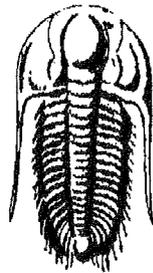


15-039-21085

12-3s-27w

Jud



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Murfin**

250 N. Water Ste. 300
Wichita, KS 67202

CONFIDENTIAL
MAY 20 2009
KCC

ATTN: Paul Gunzelman

12-3s-27w Decator KS

Heilman 1-12

Start Date: 2009.01.23 @ 09:21:27

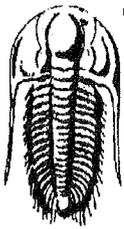
End Date: 2009.01.23 @ 16:47:51

Job Ticket #: 35153 DST #: 1

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Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Murfin
Heilman 1-12
12-3s-27w Decator KS
DST # 1
Toronto - LKC "A"
2009.01.23



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin
250 N. Water Ste. 300
Wichita, KS 67202

ATTN: Paul Gunzelman

Heilman 1-12
12-3s-27w Decator KS
Job Ticket: 35153 **DST#: 1**
Test Start: 2009.01.23 @ 09:21:27

Tool Information

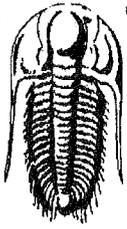
Drill Pipe:	Length: 3385.00 ft	Diameter: 3.80 inches	Volume: 47.48 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 150.00 ft	Diameter: 2.25 inches	Volume: 0.74 bbl	Weight to Pull Loose: 68000.00 lb
		Total Volume:	48.22 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	3550.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	54.00 ft			
Tool Length:	81.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:
head came unscrewed during test

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3528.00	
Hydraulic tool	5.00			3533.00	
Jars	5.00			3538.00	
Safety Joint	2.00			3540.00	
Packer	5.00			3545.00	27.00 Bottom Of Top Packer
Packer	5.00			3550.00	
Stubb	1.00			3551.00	
Perforations	2.00			3553.00	
Change Over Sub	1.00			3554.00	
Recorder	0.00	8018	Inside	3554.00	
Recorder	0.00	8371	Inside	3554.00	
Blank Spacing	31.00			3585.00	
Change Over Sub	1.00			3586.00	
Perforations	15.00			3601.00	
Bullnose	3.00			3604.00	54.00 Bottom Packers & Anchor

Total Tool Length: 81.00

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**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin
250 N. Water Ste. 300
Wichita, KS 67202
ATTN: Paul Gunzelman

Heilman 1-12
12-3s-27w Decator KS
Job Ticket: 35153 **DST#: 1**
Test Start: 2009.01.23 @ 09:21:27

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:	90500 ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.32 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 600.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	MW 70%W, 30%M	0.590
40.00	WMw/ O spts 5%W, 95%M	0.288

Total Length: 160.00 ft Total Volume: 0.878 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: RW .267 @ 24F

DST Test Number: 1

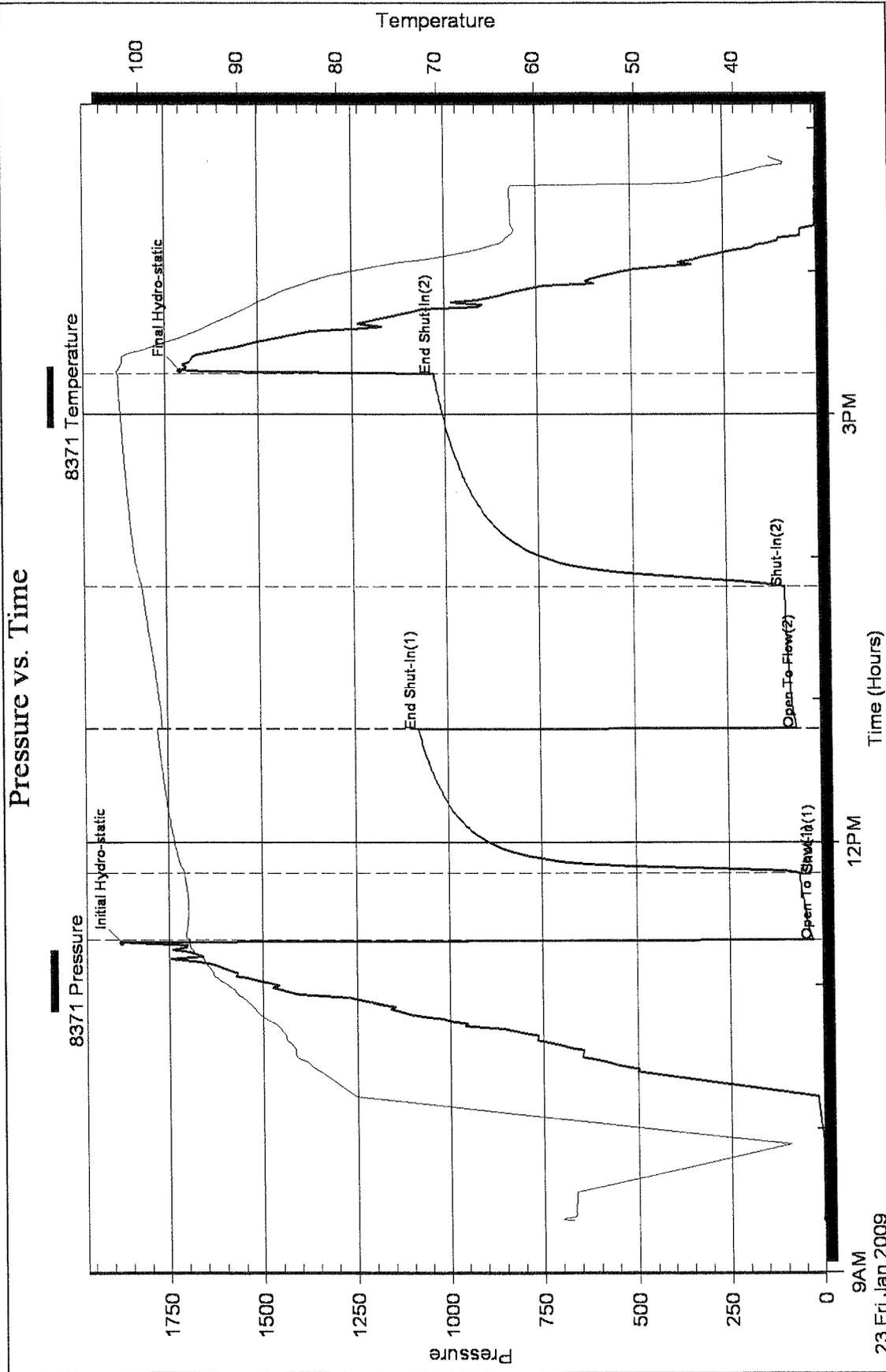
12-3s-27w Decator KS

Murfin

Inside

Serial #: 8371

Pressure vs. Time

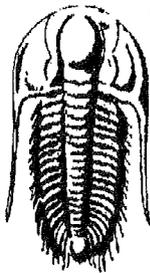


9AM
23 Fri Jan 2009

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Ref. No: 35153

Trilobite Testing, Inc



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Murfin**

250 N. Water Ste. 300
Wichita, KS 67202

CONFIDENTIAL
MAY 20 2009
KCC

ATTN: Paul Gunzelman

12-3s-27w Decator KS

Heilman 1-12

Start Date: 2009.01.23 @ 23:08:36

End Date: 2009.01.24 @ 07:00:30

Job Ticket #: 35154 DST #: 2

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

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**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin
250 N. Water Ste. 300
Wichita, KS 67202
ATTN: Paul Gunzelman

