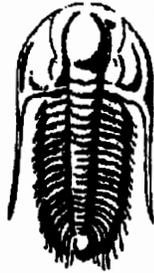


15-065-23600

32-6s-23w



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **H&C Oil Operating, Inc.**

P.O. Box 86
Plainville KS 67663

ATTN: Marc Downing

32 6S 23W Graham KS

Walters #32-1

Start Date: 2009.12.10 @ 11:45:00

End Date: 2009.12.10 @ 15:59:30

Job Ticket #: 35617 DST #: 1

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JAN 9 9 2010

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

H&C Oil Operating, Inc.

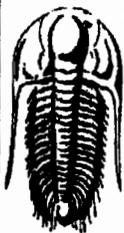
Walters #32-1

32 6S 23W Graham KS

DST # 1

LKC-C

2009.12.10



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

H&C Oil Operating, Inc.

Walters #32-1

P.O. Box 86
Plainville KS 67663

32 6S 23W Graham KS

Job Ticket: 35617 DST#: 1

ATTN: Marc Downing

Test Start: 2009.12.10 @ 11:45:00

GENERAL INFORMATION:

Formation: LKC-C

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:48:00

Time Test Ended: 15:59:30

Test Type: Conventional Bottom Hole

Tester: Chuck Kreutzer Jr.

Unit No: 36

Interval: 3786.00 ft (KB) To 3794.00 ft (KB) (TVD)

Total Depth: 3794.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2481.00 ft (KB)

2476.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6672 Inside

Press@RunDepth: psig @ 3787.00 ft (KB)

Start Date: 2009.12.10 End Date: 2009.12.10

Start Time: 11:45:05 End Time: 15:59:30

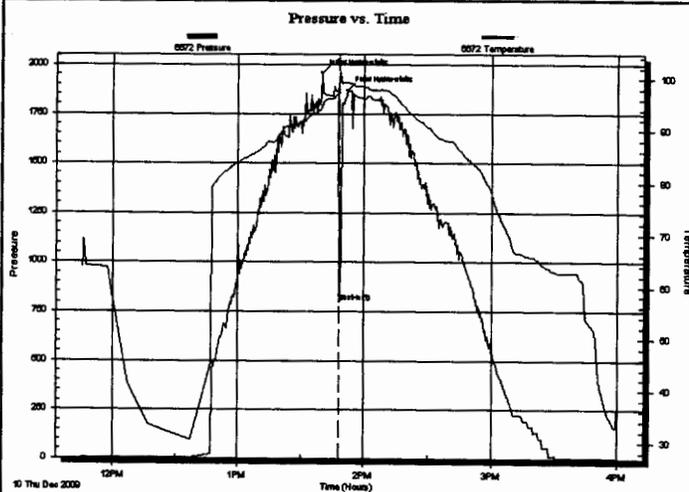
Capacity: 8000.00 psig

Last Calib.: 2009.12.10

Time On Btm: 2009.12.10 @ 13:40:00

Time Off Btm: 2009.12.10 @ 13:52:00

TEST COMMENT: MS-RUN



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1957.17	94.42	Initial Hydro-static
8	797.65	99.24	Shut-in(1)
12	1867.88	99.33	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
372.00	mud	5.22

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

H&C Oil Operating, Inc.

Walters #32-1

P.O. Box 86
Plainville KS 67663

32 6S 23W Graham KS

Job Ticket: 35617

DST#: 1

ATTN: Marc Downing

Test Start: 2009.12.10 @ 11:45:00

Tool Information

Drill Pipe:	Length: 3788.00 ft	Diameter: 3.80 inches	Volume: 53.14 bbl	Tool Weight: 20000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 28000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 46000.00 lb
			<u>Total Volume: 53.14 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	3786.00 ft			Final 44000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	8.00 ft			
Tool Length:	28.00 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			3771.00	
Hydraulic tool	5.00			3776.00	
Packer	5.00			3781.00	20.00 Bottom Of Top Packer
Packer	5.00			3786.00	
Stubb	1.00			3787.00	
Recorder	0.00	6672	Inside	3787.00	
Recorder	0.00	6752	Inside	3787.00	
Perforations	4.00			3791.00	
Bullnose	3.00			3794.00	8.00 Bottom Packers & Anchor
Total Tool Length:	28.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

H&C Oil Operating, Inc.

