

DRILL STEM TEST REPORT

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

P O Box 372
Hays Ks 67601

ATTN: Ron Nelson

27-13s-21w Trego Ks

Bertha Riedel #1-27

Start Date: 2004.01.21 @ 19:57:42

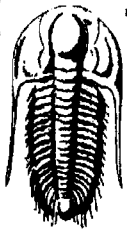
End Date: 2004.01.22 @ 02:38:11

Job Ticket #: 18392 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Downing-Nelson Oil Co Inc

P O Box 372
Hays Ks 67601

ATTN: Ron Nelson

Bertha Riedel #1-27

27-13s-21w Trego Ks

Job Ticket: 18392

DST#: 1

Test Start: 2004.01.21 @ 19:57:42

GENERAL INFORMATION:

Formation: **LKC "E"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:49:11

Time Test Ended: 02:38:11

Test Type: Conventional Bottom Hole

Tester: Ray Schwager

Unit No: 28

Interval: **3787.00 ft (KB) To 3802.00 ft (KB) (TVD)**

Total Depth: 3802.00 ft (KB) (TVD)

Hole Diameter: 7.85 inches Hole Condition: Fair

Reference Elevations: 2383.00 ft (KB)

2375.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 6668

Inside

Press@RunDepth: 86.66 psig @ 3788.01 ft (KB)

Start Date: 2004.01.21

End Date:

2004.01.22

Start Time: 19:57:42

End Time:

02:38:11

Capacity: 7000.00 psig

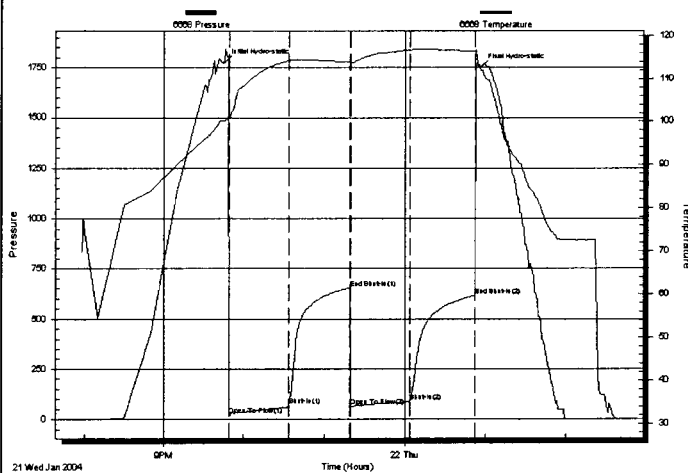
Last Calib.: 2004.01.22

Time On Btm: 2004.01.21 @ 21:45:41

Time Off Btm: 2004.01.22 @ 00:56:11

TEST COMMENT: IFP- w k to gd 1/2" to 8" bl
FFP- w k to a fr bl 1/4" to 3 1/2" bl
Times 45-45-45-45
w k bl bk on shut-in

Pressure vs. Time



PRESSURE SUMMARY

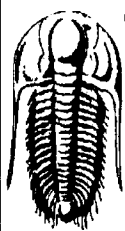
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1774.22	100.19	Initial Hydro-static
4	17.86	100.73	Open To Flow (1)
48	65.76	114.18	Shut-In (1)
93	653.03	113.90	End Shut-In (1)
94	63.35	113.58	Open To Flow (2)
138	86.66	116.66	Shut-In (2)
187	614.89	116.35	End Shut-In (2)
191	1752.01	112.09	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
110.00	SOCMW 1%oil 7%mud 92%water	1.27
50.00	M&WCO 8%mud 13%water 79%oil	0.70

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing-Nelson Oil Co Inc

Bertha Riedel #1-27

P O Box 372
Hays Ks 67601

27-13s-21w Trego Ks

Job Ticket: 18392

DST#: 1

ATTN: Ron Nelson

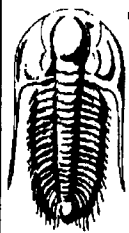
Test Start: 2004.01.21 @ 19:57:42

Tool Information

Drill Pipe:	Length:	3756.00 ft	Diameter:	3.80 inches	Volume:	52.69 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:	65000.00 lb
					Total Volume:	52.84 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	20.00 ft						String Weight: Initial	42000.00 lb
Depth to Top Packer:	3787.00 ft						Final	43000.00 lb
Depth to Bottom Packer:	ft							
Interval between Packers:	15.02 ft							
Tool Length:	36.02 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			3767.00	
Shut In Tool	5.00			3772.00	
Hydraulic tool	5.00			3777.00	
Packer	5.00			3782.00	21.00 Bottom Of Top Packer
Packer	5.00			3787.00	
Stubb	1.00			3788.00	
Recorder	0.01	6668	Inside	3788.01	
Perforations	11.00			3799.01	
Recorder	0.01	11085	Outside	3799.02	
Bullnose	3.00			3802.02	15.02 Bottom Packers & Anchor
Total Tool Length:	36.02				



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co Inc

Bertha Riedel #1-27

P O Box 372
Hays Ks 67601

27-13s-21w Trego Ks

Job Ticket: 18392

DST#: 1

ATTN: Ron Nelson

Test Start: 2004.01.21 @ 19:57:42

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:

32000 ppm

Viscosity: 42.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.16 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
110.00	SOCMW 1%oil 7%mud 92%water	1.270
50.00	M&WCO 8%mud 13%water 79%oil	0.701

Total Length: 160.00 ft

Total Volume:

1.971 bbl

Num Fluid Samples: 0

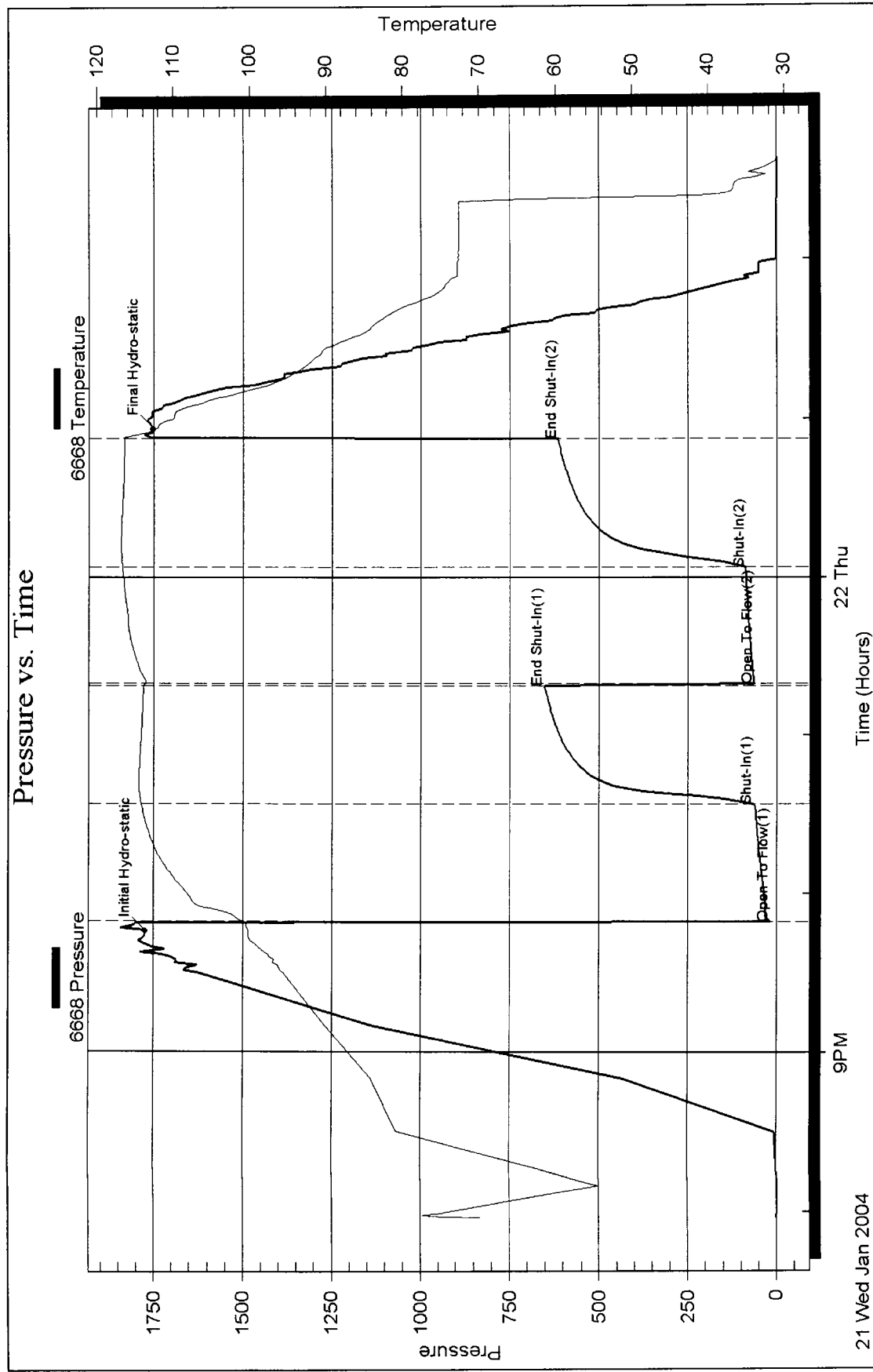
Num Gas Bombs: 0

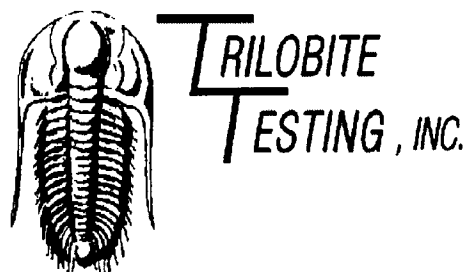
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .52@33F





DRILL STEM TEST REPORT

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

P O Box 372
Hays Ks 67601

ATTN: Ron Nelson

27-13s-21w Trego Ks

Bertha Riedel #1-27

Start Date: 2004.01.22 @ 13:08:37

End Date: 2004.01.22 @ 18:32:36

Job Ticket #: 18393 DST #: 2

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

P O Box 372
Hays Ks 67601

ATTN: Ron Nelson

Bertha Riedel #1-27

27-13s-21w Trego Ks

Job Ticket: 18393

DST#: 2

Test Start: 2004.01.22 @ 13:08:37

GENERAL INFORMATION:

Formation: **LKC H,I,J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:49:36

Time Test Ended: 18:32:36

Test Type: Conventional Bottom Hole

Tester: Ray Schwager

Unit No: 28

Interval: **3848.00 ft (KB) To 3921.00 ft (KB) (TVD)**

Total Depth: 3921.00 ft (KB) (TVD)

Hole Diameter: 7.85 inches Hole Condition: Fair

Reference Elevations: 2383.00 ft (KB)

2375.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 6668

Inside

Press@RunDepth: 32.07 psig @ 3857.01 ft (KB)

Start Date: 2004.01.22

End Date:

2004.01.22

Start Time: 13:08:37

End Time:

18:32:36

Capacity: 7000.00 psig

Last Calib.: 2004.01.22

Time On Btm: 2004.01.22 @ 14:46:36

Time Off Btm: 2004.01.22 @ 16:57:36

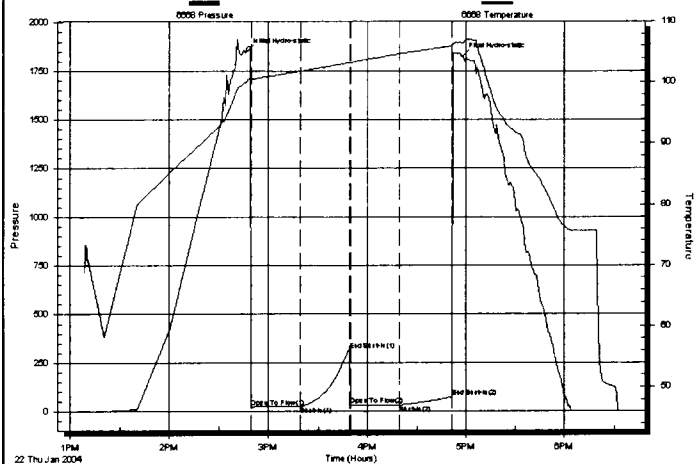
TEST COMMENT: IFP-w bl thru-out 1/2"to 1/4"bl

FFP-no bl

Times 30-30-30-30

no bl on shut-in

Pressure vs. Time



PRESSURE SUMMARY

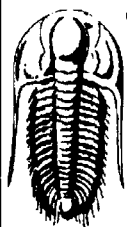
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1846.38	99.89	Initial Hydro-static
3	21.14	100.42	Open To Flow (1)
33	26.67	101.77	Shut-In (1)
63	313.77	103.26	End Shut-In (1)
63	28.30	103.21	Open To Flow (2)
93	32.07	104.65	Shut-In (2)
125	70.53	105.89	End Shut-In (2)
131	1825.00	106.37	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud w/show of oil	0.02

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co Inc

Bertha Riedel #1-27

P O Box 372
Hays Ks 67601

27-13s-21w Trego Ks

Job Ticket: 18393

DST#: 2

ATTN: Ron Nelson

Test Start: 2004.01.22 @ 13:08:37

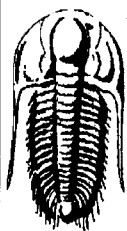
Tool Information

Drill Pipe:	Length:	3817.00 ft	Diameter:	3.80 inches	Volume:	53.54 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:	80000.00 lb
					Total Volume:	53.69 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	20.00 ft						String Weight: Initial	43000.00 lb
Depth to Top Packer:	3848.00 ft						Final	43000.00 lb
Depth to Bottom Packer:	ft							
Interval between Packers:	73.02 ft							
Tool Length:	94.02 ft							
Number of Packers:	2	Diameter:	6.75 inches					
Tool Comments:								

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3828.00	
Shut In Tool	5.00			3833.00	
Hydraulic tool	5.00			3838.00	
Packer	5.00			3843.00	21.00 Bottom Of Top Packer
Packer	5.00			3848.00	
Stubb	1.00			3849.00	
Perforations	7.00			3856.00	
Change Over Sub	1.00			3857.00	
Recorder	0.01	6668	Inside	3857.01	
Blank Spacing	31.00			3888.01	
Change Over Sub	1.00			3889.01	
Perforations	29.00			3918.01	
Recorder	0.01	11085	Outside	3918.02	
Bullnose	3.00			3921.02	73.02 Bottom Packers & Anchor