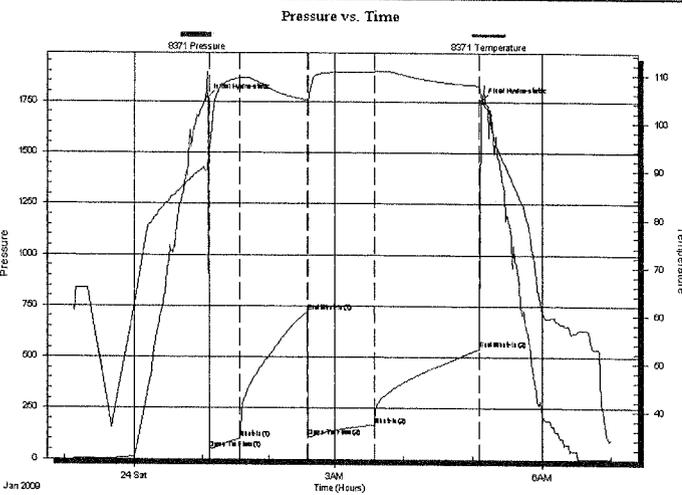
Heilman 1-12
12-3s-27w Decator KS
Job Ticket: 35154 **DST#: 2**
Test Start: 2009.01.23 @ 23:08:36

GENERAL INFORMATION:

Formation: **LKC "POLLNOW"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 01:05:31
Time Test Ended: 07:00:30
Test Type: Conventional Bottom Hole
Tester: Brian Fairbank
Unit No: 41
Interval: **3604.00 ft (KB) To 3625.00 ft (KB) (TVD)**
Reference Elevations: 2658.00 ft (KB)
Total Depth: 3625.00 ft (KB) (TVD) 2653.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: KB to GR/CF: 5.00 ft

Serial #: 8371 **Inside**
Press@RunDepth: 170.25 psig @ 3607.00 ft (KB) Capacity: 7000.00 psig
Start Date: 2009.01.23 End Date: 2009.01.24 Last Calib.: 2009.01.24
Start Time: 23:08:36 End Time: 07:00:30 Time On Btm: 2009.01.24 @ 01:04:31
Time Off Btm: 2009.01.24 @ 05:07:00

TEST COMMENT: IFF - BOB 3 min.
ISI - BOB 30 min.
FFP - BOB 10 min.
FSI - BOB 22 min.



PRESSURE SUMMARY

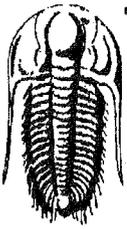
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1768.19	91.47	Initial Hydro-static
1	50.47	91.49	Open To Flow (1)
29	101.59	109.37	Shut-In(1)
91	721.90	104.81	End Shut-In(1)
92	109.96	104.24	Open To Flow (2)
150	170.25	110.69	Shut-In(2)
241	541.92	107.87	End Shut-In(2)
243	1753.98	105.90	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GHOCM 25%G, 40%O, 35%M	0.30
310.00	G FREE OIL 5%G, 95%O	4.08
0.00	510' GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin
250 N. Water Ste. 300
Wichita, KS 67202

ATTN: Paul Gunzelman

Heilman 1-12
12-3s-27w Decator KS
Job Ticket: 35154 **DST#: 2**
Test Start: 2009.01.23 @ 23:08:36

Tool Information

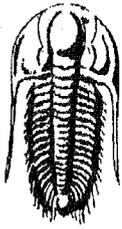
Drill Pipe:	Length: 3509.00 ft	Diameter: 3.80 inches	Volume: 49.22 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 90.00 ft	Diameter: 2.25 inches	Volume: 0.44 bbl	Weight to Pull Loose: 80000.00 lb
		Total Volume:	49.66 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3604.00 ft			Final 53000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	21.00 ft			
Tool Length:	48.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3582.00	
Hydraulic tool	5.00			3587.00	
Jars	5.00			3592.00	
Safety Joint	2.00			3594.00	
Packer	5.00			3599.00	27.00 Bottom Of Top Packer
Packer	5.00			3604.00	
Stubb	1.00			3605.00	
Perforations	2.00			3607.00	
Recorder	0.00	8018	Inside	3607.00	
Recorder	0.00	8371	Inside	3607.00	
Perforations	15.00			3622.00	
Bullnose	3.00			3625.00	21.00 Bottom Packers & Anchor

Total Tool Length: 48.00

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**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin
250 N. Water Ste. 300
Wichita, KS 67202
ATTN: Paul Gunzelman

Heilman 1-12
12-3s-27w Decator KS
Job Ticket: 35154 **DST#: 2**
Test Start: 2009.01.23 @ 23:08:36

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	35 deg API
Mud Weight: 9.00 lb/gal	Cushion Length:	Water Salinity:	ppm
Viscosity: 57.00 sec/qt	ft		
Water Loss: 6.32 in ³	Cushion Volume:		
Resistivity: ohm.m	bbl		
Salinity: 600.00 ppm	Gas Cushion Type:		
Filter Cake: inches	Gas Cushion Pressure:		
	psig		