Walters #32-1

P.O. Box 86
Plainville KS 67663

32 6S 23W Graham KS

Job Ticket: 35617

DST#: 1

ATTN: Marc Downing

Test Start: 2009.12.10 @ 11:45:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 59.00 sec/qt
Water Loss: 7.78 in³
Resistivity: ohm.m
Salinity: 1000.00 ppm
Filter Cake: 2.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
372.00	mud	5.218

Total Length: 372.00 ft Total Volume: 5.218 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6672

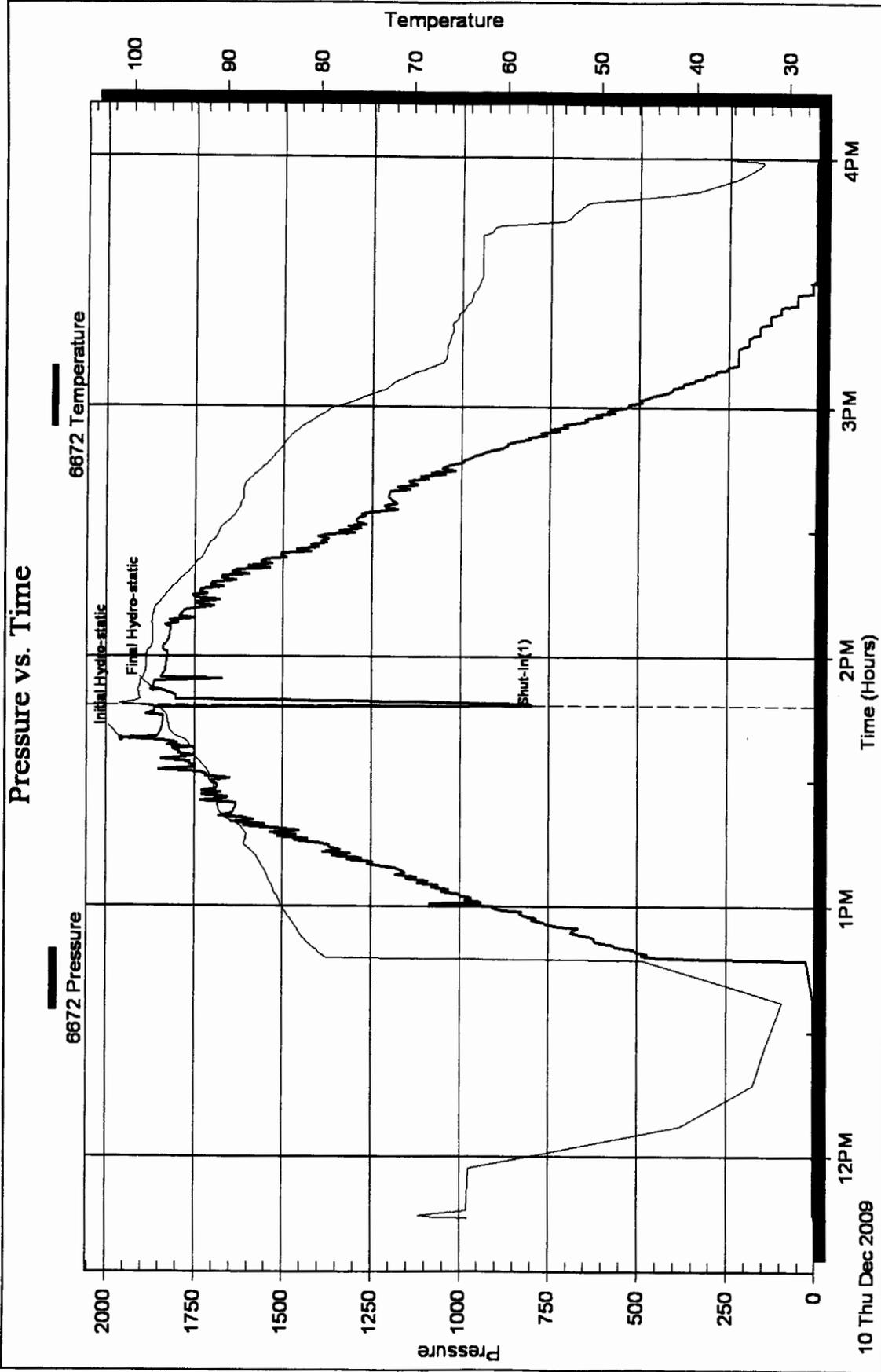
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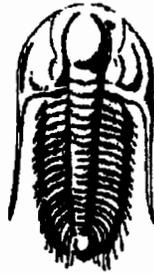
H&C Oil Operating, Inc.

32 6S 23W Graham KS

DST Test Number: 1

Pressure vs. Time





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **H&C Oil Operating, Inc.**

P.O. Box 86
Plainville KS 67663

ATTN: Marc Downing

32 6S 23W Graham KS

Walters #32-1

Start Date: 2009.12.10 @ 16:10:00

End Date: 2009.12.10 @ 23:24:00

Job Ticket #: 35618 DST #: 2

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Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

H&C Oil Operating, Inc.