Total Tool Length: 94.02



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Bertha Riedel #1-27

P O Box 372
Hays Ks 67601

27-13s-21w Trego Ks

Job Ticket: 18393

DST#: 2

ATTN: Ron Nelson

Test Start: 2004.01.22 @ 13:08:37

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: 46.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.94 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mud w/show of oil	0.025

Total Length: 5.00 ft

Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

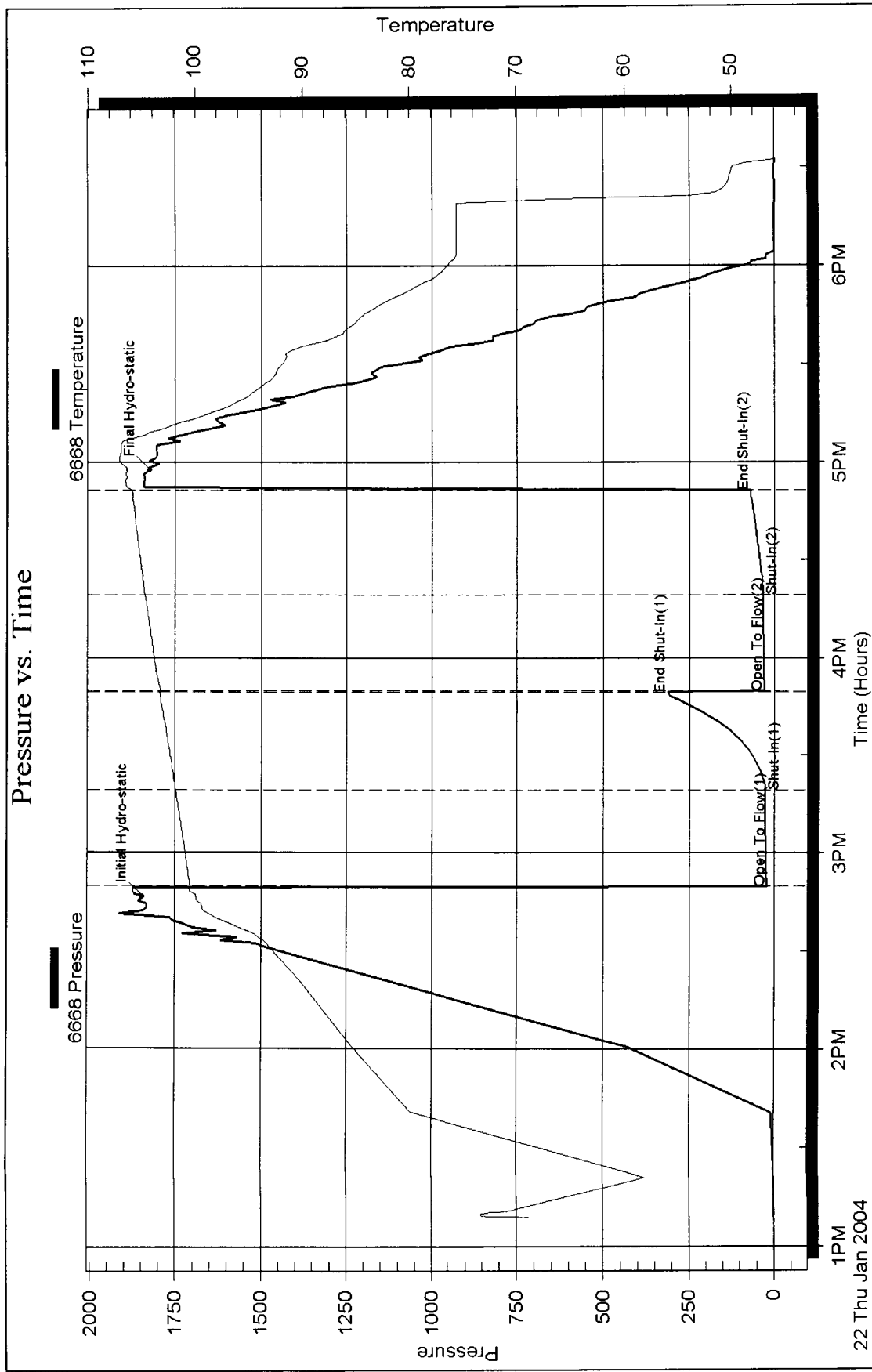
Serial #: 6668

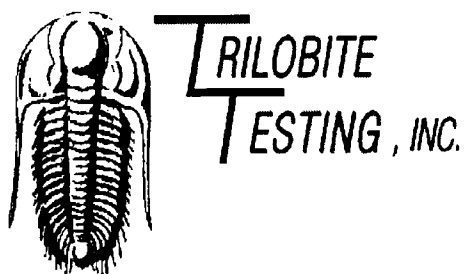
Inside

Downing-Nelson Oil Co Inc

27-13s-21w Trego Ks

DST Test Number: 2





DRILL STEM TEST REPORT

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

P O Box 372
Hays Ks 67601

ATTN: Ron Nelson

27-13s-21w Trego Ks

Bertha Riedel #1-27

Start Date: 2004.01.23 @ 09:25:42

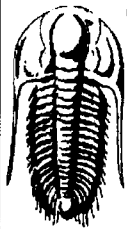
End Date: 2004.01.23 @ 14:55:41

Job Ticket #: 18394 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Downing-Nelson Oil Co Inc

P O Box 372
Hays Ks 67601

ATTN: Ron Nelson

Bertha Riedel #1-27

27-13s-21w Trego Ks

Job Ticket: 18394

DST#: 3

Test Start: 2004.01.23 @ 09:25:42

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 11:21:41

Time Test Ended: 14:55:41

Test Type: **Conventional Bottom Hole**

Tester: **Ray Schwager**

Unit No: **28**

Interval: **4041.00 ft (KB) To 4100.00 ft (KB) (TVD)**

Reference Elevations: **2383.00 ft (KB)**

Total Depth: **4100.00 ft (KB) (TVD)**

2375.00 ft (CF)

Hole Diameter: **7.85 inches** Hole Condition: **Fair**

KB to GR/CF: **8.00 ft**

Serial #: 6668

Inside

Press@RunDepth: **34.04 psig @ 4045.01 ft (KB)**

Capacity: **7000.00 psig**

Start Date: **2004.01.23**

End Date:

2004.01.23

Last Calib.: **2004.01.23**

Start Time: **09:25:42**

End Time:

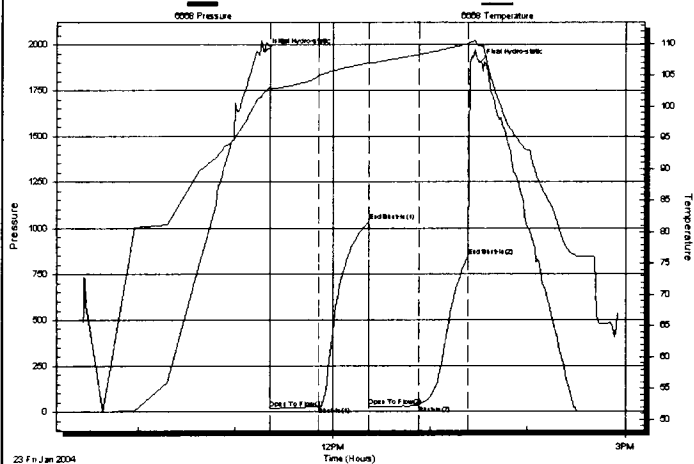
14:55:41

Time On Btm: **2004.01.23 @ 11:18:11**

Time Off Btm: **2004.01.23 @ 13:30:11**

TEST COMMENT: IFP-w k bl thru-out 1/4"bl
FFP-w k surface bl thru-out
Times 30-30-30-30