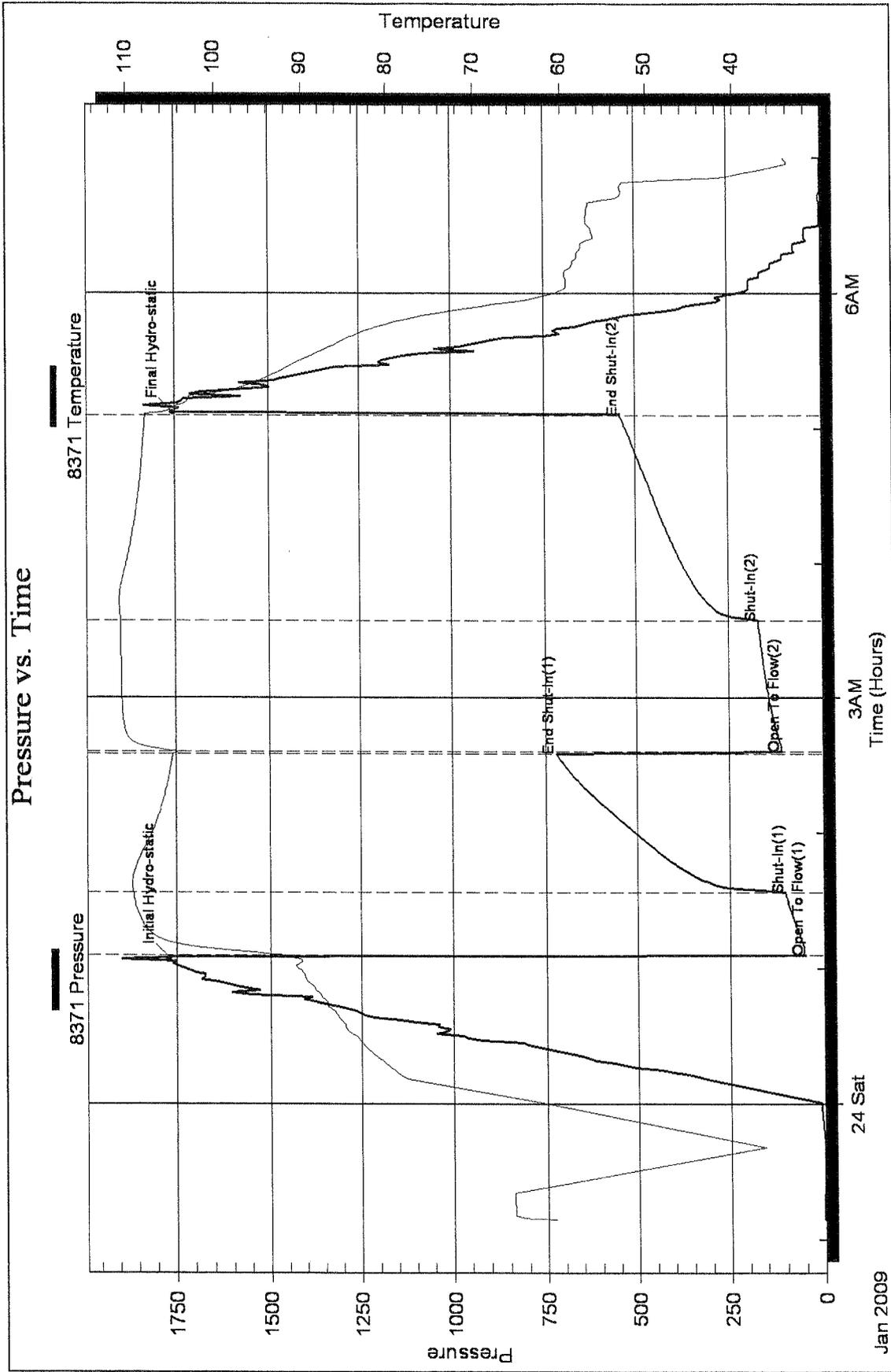
Recovery Information

Recovery Table

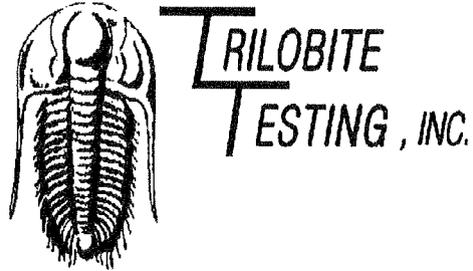
Length ft	Description	Volume bbl
60.00	GHOCM 25%G, 40%O, 35%M	0.295
310.00	G FREE OIL 5%G, 95%O	4.075
0.00	510' GIP	0.000

Total Length: 370.00 ft Total Volume: 4.370 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time



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DRILL STEM TEST REPORT

Prepared For: **Murfin**

250 N. Water Ste. 300
Wichita, KS 67202

CONFIDENTIAL
MAY 20 2009
KCC

ATTN: Paul Gunzelman

12-3s-27w Decator KS

Heilman 1-12

Start Date: 2009.01.24 @ 13:13:06

End Date: 2009.01.24 @ 20:58:00

Job Ticket #: 35155 DST #: 3

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PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin
 250 N. Water Ste. 300
 Wichita, KS 67202
 ATTN: Paul Gunzelman

Heilman 1-12
12-3s-27w Decator KS
 Job Ticket: 35155 **DST#: 3**
 Test Start: 2009.01.24 @ 13:13:06

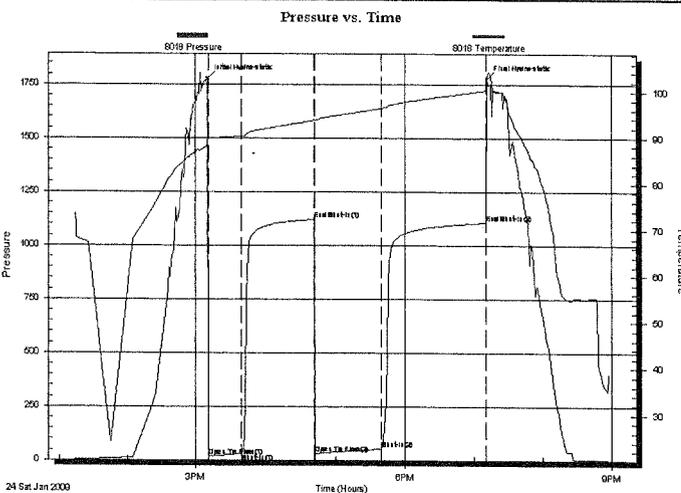
GENERAL INFORMATION:

Formation: **LKC "D"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 15:11:01
 Time Test Ended: 20:58:00
 Interval: **3632.00 ft (KB) To 3648.00 ft (KB) (TVD)**
 Total Depth: 3648.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: KB to GR/CF: 5.00 ft

Test Type: Conventional Bottom Hole
 Tester: Brian Fairbank
 Unit No: 41
 Reference Elevations: 2658.00 ft (KB)
 2653.00 ft (CF)

Serial #: 8018 Inside
 Press@RunDepth: 52.28 psig @ 3635.00 ft (KB) Capacity: 7000.00 psig
 Start Date: 2009.01.24 End Date: 2009.01.24 Last Calib.: 2009.01.24
 Start Time: 13:13:06 End Time: 20:58:00 Time On Btm: 2009.01.24 @ 15:10:01
 Time Off Btm: 2009.01.24 @ 19:11:30

TEST COMMENT: IFP - weak to good blow 1/2" - 7 1/2"
 ISI - no blow back 15 min. - sur blow died 4 min.
 FFP - BOB 52 min.
 FSI - sur blow back - died 26 min.