Walters #32-1

P.O. Box 86
Plainville KS 67663

32 6S 23W Graham KS

Job Ticket: 35618 **DST#: 2**

ATTN: Marc Downing

Test Start: 2009.12.10 @ 16:10:00

GENERAL INFORMATION:

Formation: **LKC-C-D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:41:30

Time Test Ended: 23:24:00

Test Type: Conventional Bottom Hole

Tester: Chuck Kreutzer Jr.

Unit No: 36

Interval: **3754.00 ft (KB) To 3794.00 ft (KB) (TVD)**

Total Depth: 3794.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2481.00 ft (KB)

2476.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6672 Inside

Press@RunDepth: 143.57 psig @ 3755.00 ft (KB)

Start Date: 2009.12.10

End Date: 2009.12.10

Start Time: 16:10:05

End Time: 23:23:59

Capacity: 8000.00 psig

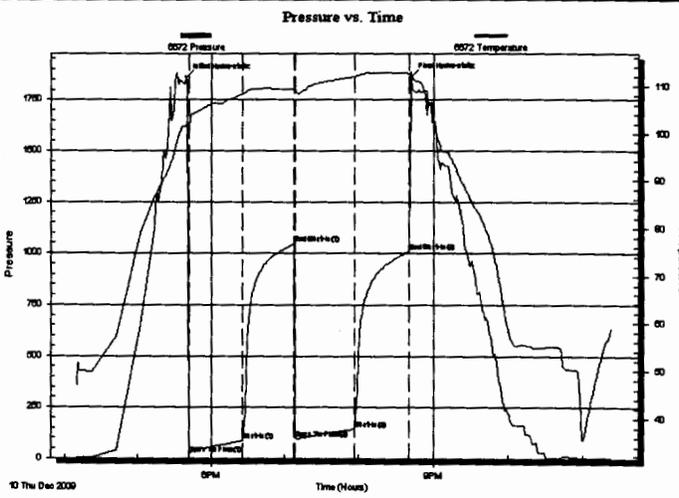
Last Calib.: 2009.12.10

Time On Btrm: 2009.12.10 @ 17:39:30

Time Off Btrm: 2009.12.10 @ 20:42:00

TEST COMMENT:

IF: Fair blow BOB in 15mins
IS: Bled off, Blow back after 6mins built to 1" over 20mins Started to die, dead in 40mins
FF: Fair blow BOB in 30mins
FS: Bled off, blow back after 8mins Built to 1" ov



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1858.73	101.59	Initial Hydro-static
2	24.65	101.37	Open To Flow (1)
46	86.02	108.33	Shut-in(1)
88	1045.64	109.41	End Shut-in(1)
89	99.32	108.87	Open To Flow (2)
137	143.57	111.93	Shut-in(2)
181	1012.15	112.68	End Shut-in(2)
183	1863.13	112.58	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	gmco-20%g20%m60%	1.74
186.00	go-30%g70%	2.61
10.00	go-20%g80%	0.14
0.00	124-gas in pipe	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

H&C Oil Operating, Inc.

Walters #32-1

P.O. Box 86
Plainville KS 67663

32 6S 23W Graham KS

Job Ticket: 35618

DST#: 2

ATTN: Marc Downing

Test Start: 2009.12.10 @ 16:10:00

Tool Information

Drill Pipe:	Length: 3760.00 ft	Diameter: 3.80 inches	Volume: 52.74 bbl	Tool Weight: 20000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 48000.00 lb
			<u>Total Volume: 52.74 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	3754.00 ft			Final 44000.00 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	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Shut In Tool	5.00			3739.00	
Hydraulic tool	5.00			3744.00	
Packer	5.00			3749.00	20.00 Bottom Of Top Packer
Packer	5.00			3754.00	
Stubb	1.00			3755.00	
Recorder	0.00	6672	Inside	3755.00	
Recorder	0.00	6752	Inside	3755.00	
Perforations	36.00			3791.00	
Bullnose	3.00			3794.00	40.00 Bottom Packers & Anchor
Total Tool Length:	60.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

H&C Oil Operating, Inc.

