



DRILL STEM TEST REPORT

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

P.O. Box 1019
Hays, KS 67601

ATTN: Alan Downing

Brenda #1-8

8-20s-20w Pawnee,KS

Start Date: 2014.04.20 @ 06:09:00

End Date: 2014.04.20 @ 16:09:00

Job Ticket #: 57523 DST #: 1

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

Printed: 2014.04.24 @ 15:07:44



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co, Inc

8-20s-20w Pawnee,KS

P.O. Box 1019
Hays, KS 67601

Brenda #1-8

Job Ticket: 57523

DST#: 1

ATTN: Alan Dow ning

Test Start: 2014.04.20 @ 06:09:00

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:12:20

Time Test Ended: 16:09:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Phillip Gage

Unit No: 49

Interval: 4241.00 ft (KB) To 4317.00 ft (KB) (TVD)

Reference Elevations: 2196.00 ft (KB)

Total Depth: 4317.00 ft (KB) (TVD)

2188.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8898 Outside

Press@RunDepth: 47.91 psig @ 4250.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.20

End Date: 2014.04.20

Last Calib.: 2014.04.20

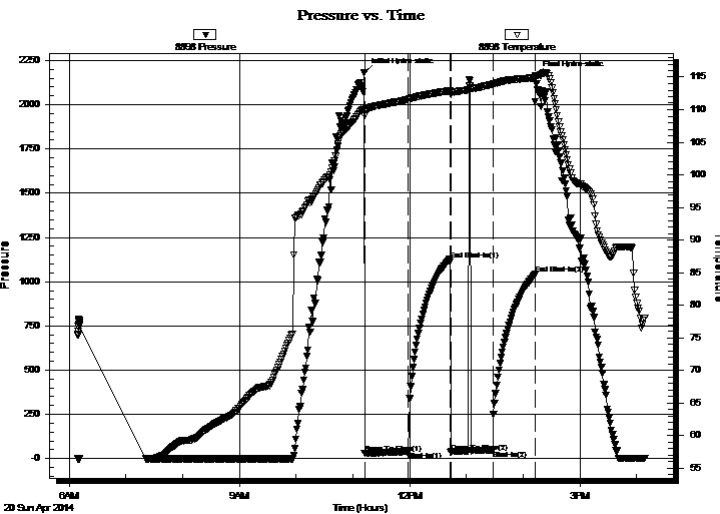
Start Time: 06:09:01

End Time: 16:09:00

Time On Btm: 2014.04.20 @ 11:12:09

Time Off Btm: 2014.04.20 @ 14:13:09

TEST COMMENT: 45-IF-Built to 1 1/4"
45-ISI-No Return
45-FF-Few bubbles, then died. Flushed tool at 13:04, built to 1/2".
45-FSI-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2182.60	110.24	Initial Hydro-static
1	30.60	109.05	Open To Flow (1)
47	38.85	111.55	Shut-In(1)
91	1123.09	112.90	End Shut-In(1)
91	34.02	112.31	Open To Flow (2)
136	47.91	113.88	Shut-In(2)
181	1041.42	114.90	End Shut-In(2)
181	2162.63	115.20	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	M, 100% m, with skim of oil	0.43

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co, Inc

8-20s-20w Pawnee, KS

P.O. Box 1019
Hays, KS 67601

Brenda #1-8

Job Ticket: 57523

DST#: 1

ATTN: Alan Dow ning

Test Start: 2014.04.20 @ 06:09:00

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:12:20

Time Test Ended: 16:09:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Phillip Gage

Unit No: 49

Interval: 4241.00 ft (KB) To 4317.00 ft (KB) (TVD)

Total Depth: 4317.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2196.00 ft (KB)

2188.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8897 Inside

Press@RunDepth: psig @ 4250.00 ft (KB)

Start Date: 2014.04.20

End Date:

2014.04.20

Capacity: 8000.00 psig

Last Calib.:

2014.04.20

Start Time: 06:09:01

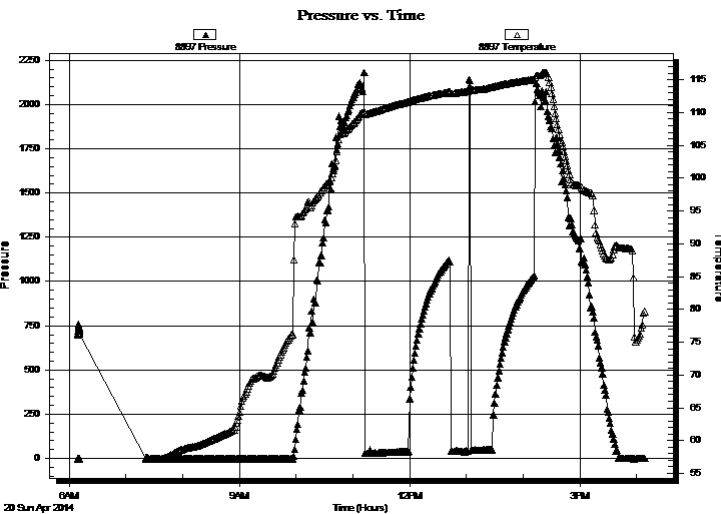
End Time:

16:09:00

Time On Btm:

Time Off Btm:

TEST COMMENT: 45-IF-Built to 1 1/4"
45-ISI-No Return
45-FF-Few bubbles, then died. Flushed tool at 13:04, built to 1/2".
45-FSI-No Return



PRESSURE SUMMARY

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

Recovery

Gas Rates

Length (ft)	Description	Volume (bbl)
50.00	M, 100%m, w with skim of oil	0.43

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co, Inc

8-20s-20w Pawnee,KS

P.O. Box 1019
Hays, KS 67601

Brenda #1-8

Job Ticket: 57523

DST#: 1

ATTN: Alan Dow ning

Test Start: 2014.04.20 @ 06:09:00

Tool Information

Drill Pipe:	Length: 4216.00 ft	Diameter: 3.80 inches	Volume: 59.14 bbl	Tool Weight: 2500.00 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: 74000.00 lb
			<u>Total Volume: 59.29 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4241.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval betw een Packers:	76.00 ft			
Tool Length:	103.00 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			4219.00	
Hydraulic tool	5.00			4224.00	
Jars	5.00			4229.00	
Safety Joint	2.00			4231.00	
Packer	5.00			4236.00	27.00 Bottom Of Top Packer
Packer	5.00			4241.00	
Stubb	1.00			4242.00	
Perforations	8.00			4250.00	
Recorder	0.00	8897	Inside	4250.00	
Recorder	0.00	8898	Outside	4250.00	
Drill Pipe	63.00			4313.00	
Change Over Sub	1.00			4314.00	
Bullnose	3.00			4317.00	76.00 Bottom Packers & Anchor

