



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1097706  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

Form must be Typed  
Form must be Signed  
All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well       Re-Entry       Workover
- Oil       WSW       SWD       SIOW
- Gas       D&A       ENHR       SIGW
- OG       GSW       Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic       Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

- Deepening       Re-perf.       Conv. to ENHR       Conv. to SWD
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE       NW       SE       SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27       NAD83       WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite:

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_



1097706

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No  List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

Date of First, Resumed Production, SWD or ENHR: \_\_\_\_\_ Producing Method:  
 Flowing  Pumping  Gas Lift  Other *(Explain)* \_\_\_\_\_

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <i>(Submit ACO-4)</i>	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	H & C Oil Operating Inc.
Well Name	Fink 22-1
Doc ID	1097706

Tops

Name	Top	Datum
Top Anhydrite	1752	+421
Base Anhydrite	1786	+387
Topeka	3173	-1000
Heebner	3385	-1212
Toronto	3409	-1236
LKC	3421	-1248
BKC	3632	-1459
Arbuckle	3763	-1590

Conservation Division  
Finney State Office Building  
130 S. Market, Rm. 2078  
Wichita, KS 67202-3802



Phone: 316-337-6200  
Fax: 316-337-6211  
<http://kcc.ks.gov/>

Mark Sievers, Chairman  
Thomas E. Wright, Commissioner  
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

October 16, 2012

Charles Ramsay  
H & C Oil Operating Inc.  
PO BOX 86  
PLAINVILLE, KS 67663-0086

Re: ACO1  
API 15-065-23860-00-00  
Fink 22-1  
SE/4 Sec.22-08S-22W  
Graham County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,  
Charles Ramsay

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 747

Date	10-1-12	Sec.	28	Twp.	08	Range	22	County	Greaham	State	KS	On Location	500 pm
Lease	fin 1	Well No.	22-1	Location Baug 5 to RD 0 34 w N.H.W									
Contractor	Anethlich Eagle #3												
Type Job	Surface												
Hole Size	12 1/4												
Csg.	858												
Tbg. Size													
Tool													
Cement Left in Csg.													
Meas Line	13.5												
<b>EQUIPMENT</b>													
Pumptrk	5	No.	Cementer	160									
Bulktrk	14	No.	Helper										
Bulktrk	4	No.	Driver	3									
Bulktrk	4	No.	Driver	3									
<b>JOB SERVICES &amp; REMARKS</b>													
Remarks:													
Rat Hole													
Mouse Hole													
Centralizers													
Baskets													
D/V or Port Collar													
	Cement did circulate												
	Handling 168												
	Mileage												
	<b>FLOAT EQUIPMENT</b>												
	Guide Shoe												
	Centralizer												
	Baskets												
	AFU Inserts												
	Float Shoe												
	Latch Down												
	Pumptrk Charge Surface												
	Mileage 46												
	Tax												
	Discount												
	Total Charge												

X Signature Burke

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 6041

Date	10.9.12	Sec.	22	8	Range	22	County	Carahan	State	KS	On Location	5:45 AM	Finish
Lease	Fink	Well No.	22-1										
Contractor	American Eng'g #3												
Type Job	Kerosin Plug												
Hole Size	7 7/8	T.D.	38333										
Csg.		Depth											
Tbg. Size		Depth											
Tool		Depth											
Cement Left in Csg.		Shoe Joint											
Meas Line		Displace											
EQUIPMENT													
Pumptkrk	16	Cemented No.	138	Helper									
Bulktrk		No.	92	Driver									
Bulktrk	14	No.	8	Driver									
JOB SERVICES & REMARKS													
Remarks:													
Rat Hole	30SK												
Mouse Hole													
Centralizers													
Baskets													
DV or Port Collar													
	1st	3743	255K										
	2nd	1775	255K										
	3rd	925	1005K										
	4th	275	405K										
	5th	40	105K										
	FLOAT EQUIPMENT												
	Guide Shoe												
	Centralizer	8 3/8 wooden Plug											
	Baskets												
	AFU Inserts												
	Float Shoe												
	Latch Down												
	Pumptkrk Charge												
	Mileage	46 plug											
	Tax												
	Discount												
	Total Charge												

X Signature *David J. ...*



## DRILL STEM TEST REPORT

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

PO Box 86  
Plainville, KS 67663

ATTN: Marc Downing

### **Fink #22-1**

#### **22-8s-22w Graham, KS**

Start Date: 2012.10.05 @ 10:04:56

End Date: 2012.10.05 @ 15:33:26

Job Ticket #: 48627                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.10.09 @ 12:03:26



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

H & C Oil Operating, Inc.

**22-8s-22w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Fink #22-1**

Job Ticket: 48627

**DST#: 1**

ATTN: Marc Downing

Test Start: 2012.10.05 @ 10:04:56

## GENERAL INFORMATION:

Formation: **LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:52:26

Time Test Ended: 15:33:26

Test Type: Conventional Bottom Hole (Initial)

Tester: Brian Fairbank

Unit No: 41

**Interval: 3415.00 ft (KB) To 3445.00 ft (KB) (TVD)**

Reference Elevations: 2173.00 ft (KB)

Total Depth: 3445.00 ft (KB) (TVD)

2168.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 6752 Inside**

Press @ Run Depth: 71.43 psig @ 3417.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.10.05 End Date: 2012.10.05

Last Calib.: 2012.10.05

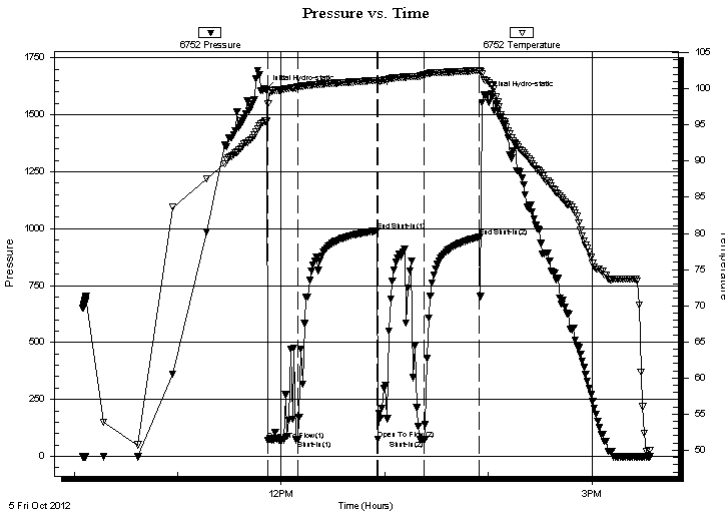
Start Time: 10:04:57 End Time: 15:33:26

Time On Btm: 2012.10.05 @ 11:50:56

Time Off Btm: 2012.10.05 @ 13:58:26

**TEST COMMENT:** IFP - 1 1/4" blow - died 22 min  
ISI - no blow back  
FFP - no blow 27 min - weak sur blow  
FSI - no blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1611.11	95.53	Initial Hydro-static
2	71.99	98.00	Open To Flow (1)
19	72.87	100.24	Shut-In(1)
65	990.21	101.20	End Shut-In(1)
65	74.35	100.84	Open To Flow (2)
92	71.43	101.94	Shut-In(2)
124	962.96	102.56	End Shut-In(2)
128	1584.87	101.18	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
115.00	drl mud 100%	1.61

## Gas Rates

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





# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

H & C Oil Operating, Inc.

PO Box 86  
Plainville, KS 67663

ATTN: Marc Downing

22-8s-22w Graham, KS

Fink #22-1

Job Ticket: 48627

DST#: 1

Test Start: 2012.10.05 @ 10:04:56

### GENERAL INFORMATION:

Formation: **LKC "A"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 11:52:26  
 Time Test Ended: 15:33:26  
**Interval: 3415.00 ft (KB) To 3445.00 ft (KB) (TVD)**  
 Total Depth: 3445.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches  
 Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Brian Fairbank  
 Unit No: 41  
 Reference Elevations: 2173.00 ft (KB)  
 2168.00 ft (CF)  
 KB to GR/CF: 5.00 ft

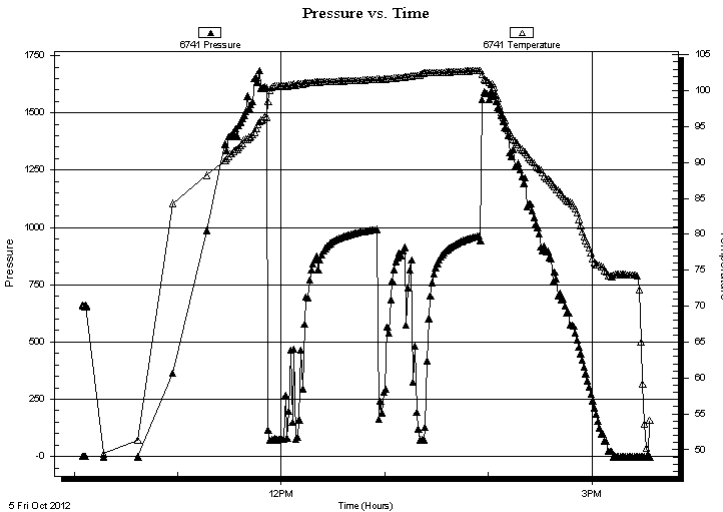
### Serial #: 6741

Outside

Press @ Run Depth: psig @ 3417.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.10.05 End Date: 2012.10.05 Last Calib.: 2012.10.05  
 Start Time: 10:04:57 End Time: 15:33:26 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** IFP - 1 1/4" blow - died 22 min  
 ISI - no blow back  
 FFP - no blow 27 min - weak sur blow  
 FSI - no blow back

### PRESSURE SUMMARY



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

### Recovery

Length (ft)	Description	Volume (bbl)
115.00	drl mud 100%	1.61

### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

H & C Oil Operating, Inc.

