

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

P O Box 372
Hays Ks 67601

ATTN: Ron Nelson

23-13-21-Trego-Ks

Kuhn-Trust #1-23

Start Date: 2002.10.11 @ 13:03:05
End Date: 2002.10.11 @ 18:43:05
Job Ticket #: 16525 DST #: 1

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

DRILL STEM TEST REPORT

Downing-Nelson Oil Co Inc

P O Box 372
Hays Ks 67601

ATTN: Ron Nelson

Kuhn-Trust #1-23

23-13-21-Trego-Ks

Job Ticket: 16525 **DST#: 1**

Test Start: 2002.10.11 @ 13:03:05

GENERAL INFORMATION:

Formation: **LKC**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:02:35
Time Test Ended: 18:43:05

Test Type: Conventional Bottom Hole
Tester: Dan Bangle
Unit No: 21

Interval: 3537.00 ft (KB) To 3620.00 ft (KB) (TVD)
Total Depth: 3620.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

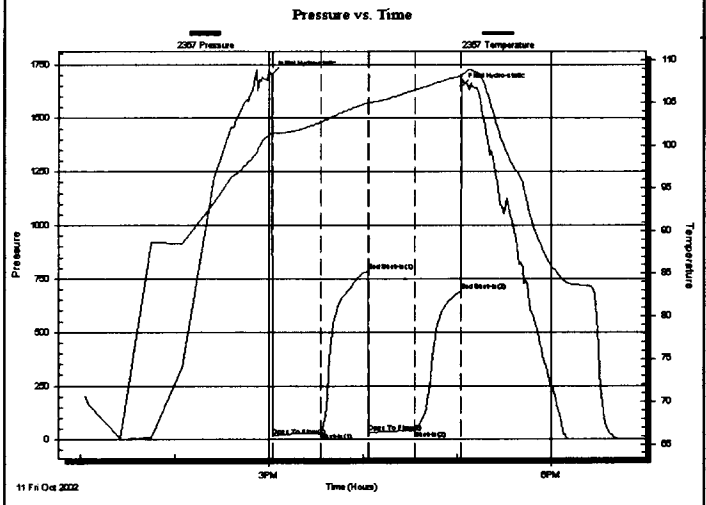
Reference Elevations: 2257.00 ft (KB)
2249.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 2357 **Inside**

Press@RunDepth: 42.78 psig @ 3540.00 ft (KB)
Start Date: 2002.10.11 End Date: 2002.10.11
Start Time: 13:03:06 End Time: 18:43:05

Capacity: 7000.00 psig
Last Calib.: 2002.10.11
Time On Btm: 2002.10.11 @ 15:02:05
Time Off Btm: 2002.10.11 @ 17:03:05

TEST COMMENT: IF--Weak building to 1/2"
FF-Weak-building to 1/2"
Times-30-30-30-30



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1703.25	101.47	Initial Hydro-static
1	17.12	101.48	Open To Flow (1)
31	32.82	102.74	Shut-In(1)
61	786.93	105.00	End Shut-In(1)
62	33.58	105.02	Open To Flow (2)
91	42.78	106.45	Shut-In(2)
121	690.10	108.08	End Shut-In(2)
121	1647.34	108.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	Sltly OCM 5%o 95%m	0.70

Gas Rates

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

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing-Nelson Oil Co Inc

P O Box 372
Hays Ks 67601

ATTN: Ron Nelson

Kuhn-Trust #1-23

23-13-21-Trego-Ks

Job Ticket: 16525 **DST#: 1**

Test Start: 2002.10.11 @ 13:03:05

Tool Information

Drill Pipe:	Length:	3537.00 ft	Diameter:	3.80 inches	Volume:	49.61 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
					Total Volume:	49.61 bbl	

Drill Pipe Above KB:	21.00 ft
Depth to Top Packer:	3537.00 ft
Depth to Bottom Packer:	ft
Interval between Packers:	83.00 ft
Tool Length:	104.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:	1000.00 lb
Weight set on Packer:	30000.00 lb
Weight to Pull Loose:	45000.00 lb
Tool Chased	0.00 ft
String Weight: Initial	41000.00 lb
Final	41000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
C.O. Sub	1.00			3517.00		
S.I. Tool	5.00			3522.00		
HMV	5.00			3527.00		
Packer	5.00			3532.00	21.00	Bottom Of Top Packer
Packer	5.00			3537.00		
Stubb	1.00			3538.00		
Perforations	1.00			3539.00		
C.O. Sub	1.00			3540.00		
Recorder	0.00	2357	Inside	3540.00		
Blank Spacing	61.00			3601.00		
C.O. Sub	1.00			3602.00		
Recorder	0.00	13254	Outside	3602.00		
Perforations	15.00			3617.00		
Bullnose	3.00			3620.00	83.00	Bottom Packers & Anchor
Total Tool Length:	**104.00**					

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil Co Inc

P O Box 372
Hays Ks 67601

ATTN: Ron Nelson

Kuhn-Trust #1-23

23-13-21-Trego-Ks

Job Ticket: 16525 **DST#: 1**

Test Start: 2002.10.11 @ 13:03:05

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:	47.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.39 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4000.00 ppm				
Filter Cake:	inches				

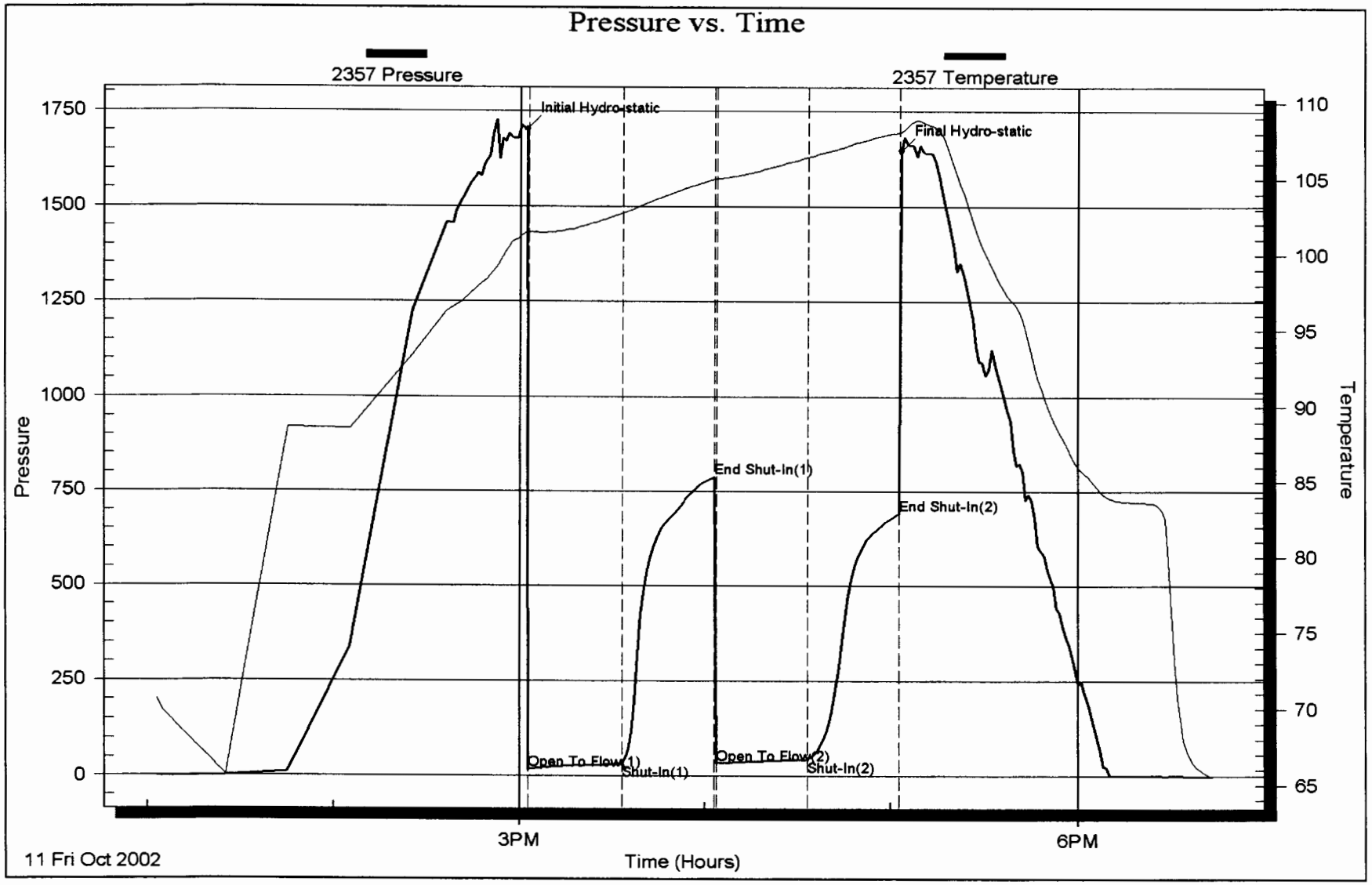
Recovery Information

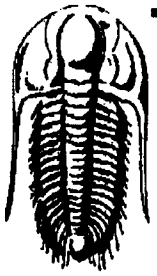
Recovery Table

Length ft	Description	Volume bbl
50.00	Sltly OCM 5%o 95%m	0.701

Total Length: 50.00 ft Total Volume: 0.701 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:


Pressure vs. Time
2357 Pressure
2357 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure
Temperature
1750
1500
1250
1000
750
500
250
0
110
105
100
95
90
85
80
75
70
65
3PM
6PM
11 Fri Oct 2002
Time (Hours)



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

P O Box 372
Hays Ks 67601

ATTN: Ron Nelson

23-13-21-Trego-Ks

Kuhn-Trust #1-23

Start Date: 2002.10.12 @ 01:41:23

End Date: 2002.10.12 @ 06:58:53

Job Ticket #: 16701 DST #: 2

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

DRILL STEM TEST REPORT

Downing-Nelson Oil Co Inc

P O Box 372
Hays Ks 67601

ATTN: Ron Nelson

Kuhn-Trust #1-23

23-13-21-Trego-Ks

Job Ticket: 16701 **DST#: 2**

Test Start: 2002.10.12 @ 01:41:23

GENERAL INFORMATION:

Formation: **LKC**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 03:24:23
Time Test Ended: 06:58:53

Test Type: Conventional Bottom Hole
Tester: Dan Bangle
Unit No: 21

Interval: 3609.00 ft (KB) To 3637.00 ft (KB) (TVD)
Total Depth: 3620.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

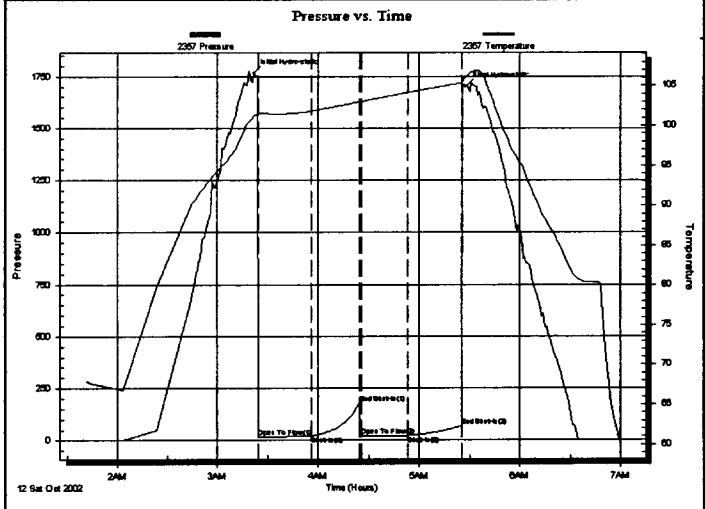
Reference Elevations: 2257.00 ft (KB)
2249.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 2357 **Inside**

Press@RunDepth: 21.97 psig @ 3610.00 ft (KB)
Start Date: 2002.10.12 End Date: 2002.10.12
Start Time: 01:41:24 End Time: 06:58:53

Capacity: 7000.00 psig
Last Calib.: 2002.10.12
Time On Btm: 2002.10.12 @ 03:21:53
Time Off Btm: 2002.10.12 @ 05:27:53

TEST COMMENT: IF-Weak building to 1/4"
FF-Very weak surface blow
Times-30-30-30-30



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1764.86	101.19	Initial Hydro-static
3	14.48	101.55	Open To Flow (1)
34	18.94	101.85	Shut-In(1)
63	178.92	102.98	End Shut-In(1)
64	20.57	103.02	Open To Flow (2)
91	21.97	104.14	Shut-In(2)
123	66.57	105.33	End Shut-In(2)
126	1701.89	106.18	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	Sltly OCM 5%o 95%m	0.28

Gas Rates

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

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing-Nelson Oil Co Inc

P O Box 372
Hays Ks 67601

ATTN: Ron Nelson

Kuhn-Trust #1-23

23-13-21-Trego-Ks

Job Ticket: 16701 **DST#: 2**

Test Start: 2002.10.12 @ 01:41:23

Tool Information

Drill Pipe:	Length:	3602.00 ft	Diameter:	3.80 inches	Volume:	50.53 bbl	Tool Weight:		1000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		30000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:		45000.00 lb
					Total Volume:	50.53 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		14.00 ft					String Weight:	Initial	41000.00 lb
Depth to Top Packer:		3609.00 ft						Final	41000.00 lb
Depth to Bottom Packer:		ft							
Interval between Packers:		28.00 ft							
Tool Length:		49.00 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
C.O. Sub	1.00			3589.00		
S.I. Tool	5.00			3594.00		
HMV	5.00			3599.00		
Packer	5.00			3604.00	21.00	Bottom Of Top Packer
Packer	5.00			3609.00		
Stubb	1.00			3610.00		
Recorder	0.00	2357	Inside	3610.00		
Perforations	24.00			3634.00		
Recorder	0.00	13254	Outside	3634.00		
Bullnose	3.00			3637.00	28.00	Bottom Packers & Anchor
Total Tool Length:	**49.00**					

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil Co Inc

P O Box 372
Hays Ks 67601

ATTN: Ron Nelson

Kuhn-Trust #1-23

23-13-21-Trego-Ks

Job Ticket: 16701 **DST#: 2**

Test Start: 2002.10.12 @ 01:41:23

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:	47.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.39 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4000.00 ppm				
Filter Cake:	inches				

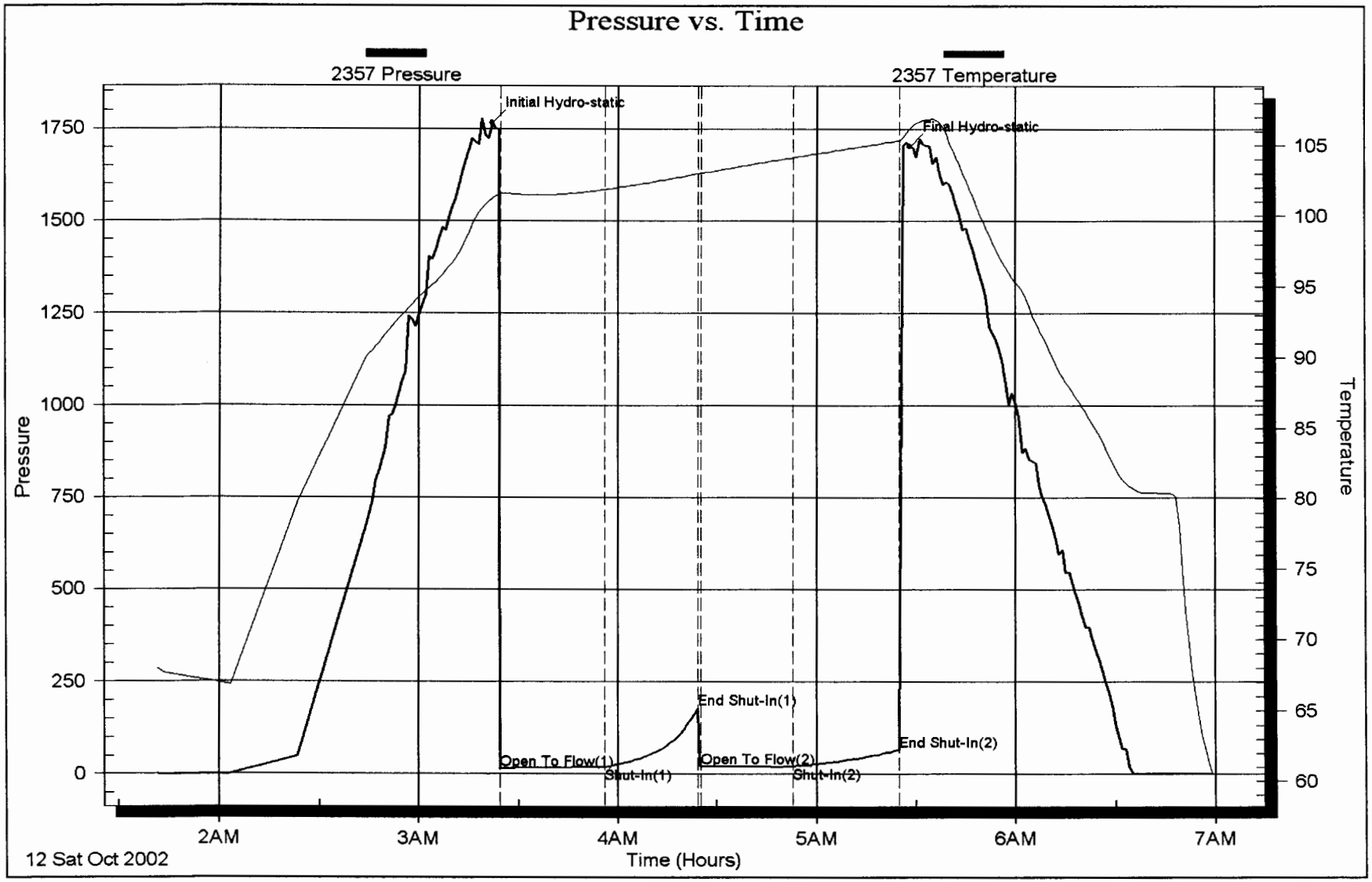
Recovery Information

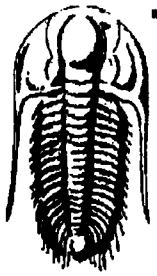
Recovery Table

Length ft	Description	Volume bbl
20.00	Sltly OCM 5%o 95%m	0.281

Total Length: 20.00 ft Total Volume: 0.281 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:


Pressure vs. Time
2357 Pressure
2357 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure
Temperature
Time (Hours)
12 Sat Oct 2002
1750
1500
1250
1000
750
500
250
0
105
100
95
90
85
80
75
70
65
60
2AM
3AM
4AM
5AM
6AM
7AM



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

P O Box 372
Hays Ks 67601

ATTN: Ron Nelson

23-13-21-Trego-Ks

Kuhn-Trust #1-23

Start Date: 2002.10.12 @ 16:34:47
End Date: 2002.10.12 @ 22:00:17
Job Ticket #: 16702 DST #: 3

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

DRILL STEM TEST REPORT

Downing-Nelson Oil Co Inc

P O Box 372
Hays Ks 67601

ATTN: Ron Nelson

Kuhn-Trust #1-23

23-13-21-Trego-Ks

Job Ticket: 16702 **DST#: 3**

Test Start: 2002.10.12 @ 16:34:47

GENERAL INFORMATION:

Formation: **H-I-J** **LKC**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:20:17
Time Test Ended: 22:00:17

Test Type: Conventional Bottom Hole
Tester: Dan Bangle
Unit No: 21

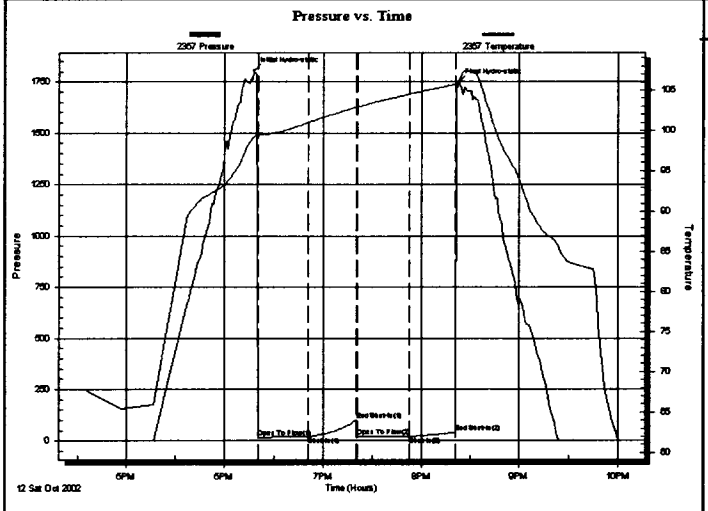
Interval: 3672.00 ft (KB) To 3753.00 ft (KB) (TVD)
Total Depth: 3753.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2257.00 ft (KB)
2249.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 2357 **Inside**
Press@RunDepth: 19.95 psig @ 3675.00 ft (KB)
Start Date: 2002.10.12 End Date: 2002.10.12
Start Time: 16:34:48 End Time: 22:00:17

Capacity: 7000.00 psig
Last Calib.: 2002.10.12
Time On Btm: 2002.10.12 @ 18:17:47
Time Off Btm: 2002.10.12 @ 20:22:17

TEST COMMENT: IF-Weak building to 1/2"
fFF-No blow
Times-30-30-30-30



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1804.07	99.16	Initial Hydro-static
3	15.96	99.54	Open To Flow (1)
33	18.76	100.96	Shut-In(1)
63	98.81	102.86	End Shut-In(1)
63	18.82	102.89	Open To Flow (2)
95	19.95	104.49	Shut-In(2)
123	40.47	105.72	End Shut-In(2)
125	1745.11	106.09	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	DM	0.07

Gas Rates

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

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing-Nelson Oil Co Inc

P O Box 372
Hays Ks 67601

ATTN: Ron Nelson

Kuhn-Trust #1-23

23-13-21-Trego-Ks

Job Ticket: 16702 **DST#: 3**

Test Start: 2002.10.12 @ 16:34:47

Tool Information

Drill Pipe:	Length:	3666.00 ft	Diameter:	3.80 inches	Volume:	51.42 bbl	Tool Weight:	1000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:	55000.00 lb
					Total Volume:	51.42 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		15.00 ft					String Weight: Initial	42000.00 lb
Depth to Top Packer:		3672.00 ft					Final	42000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		81.00 ft						
Tool Length:		102.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
C.O. Sub	1.00			3652.00		
S.I. Tool	5.00			3657.00		
HMV	5.00			3662.00		
Packer	5.00			3667.00	21.00	Bottom Of Top Packer
Packer	5.00			3672.00		
Stubb	1.00			3673.00		
Perforations	1.00			3674.00		
C.O. Sub	1.00			3675.00		
Recorder	0.00	2357	Inside	3675.00		
Blank Spacing	61.00			3736.00		
C.O. Sub	1.00			3737.00		
Recorder	0.00	13254	Outside	3737.00		
Perforations	13.00			3750.00		
Bullnose	3.00			3753.00	81.00	Bottom Packers & Anchor
Total Tool Length:	**102.00**					

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil Co Inc

P O Box 372
Hays Ks 67601

ATTN: Ron Nelson

Kuhn-Trust #1-23

23-13-21-Trego-Ks

Job Ticket: 16702 **DST#: 3**

Test Start: 2002.10.12 @ 16:34:47

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:	51.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.98 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	5000.00 ppm				
Filter Cake:	inches				

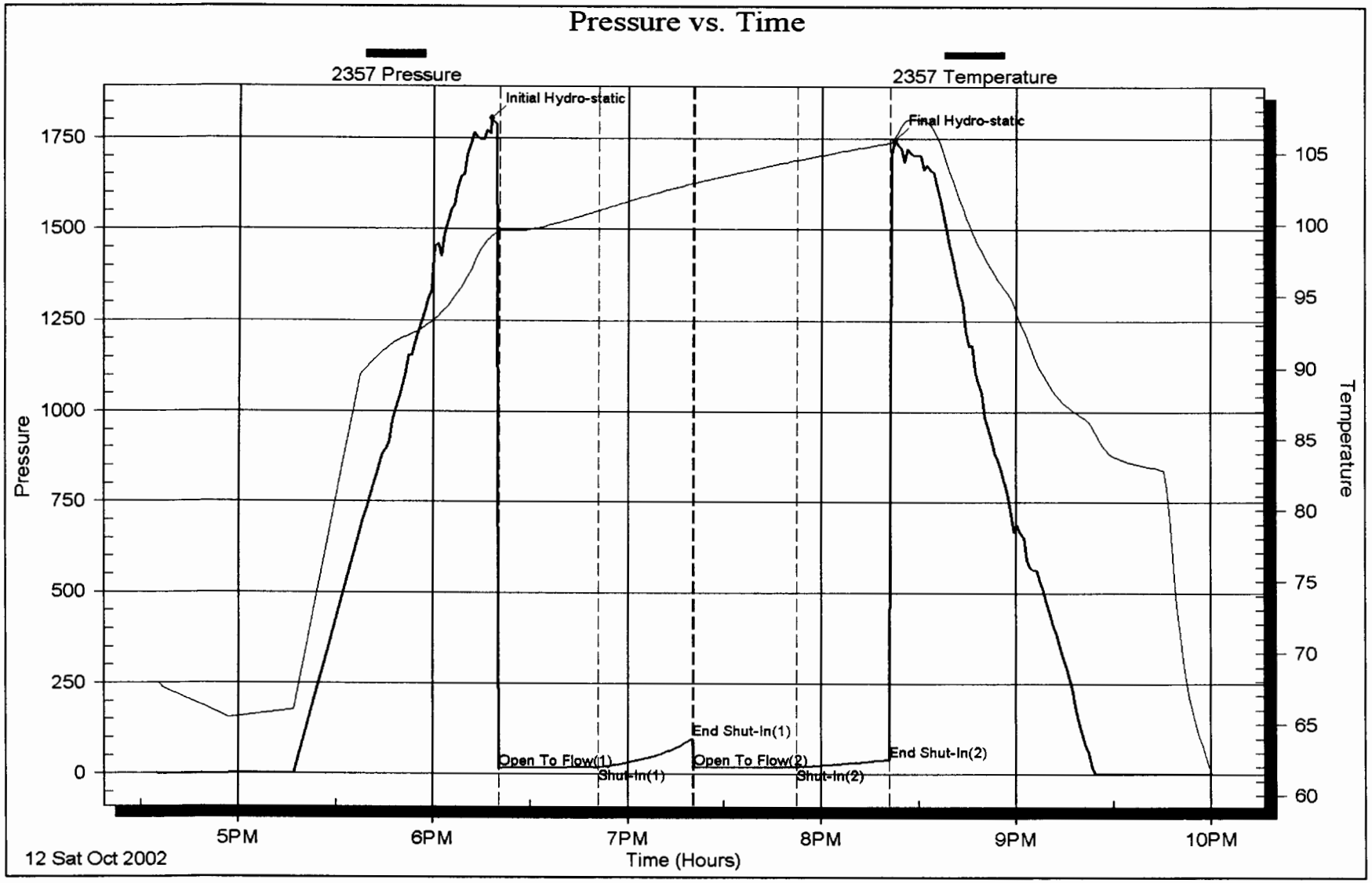
Recovery Information

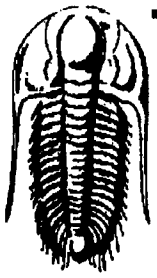
Recovery Table

Length ft	Description	Volume bbl
5.00	DM	0.070

Total Length: 5.00 ft Total Volume: 0.070 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:


Pressure vs. Time
2357 Pressure
2357 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
End Shut-In(2)
Pressure
Temperature
Time (Hours)
12 Sat Oct 2002
1750
1500
1250
1000
750
500
250
0
105
100
95
90
85
80
75
70
65
60
5PM
6PM
7PM
8PM
9PM
10PM



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

P O Box 372
Hays Ks 67601

ATTN: Ron Nelson

23-13-21-Trego-Ks

Kuhn-Trust #1-23

Start Date: 2002.10.13 @ 09:26:49

End Date: 2002.10.13 @ 16:48:19

Job Ticket #: 16703 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

DRILL STEM TEST REPORT

Downing-Nelson Oil Co Inc

PO Box 372
Hays Ks 67601

ATTN: Ron Nelson

Kuhn-Trust #1-23

23-13-21-Trego-Ks

Job Ticket: 16703 **DST#: 4**

Test Start: 2002.10.13 @ 09:26:49

GENERAL INFORMATION:

Formation: **Marmaton**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 11:03:49
Time Test Ended: 16:48:19

Test Type: Conventional Bottom Hole
Tester: Dan Bangle
Unit No: 21

Interval: 3868.00 ft (KB) To 3905.00 ft (KB) (TVD)
Total Depth: 3905.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

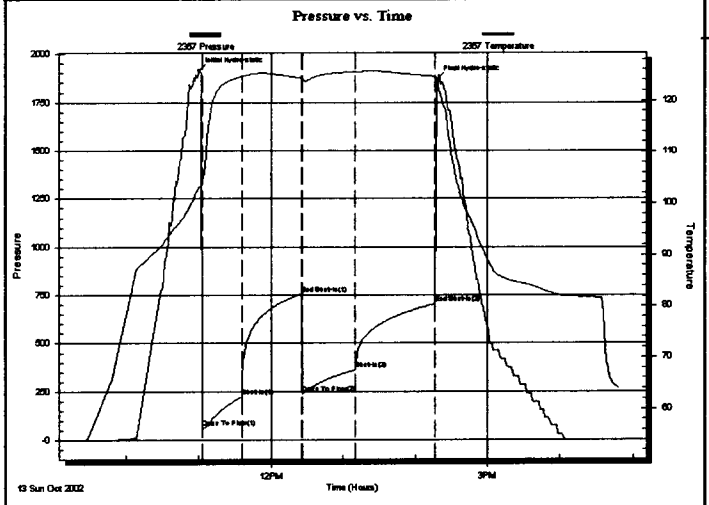
Reference Elevations: 2257.00 ft (KB)
2249.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 2357 **Inside**

Press@RunDepth: 361.61 psig @ 3869.00 ft (KB)
Start Date: 2002.10.13 End Date: 2002.10.13
Start Time: 09:26:50 End Time: 16:48:19

Capacity: 7000.00 psig
Last Calib.: 2002.10.13
Time On Btm: 2002.10.13 @ 11:00:19
Time Off Btm: 2002.10.13 @ 14:17:19

TEST COMMENT: IF-Strong BOB in 1 min
ISI-Weak building to 7"
FF-Strong BOB in 5 min
FSI-Weak steady surface blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1912.38	102.85	Initial Hydro-static
4	65.15	104.23	Open To Flow (1)
36	222.50	124.61	Shut-In(1)
85	756.07	124.29	End Shut-In(1)
86	237.22	124.21	Open To Flow (2)
130	361.61	125.49	Shut-In(2)
196	705.60	124.61	End Shut-In(2)
197	1867.52	124.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	HMCGsyO 20%g 60%o 20%m	0.87
789.00	CGsyO 20%g 80%o	11.07
759.00	GIP	10.65

Gas Rates

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

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing-Nelson Oil Co Inc

P O Box 372
Hays Ks 67601

ATTN: Ron Nelson

Kuhn-Trust #1-23

23-13-21-Trego-Ks

Job Ticket: 16703 **DST#: 4**

Test Start: 2002.10.13 @ 09:26:49

Tool Information

Drill Pipe:	Length:	3852.00 ft	Diameter:	3.80 inches	Volume:	54.03 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:	50000.00 lb
					Total Volume:	54.03 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		5.00 ft					String Weight: Initial	44000.00 lb
Depth to Top Packer:		3868.00 ft					Final	48000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		37.00 ft						
Tool Length:		58.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
C.O. Sub	1.00			3848.00		
S.I. Tool	5.00			3853.00		
HMV	5.00			3858.00		
Packer	5.00			3863.00	21.00	Bottom Of Top Packer
Packer	5.00			3868.00		
Stubb	1.00			3869.00		
Recorder	0.00	2357	Inside	3869.00		
Perforations	33.00			3902.00		
Recorder	0.00	13254	Outside	3902.00		
Bullnose	3.00			3905.00	37.00	Bottom Packers & Anchor
Total Tool Length:	**58.00**					

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Dow ning-Nelson Oil Co Inc

P O Box 372
Hays Ks 67601

ATTN: Ron Nelson

Kuhn-Trust #1-23

23-13-21-Trego-Ks

Job Ticket: 16703 **DST#: 4**

Test Start: 2002.10.13 @ 09:26:49

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	36 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	46.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.99 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4000.00 ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

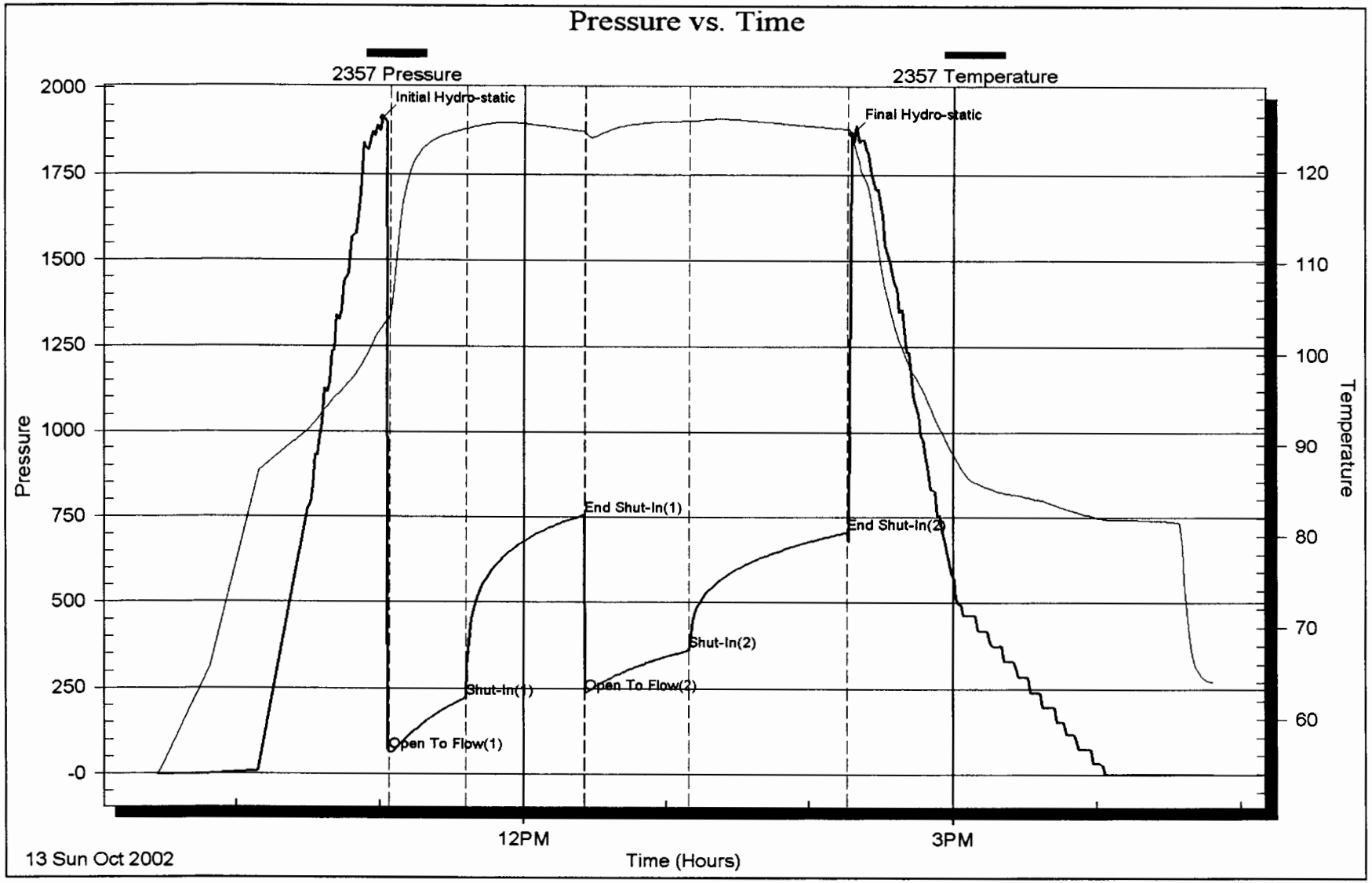
Length ft	Description	Volume bbl
62.00	HMCGsyO 20%g 60%o 20%m	0.870
789.00	CGsyO 20%g 80%o	11.068
759.00	GIP	10.647