Total Tool Length: 103.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co, Inc

8-20s-20w Pawnee,KS

P.O. Box 1019
Hays, KS 67601

Brenda #1-8

Job Ticket: 57523

DST#: 1

ATTN: Alan Dow ning

Test Start: 2014.04.20 @ 06:09:00

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: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
50.00	M, 100% m, with skim of oil	0.428

Total Length: 50.00 ft Total Volume: 0.428 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

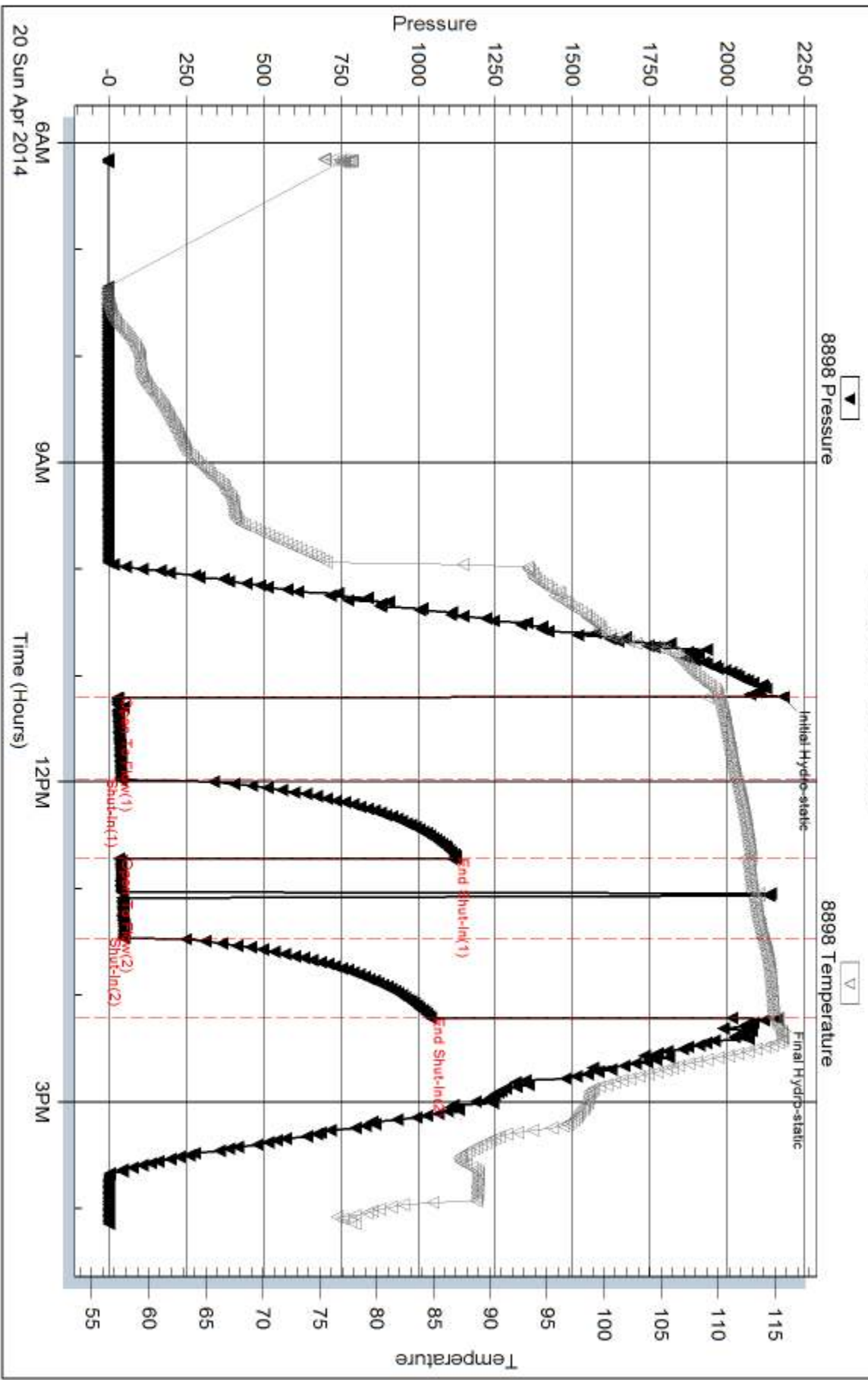
Serial #: 8898

Outside Dow nrg-Nelson Oil Co, Inc

Brenda #1-8

DST Test Number: 1

Pressure vs. Time



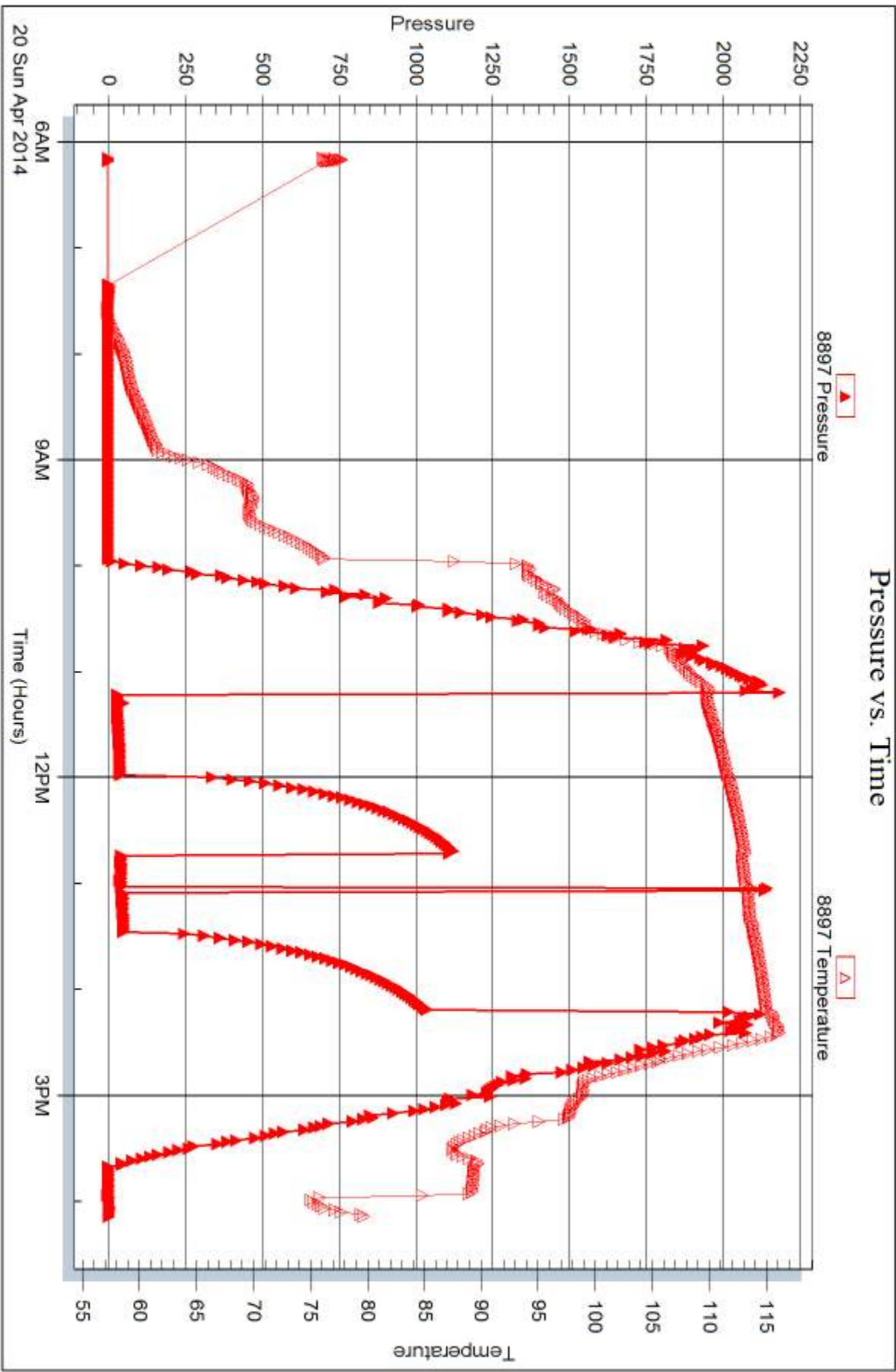
Serial #: 8897

Inside

Dow nrg-Nelson Oil Co, Inc

Brenda #1-8

DST Test Number: 1





DRILL STEM TEST REPORT

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

P.O. Box 1019
Hays, KS 67601

ATTN: Alan Downing

Brenda #1-8

8-20s-20w Pawnee,KS

Start Date: 2014.04.20 @ 21:22:00

End Date: 2014.04.21 @ 04:05:09

Job Ticket #: 57524 DST #: 2

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

Printed: 2014.04.24 @ 15:07:20



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co, Inc

8-20s-20w Pawnee,KS

P.O. Box 1019
Hays, KS 67601

Brenda #1-8

Job Ticket: 57524

DST#: 2

ATTN: Alan Dow ning

Test Start: 2014.04.20 @ 21:22:00

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:17:40