Pressure vs. Time



PRESSURE SUMMARY

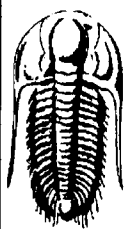
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1961.43	102.19	Initial Hydro-static
4	15.31	102.22	Open To Flow (1)
33	26.60	104.83	Shut-In (1)
64	1036.19	106.96	End Shut-In (1)
64	27.92	106.86	Open To Flow (2)
95	34.04	108.31	Shut-In (2)
125	845.74	110.02	End Shut-In (2)
132	1904.59	109.71	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
35.00	OCM 10%oil 90% mud	0.22

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co Inc

Bertha Riedel #1-27

P O Box 372
Hays Ks 67601

27-13s-21w Trego Ks

Job Ticket: 18394

DST#: 3

ATTN: Ron Nelson

Test Start: 2004.01.23 @ 09:25:42

Tool Information

Drill Pipe:	Length:	4003.00 ft	Diameter:	3.80 inches	Volume:	56.15 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:	75000.00 lb
					Total Volume:	56.30 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		13.00 ft					String Weight: Initial	45000.00 lb
Depth to Top Packer:		4041.00 ft					Final	45000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		59.02 ft						
Tool Length:		80.02 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			4021.00	
Shut In Tool	5.00			4026.00	
Hydraulic tool	5.00			4031.00	
Packer	5.00			4036.00	21.00 Bottom Of Top Packer
Packer	5.00			4041.00	
Stubb	1.00			4042.00	
Perforations	3.00			4045.00	
Recorder	0.01	6668	Inside	4045.01	
Change Over Sub	1.00			4046.01	
Blank Spacing	30.00			4076.01	
Change Over Sub	1.00			4077.01	
Recorder	0.01	11085	Outside	4077.02	
Perforations	20.00			4097.02	
Bullnose	3.00			4100.02	59.02 Bottom Packers & Anchor

Total Tool Length: 80.02



TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co Inc

Bertha Riedel #1-27

P O Box 372
Hays Ks 67601

27-13s-21w Trego Ks

Job Ticket: 18394

DST#: 3

ATTN: Ron Nelson

Test Start: 2004.01.23 @ 09:25:42

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:

ppm

Viscosity: 42.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.15 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
35.00	OCM 10%oil 90%mud	0.218

Total Length: 35.00 ft Total Volume: 0.218 bbl

Num Fluid Samples: 0

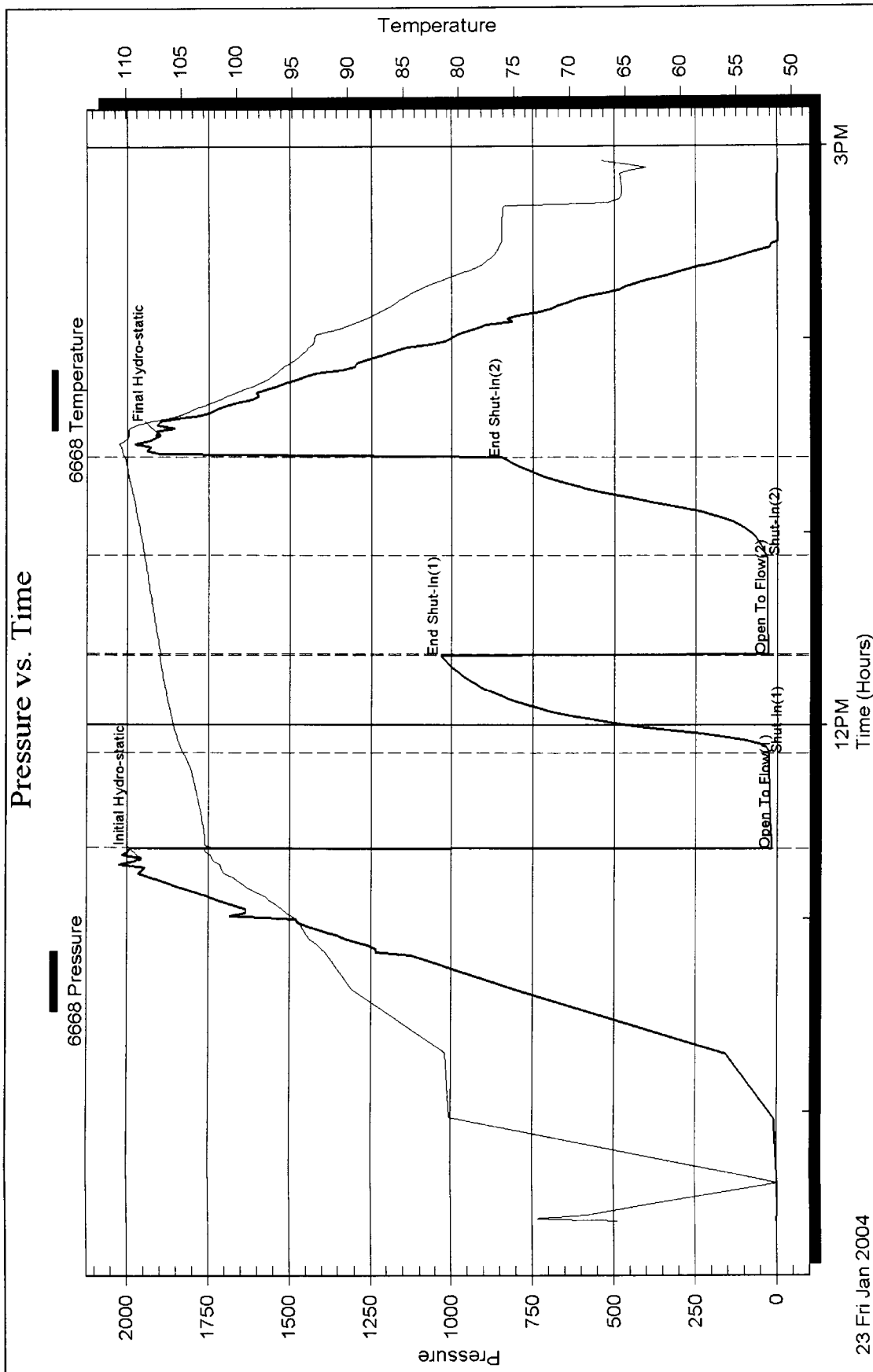
Num Gas Bombs: 0

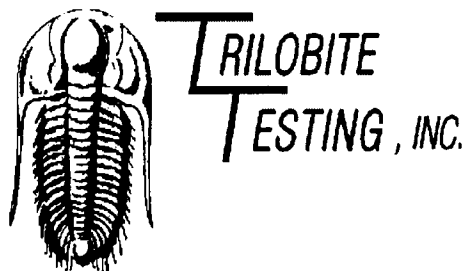
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





