.05 @ 19:10:37

Time Off Btm: 2013.11.05 @ 21:35:52

**TEST COMMENT:** 45-IFP-w k bl thru-out 1/2" to 3 1/4" bl  
30-ISIP-no bl  
30-FFP-w k bl 1/4" bl  
30-FSIP-no bl

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1406.06	88.00	Initial Hydro-static
3	28.48	88.27	Open To Flow (1)
49	44.00	89.25	Shut-In(1)
81	734.16	90.36	End Shut-In(1)
81	45.25	90.15	Open To Flow (2)
111	53.56	90.93	Shut-In(2)
142	719.26	91.67	End Shut-In(2)
146	1399.61	92.16	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
110.00	MW 45%M55%W w /show of oil	1.27

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Dow ning-Nelson Oil Co Inc

**Ganoung-Charolais A #1-7**

PO Box 1019  
Hays KS 67601

**7-10s-16w Rooks,KS**

ATTN: Ron Nelson

Job Ticket: 54364

**DST#: 1**

Test Start: 2013.11.05 @ 17:55:42

## Tool Information

Drill Pipe:	Length: 2960.00 ft	Diameter: 3.80 inches	Volume: 41.52 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:	50000.00 lb
			<u>Total Volume: 41.67 bbl</u>	Tool Chased	6.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial	35000.00 lb
Depth to Top Packer:	3001.00 ft			Final	35000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	44.00 ft				
Tool Length:	65.00 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			2981.00	
Shut In Tool	5.00			2986.00	
Hydraulic tool	5.00			2991.00	
Packer	5.00			2996.00	21.00 Bottom Of Top Packer
Packer	5.00			3001.00	
Stubb	1.00			3002.00	
Perforations	7.00			3009.00	
Recorder	0.00	8369	Inside	3009.00	
Recorder	0.00	8700	Outside	3009.00	
Blank Spacing	33.00			3042.00	
Bullnose	3.00			3045.00	44.00 Bottom Packers & Anchor

**Total Tool Length: 65.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Dow ning-Nelson Oil Co Inc

**Ganoung-Charolais A #1-7**

PO Box 1019  
Hays KS 67601

**7-10s-16w Rooks,KS**

Job Ticket: 54364      **DST#: 1**

ATTN: Ron Nelson

Test Start: 2013.11.05 @ 17:55:42

## 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: 65000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume: bbl

Water Loss: 7.92 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
110.00	MW 45%M55%W w/show of oil	1.270

Total Length: 110.00 ft      Total Volume: 1.270 bbl

Num Fluid Samples: 0

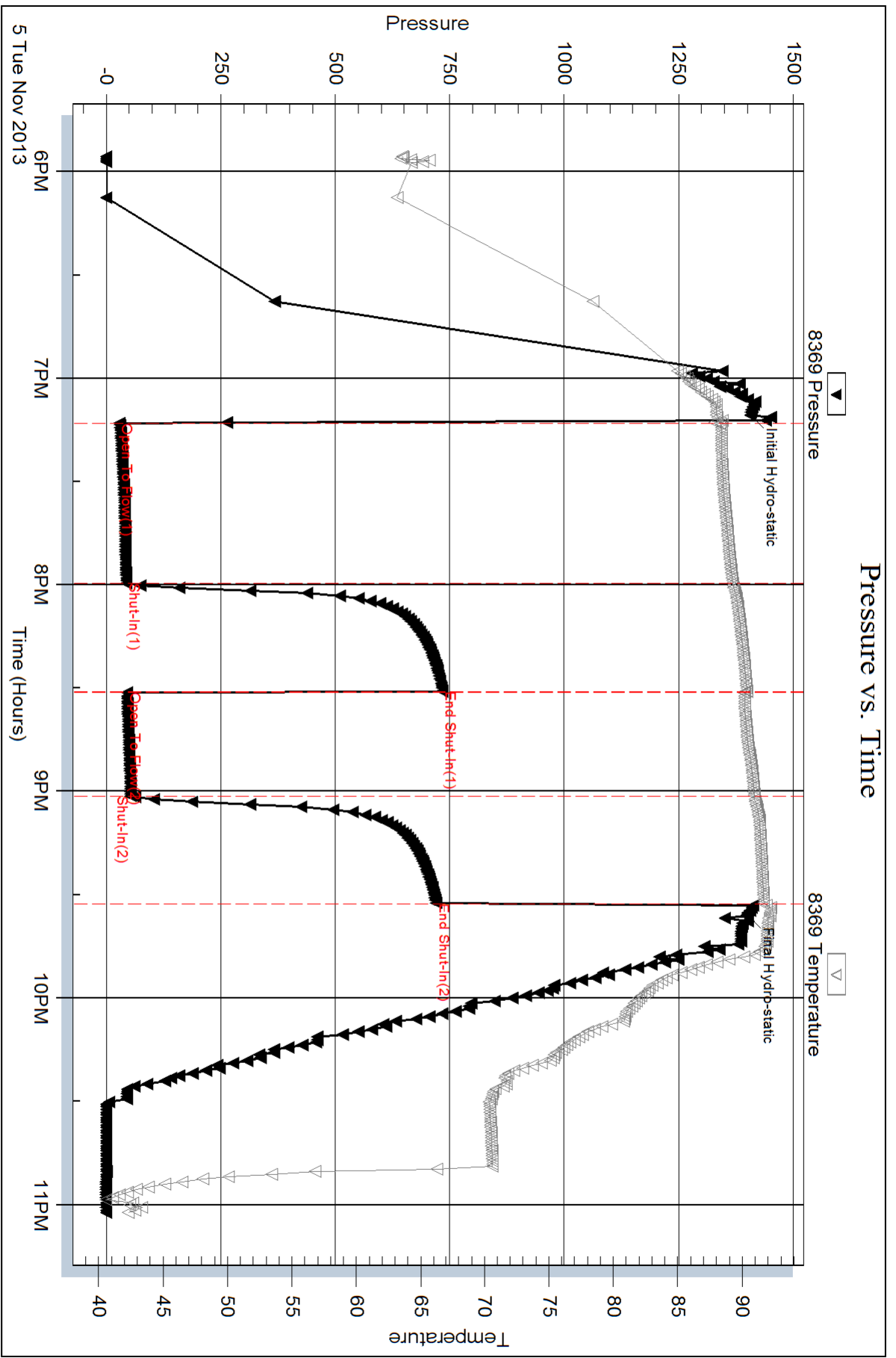
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .16 @ 50F