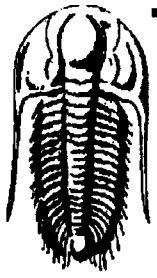
Total Length: 1610.00 ft Total Volume: 22.585 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
2357 Pressure
2357 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(1)
Shut-In(2)
Open To Flow(1)
Open To Flow(2)
2000
1750
1500
1250
1000
750
500
250
-0
Pressure
120
110
100
90
80
70
60
Temperature
12PM
3PM
Time (Hours)
13 Sun Oct 2002



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

P O Box 372
Hays Ks 67601

ATTN: Ron Nelson

23-13-21-Trego-Ks

Kuhn-Trust #1-23

Start Date: 2002.10.14 @ 03:56:51

End Date: 2002.10.14 @ 11:28:20

Job Ticket #: 16704 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

DRILL STEM TEST REPORT

Downing-Nelson Oil Co Inc

P O Box 372
Hays Ks 67601

ATTN: Ron Nelson

Kuhn-Trust #1-23

23-13-21-Trego-Ks

Job Ticket: 16704 **DST#: 5**

Test Start: 2002.10.14 @ 03:56:51

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:11:50
Time Test Ended: 11:28:20

Test Type: Conventional Bottom Hole
Tester: Dan Bangle
Unit No: 21

Interval: 3897.00 ft (KB) To 3950.00 ft (KB) (TVD)
Total Depth: 3950.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

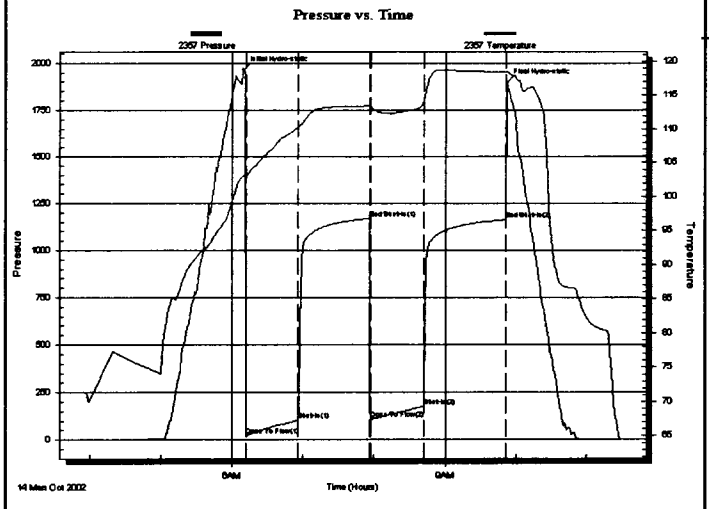
Reference Elevations: 2257.00 ft (KB)
2249.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 2357 **Inside**

Press@RunDepth: 176.22 psig @ 3900.00 ft (KB)
Start Date: 2002.10.14 End Date: 2002.10.14
Start Time: 03:56:51 End Time: 11:28:20

Capacity: 7000.00 psig
Last Calib.: 2002.10.14
Time On Btm: 2002.10.14 @ 06:09:50
Time Off Btm: 2002.10.14 @ 09:52:20

TEST COMMENT: IF-Strong BOB in 15 min
ISI-Weak 1/2" blow -Dead in 10 min
FF-Strong BOB in 15 min
FSI-Weak steady surface blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1964.15	103.05	Initial Hydro-static
2	20.21	103.12	Open To Flow (1)
47	102.50	110.39	Shut-In(1)
107	1169.29	113.46	End Shut-In(1)
108	108.67	113.38	Open To Flow (2)
152	176.22	114.15	Shut-In(2)
222	1162.12	118.41	End Shut-In(2)
223	1896.08	118.45	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	MCGsyO 15%g 55%o 30%m	1.74
124.00	MCGsyO 20%g 60%o 20%m	1.74
180.00	CGsyO 20%g 80%o	2.52
315.00	GIP	4.42

Gas Rates

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

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Downing-Nelson Oil Co Inc

P O Box 372
Hays Ks 67601

ATTN: Ron Nelson

Kuhn-Trust #1-23

23-13-21-Trego-Ks

Job Ticket: 16704 **DST#: 5**

Test Start: 2002.10.14 @ 03:56:51

Tool Information

Drill Pipe:	Length:	3882.00 ft	Diameter:	3.80 inches	Volume:	54.45 bbl	Tool Weight:		1100.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		30000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:		60000.00 lb
					Total Volume:	54.45 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		6.00 ft					String Weight:	Initial	44000.00 lb
Depth to Top Packer:		3897.00 ft						Final	48000.00 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	
C.O. Sub	1.00			3877.00		
S.I. Tool	5.00			3882.00		
HMV	5.00			3887.00		
Packer	5.00			3892.00	21.00	Bottom Of Top Packer
Packer	5.00			3897.00		
Stubb	1.00			3898.00		
Perforations	1.00			3899.00		
C.O. Sub	1.00			3900.00		
Recorder	0.00	2357	Inside	3900.00		
Blank Spacing	31.00			3931.00		
C.O. Sub	1.00			3932.00		
Recorder	0.00	13254	Outside	3932.00		
Perforations	15.00			3947.00		
Bullnose	3.00			3950.00	53.00	Bottom Packers & Anchor
Total Tool Length:	**74.00**					

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil Co Inc

P O Box 372
Hays Ks 67601

ATTN: Ron Nelson

Kuhn-Trust #1-23

23-13-21-Trego-Ks

Job Ticket: 16704 **DST#: 5**

Test Start: 2002.10.14 @ 03:56:51

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	40 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	46.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.99 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4000.00 ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

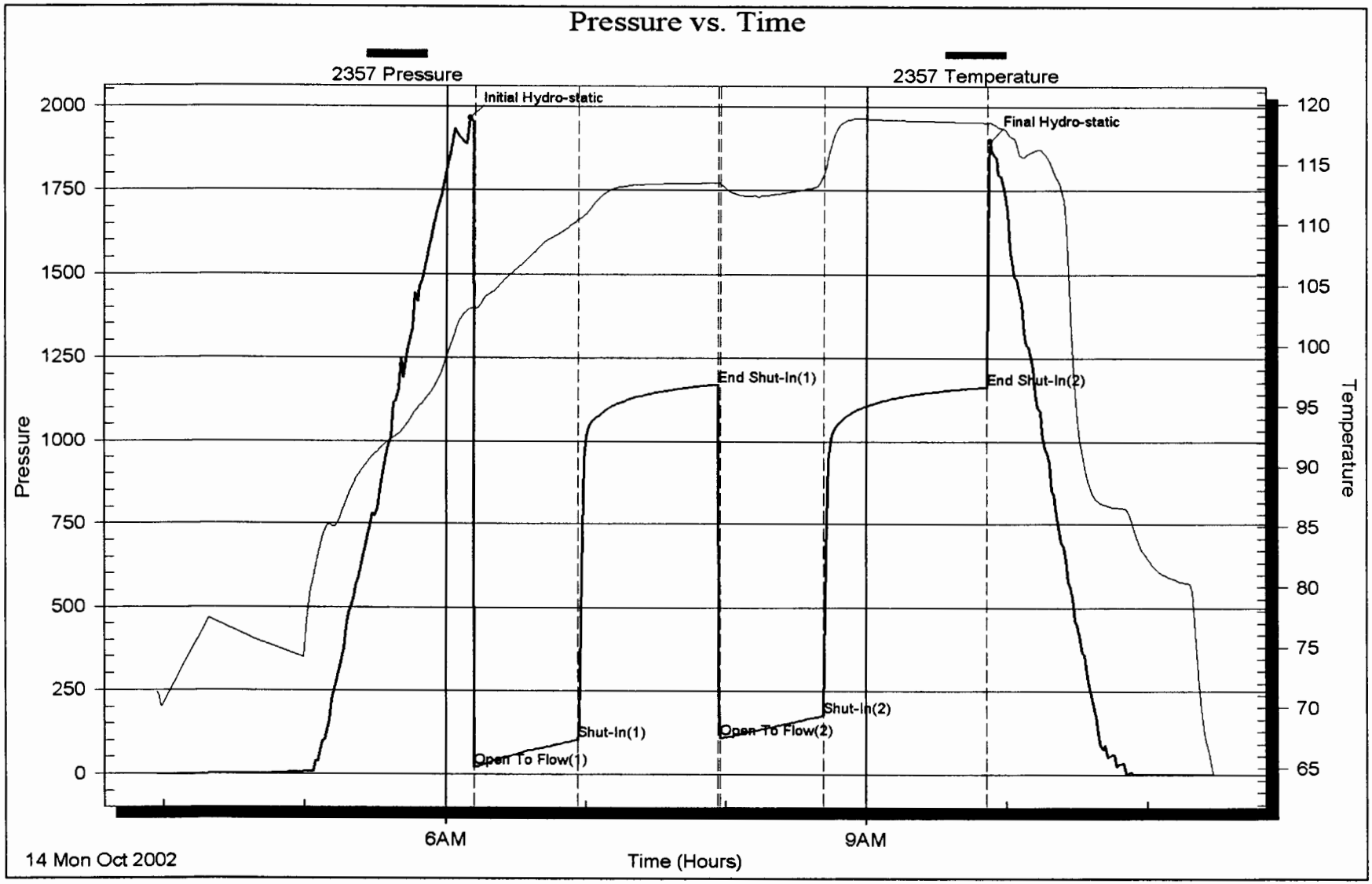
Length ft	Description	Volume bbl
124.00	MCGsyO 15%g 55%o 30%m	1.739
124.00	MCGsyO 20%g 60%o 20%m	1.739
180.00	CGsyO 20%g 80%o	2.525
315.00	GIP	4.419

