



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1171964  
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: \_\_\_\_\_



1171964

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: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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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	Delbert Walt Trust 13-2
Doc ID	1171964

All Electric Logs Run

Dual induction
Microresistivity
Sonic Cement Bond log
Dual compensated porosity log



## DRILL STEM TEST REPORT

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

PO Box 86  
Plainville KS 67663

ATTN: Marc Downing

**13-10-26 Sheridan,KS**

**Delbert Walt Trust #13-2**

Start Date: 2013.10.06 @ 07:09:05

End Date: 2013.10.06 @ 10:55:00

Job Ticket #: 54469                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.10.10 @ 16:00:53

H&C Oil Operating Inc

Delbert Walt Trust #13-2

13-10-26 Sheridan,KS

DST # 1

LKC "A"

2013.10.06



# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

H&C Oil Operating Inc

**Delbert Walt Trust #13-2**

PO Box 86  
Plainville KS 67663

**13-10-26 Sheridan,KS**

ATTN: Marc Downing

Job Ticket: 54469

**DST#: 1**

Test Start: 2013.10.06 @ 07:09:05

### GENERAL INFORMATION:

Formation: **LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened:

Time Test Ended: 10:55:00

**Interval: 3776.00 ft (KB) To 3836.00 ft (KB) (TVD)**

Total Depth: 3836.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)

Tester: Cody Bloedorn

Unit No: 53

Reference Elevations: 2562.00 ft (KB)

2556.00 ft (CF)

KB to GR/CF: 6.00 ft

**Serial #: 6799**

**Inside**

Press @ Run Depth: psig @ 3815.00 ft (KB)

Start Date: 2013.10.06

End Date:

2013.10.06

Start Time: 07:09:05

End Time:

10:55:00

Capacity: 8000.00 psig

Last Calib.:

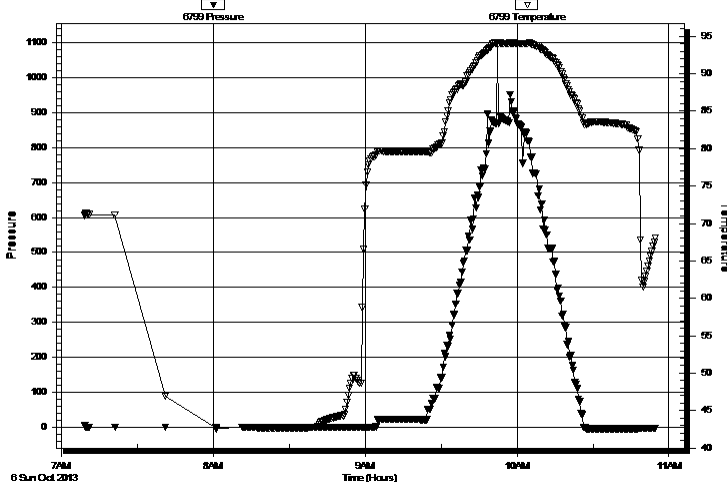
2013.10.06

Time On Btm:

Time Off Btm:

**TEST COMMENT:** GOT HALF WAY IN THE HOLE, HIT A BRIDGE. TALKED TO GEO. HE ASKED THAT I TRY TO PUT SOME WEIGHT ON IT WITHOUT OPENING TOOL AND IF WE COULDN'T GET THROUGH IT TO COME OUT OF THE HOLE.

Pressure vs. Time



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)

### Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

H&C Oil Operating Inc

**Delbert Walt Trust #13-2**

PO Box 86  
Plainville KS 67663

**13-10-26 Sheridan,KS**

ATTN: Marc Downing

Job Ticket: 54469

**DST#: 1**

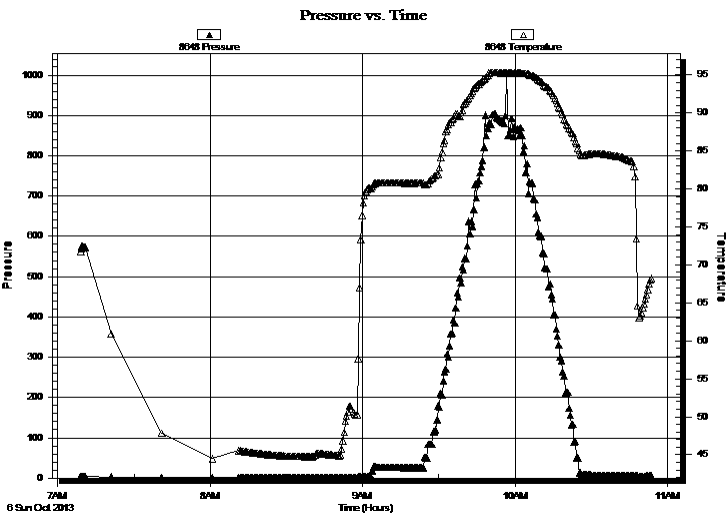
Test Start: 2013.10.06 @ 07:09:05

**GENERAL INFORMATION:**

Formation: <b>LKC "A"</b>			Test Type: Conventional Bottom Hole (Initial)
Deviated: No Whipstock:	ft (KB)		Tester: Cody Bloedorn
Time Tool Opened:			Unit No: 53
Time Test Ended: 10:55:00			
<b>Interval: 3776.00 ft (KB) To 3836.00 ft (KB) (TVD)</b>		Reference Elevations: 2562.00 ft (KB)	
Total Depth: 3836.00 ft (KB) (TVD)		2556.00 ft (CF)	
Hole Diameter: 7.88 inches	Hole Condition: Fair	KB to GR/CF: 6.00 ft	

<b>Serial #: 8648</b>	<b>Outside</b>				
Press @ RunDepth:	psig @	3815.00 ft (KB)	Capacity:	8000.00 psig	
Start Date:	2013.10.06	End Date:	2013.10.06	Last Calib.:	2013.10.06
Start Time:	07:09:05	End Time:	10:54:00	Time On Btm:	
				Time Off Btm:	

**TEST COMMENT:** GOT HALF WAY IN THE HOLE, HIT A BRIDGE. TALKED TO GEO. HE ASKED THAT I TRY TO PUT SOME WEIGHT ON IT WITHOUT OPENING TOOL AND IF WE COULDNT GET THROUGH IT TO COME OUT OF THE HOLE.



**PRESSURE SUMMARY**

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

**Recovery**

Length (ft)	Description	Volume (bbl)

**Gas Rates**

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

H&C Oil Operating Inc

**Delbert Walt Trust #13-2**

PO Box 86  
Plainville KS 67663

**13-10-26 Sheridan,KS**

ATTN: Marc Downing

Job Ticket: 54469

**DST#: 1**

Test Start: 2013.10.06 @ 07:09:05

## Tool Information

Drill Pipe:	Length: 3777.00 ft	Diameter: 3.80 inches	Volume: 52.98 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: lb
			<u>Total Volume: 52.98 bbl</u>	Tool Chased: ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial lb
Depth to Top Packer:	3776.00 ft			Final lb
Depth to Bottom Packer:	ft			
Interval between Packers:	60.00 ft			
Tool Length:	81.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: Miss Run, Half way to bottom and hit a bridge.

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3756.00	
Shut In Tool	5.00			3761.00	
Hydraulic tool	5.00			3766.00	
Packer	5.00			3771.00	21.00 Bottom Of Top Packer
Packer	5.00			3776.00	
Stubb	1.00			3777.00	
Perforations	5.00			3782.00	
Change Over Sub	1.00			3783.00	
Drill Pipe	31.00			3814.00	
Change Over Sub	1.00			3815.00	
Recorder	0.00	6799	Inside	3815.00	
Recorder	0.00	8648	Outside	3815.00	
Perforations	18.00			3833.00	
Bullnose	3.00			3836.00	60.00 Bottom Packers & Anchor

**Total Tool Length: 81.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

H&C Oil Operating Inc

**Delbert Walt Trust #13-2**

PO Box 86  
Plainville KS 67663

**13-10-26 Sheridan,KS**

Job Ticket: 54469

**DST#: 1**

ATTN: Marc Downing

Test Start: 2013.10.06 @ 07:09:05

## 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: sec/qt

Cushion Volume:

bbbl

Water Loss: 5.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl

Total Length:                      ft      Total Volume:                      bbl

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

Laboratory Name:                      Laboratory Location:

Recovery Comments:



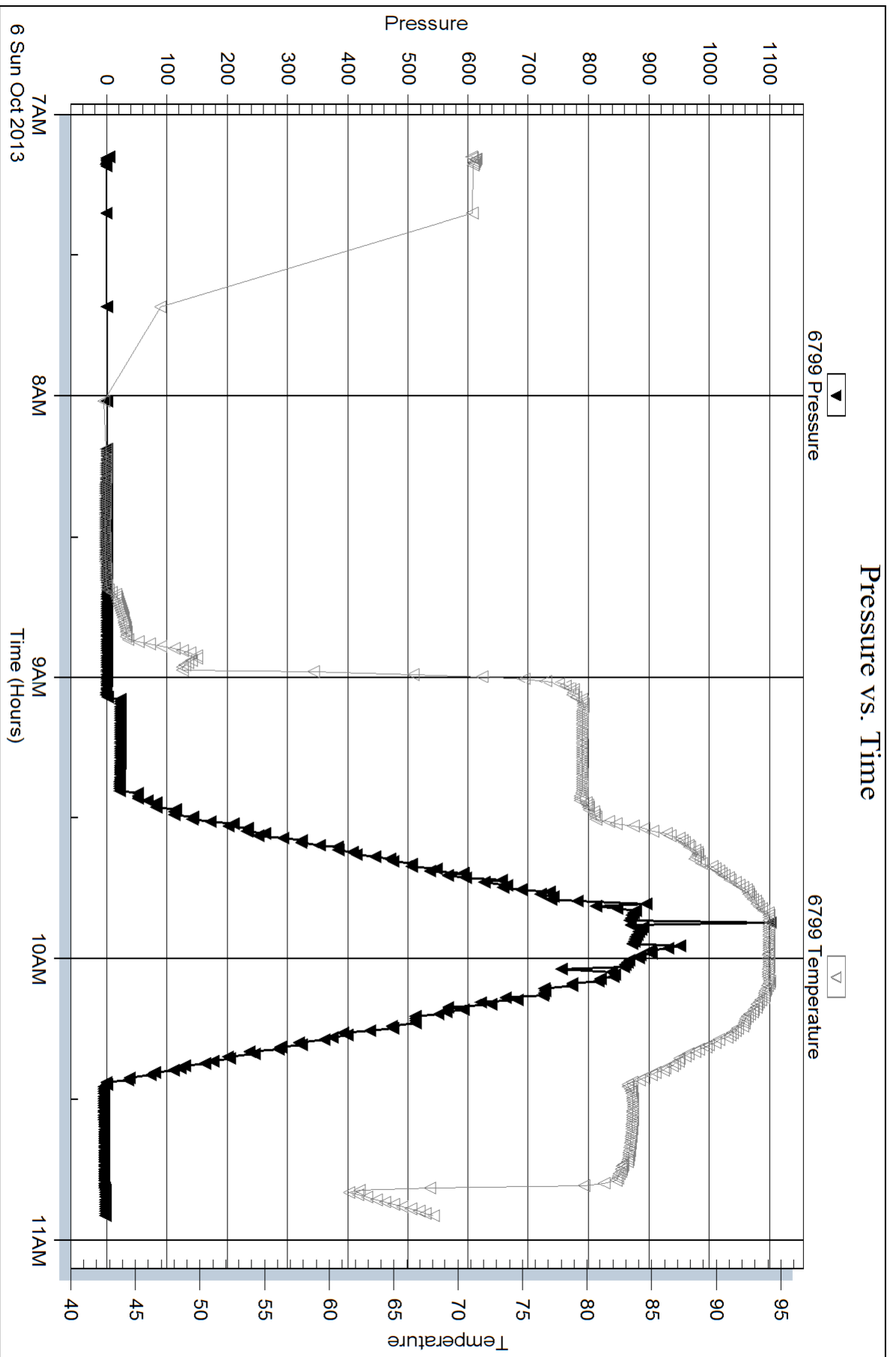
Serial #: 6799

Inside

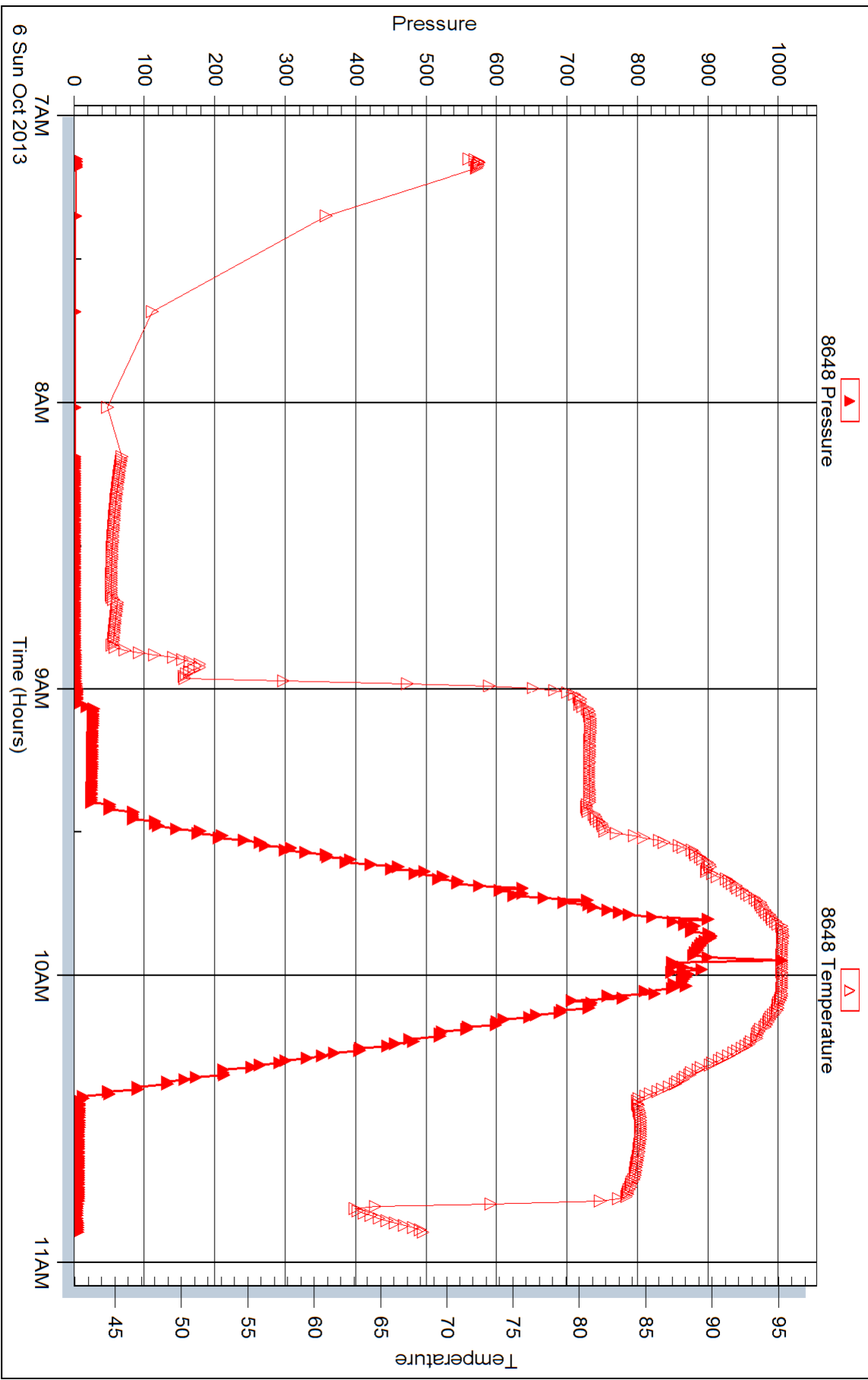
H&C Oil Operating Inc

13-10-26 Sheridan, KS

DST Test Number: 1



### Pressure vs. Time





## DRILL STEM TEST REPORT

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

PO Box 86  
Plainville KS 67663

ATTN: Marc Downing

**13-10-26 Sheridan,KS**

**Delbert Walt Trust #13-2**

Start Date: 2013.10.06 @ 17:14:00

End Date: 2013.10.06 @ 22:21:15

Job Ticket #: 54470                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.10.10 @ 16:00:26

H&C Oil Operating Inc

Delbert Walt Trust #13-2

13-10-26 Sheridan,KS

DST # 2

LKC "A"

2013.10.06



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

H&C Oil Operating Inc

**Delbert Walt Trust #13-2**

PO Box 86  
Plainville KS 67663

**13-10-26 Sheridan,KS**

ATTN: Marc Downing

Job Ticket: 54470

**DST#: 2**

Test Start: 2013.10.06 @ 17:14:00

## GENERAL INFORMATION:

Formation: **LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:36:30

Time Test Ended: 22:21:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Cody Bloedorn

Unit No: 53

**Interval: 3776.00 ft (KB) To 3836.00 ft (KB) (TVD)**

Reference Elevations: 2562.00 ft (KB)

Total Depth: 3836.00 ft (KB) (TVD)

2556.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 6.00 ft

## Serial #: 6799

Inside

Press @ Run Depth: 26.55 psig @ 3815.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.06

End Date:

2013.10.06

Last Calib.:

2013.10.06

Start Time: 17:14:05

End Time:

22:21:14

Time On Btm:

2013.10.06 @ 18:36:15

Time Off Btm:

2013.10.06 @ 20:39:00

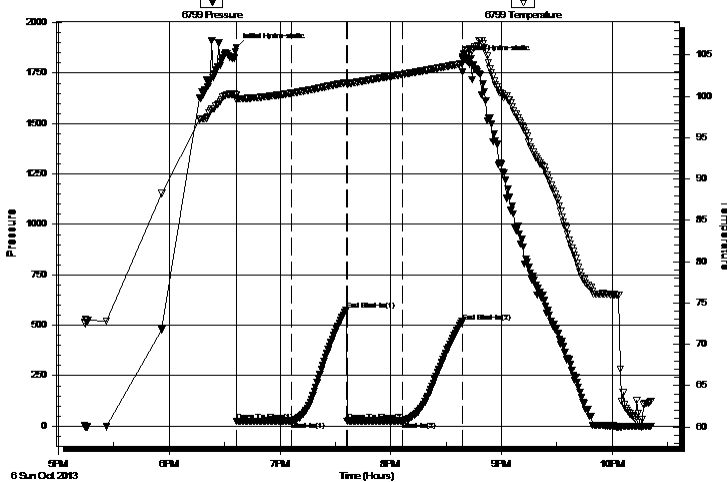
TEST COMMENT: 30 - IF- 1/4" blow and died off to surface blow

30 - IS- No return

30 - FF- No blow

30 - FS- No return

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1876.90	100.15	Initial Hydro-static
1	23.60	99.59	Open To Flow (1)
30	25.12	100.39	Shut-In(1)
60	576.89	101.67	End Shut-In(1)
60	25.30	101.49	Open To Flow (2)
90	26.55	102.67	Shut-In(2)
123	518.11	103.96	End Shut-In(2)
123	1819.19	104.63	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
6.00	SOCM, 5%O, 95%M	0.08
1.00	Free oil, 100%O	0.01

\* 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

Delbert Walt Trust #13-2

PO Box 86  
Plainville KS 67663

13-10-26 Sheridan,KS

ATTN: Marc Downing

Job Ticket: 54470

DST#: 2

Test Start: 2013.10.06 @ 17:14:00

### GENERAL INFORMATION:

Formation: **LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:36:30

Time Test Ended: 22:21:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Cody Bloedorn

Unit No: 53

Interval: **3776.00 ft (KB) To 3836.00 ft (KB) (TVD)**

Reference Elevations: 2562.00 ft (KB)

Total Depth: 3836.00 ft (KB) (TVD)

2556.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 6.00 ft

**Serial #: 8648 Outside**

Press @RunDepth: psig @ 3815.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.06

End Date:

2013.10.06

Last Calib.:

2013.10.06

Start Time: 17:14:05

End Time:

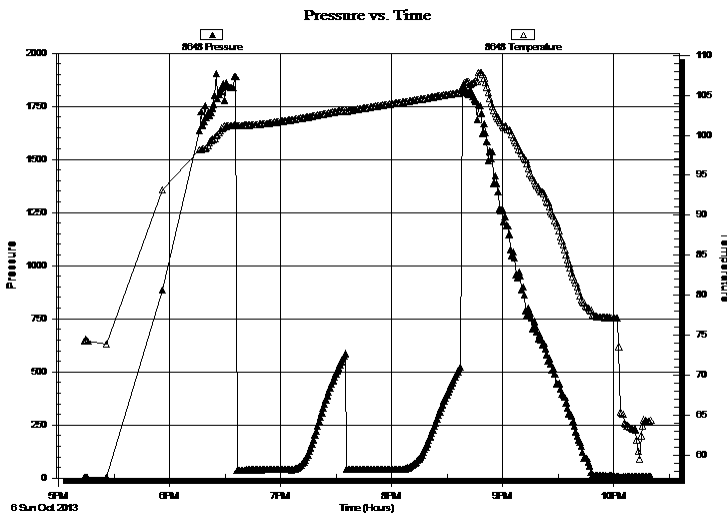
22:19:59

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 - IF- 1/4" blow and died off to surface blow  
30 - IS- No return  
30 - FF- No blow  
30 - FS- No return

### PRESSURE SUMMARY



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

### Recovery

Length (ft)	Description	Volume (bbl)
6.00	SOCM, 5%O, 95%M	0.08
1.00	Free oil, 100%O	0.01

\* 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

**Delbert Walt Trust #13-2**

PO Box 86  
Plainville KS 67663

**13-10-26 Sheridan,KS**

ATTN: Marc Downing

Job Ticket: 54470

**DST#: 2**

Test Start: 2013.10.06 @ 17:14:00

## Tool Information

Drill Pipe:	Length: 3777.00 ft	Diameter: 3.80 inches	Volume: 52.98 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 66000.00 lb
			<u>Total Volume: 52.98 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	3776.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	60.00 ft			
Tool Length:	81.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3756.00	
Shut In Tool	5.00			3761.00	
Hydraulic tool	5.00			3766.00	
Packer	5.00			3771.00	21.00 Bottom Of Top Packer
Packer	5.00			3776.00	
Stubb	1.00			3777.00	
Perforations	5.00			3782.00	
Change Over Sub	1.00			3783.00	
Drill Pipe	31.00			3814.00	
Change Over Sub	1.00			3815.00	
Recorder	0.00	6799	Inside	3815.00	
Recorder	0.00	8648	Outside	3815.00	
Perforations	18.00			3833.00	
Bullnose	3.00			3836.00	60.00 Bottom Packers & Anchor

**Total Tool Length: 81.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

H&C Oil Operating Inc

**Delbert Walt Trust #13-2**

PO Box 86  
Plainville KS 67663

**13-10-26 Sheridan,KS**

Job Ticket: 54470

**DST#: 2**

ATTN: Marc Downing

Test Start: 2013.10.06 @ 17:14:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.97 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
6.00	SOCM, 5%O, 95%M	0.084
1.00	Free oil, 100%O	0.014