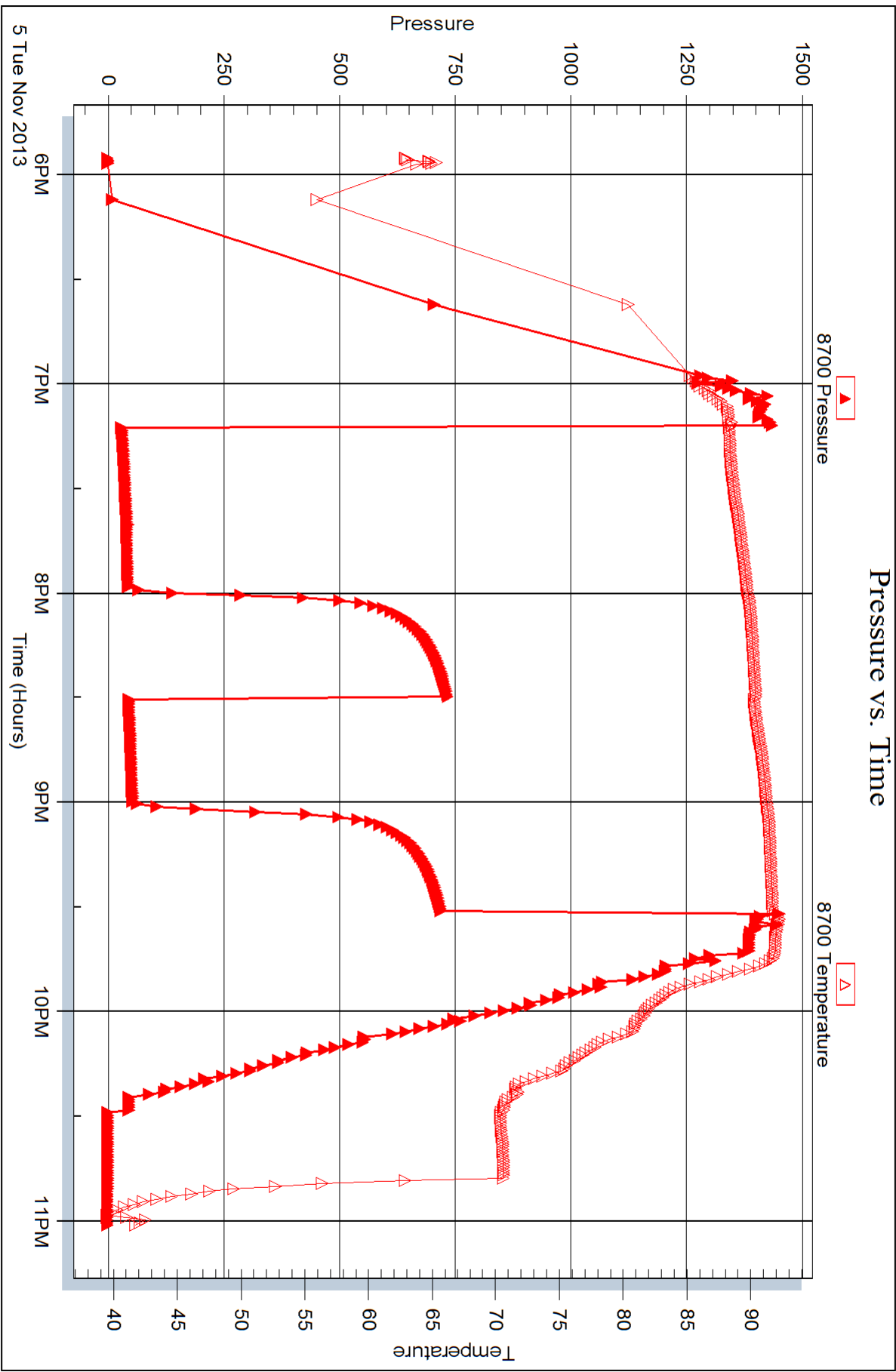


Serial #: 8700

Outside Dow nting-Nelson Oil Co Inc

7-105-16w Rooks,KS

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 54364

Printed: 2013-11-08 @ 08:24:19



## DRILL STEM TEST REPORT

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

PO Box 1019  
Hays KS 67601

ATTN: Ron Nelson

**7-10s-16w Rooks,KS**

**Ganoung-Charolais A #1-7**

Start Date: 2013.11.06 @ 10:05:40

End Date: 2013.11.06 @ 15:55:49

Job Ticket #: 54365                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.11.08 @ 08:20:32





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

**Ganoung-Charolais A #1-7**

PO Box 1019  
Hays KS 67601

**7-10s-16w Rooks,KS**

ATTN: Ron Nelson

Job Ticket: 54365

**DST#: 2**

Test Start: 2013.11.06 @ 10:05:40

## GENERAL INFORMATION:

Formation: **Toronto-LKC D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:11:35

Time Test Ended: 15:55:49

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 70

**Interval: 3067.00 ft (KB) To 3190.00 ft (KB) (TVD)**

Reference Elevations: 1947.00 ft (KB)

Total Depth: 3190.00 ft (KB) (TVD)

1939.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8369**

**Inside**

Press @ Run Depth: 125.54 psig @ 3071.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.11.06

End Date:

2013.11.06

Last Calib.:

2013.11.06

Start Time: 10:05:40

End Time:

15:55:49

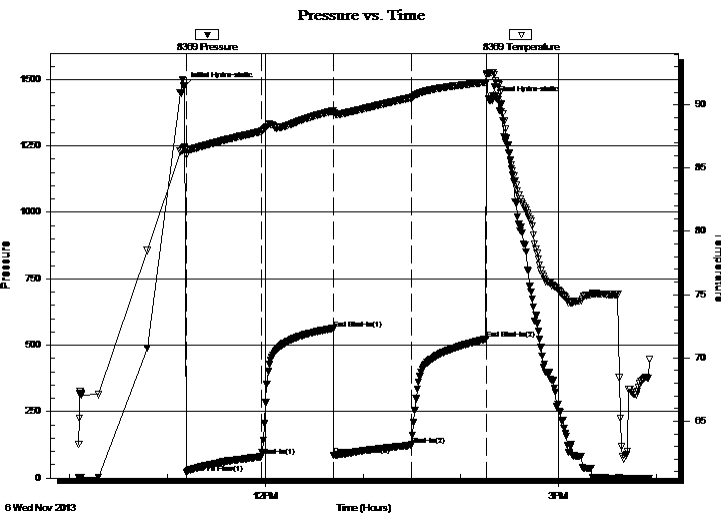
Time On Btm:

2013.11.06 @ 11:10:35

Time Off Btm:

2013.11.06 @ 14:18:35

**TEST COMMENT:** 45-IFP-w k to a gd bl 1/2" to 8 1/2" bl  
45-ISIP-surface bl bk  
45-FFP-w k to a gd bl 1/2" to 6" bl  
45-FSIP-surface bl bk



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1471.71	86.66	Initial Hydro-static
1	19.83	86.02	Open To Flow (1)
47	80.81	87.90	Shut-In(1)
92	559.66	89.52	End Shut-In(1)
92	85.29	89.35	Open To Flow (2)
139	125.54	90.57	Shut-In(2)
185	523.34	91.77	End Shut-In(2)
188	1419.37	92.54	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
70.00	GIP	0.71
120.00	SO&GCMW 5%G2%O30%M63%W	1.68
60.00	O&GCM 10%G10%O80%M	0.84
50.00	O&GCM 10%G20%O70%M	0.70

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Dow ning-Nelson Oil Co Inc

**Ganoung-Charolais A #1-7**

PO Box 1019  
Hays KS 67601

**7-10s-16w Rooks,KS**

Job Ticket: 54365

**DST#: 2**

ATTN: Ron Nelson

Test Start: 2013.11.06 @ 10:05:40

## Tool Information

Drill Pipe:	Length: 3022.00 ft	Diameter: 3.80 inches	Volume: 42.39 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: 50000.00 lb
			<u>Total Volume: 42.54 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3067.00 ft			Final 41000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	123.00 ft			
Tool Length:	144.00 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			3047.00	
Shut In Tool	5.00			3052.00	
Hydraulic tool	5.00			3057.00	
Packer	5.00			3062.00	21.00 Bottom Of Top Packer
Packer	5.00			3067.00	
Stubb	1.00			3068.00	
Perforations	3.00			3071.00	
Recorder	0.00	8369	Inside	3071.00	
Recorder	0.00	8700	Outside	3071.00	
Blank Spacing	97.00			3168.00	
Perforations	19.00			3187.00	
Bullnose	3.00			3190.00	123.00 Bottom Packers & Anchor