DRILL STEM TEST REPORT

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

P O Box 372
Hays Ks 67601

ATTN: Ron Nelson

27-13s-21w Trego Ks

Bertha Riedel #1-27

Start Date: 2004.01.23 @ 23:09:33

End Date: 2004.01.24 @ 04:32:32

Job Ticket #: 18395 DST #: 4

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co Inc

P O Box 372
Hays Ks 67601

ATTN: Ron Nelson

Bertha Riedel #1-27

27-13s-21w Trego Ks

Job Ticket: 18395

DST#: 4

Test Start: 2004.01.23 @ 23:09:33

GENERAL INFORMATION:

Formation: **congl**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 00:54:32

Time Test Ended: 04:32:32

Test Type: **Conventional Bottom Hole**

Tester: **Ray Schwager**

Unit No: **28**

Interval: 4087.00 ft (KB) To 4140.00 ft (KB) (TVD)

Total Depth: **4140.00 ft (KB) (TVD)**

Hole Diameter: **7.85 inches** Hole Condition: **Fair**

Reference Elevations: **2383.00 ft (KB)**

2375.00 ft (CF)

KB to GR/CF: **8.00 ft**

Serial #: 6668

Inside

Press@RunDepth: **19.55 psig @ 4089.01 ft (KB)**

Start Date: **2004.01.23**

End Date:

2004.01.24

Start Time: **23:09:33**

End Time:

04:32:32

Capacity: **7000.00 psig**

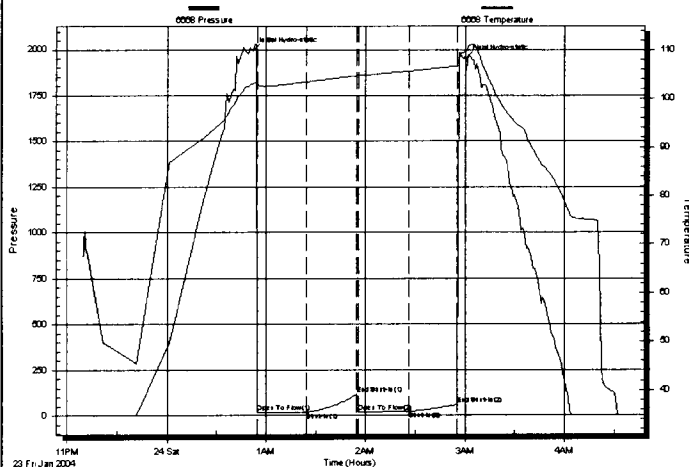
Last Calib.: **2004.01.24**

Time On Btm: **2004.01.24 @ 00:52:02**

Time Off Btm: **2004.01.24 @ 03:00:02**

TEST COMMENT: IFP-wk bl thru-out 1/4"bl
FFP-no bl
Times 30-30-30-30

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1993.69	103.08	Initial Hydro-static
3	14.48	102.88	Open To Flow (1)
33	17.28	103.43	Shut-In (1)
63	115.57	104.71	End Shut-In (1)
64	17.49	104.68	Open To Flow (2)
94	19.55	105.61	Shut-In (2)
123	58.96	106.64	End Shut-In (2)
128	1951.69	109.55	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	SOCM 2%oil 98%mud	0.02

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing-Nelson Oil Co Inc

Bertha Riedel #1-27

P O Box 372
Hays Ks 67601

27-13s-21w Trego Ks

Job Ticket: 18395

DST#: 4

ATTN: Ron Nelson

Test Start: 2004.01.23 @ 23:09:33

Tool Information

Drill Pipe:	Length: 4064.00 ft	Diameter: 3.80 inches	Volume: 57.01 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: 65000.00 lb
			Total Volume: 57.16 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	4087.00 ft			Final 45000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	53.02 ft			
Tool Length:	74.02 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			4067.00	
Shut In Tool	5.00			4072.00	
Hydraulic tool	5.00			4077.00	
Packer	5.00			4082.00	21.00 Bottom Of Top Packer
Packer	5.00			4087.00	
Stubb	1.00			4088.00	
Perforations	1.00			4089.00	
Recorder	0.01	6668	Inside	4089.01	
Change Over Sub	1.00			4090.01	
Blank Off Sub	30.00			4120.01	
Change Over Sub	1.00			4121.01	
Perforations	16.00			4137.01	
Recorder	0.01	11085	Outside	4137.02	
Bullnose	3.00			4140.02	53.02 Bottom Packers & Anchor

Total Tool Length: 74.02



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co Inc

Bertha Riedel #1-27

P O Box 372
Hays Ks 67601

27-13s-21w Trego Ks

Job Ticket: 18395

DST#: 4

ATTN: Ron Nelson

Test Start: 2004.01.23 @ 23:09:33

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: 46.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.15 in³

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 bbl
5.00	SOCM 2%oil 98%mud	0.025

Total Length: 5.00 ft

Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

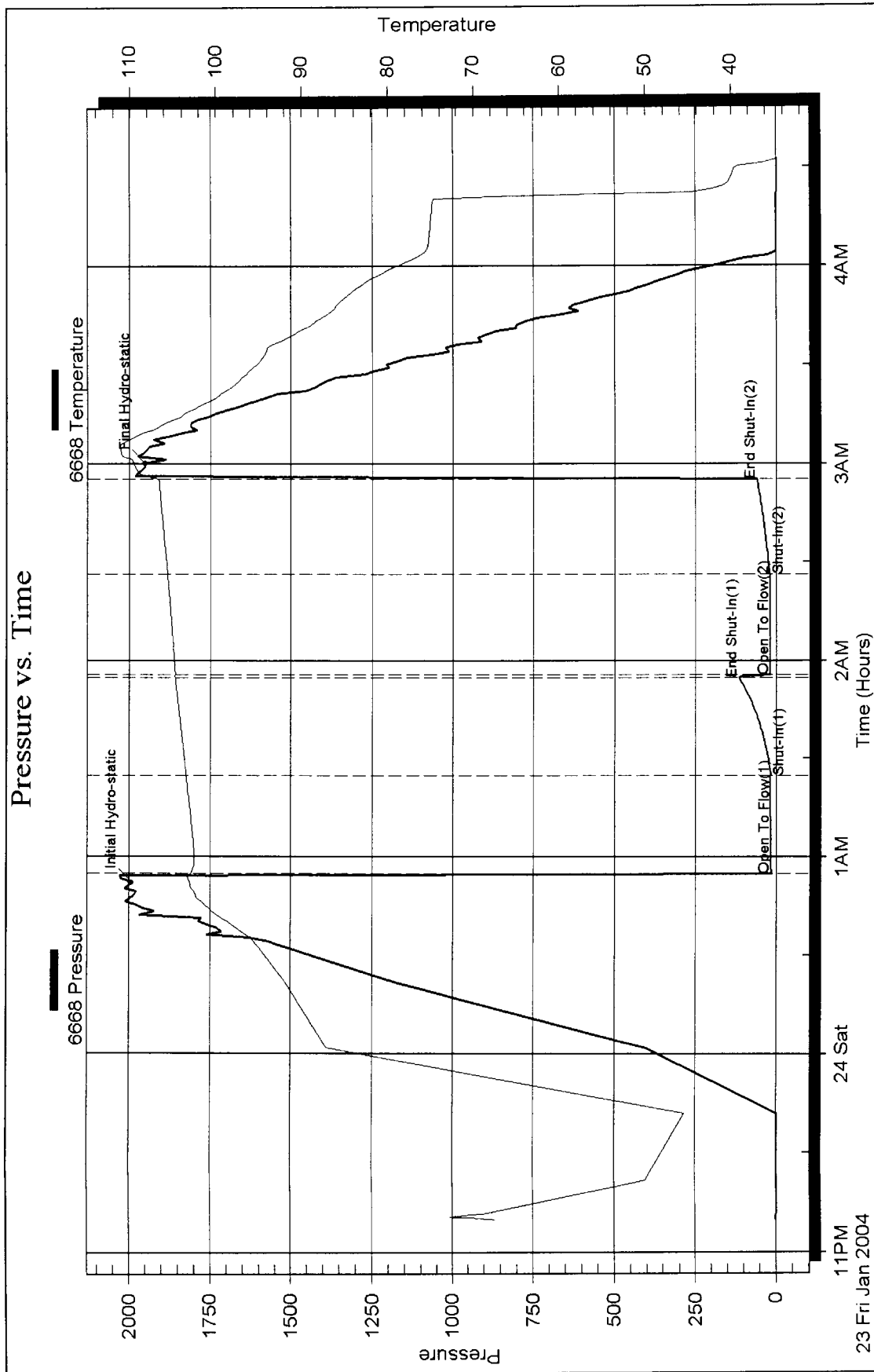
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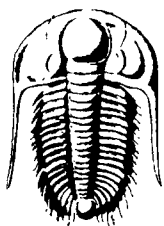
Inside

