



DRILL STEM TEST REPORT

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

P.O. Box 1019
Hays, KS 67601

ATTN: Marc Downing

Black & Gold #1-17

17-14s-18w Ellis,KS

Start Date: 2015.01.10 @ 16:04:00

End Date: 2015.01.11 @ 00:15:00

Job Ticket #: 60998 DST #: 1

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

Printed: 2015.01.13 @ 13:12:35



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co, Inc.

17-14s-18w Ellis,KS

P.O. Box 1019
Hays, KS 67601

Black & Gold #1-17

ATTN: Marc Dow ning

Job Ticket: 60998

DST#: 1

Test Start: 2015.01.10 @ 16:04:00

GENERAL INFORMATION:

Formation: **LKC "C-D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:22:30

Time Test Ended: 00:15:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Phillip Gage

Unit No: 70

Interval: 3352.00 ft (KB) To 3404.00 ft (KB) (TVD)

Reference Elevations: 2046.00 ft (KB)

Total Depth: 3404.00 ft (KB) (TVD)

2038.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8700 Outside

Press@RunDepth: 57.16 psig @ 3353.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.01.10

End Date:

2015.01.11

Last Calib.: 2015.01.11

Start Time: 16:04:05

End Time:

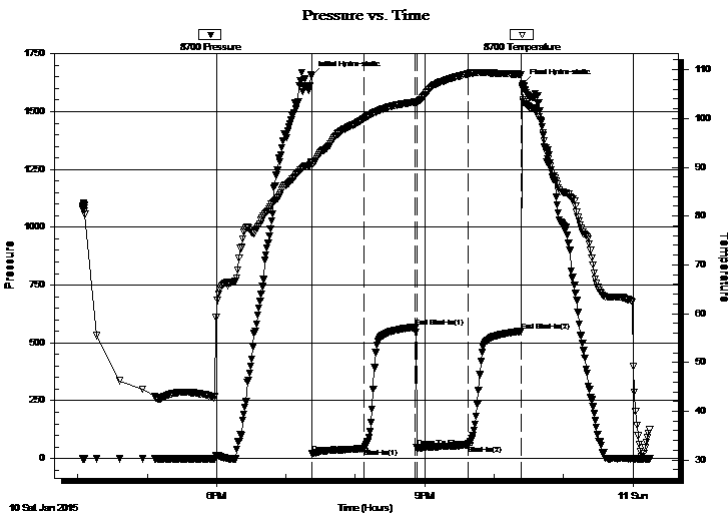
00:14:59

Time On Btm: 2015.01.10 @ 19:22:00

Time Off Btm: 2015.01.10 @ 22:25:00

TEST COMMENT: 45-IF-Built to 6 1/4"
45-ISI-No Return
45-FF-Built to 5"
45-FSI-Weak Surface Return at 35 mins.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1657.06	91.06	Initial Hydro-static
1	20.20	90.43	Open To Flow (1)
46	43.08	100.00	Shut-In(1)
90	568.31	103.37	End Shut-In(1)
91	46.27	103.26	Open To Flow (2)
136	57.16	109.20	Shut-In(2)
182	550.61	109.07	End Shut-In(2)
183	1621.75	103.86	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
63.00	MW, 40% m, 60% w	0.62
15.00	WM, 40% w, 60% m	0.21
5.00	O, 100% o	0.07

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co, Inc.

17-14s-18w Ellis,KS

P.O. Box 1019
Hays, KS 67601

Black & Gold #1-17

Job Ticket: 60998

DST#: 1

ATTN: Marc Dow ning

Test Start: 2015.01.10 @ 16:04:00

GENERAL INFORMATION:

Formation: **LKC "C-D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:22:30

Time Test Ended: 00:15:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Phillip Gage

Unit No: 70

Interval: **3352.00 ft (KB) To 3404.00 ft (KB) (TVD)**

Reference Elevations: 2046.00 ft (KB)

Total Depth: 3404.00 ft (KB) (TVD)

2038.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8018

Inside

Press@RunDepth: psig @ 3353.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.01.10

End Date:

2015.01.11

Last Calib.:

2015.01.11

Start Time: 16:04:05

End Time:

00:15:29

Time On Btm:

Time Off Btm:

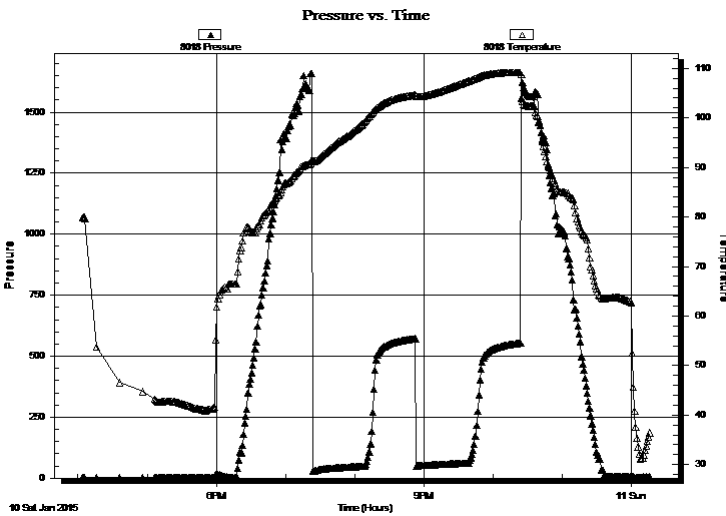
TEST COMMENT: 45-IF-Built to 6 1/4"

45-ISI-No Return

45-FF-Built to 5"

45-FSI-Weak Surface Return at 35 mins.

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
63.00	MW, 40%m, 60%w	0.62
15.00	WM, 40%w, 60%m	0.21
5.00	O, 100%o	0.07

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.

17-14s-18w Ellis,KS

P.O. Box 1019
Hays, KS 67601

Black & Gold #1-17

Job Ticket: 60998

DST#: 1

ATTN: Marc Dow ning

Test Start: 2015.01.10 @ 16:04:00

Tool Information

Drill Pipe:	Length: 3309.00 ft	Diameter: 3.80 inches	Volume: 46.42 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose: 40000.00 lb
			<u>Total Volume: 46.56 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	3352.00 ft			Final 39000.00 lb
Depth to Bottom Packer:	ft			
Interval betw een Packers:	52.00 ft			
Tool Length:	73.00 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			3332.00	
Shut In Tool	5.00			3337.00	
Hydraulic tool	5.00			3342.00	
Packer	5.00			3347.00	21.00 Bottom Of Top Packer
Packer	5.00			3352.00	
Stubb	1.00			3353.00	
Recorder	0.00	8018	Inside	3353.00	
Recorder	0.00	8700	Outside	3353.00	
Perforations	15.00			3368.00	
Change Over Sub	1.00			3369.00	
Drill Pipe	31.00			3400.00	
Change Over Sub	1.00			3401.00	
Bullnose	3.00			3404.00	52.00 Bottom Packers & Anchor

Total Tool Length: 73.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co, Inc.