**Total Tool Length: 144.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Dow ning-Nelson Oil Co Inc

**Ganoung-Charolais A #1-7**

PO Box 1019  
Hays KS 67601

**7-10s-16w Rooks,KS**

Job Ticket: 54365

**DST#: 2**

ATTN: Ron Nelson

Test Start: 2013.11.06 @ 10:05:40

## 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:

55000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.92 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
70.00	GIP	0.709
120.00	SO&GCMW 5%G2%O30%M63%W	1.683
60.00	O&GCM 10%G10%O80%M	0.842
50.00	O&GCM 10%G20%O70%M	0.701

Total Length: 300.00 ft

Total Volume: 3.935 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .17 @ 70F

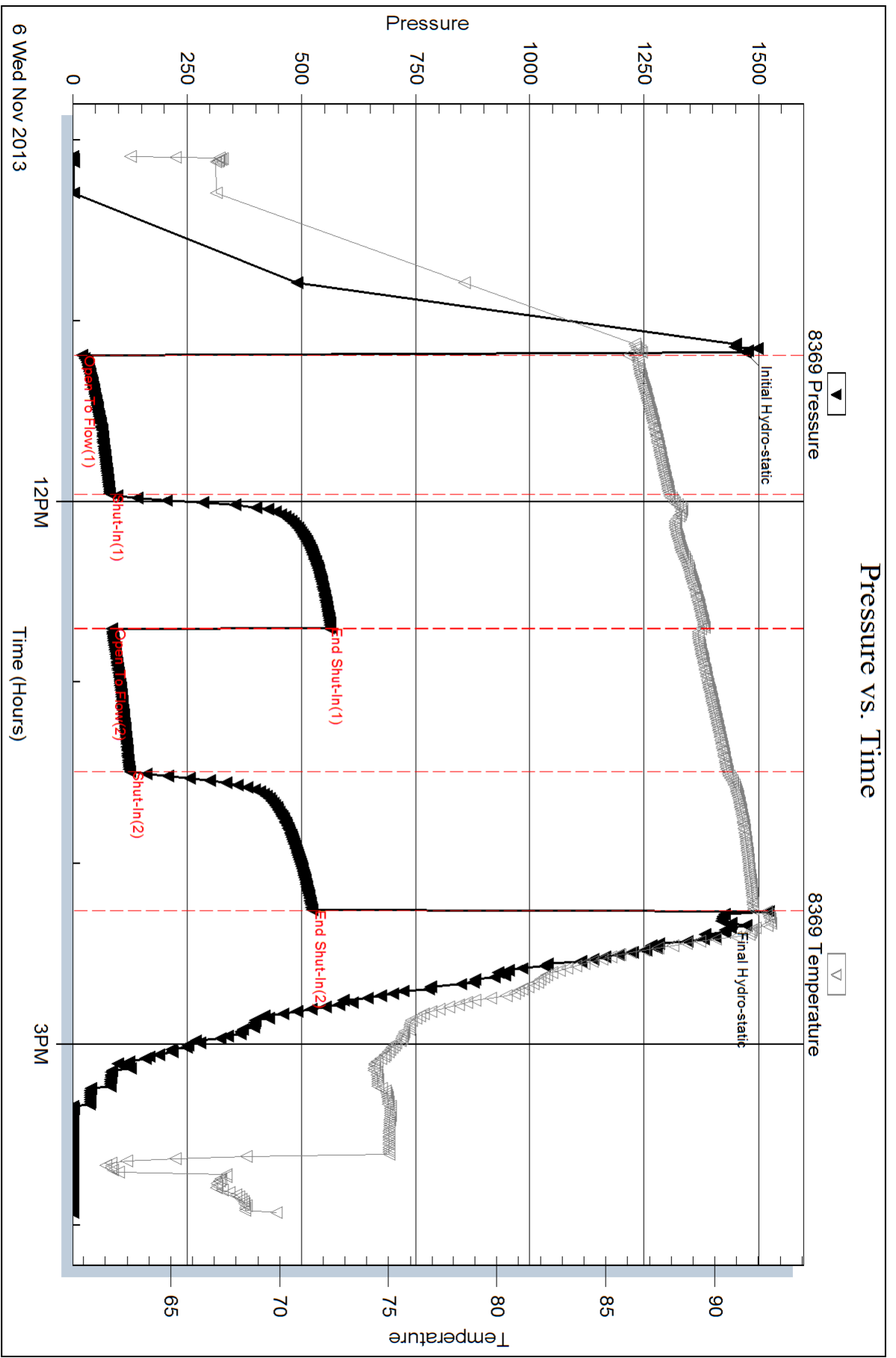
Serial #: 8369

Inside

Doming-Nelson Oil Co Inc

7-10s-16w Rooks, KS

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 54365

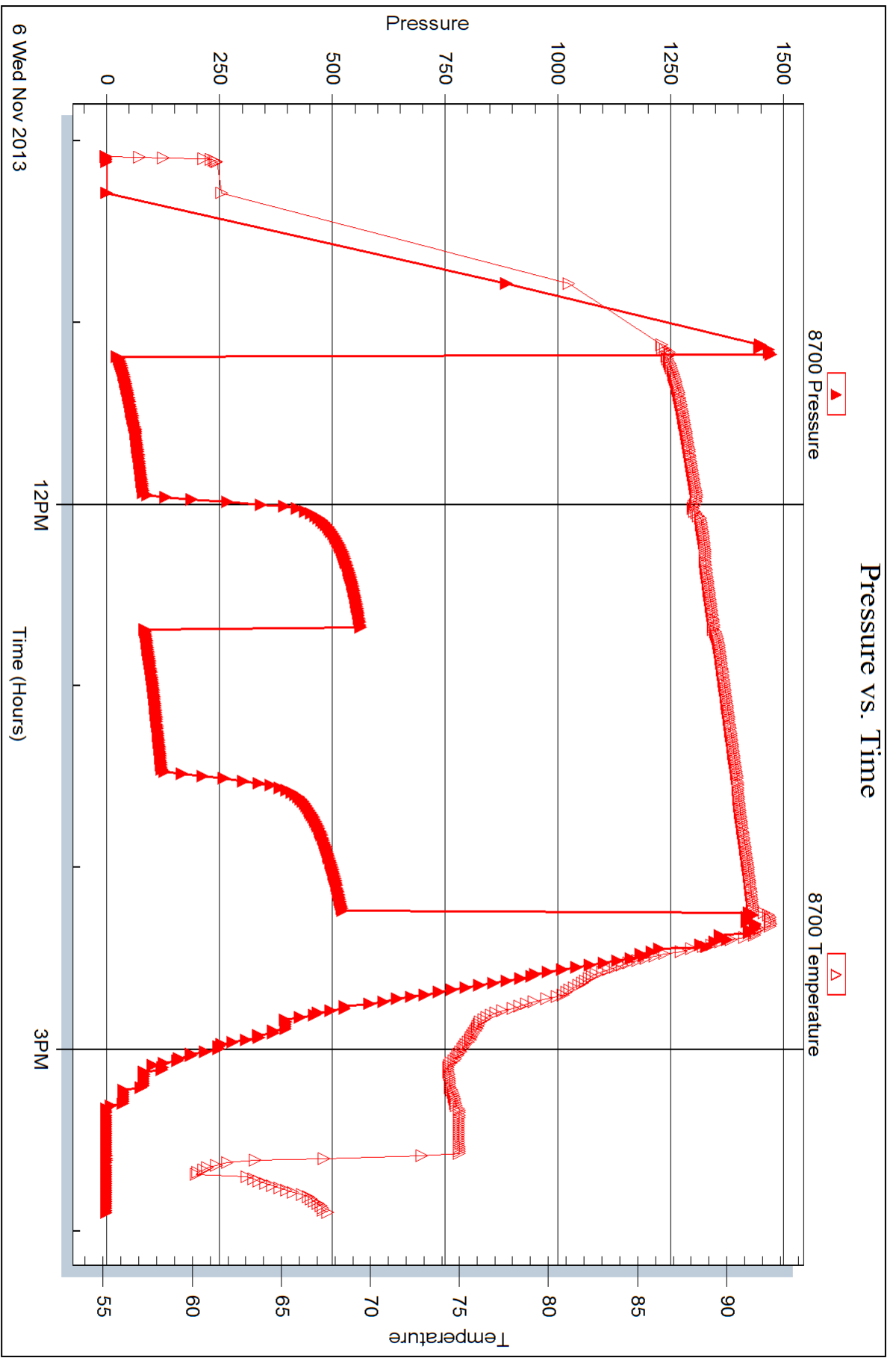
Printed: 2013-11-08 @ 08:20:34

Serial #: 8700

Outside Dow nting-Nelson Oil Co Inc

7-10s-16w Rooks, KS

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 54365

Printed: 2013-11-08 @ 08:20:34



## DRILL STEM TEST REPORT

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

PO Box 1019  
Hays KS 67601

ATTN: Ron Nelson

**7-10s-16w Rooks,KS**

**Ganoung-Charolais A #1-7**

Start Date: 2013.11.07 @ 00:05:27

End Date: 2013.11.07 @ 06:03:21

Job Ticket #: 54366                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.11.08 @ 08:19:53

Downing-Nelson Oil Co Inc

Ganoung-Charolais A #1-7

7-10s-16w Rooks,KS

DST # 3

LKC E-F

2013.11.07



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

**Ganoung-Charolais A #1-7**

PO Box 1019  
Hays KS 67601

**7-10s-16w Rooks,KS**

ATTN: Ron Nelson

Job Ticket: 54366

**DST#: 3**

Test Start: 2013.11.07 @ 00:05:27

## GENERAL INFORMATION:

Formation: **LKC E-F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:30:07

Time Test Ended: 06:03:21

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 70

**Interval: 3180.00 ft (KB) To 3229.00 ft (KB) (TVD)**

Reference Elevations: 1947.00 ft (KB)

Total Depth: 3229.00 ft (KB) (TVD)

1939.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8369**

**Inside**

Press @RunDepth: 63.38 psig @ 3193.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.11.07

End Date:

2013.11.07

Last Calib.:

2013.11.07

Start Time: 00:05:27

