



DRILL STEM TEST REPORT

Prepared For: **Black Diamond Oil**

PO Box 641
Hays, KS 67601

ATTN: Jeff Lawler

Morris Unit #1

2-5s-21w Norton,KS

Start Date: 2013.09.20 @ 21:45:00

End Date: 2013.09.21 @ 04:44:00

Job Ticket #: 53536 DST #: 1

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

Printed: 2013.09.25 @ 13:54:43



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Black Diamond Oil

2-5s-21w Norton, KS

PO Box 641
Hays, KS 67601

Morris Unit #1

ATTN: Jeff Lawler

Job Ticket: 53536

DST#: 1

Test Start: 2013.09.20 @ 21:45:00

GENERAL INFORMATION:

Formation: **Toronto - LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:30

Time Test Ended: 04:44:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 66

Interval: 3160.00 ft (KB) To 3224.00 ft (KB) (TVD)

Reference Elevations: 1992.00 ft (KB)

Total Depth: 3224.00 ft (KB) (TVD)

1987.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8653 Outside

Press @ Run Depth: 92.92 psig @ 3161.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.09.20 End Date: 2013.09.21

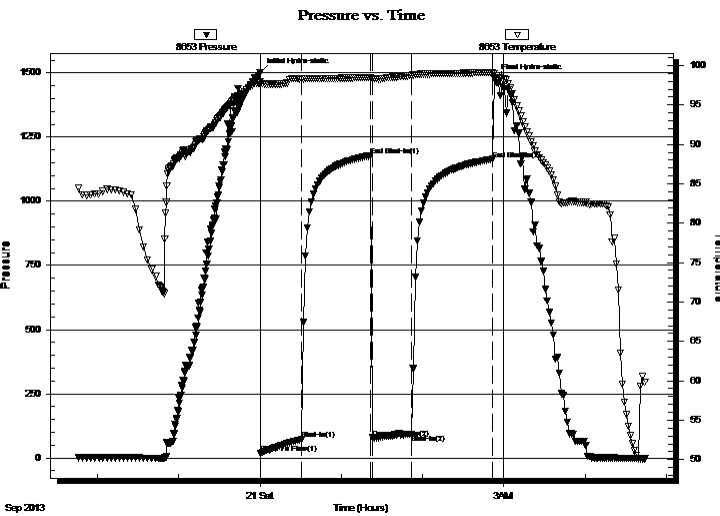
Last Calib.: 2013.09.21

Start Time: 21:46:00 End Time: 04:44:00

Time On Btm: 2013.09.21 @ 00:00:00

Time Off Btm: 2013.09.21 @ 02:53:00

TEST COMMENT: 30 - IF- 1/4" Blow built to 7 1/2"
45 - IS- No Return
30 - FF- Weak Surface Blow started at 1 min. Built to 5"
60 - FS- No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1501.90	97.96	Initial Hydro-static
1	17.19	97.60	Open To Flow (1)
31	71.15	98.26	Shut-In(1)
82	1177.66	98.49	End Shut-In(1)
83	77.85	98.31	Open To Flow (2)
112	92.92	98.71	Shut-In(2)
172	1163.32	99.13	End Shut-In(2)
173	1477.26	98.98	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	MW 30W 70M	0.59
40.00	Mud 100M	0.56

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Black Diamond Oil

2-5s-21w Norton, KS

PO Box 641
Hays, KS 67601

Morris Unit #1

Job Ticket: 53536

DST#: 1

ATTN: Jeff Lawler

Test Start: 2013.09.20 @ 21:45:00

GENERAL INFORMATION:

Formation: **Toronto - LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:30

Time Test Ended: 04:44:00

Interval: 3160.00 ft (KB) To 3224.00 ft (KB) (TVD)

Total Depth: 3224.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 66

Reference Elevations: 1992.00 ft (KB)

1987.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8874

Inside

Press @ Run Depth: psig @ 3161.00 ft (KB)

Start Date: 2013.09.20 End Date: 2013.09.21

Start Time: 21:46:00 End Time: 04:45:30

Capacity: 8000.00 psig

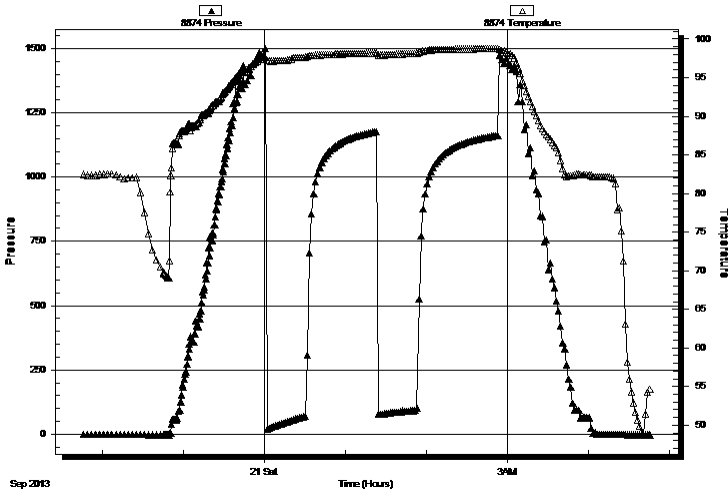
Last Calib.: 2013.09.21

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 - IF- 1/4" Blow built to 7 1/2"
45 - IS- No Return
30 - FF- Weak Surface Blow started at 1 min. Built to 5"
60 - FS- No Return

Pressure vs. Time



PRESSURE SUMMARY

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

Length (ft)	Description	Volume (bbl)
120.00	MW 30W 70M	0.59
40.00	Mud 100M	0.56

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Black Diamond Oil

2-5s-21w Norton,KS

PO Box 641
Hays, KS 67601

Morris Unit #1

Job Ticket: 53536

DST#: 1

ATTN: Jeff Lawler

Test Start: 2013.09.20 @ 21:45:00

Tool Information

Drill Pipe:	Length: 3025.00 ft	Diameter: 3.80 inches	Volume: 42.43 bbl	Tool Weight: 2000.00 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 43.02 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3160.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	84.00 ft			
Tool Length:	104.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3141.00	
Shut In Tool	5.00			3146.00	
Hydraulic tool	5.00			3151.00	
Packer	5.00			3156.00	20.00 Bottom Of Top Packer
Packer	4.00			3160.00	
Stubb	1.00			3161.00	
Recorder	0.00	8653	Outside	3161.00	
Recorder	0.00	8874	Inside	3161.00	
Perforations	13.00			3174.00	
Change Over Sub	1.00			3175.00	
Drill Pipe	63.00			3238.00	
Change Over Sub	1.00			3239.00	
Bullnose	5.00			3244.00	84.00 Bottom Packers & Anchor

Total Tool Length: 104.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Black Diamond Oil

2-5s-21w Norton,KS

PO Box 641
Hays, KS 67601

Morris Unit #1

Job Ticket: 53536

DST#: 1

ATTN: Jeff Lawler

Test Start: 2013.09.20 @ 21:45:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 8.00 lb/gal

Cushion Length:

ft

Water Salinity:

39000 ppm

Viscosity: 69.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 300.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
120.00	MW 30W 70M	0.590
40.00	Mud 100M	0.561

Total Length: 160.00 ft Total Volume: 1.151 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

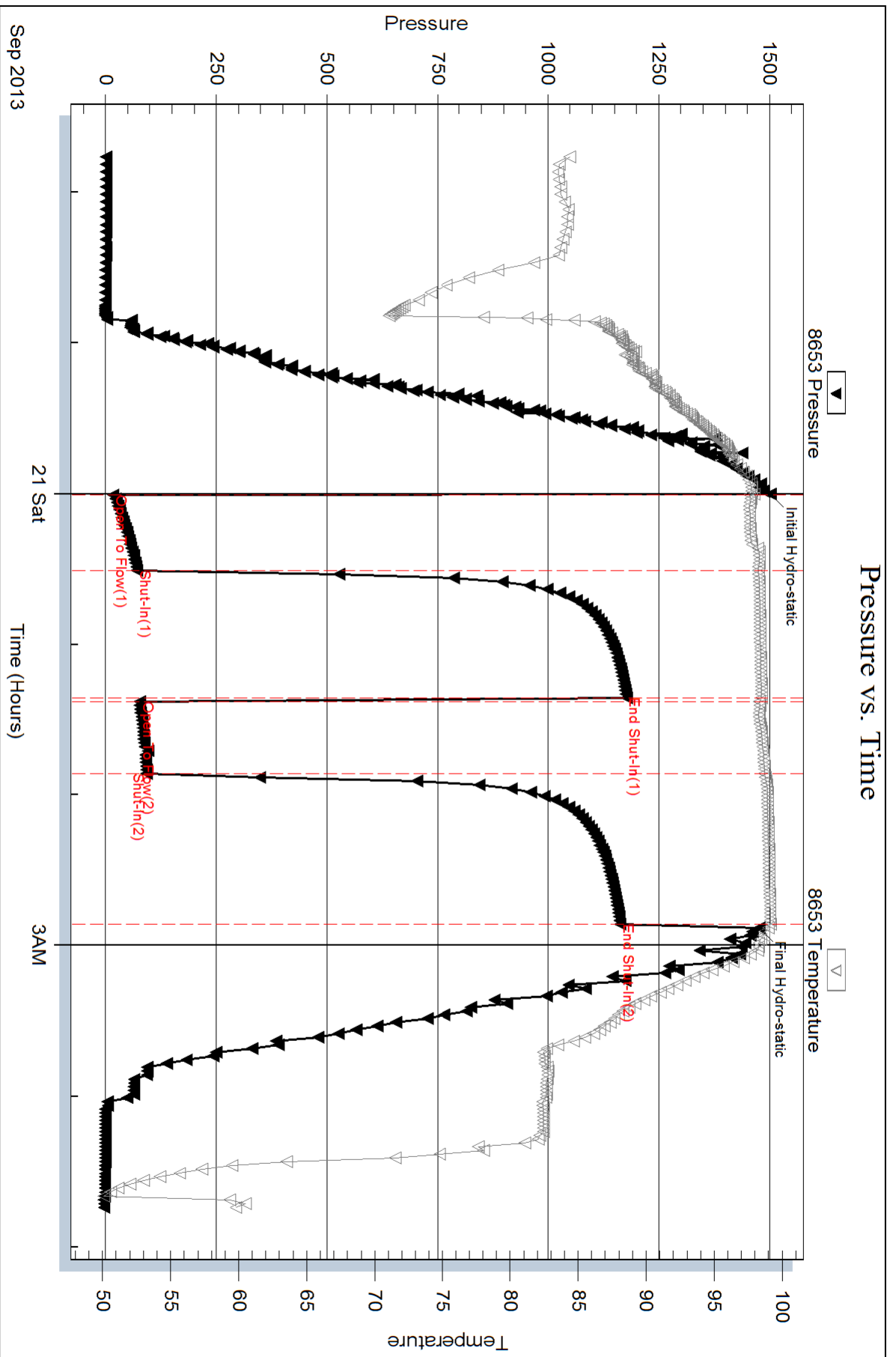
Recovery Comments: RW = .27 @ 51 = 39000ppm