17-14s-18w Ellis,KS

P.O. Box 1019
Hays, KS 67601

Black & Gold #1-17

Job Ticket: 60998

DST#: 1

ATTN: Marc Dow ning

Test Start: 2015.01.10 @ 16:04:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

37 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

48000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.94 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
63.00	MW, 40% _m , 60% _w	0.620
15.00	WM, 40% _w , 60% _m	0.210
5.00	O, 100% _o	0.070

Total Length: 83.00 ft Total Volume: 0.900 bbl

Num Fluid Samples: 0

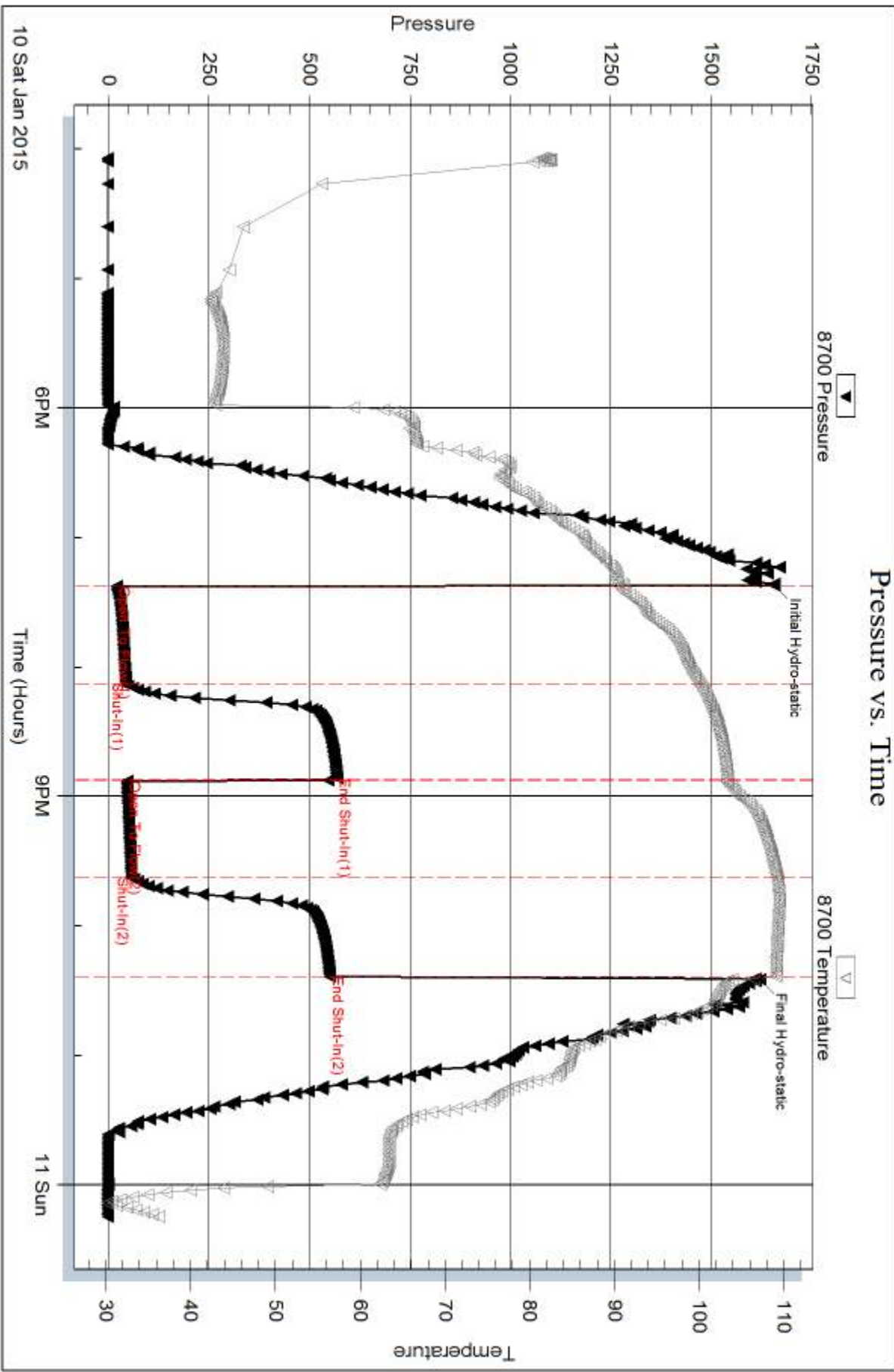
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .5 @ 23 Degrees = 48000 Salinity