End Time:

06:03:21

Time On Btm:

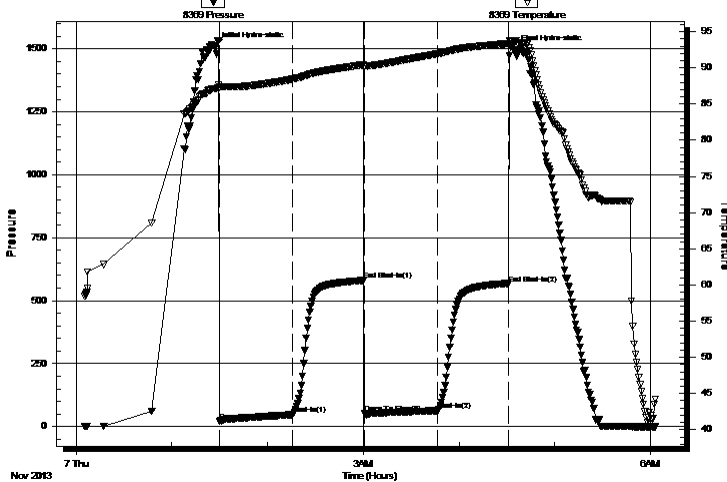
2013.11.07 @ 01:27:22

Time Off Btm:

2013.11.07 @ 04:34:36

**TEST COMMENT:** 45-IFP-w k to a gd bl 1/2" to 6" bl  
45-ISIP-no bl  
45-FP-w k bl thru-out 1/4" to 2 1/2" bl  
45-FSIP-no bl

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1507.65	87.12	Initial Hydro-static
3	20.93	87.33	Open To Flow (1)
49	47.63	88.44	Shut-In(1)
93	580.54	90.43	End Shut-In(1)
94	54.13	90.26	Open To Flow (2)
140	63.38	91.95	Shut-In(2)
184	567.51	93.35	End Shut-In(2)
188	1495.68	93.79	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	255'GIP	0.00
60.00	GM&WCO 25%G10%M20%W45%O	0.57
45.00	GMO 15'G40%M45%O	0.63

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

**Ganoung-Charolais A #1-7**

PO Box 1019  
Hays KS 67601

**7-10s-16w Rooks,KS**

ATTN: Ron Nelson

Job Ticket: 54366

**DST#: 3**

Test Start: 2013.11.07 @ 00:05:27

## Tool Information

Drill Pipe:	Length: 3150.00 ft	Diameter: 3.80 inches	Volume: 44.19 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:	55000.00 lb
			<u>Total Volume: 44.34 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial	40000.00 lb
Depth to Top Packer:	3180.00 ft			Final	41000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	49.00 ft				
Tool Length:	70.00 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			3160.00	
Shut In Tool	5.00			3165.00	
Hydraulic tool	5.00			3170.00	
Packer	5.00			3175.00	21.00 Bottom Of Top Packer
Packer	5.00			3180.00	
Stubb	1.00			3181.00	
Perforations	12.00			3193.00	
Recorder	0.00	8369	Inside	3193.00	
Recorder	0.00	8700	Outside	3193.00	
Blank Spacing	33.00			3226.00	
Bullnose	3.00			3229.00	49.00 Bottom Packers & Anchor

**Total Tool Length: 70.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Dow ning-Nelson Oil Co Inc

**Ganoung-Charolais A #1-7**

PO Box 1019  
Hays KS 67601

**7-10s-16w Rooks,KS**

Job Ticket: 54366

**DST#: 3**

ATTN: Ron Nelson

Test Start: 2013.11.07 @ 00:05:27

## 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: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.94 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
0.00	255'GIP	0.000
60.00	GM&WCO 25%G10%M20%W45%O	0.568
45.00	GMO 15'G40%M45%O	0.631

Total Length: 105.00 ft      Total Volume: 1.199 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