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1777.88	89.89	Initial Hydro-static
1	17.10	89.79	Open To Flow (1)
29	30.25	90.37	Shut-In(1)
92	1120.02	93.84	End Shut-In(1)
93	30.64	93.77	Open To Flow (2)
150	52.28	96.40	Shut-In(2)
241	1105.61	100.27	End Shut-In(2)
242	1774.34	102.94	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
30.00	GOCMW 10%G, 10%O, 55%W, 25%M	0.15
60.00	FREE OIL 95%O, 5%M	0.84
0.00	120' GIP	0.00

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin
250 N. Water Ste. 300
Wichita, KS 67202

ATTN: Paul Gunzelman

Heilman 1-12
12-3s-27w Decator KS
Job Ticket: 35155 **DST#: 3**
Test Start: 2009.01.24 @ 13:13:06

Tool Information

Drill Pipe:	Length: 3601.00 ft	Diameter: 3.80 inches	Volume: 50.51 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: 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: 50.66 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3632.00 ft			Final 49000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	16.00 ft			
Tool Length:	38.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

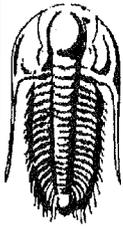
Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3615.00	
Hydraulic tool	5.00			3620.00	
Safety Joint	2.00			3622.00	
Packer	5.00			3627.00	22.00 Bottom Of Top Packer
Packer	5.00			3632.00	
Stubb	1.00			3633.00	
Perforations	2.00			3635.00	
Recorder	0.00	8018	Inside	3635.00	
Recorder	0.00	8371	Inside	3635.00	
Perforations	10.00			3645.00	
Bullnose	3.00			3648.00	16.00 Bottom Packers & Anchor

Total Tool Length: 38.00

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TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin
250 N. Water Ste. 300
Wichita, KS 67202
ATTN: Paul Gunzelman

Heilman 1-12
12-3s-27w Decator KS
Job Ticket: 35155 **DST#: 3**
Test Start: 2009.01.24 @ 13:13:06

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 26 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 120000 ppm
Viscosity: 62.00 sec/qt	Cushion Volume: bbl	
Water Loss: 5.95 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 900.00 ppm		
Filter Cake: inches		

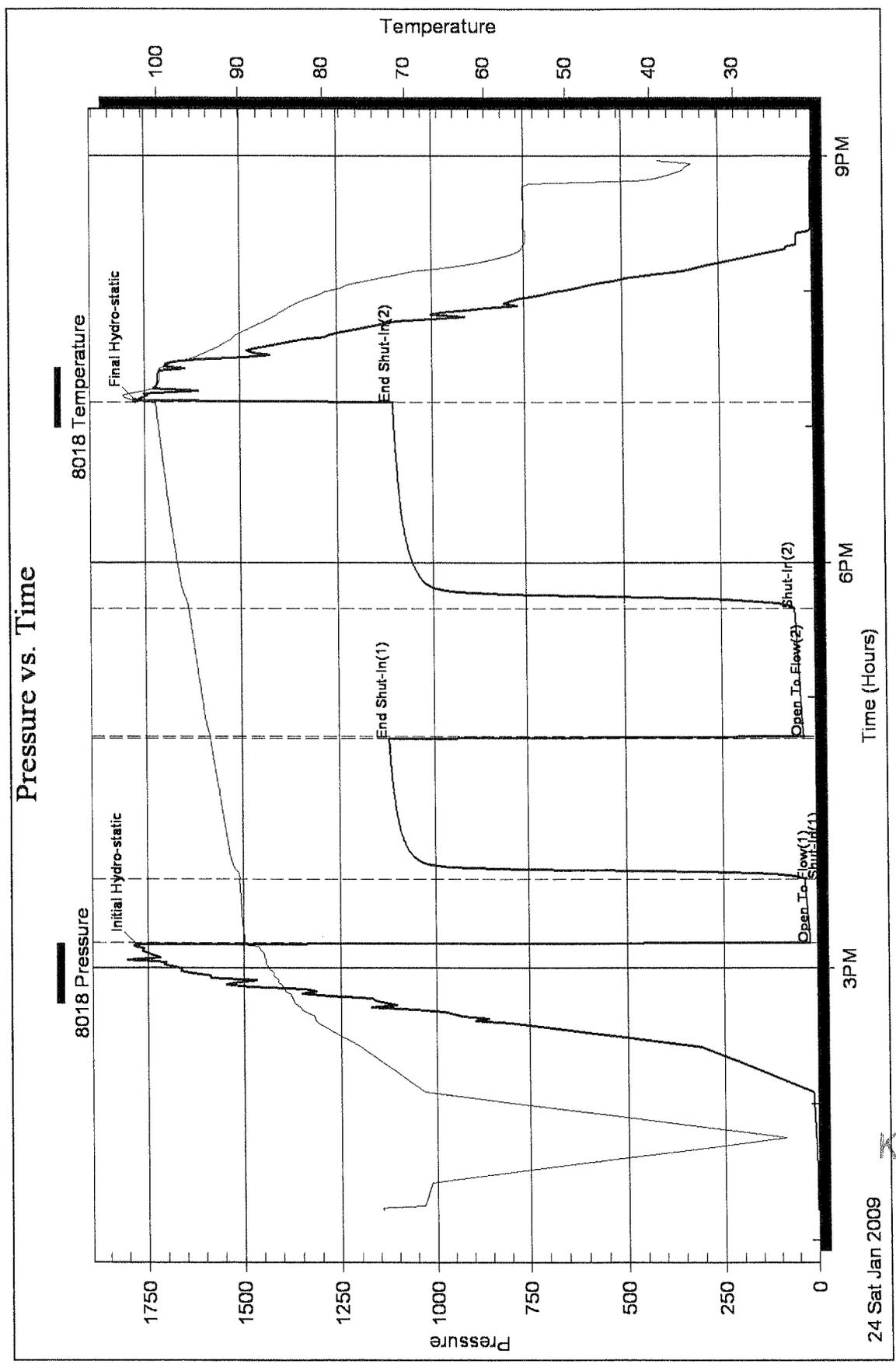
Recovery Information

Recovery Table

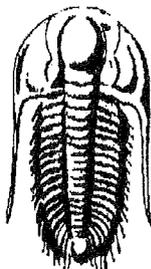
Length ft	Description	Volume bbl
30.00	GOCMW 10%G, 10%O, 55%W, 25%M	0.148
60.00	FREE OIL 95%O, 5%M	0.842
0.00	120' GIP	0.000

Total Length: 90.00 ft Total Volume: 0.990 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: RW .258 @ 19F

Pressure vs. Time



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**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Murfin**

250 N. Water Ste. 300
Wichita, KS 67202

CONFIDENTIAL
MAY 20 2009
KCC

ATTN: Paul Gunzelman

12-3s-27w Decator KS

Heilman 1-12

Start Date: 2009.01.25 @ 05:10:05

End Date: 2009.01.25 @ 11:35:59

Job Ticket #: 35156 DST #: 4

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Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Murfin

Heilman 1-12

12-3s-27w Decator KS

DST # 4

LKC "E-G"

2009.01.25



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin
250 N. Water Ste. 300
Wichita, KS 67202
ATTN: Paul Gunzelman