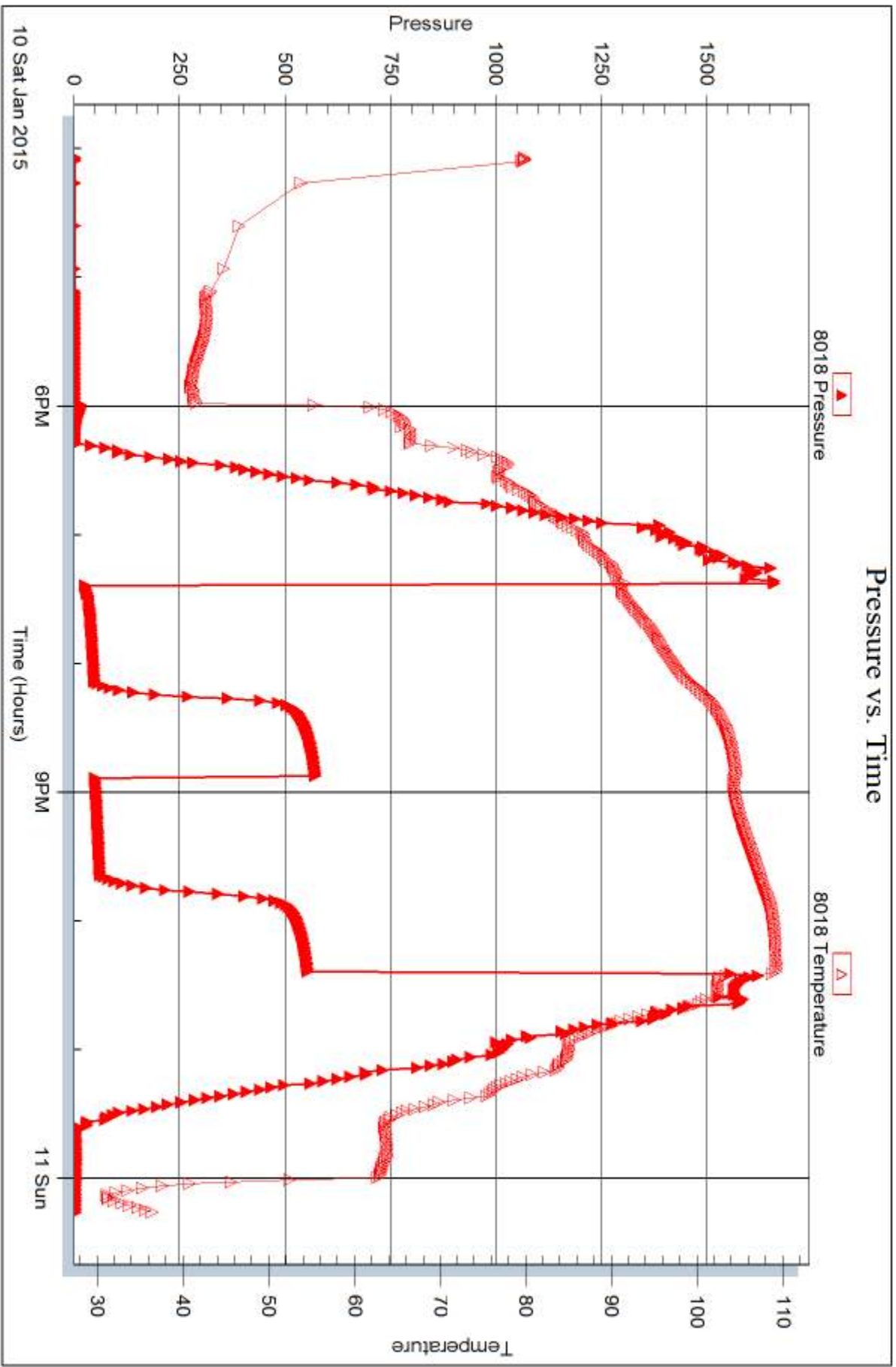
Serial #: 8018

Inside

Dow n/g-Nelson Oil Co, Inc.

Black & Gold #1-17

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 60998

Printed: 2015.01.13 @ 13:12:37



DRILL STEM TEST REPORT

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

P.O. Box 1019
Hays, KS 67601

ATTN: Marc Downing

Black & Gold #1-17

17-14s-18w Ellis,KS

Start Date: 2015.01.11 @ 22:20:28

End Date: 2015.01.12 @ 04:49:52

Job Ticket #: 61140 DST #: 2

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

Printed: 2015.01.13 @ 11:59:14



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co, Inc.

17-14s-18w Ellis,KS

P.O. Box 1019
Hays, KS 67601

Black & Gold #1-17

ATTN: Marc Dow ning

Job Ticket: 61140

DST#: 2

Test Start: 2015.01.11 @ 22:20:28

GENERAL INFORMATION:

Formation: **Congl. Sd.**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:55:53

Time Test Ended: 04:49:52

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schw ager

Unit No: 70

Interval: 3573.00 ft (KB) To 3645.00 ft (KB) (TVD)

Reference Elevations: 2046.00 ft (KB)

Total Depth: 3645.00 ft (KB) (TVD)

2038.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8018

Inside

Press@RunDepth: 41.40 psig @ 3578.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.01.11

End Date:

2015.01.12

Last Calib.:

2015.01.12

Start Time: 22:20:28

End Time:

04:49:52

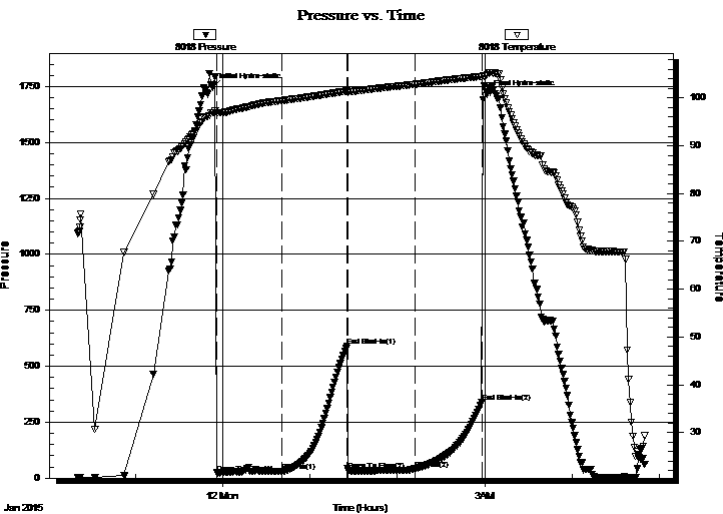
Time On Btm:

2015.01.11 @ 23:53:23

Time Off Btm:

2015.01.12 @ 03:01:52

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



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1745.52	96.96	Initial Hydro-static
3	23.21	96.89	Open To Flow (1)
48	30.57	99.47	Shut-In(1)
92	588.81	101.48	End Shut-In(1)
93	34.31	101.33	Open To Flow (2)
139	41.40	102.85	Shut-In(2)
185	338.57	104.53	End Shut-In(2)
189	1713.99	104.86	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	OCM 5%O95%M	0.10
2.00	CO	0.01

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co, Inc.