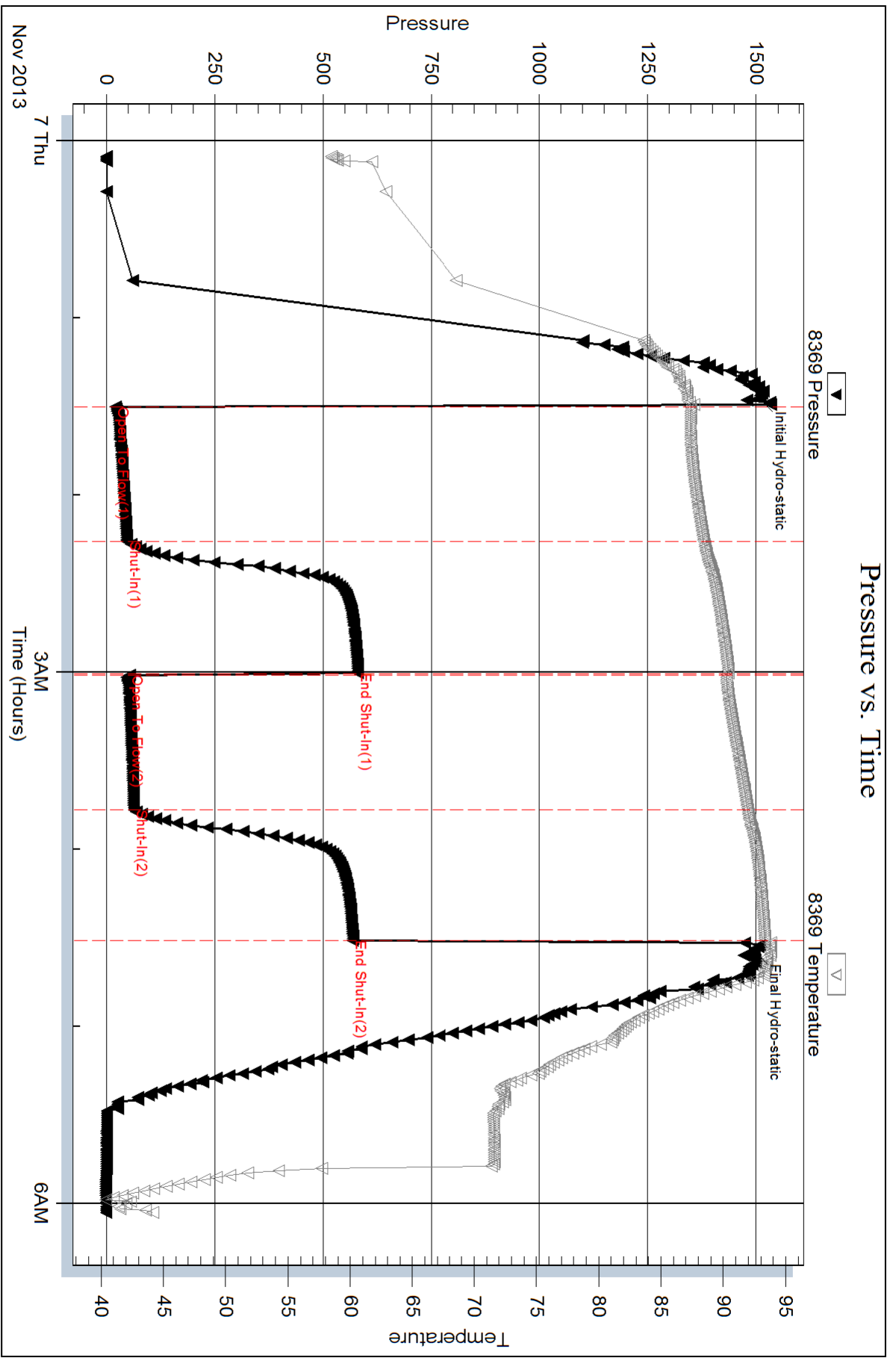
Serial #: 8369

Inside

Dow nting-Nelson Oil Co Inc

7-10s-16w Rooks,KS

DST Test Number: 3

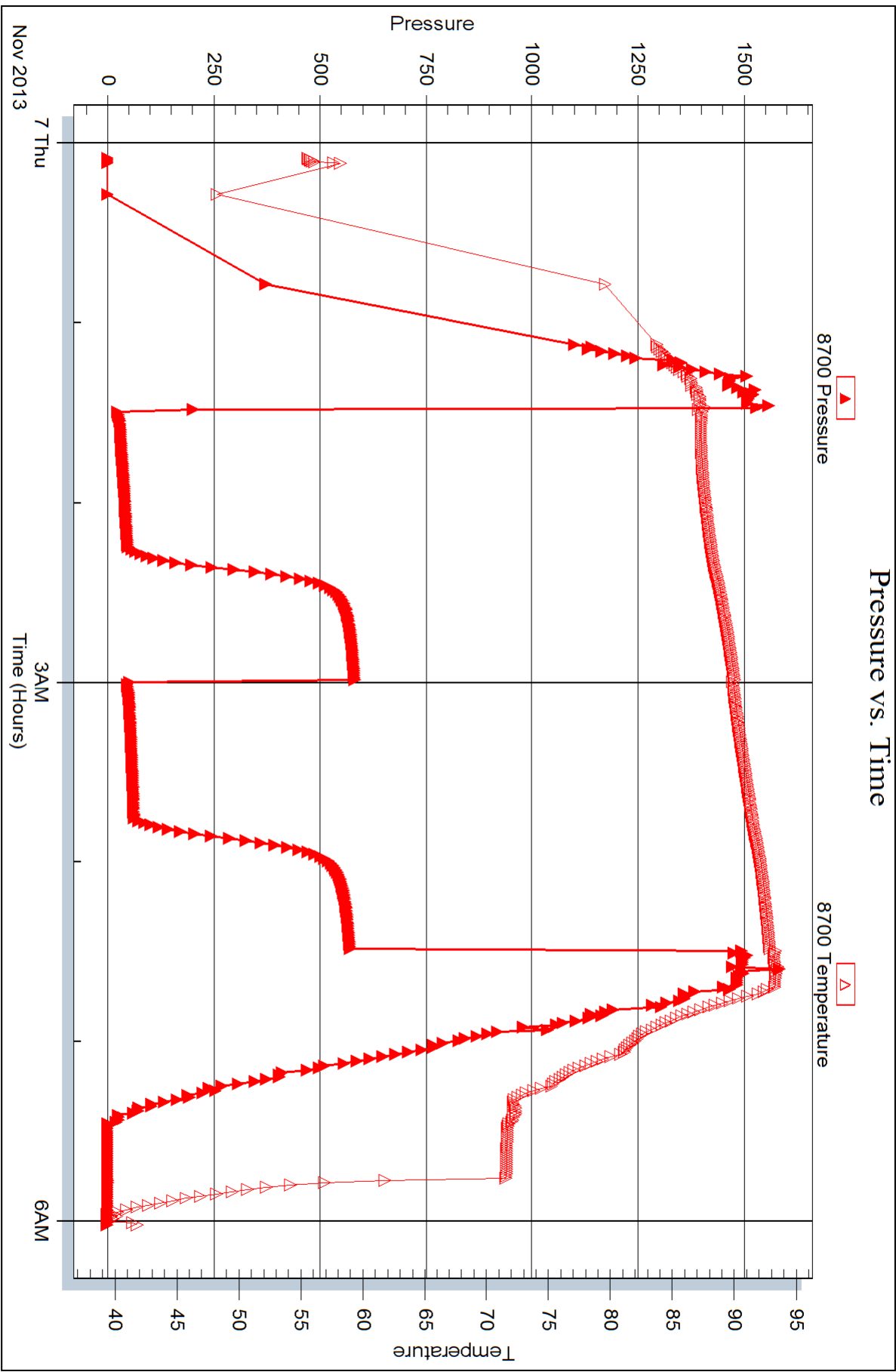


Serial #: 8700

Outside Dow nting-Nelson Oil Co Inc

7-105-16w Rooks, KS

DST Test Number: 3





## DRILL STEM TEST REPORT

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

PO Box 1019  
Hays KS 67601

ATTN: Ron Nelson

**7-10s-16w Rooks,KS**

**Ganoung-Charolais A #1-7**

Start Date: 2013.11.07 @ 14:40:28

End Date: 2013.11.07 @ 19:30:37

Job Ticket #: 54367                      DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.11.08 @ 08:19:12