Downing-Nelson Oil Co Inc

27-13s-21w Trego Ks

DST Test Number: 4





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

INV
6/59

Nº 18392

05/03

Test Ticket

Well Name & No.	BERTHA Riedel #1-27		Test No.	1	Date	1-21-04
Company	Downing-Nelson OIL Co., Inc.		Zone Tested	LKC "E"		
Address	P.O. Box 372 Hays, Ks 67601		Elevation	2383	KB	2375 GL
Co. Rep / Geo.	Ron Nelson	Cont.	Discovery rig 2	Est. Ft. of Pay	-	Por. - %
Location: Sec.	27	Twp.	13	Rge.	21	Co. State Ks
No. of Copies	Reg	Disbtribution Sheet (Y, N)	Turnkey (Y, N)	Evaluation (Y, N)		

Interval Tested	3787 - 3802	Initial Str Wt./Lbs.	42000	Unseated Str Wt./Lbs.	43000
Anchor Length	15	Wt. Set Lbs.	25000	Wt. Pulled Loose/Lbs.	65000
Top Packer Depth	3782	Tool Weight	2200		
Bottom Packer Depth	3787	Hole Size 7 7/8"	-	Rubber Size 6 3/4"	-
Total Depth	3802	Wt. Pipe Run	-	Drill Collar Run	30
Mud Wt. 9	LCM -	Vis. 42	WL 7.2	Drill Pipe Size 4 1/2 x H	Ft. Run 3756
Blow Description	IFP - WEAK TO A Good Blow 1/2" To 8" Blow				
	FFP - WEAK TO A Fair Blow 1/4" To 3 1/2" Blow				
	ISIP - Surface Blow				
	FSIP - Surface Blow				

Recovery - Total Feet	160	GIP	270	Ft. in DC	30	Ft. in DP	130
Rec. 110	Feet of	SOC MW	%gas	1	%oil	92	%water 7 %mud
Rec. 50	Feet of	MW COIL	%gas	79	%oil	13	%water 8 %mud
Rec.	Feet of		%gas		%oil	%water	%mud
Rec.	Feet of		%gas		%oil	%water	%mud
Rec.	Feet of		%gas		%oil	%water	%mud
BHT 116	°F Gravity	-	°API D @	-	°F Corrected Gravity	-	°API
RW .52 @ 33	°F	Chlorides 32000	ppm Recovery		Chlorides 4000	ppm System	

(A) Initial Hydrostatic Mud	AK-1	Alpine	1774	PSI	Recorder No.	6668	Test	✓	700
(B) First Initial Flow Pressure			17	PSI	(depth)	3788	Elec. Rec.	✓	150
(C) First Final Flow Pressure			65	PSI	Recorder No.	11085	Jars		
(D) Initial Shut-In Pressure			653	PSI	(depth)	3799	Safety Jt.		
(E) Second Initial Flow Pressure			63	PSI	Recorder No.	-	Circ Sub		
(F) Second Final Flow Pressure			86	PSI	(depth)	-	Sampler		
(G) Final Shut-In Pressure			614	PSI	Initial Opening	45	Straddle		
(Q) Final Hydrostatic Mud			1752	PSI	Initial Shut-In	45	Ext. Packer		

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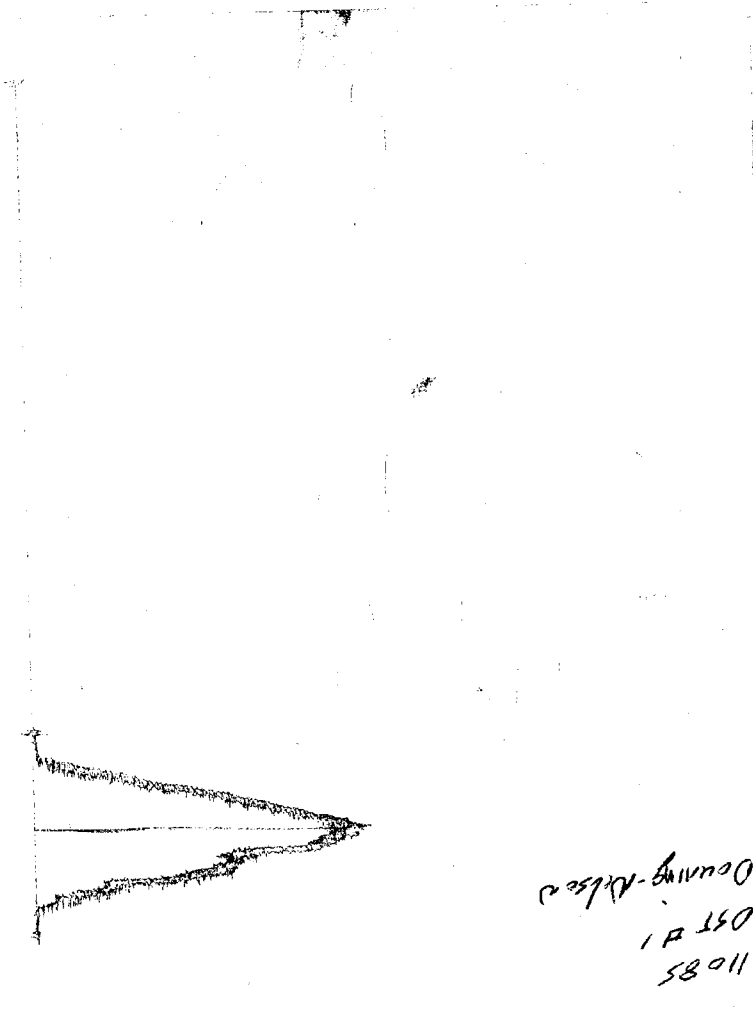
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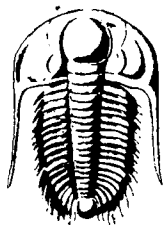
Our Representative Ray Schwager Thank You