17-14s-18w Ellis,KS

P.O. Box 1019
Hays, KS 67601

Black & Gold #1-17

Job Ticket: 61140 **DST#: 2**

ATTN: Marc Dow ning

Test Start: 2015.01.11 @ 22:20:28

GENERAL INFORMATION:

Formation: **Congl. Sd.**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:55:53

Time Test Ended: 04:49:52

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schw ager

Unit No: 70

Interval: 3573.00 ft (KB) To 3645.00 ft (KB) (TVD)

Reference Elevations: 2046.00 ft (KB)

Total Depth: 3645.00 ft (KB) (TVD)

2038.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8700 Outside

Press@RunDepth: psig @ 3578.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.01.11 End Date: 2015.01.12

Last Calib.: 2015.01.12

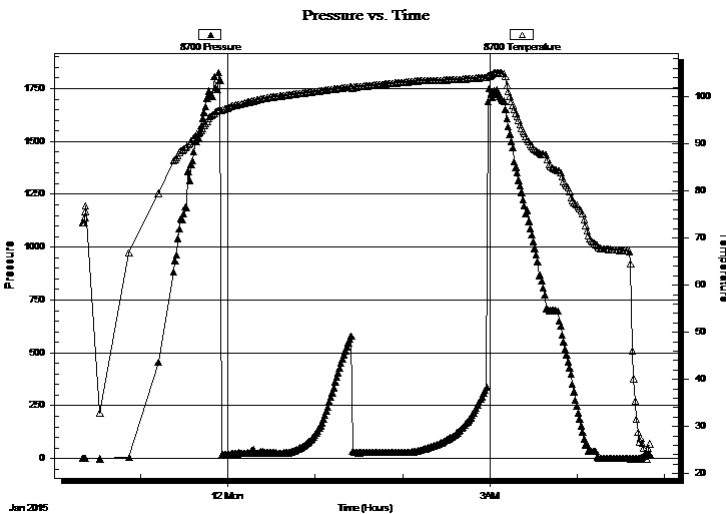
Start Time: 22:20:17 End Time: 04:49:41

Time On Btm:

Time Off Btm:

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

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
20.00	OCM 5%O95%M	0.10
2.00	CO	0.01

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.

17-14s-18w Ellis,KS

P.O. Box 1019
Hays, KS 67601

Black & Gold #1-17

Job Ticket: 61140

DST#: 2

ATTN: Marc Dow ning

Test Start: 2015.01.11 @ 22:20:28

Tool Information

Drill Pipe:	Length: 3533.00 ft	Diameter: 3.80 inches	Volume: 49.56 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 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: 49.71 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	3573.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval betw een Packers:	72.00 ft			
Tool Length:	93.00 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			3553.00	
Shut In Tool	5.00			3558.00	
Hydraulic tool	5.00			3563.00	
Packer	5.00			3568.00	21.00 Bottom Of Top Packer
Packer	5.00			3573.00	
Stubb	1.00			3574.00	
Perforations	4.00			3578.00	
Recorder	0.00	8018	Inside	3578.00	
Recorder	0.00	8700	Outside	3578.00	
Drill Pipe	64.00			3642.00	
Bullnose	3.00			3645.00	72.00 Bottom Packers & Anchor

Total Tool Length: 93.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co, Inc.

17-14s-18w Ellis,KS

P.O. Box 1019
Hays, KS 67601

Black & Gold #1-17

Job Ticket: 61140

DST#: 2

ATTN: Marc Dow ning

Test Start: 2015.01.11 @ 22:20:28

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: 55.00 sec/qt

Cushion Volume:

bbf

Water Loss: 8.53 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
20.00	OCM 5%O95%M	0.098
2.00	CO	0.010