Total Length: 743.00 ft Total Volume: 10.422 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
2357 Pressure
2357 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(1)
Shut-In(2)
Open To Flow(1)
Open To Flow(2)
Pressure
Temperature
2000
1750
1500
1250
1000
750
500
250
0
120
115
110
105
100
95
90
85
80
75
70
65
6AM
9AM
14 Mon Oct 2002
Time (Hours)

TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

Invoice #3188 $4380 DV

No. 16525

Test Ticket

Well Name & No. Kuhn-Trust #1-23 Test No. 1 Date 10-16-02

Company Downing-Nelson Oil Co. Inc Zone Tested LKC

Address P.O. Box 372, Hays, Ks 67601 Elevation 2257 KB 2269 GL

Co. Rep / Geo. Ron Nelson Cont. Discovery #1 Est. Ft. of Pay ___ Por. ___ %

Location: Sec. 23 Twp. 13 Rge. 21 Co. Trego State Ks

No. of Copies ___ Distribution Sheet (Y, N) ___ Turnkey (Y, N) ___ Evaluation (Y, N) ___

Interval Tested 3537-3620 Initial Str Wt./Lbs. 41,000 Unseated Str Wt./Lbs. 41,000

Anchor Length 83 Wt. Set Lbs. 30,000 Wt. Pulled Loose/Lbs. 45,000

Top Packer Depth 3532 Tool Weight 1000

Bottom Packer Depth 3537 Hole Size — 7 7/8" ___ Rubber Size — 6 3/4" ___

Total Depth 3620 Wt. Pipe Run ___ Drill Collar Run ___

Mud Wt. 9.1 LCM ___ Vis. 47 WL 6.4 Drill Pipe Size 4.5XH Ft. Run 3537

Blow Description F.F. Weak- building to ½"

F.F. Weak- building to ½"

Recovery — Total Feet 50 GIP ___ Ft. in DC ___ Ft. in DP 50

Rec. 50	Feet Of 5ITY OCM	%gas 5	%oil	%water 95	%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 108 °F Gravity ___ °API D@ ___ °F Corrected Gravity ___ °API

RW ___ @ ___ °F Chlorides ___ ppm Recovery Chlorides 4,000 ppm System

	AK-1	Alpine					
(A) Initial Hydrostatic Mud	___	1703	PSI	Recorder No.	2357	T-On Location	12:00
(B) First Initial Flow Pressure	___	17	PSI	(depth)	3540	T-Started	13:03
(C) First Final Flow Pressure	___	32	PSI	Recorder No.	13254	T-Open	15:03
(D) Initial Shut-In Pressure	___	786	PSI	(depth)	3602	T-Pulled	17:03
(E) Second Initial Flow Pressure	___	33	PSI	Recorder No.	___	T-Out	18:43
(F) Second Final Flow Pressure	___	42	PSI	(depth)	___	T-Off Location	19:00
(G) Final Shut-in Pressure	___	690	PSI	Initial Opening	30	Test	700
(Q) Final Hydrostatic Mud	___	1647	PSI	Initial Shut-in	30	Jars	___
				Final Flow	30	Safety Joint	___
				Final Shut-in	30	Straddle	___
				___		Circ. Sub	___
				___		Sampler	___
						Extra Packer	___
						Elec. Rec. X	150
						Mileage 20	20
						Other	___
						TOTAL PRICE $	810

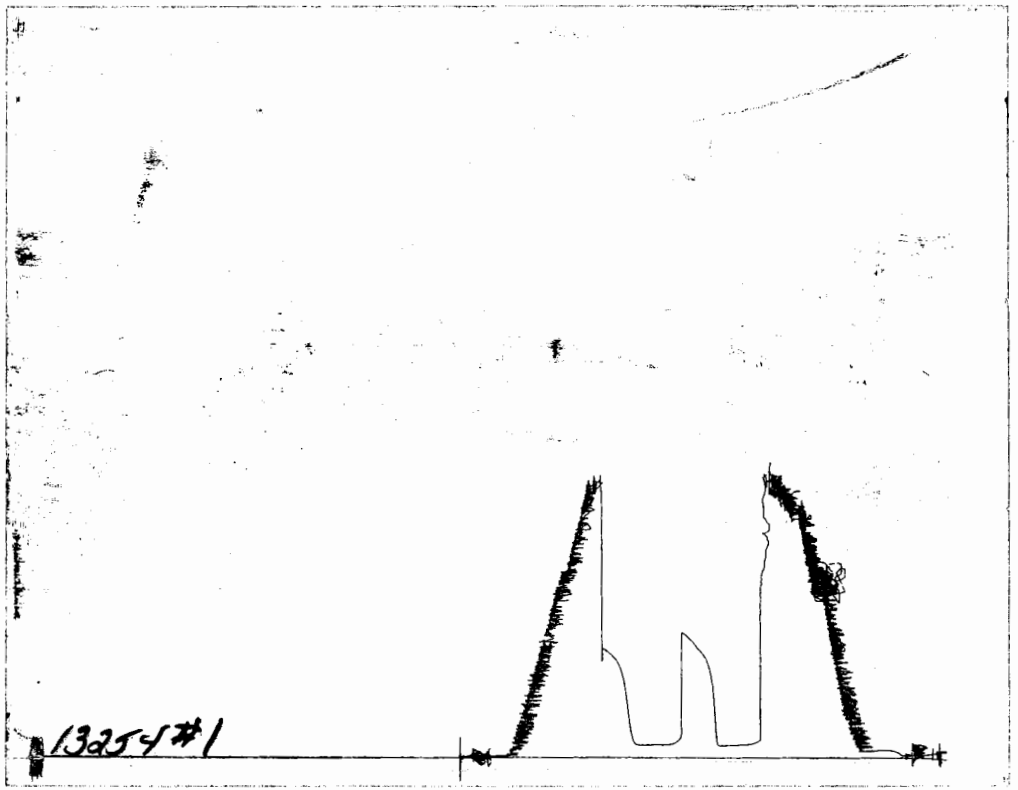
TRILOBITE TESTING INC. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Approved By ___

Our Representative Dan Rample

CHART PAGE

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



TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

№ 16701

Test Ticket

Well Name & No. Kuhn-Trust #1-23 Test No. 2 Date 10-12-02

Company Downing-Nelson Oil Co. Inc. Zone Tested LKC

Address _____ Elevation 2257 KB 2269 GL

Co. Rep / Geo. Ron Nelson Cont. Discovery #1 Est. Ft. of Pay ____ Por. ____ %

Location: Sec. 23 Twp. 13 Rge. 21 Co. Trego State KS

No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 3609 — 3637 Initial Str Wt./Lbs. 41,000 Unseated Str Wt./Lbs. 41,000

Anchor Length 28 Wt. Set Lbs. 30,000 Wt. Pulled Loose/Lbs. 45,000

Top Packer Depth 3604 Tool Weight 1000

Bottom Packer Depth 3609 Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____

Total Depth 3637 Wt. Pipe Run _____ Drill Collar Run _____

Mud Wt. 9.1 LCM _____ Vis. 47 WL 6.4 Drill Pipe Size 4.5 XH Ft. Run 3602

Blow Description I.F. Weak building to ¼"