Downing-Nelson Oil Co Inc

Ganoung-Charolais A #1-7

7-10s-16w Rooks,KS

DST # 4

LKC H-J

2013.11.07



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

**Ganoung-Charolais A #1-7**

PO Box 1019  
Hays KS 67601

**7-10s-16w Rooks,KS**

ATTN: Ron Nelson

Job Ticket: 54367

**DST#: 4**

Test Start: 2013.11.07 @ 14:40:28

## GENERAL INFORMATION:

Formation: **LKC H-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:53:38

Time Test Ended: 19:30:37

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 70

**Interval: 3261.00 ft (KB) To 3314.00 ft (KB) (TVD)**

Reference Elevations: 1947.00 ft (KB)

Total Depth: 3314.00 ft (KB) (TVD)

1939.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8369**

**Inside**

Press @ Run Depth: 25.99 psig @ 3263.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.11.07 End Date: 2013.11.07

Last Calib.: 2013.11.07

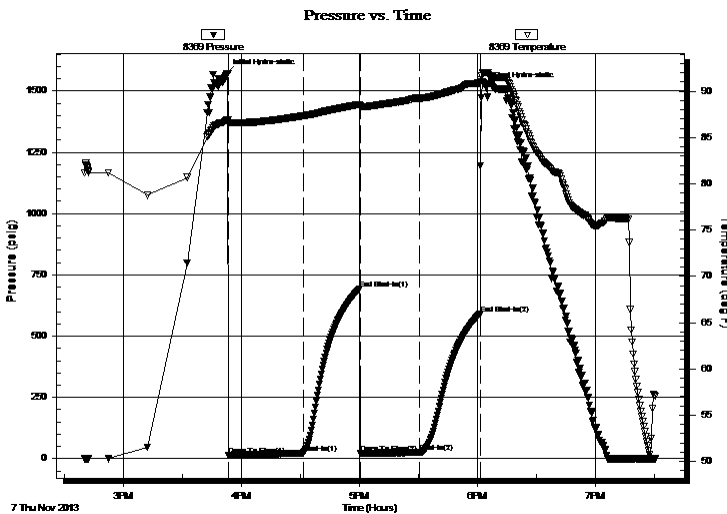
Start Time: 14:40:28 End Time: 19:30:37

Time On Btm: 2013.11.07 @ 15:52:38

Time Off Btm: 2013.11.07 @ 18:04:38

**TEST COMMENT:** 30-IFP-surface bl thru-out  
30-ISIP-no bl  
30-FFP-surface bl thru-out  
30-FSIP-no bl

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1569.62	86.89	Initial Hydro-static
1	14.25	86.56	Open To Flow (1)
39	22.72	87.34	Shut-In(1)
68	693.14	88.58	End Shut-In(1)
68	23.06	88.38	Open To Flow (2)
98	25.99	89.27	Shut-In(2)
129	591.66	90.90	End Shut-In(2)
132	1516.60	92.04	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	mud	0.10

## 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

**Ganoung-Charolais A #1-7**

PO Box 1019  
Hays KS 67601

**7-10s-16w Rooks,KS**

ATTN: Ron Nelson

Job Ticket: 54367

**DST#: 4**

Test Start: 2013.11.07 @ 14:40:28

## Tool Information

Drill Pipe:	Length: 3215.00 ft	Diameter: 3.80 inches	Volume: 45.10 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: 50000.00 lb
			<u>Total Volume: 45.25 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3261.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	53.00 ft			
Tool Length:	74.00 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			3241.00	
Shut In Tool	5.00			3246.00	
Hydraulic tool	5.00			3251.00	
Packer	5.00			3256.00	21.00 Bottom Of Top Packer
Packer	5.00			3261.00	
Stubb	1.00			3262.00	
Perforations	1.00			3263.00	
Recorder	0.00	8369	Inside	3263.00	
Recorder	0.00	8700	Outside	3263.00	
Blank Spacing	33.00			3296.00	
Perforations	15.00			3311.00	
Bullnose	3.00			3314.00	53.00 Bottom Packers & Anchor

**Total Tool Length: 74.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Dow ning-Nelson Oil Co Inc

**Ganoung-Charolais A #1-7**

PO Box 1019  
Hays KS 67601

**7-10s-16w Rooks,KS**

Job Ticket: 54367

**DST#: 4**

ATTN: Ron Nelson

Test Start: 2013.11.07 @ 14:40:28

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
20.00	mud	0.098

Total Length: 20.00 ft      Total Volume: 0.098 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