**22-8s-22w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Fink #22-1**

Job Ticket: 48627

**DST#: 1**

ATTN: Marc Downing

Test Start: 2012.10.05 @ 10:04:56

### Tool Information

Drill Pipe:	Length: 3402.00 ft	Diameter: 3.80 inches	Volume: 47.72 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 47.72 bbl</u>	Tool Chased 15.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3415.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	50.00 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			3400.00	
Hydraulic tool	5.00			3405.00	
Packer	5.00			3410.00	20.00 Bottom Of Top Packer
Packer	5.00			3415.00	
Stubb	1.00			3416.00	
Perforations	1.00			3417.00	
Recorder	0.00	6752	Inside	3417.00	
Recorder	0.00	6741	Outside	3417.00	
Perforations	25.00			3442.00	
Bullnose	3.00			3445.00	30.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>50.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

H & C Oil Operating, Inc.

**22-8s-22w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Fink #22-1**

Job Ticket: 48627

**DST#: 1**

ATTN: Marc Downing

Test Start: 2012.10.05 @ 10:04:56

## 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: 6.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1300.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
115.00	drl mud 100%	1.613

Total Length: 115.00 ft      Total Volume: 1.613 bbl

Num Fluid Samples: 0

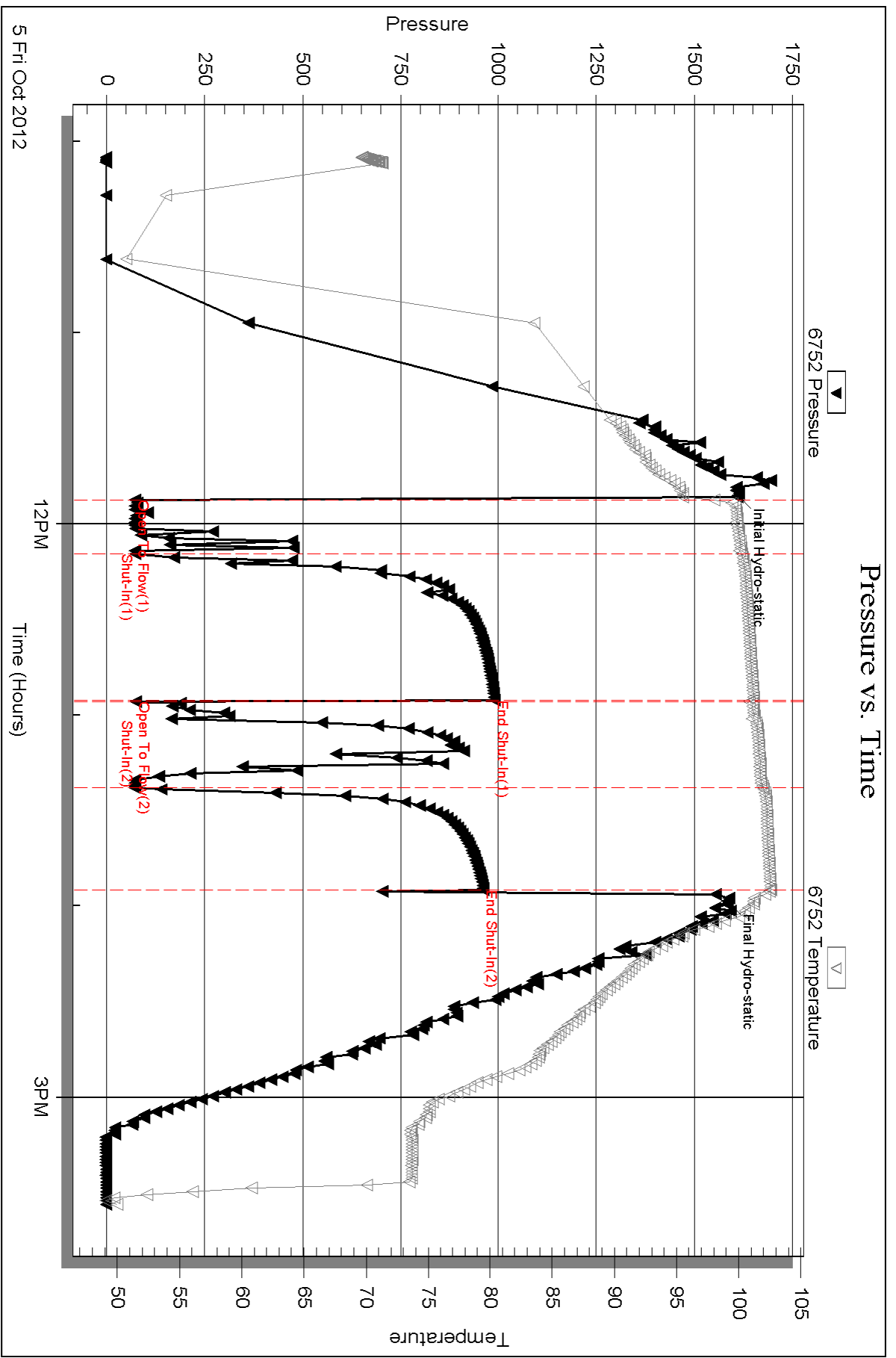
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

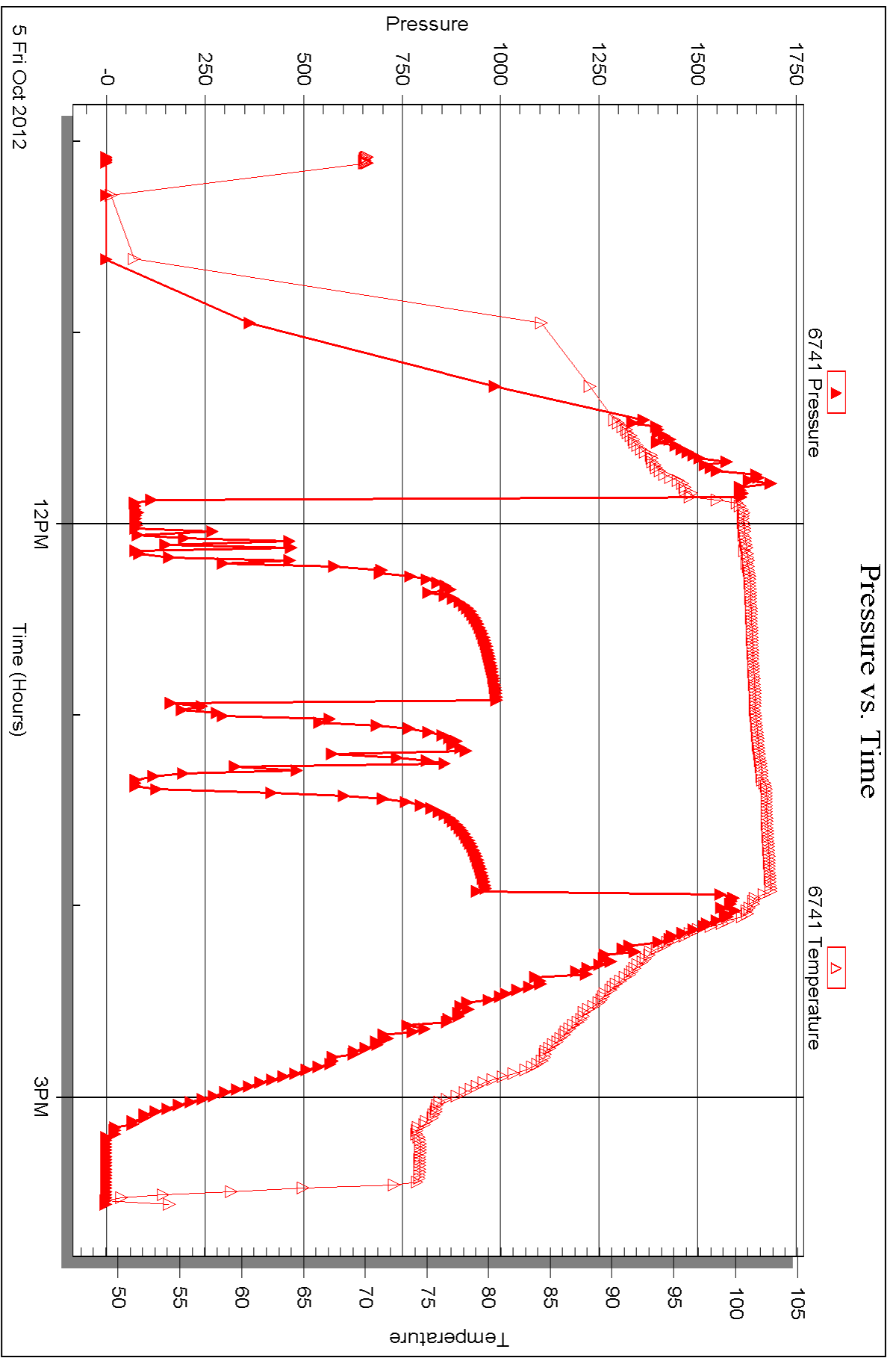


Serial #: 6741

Outside H & C Oil Operating, Inc.

Fmk #22-1

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 48627

Printed: 2012.10.09 @ 12:03:32



## DRILL STEM TEST REPORT

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

PO Box 86  
Plainville, KS 67663

ATTN: Marc Downing

### **Fink #22-1**

#### **22-8s-22w Graham, KS**

Start Date: 2012.10.06 @ 07:24:40

End Date: 2012.10.06 @ 12:46:00

Job Ticket #: 48628                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.10.09 @ 12:02:39



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

H & C Oil Operating, Inc.