Total Length: 22.00 ft Total Volume: 0.108 bbf

Num Fluid Samples: 0

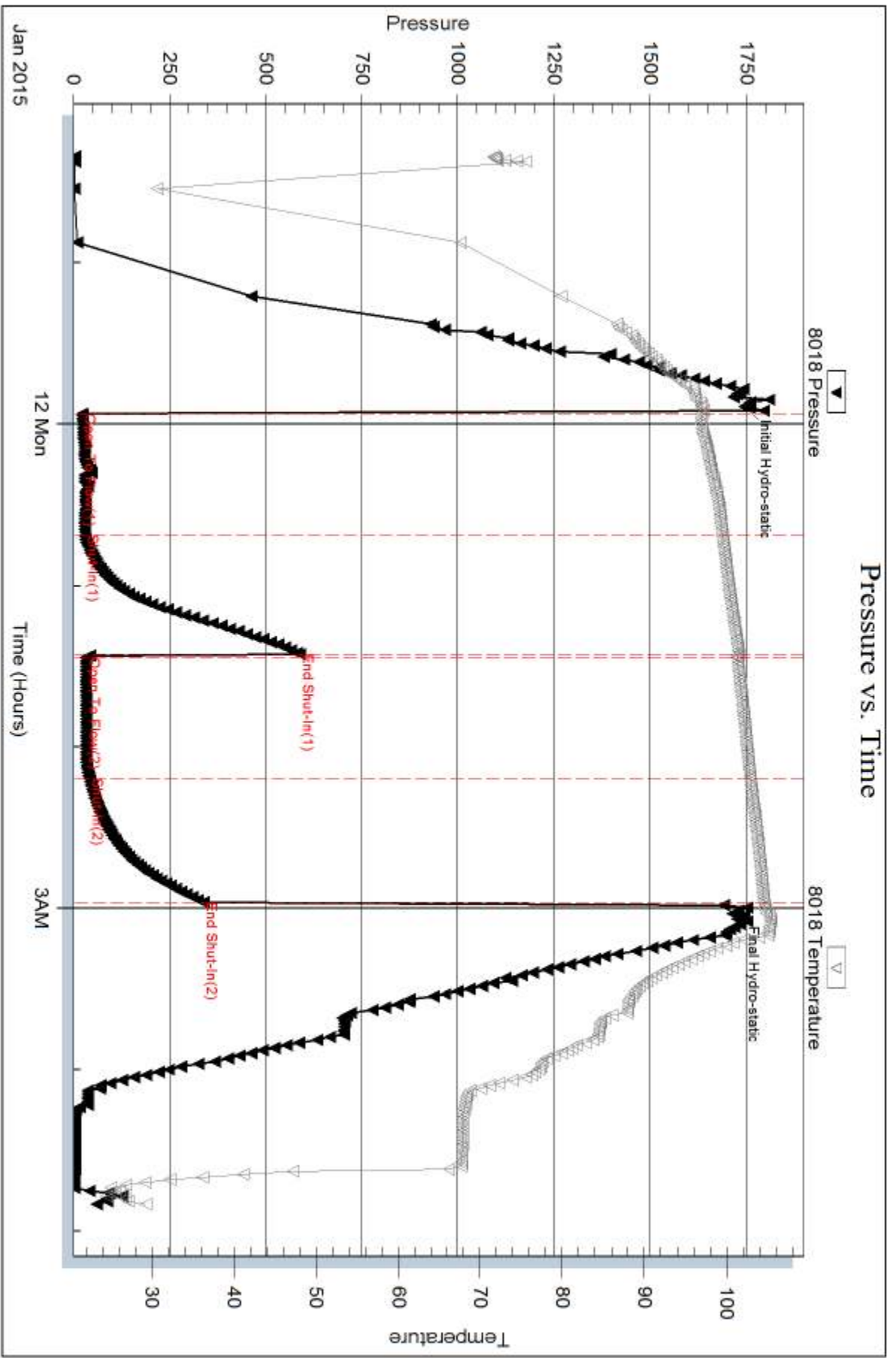
Num Gas Bombs: 0

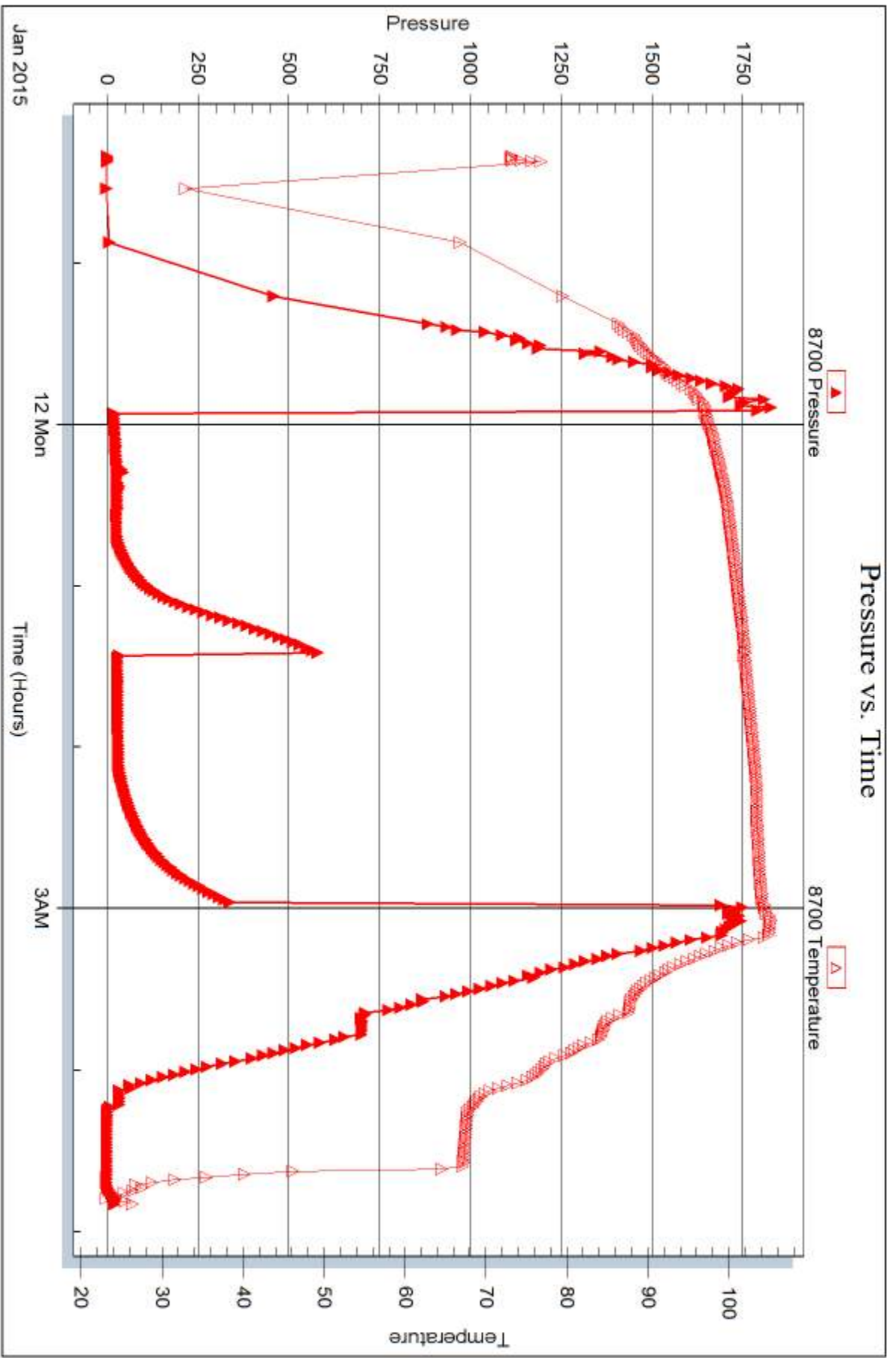
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

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

P.O. Box 1019
Hays, KS 67601

ATTN: Marc Downing

Black & Gold #1-17

17-14s-18w Ellis,KS

Start Date: 2015.01.12 @ 13:05:57

End Date: 2015.01.12 @ 21:37:51

Job Ticket #: 61141 DST #: 3

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

Printed: 2015.01.13 @ 11:54:13



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co, Inc.

17-14s-18w Ellis,KS

P.O. Box 1019
Hays, KS 67601

Black & Gold #1-17

ATTN: Marc Dow ning

Job Ticket: 61141

DST#: 3

Test Start: 2015.01.12 @ 13:05:57

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:30:22

Time Test Ended: 21:37:51

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schw ager

Unit No: 70

Interval: 3574.00 ft (KB) To 3671.00 ft (KB) (TVD)

Reference Elevations: 2046.00 ft (KB)

Total Depth: 3671.00 ft (KB) (TVD)

2038.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8018

Inside

Press@RunDepth: 265.44 psig @ 3580.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.01.12

End Date:

2015.01.12

Last Calib.:

2015.01.12

Start Time: 13:05:57

End Time:

21:37:51

Time On Btm:

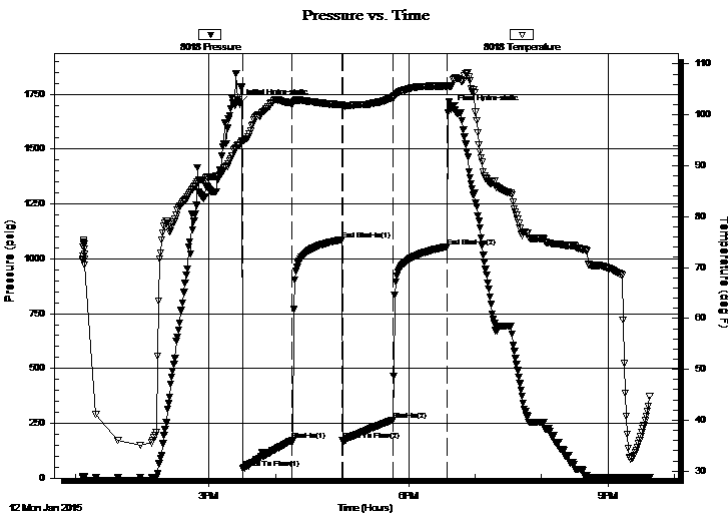
2015.01.12 @ 15:27:22

Time Off Btm:

2015.01.12 @ 18:38:21

TEST COMMENT: 45-IFP-w k to strg in 14 min
45-ISIP-surface bl bk
45-FFP-w k to strg in 17 min
45-FSIP-surface bl bk

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1705.52	94.11	Initial Hydro-static
3	43.24	94.91	Open To Flow (1)
48	170.77	102.24	Shut-In(1)
93	1087.54	102.04	End Shut-In(1)
93	170.86	101.66	Open To Flow (2)
139	265.44	103.36	Shut-In(2)
187	1054.66	105.64	End Shut-In(2)
191	1681.04	105.61	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	160' GIP	0.00
310.00	MGO 20%M10%G70%O	4.08
270.00	CO	3.79

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co, Inc.