Walters #32-1

P.O. Box 86
Rainville KS 67663

32 6S 23W Graham KS

Job Ticket: 35618 **DST#: 2**

ATTN: Marc Downing

Test Start: 2009.12.10 @ 16:10:00

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: 59.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.78 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1000.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	gmco-20%g20%m60%o	1.739
186.00	go-30%g70%o	2.609
10.00	go-20%g80%o	0.140
0.00	124-gas in pipe	0.000

Total Length: 320.00 ft Total Volume: 4.488 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

Serial #: 6672

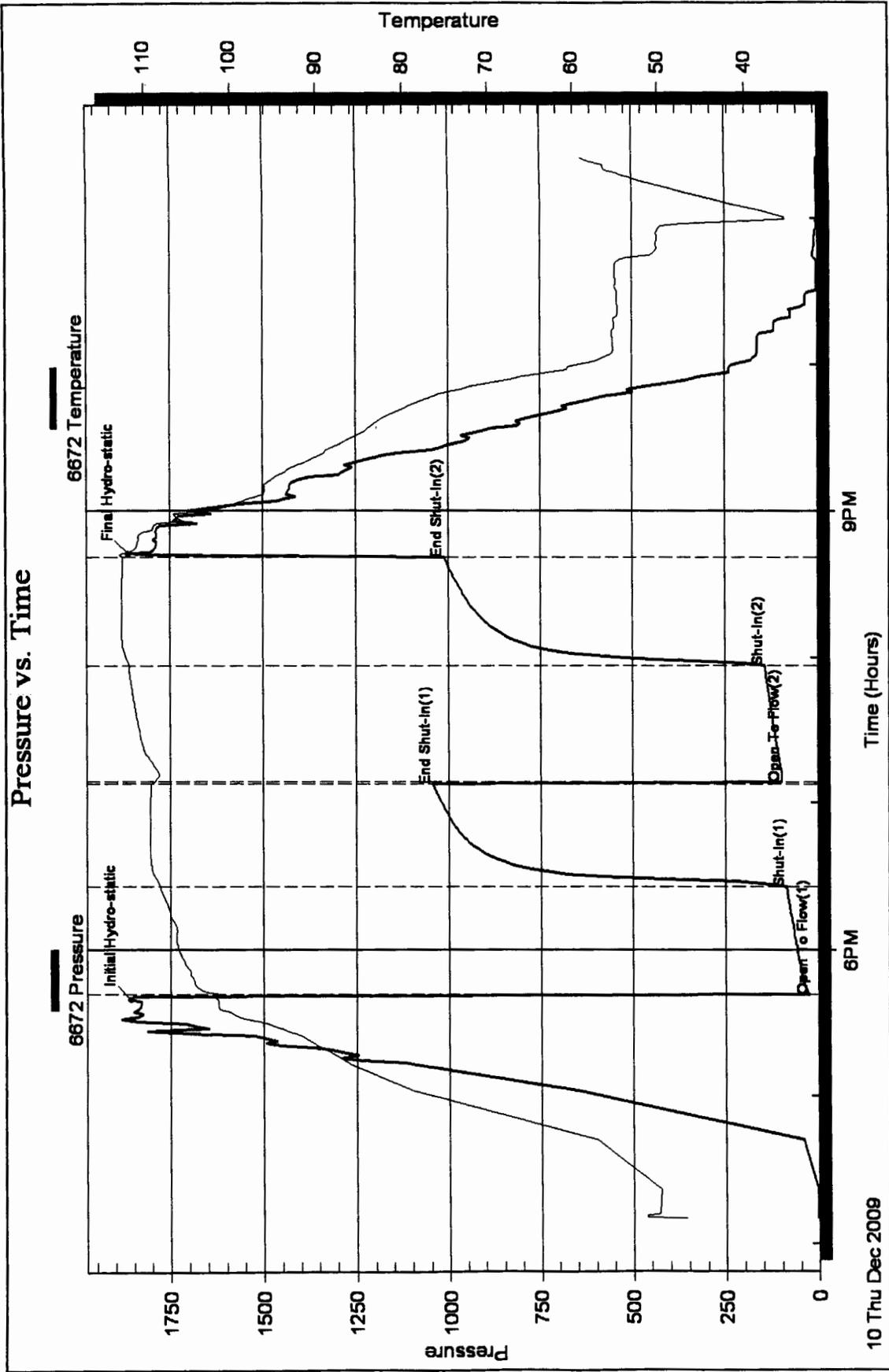
Inside

H&C Oil Operating, Inc.

32 6S 23W Graham KS

DST Test Number: 2

Pressure vs. Time





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **H&C Oil Operating, Inc.**

P.O. Box 86
Plainville KS 67663

ATTN: Marc Downing

32 6S 23W Graham KS

Walters #32-1

Start Date: 2009.12.11 @ 16:10:00

End Date: 2009.12.12 @ 00:42:00

Job Ticket #: 35619 DST #: 3

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JAN 28 2010
KCC

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

H&C Oil Operating, Inc.