Total Length: 7.00 ft      Total Volume: 0.098 bbl

Num Fluid Samples: 0

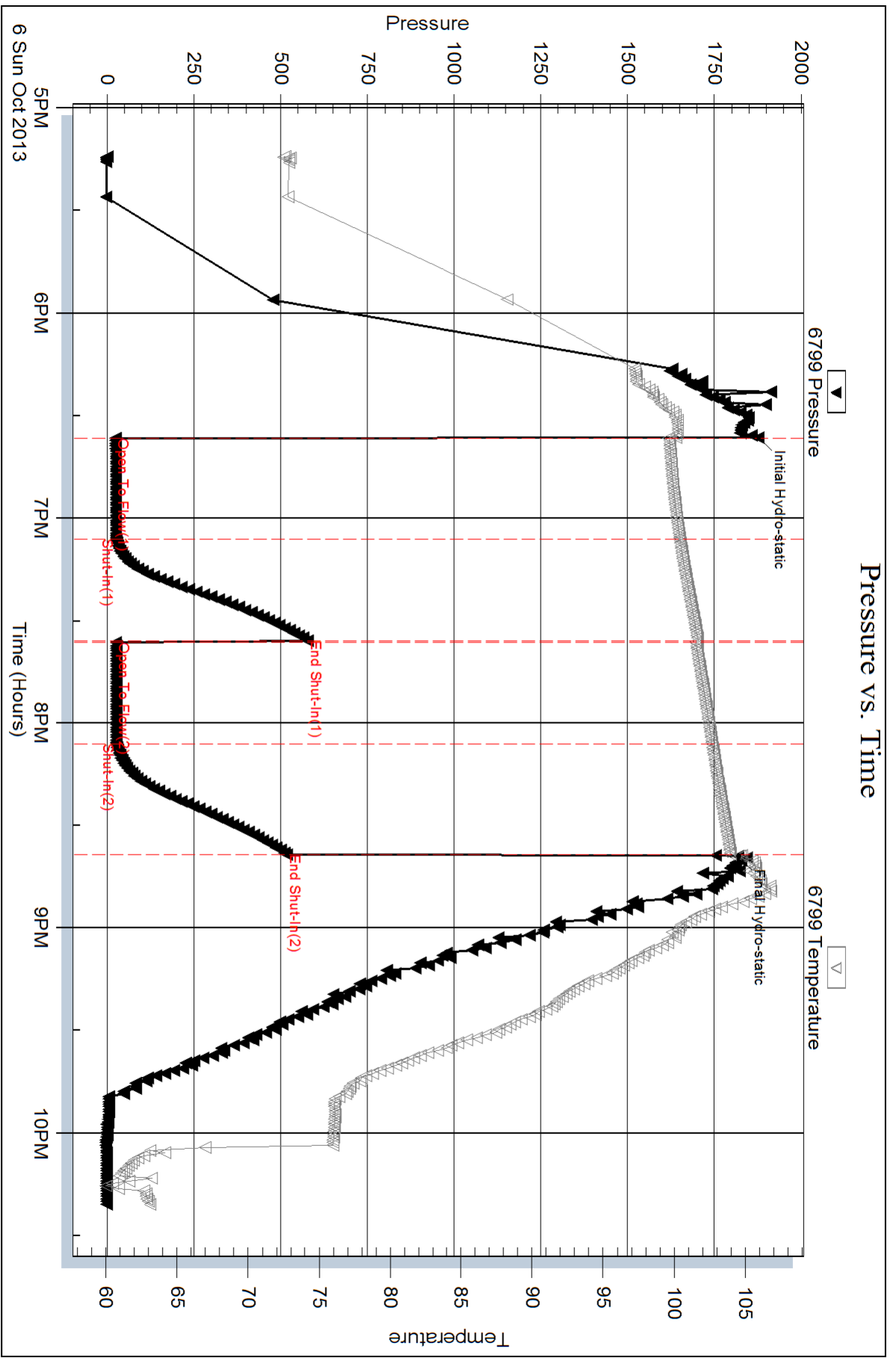
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



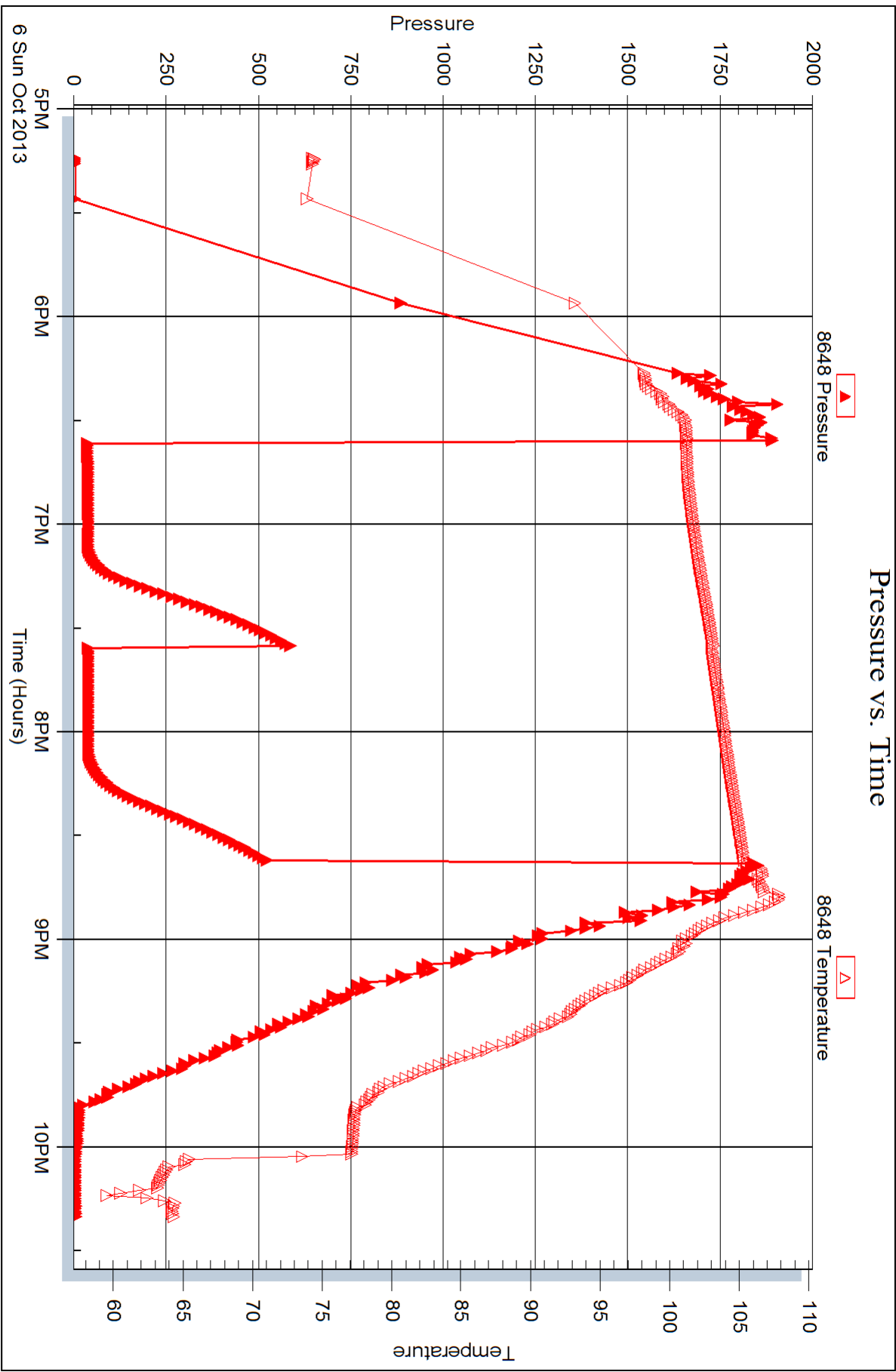


Serial #: 8648

Outside H&C Oil Operating Inc

13-10-26 Sheridan, KS

DST Test Number: 2





## DRILL STEM TEST REPORT

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

PO Box 86  
Plainville KS 67663

ATTN: Marc Downing

**13-10-26 Sheridan,KS**

**Delbert Walt Trust #13-2**

Start Date: 2013.10.07 @ 06:24:00

End Date: 2013.10.07 @ 13:45:00

Job Ticket #: 54471                      DST #: 3

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

Printed: 2013.10.10 @ 15:59:52

H&C Oil Operating Inc

Delbert Walt Trust #13-2

13-10-26 Sheridan,KS

DST # 3

LKC "C-D"

2013.10.07



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

H&C Oil Operating Inc

PO Box 86  
Plainville KS 67663

ATTN: Marc Downing

**Delbert Walt Trust #13-2**

**13-10-26 Sheridan,KS**

Job Ticket: 54471

**DST#: 3**

Test Start: 2013.10.07 @ 06:24:00

## GENERAL INFORMATION:

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

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:44:30

Time Test Ended: 13:45:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Cody Bloedorn

Unit No: 53

**Interval: 3831.00 ft (KB) To 3880.00 ft (KB) (TVD)**

Reference Elevations: 2562.00 ft (KB)

Total Depth: 3880.00 ft (KB) (TVD)

2556.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 6.00 ft

## Serial #: 6799

Inside

Press @ Run Depth: 105.52 psig @ 3870.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.07

End Date:

2013.10.07

Last Calib.: 2013.10.07

Start Time: 06:24:05

End Time:

13:44:59

Time On Btm: 2013.10.07 @ 08:44:15

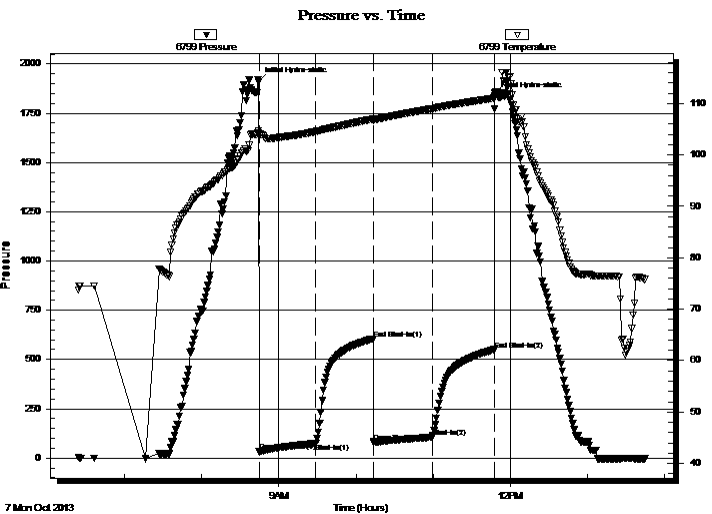
Time Off Btm: 2013.10.07 @ 11:48:00

TEST COMMENT: 45 - IF- B.O.B. in 10 minutes

45 - IS- Surface return

45 - FF-6.5" blow

45 - FS- Surface return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1908.81	104.76	Initial Hydro-static
1	31.99	104.16	Open To Flow (1)
45	74.61	104.54	Shut-In(1)
89	604.72	107.01	End Shut-In(1)
90	79.08	106.89	Open To Flow (2)
135	105.52	109.01	Shut-In(2)
184	549.37	111.04	End Shut-In(2)
184	1834.07	111.48	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
62.00	MW, 40%M, 60%W	0.87
114.00	OCM, 20%O, 80%M	1.60
10.00	Free Oil, 100%O	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

**Delbert Walt Trust #13-2**

PO Box 86  
Plainville KS 67663

**13-10-26 Sheridan,KS**

ATTN: Marc Downing

Job Ticket: 54471

**DST#: 3**

Test Start: 2013.10.07 @ 06:24:00

## Tool Information

Drill Pipe:	Length: 3838.00 ft	Diameter: 3.80 inches	Volume: 53.84 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 53.84 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 63000.00 lb
Depth to Top Packer:	3831.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	49.00 ft			
Tool Length:	70.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3811.00	
Shut In Tool	5.00			3816.00	
Hydraulic tool	5.00			3821.00	
Packer	5.00			3826.00	21.00 Bottom Of Top Packer
Packer	5.00			3831.00	
Stubb	1.00			3832.00	
Perforations	5.00			3837.00	
Change Over Sub	1.00			3838.00	
Drill Pipe	31.00			3869.00	
Change Over Sub	1.00			3870.00	
Recorder	0.00	6799	Inside	3870.00	
Recorder	0.00	8648	Outside	3870.00	
Perforations	7.00			3877.00	
Bullnose	3.00			3880.00	49.00 Bottom Packers & Anchor