**22-8s-22w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Fink #22-1**

Job Ticket: 48628

**DST#: 2**

ATTN: Marc Downing

Test Start: 2012.10.06 @ 07:24:40

## GENERAL INFORMATION:

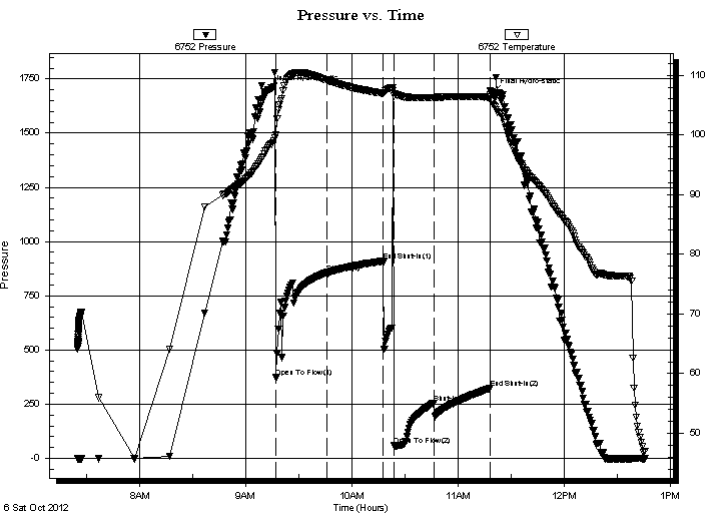
Formation: **LKC "I-J"**  
 Deviated: **No Whipstock:** ft (KB)  
 Time Tool Opened: 09:17:00  
 Time Test Ended: 12:46:00  
 Interval: **3564.00 ft (KB) To 3600.00 ft (KB) (TVD)**  
 Total Depth: 3600.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Brian Fairbank  
 Unit No: 41  
 Reference Elevations: 2173.00 ft (KB)  
 2168.00 ft (CF)  
 KB to GR/CF: 5.00 ft

## Serial #: 6752

**Inside**

Press @ RunDepth: 253.57 psig @ 3572.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.10.06 End Date: 2012.10.06 Last Calib.: 2012.10.06  
 Start Time: 07:24:41 End Time: 12:46:00 Time On Btm: 2012.10.06 @ 09:13:40  
 Time Off Btm: 2012.10.06 @ 11:19:40

**TEST COMMENT:** IFP - 1/4" blow - died 22 min  
 ISI - no blow back  
 FFP - no blow - flush - 1/2" - 1 1/4" - died 9 min  
 FSI - no blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1700.96	98.38	Initial Hydro-static
4	372.37	99.94	Open To Flow (1)
33	857.15	109.12	Shut-In(1)
64	909.25	106.97	End Shut-In(1)
70	59.08	106.52	Open To Flow (2)
93	253.57	106.23	Shut-In(2)
125	322.46	106.37	End Shut-In(2)
126	1687.89	105.13	Final Hydro-static

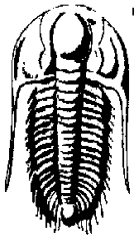
## Recovery

Length (ft)	Description	Volume (bbl)
85.00	O spt DRL MUD 100%	1.19

\* Recovery from multiple tests

## Gas Rates

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



# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

H & C Oil Operating, Inc.

22-8s-22w Graham, KS

PO Box 86  
Plainville, KS 67663

Fink #22-1

ATTN: Marc Downing

Job Ticket: 48628

DST#: 2

Test Start: 2012.10.06 @ 07:24:40

### GENERAL INFORMATION:

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

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:17:00

Time Test Ended: 12:46:00

Interval: **3564.00 ft (KB) To 3600.00 ft (KB) (TVD)**

Total Depth: 3600.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole (Reset)

Tester: Brian Fairbank

Unit No: 41

Reference Elevations: 2173.00 ft (KB)

2168.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 6741 Outside**

Press @ Run Depth: psig @ 3572.00 ft (KB)

Start Date: 2012.10.06

End Date: 2012.10.06

Start Time: 07:24:32

End Time: 12:45:51

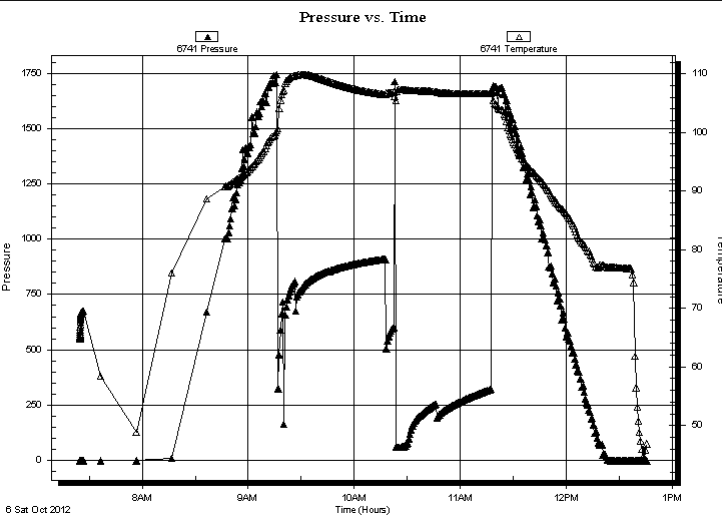
Capacity: 8000.00 psig

Last Calib.: 2012.10.06

Time On Btm:

Time Off Btm:

TEST COMMENT: IFP - 1/4" blow - died 22 min  
ISI - no blow back  
FFP - no blow - flush - 1/2" - 1 1/4" - died 9 min  
FSI - no blow back



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
85.00	O spt DRL MUD 100%	1.19

### Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

H & C Oil Operating, Inc.

**22-8s-22w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Fink #22-1**

Job Ticket: 48628

**DST#: 2**

ATTN: Marc Downing

Test Start: 2012.10.06 @ 07:24:40

## Tool Information

Drill Pipe:	Length: 3560.00 ft	Diameter: 3.80 inches	Volume: 49.94 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 52000.00 lb
			<u>Total Volume: 49.94 bbl</u>	Tool Chased 15.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3564.00 ft			Final 47000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	36.00 ft			
Tool Length:	56.00 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			3549.00	
Hydraulic tool	5.00			3554.00	
Packer	5.00			3559.00	20.00 Bottom Of Top Packer
Packer	5.00			3564.00	
Stubb	1.00			3565.00	
Perforations	7.00			3572.00	
Recorder	0.00	6752	Inside	3572.00	
Recorder	0.00	6741	Outside	3572.00	
Perforations	25.00			3597.00	
Bullnose	3.00			3600.00	36.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>56.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

H & C Oil Operating, Inc.

**22-8s-22w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Fink #22-1**

Job Ticket: 48628

**DST#: 2**

ATTN: Marc Downing

Test Start: 2012.10.06 @ 07:24:40

## 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: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
85.00	O spt DRL MUD 100%	1.192

Total Length: 85.00 ft      Total Volume: 1.192 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

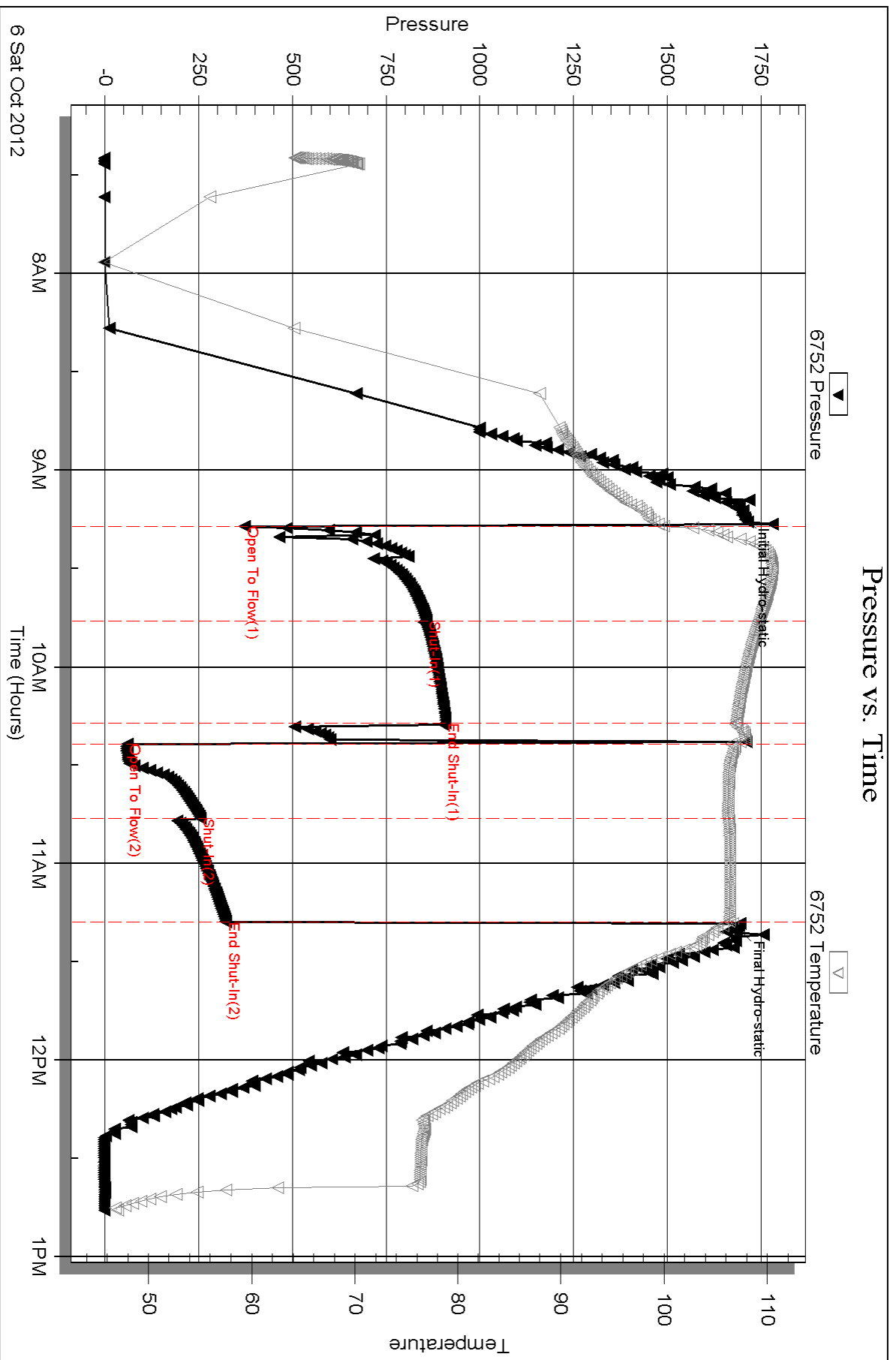
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time