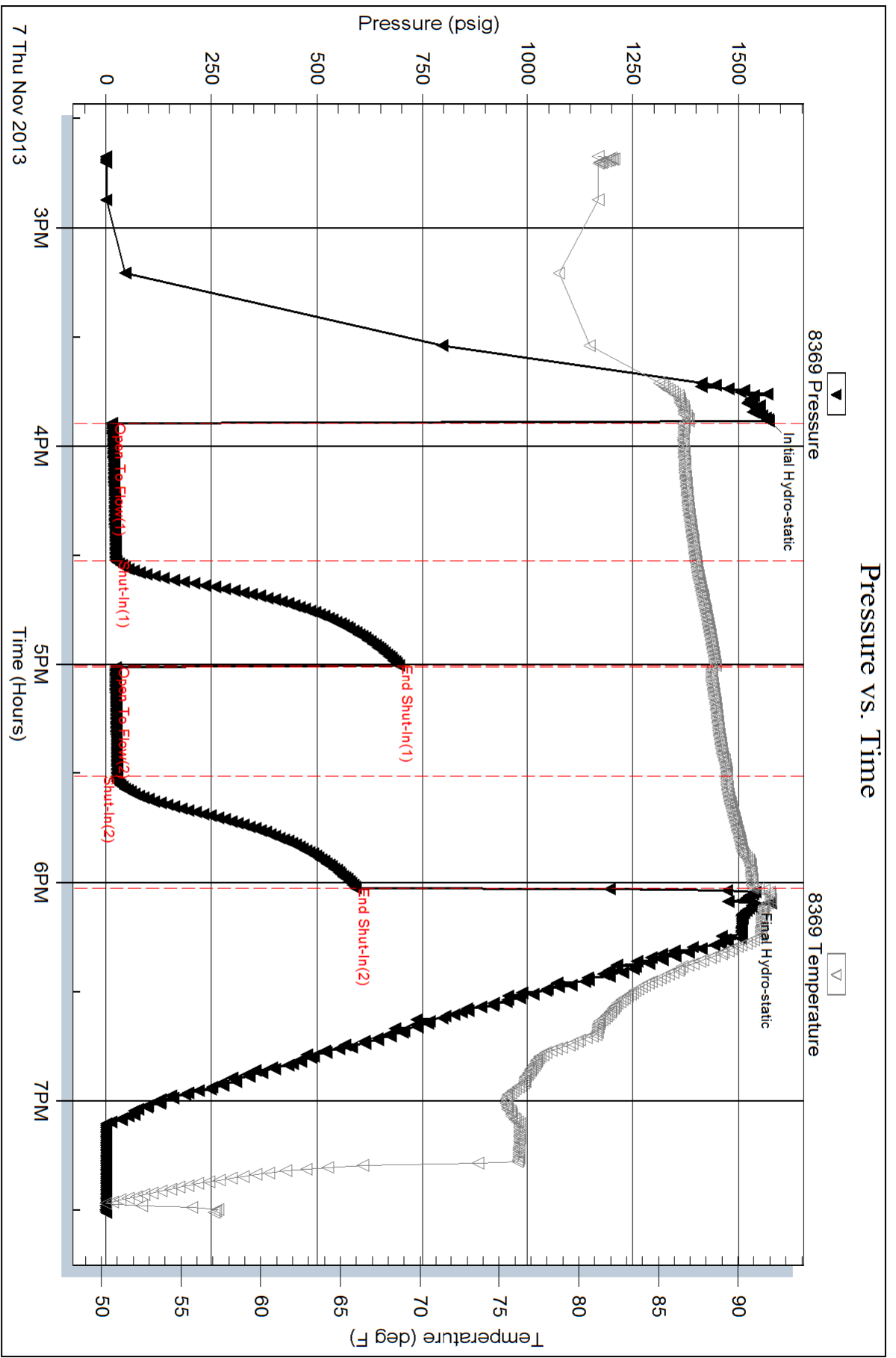
Serial #: 8369

Inside

Dow niny-Nelson Oil Co Inc

7-10s-16w Rooks,KS

DST Test Number: 4

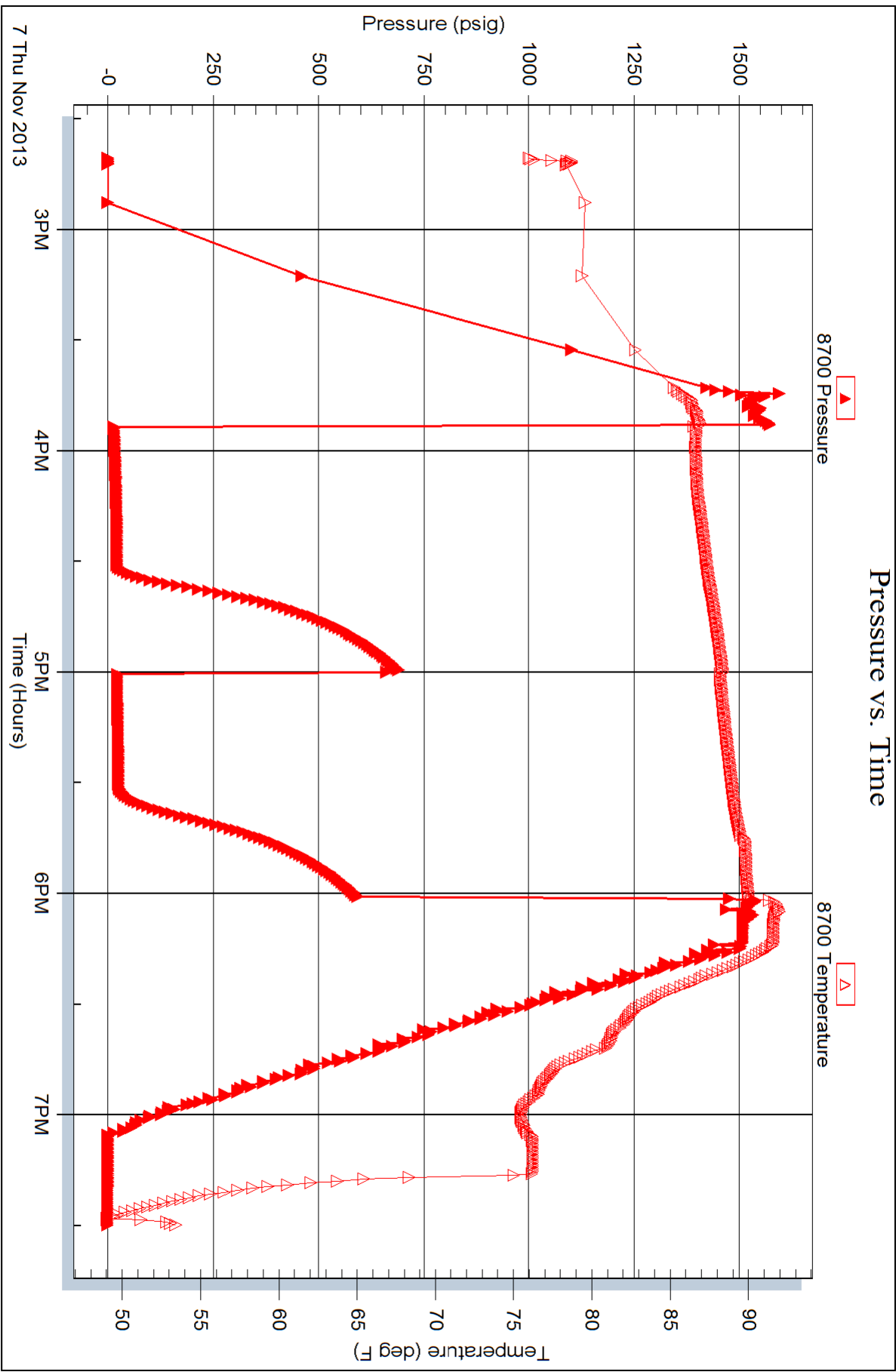


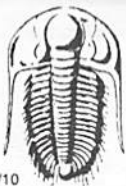
Serial #: 8700

Outside Dow nting-Nelson Oil Co Inc

7-10s-16w Rooks, KS

DST Test Number: 4





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 54364

Well Name & No. Ganoung-Cholaris "A" #1-7 Test No. 1 Date 11-5-13  
 Company Downing-Nelson Oil Co Inc Elevation 1947 KB 1939 GL  
 Address PO Box 1019 Hays, Ks 67601  
 Co. Rep / Geo. Ron Nelson Rig Discovery rig 1  
 Location: Sec. 7 Twp. 10<sup>s</sup> Rge. 16<sup>w</sup> Co. \_\_\_\_\_ State Ks

Interval Tested 3001-3045 Zone Tested Topeka  
 Anchor Length 44' Drill Pipe Run 2960 Mud Wt. 8.7  
 Top Packer Depth 2996 Drill Collars Run 30 Vis 60  
 Bottom Packer Depth 3001 Wt. Pipe Run - WL 8  
 Total Depth 3045 Chlorides 2000 ppm System LCM 2#

Blow Description IFP - Weak Blow 1/2" To 3/4" Blow  
ISIP - NO Blow  
FFP - Weak Blow 1/4" Blow  
FSIP - NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>110</u>	<u>MW</u>		<u>55</u>	<u>45</u>	
	<u>w/show for 1</u>				

Rec Total 110 BHT 91 Gravity - API RW .16 @ 50 °F Chlorides 65000 ppm  
 (A) Initial Hydrostatic 1406  Test 1150 T-On Location 1525  
 (B) First Initial Flow 28  Jars \_\_\_\_\_ T-Started 1755  
 (C) First Final Flow 44  Safety Joint \_\_\_\_\_ T-Open 1915  
 (D) Initial Shut-In 734  Circ Sub \_\_\_\_\_ T-Pulled 2130  
 (E) Second Initial Flow 45  Hourly Standby \_\_\_\_\_ T-Out 2302  
 (F) Second Final Flow 53  Mileage 75 RT 116.25  
 (G) Final Shut-In 719  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1399  Straddle \_\_\_\_\_

Initial Open 45  Ruined Shale Packer \_\_\_\_\_  
 Initial Shut-In 30  Ruined Packer \_\_\_\_\_  
 Final Flow 30  Extra Packer \_\_\_\_\_  
 Final Shut-In 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1266.25  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1266.25

Approved By \_\_\_\_\_ Our Representative Ray Schwager

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.