**Total Tool Length: 70.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

H&C Oil Operating Inc

**Delbert Walt Trust #13-2**

PO Box 86  
Plainville KS 67663

**13-10-26 Sheridan,KS**

Job Ticket: 54471

**DST#: 3**

ATTN: Marc Downing

Test Start: 2013.10.07 @ 06:24:00

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1100.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	MW, 40%M, 60%W	0.870
114.00	OCM, 20%O, 80%M	1.599
10.00	Free Oil, 100%O	0.140

Total Length: 186.00 ft

Total Volume: 2.609 bbl

Num Fluid Samples: 0

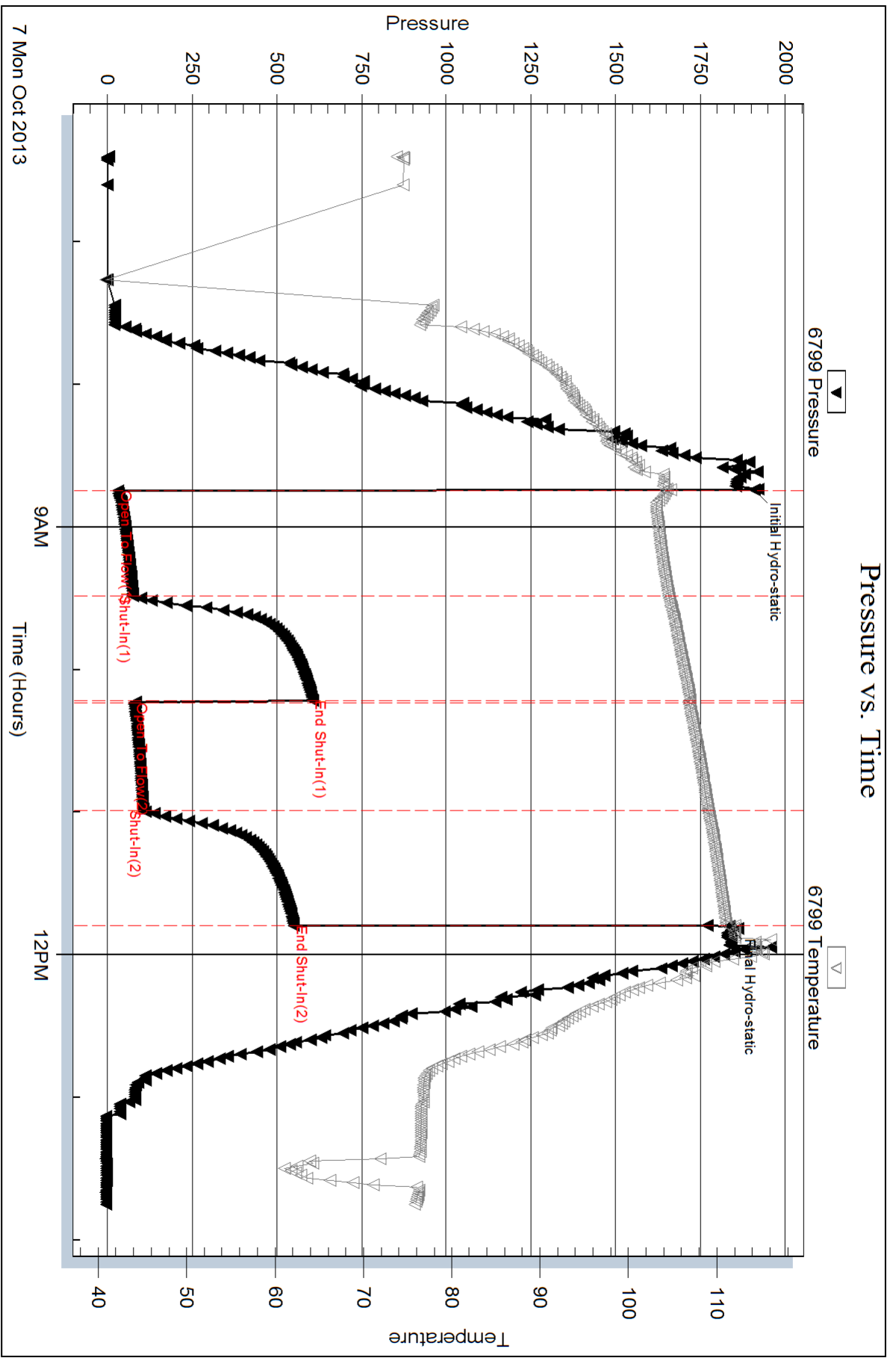
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

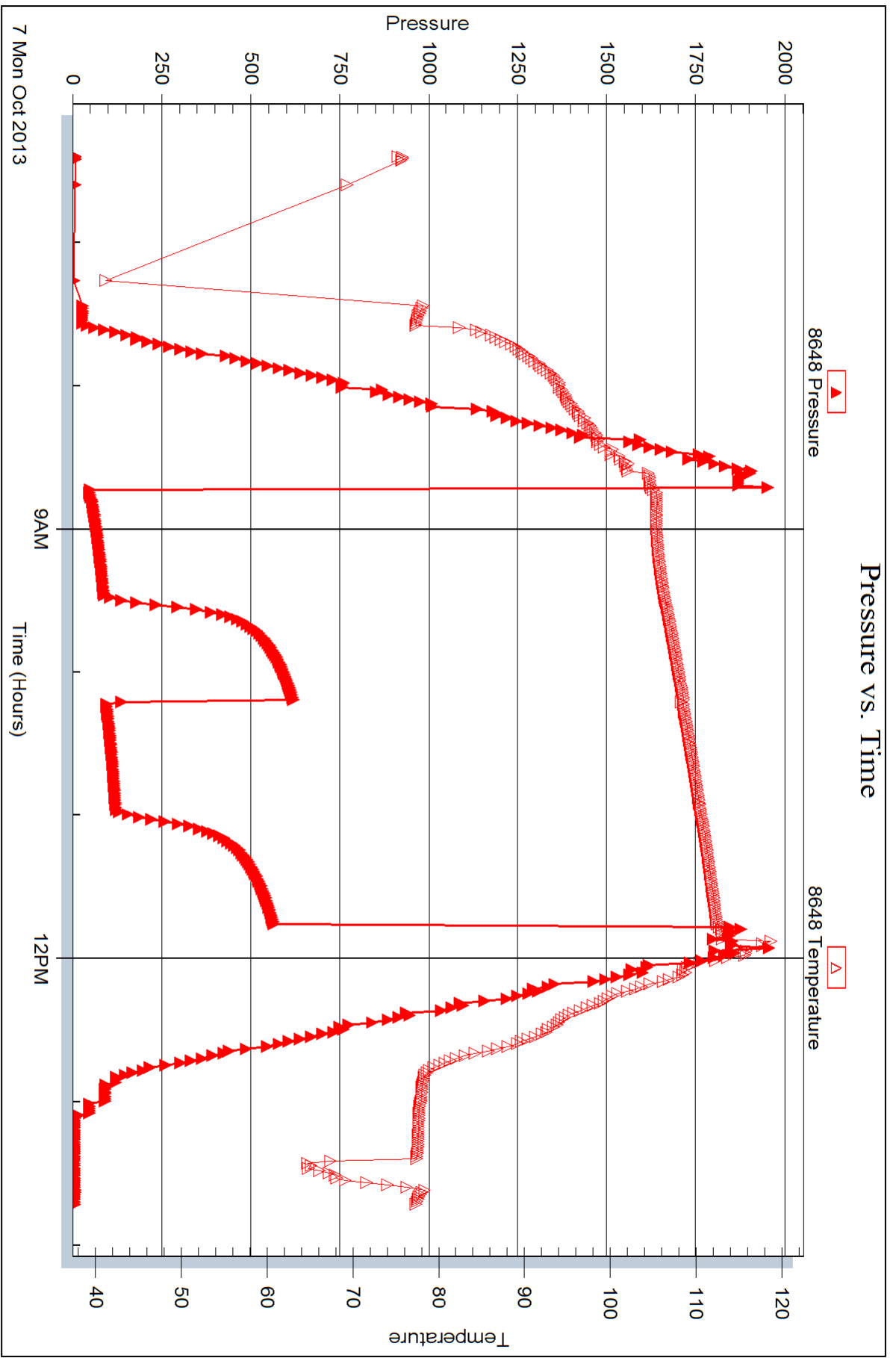


Serial #: 8648

Outside H&C Oil Operating Inc

13-10-26 Sheridan, KS

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 54471

Printed: 2013.10.10 @ 15:59:54





## DRILL STEM TEST REPORT

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

PO Box 86  
Plainville KS 67663

ATTN: Marc Downing

**13-10-26 Sheridan,KS**

**Delbert Walt Trust #13-2**

Start Date: 2013.10.07 @ 21:23:00

End Date: 2013.10.08 @ 03:28:00

Job Ticket #: 54472                      DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.10.10 @ 15:59:21

H&C Oil Operating Inc

Delbert Walt Trust #13-2

13-10-26 Sheridan,KS

DST # 4

LKC "E-F"

2013.10.07



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

H&C Oil Operating Inc

PO Box 86  
Plainville KS 67663

ATTN: Marc Downing

**Delbert Walt Trust #13-2**

**13-10-26 Sheridan,KS**

Job Ticket: 54472

**DST#: 4**

Test Start: 2013.10.07 @ 21:23:00

## GENERAL INFORMATION:

Formation: **LKC "E-F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:47:00

Time Test Ended: 03:28:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Cody Bloedorn

Unit No: 53

**Interval: 3879.00 ft (KB) To 3903.00 ft (KB) (TVD)**

Reference Elevations: 2562.00 ft (KB)

Total Depth: 3903.00 ft (KB) (TVD)

2556.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 6.00 ft

**Serial #: 6799 Inside**

Press @ Run Depth: 84.83 psig @ 3885.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.07

End Date:

2013.10.08

Last Calib.: 2013.10.08

Start Time: 21:23:05

End Time:

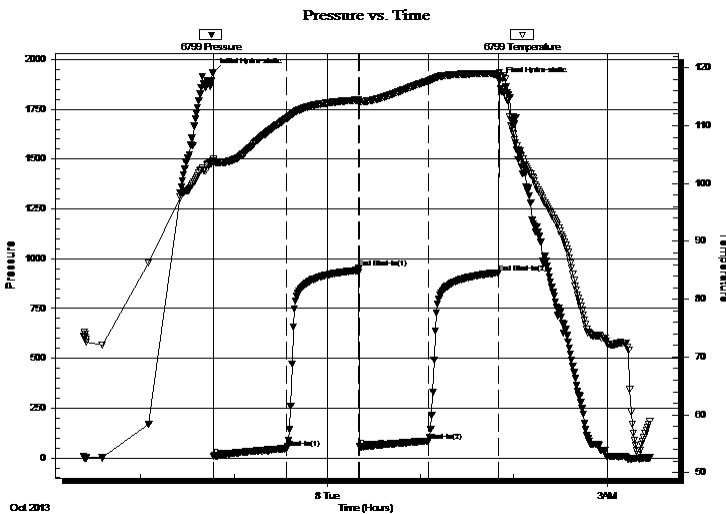
03:27:59

Time On Btm: 2013.10.07 @ 22:46:45

Time Off Btm: 2013.10.08 @ 01:50:45

**TEST COMMENT:** 45 - IF- 9" blow  
45 - IS- No return  
45 - FF- 6" blow  
45 - FS- Weak surface blow after 10 Min.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1934.24	104.18	Initial Hydro-static
1	8.67	103.66	Open To Flow (1)
47	47.61	111.21	Shut-In(1)
94	954.90	114.44	End Shut-In(1)
94	54.96	114.16	Open To Flow (2)
139	84.83	117.71	Shut-In(2)
184	929.40	118.94	End Shut-In(2)
184	1891.62	119.21	Final Hydro-static