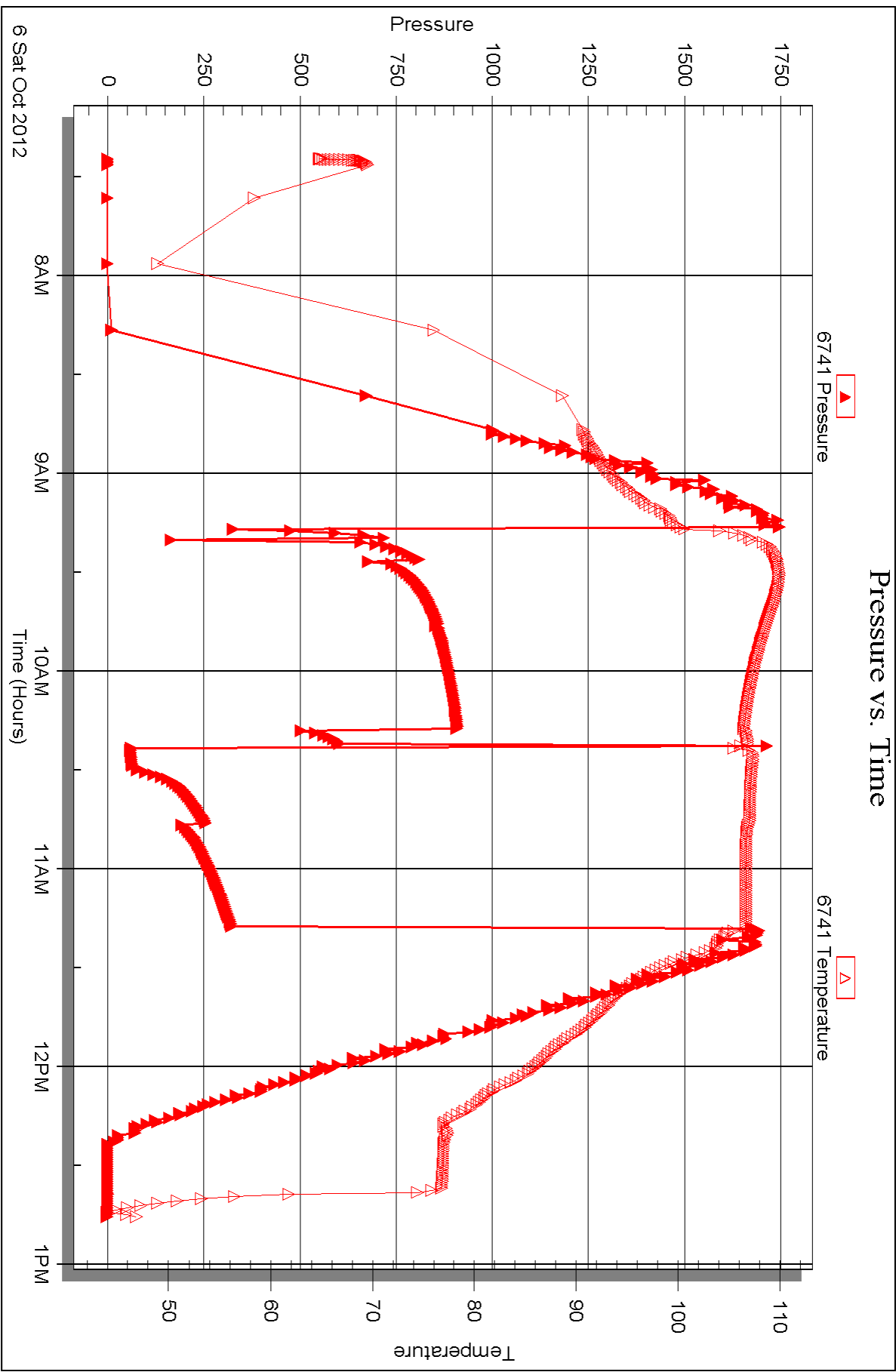


Serial #: 6741

Outside H & C Oil Operating, Inc.

Fmk #22-1

DST Test Number: 2





## DRILL STEM TEST REPORT

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

PO Box 86  
Plainville, KS 67663

ATTN: Marc Downing

### **Fink #22-1**

#### **22-8s-22w Graham, KS**

Start Date: 2012.10.07 @ 05:50:02

End Date: 2012.10.07 @ 12:32:02

Job Ticket #: 48629                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.10.09 @ 12:01:54



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

H & C Oil Operating, Inc.

**22-8s-22w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Fink #22-1**

Job Ticket: 48629

**DST#: 3**

ATTN: Marc Downing

Test Start: 2012.10.07 @ 05:50:02

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:39:42

Time Test Ended: 12:32:02

Test Type: Conventional Bottom Hole (Reset)

Tester: Brian Fairbank

Unit No: 41

**Interval: 3706.00 ft (KB) To 3770.00 ft (KB) (TVD)**

Reference Elevations: 2173.00 ft (KB)

Total Depth: 3770.00 ft (KB) (TVD)

2168.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 6752 Inside**

Press @ Run Depth: 41.33 psig @ 3711.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.10.07 End Date: 2012.10.07

Last Calib.: 2012.10.07

Start Time: 05:50:03 End Time: 12:32:02

Time On Btm: 2012.10.07 @ 07:39:02

Time Off Btm: 2012.10.07 @ 10:41:22

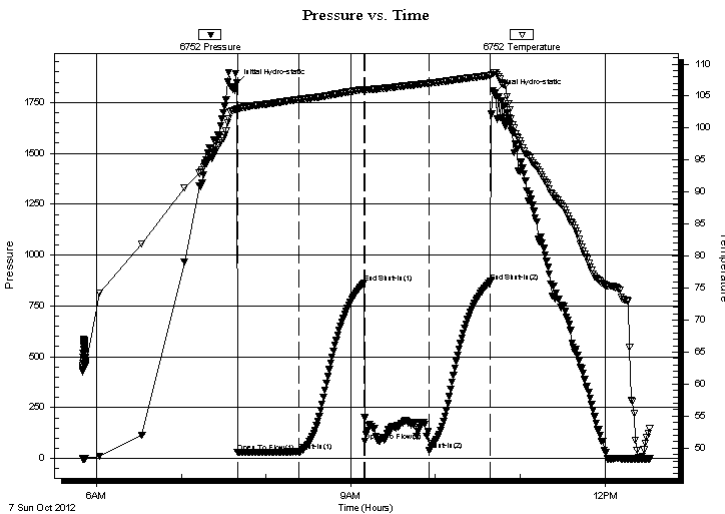
**TEST COMMENT:** IFP - weak blow throughout 1/4" - 1 1/2"

ISI - no blow back

FFP - sur blow back - died 32 min

FSI - no blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1845.16	103.07	Initial Hydro-static
1	30.15	102.72	Open To Flow (1)
44	34.90	104.46	Shut-In(1)
91	864.07	106.06	End Shut-In(1)
91	84.55	105.95	Open To Flow (2)
137	41.33	106.99	Shut-In(2)
180	869.65	108.22	End Shut-In(2)
183	1795.75	108.63	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
15.00	SOCM 5%O, 95%M	0.21
10.00	FREE OIL 90%O, 10%M	0.14

\* Recovery from multiple tests

## Gas Rates

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



# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

H & C Oil Operating, Inc.