Serial #: 8653

Outside Black Diamond Oil

Morris Unit #1

DST Test Number: 1



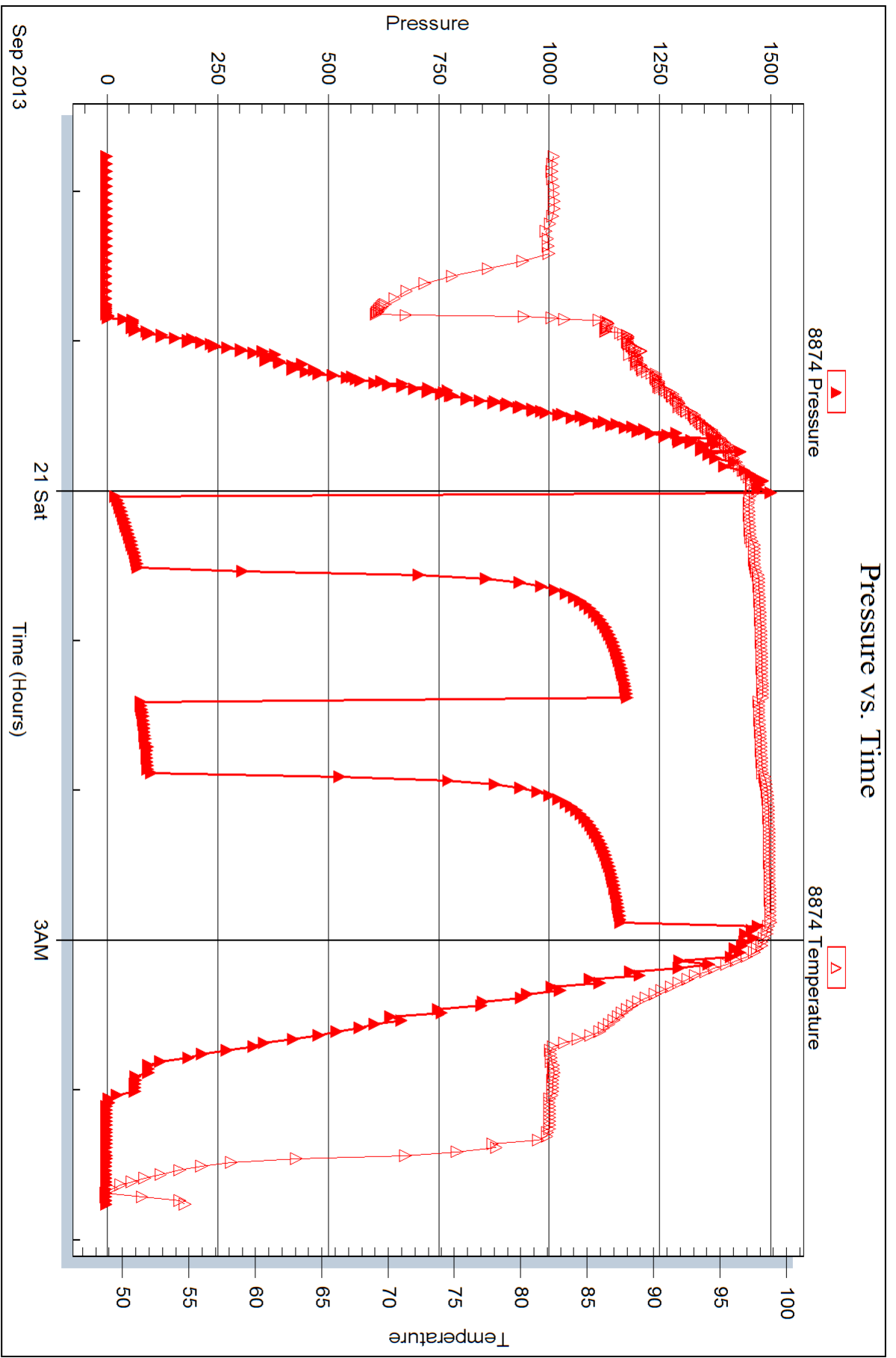
Serial #: 8874

Inside

Black Diamond Oil

Morris Unit #1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 53536

Printed: 2013.09.25 @ 13:54:45



DRILL STEM TEST REPORT

Prepared For: **Black Diamond Oil**

PO Box 641
Hays, KS 67601

ATTN: Jeff Lawler

Morris Unit #1

2-5s-21w Norton,KS

Start Date: 2013.09.21 @ 11:14:00

End Date: 2013.09.21 @ 17:34:30

Job Ticket #: 53537 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.09.25 @ 13:54:14



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Black Diamond Oil

2-5s-21w Norton, KS

PO Box 641
Hays, KS 67601

Morris Unit #1

ATTN: Jeff Lawler

Job Ticket: 53537

DST#: 2

Test Start: 2013.09.21 @ 11:14:00

GENERAL INFORMATION:

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

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:48:50

Time Test Ended: 17:34:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 66

Interval: 3222.00 ft (KB) To 3262.00 ft (KB) (TVD)

Reference Elevations: 1992.00 ft (KB)

Total Depth: 3262.00 ft (KB) (TVD)

1987.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8874

Inside

Press @ Run Depth: 727.42 psig @ 3223.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.09.21

End Date: 2013.09.21

Last Calib.: 2013.09.21

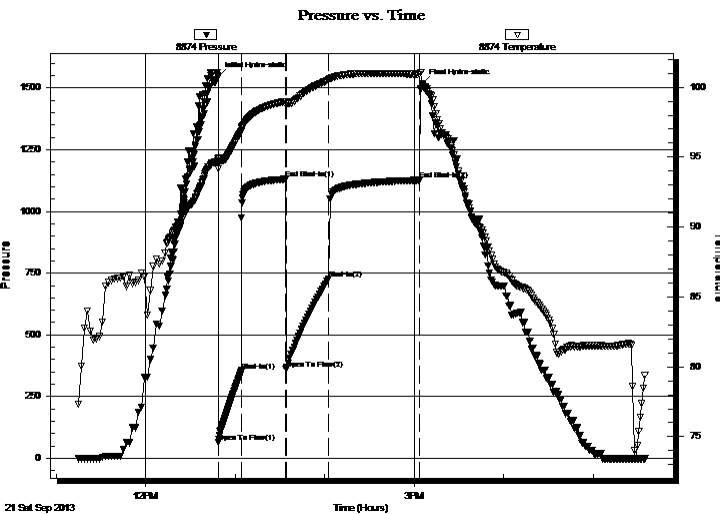
Start Time: 11:15:00

End Time: 17:34:30

Time On Btm: 2013.09.21 @ 12:48:40

Time Off Btm: 2013.09.21 @ 15:05:30

TEST COMMENT: 15 - IF- BoB in 3 1/2 min.
30 - IS- Weak Surface Return started at 7 min. Built to 1"
30 - FF- BoB in 3 min.
60 - FS- No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1547.06	94.93	Initial Hydro-static
1	64.43	94.17	Open To Flow (1)
16	354.61	96.85	Shut-In(1)
45	1130.69	98.98	End Shut-In(1)
46	362.85	98.71	Open To Flow (2)
74	727.42	100.50	Shut-In(2)
135	1126.76	100.92	End Shut-In(2)
137	1518.47	100.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud (Heavy) 100M	0.02
1047.00	MW 5M 95W	13.64
378.00	MW 40M 60W	5.30
0.00	Show of oil spots in tool	0.00

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Black Diamond Oil

2-5s-21w Norton, KS

PO Box 641
Hays, KS 67601

Morris Unit #1

Job Ticket: 53537

DST#: 2

ATTN: Jeff Lawler

Test Start: 2013.09.21 @ 11:14:00

GENERAL INFORMATION:

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

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:48:50

Time Test Ended: 17:34:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 66

Interval: **3222.00 ft (KB) To 3262.00 ft (KB) (TVD)**

Reference Elevations: 1992.00 ft (KB)

Total Depth: 3262.00 ft (KB) (TVD)

1987.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8653

Outside

Press @ Run Depth: psig @ 3223.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.09.21

End Date:

2013.09.21

Last Calib.: 2013.09.21

Start Time: 11:15:00

End Time:

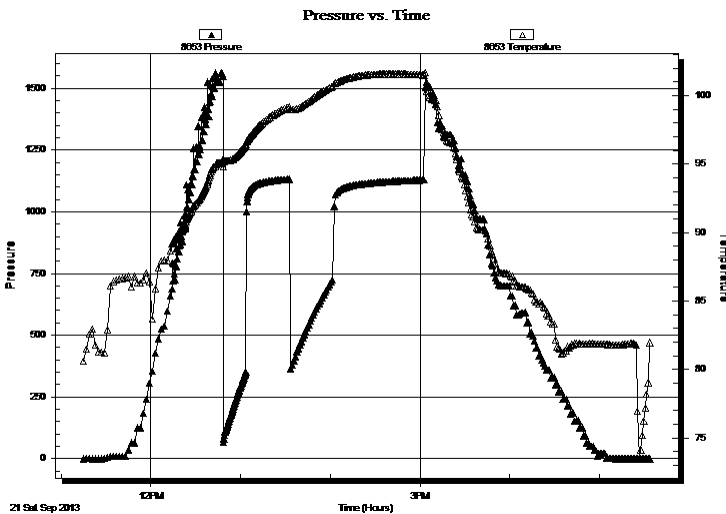
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Time On Btm:

Time Off Btm:

TEST COMMENT: 15 - IF- BoB in 3 1/2 min.
30 - IS- Weak Surface Return started at 7 min. Built to 1"
30 - FF- BoB in 3 min.
60 - FS- No Return

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud (Heavy) 100M	0.02
1047.00	MW 5M 95W	13.64
378.00	MW 40M 60W	5.30
0.00	Show of oil spots in tool	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Black Diamond Oil

2-5s-21w Norton,KS

PO Box 641
Hays, KS 67601

Morris Unit #1

Job Ticket: 53537

DST#: 2

ATTN: Jeff Lawler

Test Start: 2013.09.21 @ 11:14:00

Tool Information

Drill Pipe:	Length: 3102.00 ft	Diameter: 3.80 inches	Volume: 43.51 bbl	Tool Weight: 2000.00 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 44.10 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3222.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	40.00 ft			
Tool Length:	60.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3203.00	
Shut In Tool	5.00			3208.00	
Hydraulic tool	5.00			3213.00	
Packer	5.00			3218.00	20.00 Bottom Of Top Packer
Packer	4.00			3222.00	
Stubb	1.00			3223.00	
Recorder	0.00	8653	Outside	3223.00	
Recorder	0.00	8874	Inside	3223.00	
Perforations	1.00			3224.00	
Change Over Sub	1.00			3225.00	
Drill Pipe	31.00			3256.00	
Change Over Sub	1.00			3257.00	
Bullnose	5.00			3262.00	40.00 Bottom Packers & Anchor

Total Tool Length: 60.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Black Diamond Oil

2-5s-21w Norton,KS

PO Box 641
Hays, KS 67601

Morris Unit #1

Job Ticket: 53537

DST#: 2

ATTN: Jeff Lawler

Test Start: 2013.09.21 @ 11:14:00

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:

7500 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.96 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 300.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
5.00	Mud (Heavy) 100M	0.025
1047.00	MW 5M 95W	13.639
378.00	MW 40M 60W	5.302
0.00	Show of oil spots in tool	0.000

Total Length: 1430.00 ft Total Volume: 18.966 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .065 @ 92 deg = 7,500ppm