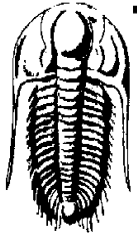
## Recovery

Length (ft)	Description	Volume (bbl)
124.00	WM, 50%W, 50%M	1.74
40.00	OCWM, 5%W, 15%O, 80%M	0.56
5.00	Free Oil, 100%O	0.07

\* 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

PO Box 86  
Plainville KS 67663

ATTN: Marc Downing

**Delbert Walt Trust #13-2**

**13-10-26 Sheridan,KS**

Job Ticket: 54472

**DST#: 4**

Test Start: 2013.10.07 @ 21:23:00

### GENERAL INFORMATION:

Formation: **LKC "E-F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:47:00

Time Test Ended: 03:28:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Cody Bloedorn

Unit No: 53

Interval: **3879.00 ft (KB) To 3903.00 ft (KB) (TVD)**

Total Depth: 3903.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2562.00 ft (KB)

2556.00 ft (CF)

KB to GR/CF: 6.00 ft

**Serial #: 8648 Outside**

Press @ Run Depth: psig @ 3885.00 ft (KB)

Start Date: 2013.10.07

End Date: 2013.10.08

Start Time: 21:23:05

End Time: 03:26:44

Capacity: 8000.00 psig

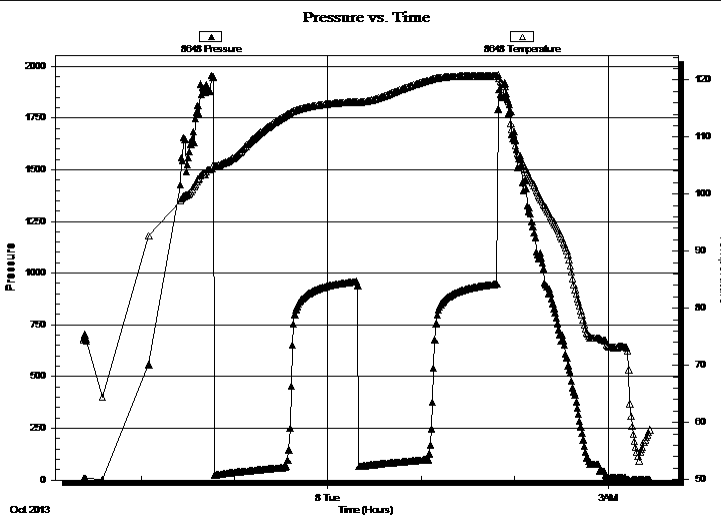
Last Calib.: 2013.10.08

Time On Btm:

Time Off Btm:

**TEST COMMENT:** 45 - IF- 9" blow  
45 - IS- No return  
45 - FF- 6" blow  
45 - FS- Weak surface blow after 10 Min.

### PRESSURE SUMMARY



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

### Recovery

Length (ft)	Description	Volume (bbl)
124.00	WM, 50%W, 50%M	1.74
40.00	OCWM, 5%W, 15%O, 80%M	0.56
5.00	Free Oil, 100%O	0.07

### 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

**Delbert Walt Trust #13-2**

PO Box 86  
Plainville KS 67663

**13-10-26 Sheridan,KS**

ATTN: Marc Downing

Job Ticket: 54472

**DST#: 4**

Test Start: 2013.10.07 @ 21:23:00

## Tool Information

Drill Pipe:	Length: 3869.00 ft	Diameter: 3.80 inches	Volume: 54.27 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 54.27 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 63000.00 lb
Depth to Top Packer:	3879.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	24.00 ft			
Tool Length:	45.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3859.00	
Shut In Tool	5.00			3864.00	
Hydraulic tool	5.00			3869.00	
Packer	5.00			3874.00	21.00 Bottom Of Top Packer
Packer	5.00			3879.00	
Stubb	1.00			3880.00	
Perforations	5.00			3885.00	
Recorder	0.00	6799	Inside	3885.00	
Recorder	0.00	8648	Outside	3885.00	
Perforations	15.00			3900.00	
Bullnose	3.00			3903.00	24.00 Bottom Packers & Anchor

**Total Tool Length: 45.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

H&C Oil Operating Inc

**Delbert Walt Trust #13-2**

PO Box 86  
Plainville KS 67663

**13-10-26 Sheridan,KS**

Job Ticket: 54472

**DST#: 4**

ATTN: Marc Downing

Test Start: 2013.10.07 @ 21:23:00

## 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:

38000 ppm

Viscosity: 63.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.78 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1100.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	WM, 50%W, 50%M	1.739
40.00	OCWM, 5%W, 15%O, 80%M	0.561
5.00	Free Oil, 100%O	0.070

Total Length: 169.00 ft      Total Volume: 2.370 bbl

Num Fluid Samples: 0

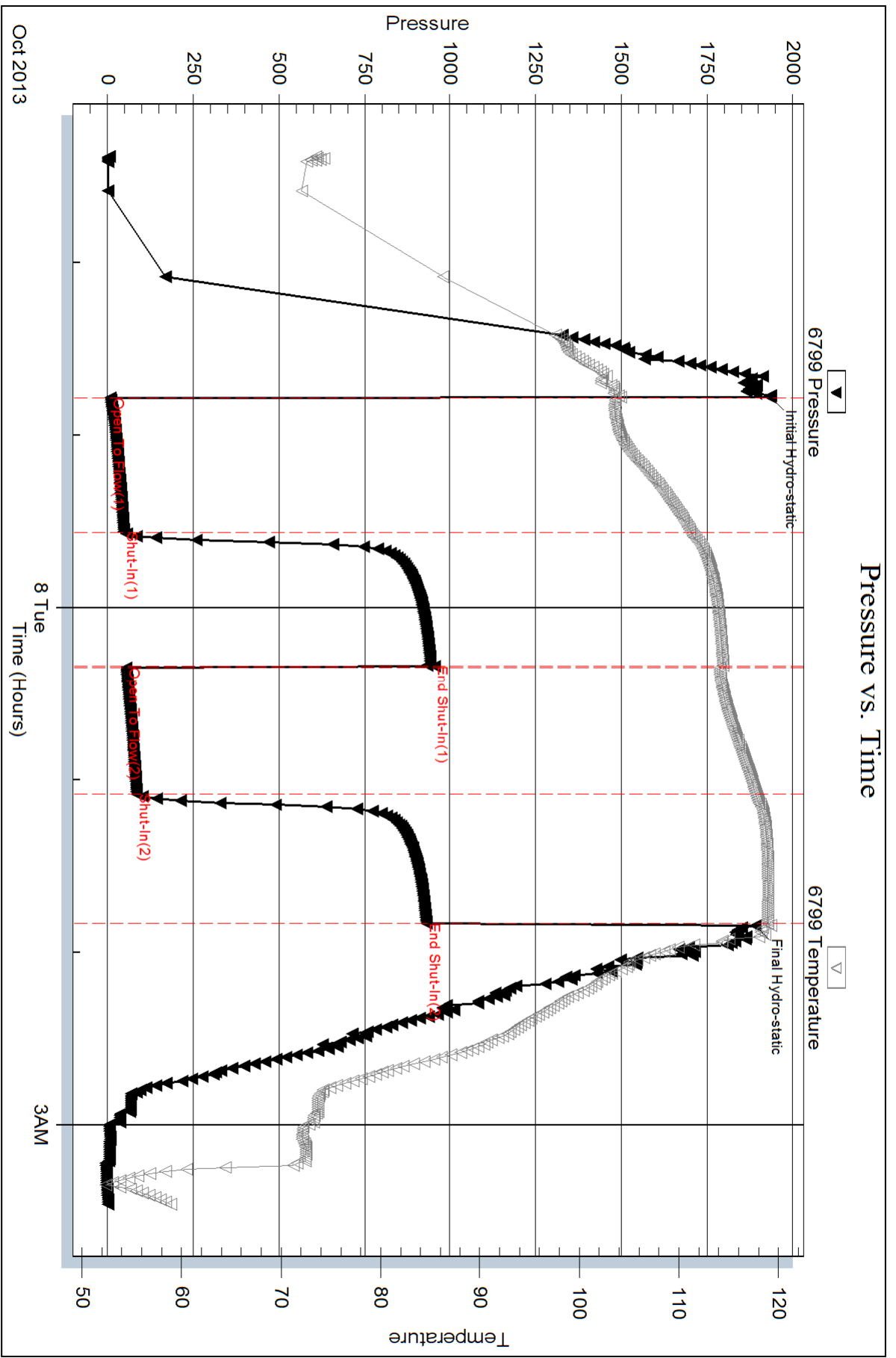
Num Gas Bombs: 0

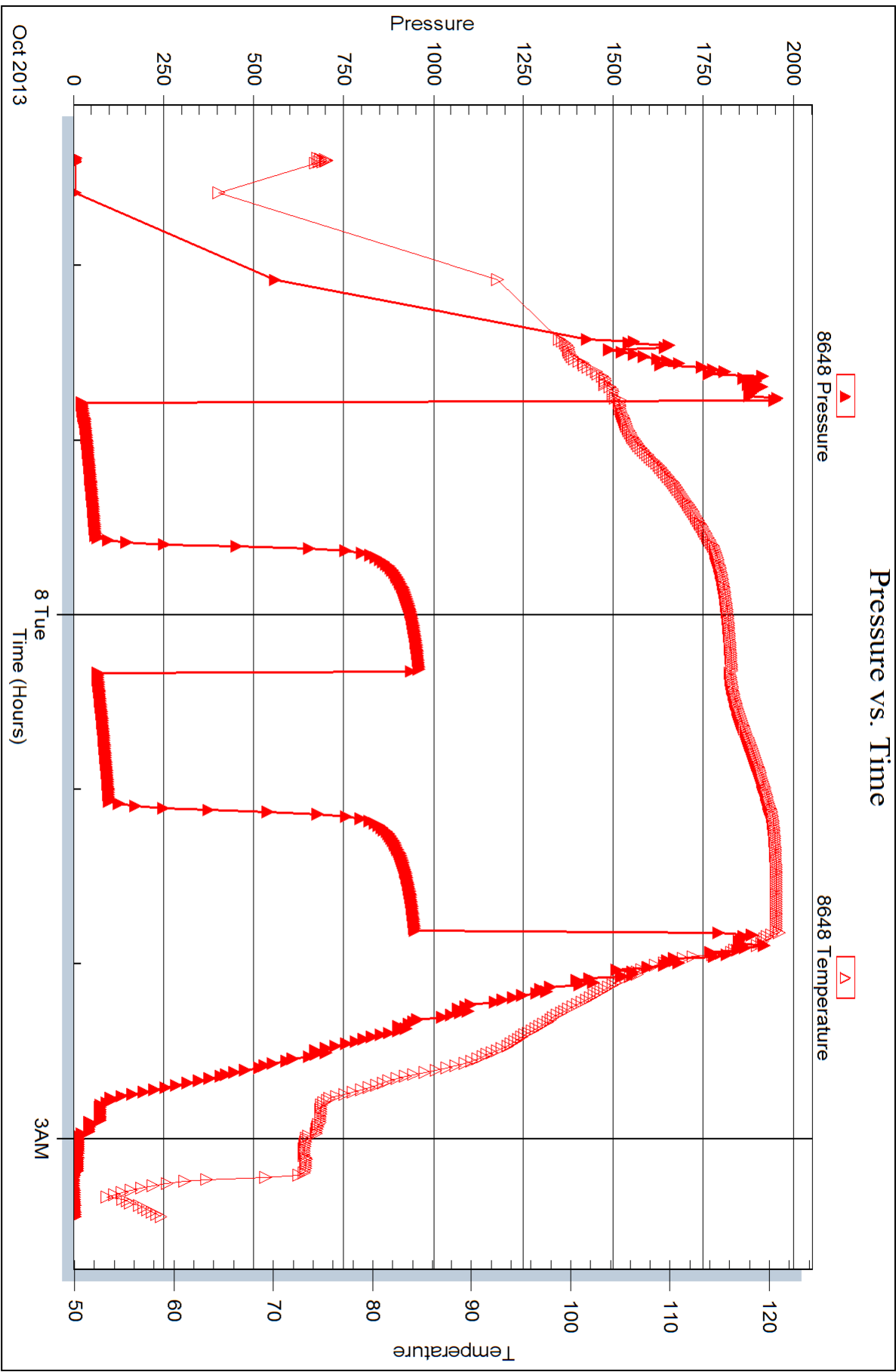
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .38 @ 60 degrees = 38000