Time Test Ended: 04:05:09

Test Type: Conventional Bottom Hole (Reset)

Tester: Phillip Gage

Unit No: 49

Interval: 4317.00 ft (KB) To 4327.00 ft (KB) (TVD)

Reference Elevations: 2196.00 ft (KB)

Total Depth: 4327.00 ft (KB) (TVD)

2188.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8898 Outside

Press@RunDepth: 33.34 psig @ 4318.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.20

End Date:

2014.04.21

Last Calib.: 2014.04.21

Start Time: 21:22:01

End Time:

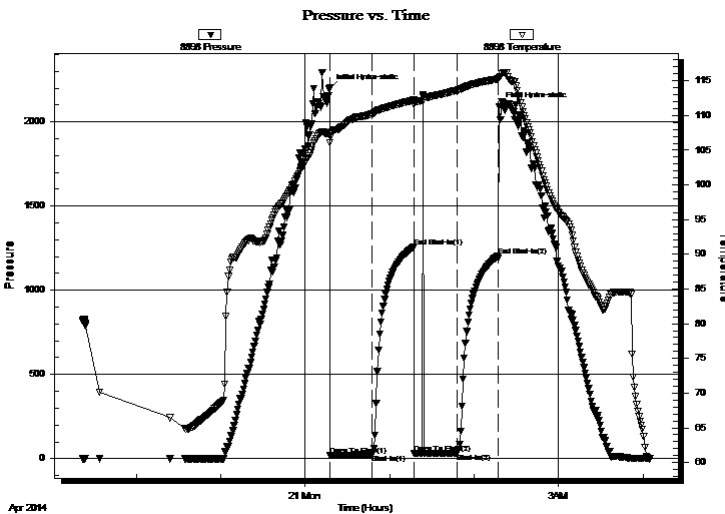
04:05:10

Time On Btm: 2014.04.21 @ 00:17:30

Time Off Btm: 2014.04.21 @ 02:17:50

TEST COMMENT: 30-IF-Built to 1 1/4"
30-ISI-No Return
30-FF-No blow , flushed tool @ 01:25, built to 1/4"
30-FSI-No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2199.87	107.30	Initial Hydro-static
1	20.94	106.09	Open To Flow (1)
30	23.80	110.22	Shut-In(1)
60	1256.40	112.20	End Shut-In(1)
60	30.87	111.57	Open To Flow (2)
91	33.34	113.60	Shut-In(2)
120	1205.27	115.25	End Shut-In(2)
121	2089.59	115.51	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
32.00	M, 100% m, with oil spots	0.18

* 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

8-20s-20w Pawnee, KS

P.O. Box 1019
Hays, KS 67601

Brenda #1-8

Job Ticket: 57524

DST#: 2

ATTN: Alan Dow ning

Test Start: 2014.04.20 @ 21:22:00

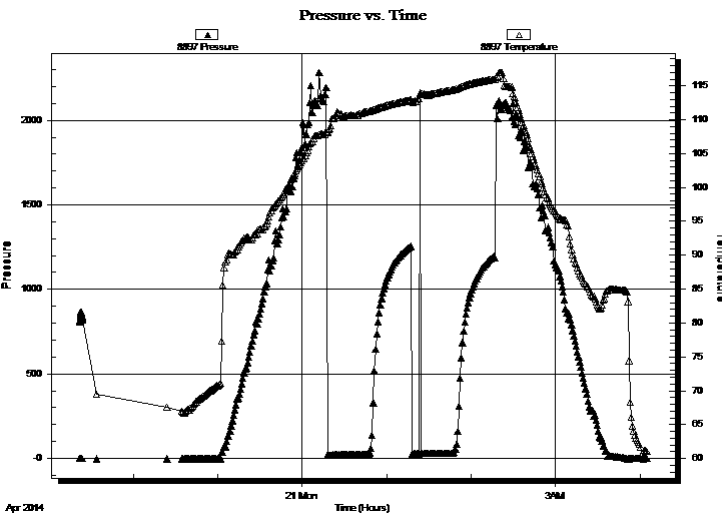
GENERAL INFORMATION:

Formation: **Mississippi**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 00:17:40
 Time Test Ended: 04:05:09
 Interval: **4317.00 ft (KB) To 4327.00 ft (KB) (TVD)**
 Total Depth: 4327.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Phillip Gage
 Unit No: 49
 Reference Elevations: 2196.00 ft (KB)
 2188.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8897 Inside

Press@RunDepth: psig @	4318.00 ft (KB)	Capacity:	8000.00 psig
Start Date: 2014.04.20	End Date: 2014.04.21	Last Calib.:	2014.04.21
Start Time: 21:22:01	End Time: 04:05:10	Time On Btm:	
		Time Off Btm:	

TEST COMMENT: 30-IF-Built to 1 1/4"
 30-ISI-No Return
 30-FF-No blow , flushed tool @ 01:25, built to 1/4"
 30-FSI-No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
32.00	M, 100% m, with oil spots	0.18

* 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

8-20s-20w Pawnee,KS

P.O. Box 1019
Hays, KS 67601

Brenda #1-8

Job Ticket: 57524

DST#: 2

ATTN: Alan Dow ning

Test Start: 2014.04.20 @ 21:22:00

Tool Information

Drill Pipe:	Length: 4269.00 ft	Diameter: 3.80 inches	Volume: 59.88 bbl	Tool Weight: 2500.00 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: 80000.00 lb
			<u>Total Volume: 60.03 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4317.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval betw een Packers:	10.00 ft			
Tool Length:	37.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Shut In Tool	5.00			4295.00	
Hydraulic tool	5.00			4300.00	
Jars	5.00			4305.00	
Safety Joint	2.00			4307.00	
Packer	5.00			4312.00	27.00 Bottom Of Top Packer
Packer	5.00			4317.00	
Stubb	1.00			4318.00	
Recorder	0.00	8897	Inside	4318.00	
Recorder	0.00	8898	Outside	4318.00	
Perforations	6.00			4324.00	
Bullnose	3.00			4327.00	10.00 Bottom Packers & Anchor

Total Tool Length: 37.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co, Inc

8-20s-20w Pawnee,KS

P.O. Box 1019
Hays, KS 67601

Brenda #1-8

Job Ticket: 57524

DST#: 2

ATTN: Alan Dow ning

Test Start: 2014.04.20 @ 21:22:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 69.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
32.00	M, 100% m, with oil spots	0.176

Total Length: 32.00 ft Total Volume: 0.176 bbl

Num Fluid Samples: 0

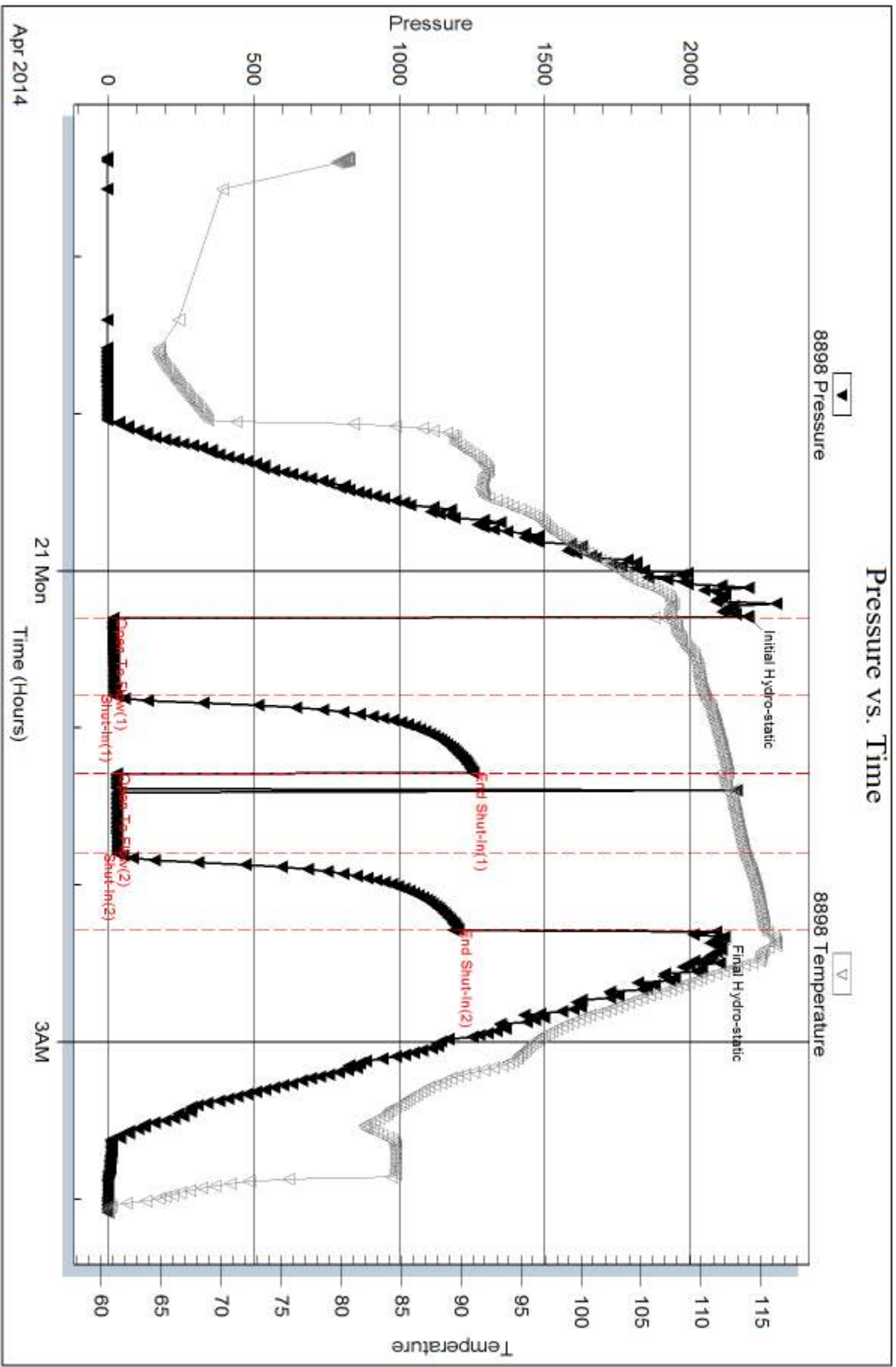
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