22-8s-22w Graham, KS

PO Box 86  
Plainville, KS 67663

Fink #22-1

Job Ticket: 48629

DST#: 3

ATTN: Marc Downing

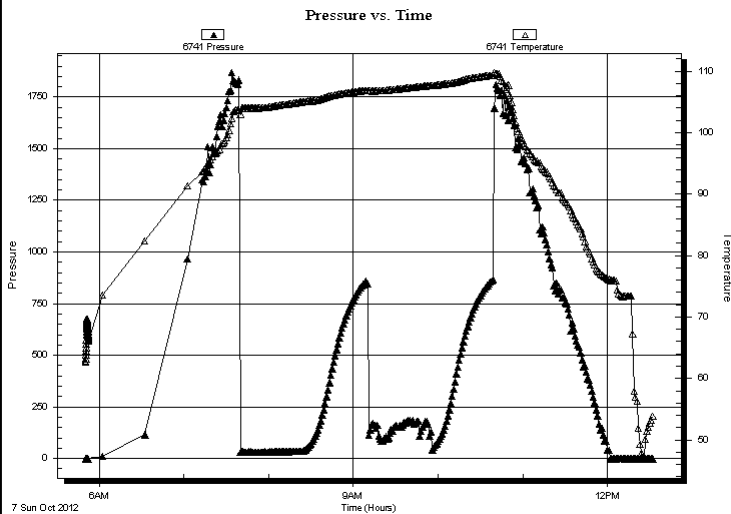
Test Start: 2012.10.07 @ 05:50:02

### GENERAL INFORMATION:

<b>Formation:</b> Arbuckle			
<b>Deviated:</b> No	<b>Whipstock:</b>	ft (KB)	<b>Test Type:</b> Conventional Bottom Hole (Reset)
<b>Time Tool Opened:</b> 07:39:42			<b>Tester:</b> Brian Fairbank
<b>Time Test Ended:</b> 12:32:02			<b>Unit No:</b> 41
<b>Interval:</b> 3706.00 ft (KB) To 3770.00 ft (KB) (TVD)			<b>Reference Elevations:</b> 2173.00 ft (KB)
<b>Total Depth:</b> 3770.00 ft (KB) (TVD)			2168.00 ft (CF)
<b>Hole Diameter:</b> 7.88 inches	<b>Hole Condition:</b> Good		<b>KB to GR/CF:</b> 5.00 ft

<b>Serial #: 6741</b>	<b>Outside</b>		
<b>Press @ RunDepth:</b>	psig @	3711.00 ft (KB)	<b>Capacity:</b> 8000.00 psig
<b>Start Date:</b> 2012.10.07	<b>End Date:</b>	2012.10.07	<b>Last Calib.:</b> 2012.10.07
<b>Start Time:</b> 05:50:25	<b>End Time:</b>	12:32:24	<b>Time On Btm:</b>
			<b>Time Off Btm:</b>

**TEST COMMENT:** IFP - weak blow throughout 1/4" - 1 1/2"  
 ISI - no blow back  
 FFP - sur blow back - died 32 min  
 FSI - no blow back



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
15.00	SOCM 5%O, 95%M	0.21
10.00	FREE OIL 90%O, 10%M	0.14

\* Recovery from multiple tests

### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

H & C Oil Operating, Inc.

**22-8s-22w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Fink #22-1**

Job Ticket: 48629

**DST#: 3**

ATTN: Marc Downing

Test Start: 2012.10.07 @ 05:50:02

## Tool Information

Drill Pipe:	Length: 3717.00 ft	Diameter: 3.80 inches	Volume: 52.14 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 54000.00 lb
			<u>Total Volume: 52.14 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3706.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	64.00 ft			
Tool Length:	84.00 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			3691.00	
Hydraulic tool	5.00			3696.00	
Packer	5.00			3701.00	20.00 Bottom Of Top Packer
Packer	5.00			3706.00	
Stubb	1.00			3707.00	
Perforations	3.00			3710.00	
Change Over Sub	1.00			3711.00	
Recorder	0.00	6752	Inside	3711.00	
Recorder	0.00	6741	Outside	3711.00	
Blank Spacing	30.00			3741.00	
Change Over Sub	1.00			3742.00	
Perforations	25.00			3767.00	
Bullnose	3.00			3770.00	64.00 Bottom Packers & Anchor

**Total Tool Length: 84.00**





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

H & C Oil Operating, Inc.

**22-8s-22w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Fink #22-1**

Job Ticket: 48629

**DST#: 3**

ATTN: Marc Downing

Test Start: 2012.10.07 @ 05:50:02

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

25 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
15.00	SOCM 5%O, 95%M	0.210
10.00	FREE OIL 90%O, 10%M	0.140

Total Length: 25.00 ft      Total Volume: 0.350 bbl

Num Fluid Samples: 0

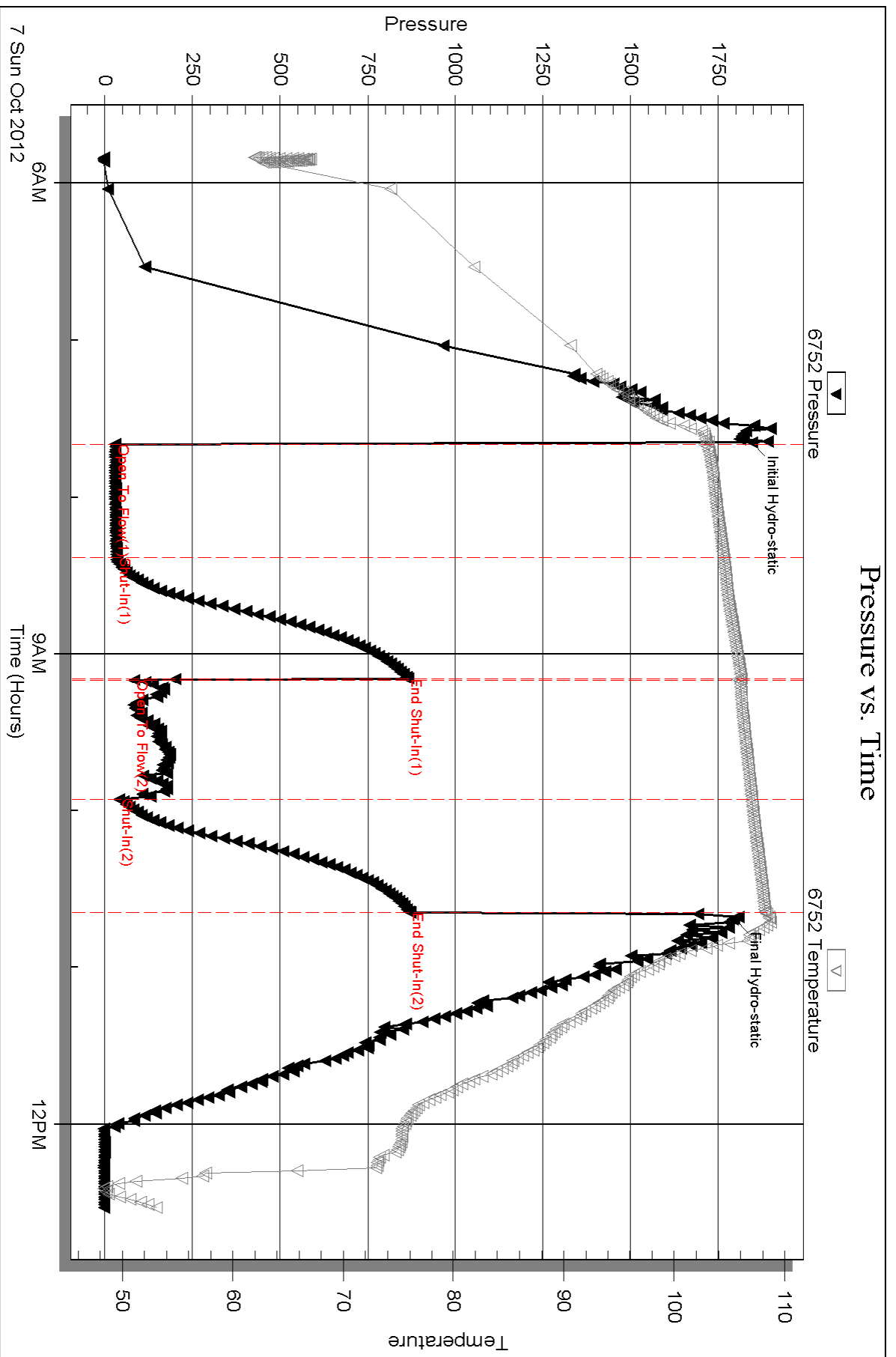
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