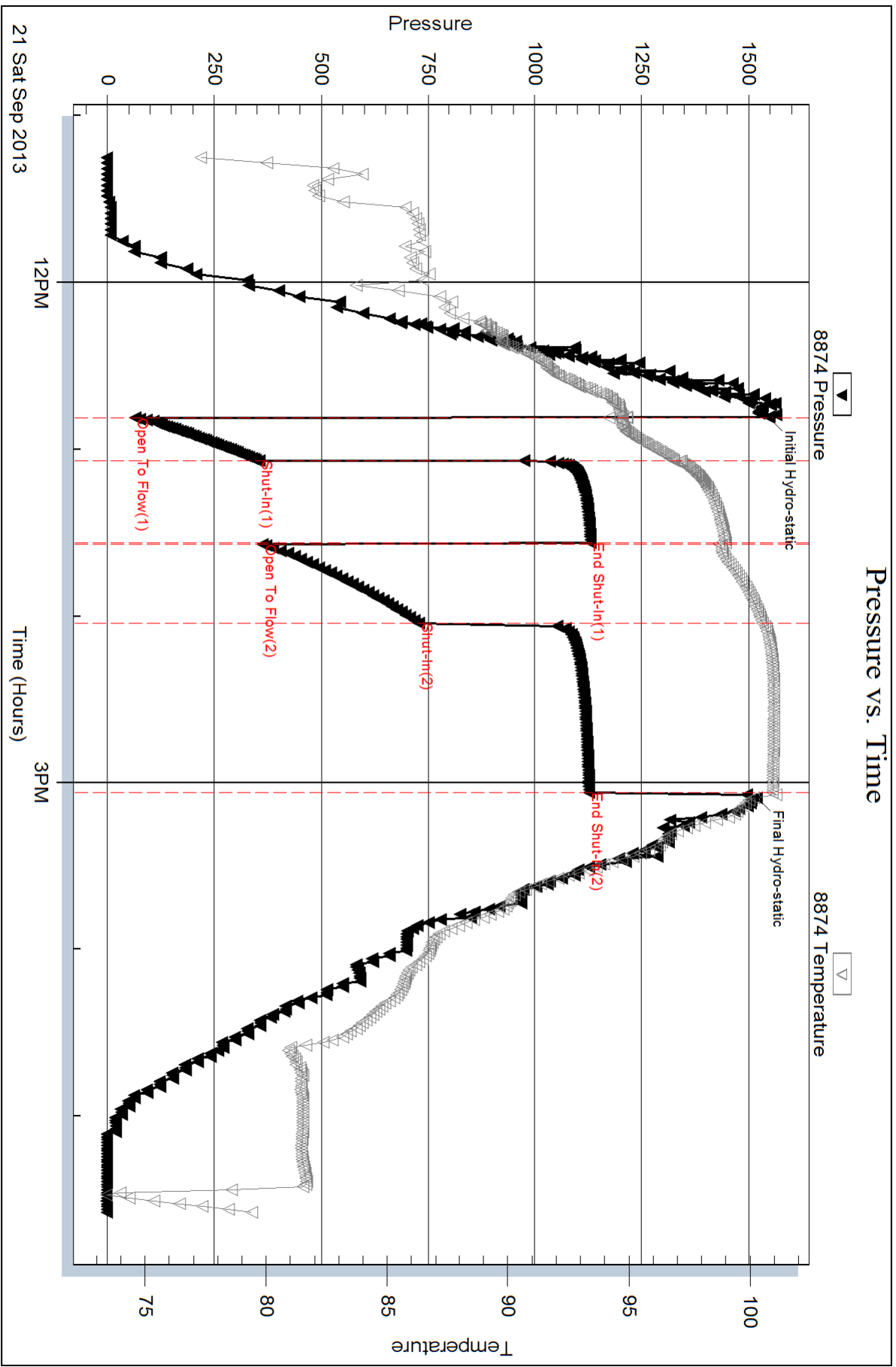
Serial #: 8874

Inside

Black Diamond Oil

Morris Unit #1

DST Test Number: 2

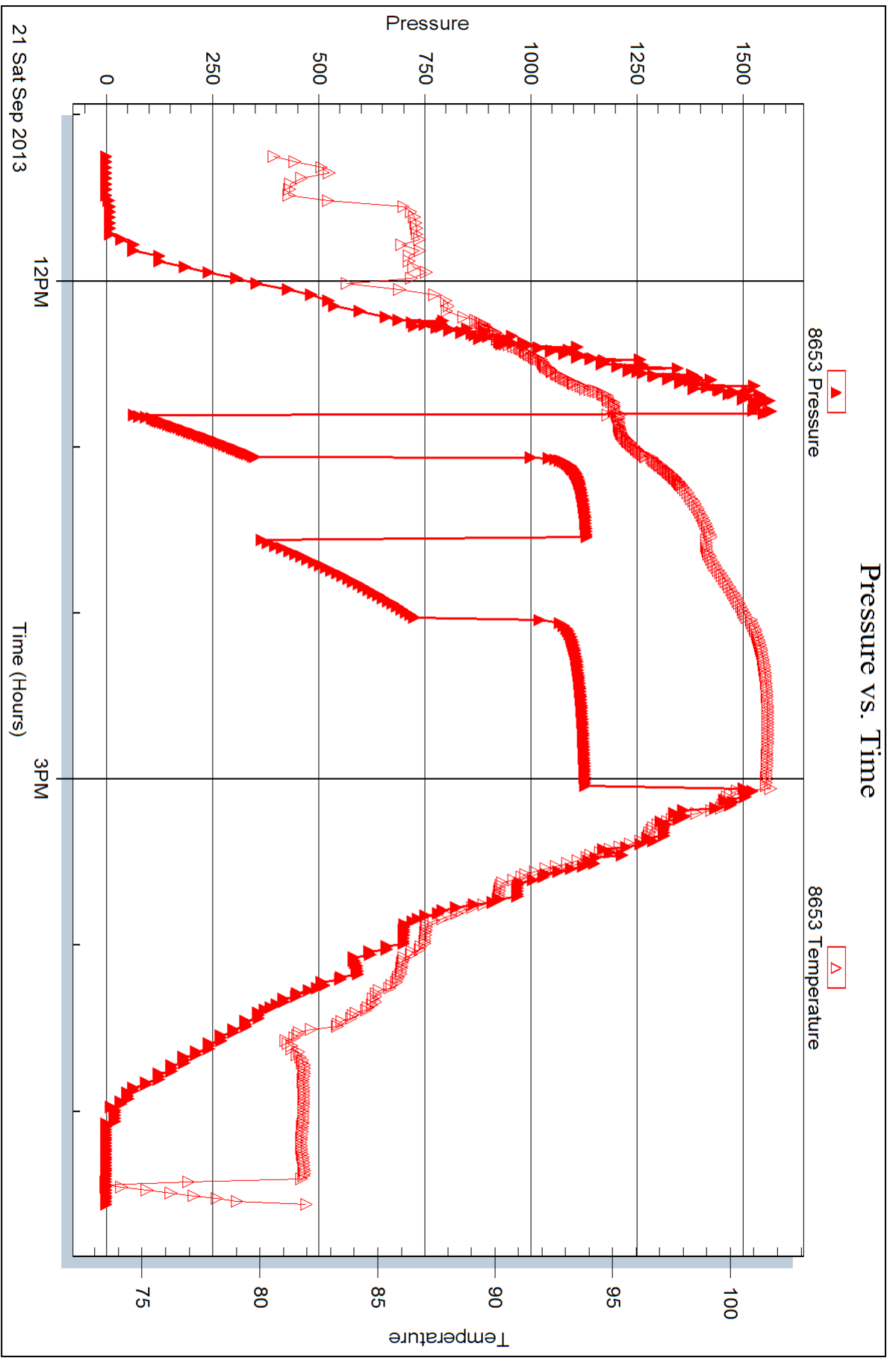


Serial #: 8653

Outside Black Diamond Oil

Morris Unit #1

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 53537

Printed: 2013.09.25 @ 13:54:16



DRILL STEM TEST REPORT

Prepared For: **Black Diamond Oil**

PO Box 641
Hays, KS 67601

ATTN: Jeff Lawler

Morris Unit #1

2-5s-21w Norton,KS

Start Date: 2013.09.22 @ 07:26:00

End Date: 2013.09.22 @ 15:21:30

Job Ticket #: 53538 DST #: 3

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

Printed: 2013.09.25 @ 13:53:39

Black Diamond Oil
2-5s-21w Norton,KS
Morris Unit #1
DST # 3
LKC "I-J"
2013.09.22



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Black Diamond Oil

2-5s-21w Norton, KS

PO Box 641
Hays, KS 67601

Morris Unit #1

ATTN: Jeff Lawler

Job Ticket: 53538

DST#: 3

Test Start: 2013.09.22 @ 07:26:00

GENERAL INFORMATION:

Formation: **LKC "I-J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:12:40

Time Test Ended: 15:21:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 66

Interval: 3328.00 ft (KB) To 3365.00 ft (KB) (TVD)

Reference Elevations: 1992.00 ft (KB)

Total Depth: 3365.00 ft (KB) (TVD)

1987.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8874

Inside

Press @ Run Depth: 87.53 psig @ 3329.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.09.22

End Date:

2013.09.22

Last Calib.:

2013.09.22

Start Time: 07:27:00

End Time:

15:21:30

Time On Btm:

2013.09.22 @ 09:12:10

Time Off Btm:

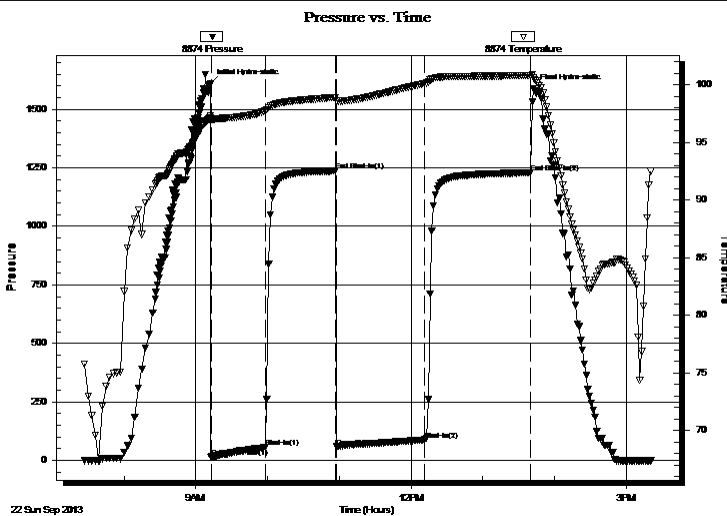
2013.09.22 @ 13:42:30

TEST COMMENT: 45 - IF- 1/2" Blow built to 4 1/2"

60 - IS- No Return

75 - FF- Surface Blow started at 5 min. Built to 6 1/4"

90 - FS- No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1611.47	97.30	Initial Hydro-static
1	14.07	96.96	Open To Flow (1)
46	54.53	97.72	Shut-In(1)
105	1236.72	98.90	End Shut-In(1)
106	58.10	98.59	Open To Flow (2)
180	87.53	100.12	Shut-In(2)
268	1228.56	100.80	End Shut-In(2)
271	1588.48	100.58	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	MW 50M 50W	0.30
60.00	MW 20M 80W	0.30
30.00	MW 40M 60W	0.42

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Black Diamond Oil

2-5s-21w Norton, KS

PO Box 641
Hays, KS 67601

Morris Unit #1

Job Ticket: 53538

DST#: 3

ATTN: Jeff Lawler

Test Start: 2013.09.22 @ 07:26:00

GENERAL INFORMATION:

Formation: **LKC "I-J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:12:40

Time Test Ended: 15:21:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 66

Interval: 3328.00 ft (KB) To 3365.00 ft (KB) (TVD)

Reference Elevations: 1992.00 ft (KB)