## DRILL STEM TEST REPORT

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

PO Box 86  
Plainville KS 67663

ATTN: Marc Downing

**13-10-26 Sheridan,KS**

**Delbert Walt Trust #13-2**

Start Date: 2013.10.08 @ 14:47:00

End Date: 2013.10.08 @ 21:23:45

Job Ticket #: 54473                      DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.10.10 @ 15:58:53

H&C Oil Operating Inc

Delbert Walt Trust #13-2

13-10-26 Sheridan,KS

DST # 5

LKC "H"

2013.10.08





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

H&C Oil Operating Inc

**Delbert Walt Trust #13-2**

PO Box 86  
Plainville KS 67663

**13-10-26 Sheridan,KS**

ATTN: Marc Downing

Job Ticket: 54473

**DST#: 5**

Test Start: 2013.10.08 @ 14:47:00

## GENERAL INFORMATION:

Formation: **LKC "H-I"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:37:30

Time Test Ended: 21:23:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Cody Bloedorn

Unit No: 53

**Interval: 3934.00 ft (KB) To 3985.00 ft (KB) (TVD)**

Reference Elevations: 2562.00 ft (KB)

Total Depth: 3985.00 ft (KB) (TVD)

2556.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 6.00 ft

## Serial #: 6799

Inside

Press @ RunDepth: 138.70 psig @ 3973.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.08

End Date: 2013.10.08

Last Calib.: 2013.10.08

Start Time: 14:47:05

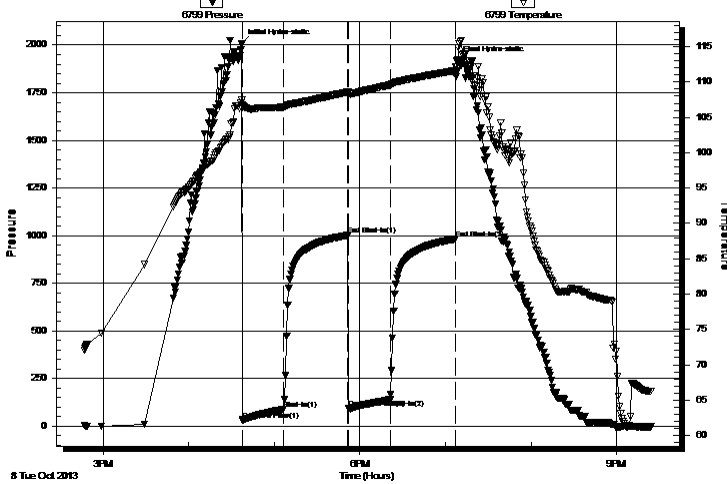
End Time: 21:23:44

Time On Btm: 2013.10.08 @ 16:37:15

Time Off Btm: 2013.10.08 @ 19:07:45

**TEST COMMENT:** 30 - IF- B.O.B. in 5 minutes  
45 - IS- 1/2" retrun in 8 minutes. stayed there throughout  
30 - FF- B.O.B. in 6 minutes  
45 - FS- 8" return

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2006.62	107.54	Initial Hydro-static
1	30.16	106.78	Open To Flow (1)
30	87.84	106.47	Shut-In(1)
75	1001.17	108.60	End Shut-In(1)
75	94.34	108.33	Open To Flow (2)
104	138.70	109.58	Shut-In(2)
150	981.91	111.63	End Shut-In(2)
151	1916.41	112.20	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
62.00	GOCMW, 10%G, 10%O, 30%M, 50%W	0.87
124.00	GOCM, 20%G, 20%O, 60%M	1.74
154.00	GMCWO, 5%W, 5%M, 10%G, 80%O	2.16
0.00	589' of G.I.P.	0.00

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

H&C Oil Operating Inc

PO Box 86  
Plainville KS 67663

ATTN: Marc Downing

**Delbert Walt Trust #13-2**

**13-10-26 Sheridan,KS**

Job Ticket: 54473

**DST#: 5**

Test Start: 2013.10.08 @ 14:47:00

### GENERAL INFORMATION:

Formation: **LKC "H-I"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:37:30

Time Test Ended: 21:23:45

**Interval: 3934.00 ft (KB) To 3985.00 ft (KB) (TVD)**

Total Depth: 3985.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Reset)

Tester: Cody Bloedorn

Unit No: 53

Reference Elevations: 2562.00 ft (KB)

2556.00 ft (CF)

KB to GR/CF: 6.00 ft

**Serial #: 8648 Outside**

Press @ RunDepth: psig @ 3973.00 ft (KB)

Start Date: 2013.10.08

End Date: 2013.10.08

Start Time: 14:47:05

End Time: 21:22:14

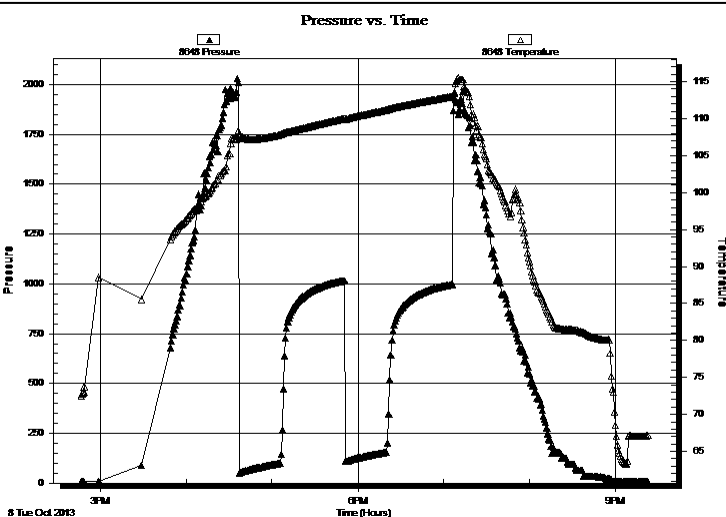
Capacity: 8000.00 psig

Last Calib.: 2013.10.08

Time On Btm:

Time Off Btm:

**TEST COMMENT:** 30 - IF- B.O.B. in 5 minutes  
45 - IS- 1/2" retrun in 8 minutes. stayed there throughout  
30 - FF- B.O.B. in 6 minutes  
45 - FS- 8" return



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
62.00	GOCMW, 10%G, 10%O, 30%M, 50%W	0.87
124.00	GOCM, 20%G, 20%O, 60%M	1.74
154.00	GMCWO, 5%W, 5%M, 10%G, 80%O	2.16
0.00	589' of G.I.P.	0.00

### 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

**Delbert Walt Trust #13-2**

PO Box 86  
Plainville KS 67663

**13-10-26 Sheridan,KS**

ATTN: Marc Downing

Job Ticket: 54473

**DST#: 5**

Test Start: 2013.10.08 @ 14:47:00

## Tool Information

Drill Pipe:	Length: 3930.00 ft	Diameter: 3.80 inches	Volume: 55.13 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	68000.00 lb
			<u>Total Volume: 55.13 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial	62000.00 lb
Depth to Top Packer:	3934.00 ft			Final	64000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	51.00 ft				
Tool Length:	72.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3914.00	
Shut In Tool	5.00			3919.00	
Hydraulic tool	5.00			3924.00	
Packer	5.00			3929.00	21.00 Bottom Of Top Packer
Packer	5.00			3934.00	
Stubb	1.00			3935.00	
Perforations	5.00			3940.00	
Change Over Sub	1.00			3941.00	
Drill Pipe	31.00			3972.00	
Change Over Sub	1.00			3973.00	
Recorder	0.00	6799	Inside	3973.00	
Recorder	0.00	8648	Outside	3973.00	
Perforations	9.00			3982.00	
Bullnose	3.00			3985.00	51.00 Bottom Packers & Anchor

**Total Tool Length: 72.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

H&C Oil Operating Inc

**Delbert Walt Trust #13-2**

PO Box 86  
Plainville KS 67663

**13-10-26 Sheridan,KS**

Job Ticket: 54473

**DST#: 5**

ATTN: Marc Downing

Test Start: 2013.10.08 @ 14:47:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1100.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
62.00	GOCMW, 10%G, 10%O, 30%M, 50%W	0.870
124.00	GOCM, 20%G, 20%O, 60%M	1.739
154.00	GMCWO, 5%W, 5%M, 10%G, 80%O	2.160
0.00	589' of G.I.P.	0.000

Total Length: 340.00 ft

Total Volume: 4.769 bbl

Num Fluid Samples: 0

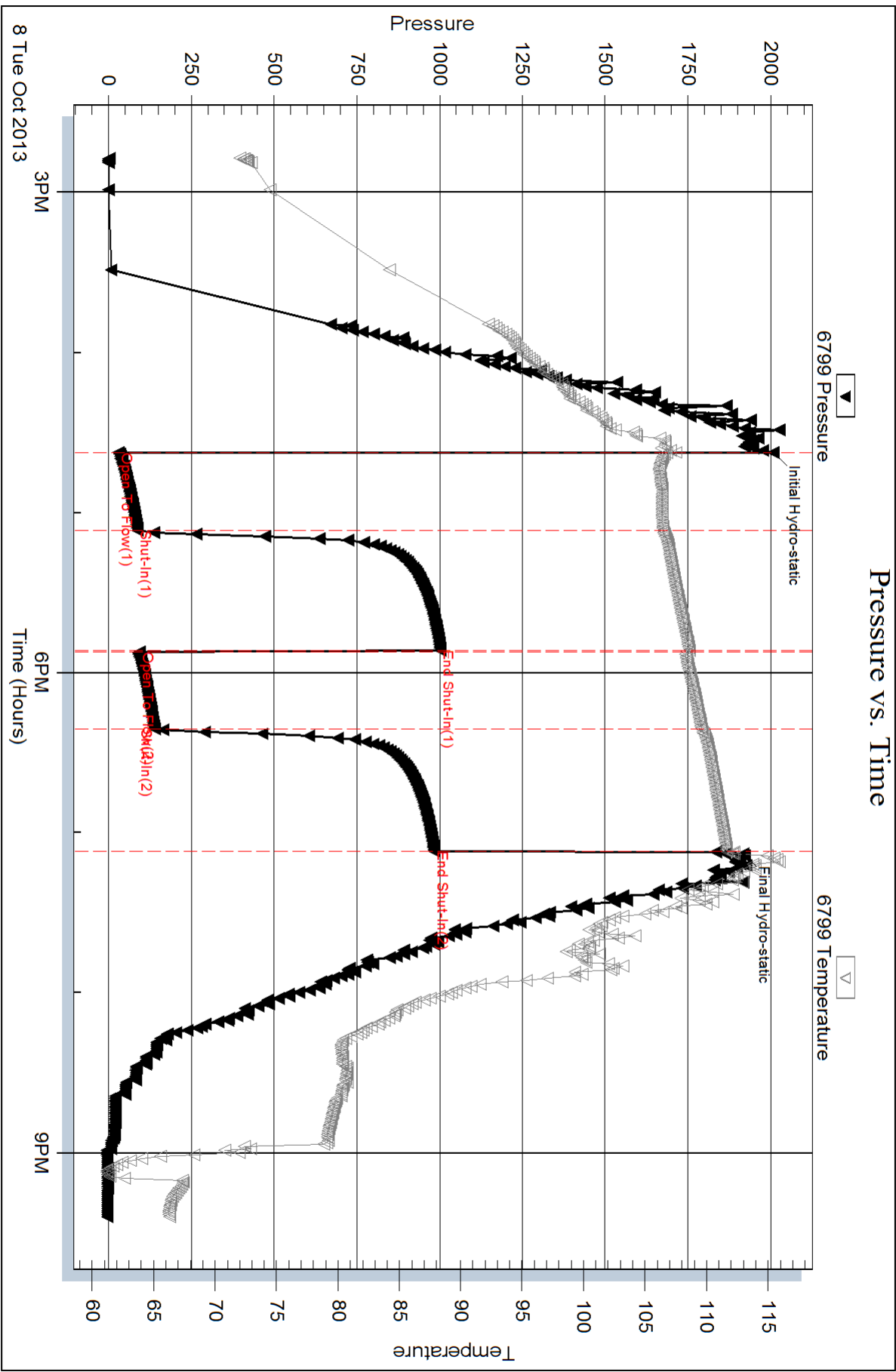
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