Walters #32-1

P.O. Box 86
Plainville KS 67663

32 6S 23W Graham KS

Job Ticket: 35619

DST#: 3

ATTN: Marc Downing

Test Start: 2009.12.11 @ 16:10:00

GENERAL INFORMATION:

Formation: LKC-J

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:18:30

Time Test Ended: 00:42:00

Test Type: Conventional Bottom Hole

Tester: Chuck Kreutzer Jr.

Unit No: 36

Interval: 3871.00 ft (KB) To 3898.00 ft (KB) (TVD)

Total Depth: 3898.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2481.00 ft (KB)

2476.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6672

Inside

Press@RunDepth: 867.13 psig @ 3872.00 ft (KB)

Start Date: 2009.12.11

End Date:

2009.12.12

Start Time: 16:10:05

End Time:

00:41:59

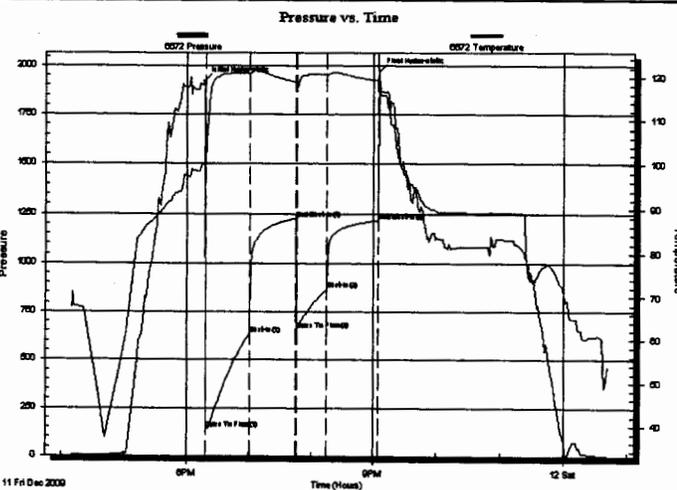
Capacity: 8000.00 psig

Last Calib.: 2009.12.12

Time On Btm: 2009.12.11 @ 18:17:00

Time Off Btm: 2009.12.11 @ 21:05:30

TEST COMMENT: IF: Strong blow, BOB in 1 min.
IS: Bled off, blow back after 1 min. BOB in 5 mins.
FF: Strong blow, BOB in 1 min.
FS: Bled off, blow back after 1 min. built to 3 in. over 45 mins.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1919.17	100.09	Initial Hydro-static
2	141.30	99.98	Open To Flow (1)
44	635.91	120.71	Shut-in(1)
88	1224.90	118.84	End Shut-in(1)
89	658.75	118.33	Open To Flow (2)
118	867.13	120.53	Shut-in(2)
168	1215.17	119.11	End Shut-in(2)
169	1971.21	118.53	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2294.00	go-5%g95%o	32.18
74.00	go-10%g90%o	1.04
0.00	620 ft. gas in pipe	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

H&C Oil Operating, Inc.

Walters #32-1

P.O. Box 86
Plainville KS 67663

32 6S 23W Graham KS

Job Ticket: 35619

DST#: 3

ATTN: Marc Downing

Test Start: 2009.12.11 @ 16:10:00

Tool Information

Drill Pipe:	Length: 3884.00 ft	Diameter: 3.80 inches	Volume: 54.48 bbl	Tool Weight: 20000.00 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: 65000.00 lb
			<u>Total Volume: 54.48 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	3871.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	27.00 ft			
Tool Length:	47.00 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			3856.00	
Hydraulic tool	5.00			3861.00	
Packer	5.00			3866.00	20.00 Bottom Of Top Packer
Packer	5.00			3871.00	
Stubb	1.00			3872.00	
Recorder	0.00	6672	Inside	3872.00	
Recorder	0.00	6752	Inside	3872.00	
Perforations	23.00			3895.00	
Bullnose	3.00			3898.00	27.00 Bottom Packers & Anchor
Total Tool Length:	47.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

H&C Oil Operating, Inc.

Walters #32-1

P.O. Box 86
Plainville KS 67663

32 6S 23W Graham KS

Job Ticket: 35619

DST#: 3

ATTN: Marc Downing

Test Start: 2009.12.11 @ 16:10:00

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: 63.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2294.00	go-5%g95%o	32.179
74.00	go-10%g90%o	1.038
0.00	620 ft. gas in pipe	0.000

Total Length: 2368.00 ft

Total Volume: 33.217 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6672

Inside

H&C Oil Operating, Inc.

32.6S 23W Graham KS

DST Test Number: 3