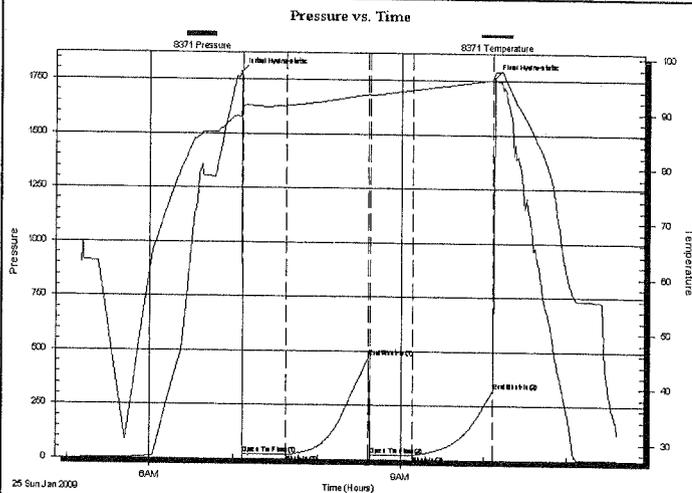
Heilman 1-12
12-3s-27w Decator KS
Job Ticket: 35156 **DST#: 4**
Test Start: 2009.01.25 @ 05:10:05

GENERAL INFORMATION:

Formation: **LKC "E-G"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:07:00
Time Test Ended: 11:35:59
Interval: **3648.00 ft (KB) To 3690.00 ft (KB) (TVD)**
Total Depth: 3690.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches
Hole Condition:
Test Type: Conventional Bottom Hole
Tester: Brian Fairbank
Unit No: 41
Reference Elevations: 2658.00 ft (KB)
2653.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8371 Inside
Press@RunDepth: 21.80 psig @ 3652.00 ft (KB) Capacity: 7000.00 psig
Start Date: 2009.01.25 End Date: 2009.01.25 Last Calib.: 2009.01.25
Start Time: 05:10:05 End Time: 11:35:59 Time On Btm: 2009.01.25 @ 07:06:00
Time Off Btm: 2009.01.25 @ 10:07:29

TEST COMMENT: IFF - weak blow throughout 1/2" - 1 1/4" - died to 1/4"
ISI - no blow back
FFP - no blow
FSI - no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1783.55	89.83	Initial Hydro-static
1	19.63	90.87	Open To Flow (1)
32	19.72	91.24	Shut-In(1)
91	471.39	93.40	End Shut-In(1)
92	21.03	93.22	Open To Flow (2)
122	21.80	94.22	Shut-In(2)
180	321.58	96.19	End Shut-In(2)
182	1762.54	97.46	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud w/ O spts	0.02

Gas Rates

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



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin
250 N. Water Ste. 300
Wichita, KS 67202

ATTN: Paul Gunzelman

Heilman 1-12
12-3s-27w Decator KS
Job Ticket: 35156 **DST#: 4**
Test Start: 2009.01.25 @ 05:10:05

Tool Information

Drill Pipe:	Length: 3600.00 ft	Diameter: 3.80 inches	Volume: 50.50 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: 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:	50.65 bbl	Tool Chased 7.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3648.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	42.00 ft			
Tool Length:	64.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:
Tool slid 7' to bottom

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3631.00	
Hydraulic tool	5.00			3636.00	
Safety Joint	2.00			3638.00	
Packer	5.00			3643.00	22.00 Bottom Of Top Packer
Packer	5.00			3648.00	
Stubb	1.00			3649.00	
Perforations	2.00			3651.00	
Change Over Sub	1.00			3652.00	
Recorder	0.00	8018	Inside	3652.00	
Recorder	0.00	8371	Inside	3652.00	
Blank Spacing	31.00			3683.00	
Change Over Sub	1.00			3684.00	
Perforations	3.00			3687.00	
Bullnose	3.00			3690.00	42.00 Bottom Packers & Anchor

Total Tool Length: 64.00

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TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin
250 N. Water Ste. 300
Wichita, KS 67202
ATTN: Paul Gunzelman

Heilman 1-12
12-3s-27w Decator KS
Job Ticket: 35156 **DST#: 4**
Test Start: 2009.01.25 @ 05:10:05

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: 62.00 sec/qt	Cushion Volume: bbl		
Water Loss: 5.96 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 900.00 ppm			
Filter Cake: inches			