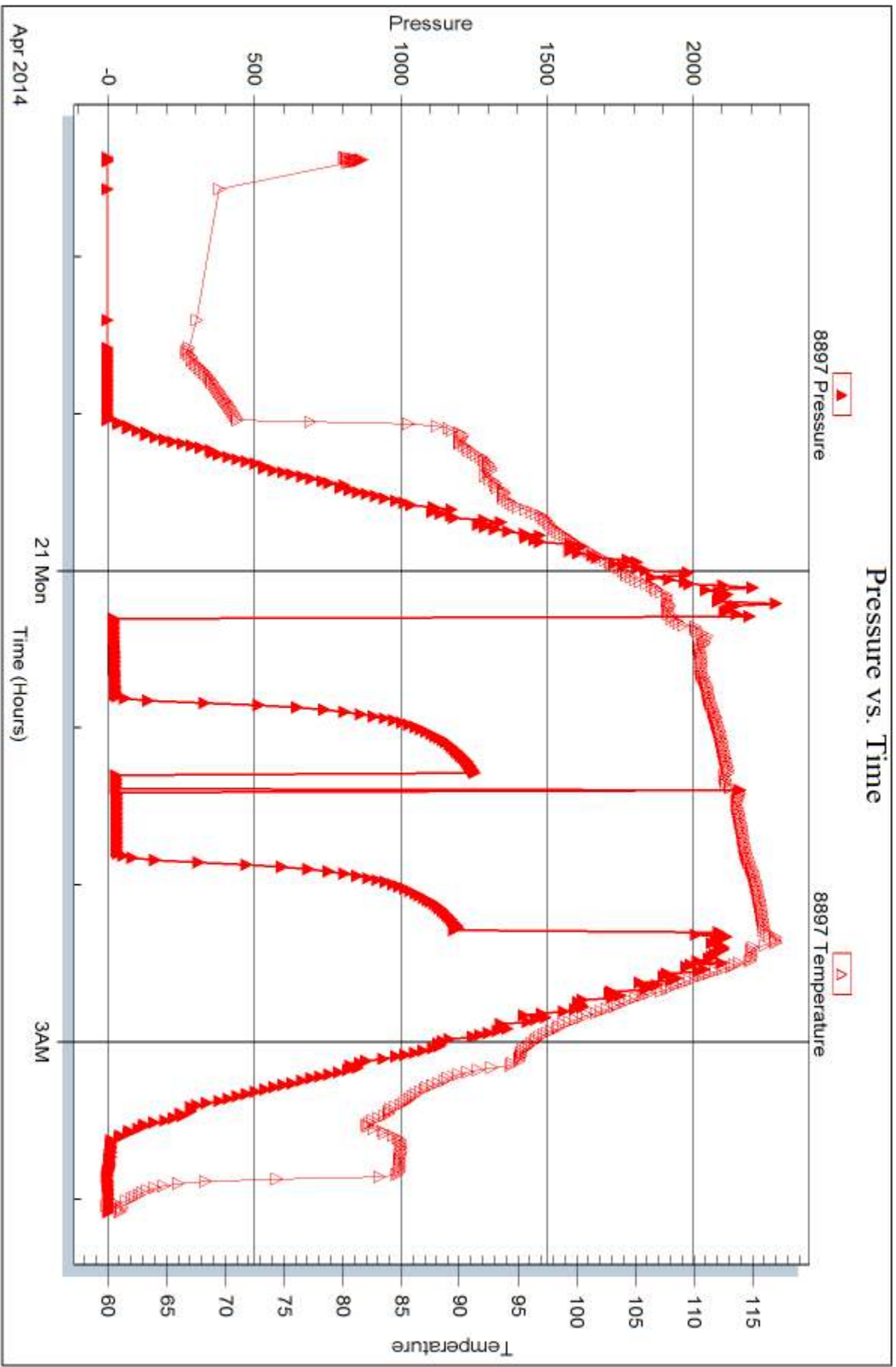
Serial #: 8897

Inside

Dow nrg-Nelson Oil Co, Inc

Brenda #1-8

DST Test Number: 2



Tribble Testing, Inc

Ref. No: 57524

Printed: 2014.04.24 @ 15:07:21



DRILL STEM TEST REPORT

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

P.O. Box 1019
Hays, KS 67601

ATTN: Allen Downing

Brenda #1-8

8-20s-20w Pawnee,KS

Start Date: 2014.04.21 @ 09:38:00

End Date: 2014.04.21 @ 18:15:30

Job Ticket #: 57525 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.04.24 @ 15:05:39



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co, Inc

8-20s-20w Pawnee,KS

P.O. Box 1019
Hays, KS 67601

Brenda #1-8

Job Ticket: 57525

DST#: 3

ATTN: Allen Dow ning

Test Start: 2014.04.21 @ 09:38:00

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:35:20

Time Test Ended: 18:15:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Phillip Gage

Unit No: 49

Interval: 4324.00 ft (KB) To 4336.00 ft (KB) (TVD)

Reference Elevations: 2196.00 ft (KB)

Total Depth: 4336.00 ft (KB) (TVD)

2188.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8898 Outside

Press@RunDepth: 197.69 psig @ 4325.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.21

End Date:

2014.04.21

Last Calib.:

2014.04.21

Start Time: 09:38:01

End Time:

18:15:30

Time On Btm:

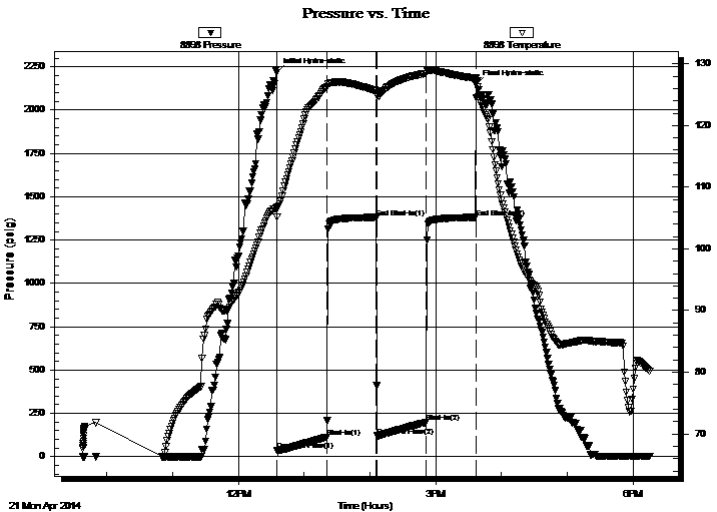
2014.04.21 @ 12:35:10

Time Off Btm:

2014.04.21 @ 15:36:50

TEST COMMENT: 45-IF-BOB in 15 mins.
45-ISI-2 3/8" Return
45-FF-BOB in 22 mins.
45-FSI-1" Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2217.81	106.79	Initial Hydro-static
1	35.15	105.21	Open To Flow (1)
46	113.52	126.27	Shut-In(1)
91	1381.36	125.62	End Shut-In(1)
91	120.13	125.01	Open To Flow (2)
136	197.69	128.47	Shut-In(2)
182	1380.69	127.61	End Shut-In(2)
182	2147.45	127.78	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
63.00	SOWGCM, 5%o, 5%w, 10%g, 80%m	0.61
63.00	SWGCMCO, 5%w, 5%g, 35%m, 55%o	0.88
315.00	SMGCO, 5%m, 20%g, 75%oil	4.42
40.00	O, 100%o	0.56
0.00	GIP-335'	0.00

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

8-20s-20w Pawnee,KS

P.O. Box 1019
Hays, KS 67601

Brenda #1-8

Job Ticket: 57525

DST#: 3

ATTN: Allen Dow ning

Test Start: 2014.04.21 @ 09:38:00

GENERAL INFORMATION:

Formation: **Mississippi**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 12:35:20
Time Test Ended: 18:15:30
Interval: **4324.00 ft (KB) To 4336.00 ft (KB) (TVD)**
Total Depth: 4336.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Phillip Gage
Unit No: 49
Reference Elevations: 2196.00 ft (KB)
2188.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8897

Inside

Press@RunDepth: psig @ 4325.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.21

End Date:

2014.04.21

Last Calib.:

2014.04.21

Start Time: 09:38:01

End Time:

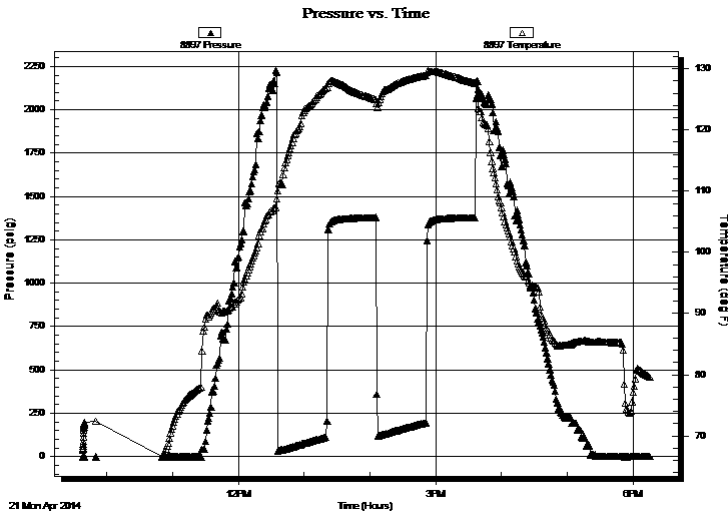
18:15:30

Time On Btm:

Time Off Btm:

TEST COMMENT: 45-IF-BOB in 15 mins.
45-ISI-2 3/8" Return
45-FF-BOB in 22 mins.
45-FSI-1" Return

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
63.00	SOWGCM, 5%o, 5%w, 10%g, 80%m	0.61
63.00	SWGCMO, 5%w, 5%g, 35%m, 55%o	0.88
315.00	SMGCO, 5%m, 20%g, 75%oil	4.42
40.00	O, 100%o	0.56
0.00	GIP-335'	0.00

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

8-20s-20w Pawnee,KS

P.O. Box 1019
Hays, KS 67601

Brenda #1-8

Job Ticket: 57525

DST#: 3

ATTN: Allen Dow ning

Test Start: 2014.04.21 @ 09:38:00

Tool Information

Drill Pipe:	Length: 4279.00 ft	Diameter: 3.80 inches	Volume: 60.02 bbl	Tool Weight: 2500.00 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: 68000.00 lb
			<u>Total Volume: 60.17 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4324.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval betw een Packers:	12.00 ft			
Tool Length:	39.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Shut In Tool	5.00			4302.00	
Hydraulic tool	5.00			4307.00	
Jars	5.00			4312.00	
Safety Joint	2.00			4314.00	
Packer	5.00			4319.00	27.00 Bottom Of Top Packer
Packer	5.00			4324.00	
Stubb	1.00			4325.00	
Recorder	0.00	8897	Inside	4325.00	
Recorder	0.00	8898	Outside	4325.00	
Perforations	8.00			4333.00	
Bullnose	3.00			4336.00	12.00 Bottom Packers & Anchor

Total Tool Length: 39.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co, Inc

8-20s-20w Pawnee,KS

P.O. Box 1019
Hays, KS 67601

Brenda #1-8

Job Ticket: 57525

DST#: 3

ATTN: Allen Dow ning

Test Start: 2014.04.21 @ 09:38:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

39 deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 69.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
63.00	SOWGCM, 5%o, 5%w, 10%g, 80%m	0.610
63.00	SWGMCO, 5%w, 5%g, 35%m, 55%o	0.884
315.00	SMGCO, 5%m, 20%g, 75%oil	4.419
40.00	O, 100%o	0.561
0.00	GIP-335'	0.000