Total Depth: 3365.00 ft (KB) (TVD)

1987.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8653 Outside

Press @RunDepth: psig @ 3329.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.09.22 End Date: 2013.09.22

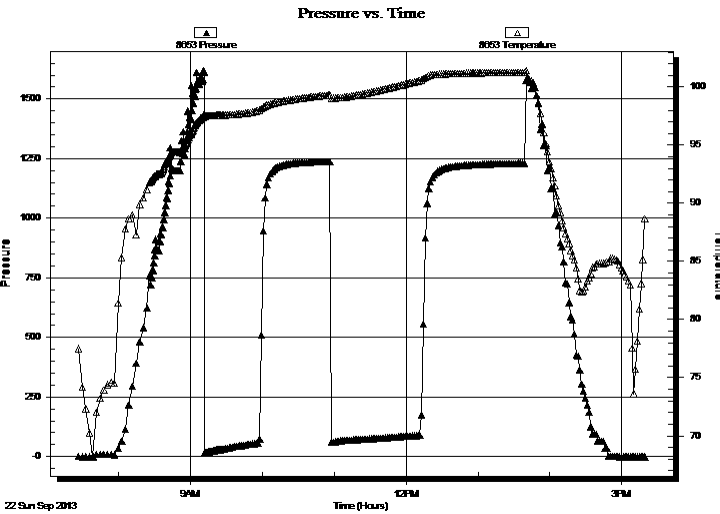
Last Calib.: 2013.09.22

Start Time: 07:27:00 End Time: 15:19:30

Time On Btm:

Time Off Btm:

TEST COMMENT: 45 - IF- 1/2" Blow built to 4 1/2"
60 - IS- No Return
75 - FF- Surface Blow started at 5 min. Built to 6 1/4"
90 - FS- No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	MW 50M 50W	0.30
60.00	MW 20M 80W	0.30
30.00	MW 40M 60W	0.42

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Black Diamond Oil

2-5s-21w Norton,KS

PO Box 641
Hays, KS 67601

Morris Unit #1

Job Ticket: 53538

DST#: 3

ATTN: Jeff Lawler

Test Start: 2013.09.22 @ 07:26:00

Tool Information

Drill Pipe:	Length: 3195.00 ft	Diameter: 3.80 inches	Volume: 44.82 bbl	Tool Weight: 2000.00 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 45.41 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3328.00 ft			Final 47000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	37.00 ft			
Tool Length:	57.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3309.00	
Shut In Tool	5.00			3314.00	
Hydraulic tool	5.00			3319.00	
Packer	5.00			3324.00	20.00 Bottom Of Top Packer
Packer	4.00			3328.00	
Stubb	1.00			3329.00	
Recorder	0.00	8653	Outside	3329.00	
Recorder	0.00	8874	Inside	3329.00	
Perforations	1.00			3330.00	
Change Over Sub	1.00			3331.00	
Drill Pipe	30.00			3361.00	
Change Over Sub	1.00			3362.00	
Bullnose	3.00			3365.00	37.00 Bottom Packers & Anchor

Total Tool Length: 57.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Black Diamond Oil

2-5s-21w Norton,KS

PO Box 641
Hays, KS 67601

Morris Unit #1

Job Ticket: 53538

DST#: 3

ATTN: Jeff Lawler

Test Start: 2013.09.22 @ 07:26:00

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: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.76 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 bbbl
60.00	MW 50M 50W	0.295
60.00	MW 20M 80W	0.295
30.00	MW 40M 60W	0.421

Total Length: 150.00 ft

Total Volume: 1.011 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

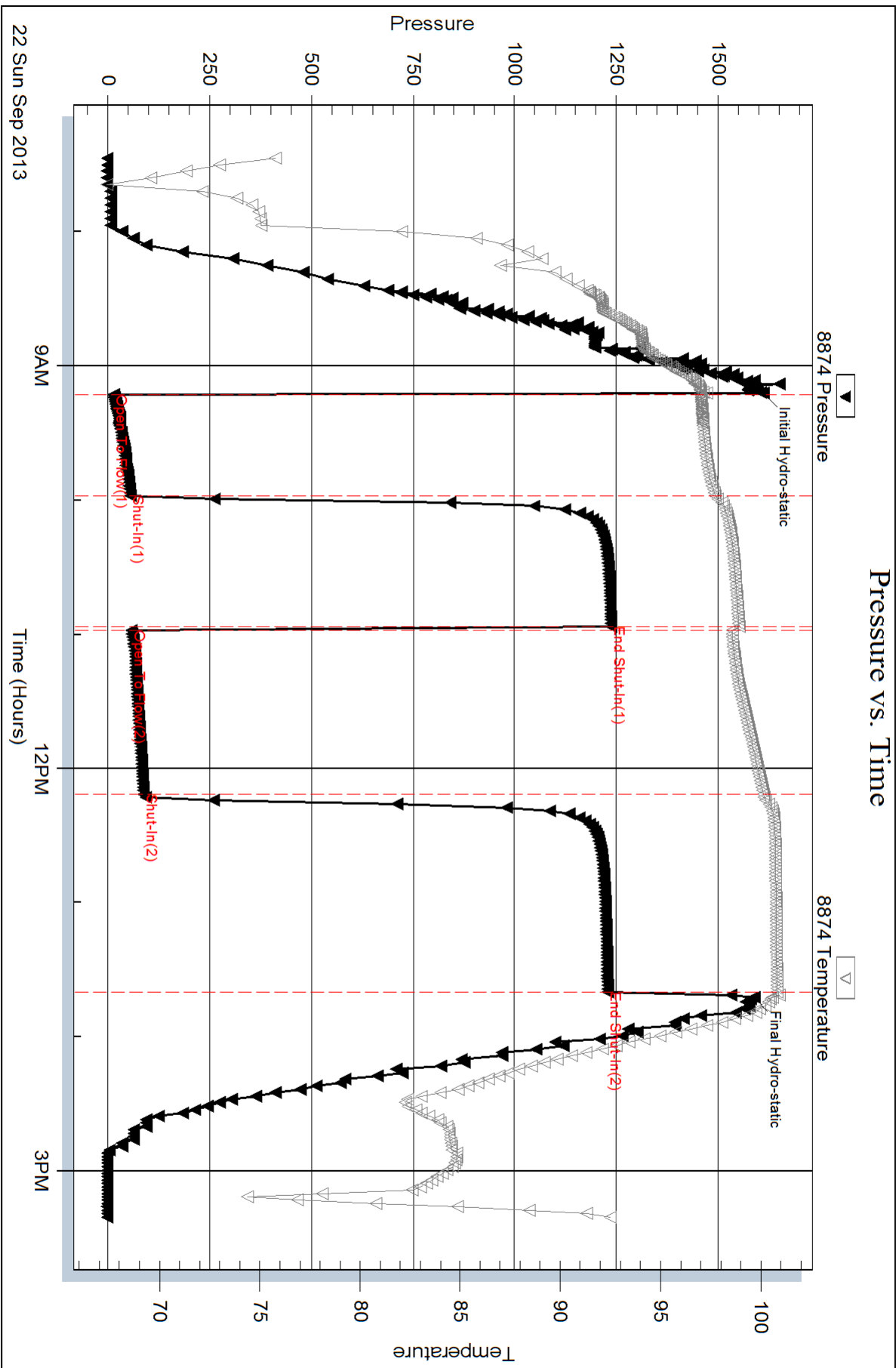
Serial #: 8874

Inside

Black Diamond Oil

Morris Unit #1

DST Test Number: 3

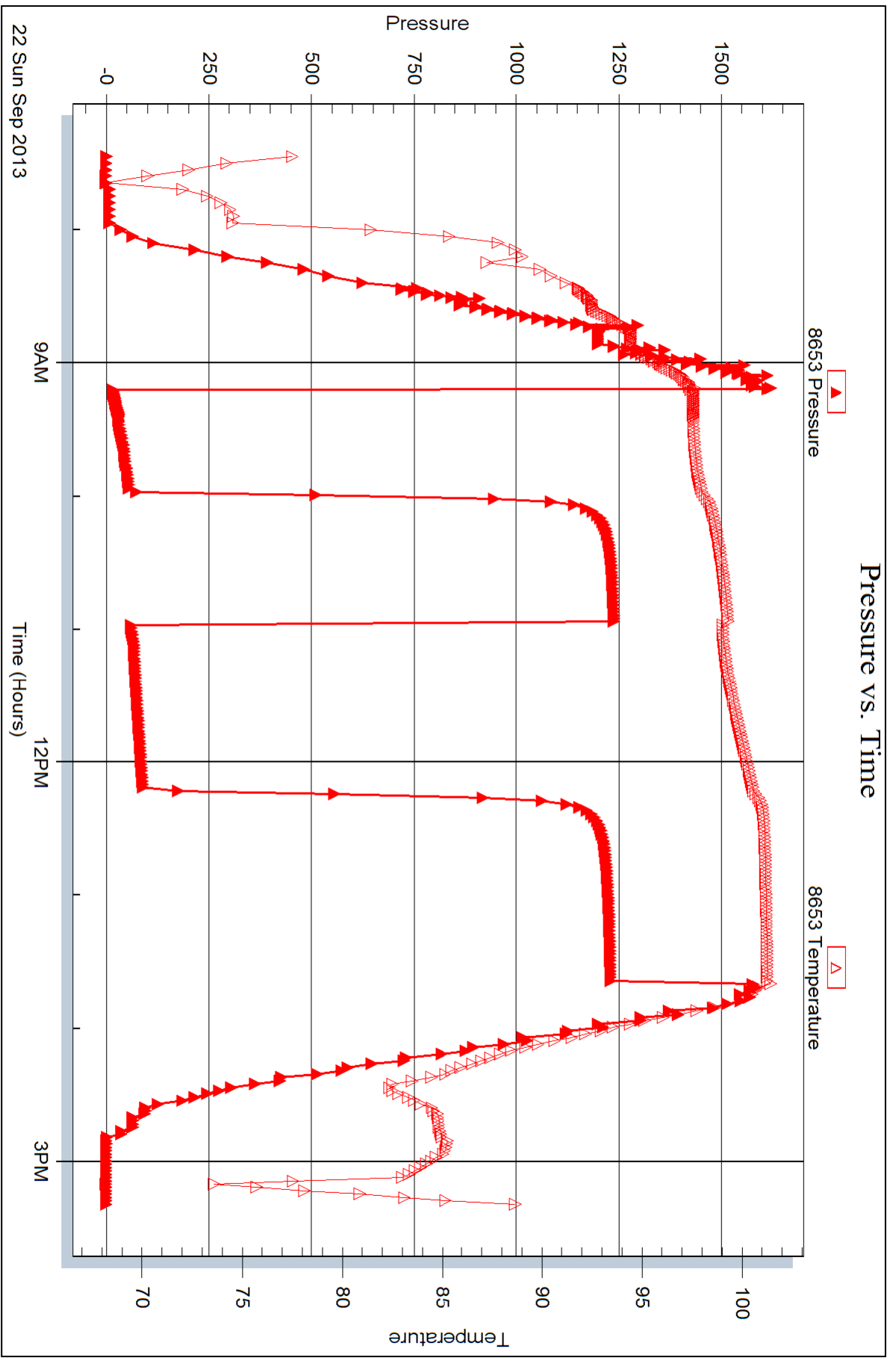


Serial #: 8653

Outside Black Diamond Oil

Morris Unit #1

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 53538

Printed: 2013.09.25 @ 13:53:40



DRILL STEM TEST REPORT

Prepared For: **Black Diamond Oil**

PO Box 641
Hays, KS 67601

ATTN: Jeff Lawler

Morris Unit #1

2-5s-21w Norton,KS

Start Date: 2013.09.22 @ 22:55:00

End Date: 2013.09.23 @ 04:34:00

Job Ticket #: 53539 DST #: 4

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

Printed: 2013.09.25 @ 13:52:00

Black Diamond Oil
2-5s-21w Norton,KS
Morris Unit #1
DST # 4
LKC "K-L"
2013.09.22



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Black Diamond Oil

2-5s-21w Norton, KS

PO Box 641
Hays, KS 67601

Morris Unit #1

Job Ticket: 53539

DST#: 4

ATTN: Jeff Lawler

Test Start: 2013.09.22 @ 22:55:00

GENERAL INFORMATION:

Formation: **LKC "K-L"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:58:00

Time Test Ended: 04:34:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 66

Interval: 3363.00 ft (KB) To 3400.00 ft (KB) (TVD)

Reference Elevations: 1992.00 ft (KB)

Total Depth: 3400.00 ft (KB) (TVD)

1987.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8874

Inside

Press @ Run Depth: 14.96 psig @ 3364.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.09.22

End Date:

2013.09.23

Last Calib.:

2013.09.23

Start Time: 22:56:00

End Time:

04:34:00

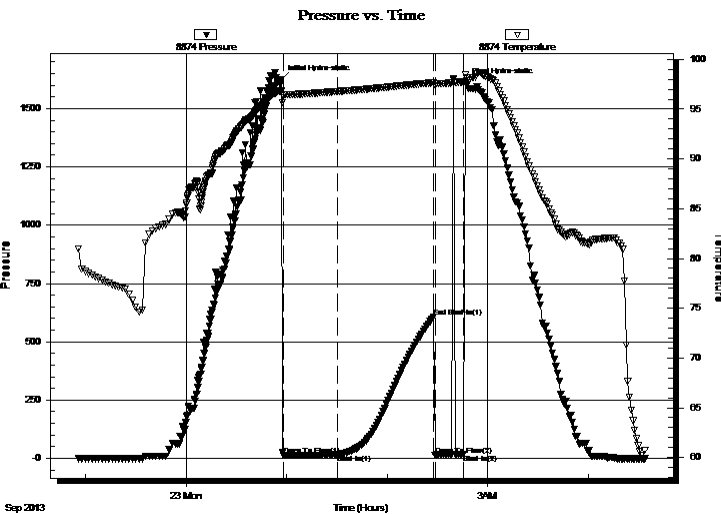
Time On Btm:

2013.09.23 @ 00:57:00

Time Off Btm:

2013.09.23 @ 02:46:30

TEST COMMENT: 30 - IF- 1/8" Blow built to
60 - IS- No Return
20- FF- No Blow - Flushed tool at 10 min. - No Blow
Pulled tool



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1625.34	96.81	Initial Hydro-static
1	13.12	96.41	Open To Flow (1)
34	14.96	96.77	Shut-In(1)
91	606.96	97.67	End Shut-In(1)
92	14.11	97.35	Open To Flow (2)
109	18.38	97.72	Shut-In(2)
110	1610.40	98.43	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 100M	0.05

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Black Diamond Oil

2-5s-21w Norton, KS

PO Box 641
Hays, KS 67601

Morris Unit #1

ATTN: Jeff Lawler

Job Ticket: 53539

DST#: 4

Test Start: 2013.09.22 @ 22:55:00

GENERAL INFORMATION:

Formation: **LKC "K-L"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:58:00

Time Test Ended: 04:34:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 66

Interval: 3363.00 ft (KB) To 3400.00 ft (KB) (TVD)

Reference Elevations: 1992.00 ft (KB)

Total Depth: 3400.00 ft (KB) (TVD)

1987.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8653 Outside

Press@RunDepth: psig @ 3364.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.09.22 End Date: 2013.09.23

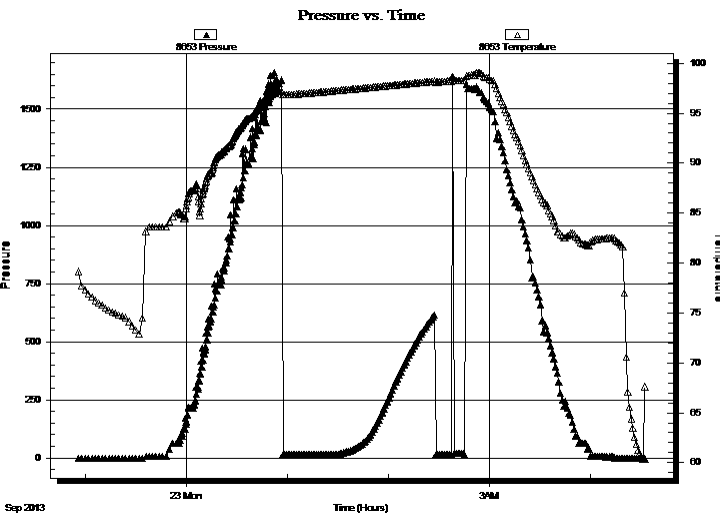
Last Calib.: 2013.09.23

Start Time: 22:56:00 End Time: 04:32:30

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 - IF- 1/8" Blow built to
60 - IS- No Return
20- FF- No Blow - Flushed tool at 10 min. - No Blow
Pulled tool



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 100M	0.05

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Black Diamond Oil

2-5s-21w Norton,KS

PO Box 641
Hays, KS 67601

Morris Unit #1

Job Ticket: 53539

DST#: 4

ATTN: Jeff Lawler

Test Start: 2013.09.22 @ 22:55:00

Tool Information

Drill Pipe:	Length: 3256.00 ft	Diameter: 3.80 inches	Volume: 45.67 bbl	Tool Weight: 2000.00 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 46.26 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3363.00 ft			Final 45000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	37.00 ft			
Tool Length:	57.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3344.00	
Shut In Tool	5.00			3349.00	
Hydraulic tool	5.00			3354.00	
Packer	5.00			3359.00	20.00 Bottom Of Top Packer
Packer	4.00			3363.00	
Stubb	1.00			3364.00	
Recorder	0.00	8653	Outside	3364.00	
Recorder	0.00	8874	Inside	3364.00	
Perforations	1.00			3365.00	
Change Over Sub	1.00			3366.00	
Drill Pipe	30.00			3396.00	
Change Over Sub	1.00			3397.00	
Bullnose	3.00			3400.00	37.00 Bottom Packers & Anchor

Total Tool Length: 57.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Black Diamond Oil

2-5s-21w Norton,KS

PO Box 641
Hays, KS 67601

Morris Unit #1

Job Ticket: 53539

DST#: 4

ATTN: Jeff Lawler

Test Start: 2013.09.22 @ 22:55:00

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: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.77 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
10.00	Mud 100M	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