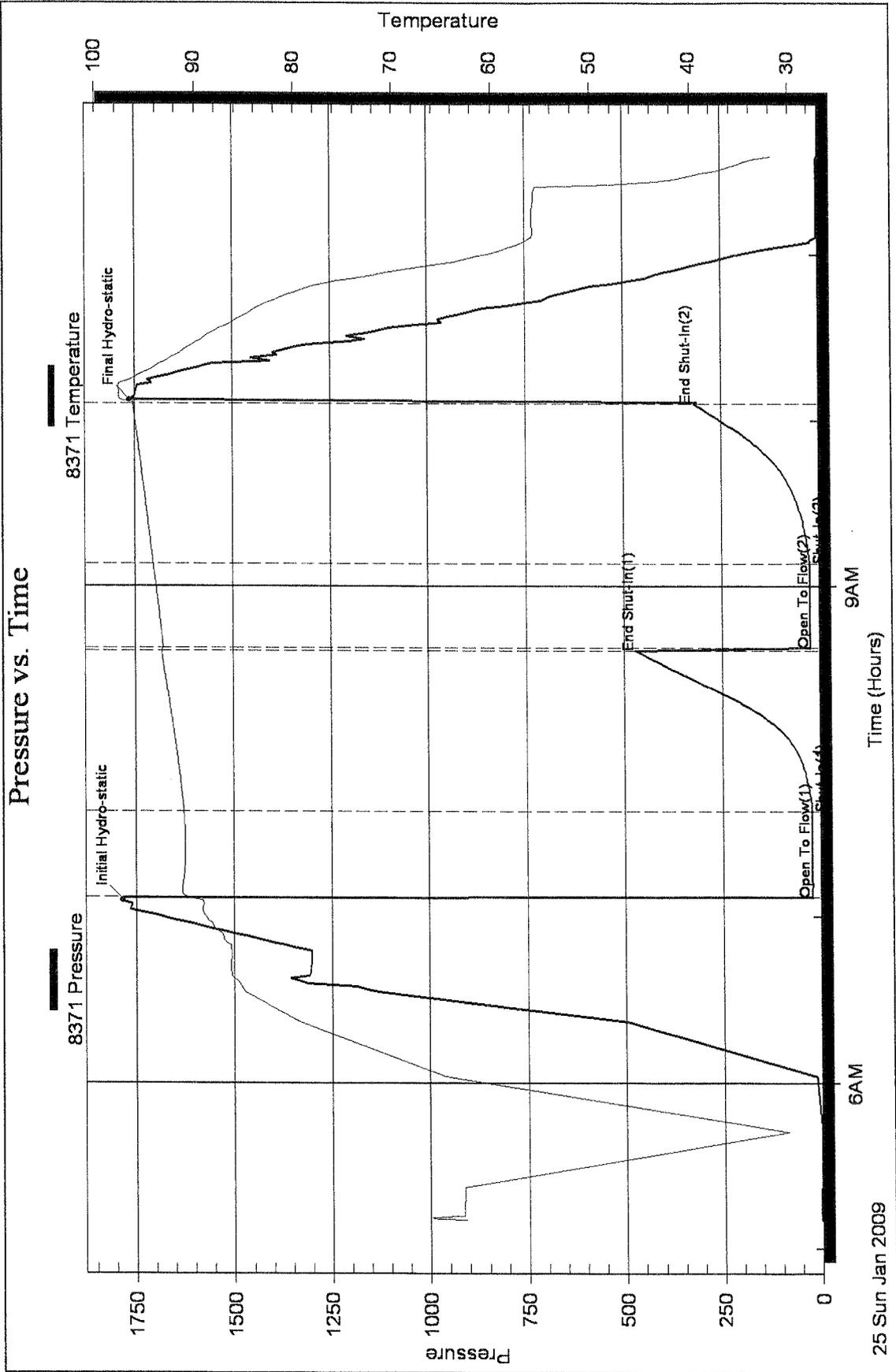
Recovery Information

Recovery Table

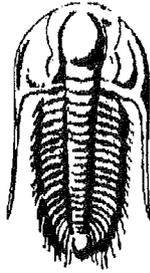
Length ft	Description	Volume bbl
5.00	mud w/ O spts	0.025

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:

Pressure vs. Time



Ref. No: 35156
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TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Murfin**

250 N. Water Ste. 300
Wichita, KS 67202

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ATTN: Paul Gunzelman

12-3s-27w Decator KS

Heilman 1-12

Start Date: 2009.01.25 @ 17:56:45

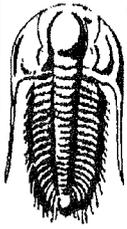
End Date: 2009.01.26 @ 01:31:09

Job Ticket #: 35157 DST #: 5

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Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Murfin
Heilman 1-12
12-3s-27w Decator KS
DST # 5
LKC "H"
2009.01.25



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Murfin
 250 N. Water Ste. 300
 Wichita, KS 67202
 ATTN: Paul Gunzelman

Heilman 1-12
12-3s-27w Decator KS
 Job Ticket: 35157 **DST#: 5**
 Test Start: 2009.01.25 @ 17:56:45

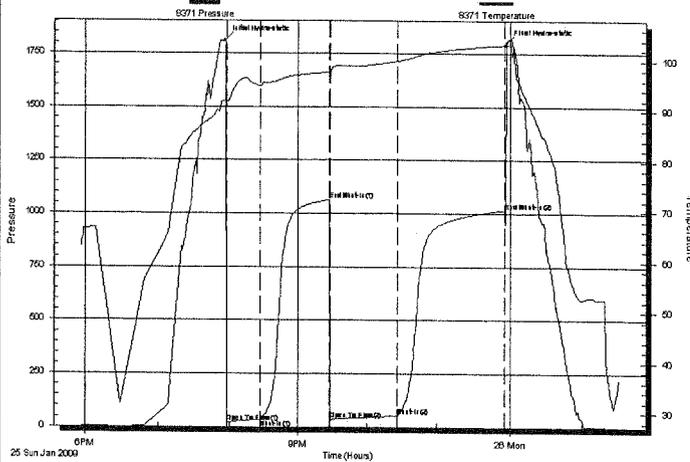
GENERAL INFORMATION:

Formation: **LKC "H"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 19:57:40
 Time Test Ended: 01:31:09
 Interval: **3688.00 ft (KB) To 3720.00 ft (KB) (TVD)**
 Total Depth: 3720.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition:
 Test Type: Conventional Bottom Hole
 Tester: Brian Fairbank
 Unit No: 41
 Reference Elevations: 2658.00 ft (KB)
 2653.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8371 Inside
 Press@RunDepth: 53.49 psig @ 3692.00 ft (KB) Capacity: 7000.00 psig
 Start Date: 2009.01.25 End Date: 2009.01.26 Last Calib.: 2009.01.26
 Start Time: 17:56:45 End Time: 01:31:09 Time On Btm: 2009.01.25 @ 19:56:40
 Time Off Btm: 2009.01.25 @ 23:57:09

TEST COMMENT: IFP - weak to good blow 1/2" - 7"
 ISI - no blow back
 FFP - BOB 36 min.
 FSI - no blow back

Pressure vs. Time



PRESSURE SUMMARY

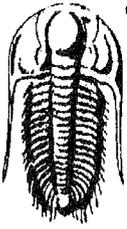
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1811.85	92.17	Initial Hydro-static
1	19.30	91.61	Open To Flow (1)
30	33.83	94.93	Shut-In(1)
91	1062.83	97.74	End Shut-In(1)
92	35.07	97.69	Open To Flow (2)
150	53.49	99.95	Shut-In(2)
239	1015.40	103.14	End Shut-In(2)
241	1799.95	103.98	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	HOCM 50%O, 50%M	0.15
30.00	MCO 70%O, 30%M	0.42
30.00	FREE OIL 95%O, 5%M	0.42
0.00	120' GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin
250 N. Water Ste. 300
Wichita, KS 67202

ATTN: Paul Gunzelman

Heilman 1-12
12-3s-27w Decator KS
Job Ticket: 35157 **DST#: 5**
Test Start: 2009.01.25 @ 17:56:45

Tool Information

Drill Pipe:	Length: 3663.00 ft	Diameter: 3.80 inches	Volume: 51.38 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: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 51.53 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3688.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	32.00 ft			
Tool Length:	54.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:
Tool stacked out 3 times up hole
Tool took on weight 3' up

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3671.00	
Hydraulic tool	5.00			3676.00	
Safety Joint	2.00			3678.00	
Packer	5.00			3683.00	22.00 Bottom Of Top Packer
Packer	5.00			3688.00	
Stubb	1.00			3689.00	
Perforations	3.00			3692.00	
Recorder	0.00	8018	Inside	3692.00	
Recorder	0.00	8371	Inside	3692.00	
Perforations	25.00			3717.00	
Bullnose	3.00			3720.00	32.00 Bottom Packers & Anchor

Total Tool Length: 54.00

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**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin
250 N. Water Ste. 300
Wichita, KS 67202
ATTN: Paul Gunzelman

Heilman 1-12
12-3s-27w Decator KS
Job Ticket: 35157 **DST#: 5**
Test Start: 2009.01.25 @ 17:56:45

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 27 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 56.00 sec/qt	Cushion Volume: bbl	
Water Loss: 6.38 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 2000.00 ppm		
Filter Cake: inches		