Total Length: 481.00 ft

Total Volume: 6.474 bbl

Num Fluid Samples: 0

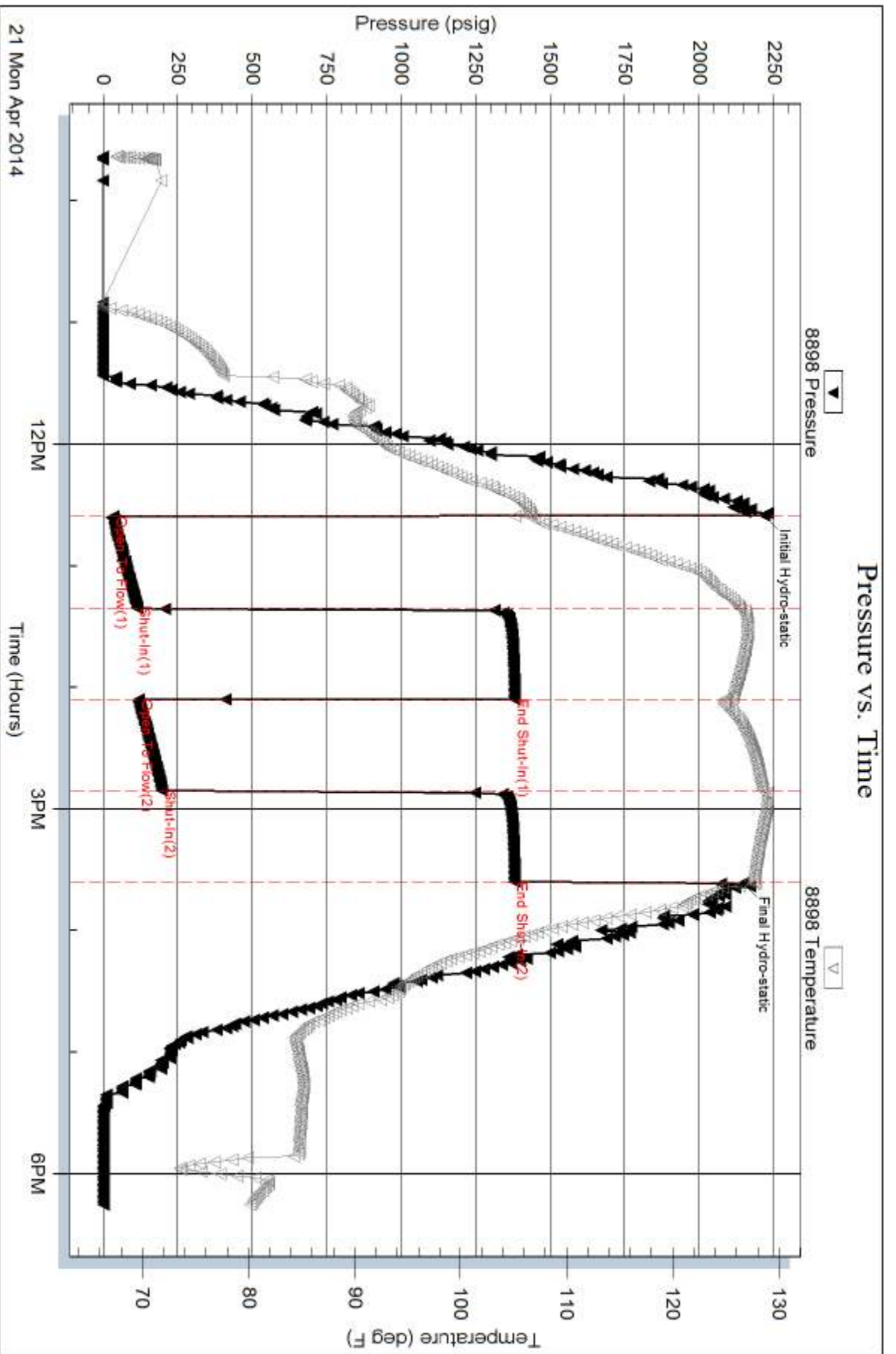
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



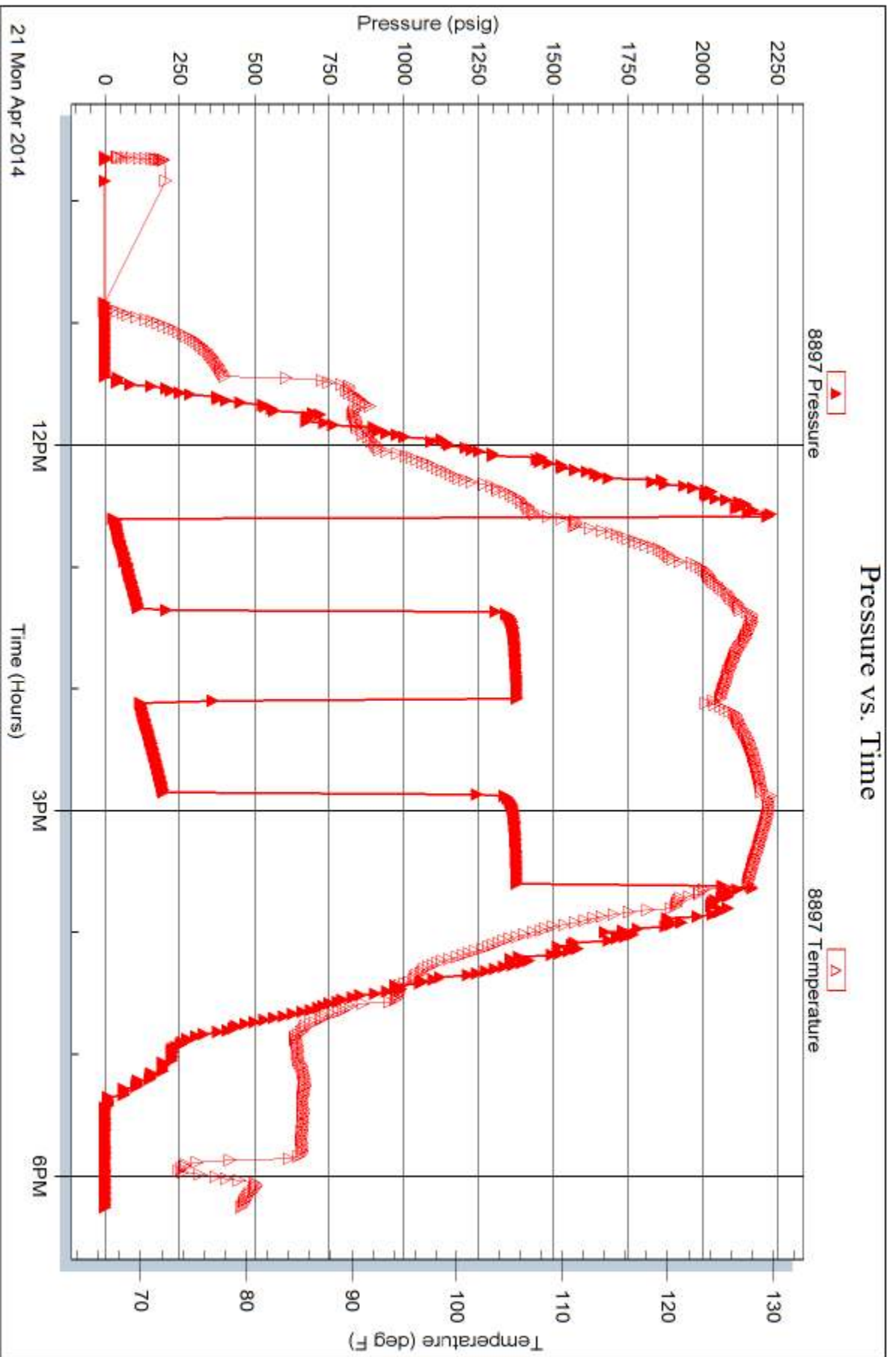
Serial #: 8897

Inside

Dow nrg-Nelson Oil Co, Inc

Brenda #1-8

DST Test Number: 3



Tribble Testing, Inc

Ref. No: 57525

Printed: 2014.04.24 @ 15:05:40



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 57523

4/10

Well Name & No. Brenda #1-8 Test No. 1 Date 4-20-14
 Company Downing-Nelson Oil Co. Inc Elevation 27762196 KB 2188 GL
 Address P.O. Box 1019 Hays, KS 67601
 Co. Rep / Geo. Allen Downing Rig Discovery Rig #3
 Location: Sec. 8 Twp. 20s Rge. 20w Co. Pawnee State KS