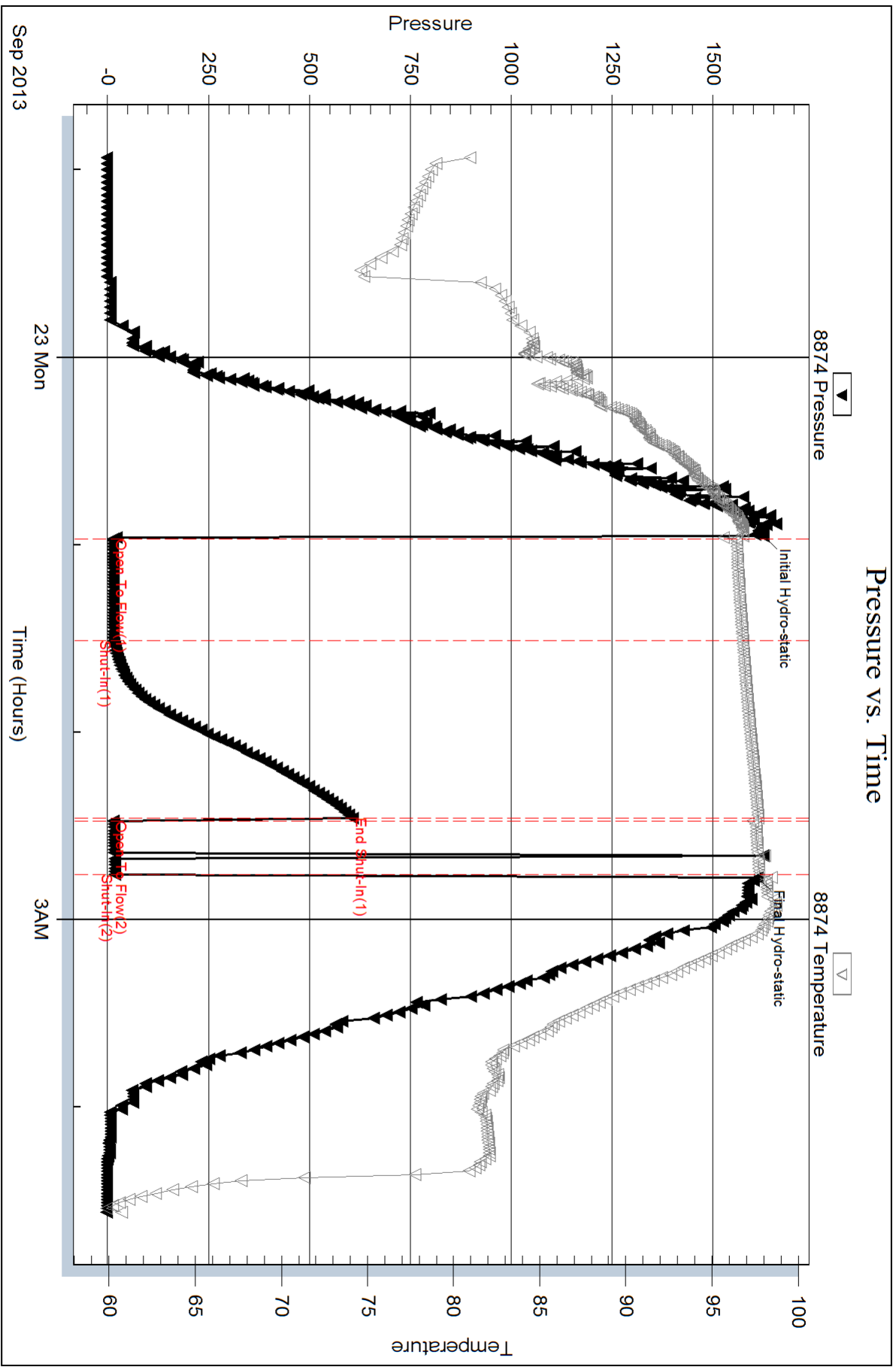
Serial #: 8874

Inside

Black Diamond Oil

Morris Unit #1

DST Test Number: 4

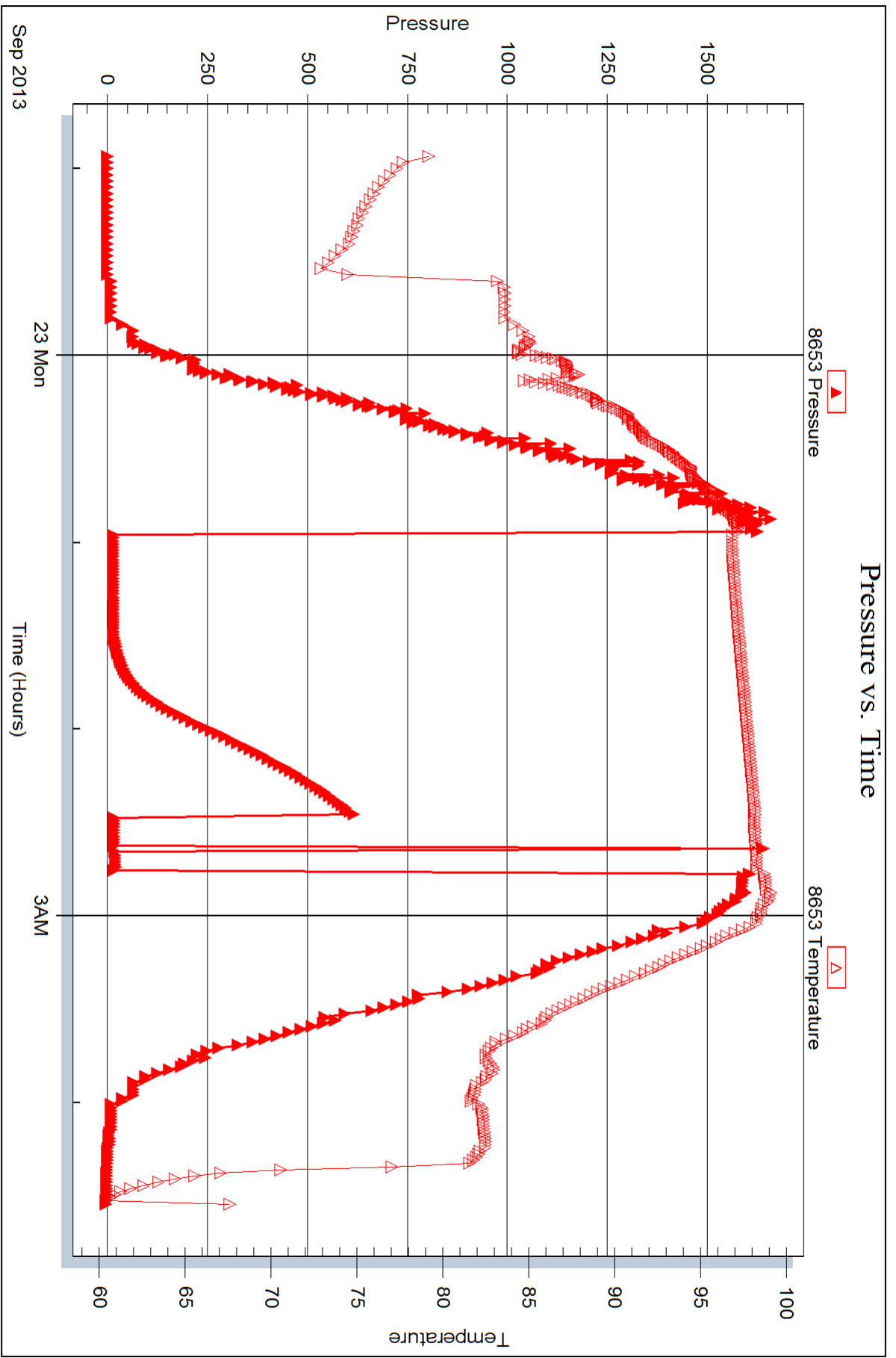


Serial #: 8653

Outside Black Diamond Oil

Morris Unit #1

DST Test Number: 4





DRILL STEM TEST REPORT

Prepared For: **Black Diamond Oil**

PO Box 641
Hays, KS 67601

ATTN: Jeff Lawler

Morris Unit #1

2-5s-21w Norton,KS

Start Date: 2013.09.23 @ 21:47:00

End Date: 2013.09.24 @ 04:56:30

Job Ticket #: 53540 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.09.25 @ 13:51:08



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Black Diamond Oil

2-5s-21w Norton, KS

PO Box 641
Hays, KS 67601

Morris Unit #1

ATTN: Jeff Lawler

Job Ticket: 53540

DST#: 5

Test Start: 2013.09.23 @ 21:47:00

GENERAL INFORMATION:

Formation: **LKC "H"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:39:50

Time Test Ended: 04:56:30

Test Type: Conventional Straddle (Reset)

Tester: Kevin Mack / Bob Ham

Unit No: 66

Interval: 3306.00 ft (KB) To 3332.00 ft (KB) (TVD)

Reference Elevations: 1992.00 ft (KB)

Total Depth: 3510.00 ft (KB) (TVD)

1987.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8874 Inside

Press @ Run Depth: 82.52 psig @ 3307.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.09.23

End Date:

2013.09.24

Last Calib.: 2013.09.24

Start Time: 21:48:00

End Time:

04:56:30

Time On Btm: 2013.09.23 @ 23:39:30

Time Off Btm: 2013.09.24 @ 02:42:00

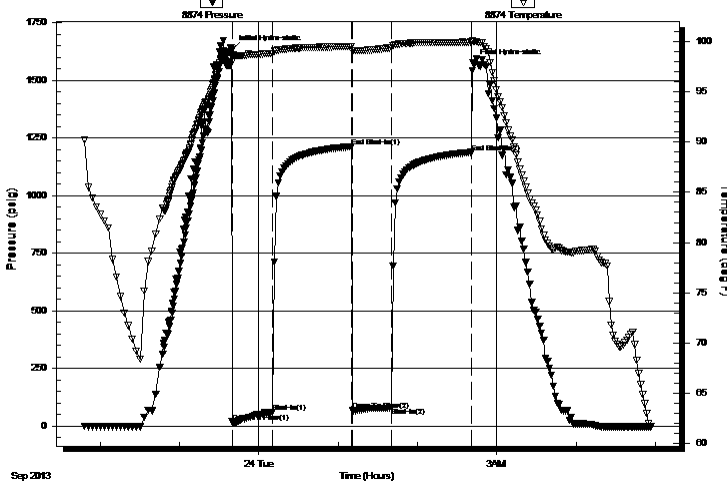
TEST COMMENT: IF - 1/8" Built to 4 3/4" in 30 Min.

ISI - No B.B.

F.F. - Surface Blow Started @ 5 Min. Built to 3"

F.S.I - No Return

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1633.60	99.07	Initial Hydro-static
1	16.84	98.44	Open To Flow (1)
31	59.60	98.76	Shut-In(1)
91	1213.11	99.48	End Shut-In(1)
91	68.94	99.07	Open To Flow (2)
121	82.52	99.37	Shut-In(2)
182	1188.67	99.92	End Shut-In(2)
183	1574.73	100.01	Final Hydro-static

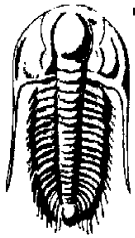
Recovery

Length (ft)	Description	Volume (bbl)
161.00	H,C,M,W 40%MUD 60%WATER	1.17

Gas Rates

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

* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Black Diamond Oil

PO Box 641
Hays, KS 67601

ATTN: Jeff Lawler

2-5s-21w Norton, KS

Morris Unit #1

Job Ticket: 53540

DST#: 5

Test Start: 2013.09.23 @ 21:47:00

GENERAL INFORMATION:

Formation: **LKC "H"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:39:50

Time Test Ended: 04:56:30

Test Type: Conventional Straddle (Reset)

Tester: Kevin Mack / Bob Ham

Unit No: 66

Interval: 3306.00 ft (KB) To 3332.00 ft (KB) (TVD)

Total Depth: 3510.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1992.00 ft (KB)

1987.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8653 Outside

Press @ Run Depth: psig @ 3307.00 ft (KB)

Start Date: 2013.09.23

End Date: 2013.09.24

Start Time: 21:48:00

End Time: 04:55:00

Capacity: 8000.00 psig

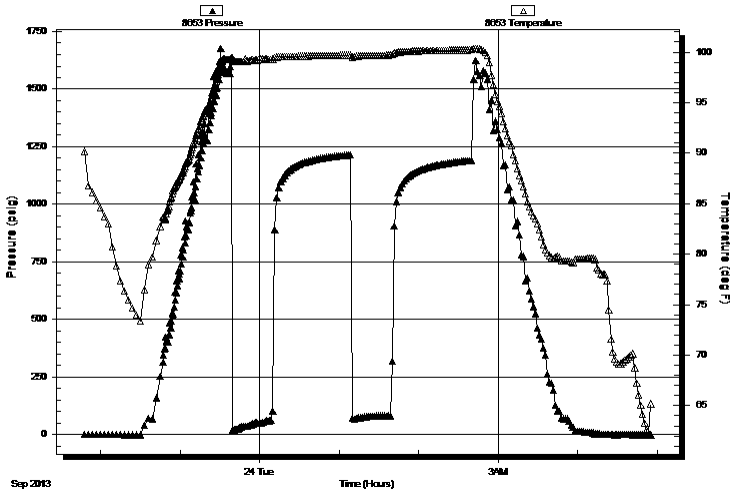
Last Calib.: 2013.09.24

Time On Btm:

Time Off Btm:

TEST COMMENT: IF - 1/8" Built to 4 3/4" in 30 Min.
ISI - No B.B.
F.F. - Surface Blow Started @ 5 Min. Built to 3"
F.S.I - No Return

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
161.00	H,C,M,W 40%MUD 60%WATER	1.17

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Black Diamond Oil

2-5s-21w Norton,KS

PO Box 641
Hays, KS 67601

Morris Unit #1

Job Ticket: 53540

DST#: 5

ATTN: Jeff Lawler

Test Start: 2013.09.23 @ 21:47:00

Tool Information

Drill Pipe:	Length: 3175.00 ft	Diameter: 3.80 inches	Volume: 44.54 bbl	Tool Weight:	2000.00 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose:	50000.00 lb
			<u>Total Volume: 45.13 bbl</u>	Tool Chased	ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial	45000.00 lb
Depth to Top Packer:	3306.00 ft			Final	46000.00 lb
Depth to Bottom Packer:	3327.00 ft				
Interval between Packers:	21.00 ft				
Tool Length:	221.00 ft				
Number of Packers:	3	Diameter:	6.75 inches		
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3287.00	
Shut In Tool	5.00			3292.00	
Hydraulic tool	5.00			3297.00	
Packer	5.00			3302.00	20.00 Bottom Of Top Packer
Packer	4.00			3306.00	
Stubb	1.00			3307.00	
Recorder	0.00	8653	Outside	3307.00	
Recorder	0.00	8874	Inside	3307.00	
Perforations	19.00			3326.00	
Blank Off Sub	1.00			3327.00	21.00 Tool Interval
Packer	4.00			3331.00	
Stubb	1.00			3332.00	
Recorder	0.00	8520	Below	3332.00	
Perforations	15.00			3347.00	
Change Over Sub	1.00			3348.00	
Drill Pipe	155.00			3503.00	
Change Over Sub	1.00			3504.00	
Bullnose	3.00			3507.00	180.00 Bottom Packers & Anchor

Total Tool Length: 221.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Black Diamond Oil

2-5s-21w Norton,KS

PO Box 641
Hays, KS 67601

Morris Unit #1

Job Ticket: 53540

DST#: 5

ATTN: Jeff Lawler

Test Start: 2013.09.23 @ 21:47:00

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: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 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
161.00	H,C,M,W 40%MUD 60%WATER	1.165

Total Length: 161.00 ft Total Volume: 1.165 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