17-14s-18w Ellis,KS

P.O. Box 1019
Hays, KS 67601

Black & Gold #1-17

Job Ticket: 61141

DST#: 3

ATTN: Marc Dow ning

Test Start: 2015.01.12 @ 13:05:57

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:30:22

Time Test Ended: 21:37:51

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schw ager

Unit No: 70

Interval: 3574.00 ft (KB) To 3671.00 ft (KB) (TVD)

Reference Elevations: 2046.00 ft (KB)

Total Depth: 3671.00 ft (KB) (TVD)

2038.00 ft (CF)

Hole Diameter: 7.88 inchesHole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8700 Outside

Press@RunDepth: psig @ 3580.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.01.12

End Date:

2015.01.12

Last Calib.:

2015.01.12

Start Time: 13:05:40

End Time:

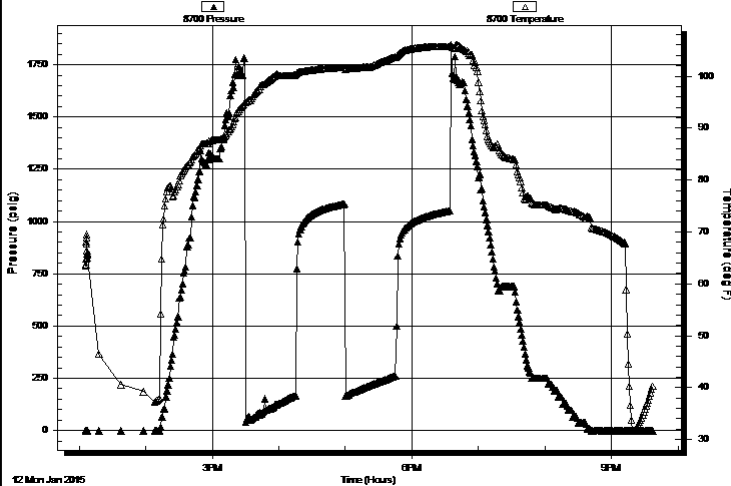
21:37:34

Time On Btm:

Time Off Btm:

TEST COMMENT: 45-IFP-w k to strg in 14 min
45-ISIP-surface bl bk
45-FFP-w k to strg in 17 min
45-FSIP-surface bl bk

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
0.00	160' GIP	0.00
310.00	MGO 20%M10%G70%O	4.08
270.00	CO	3.79

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.

17-14s-18w Ellis,KS

P.O. Box 1019
Hays, KS 67601

Black & Gold #1-17

Job Ticket: 61141

DST#: 3

ATTN: Marc Dow ning

Test Start: 2015.01.12 @ 13:05:57

Tool Information

Drill Pipe:	Length: 3531.00 ft	Diameter: 3.80 inches	Volume: 49.53 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 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: 49.68 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 43000.00 lb
Depth to Top Packer:	3574.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval betw een Packers:	97.00 ft			
Tool Length:	118.00 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			3554.00	
Shut In Tool	5.00			3559.00	
Hydraulic tool	5.00			3564.00	
Packer	5.00			3569.00	21.00 Bottom Of Top Packer
Packer	5.00			3574.00	
Stubb	1.00			3575.00	
Perforations	5.00			3580.00	
Recorder	0.00	8018	Inside	3580.00	
Recorder	0.00	8700	Outside	3580.00	
Blank Spacing	65.00			3645.00	
Perforations	23.00			3668.00	
Bullnose	3.00			3671.00	97.00 Bottom Packers & Anchor

Total Tool Length: 118.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co, Inc.

17-14s-18w Ellis,KS

P.O. Box 1019
Hays, KS 67601

Black & Gold #1-17

Job Ticket: 61141

DST#: 3

ATTN: Marc Dow ning

Test Start: 2015.01.12 @ 13:05:57

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

29 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.75 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
0.00	160' GIP	0.000
310.00	MGO 20%M10%G70%O	4.075
270.00	CO	3.787