Final Flow	45	Shale Packer	
Final Shut-In	45	Mileage	✓ 2754 45.90
T-On Location	1900	Sub Total:	895.90
T-Started	1957	Std. By	
T-Open	2150	Other	
T-Pulled	0050	Total:	
T-Out	0240		

CHART PAGE

This is a photocopy of the actual AK-1 recorder chart





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

Nº 18393

05/03

Test Ticket

Well Name & No.	Bertha Riedel #1-27	Test No.	2	Date	1-22-04
Company	Downing-Nelson Oil Co. Inc.	Zone Tested	LKC		
Address	P.O. Box 372 Hays, Ks 67601	Elevation	2383	KB	2375
Co. Rep / Geo.	Ron Nelson	Cont.	Discovery rig 2	Est. Ft. of Pay	-
Location: Sec.	27	Twp.	13'	Rge.	21"
		Co.	Trego	State	Ks
No. of Copies	Reg	Disbtribution Sheet (Y, N)		Turnkey (Y, N)	
		Evaluation (Y, N)			

Interval Tested	3848-3921	Initial Str Wt./Lbs.	43000	Unseated Str Wt./Lbs.	43000
Anchor Length	73	Wt. Set Lbs.	25000	Wt. Pulled Loose/Lbs.	80000
Top Packer Depth	3843	Tool Weight	2200		
Bottom Packer Depth	3848	Hole Size 7 7/8"	-	Rubber Size 6 3/4"	-
Total Depth	3921	Wt. Pipe Run	-	Drill Collar Run	30
Mud Wt.	9	LCM	-	Vis.	46
		WL	8	Drill Pipe Size	4 1/2 X 14
Blow Description	IFP- Weak Blow thru-out 1/2" decreased to 1/4" Blow FFP- NO BLOW NO BLOW on shut-in				

Recovery - Total Feet	5	GIP	-	Ft. in DC	5	Ft. in DP	-
Rec.	5	Feet of	Mud	%gas	%oil	%water	%mud
Rec.		Feet of	w/show of oil	%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
BHT		°F Gravity	-	°API D @	-	°F Corrected Gravity	-
RW	-	@	-	°F	Chlorides	-	ppm Recovery
					Chlorides	4500	ppm System

(A) Initial Hydrostatic Mud	AK-1	Alpine	1846	PSI	Recorder No.	6668	Test	✓
(B) First Initial Flow Pressure			21	PSI	(depth)	3857	Elec. Rec.	✓
(C) First Final Flow Pressure			26	PSI	Recorder No.	11085	Jars	
(D) Initial Shut-In Pressure			313	PSI	(depth)	3918	Safety Jt.	
(E) Second Initial Flow Pressure			28	PSI	Recorder No.	-	Circ Sub	
(F) Second Final Flow Pressure			32	PSI	(depth)	-	Sampler	
(G) Final Shut-In Pressure			70	PSI	Initial Opening	30	Straddle	
(Q) Final Hydrostatic Mud			1825	PSI	Initial Shut-In	30	Ext. Packer	

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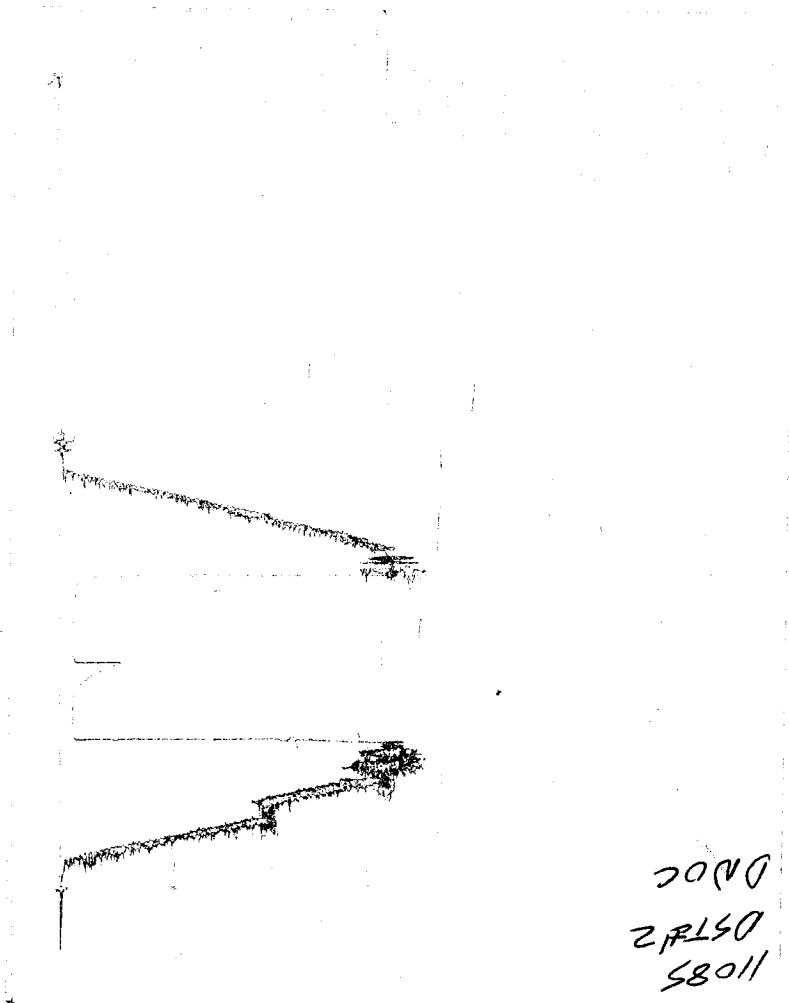
Our Representative Ray Schwager Thank you

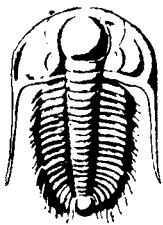
Final Flow	30	Final Packer	
Final Shut-In	30	Mileage	✓ 27
T-On Location	1245	Sub Total:	895.90
T-Started	1308	Std. By	
T-Open	1450	Other	
T-Pulled	1650	Total:	
T-Out	1835		

CHART PAGE

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11085
0512
0200





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

Nº 18394

05/03

Test Ticket

Well Name & No.	BERTHA Riedel #1-27	Test No.	3	Date	1-23-04
Company	Downing-Nelson Oil Co. Inc	Zone Tested	MARMATON		
Address	P.O. Box 372 Hays, KS 67601	Elevation	2383	KB	2375 GL
Co. Rep / Geo.	Ron Nelson	Cont.	Discovery 192	Est. Ft. of Pay	- Por. - %
Location: Sec.	27	Twp.	13 ^s	Rge.	21 ^w Co. Trego State KS
No. of Copies	Reg	Disbtribution Sheet (Y, N)		Turnkey (Y, N)	
		Evaluation (Y, N)			

Interval Tested	4041-4100	Initial Str Wt./Lbs.	45000	Unseated Str Wt./Lbs.	45000
Anchor Length	59	Wt. Set Lbs.	25000	Wt. Pulled Loose/Lbs.	75000
Top Packer Depth	4036	Tool Weight	2200		
Bottom Packer Depth	4041	Hole Size 7 7/8"	-	Rubber Size 6 3/4"	-
Total Depth	4100	Wt. Pipe Run	-	Drill Collar Run	30
Mud Wt.	9.4	LCM	1/4"	Vis.	46
		WL	7.2	Drill Pipe Size	4 1/2 XH
Blow Description	IFP - WEAK Blow thru-out 1/4" Blow				
	FFP - WEAK surface Blow thru-out				