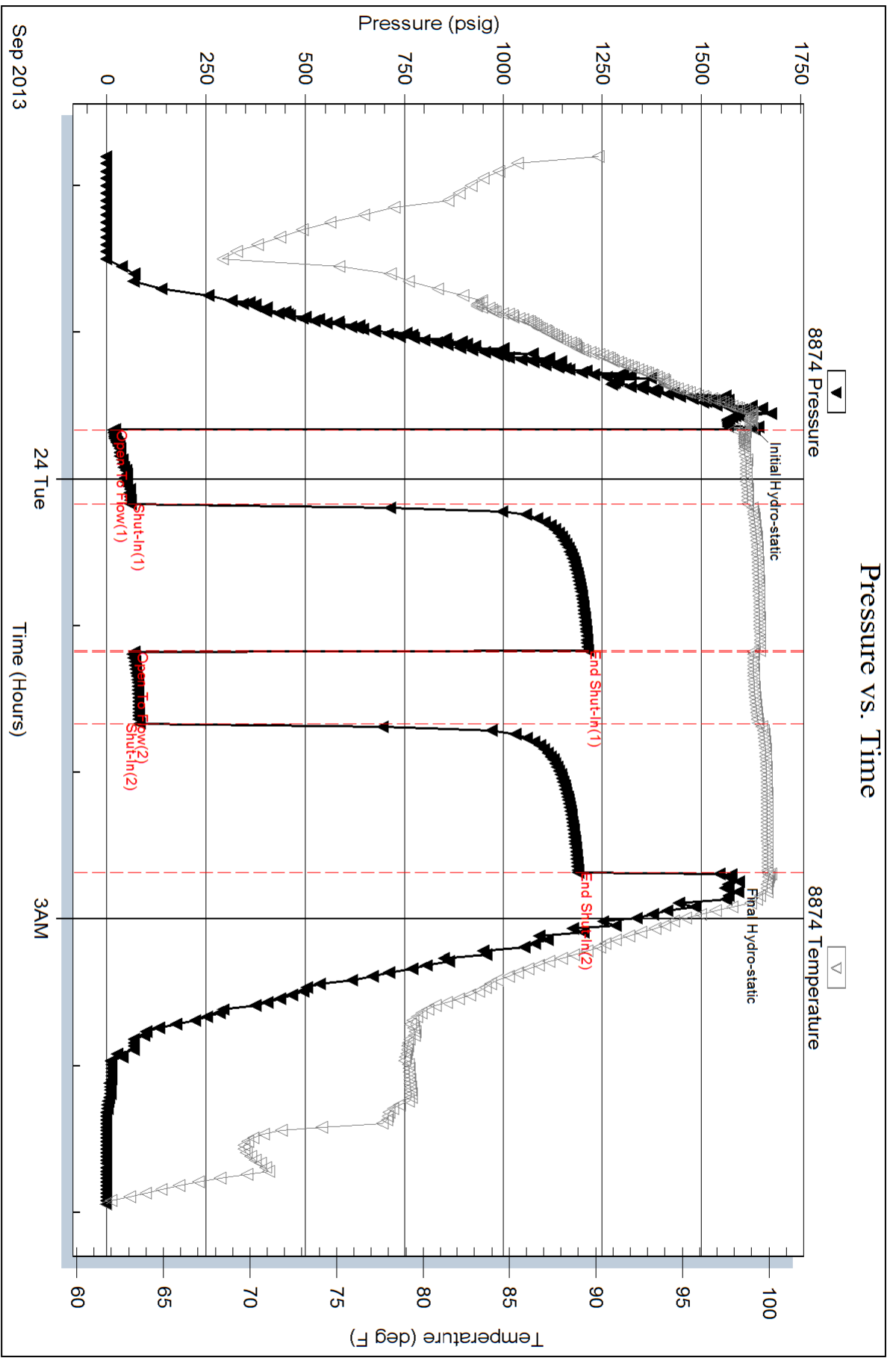
Serial #: 8874

Inside

Black Diamond Oil

Morris Unit #1

DST Test Number: 5



Trilobite Testing, Inc

Ref. No: 53540

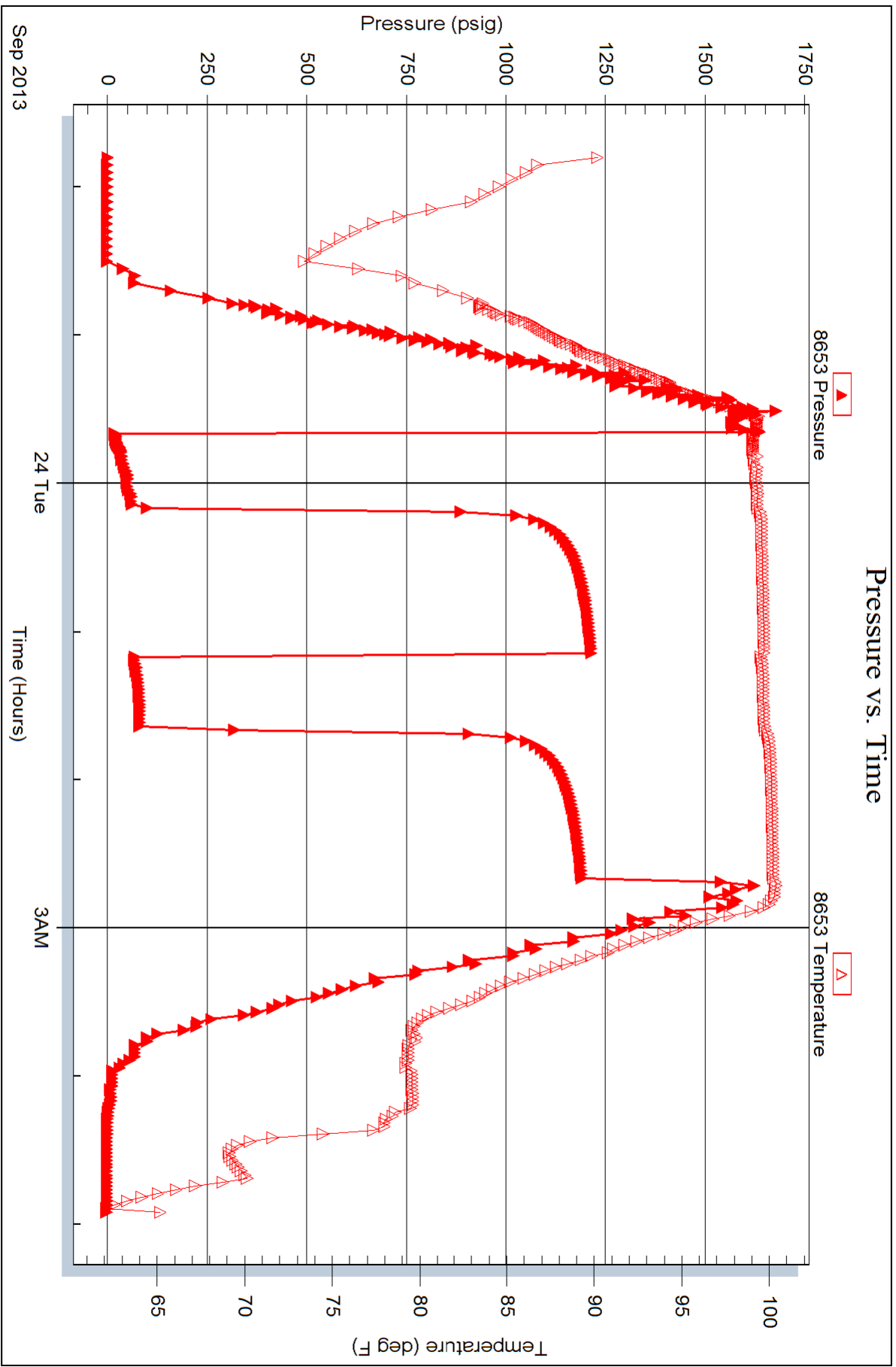
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Serial #: 8653

Outside Black Diamond Oil

Morris Unit #1

DST Test Number: 5

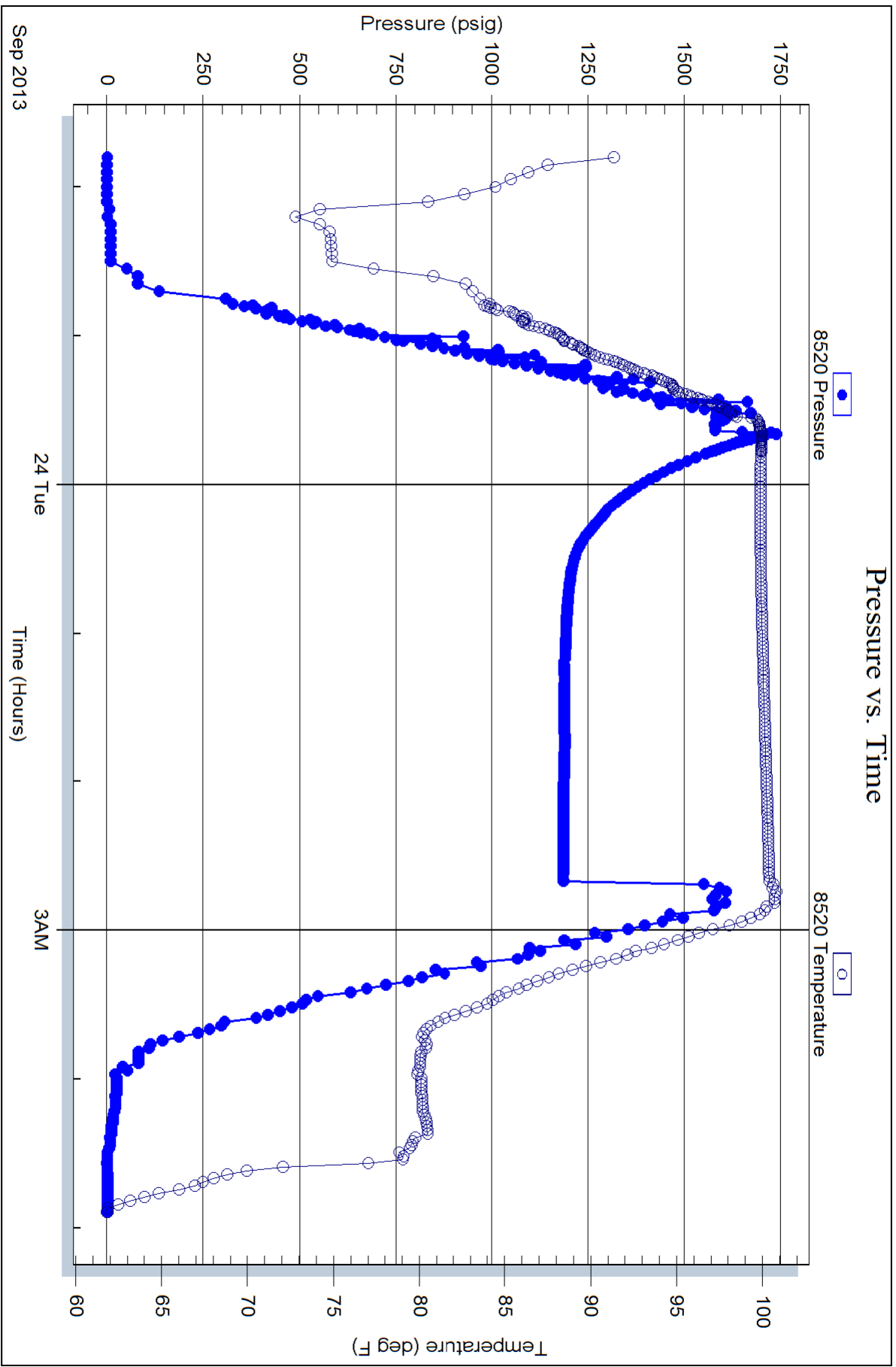


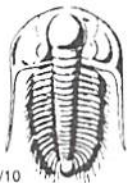
Serial #: 8520

Below (Stratall) Diamond Oil

Morris Unit #1

DST Test Number: 5





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53536

Well Name & No. Morris Unit #1 Test No. 1 Date 9-28-13
 Company Black Diamond Oil Elevation 1992 KB 1987 GL
 Address Po Box 641 Hays, KS 67601
 Co. Rep / Geo. Jeff Lawler Rig WW#6
 Location: Sec. 2 Twp. SS Rge. 21W Co. Norton State KS