Total Length: 580.00 ft

Total Volume: 7.862 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

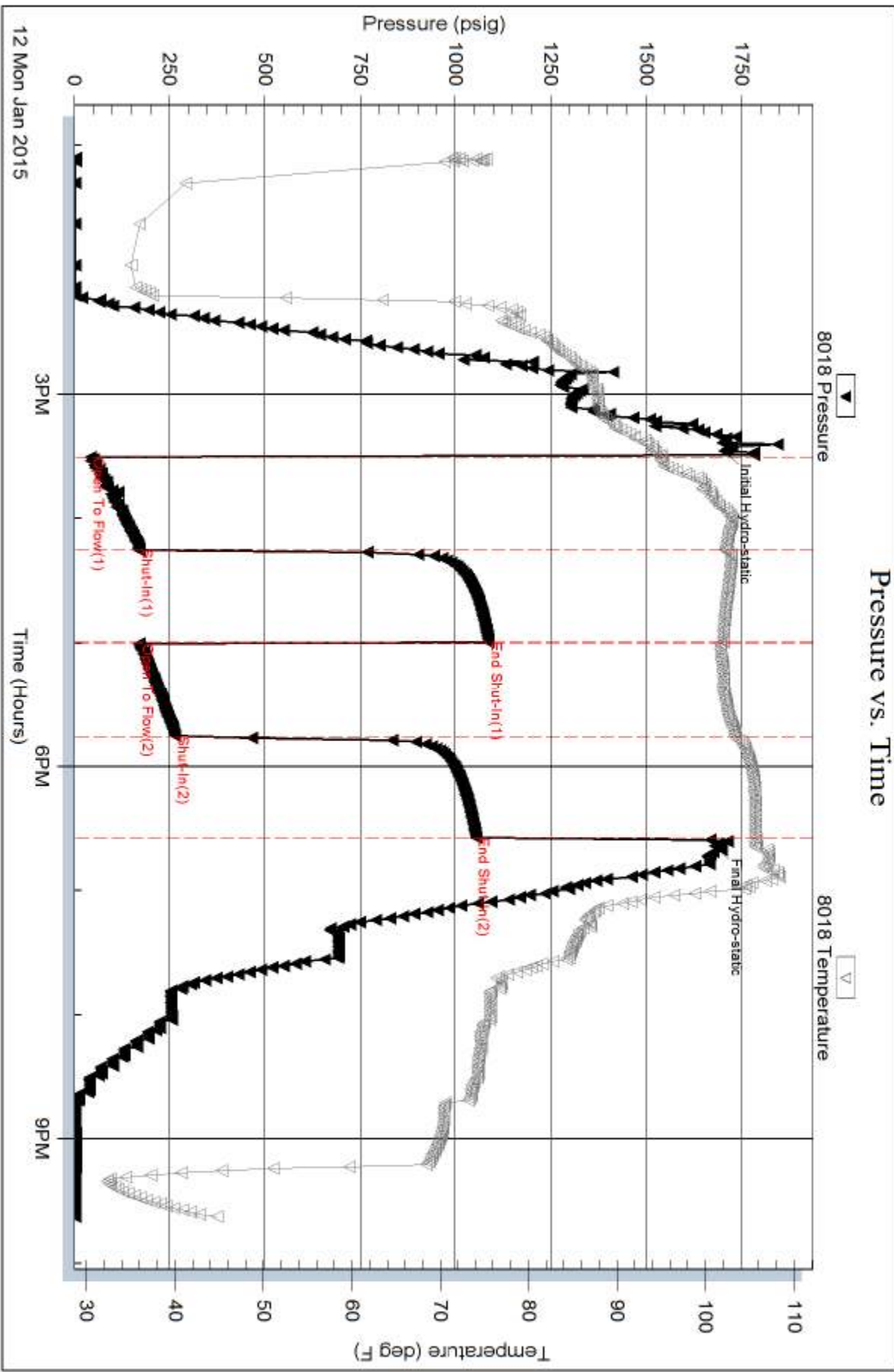
Serial #: 8018

Inside

Dow nging-Nelson Oil Co. Inc.

Black & Gold #1-17

DST Test Number: 3

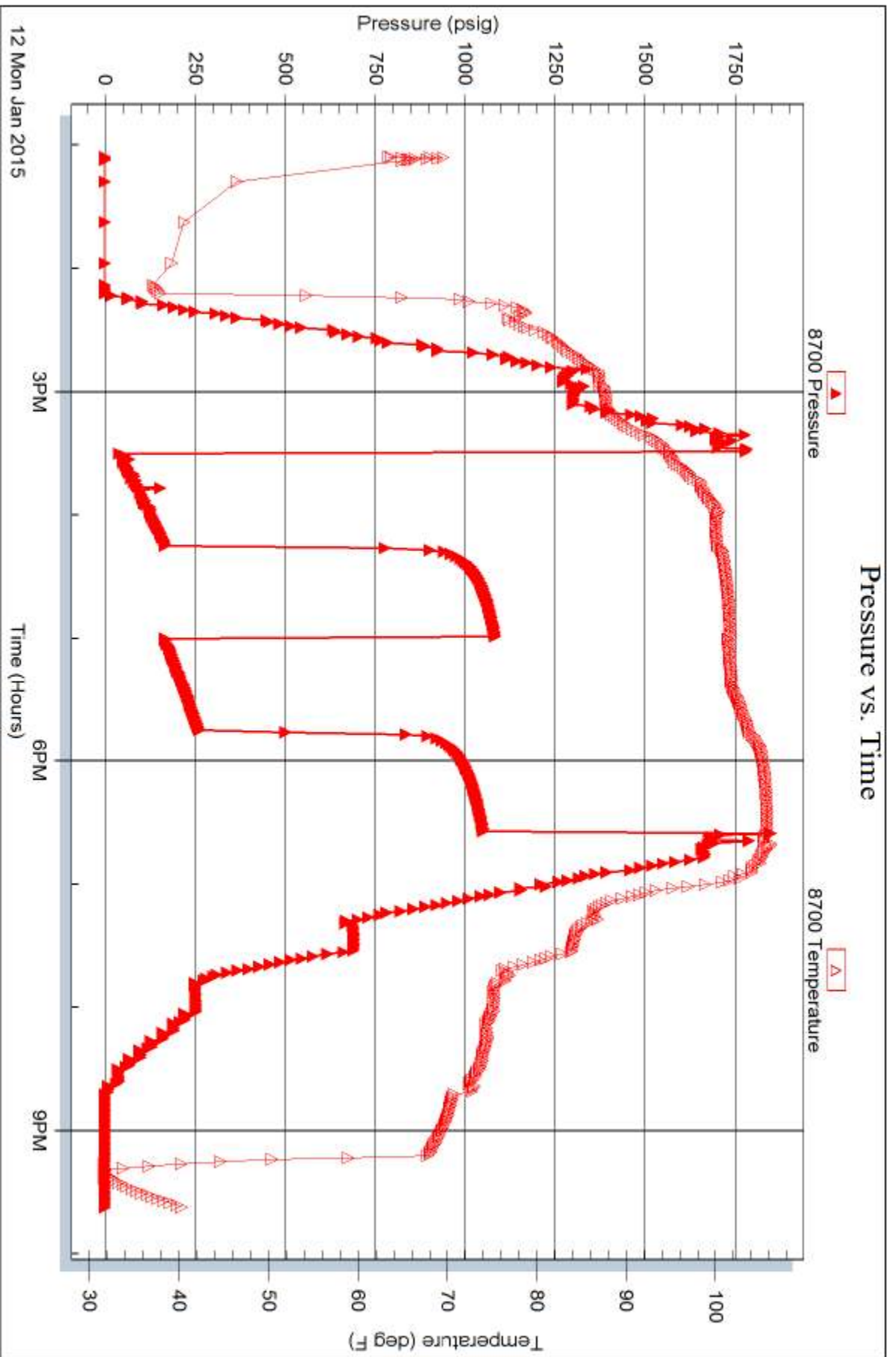


Serial #: 8700

Outside Dow n/g-Nelson Oil Co, Inc.