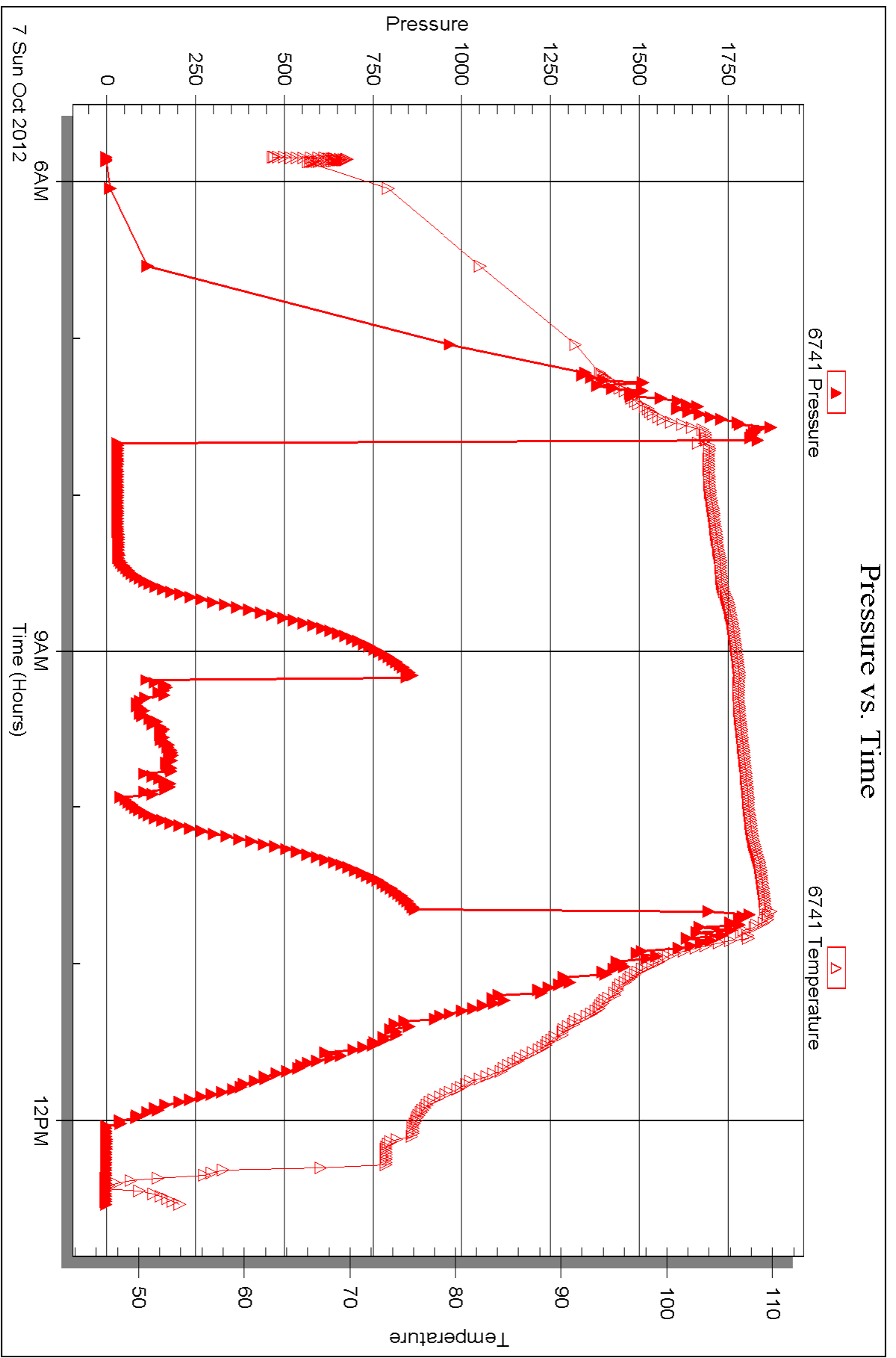


Serial #: 6741

Outside H & C Oil Operating, Inc.

Flnk #22-1

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 48629

Printed: 2012.10.09 @ 12:01:59



## DRILL STEM TEST REPORT

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

PO Box 86  
Plainville, KS 67663

ATTN: Marc Downing

### **Fink #22-1**

#### **22-8s-22w Graham, KS**

Start Date: 2012.10.08 @ 01:42:57

End Date: 2012.10.08 @ 08:40:36

Job Ticket #: 48630                      DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.10.09 @ 12:00:41



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

H & C Oil Operating, Inc.

**22-8s-22w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Fink #22-1**

Job Ticket: 48630

**DST#: 4**

ATTN: Marc Downing

Test Start: 2012.10.08 @ 01:42:57

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:47:17

Time Test Ended: 08:40:36

Test Type: Conventional Bottom Hole (Reset)

Tester: Brian Fairbank

Unit No: 41

**Interval: 3706.00 ft (KB) To 3780.00 ft (KB) (TVD)**

Reference Elevations: 2173.00 ft (KB)

Total Depth: 3780.00 ft (KB) (TVD)

2168.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 6752 Inside**

Press @ Run Depth: 446.06 psig @ 3709.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.10.08

End Date:

2012.10.08

Last Calib.: 2012.10.08

Start Time: 01:42:58

End Time:

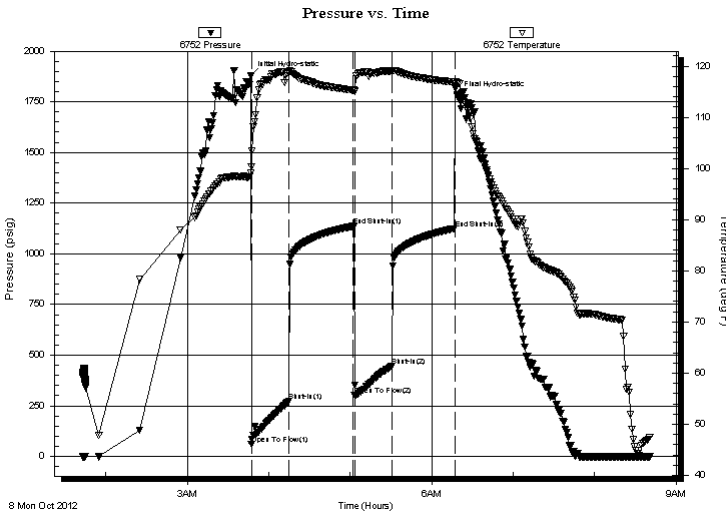
08:40:37

Time On Btm: 2012.10.08 @ 03:46:37

Time Off Btm: 2012.10.08 @ 06:18:57

**TEST COMMENT:** IFP - BOB 4 min  
ISI - no blow back 5 min - sur blow  
FFP - BOB 5 min  
FSI - no blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1877.05	99.08	Initial Hydro-static
1	60.42	100.30	Open To Flow (1)
28	272.37	118.73	Shut-In(1)
76	1136.00	115.32	End Shut-In(1)
77	303.00	115.14	Open To Flow (2)
105	446.06	118.99	Shut-In(2)
151	1124.47	116.90	End Shut-In(2)
153	1779.18	116.72	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
225.00	MW w / scum O 95%W, 5%M	3.16
280.00	SO & MCW 5%O, 85%W, 10%M	3.93
245.00	OCMW 10%O, 60%W, 30%M	3.44
100.00	SOCWM 5%O, 25%W, 70%M	1.40
5.00	MO 90%O, 10%M	0.07

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

H & C Oil Operating, Inc.

**22-8s-22w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Fink #22-1**

Job Ticket: 48630

**DST#: 4**

ATTN: Marc Downing

Test Start: 2012.10.08 @ 01:42:57

## Tool Information

Drill Pipe:	Length: 3716.00 ft	Diameter: 3.80 inches	Volume: 52.13 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 54000.00 lb
			<u>Total Volume: 52.13 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3706.00 ft			Final 49000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	74.00 ft			
Tool Length:	94.00 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			3691.00	
Hydraulic tool	5.00			3696.00	
Packer	5.00			3701.00	20.00 Bottom Of Top Packer
Packer	5.00			3706.00	
Stubb	1.00			3707.00	
Perforations	1.00			3708.00	
Change Over Sub	1.00			3709.00	
Recorder	0.00	6752	Inside	3709.00	
Recorder	0.00	6741	Outside	3709.00	
Blank Spacing	62.00			3771.00	
Change Over Sub	1.00			3772.00	
Perforations	5.00			3777.00	
Bullnose	3.00			3780.00	74.00 Bottom Packers & Anchor

**Total Tool Length: 94.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

H & C Oil Operating, Inc.

**22-8s-22w Graham, KS**

PO Box 86  
Plainville, KS 67663

**Fink #22-1**

Job Ticket: 48630

**DST#: 4**

ATTN: Marc Downing

Test Start: 2012.10.08 @ 01:42:57

## 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:

37000 ppm

Viscosity: 61.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1900.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
225.00	MW w / scum O 95%W, 5%M	3.156
280.00	SO & MCW 5%O, 85%W, 10%M	3.928
245.00	OCMW 10%O, 60%W, 30%M	3.437
100.00	SOCWM 5%O, 25%W, 70%M	1.403
5.00	MO 90%O, 10%M	0.070

Total Length: 855.00 ft

Total Volume: 11.994 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

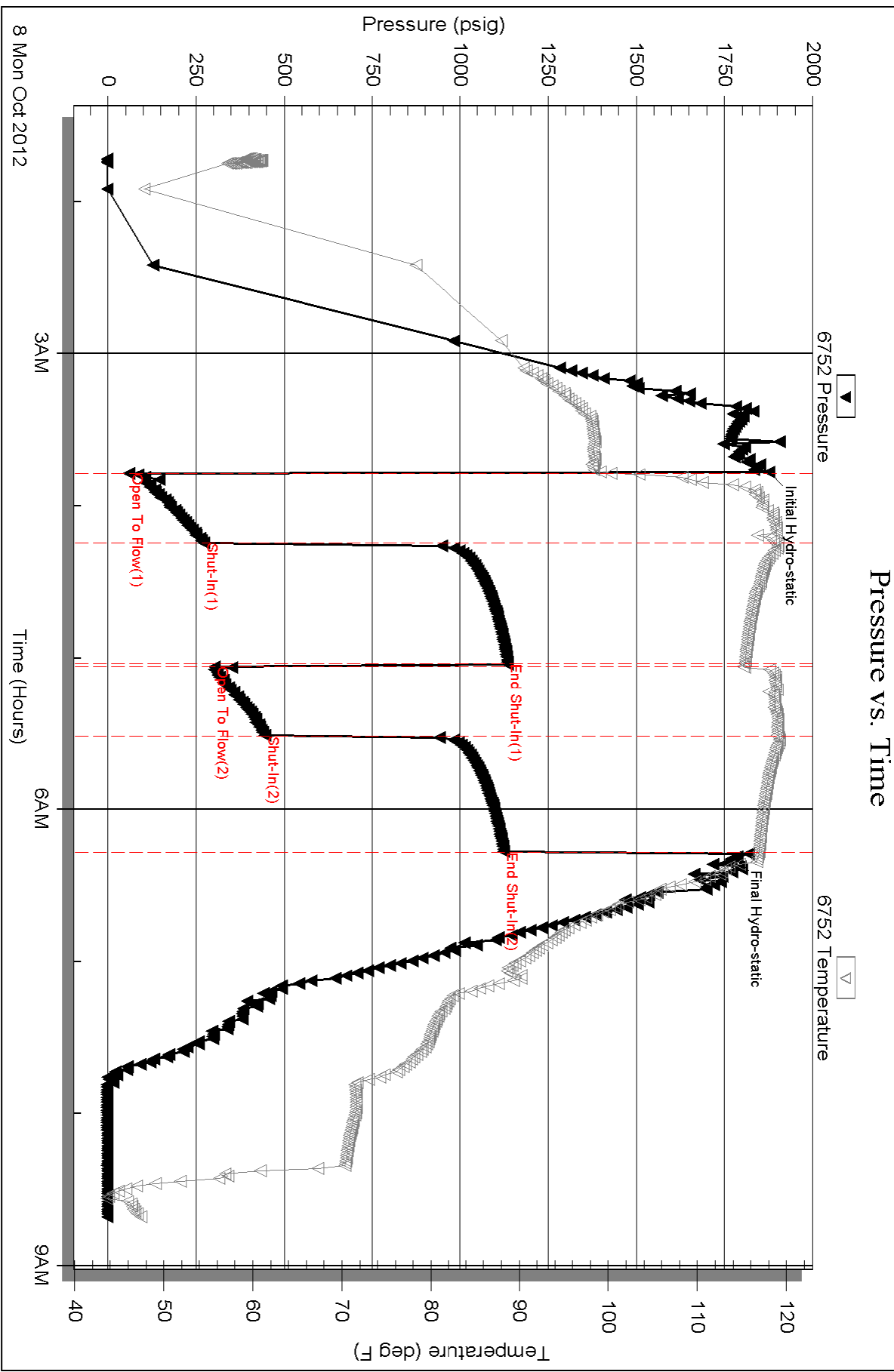
Serial #:

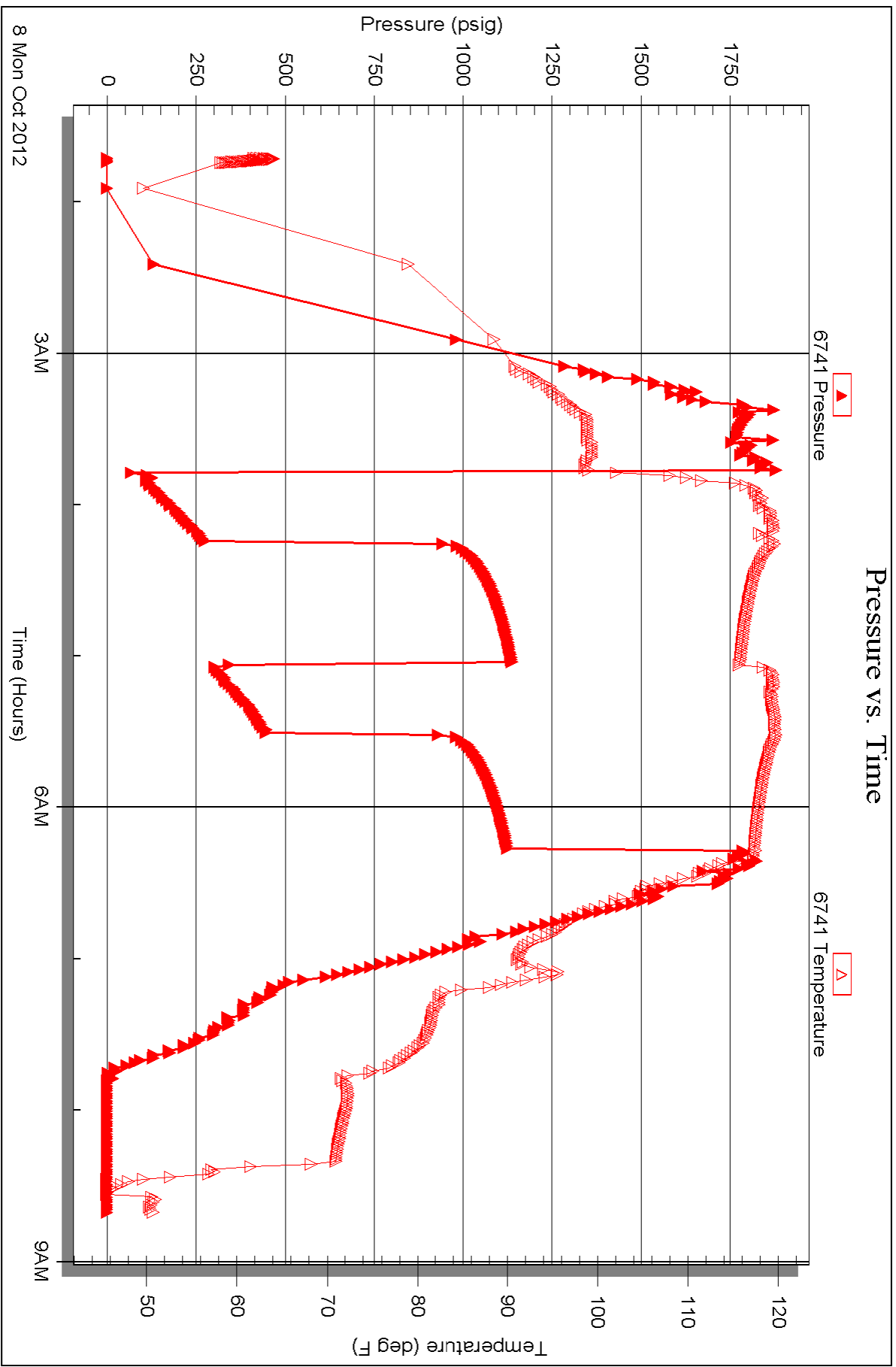
Laboratory Name:

Laboratory Location:

Recovery Comments:









# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48627

4/10

Well Name & No. Fink 22-1 Test No. 1 Date 10-5-12  
 Company H&C Oil Operating, Inc Elevation 2173 KB 2168 GL  
 Address Po Box 86 Altonville, Ky 67663  
 Co. Rep / Geo. Marc Downing Rig Am Egg 63  
 Location: Sec. 22 Twp. 8 Rge. 22 Co. Graham State Ky

Interval Tested 3415 - 3445 Zone Tested LKC "A"  
 Anchor Length 30 Drill Pipe Run 3402 Mud Wt. 8.8  
 Top Packer Depth 3410 Drill Collars Run — Vis 47  
 Bottom Packer Depth 3415 Wt. Pipe Run — WL 6.8  
 Total Depth 3445 Chlorides 1300 ppm System LCM

Blow Description IFP - 1 1/4" blow - died 22 min  
ISI - no blow back  
FFP - no blow 27 min - weak sur blow  
FSI - no blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>115</u>	<u>drl 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	Feet of	%gas	%oil	%water	%mud

Rec Total 115 BHT 103 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1611  Test 1150 T-On Location 0944  
 (B) First Initial Flow 72  Jars T-Started 1004  
 (C) First Final Flow 73  Safety Joint T-Open 1152  
 (D) Initial Shut-In 990  Circ Sub T-Pulled 1352  
 (E) Second Initial Flow 74  Hourly Standby T-Out 1533  
 (F) Second Final Flow 71  Mileage 117 RT 181.35 Comments Tool slid 15'  
 (G) Final Shut-In 963  Sampler to bottom  
 (H) Final Hydrostatic 1585  Straddle  Ruined Shale Packer  
 Shale Packer  Ruined Packer  
 Extra Packer  Extra Copies  
 Extra Recorder Sub Total 0  
 Day Standby Total 1331.35  
 Accessibility MP/DST Disc't —  
 Sub Total 1331.35

Initial Open 30  
 Initial Shut-In 30  
 Final Flow 30  
 Final Shut-In 30

Approved By \_\_\_\_\_ Our Representative Brian Fairbank

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.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48628

Well Name & No. Fink 22-1 Test No. 2 Date 10-6-12  
 Company H+C Elevation 2173 KB 2168 GL  
 Address \_\_\_\_\_  
 Co. Rep / Geo. Marc Downing Rig Am Egg 63  
 Location: Sec. 22 Twp. 8 Rge. 22 Co. Graham State KS

Interval Tested 3564-3600 Zone Tested LKC "I-J"  
 Anchor Length 36 Drill Pipe Run 3560 Mud Wt. 9.1  
 Top Packer Depth 3559 Drill Collars Run — Vis 55  
 Bottom Packer Depth 3564 Wt. Pipe Run — WL 7.2  
 Total Depth 3600 Chlorides 1500 ppm System LCM \_\_\_\_\_

Blow Description IFP - 1/4" blow - died 22 min  
ISI - no blow back  
FFP - no blow - flush - 1/2 - 1/4 - died 9 min  
FSI - no blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>85</u>	<u>0 spt dcl 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	Feet of	%gas	%oil	%water	%mud

Rec Total 85 BHT 106 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>1701</u>	<input checked="" type="checkbox"/> Test 1150	T-On Location <u>0628</u>
(B) First Initial Flow <u>372</u>	<input type="checkbox"/> Jars	T-Started <u>0724</u>
(C) First Final Flow <u>857</u>	<input type="checkbox"/> Safety Joint	T-Open <u>0917</u>
(D) Initial Shut-In <u>909</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>1117</u>
(E) Second Initial Flow <u>58</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1246</u>
(F) Second Final Flow <u>254</u>	<input checked="" type="checkbox"/> Mileage 181.35	Comments <u>tool slid 15' to bottom</u>
(G) Final Shut-In <u>322</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1689</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer

Initial Open 30  
 Initial Shut-In 30  
 Final Flow 30  
 Final Shut-In 30

Shale Packer  
 Extra Packer  
 Extra Recorder  
 Day Standby  
 Accessibility

Sub Total 1331.35

MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative Brian Feiball

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.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48629

Well Name & No. Fink 22-1 Test No. 3 Date 10-7-12  
 Company H+C Elevation 2173 KB 2168 GL  
 Address \_\_\_\_\_  
 Co. Rep / Geo. Marc Downing Rig Am Eagle 3  
 Location: Sec. 22 Twp. 8 Rge. 22 Co. Graham State Ks