Interval Tested 3168-3224 Zone Tested Toronto - LKC "A"
 Anchor Length 84' Drill Pipe Run 3025 Mud Wt. 8.5
 Top Packer Depth 3156 Drill Collars Run 120 Vis 69
 Bottom Packer Depth 3168 Wt. Pipe Run Ø WL 8.8
 Total Depth 3224 Chlorides 3000 ppm System LCM 2.5#

Blow Description IF - 1/4" Blow built to 7 1/2"
ISE - No Return
FF - Weak Surface Blow started at 1 min. Built to 5"
FSE - No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>48</u>	<u>Mud</u>			<u>100%</u>	
<u>128</u>	<u>WM</u>		<u>30</u>	<u>70</u>	

Rec Total 168 BHT 99 Gravity — API RW 27 @ 51 ° F Chlorides 39,000 ppm
 (A) Initial Hydrostatic 1501 Test 1150 T-On Location 9:00 PM
 (B) First Initial Flow 17 Jars _____ T-Started 9:45 PM
 (C) First Final Flow 71 Safety Joint _____ T-Open 12:01 AM
 (D) Initial Shut-In 1177 Circ Sub NIC T-Pulled 2:46 AM
 (E) Second Initial Flow 77 Hourly Standby _____ T-Out 4:50 AM
 (F) Second Final Flow 92 Mileage 128 RT 198.40 Comments _____
 (G) Final Shut-In 1163 Sampler _____
 (H) Final Hydrostatic 1477 Straddle _____
 Initial Open 30 Shale Packer _____
 Initial Shut-In 45 Shale Packer _____
 Final Flow 30 Extra Packer _____
 Final Shut-In 68 Extra Recorder _____
 Sub Total 1348.40 Day Standby _____
 Total 1348.40 Accessibility _____
 MP/DST Disc't _____
 Sub Total 1348.40

Approved By _____ Our Representative [Signature]

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

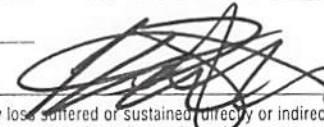
NO. 53537

Well Name & No. Morris Unit #1 Test No. 2 Date 9-21-13
 Company Black Diamond Oil Elevation 1992 KB 1987 GL
 Address PO Box 641 Hays, KS 67601
 Co. Rep / Geo. Jeff Lawler Rig WW#6
 Location: Sec. 2 Twp. 5S Rge. 21W Co. Norton State KS

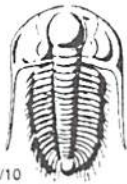
Interval Tested ~~3062~~ 3222-3262 Zone Tested LKC "C-D"
 Anchor Length 40' Drill Pipe Run 3102 Mud Wt. 9
 Top Packer Depth 3218 Drill Collars Run 120 Vis 51
 Bottom Packer Depth 3222 Wt. Pipe Run 0 WL 8.0
 Total Depth 3262 Chlorides 3000 ppm System LCM 2#
 Blow Description IF- BOB in 3 1/2 min
ISF- Weak Surface Return Started at 7 min. Built to 1"
FF- BOB in 3 min.
FSI- NO Return

Rec	Feet of	%gas	%oil	%water	%mud
378	MW		60	40	
1047	MW		95	5	
5	Mud (Heavy)			100	

Rec Total 1430 BHT 101 Gravity - API RW .065 @ 92° F Chlorides 7,500 ppm
 (A) Initial Hydrostatic 1547 Test 1150 T-On Location 11:00 AM
 (B) First Initial Flow 64 Jars T-Started 11:14 AM
 (C) First Final Flow 354 Safety Joint T-Open 12:48 PM
 (D) Initial Shut-In 1130 Circ Sub NIC T-Pulled 3:03 PM
 (E) Second Initial Flow 362 Hourly Standby T-Out 5:40 PM
 (F) Second Final Flow 727 Mileage 128 RT 198.40
 (G) Final Shut-In 1126 Sampler
 (H) Final Hydrostatic 1518 Straddle
 Shale Packer
 Shale Packer
 Extra Packer
 Extra Recorder
 Day Standby
 Accessibility
 Sub Total 1348.40
 Initial Open 15
 Initial Shut-In 30
 Final Flow 38
 Final Shut-In 60
 Sub Total 1348.40
 Comments
 Ruined Shale Packer
 Ruined Packer
 Extra Copies
 Sub Total 0
 Total 1348.40
 MP/DST Disc't

Approved By _____ Our Representative 

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. 53538

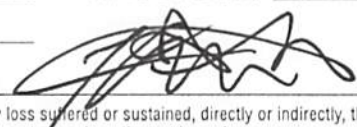
Well Name & No. Morris Unit #1 Test No. 3 Date 9-22-13
 Company Black Diamond Oil Elevation 1992 KB 1987 GL
 Address PO Box 641 Hays, KS 67601
 Co. Rep / Geo. Jeff Lawler Rig WW #6
 Location: Sec. 2 Twp. 5S Rge. 2W Co. Norton State KS

Interval Tested 3328-3365 Zone Tested LKC "I-J"
 Anchor Length 37 Drill Pipe Run 3195 Mud Wt. 9.2
 Top Packer Depth 3324 Drill Collars Run 120 Vis 47
 Bottom Packer Depth 3328 Wt. Pipe Run 0 WL 8.8
 Total Depth 3365 Chlorides 3,000 ppm System LCM 2#
 Blow Description IF - 1/2" Blow built to 4 1/2"
ISI - No Return
FF - Surface Blow started at 5 min. Built to 6 1/4"
FSI - No Return

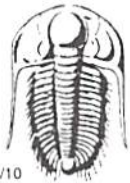
Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>MW</u>		<u>60</u>	<u>40</u>	
<u>60</u>	<u>MW</u>		<u>80</u>	<u>20</u>	
<u>60</u>	<u>MW</u>		<u>50</u>	<u>50</u>	

Rec Total 150 BHT 101 Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic 1611 Test 1150 T-On Location 5:50 AM
 (B) First Initial Flow 14 Jars - T-Started 7:26 AM
 (C) First Final Flow 54 Safety Joint - T-Open 9:15 AM
 (D) Initial Shut-In 1236 Circ Sub NIC T-Pulled 1:45 PM
 (E) Second Initial Flow 58 Hourly Standby - T-Out 3:30 PM
 (F) Second Final Flow 87 Mileage 128 RT 198.40
 (G) Final Shut-In 1228 Sampler -
 (H) Final Hydrostatic 1588 Straddle -
 Ruined Shale Packer
 Ruined Packer
 Extra Copies
 Initial Open 45 Shale Packer
 Initial Shut-In 60 Extra Packer
 Final Flow 75 Extra Recorder
 Final Shut-In 90 Day Standby
 Accessibility
 Sub Total 1348.40 Sub Total 0
 Total 1348.40 MP/DST Disc't -

Approved By _____ Our Representative 

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53539

Well Name & No. Morris Unit #1 Test No. 4 Date 9-22-13
 Company Black Diamond Oil. Elevation 1992 KB 1987 GL
 Address Po Box 641 Hays, KS 67601
 Co. Rep / Geo. Jeff Lawler Rig LSW #6
 Location: Sec. 2 Twp. 5S Rge. 2W Co. Norton State KS

Interval Tested 3363-3400 Zone Tested LKC "K-L"
 Anchor Length 37' Drill Pipe Run 3256 Mud Wt. 8.5 9.2
 Top Packer Depth 3359 Drill Collars Run 120 Vis 59 47
 Bottom Packer Depth 3363 Wt. Pipe Run Ø WL 8.8 8.8
 Total Depth 3400 Chlorides 3,000 ppm System LCM 2 2#

Blow Description IF - 1/8" Blow built to
IST - No Return
FF - ~~was~~ No Blow - Flushed tool at 10 min. - No Blow
FSI - Pulled tool

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>Mud</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 Total 100 BHT 98 Gravity - API RW - @ - ° F Chlorides - ppm
 (A) Initial Hydrostatic 1625 Test 1150 T-On Location 10:30 PM
 (B) First Initial Flow 13 Jars - T-Started 10:55 PM
 (C) First Final Flow 14 Safety Joint - T-Open 1:00 AM
 (D) Initial Shut-In 606 Circ Sub N/C T-Pulled 2:50 AM
 (E) Second Initial Flow 14 Hourly Standby - T-Out 4:40 AM
 (F) Second Final Flow 18 Mileage 128 RT 198.40 Comments -
 (G) Final Shut-In Ø - Sampler -
 (H) Final Hydrostatic 1610 Straddle -

Initial Open 30 Shale Packer -
 Initial Shut-In 60 Shale Packer -
 Final Flow 20 Extra Packer -
 Final Shut-In - Extra Recorder -
 Day Standby - Sub Total 0
 Accessibility - Total 1348.40
 Sub Total 1348.40 MP/DST Disc't -

Approved By _____ Our Representative [Signature]
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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53540

Well Name & No. Morris Unit #1 Test No. 5 Date 9-23-13
 Company Black Diamond Oil Elevation 1992 KB 1987 GL
 Address PO Box 641 Hays, KS 67601
 Co. Rep / Geo. Jeff Lawler Rig WW #6
 Location: Sec. 2 Twp. 5S Rge. 21W Co. Norton State KS

Interval Tested 3306-3332 Zone Tested LKC "H"
 Anchor Length 26' Drill Pipe Run 3164 Mud Wt. 9.2
 Top Packer Depth 3302- Drill Collars Run 120 Vis 57
 Bottom Packer Depth 3306 / 3332 - straddle packer Wt. Pipe Run 2,500 lb WL 8.0
 Total Depth 3510 Chlorides _____ ppm System LCM 2.5 #
 Blow Description IF - 1/8" Blow built to 4 3/4"
ISI - NO Return
FF - Surface Blow started at 5 min. Built to 3"
FSI - NO Return

Rec	Feet of	(total fluid)	H, M, C, W	%gas	%oil	%water	%mud
161					60	40	

Rec Total 161 BHT 100 Gravity — API RW .18 @ _____ °F Chlorides 49,000 ppm
 (A) Initial Hydrostatic 4,634 Test 1150 T-On Location 7:30 PM
 (B) First Initial Flow 17 Jars 250 T-Started 9:47 PM
 (C) First Final Flow 60 Safety Joint 75 T-Open 11:40 PM
 (D) Initial Shut-In 1,213 Circ Sub NIC T-Pulled 2:40 AM
 (E) Second Initial Flow 69 Hourly Standby _____ T-Out 5:00 AM
 (F) Second Final Flow 83 Mileage 128 RT 198.40
 (G) Final Shut-In 1,189 Sampler _____
 (H) Final Hydrostatic 1,575 Straddle 600
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 2273.40
 MP/DST Disc't 25%
 Our Representative Kevin [Signature]

Approved By _____
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