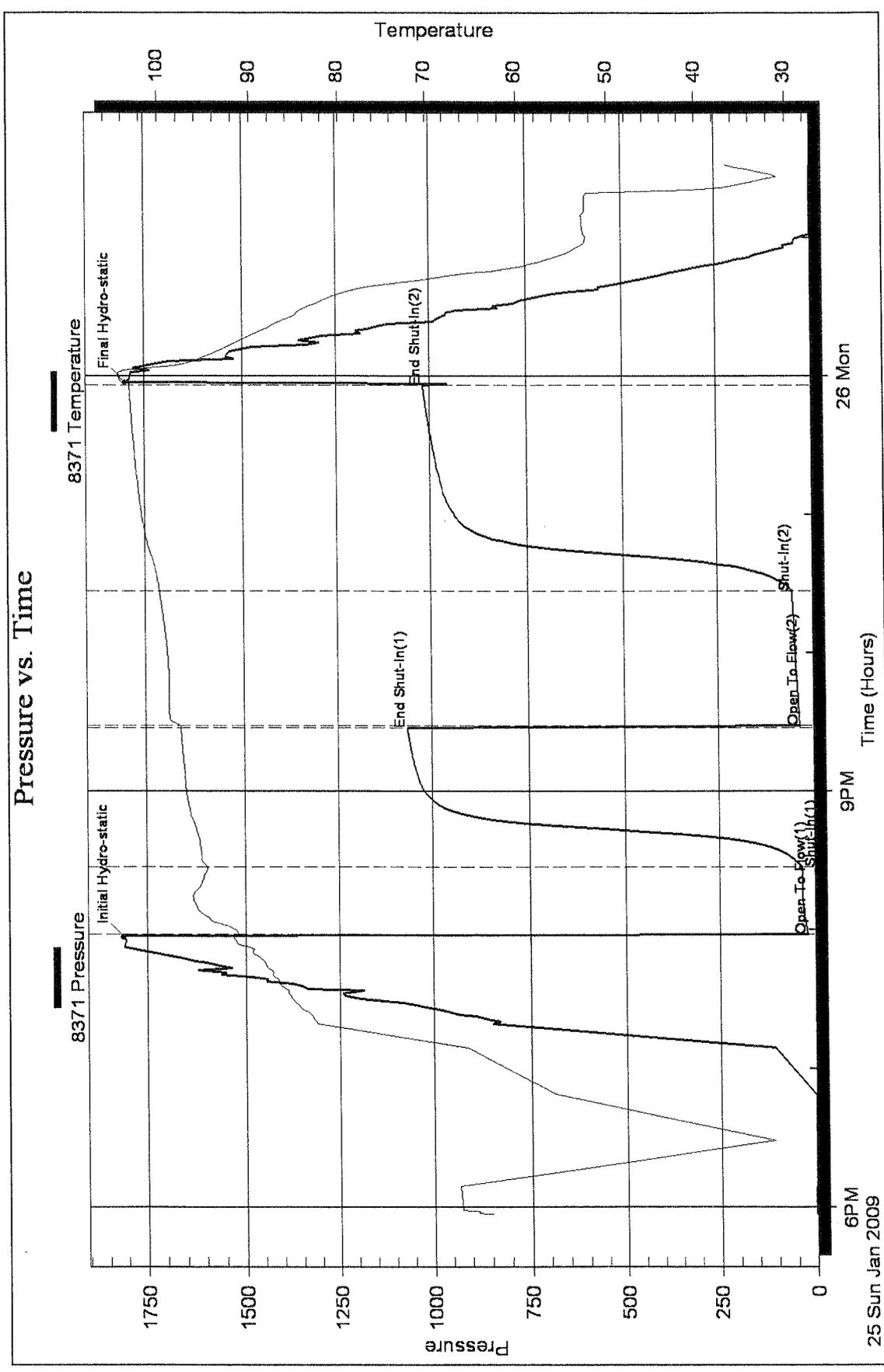
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	HOCM 50%O, 50%,M	0.148
30.00	MCO 70%O, 30%M	0.421
30.00	FREE OIL 95%O, 5%M	0.421
0.00	120' GIP	0.000

Total Length: 90.00 ft Total Volume: 0.990 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

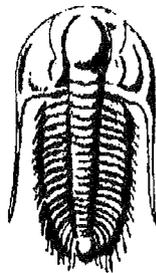
Pressure vs. Time



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Ref. No: 35157

Trilobite Testing, Inc



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Murfin**

250 N. Water Ste. 300
Wichita, KS 67202

ATTN: Paul Gunzelman

12-3s-27w Decator KS

Heilman 1-12

Start Date: 2009.01.26 @ 09:58:49

End Date: 2009.01.26 @ 17:27:43

Job Ticket #: 35158 DST #: 6

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Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Murfin

Heilman 1-12

12-3s-27w Decator KS

DST # 6

LKC "J-K"

2009.01.26



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin
250 N. Water Ste. 300
Wichita, KS 67202
ATTN: Paul Gunzelman

Heilman 1-12
12-3s-27w Decator KS
Job Ticket: 35158 **DST#: 6**
Test Start: 2009.01.26 @ 09:58:49

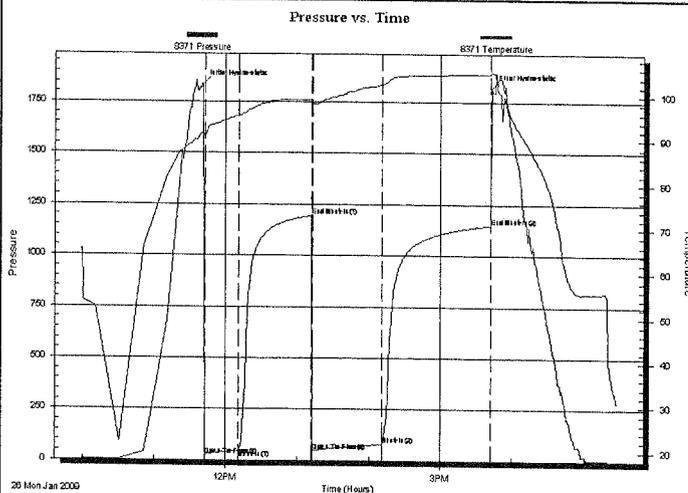
GENERAL INFORMATION:

Formation: **LKC "J-K"**
Deviated: **No** Whipstock: ft (KB)
Time Tool Opened: 11:42:14
Time Test Ended: 17:27:43
Interval: 3719.00 ft (KB) To 3776.00 ft (KB) (TVD)
Total Depth: 3776.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition:

Test Type: Conventional Bottom Hole
Tester: Brian Fairbank
Unit No: 41
Reference Elevations: 2658.00 ft (KB)
2653.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8371 **Inside**
Press@RunDepth: 79.16 psig @ 3725.00 ft (KB) Capacity: 7000.00 psig
Start Date: 2009.01.26 End Date: 2009.01.26 Last Calib.: 2009.01.26
Start Time: 09:58:49 End Time: 17:27:43 Time On Btm: 2009.01.26 @ 11:40:44
Time Off Btm: 2009.01.26 @ 15:43:13