F.F. Very weak surface blow

Recovery — Total Feet 20 GIP _____ Ft. in DC _____ Ft. in DP _____

Rec. 20	Feet Of	Slhy OCM	%gas 5	%oil	%water 95	%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 105 °F Gravity _____ °API D@ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 4,000 ppm System

	AK-1	Alpine				
(A) Initial Hydrostatic Mud		1764	PSI	Recorder No. 2357	T-On Location 01:00	
(B) First Initial Flow Pressure		14	PSI	(depth) 3610	T-Started 01:41	
(C) First Final Flow Pressure		18	PSI	Recorder No. 13254	T-Open 03:25	
(D) Initial Shut-In Pressure		178	PSI	(depth) 3634	T-Pulled 05:25	
(E) Second Initial Flow Pressure		20	PSI	Recorder No. _____	T-Out 06:58	
(F) Second Final Flow Pressure		21	PSI	(depth) _____	T-Off Location 06:15	
(G) Final Shut-in Pressure		66	PSI	Initial Opening 30	Test	700
(Q) Final Hydrostatic Mud		1701	PSI	Initial Shut-in 30	Jars	
				Final Flow 30	Safety Joint	
				Final Shut-in 30	Straddle	
				_____	Circ. Sub	
				_____	Sampler	
					Extra Packer	
					Elec. Rec. X	150
					Mileage 20	20
					Other	
					TOTAL PRICE $	870

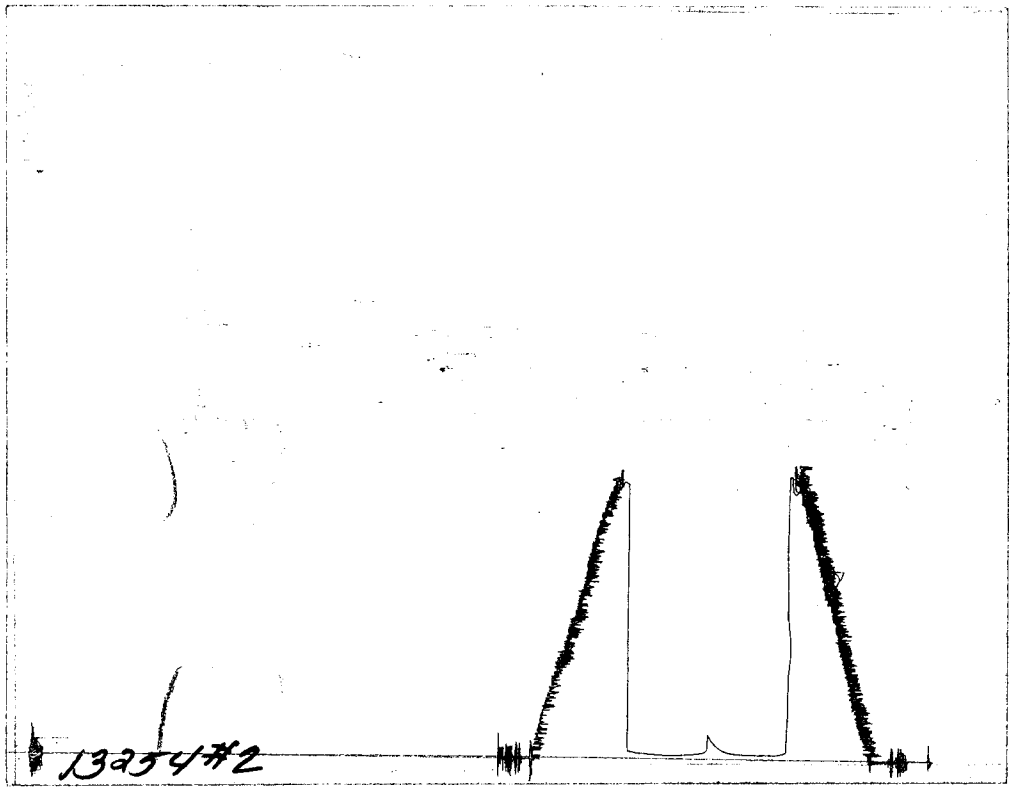
TRILOBITE TESTING INC. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Approved By _____

Our Representative Dan Sample

CHART PAGE

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



TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

№ 16702

Test Ticket

Well Name & No. Kuhn - Trust #1-23 Test No. 3 Date 10-12-02

Company Downing - Nelson Oil Co Inc Zone Tested H-I-J LKC

Address _____ Elevation 2257 KB 2249 GL

Co. Rep / Geo. Ron Nelson Cont. Discovery #1 Est. Ft. of Pay ____ Por. ____ %

Location: Sec. 23 Twp. 13 Rge. 21 Co. Trego State Ks

No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 3672 — 3753 Initial Str Wt./Lbs. 42,000 Unseated Str Wt./Lbs. 42,000

Anchor Length 81 Wt. Set Lbs. 30,000 Wt. Pulled Loose/Lbs. 55,000

Top Packer Depth 3667 Tool Weight 1000

Bottom Packer Depth 3672 Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____

Total Depth 3753 Wt. Pipe Run _____ Drill Collar Run _____

Mud Wt. 9.2 LCM _____ Vis. 51 WL 8 Drill Pipe Size 4.5XH Ft. Run 3666

Blow Description I.F. weak - building to ½"

F.F. No blow

Recovery — Total Feet 5 GIP _____ Ft. in DC _____ Ft. in DP 5

Rec. 5	Feet Of D.M.	%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. _____	Feet Of _____	%gas	%oil	%water	%mud

BHT 105 °F Gravity _____ °API D@ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 5,000 ppm System

	AK-1	Alpine				
(A) Initital Hydrostatic Mud		1804	PSI	Recorder No.	2357	T-On Location 16:20
(B) First Initial Flow Pressure		15	PSI	(depth)	3675	T-Started 16:34
(C) First Final Flow Pressure		18	PSI	Recorder No.	13254	T-Open 18:20
(D) Initial Shut-In Pressure		98	PSI	(depth)	3737	T-Pulled 20:20
(E) Second Initial Flow Pressure		18	PSI	Recorder No.		T-Out 22:00
(F) Second Final Flow Pressure		19	PSI	(depth)		T-Off Location 22:20
(G) Final Shut-in Pressure		40	PSI	Initial Opening	30	Test 700
(Q) Final Hydrostatic Mud		1745	PSI	Initial Shut-in	30	Jars _____
				Final Flow	30	Safety Joint _____
				Final Shut-in	30	Straddle _____
						Circ. Sub _____
						Sampler _____
						Extra Packer _____
						Elec. Rec. X 150
						Mileage 20 20
						Other _____
						TOTAL PRICE $ 870

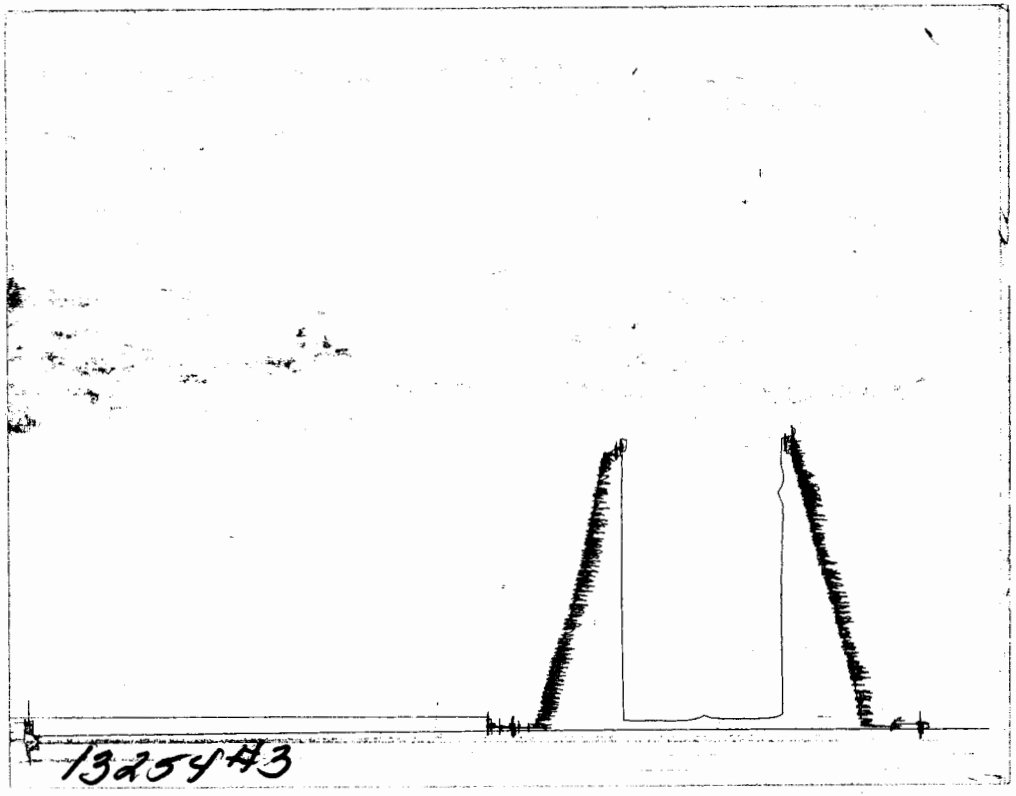
TRILOBITE TESTING INC. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Approved By _____