Interval Tested 3706-3770 Zone Tested Arbuckle  
 Anchor Length 64 Drill Pipe Run 3717 Mud Wt. 9.1  
 Top Packer Depth 3701 Drill Collars Run — Vis 55  
 Bottom Packer Depth 3706 Wt. Pipe Run — WL 7.2  
 Total Depth 3770 Chlorides 1500 ppm System LCM \_\_\_\_\_  
 Blow Description IIFP - weak flow throughout 1/4" - 1/2"  
ISI - no blow back  
FFP - sur blow - died 32 min  
FSI - no blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>Free oil</u>		<u>90</u>		<u>10</u>
<u>15</u>	<u>SOCM</u>		<u>5</u>		<u>95</u>
_____	_____		_____		_____
_____	_____		_____		_____
_____	_____		_____		_____

Rec Total 25 BHT 108 Gravity 25 API RW @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1845  Test 1150 T-On Location 0343  
 (B) First Initial Flow 30  Jars T-Started 0550  
 (C) First Final Flow 35  Safety Joint T-Open 0740  
 (D) Initial Shut-In 864  Circ Sub T-Pulled 1040  
 (E) Second Initial Flow 85  Hourly Standby T-Out 1232  
 (F) Second Final Flow 41  Mileage 181.35 Comments \_\_\_\_\_  
 (G) Final Shut-In 870  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1796  Straddle \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_

Initial Open 45  
 Initial Shut-In 45  
 Final Flow 45  
 Final Shut-In 45  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1331.35 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative Brian Fairbank

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# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48630

4/10

Well Name & No. Fink 22-1 Test No. 4 Date 10-8-12  
 Company H+C Elevation 2173 KB 2168 GL  
 Address \_\_\_\_\_  
 Co. Rep / Geo. Marc Downing Rig Am Eagle 3  
 Location: Sec. 22 Twp. 8 Rge. 22 Co. Gregem State Ks

Interval Tested 3706-3780 Zone Tested Arbuckle  
 Anchor Length 74 Drill Pipe Run 3716 Mud Wt. 9.2  
 Top Packer Depth 3701 Drill Collars Run \_\_\_\_\_ Vis 61  
 Bottom Packer Depth 3706 Wt. Pipe Run \_\_\_\_\_ WL 7.8  
 Total Depth 3780 Chlorides 1900 ppm System LCM \_\_\_\_\_

Blow Description IFP- BOB 4 min  
ISI- no blow 5 min - sur blow  
FFP- BOB 5 min  
FST- no blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>MO</u>		<u>90</u>		<u>10</u>
<u>100</u>	<u>SOCWM</u>		<u>5</u>	<u>25</u>	<u>70</u>
<u>245</u>	<u>OCMW</u>		<u>10</u>	<u>60</u>	<u>30</u>
<u>280</u>	<u>SO+MCW</u>		<u>5</u>	<u>85</u>	<u>10</u>
<u>255</u>	<u>MW w/ secum</u>		<u>secum</u>	<u>95</u>	<u>5</u>
<u>885</u>	<u>BHT 117</u>	Gravity	API RW <u>254</u> @ <u>53</u> °F	Chlorides <u>37000</u>	ppm

(A) Initial Hydrostatic 1877  Test 1150 T-On Location 0041  
 (B) First Initial Flow 60  Jars T-Started 0142  
 (C) First Final Flow 272  Safety Joint T-Open 0347  
 (D) Initial Shut-In 1136  Circ Sub T-Pulled 0617  
 (E) Second Initial Flow 303  Hourly Standby T-Out 0840  
 (F) Second Final Flow 446  Mileage x2 365.70 Comments mileage to  
load tools  
 (G) Final Shut-In 1124  Sampler  
 (H) Final Hydrostatic 1779  Straddle  Ruined Shale Packer  
 Shale Packer  Ruined Packer  
 Extra Packer  Extra Copies  
 Extra Recorder Sub Total 0  
 Day Standby Total 1512.70  
 Accessibility MP/DST Disc't \_\_\_\_\_  
 Sub Total 1512.70

Initial Open 30  
 Initial Shut-In 45  
 Final Flow 30  
 Final Shut-In 45

Approved By \_\_\_\_\_ Our Representative Brian Farbak

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**Marc Downing**  
Consulting Petroleum Geologist  
1411 Washington Circle  
Hays, KS 67601  
Phone: 620-428-1356 (cell) 785-621-2286

**GEOLOGIC REPORT LOG**

COMPANY: HCC Oil Operating, Inc.  
WELL: Fulk # 22-1  
FIELD: Laidcat

LOCATION: 33d FSL + 231d FUL  
ELEVATION: KB 2173  
DF: 43  
RGE: 22W

COUNTY: Graham  
STATE: Kansas

OPERATOR: HCC Oil Operating, Inc.  
CONTRACTOR: American Eagle #13  
COMM: 10-2-12  
CASING RECORD: SURF @ 230' PROD: None  
TOTAL DEPTH DRILLERS: 3433'  
TOTAL DEPTH LOG: 3431'

FORMATION TOPS AND STRUCTURAL POSITION  
FORMATION: SAMPLE TOP ELECTRIC LOG TOP SURF SEA POSITION STRUCTURAL POSITION

FORMATION	SAMPLE TOP	ELECTRIC LOG TOP	SURF SEA POSITION	STRUCTURAL POSITION
Top Anhydrite	1753	1752	+421	+2
Base Anhydrite	1784	1784	+387	+2
Tapeka	3175	3173	-1000	+1
Heebner	3395	3395	-1212	+1
Toronto	3409	3409	-1236	+1
LKC	3421	3421	-1494	+1
Arbuckle	3433	3433	-1597	+1
Arbuckle	3759	3759	-1876	+36

REFERENCE WELL FOR STRUCTURE: HCC Oil Operating, Inc.  
McDonald # 22-1 33d FSL + 231d FUL Sec. 22-4S-22W

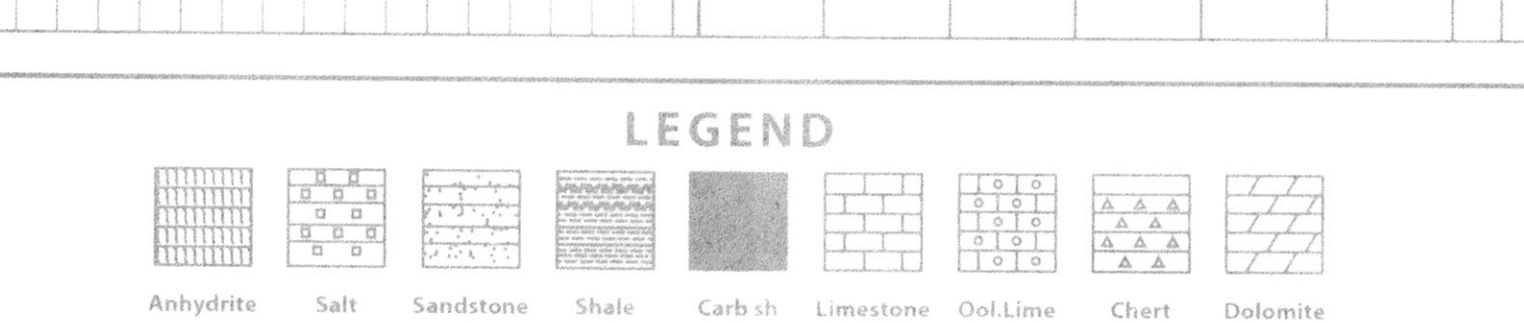
**DRILL STEM TESTS**

No.	Interval	IFP Time	ISF Time	FFP Time	SSP Time	HPF Time	RECOVER

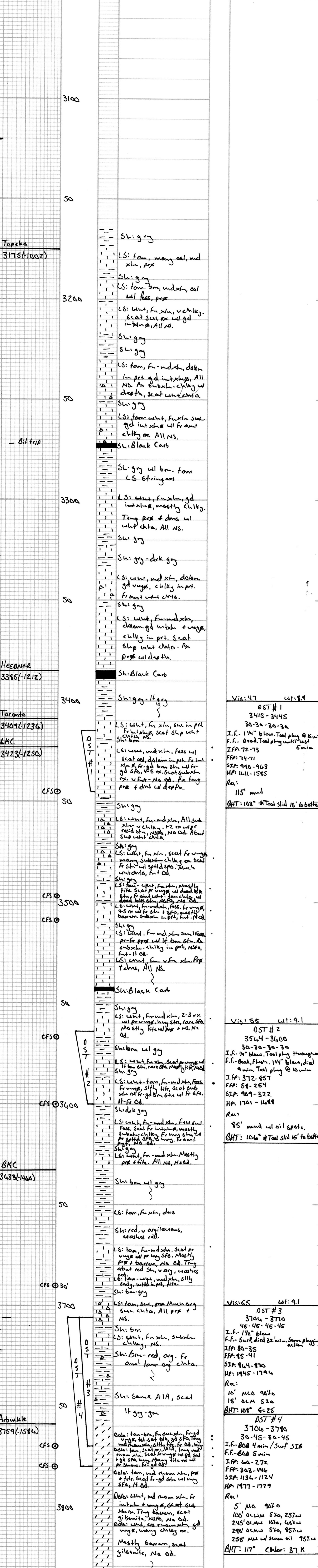
REMARKS AND RECOMMENDATIONS:  
Due to structural position, DST recovery & log evaluation, it was decided to plug & abandon this well.

McDonald

**LEGEND**



DRILLING TIME IN MINUTES PER FOOT  
Rate of Penetration Decreases  
5" 10" 15"



McDonald