THANK YOU





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 54365

Well Name & No. Ganoung-Cholaris #1-7 Test No. 2 Date 11-6-13  
 Company Downing-Nelson Oil Co Inc Elevation 1947 KB 1939 GL  
 Address PO Box 1019 Hays, Ko 67601  
 Co. Rep / Geo. Ron Nelson Rig Discovery rig 1  
 Location: Sec. 7 Twp. 10<sup>s</sup> Rge. 16<sup>w</sup> Co. Rooks State Ks

Interval Tested 3067-3190 Zone Tested Toronto-LKC D  
 Anchor Length 123 Drill Pipe Run 3022 Mud Wt. 8.9  
 Top Packer Depth 3062 Drill Collars Run 30 Vis 50  
 Bottom Packer Depth 3067 Wt. Pipe Run - WL 8  
 Total Depth 3190 Chlorides 2000 ppm System LCM 2#

Blow Description IFP - WEAK TO A GOOD BLOW 1/2" TO 8 1/2" BLOW  
ISTP - SURFACE BLOW BACK  
FFP - WEAK TO A GOOD BLOW 1/2" TO 6" BLOW  
FSIP - SURFACE BLOW BACK

Rec	Feet of	%gas	%oil	%water	%mud
<u>70</u>	<u>GTP</u>				
<u>120</u>	<u>50+6CMW</u>	<u>5</u>	<u>2</u>	<u>63</u>	<u>30</u>
<u>60</u>	<u>0+6CM</u>	<u>10</u>	<u>10</u>		<u>80</u>
<u>50</u>	<u>0+6CM</u>	<u>10</u>	<u>20</u>		<u>70</u>

Rec Total 230 BHT 92 Gravity - API RW .17 @ 85 °F Chlorides 55000 ppm

(A) Initial Hydrostatic 1471  Test 1150 T-On Location 0945  
 (B) First Initial Flow 19  Jars T-Started 1005  
 (C) First Final Flow 80  Safety Joint T-Open 1110  
 (D) Initial Shut-In 559  Circ Sub T-Pulled 1410  
 (E) Second Initial Flow 85  Hourly Standby T-Out 1555  
 (F) Second Final Flow 125  Mileage 75RT 116.25 Comments \_\_\_\_\_  
 (G) Final Shut-In 523  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1419  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_

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

Sub Total 1266.25 MP/DST Disc't \_\_\_\_\_

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. 54366

Well Name & No. GANOUNG-CHOLARIS 'A' #1-7 Test No. 3 Date 11-6-13  
 Company Downing-Nelson Oil Co Inc Elevation 1947 KB 1939 GL  
 Address PO Box 1019 Hays, Ko 67601  
 Co. Rep / Geo. Ron Nelson Rig Discoveryrig 1  
 Location: Sec. 7 Twp. 10<sup>s</sup> Rge. 16<sup>w</sup> Co. Rooks State Ko

Interval Tested 3180-3229 Zone Tested LKCE-F  
 Anchor Length 49 Drill Pipe Run 3150 Mud Wt. 8.9  
 Top Packer Depth 3175 Drill Collars Run 30 Vis 53  
 Bottom Packer Depth 3180 Wt. Pipe Run - WL 8  
 Total Depth 3229 Chlorides 2000 ppm System LCM 1 1/2 #  
 Blow Description IFP - WEAK TO A GOOD BLOW 1/2" TO 6" BLOW  
ISIP - NO BLOW  
FFP - WEAK BLOW THRU-OUT 1/4" TO 2 1/2" BLOW  
FSIP - NO BLOW

Rec	Feet of	%gas	%oil	%water	%mud
<u>255</u>	<u>GIP</u>				
<u>60</u>	<u>GM+WCO</u>	<u>25</u>	<u>45</u>	<u>20</u>	<u>10</u>
<u>45</u>	<u>GMO</u>	<u>15</u>	<u>45</u>		<u>40</u>

Rec Total 105 BHT 93 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic 1507  Test 1150 T-On Location 2345  
 (B) First Initial Flow 20  Jars - T-Started 0005  
 (C) First Final Flow 47  Safety Joint - T-Open 0130  
 (D) Initial Shut-In 580  Circ Sub - T-Pulled 0430  
 (E) Second Initial Flow 54  Hourly Standby - T-Out 0603  
 (F) Second Final Flow 63  Mileage 75RT 116.25 Comments -  
 (G) Final Shut-In 567  Sampler -  
 (H) Final Hydrostatic 1495  Straddle -  Ruined Shale Packer -  
 Shale Packer -  Ruined Packer -  
 Extra Packer -  Extra Copies -  
 Initial Open 45  Extra Recorder - Sub Total 0  
 Initial Shut-In 45  Day Standby - Total 1266.25  
 Final Flow 45  Accessibility - MP/DST Disc't -  
 Final Shut-In 45 Sub Total 1266.25

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. 54367

Well Name & No. GANOUNG-CHOLARIS A#1-7 Test No. 4 Date 11-7-13  
 Company Downing-Nelson O. & Co. Inc Elevation 1947 KB 1939 GL  
 Address PO Box 1019 Hays, Ko 67601  
 Co. Rep / Geo. Ron Nelson Rig Discovery rig 1  
 Location: Sec. 7 Twp. 10<sup>s</sup> Rge. 16<sup>w</sup> Co. Rooks State Ko

Interval Tested 3261-3314 Zone Tested LKC H-J  
 Anchor Length 53 Drill Pipe Run 3215 Mud Wt. 8.8  
 Top Packer Depth 3256 Drill Collars Run 30 Vis 50  
 Bottom Packer Depth 3261 Wt. Pipe Run - WL 8.8  
 Total Depth 3314 Chlorides 5000 ppm System LCM 1/2#

Blow Description IFF - SURFACE BLOW THRU-OUT  
ISTP - NO BLOW  
FFP - SURFACE BLOW THRU-OUT  
FSTP - NO BLOW

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>Mud</u>				

Rec Total 20 BHT 91 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic 1569  Test 1150 T-On Location 1420  
 (B) First Initial Flow 14  Jars - T-Started 1440  
 (C) First Final Flow 22  Safety Joint - T-Open 1555  
 (D) Initial Shut-In 693  Circ Sub - T-Pulled 1755  
 (E) Second Initial Flow 23  Hourly Standby - T-Out 1930  
 (F) Second Final Flow 25  Mileage 75RT 116.25 Comments -  
 (G) Final Shut-In 591  Sampler -  
 (H) Final Hydrostatic 1516  Straddle -  Ruined Shale Packer -  
 Shale Packer -  Ruined Packer -  
 Extra Packer -  Extra Copies -  
 Extra Recorder - Sub Total 0  
 Day Standby - Total 1266.25  
 Accessibility - MP/DST Disc't -

Initial Open 30  
 Initial Shut-In 30  
 Final Flow 30  
 Final Shut-In 30

Sub Total 1266.25

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.