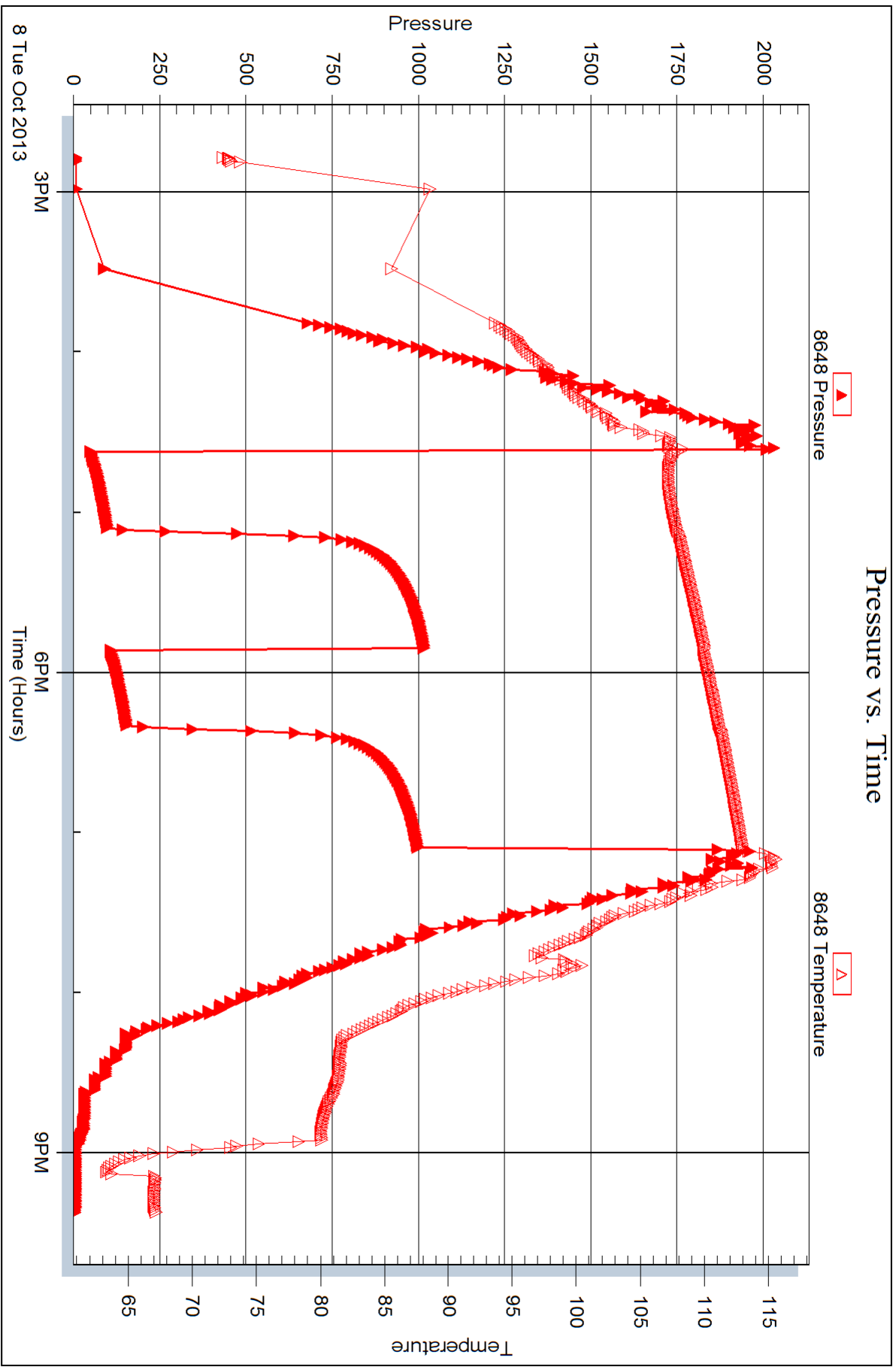


Serial #: 8648

Outside H&C Oil Operating Inc

13-10-26 Sheridan, KS

DST Test Number: 5





## DRILL STEM TEST REPORT

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

PO Box 86  
Plainville KS 67663

ATTN: Marc Downing

**13-10-26 Sheridan,KS**

**Delbert Walt Trust #13-2**

Start Date: 2013.10.09 @ 04:37:00

End Date: 2013.10.09 @ 11:22:15

Job Ticket #: 54474                      DST #: 6

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.10.10 @ 15:57:50

H&C Oil Operating Inc

Delbert Walt Trust #13-2

13-10-26 Sheridan,KS

DST # 6

LKC "I+J"

2013.10.09



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

H&C Oil Operating Inc

PO Box 86  
Plainville KS 67663

ATTN: Marc Downing

**Delbert Walt Trust #13-2**

**13-10-26 Sheridan,KS**

Job Ticket: 54474

**DST#: 6**

Test Start: 2013.10.09 @ 04:37:00

## GENERAL INFORMATION:

Formation: **LKC "I+J"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 06:38:30  
 Time Test Ended: 11:22:15  
 Interval: **3965.00 ft (KB) To 4012.00 ft (KB) (TVD)**  
 Total Depth: 4012.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Cody Bloedorn  
 Unit No: 53  
 Reference Elevations: 2562.00 ft (KB)  
 2556.00 ft (CF)  
 KB to GR/CF: 6.00 ft

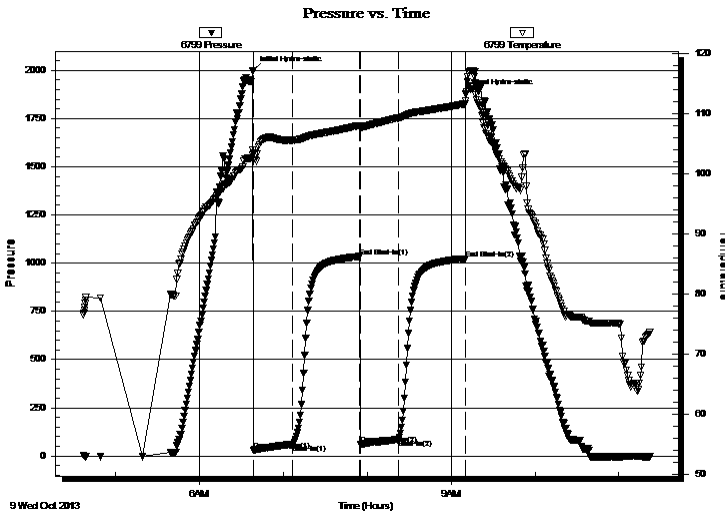
## Serial #: 6799

Inside

Press @ Run Depth: 84.70 psig @ 4004.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.10.09 End Date: 2013.10.09 Last Calib.: 2013.10.09  
 Start Time: 04:37:05 End Time: 11:22:14 Time On Btm: 2013.10.09 @ 06:38:15  
 Time Off Btm: 2013.10.09 @ 09:10:15

TEST COMMENT: 30 - IF- B.O.B. in 5 minutes  
 45 - IS- No return  
 30 - FF- B.O.B. in 4 minutes  
 45 - FS- No return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1999.24	103.93	Initial Hydro-static
1	30.03	103.38	Open To Flow (1)
29	59.51	105.62	Shut-In(1)
76	1034.28	108.06	End Shut-In(1)
77	62.50	107.76	Open To Flow (2)
104	84.70	109.32	Shut-In(2)
152	1023.41	111.65	End Shut-In(2)
152	1880.30	112.11	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
124.00	GHOCM, 10%M, 40%O, 50%G	1.74
30.00	SOCM, 5%O, 95%M	0.42
0.00	713' of G.I.P.	0.00

\* 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

**Delbert Walt Trust #13-2**

PO Box 86  
Plainville KS 67663

**13-10-26 Sheridan,KS**

ATTN: Marc Downing

Job Ticket: 54474

**DST#: 6**

Test Start: 2013.10.09 @ 04:37:00

### GENERAL INFORMATION:

Formation: **LKC "I+J"**  
 Deviated: **No Whipstock:** ft (KB)  
 Time Tool Opened: 06:38:30  
 Time Test Ended: 11:22:15

Test Type: Conventional Bottom Hole (Reset)  
 Tester: Cody Bloedorn  
 Unit No: 53

**Interval: 3965.00 ft (KB) To 4012.00 ft (KB) (TVD)**  
 Total Depth: 4012.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair

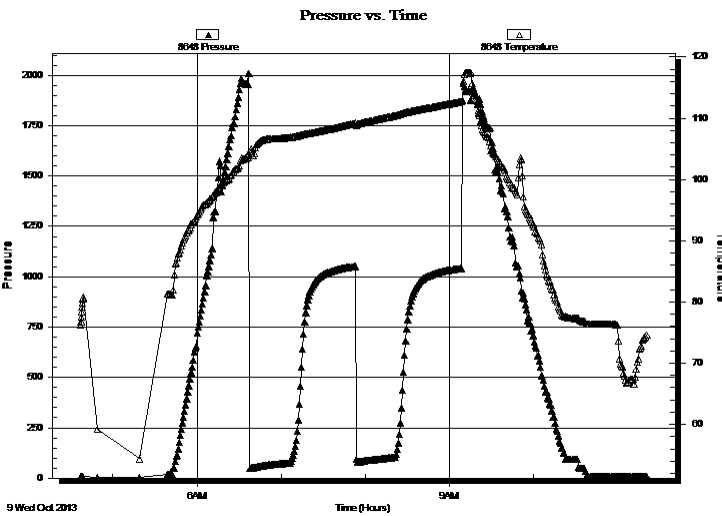
Reference Elevations: 2562.00 ft (KB)  
 2556.00 ft (CF)  
 KB to GR/CF: 6.00 ft

**Serial #: 8648 Outside**

Press @RunDepth: psig @ 4004.00 ft (KB)  
 Start Date: 2013.10.09 End Date: 2013.10.09  
 Start Time: 04:37:05 End Time: 11:20:29

Capacity: 8000.00 psig  
 Last Calib.: 2013.10.09  
 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** 30 - IF- B.O.B. in 5 minutes  
 45 - IS- No return  
 30 - FF- B.O.B. in 4 minutes  
 45 - FS- No return



9 Wed Oct 2013

### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
124.00	GHOCM, 10%M, 40%O, 50%G	1.74
30.00	SOCM, 5%O, 95%M	0.42
0.00	713' of G.I.P.	0.00

\* 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

**Delbert Walt Trust #13-2**

PO Box 86  
Plainville KS 67663

**13-10-26 Sheridan,KS**

ATTN: Marc Downing

Job Ticket: 54474

**DST#: 6**

Test Start: 2013.10.09 @ 04:37:00

## Tool Information

Drill Pipe:	Length: 3961.00 ft	Diameter: 3.80 inches	Volume: 55.56 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 55.56 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	3965.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	47.00 ft			
Tool Length:	68.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3945.00	
Shut In Tool	5.00			3950.00	
Hydraulic tool	5.00			3955.00	
Packer	5.00			3960.00	21.00 Bottom Of Top Packer
Packer	5.00			3965.00	
Stubb	1.00			3966.00	
Perforations	5.00			3971.00	
Change Over Sub	1.00			3972.00	
Drill Pipe	31.00			4003.00	
Change Over Sub	1.00			4004.00	
Recorder	0.00	6799	Inside	4004.00	
Recorder	0.00	8648	Outside	4004.00	
Perforations	5.00			4009.00	
Bullnose	3.00			4012.00	47.00 Bottom Packers & Anchor