Our Representative Dan Rumpf

CHART PAGE

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



TRILOBITE TESTING INC.
P.O. Box 362 • Hays, Kansas 67601

№ 16703

Test Ticket

Well Name & No. Kuhn - Trust #1-23 Test No. 4 Date 10-13-02
Company Downing-Nelson Oil Co Inc. Zone Tested Marmaton
Address _____ Elevation 2257 KB 2249 GL
Co. Rep / Geo. Al Downing Cont. Discovery #1 Est. Ft. of Pay ____ Por. ____ %
Location: Sec. 23 Twp. 13 Rge. 21 Co. Trego State KS
No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 3868 — 3905 Initial Str Wt./Lbs. 44,000 Unseated Str Wt./Lbs. 48,000
Anchor Length 37 Wt. Set Lbs. 30,000 Wt. Pulled Loose/Lbs 59,000
Top Packer Depth 3863 Tool Weight 2500
Bottom Packer Depth 3868 Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
Total Depth 3905 Wt. Pipe Run _____ Drill Collar Run _____
Mud Wt. 9.4 LCM ____ Vis. 46 WL 9 Drill Pipe Size 4.5 XH Ft. Run 3852

Blow Description I.F. Strong - B.O.B in 1 min
IST - Weak - building to 7"
F.F. - Strong - B.O.B in 5 min.
FST - Weak steady surface blow

Recovery — Total Feet 861 GIP 759 Ft. in DC _____ Ft. in DP 861
Rec. 789 Feet Of CGsy O 20 %gas 80 %oil %water %mud
Rec. 62 Feet Of HMCGsy O 20 %gas 60 %oil %water 20 %mud
Rec. _____ Feet Of _____ %gas %oil %water %mud
Rec. _____ Feet Of _____ %gas %oil %water %mud
Rec. _____ Feet Of _____ %gas %oil %water %mud

BHT 124 °F Gravity _____ °API D@ _____ °F Corrected Gravity 36 °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 4,000 ppm System

	AK-1	Alpine				
(A) Initital Hydrostatic Mud		1912	PSI	Recorder No.	2357	T-On Location 09:20
(B) First Initial Flow Pressure		65	PSI	(depth)	3869	T-Started 09:26
(C) First Final Flow Pressure		222	PSI	Recorder No.	13254	T-Open 11:05
(D) Initial Shut-In Pressure		756	PSI	(depth)	3902	T-Pulled 14:10
(E) Second Initial Flow Pressure		237	PSI	Recorder No.		T-Out 16:48
(F) Second Final Flow Pressure		361	PSI	(depth)		T-Off Location 17:30
(G) Final Shut-in Pressure		705	PSI	Initial Opening	30	Test 700
(Q) Final Hydrostatic Mud		1867	PSI	Initial Shut-in	60	Jars _____
				Final Flow	45	Safety Joint _____
				Final Shut-in	60	Straddle _____
						Circ. Sub _____
						Sampler _____
						Extra Packer _____
						Elec. Rec. X 150
						Mileage 20 20
						Other _____
						TOTAL PRICE $ 870

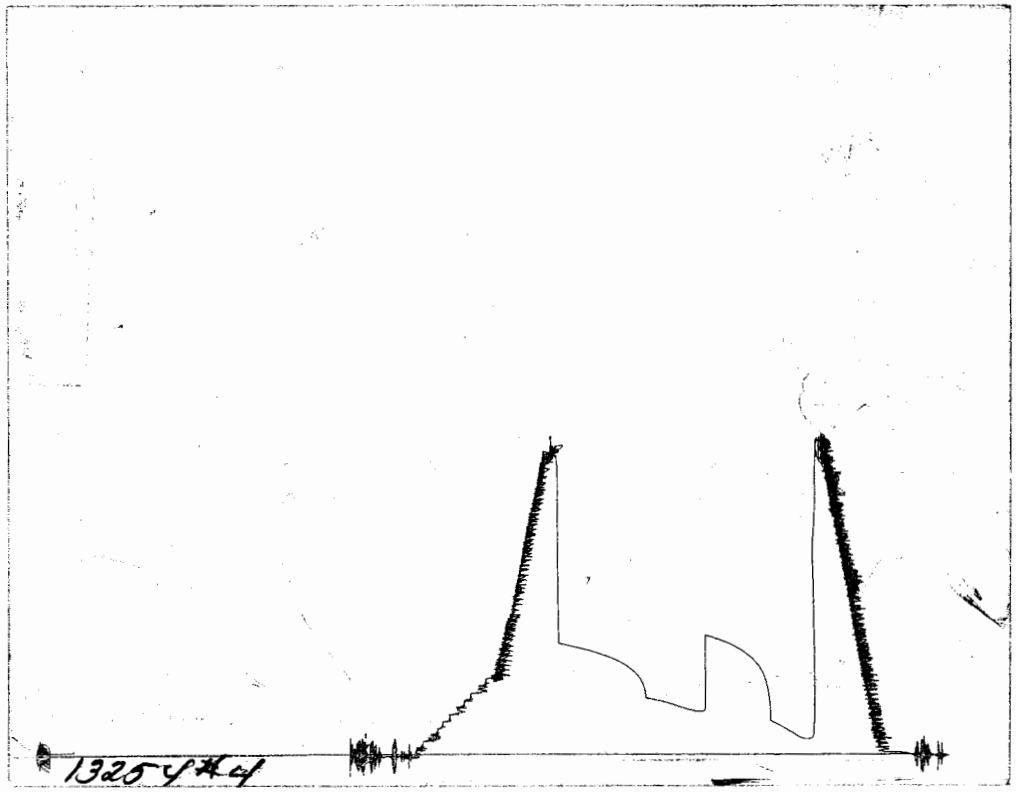
TRILOBITE TESTING INC. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Approved By _____

Our Representative Dan Rowdle

CHART PAGE

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



TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

№ 16704

Test Ticket

Well Name & No. Kuhn — Trust #1-23 Test No. 5 Date 10-14-02

Company Downing-Nelson Oil Co Inc Zone Tested Arbuckle

Address _____ Elevation 2257 KB 2249 GL

Co. Rep / Geo. Al Downing Cont. Discovery #1 Est. Ft. of Pay ____ Por. ____ %

Location: Sec. 23 Twp. 13 Rge. 21 Co. Trego State Ks

No. of Copies _____ Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 3897 — 3950 Initial Str Wt./Lbs. 44,000 Unseated Str Wt./Lbs. 48,000

Anchor Length 53 Wt. Set Lbs. 30,000 Wt. Pulled Loose/Lbs. 69,000

Top Packer Depth 3892 Tool Weight 1100

Bottom Packer Depth 3897 Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____

Total Depth 3950 Wt. Pipe Run _____ Drill Collar Run _____

Mud Wt. 9.4 LCM _____ Vis. 46 WL 9 Drill Pipe Size 4.5 XH Ft. Run 3883

Blow Description I.F. Strong B.O.B in 15 min.
I.S.I - Weak ½" blow - Dead in 10 min.
F.F. Strong B.O.B in 15 min.
F.S.I - Weak steady surface blow

Recovery — Total Feet 488 GIP 315 Ft. in DC _____ Ft. in DP 428

Rec. 180	Feet Of CGsyo	20 %gas	80 %oil	%water	%mud
Rec. 124	Feet Of MCGsyo	20 %gas	60 %oil	%water 20	%mud
Rec. 124	Feet Of MCGsyo	15 %gas	55 %oil	%water 30	%mud
Rec. _____	Feet Of _____	%gas	%oil	%water	%mud
Rec. _____	Feet Of _____	%gas	%oil	%water	%mud

BHT 118 °F Gravity _____ °API D@ _____ °F Corrected Gravity 40 °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 4,000 ppm System

	AK-1	Alpine					
(A) Initial Hydrostatic Mud		1964	PSI	Recorder No.	2357	T-On Location	04:00
(B) First Initial Flow Pressure		20	PSI	(depth)	3900	T-Started	03:56
(C) First Final Flow Pressure		102	PSI	Recorder No.	13254	T-Open	06:12
(D) Initial Shut-In Pressure		1169	PSI	(depth)	3932	T-Pulled	09:47
(E) Second Initial Flow Pressure		108	PSI	Recorder No.		T-Out	11:28
(F) Second Final Flow Pressure		176	PSI	(depth)		T-Off Location	
(G) Final Shut-in Pressure		1162	PSI	Initial Opening	45	Test	700
(Q) Final Hydrostatic Mud		1896	PSI	Initial Shut-in	60	Jars	
				Final Flow	45	Safety Joint	
				Final Shut-in	60	Straddle	
						Circ. Sub	
						Sampler	
						Extra Packer	
						Elec. Rec. X	150
						Mileage 20	20
						Other	
						TOTAL PRICE $	870

TRILOBITE TESTING INC. SHALL NOT BE LIABLE FOR DAMAGE 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.

Approved By _____

Our Representative Dan Rample

CHART PAGE

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