Recovery - Total Feet	35	GIP	-	Ft. in DC	30	Ft. in DP	5
Rec.	35	Feet of	OCM	%gas	10	%oil	%water 90 %mud
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
BHT	110	°F Gravity	-	°API D @	-	°F Corrected Gravity	- °API
RW	-	@	- °F	Chlorides	- ppm	Recovery	- Chlorides 5000 ppm System

	AK-1	Alpine				
(A) Initial Hydrostatic Mud	1961	PSI	Recorder No.	6668	Test	✓
(B) First Initial Flow Pressure	15	PSI	(depth)	4045	Elec. Rec.	✓
(C) First Final Flow Pressure	26	PSI	Recorder No.	11085	Jars	
(D) Initial Shut-In Pressure	1036	PSI	(depth)	4077	Safety Jt.	
(E) Second Initial Flow Pressure	27	PSI	Recorder No.	-	Circ Sub	
(F) Second Final Flow Pressure	34	PSI	(depth)	-	Sampler	
(G) Final Shut-In Pressure	845	PSI	Initial Opening	30	Straddle	
(Q) Final Hydrostatic Mud	1904	PSI	Initial Shut-In	30	Ext. Packer	
			Final Flow	30	Shale Packer	
			Final Shut-In	30	Mileage	427
			T-On Location	0900	Sub Total:	995.90
			T-Started	0925	Std. By	
			T-Open	1120	Other	
			T-Pulled	1320	Total:	
			T-Out	1500		

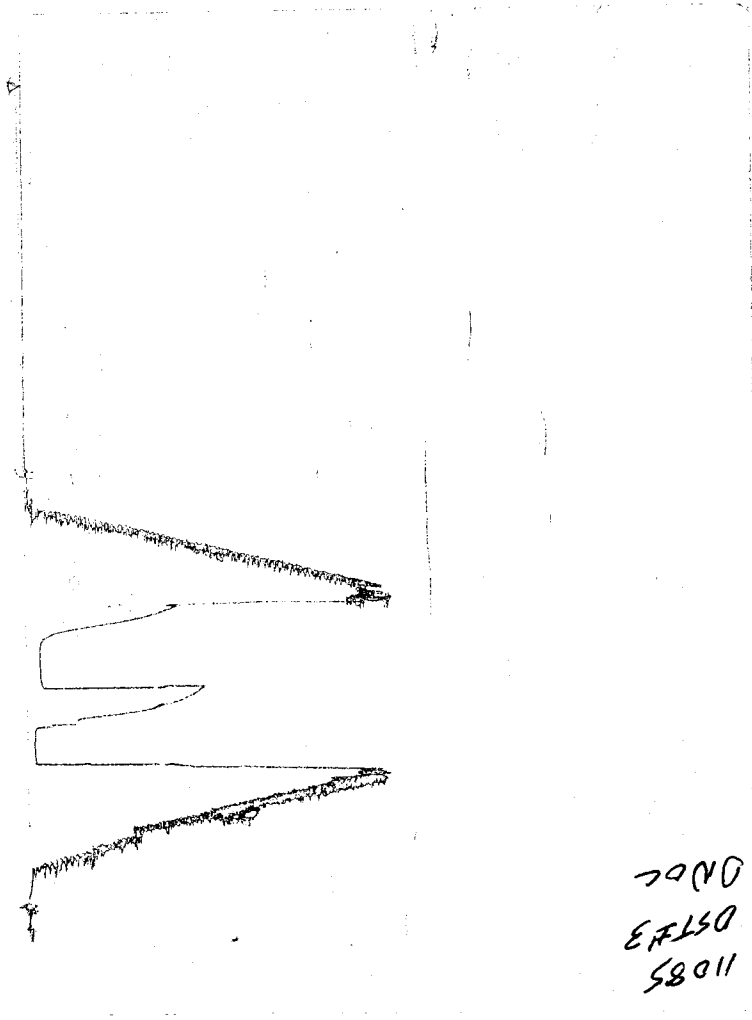
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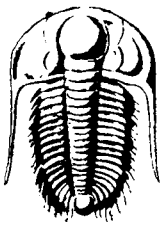
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Our Representative RAY SCHWAGER THANK YOU

CHART PAGE

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TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

Nº 18395

05/03

Test Ticket

Well Name & No.	BERTHA Riedel #1-27		Test No.	4	Date	1-23-04
Company	Downing-Nelson Oil Co. Inc		Zone Tested	Congl, Arb		
Address	P.O. Box 372 Hays, KS 67601		Elevation	2383	KB	2375 GL
Co. Rep / Geo.	Ron Nelson	Cont.	Discovery rig 2	Est. Ft. of Pay	— Por. — %	
Location: Sec.	27	Twp.	13 ^s	Rge.	21 ^w	Co. Trego State KS
No. of Copies	Reg	Disbtribution Sheet (Y, N)	Turnkey (Y, N)		Evaluation (Y, N)	

Interval Tested	4087-4140	Initial Str Wt./Lbs.	45000	Unseated Str Wt./Lbs.	45000
Anchor Length	53	Wt. Set Lbs.	25000	Wt. Pulled Loose/Lbs.	65000
Top Packer Depth	4082	Tool Weight	2200		
Bottom Packer Depth	4087	Hole Size 7 7/8"	—	Rubber Size 6 3/4"	—
Total Depth	4140	Wt. Pipe Run	—	Drill Collar Run	30
Mud Wt. 9.4 LCM 1/4" Vis. 46 WL 7.2		Drill Pipe Size	4 1/2 XH	Ft. Run	4064
Blow Description	IFP - WEAK Blow thru-out 1/4" Blow FFP - NO Blow				

Recovery - Total Feet	5	GIP	—	Ft. in DC	5	Ft. in DP	—
Rec.	5	Feet of	50 CM	%gas	2	%oil	%water 98 %mud
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
BHT	106	°F Gravity	—	°API D @	—	°F Corrected Gravity	— °API
RW	—	@	— °F	Chlorides	— ppm	Recovery	— Chlorides 5000 ppm System

	AK-1	Alpine				
(A) Initial Hydrostatic Mud	1993	PSI	Recorder No.	6668	Test	✓
(B) First Initial Flow Pressure	19	PSI	(depth)	4089	Elec. Rec.	✓
(C) First Final Flow Pressure	17	PSI	Recorder No.	11085	Jars	
(D) Initial Shut-In Pressure	115	PSI	(depth)	4137	Safety Jt.	
(E) Second Initial Flow Pressure	17	PSI	Recorder No.	—	Circ Sub	
(F) Second Final Flow Pressure	19	PSI	(depth)	—	Sampler	
(G) Final Shut-In Pressure	58	PSI	Initial Opening	30	Straddle	
(Q) Final Hydrostatic Mud	1951	PSI	Initial Shut-In	30	Ext. Packer	
			Final Flow	30	Shale Packer	
			Final Shut-In	30	Mileage	✓ 22
			T-On Location	2230	Sub Total:	995.90
			T-Started	2309	Std. By	
			T-Open	0055	Other	
			T-Pulled	0255	Total:	
			T-Out	0430		

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Approved By _____

Our Representative Ray Schwager Thank you

CHART PAGE

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