Interval Tested 4241-4317 Zone Tested Miss
 Anchor Length 76' Drill Pipe Run 4216 Mud Wt. 9.1
 Top Packer Depth 4236 Drill Collars Run 30 Vis 65
 Bottom Packer Depth 4241 Wt. Pipe Run — WL 8
 Total Depth 4317 Chlorides 3,000 ppm System LCM 1

Blow Description IF- Buite to 1 1/4"
ISI- No Return
FF- Few bubbles, then stopped. Flushed tool @ 13:04, buite to 1/2"
FSI- No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>50'</u>	<u>M, with skin of oil</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 50 BHT 115 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2182 Test 1250 T-On Location 05:18
 (B) First Initial Flow 30 Jars 250 T-Started 06:09
 (C) First Final Flow 38 Safety Joint 75 T-Open 11:13
 (D) Initial Shut-In 1123 Circ Sub — T-Pulled 02:13 14:13
 (E) Second Initial Flow 34 Hourly Standby — T-Out 16:09
 (F) Second Final Flow 47 Mileage 112 RT 173.60 Comments —
 (G) Final Shut-In 1041 Sampler —
 (H) Final Hydrostatic 2162 Straddle — Ruined Shale Packer —
 Shale Packer — Ruined Packer —

Initial Open 45 Extra Packer — Extra Copies —
 Initial Shut-In 45 Extra Recorder — Sub Total 0
 Final Flow 45 Day Standby — Total 1748.60
 Final Shut-In 45 Accessibility — MP/DST Disc't —
 Sub Total 1748.60

Approved By — Our Representative Allen Downing "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. 57524

Well Name & No. Brendy #1-8 Test No. 2 Date 4-20-14
 Company Downing-Nelson Oil Co. Inc Elevation 2196 KB 2188 GL
 Address P.O. Box 1019 Hays, KS 67601
 Co. Rep / Geo. Allen Downing Rig Discovery Drilling Rig # 3
 Location: Sec. 8 Twp. 20s Rge. 20w Co. Pawnee State KS

Interval Tested 4317-4327 Zone Tested Miss
 Anchor Length 10' Drill Pipe Run 4269 Mud Wt. 9.5
 Top Packer Depth 4312 Drill Collars Run 30 Vis 69
 Bottom Packer Depth 4317 Wt. Pipe Run — WL 8.8
 Total Depth 4327 Chlorides 5,000 ppm System LCM 1

Blow Description IF - Built to 1 1/4"
ISI - No Return
FF - No Blow, Flushed tool at 01:25, built to 1 1/4"
FSE - No Return

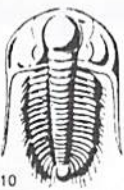
Rec	Feet of	%gas	%oil	%water	%mud
32	M, with oil spots				100%

Rec Total 32 BHT 115 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2199 Test 1250 T-On Location 21:30
 (B) First Initial Flow 20 Jars 250 T-Started 21:22
 (C) First Final Flow 23 Safety Joint 75 T-Open 00:18
 (D) Initial Shut-In 1256 Circ Sub T-Pulled 02:18
 (E) Second Initial Flow 30 Hourly Standby T-Out 04:06
 (F) Second Final Flow 33 Mileage 112 RT 173.60 Comments
 (G) Final Shut-In 1205 Sampler
 (H) Final Hydrostatic 2089 Straddle Ruined Shale Packer
 Shale Packer Ruined Packer
 Extra Packer Extra Copies
 Extra Recorder Sub Total 0
 Day Standby Total 1748.60
 Accessibility MP/DST Disc't
 Sub Total 1748.60

Approved By _____ Our Representative Phil's Log '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. 57525

Well Name & No. Brenda # 1-8 Test No. 3 Date 4-21-14
 Company Downing-Nelson Oil Co, Inc Elevation 2196 KB 2188 GL
 Address P.O. Box 1019 Hays, KS 67601
 Co. Rep / Geo. Allen Downing Rig Discovery Drilling Rig #3
 Location: Sec. 8 Twp. 20s Rge. 20w Co. Lawrence State KS

Interval Tested 4324 - 4336 Zone Tested MISS
 Anchor Length 12' Drill Pipe Run 4279 Mud Wt. 9.5
 Top Packer Depth 4319 Drill Collars Run 30 Vis 6.9
 Bottom Packer Depth 4324 Wt. Pipe Run --- WL 8.8
 Total Depth 4336 Chlorides 5,000 ppm System LCM 1

Blow Description IF - BOB in 15 mhs.
ISI - 2 3/8" Return
PF - BOB in 22 mhs.
FSI 1" Return

Rec	Feet of	%gas	%oil	%water	%mud
63	SOWGCM	10	5	5	80
63	SWGMC0	5	55	5	35
315	SMG10	20	75		5
40'	Oil		100		
350	QIP - 335'	100			

Rec Total 481 BHT 128 Gravity 39 API RW @ °F Chlorides --- ppm
 (A) Initial Hydrostatic 2217 Test 1250 T-On Location 09:27
 (B) First Initial Flow 35 Jars 250 T-Started 09:38
 (C) First Final Flow 113 Safety Joint 75 T-Open 12:36
 (D) Initial Shut-In 1381 Circ Sub _____ T-Pulled 15:36
 (E) Second Initial Flow 120 Hourly Standby _____ T-Out 18:16
 (F) Second Final Flow 197 Mileage 112 RT 173.60 Comments _____
 (G) Final Shut-In 1380 Sampler _____
 (H) Final Hydrostatic 2147 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1748.60
 Accessibility _____ MP/DST Disc't _____

Initial Open 45
 Initial Shut-In 45
 Final Flow 45
 Final Shut-In 45
 Sub Total 1748.60

Approved By _____ Our Representative Phil Gray "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.