TEST COMMENT: IFP - BOB 13 min.
ISI - sur blow back - died 15 min.
FFP - BOB 12 min.
FSI - sur blow back - died 15 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1831.77	91.59	Initial Hydro-static
2	22.56	90.91	Open To Flow (1)
31	48.41	95.63	Shut-In(1)
91	1193.28	99.28	End Shut-In(1)
92	47.03	98.43	Open To Flow (2)
150	79.16	102.67	Shut-In(2)
242	1148.14	105.08	End Shut-In(2)
243	1818.35	105.43	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	GHOCM 5%G, 50%O, 45%M	0.15
45.00	GMCO 5%G, 70%O, 25%M	0.63
80.00	G FREE OIL 20%G, 75%O, 5%M	1.12
0.00	370' GIP	0.00

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin
250 N. Water Ste. 300
Wichita, KS 67202
ATTN: Paul Gunzelman

Heilman 1-12
12-3s-27w Decator KS
Job Ticket: 35158 **DST#: 6**
Test Start: 2009.01.26 @ 09:58:49

Tool Information

Drill Pipe:	Length: 3695.00 ft	Diameter: 3.80 inches	Volume: 51.83 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: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 70000.00 lb
		Total Volume:	51.98 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 49000.00 lb
Depth to Top Packer:	3719.00 ft			Final 51000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	57.00 ft			
Tool Length:	79.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3702.00	
Hydraulic tool	5.00			3707.00	
Safety Joint	2.00			3709.00	
Packer	5.00			3714.00	22.00 Bottom Of Top Packer
Packer	5.00			3719.00	
Stubb	1.00			3720.00	
Perforations	4.00			3724.00	
Change Over Sub	1.00			3725.00	
Recorder	0.00	8018	Inside	3725.00	
Recorder	0.00	8371	Inside	3725.00	
Blank Spacing	32.00			3757.00	
Change Over Sub	1.00			3758.00	
Perforations	15.00			3773.00	
Bullnose	3.00			3776.00	57.00 Bottom Packers & Anchor
Total Tool Length:	79.00				

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DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin
250 N. Water Ste. 300
Wichita, KS 67202
ATTN: Paul Gunzelman

Heilman 1-12
12-3s-27w Decator KS
Job Ticket: 35158 **DST#: 6**
Test Start: 2009.01.26 @ 09:58:49

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 35 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 56.00 sec/qt	Cushion Volume: bbl	
Water Loss: 6.38 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 2000.00 ppm		
Filter Cake: inches		

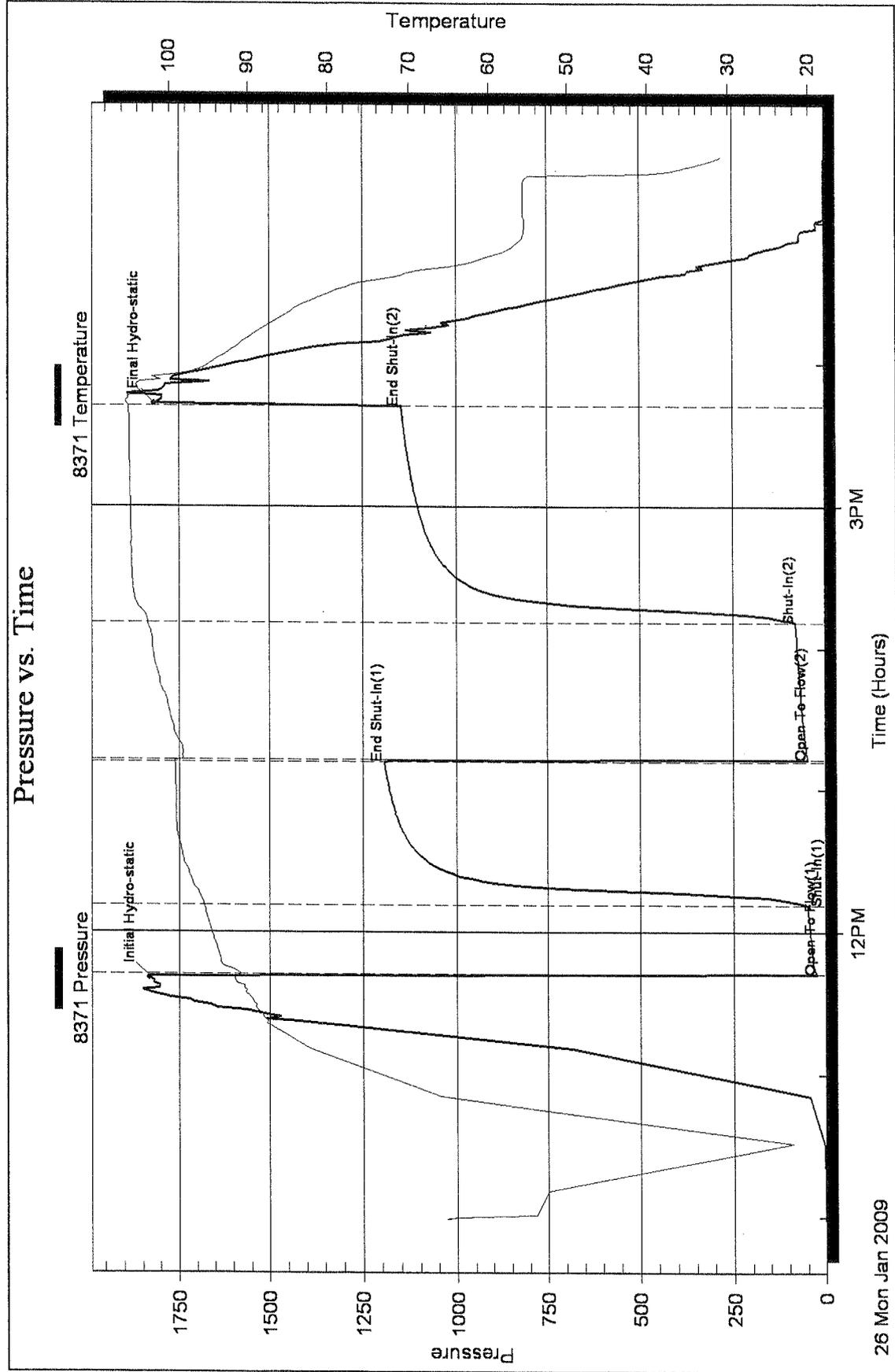
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	GHOOM 5%G, 50%O, 45%M	0.148
45.00	GMCO 5%G, 70%O, 25%M	0.631
80.00	G FREE OIL 20%G, 75%O, 5%M	1.122
0.00	370' GIP	0.000

Total Length: 155.00 ft Total Volume: 1.901 bbl

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



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