Black & Gold #1-17

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 61141

Printed: 2015.01.13 @ 11:54:16



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 60998

Well Name & No. Black & Gold #1-17 Test No. 1 Date 1-10-15
 Company Downing-Nelson Oil Co Inc Elevation 2046 KB 2038 GL
 Address P.O. Box 1019 Hays, KS 67601
 Co. Rep / Geo. Mark Downing Rig Discovery Rig 1
 Location: Sec. 17 Twp. 19s Rge. 18w Co. Ellis State KS

Interval Tested 3352-3404 Zone Tested LKL "C+D"
 Anchor Length 52 Drill Pipe Run 3309 Mud Wt. 8.7
 Top Packer Depth 3347 Drill Collars Run 29 Vis 60
 Bottom Packer Depth 3352 Wt. Pipe Run 0 WL 8
 Total Depth 3404 Chlorides 4,000 ppm System LCM 2#

Blow Description IF Built to 6 1/4"
ISE No Return
FF Built to 5"
PSI- Weak Surface Return, at 35 mhs

Rec	Feet of	%gas	%oil	%water	%mud
<u>63'</u>	<u>mw</u>			<u>60%</u>	<u>40%</u>
<u>15'</u>	<u>wm</u>			<u>40%</u>	<u>60%</u>
<u>5'</u>	<u>0</u>		<u>100%</u>		

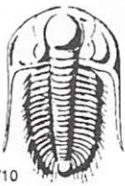
Rec Total 83' BHT 103 Gravity 37 API RW .5 @ 23 °F Chlorides 48,000 ppm

(A) Initial Hydrostatic 1,657 Test 1050 T-On Location 14:55
 (B) First Initial Flow 20 Jars _____ T-Started 16:04
 (C) First Final Flow 43 Safety Joint _____ T-Open 19:23
 (D) Initial Shut-In 568 Circ Sub _____ T-Pulled 22:23
 (E) Second Initial Flow 46 Hourly Standby _____ T-Out 00:16
 (F) Second Final Flow 57 Mileage 16 RT 16 Comments _____
 (G) Final Shut-In 550 Sampler _____
 (H) Final Hydrostatic 1,671 Straddle _____
 Shale Packer _____
 Ruined Shale Packer _____
 Ruined Packer _____

Initial Open 45 Extra Packer _____
 Initial Shut-In 45 Extra Recorder _____
 Final Flow 45 Day Standby _____
 Final Shut-In 45 Accessibility _____
 Sub Total 1066 MP/DST Disc't _____

Approved By _____ Our Representative Phillip Hoop "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. 61140

4/10

Well Name & No. Black + Gold #1-17 Test No. 2 Date 1-11-15
 Company Downing-Nelson O.I. Co. Inc Elevation 2046 KB 2038 GL
 Address PO Box 1019 Hays, Ks 67601
 Co. Rep / Geo. MARC Downing Rig Discovery rig 1
 Location: Sec. 17 Twp. 14^s Rge. 18^w Co. ELLIS State Ko

Interval Tested 3573-3645 Zone Tested Congl. sd.
 Anchor Length 72 Drill Pipe Run 3533 Mud Wt. 9
 Top Packer Depth 3568 Drill Collars Run 30 Vis 55
 Bottom Packer Depth 3573 Wt. Pipe Run — WL 8.6
 Total Depth 3645 Chlorides 8000 ppm System LCM 2th
 Blow Description IFP - WEAK Blow thru-out 1/2" To 1 3/4" Blow
ISFP - NO Blow
FFP - Very WEAK surface Blow thru out
FSIP - NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>OCM</u>	<u>5</u>		<u>95</u>	
<u>2</u>	<u>CO</u>				

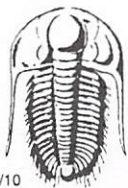
Rec Total 22 BHT 104 Gravity — API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic 1745 Test 1050 T-On Location 2100
 (B) First Initial Flow 23 Jars — T-Started 2220
 (C) First Final Flow 30 Safety Joint — T-Open 2355
 (D) Initial Shut-In 588 Circ Sub — T-Pulled 0255
 (E) Second Initial Flow 34 Hourly Standby — T-Out 0449
 (F) Second Final Flow 41 Mileage 16 RT 16 Comments —
 (G) Final Shut-In 338 Sampler —
 (H) Final Hydrostatic 1713 Straddle — Ruined Shale Packer —
 Shale Packer — Ruined Packer —
 Extra Packer — Extra Copies —
 Extra Recorder — Sub Total 0
 Day Standby — Total 1066
 Accessibility — MP/DST Disc't —
 Sub Total 1066

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. 61141

Well Name & No. BLACK + Gold #1-17 Test No. 3 Date 1-12-15
 Company Downing-Nelson O.IL Co. Inc. Elevation 2046 KB 2038 GL
 Address PO Box 1019 Hays, Ks 67601
 Co. Rep / Geo. MARC Downing Rig Discovery rig 1
 Location: Sec. 17 Twp. 14^s Rge. 18^w Co. ELLIS State Ks

Interval Tested 3574-3671 Zone Tested ARBUCKLE
 Anchor Length 97 Drill Pipe Run 3531 Mud Wt. 9
 Top Packer Depth 3569 Drill Collars Run 30 Vis 50
 Bottom Packer Depth 3574 Wt. Pipe Run - WL 8.8
 Total Depth 3671 Chlorides 8000 ppm System LCM 2#

Blow Description IFP - WEAK TO STRONG IN 14 MIN
ISIP - SURFACE BLOW BACK
FFP - WEAK TO STRONG IN 17 MIN
FSIP - SURFACE BLOW BACK

Rec	Feet of	%gas	%oil	%water	%mud
<u>160</u>	<u>GIP</u>				
<u>310</u>	<u>AMGO AMGO</u>	<u>10</u>	<u>70</u>	<u>20</u>	
<u>270</u>	<u>CO</u>				

Rec Total 580 BHT 105 Gravity 29 API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic 1705 Test 1050 T-On Location 1215
 (B) First Initial Flow 43 Jars _____ T-Started 1305
 (C) First Final Flow 170 Safety Joint _____ T-Open 1530
 (D) Initial Shut-In 1087 Circ Sub _____ T-Pulled 1830
 (E) Second Initial Flow 170 Hourly Standby _____ T-Out 2137
 (F) Second Final Flow 265 Mileage 16 RT 16 Comments _____
 (G) Final Shut-In 1054 Sampler _____
 (H) Final Hydrostatic 1681 Straddle _____
 Shale Packer _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Packer _____
 Extra Copies _____

Initial Open 45
 Initial Shut-In 45
 Final Flow 45
 Final Shut-In 45
 Sub Total 1066
 Total 1066
 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.