**Total Tool Length: 68.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

H&C Oil Operating Inc

**Delbert Walt Trust #13-2**

PO Box 86  
Plainville KS 67663

**13-10-26 Sheridan,KS**

Job Ticket: 54474

**DST#: 6**

ATTN: Marc Downing

Test Start: 2013.10.09 @ 04:37:00

## 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: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1100.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	GHOCM, 10%M, 40%O, 50%G	1.739
30.00	SOCM, 5%O, 95%M	0.421
0.00	713' of G.I.P.	0.000

Total Length: 154.00 ft      Total Volume: 2.160 bbl

Num Fluid Samples: 0

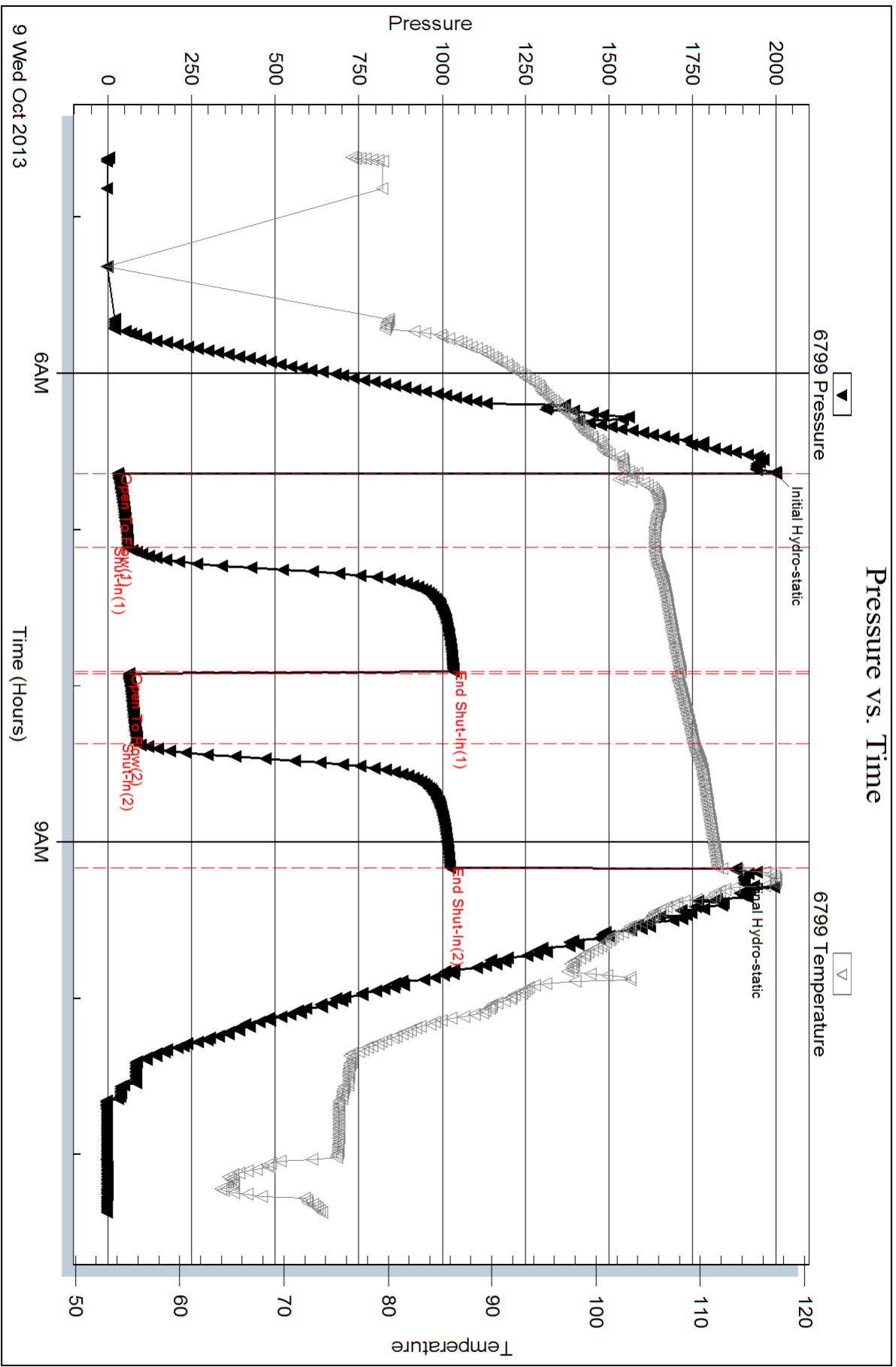
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



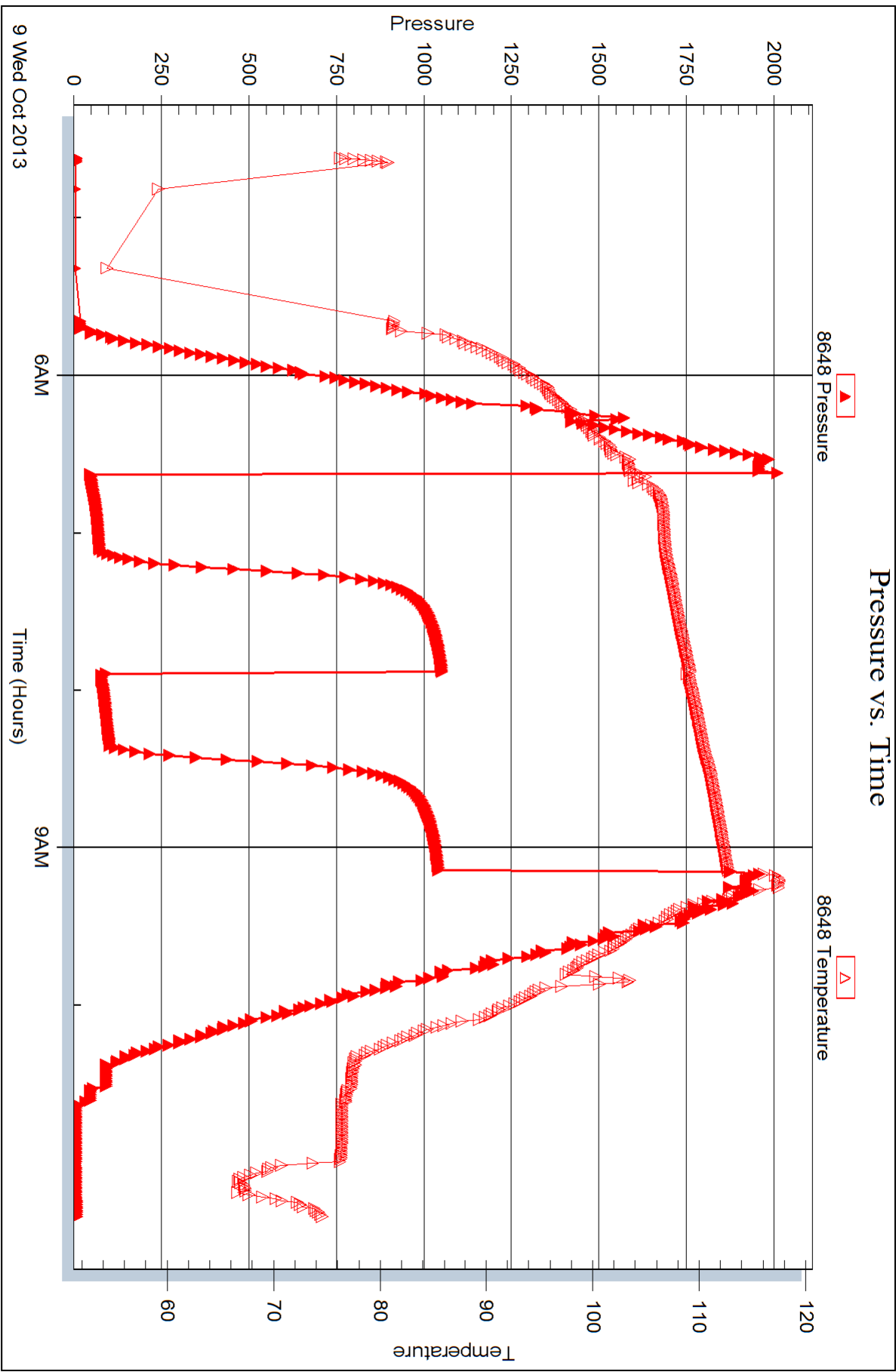
Serial #: 8648

Outside

H&C Oil Operating Inc

13-10-26 Sheridan, KS

DST Test Number: 6





## DRILL STEM TEST REPORT

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

PO Box 86  
Plainville KS 67663

ATTN: Marc Downing

**13-10-26 Sheridan,KS**

**Delbert Walt Trust #13-2**

Start Date: 2013.10.09 @ 19:25:00

End Date: 2013.10.10 @ 01:05:00

Job Ticket #: 54475                      DST #: 7

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

Printed: 2013.10.10 @ 15:57:17

H&C Oil Operating Inc

Delbert Walt Trust #13-2

13-10-26 Sheridan,KS

DST # 7

LKC "K"

2013.10.09



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

H&C Oil Operating Inc

**Delbert Walt Trust #13-2**

PO Box 86  
Plainville KS 67663

**13-10-26 Sheridan,KS**

ATTN: Marc Downing

Job Ticket: 54475

**DST#: 7**

Test Start: 2013.10.09 @ 19:25:00

## GENERAL INFORMATION:

Formation: **LKC "K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:52:00

Time Test Ended: 01:05:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Cody Bloedorn

Unit No: 53

**Interval: 4008.00 ft (KB) To 4034.00 ft (KB) (TVD)**

Reference Elevations: 2562.00 ft (KB)

Total Depth: 4034.00 ft (KB) (TVD)

2556.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 6.00 ft

**Serial #: 6799**

**Inside**

Press @ Run Depth: 28.68 psig @ 4009.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.09

End Date:

2013.10.10

Last Calib.: 2013.10.10

Start Time: 19:25:05

End Time:

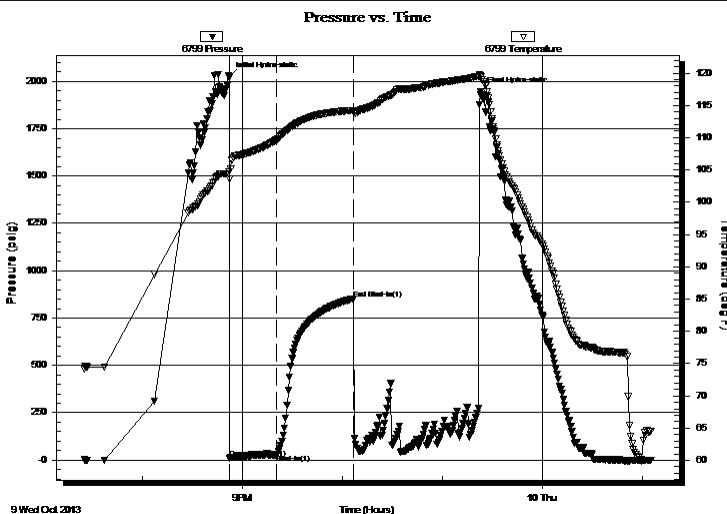
01:04:59

Time On Btm: 2013.10.09 @ 20:51:45

Time Off Btm: 2013.10.09 @ 23:22:30

**TEST COMMENT:** 30 - IF- B.O.B. in 8 minutes  
45 - IS- Surface return for 7 minutes and then died.  
30 - FF- B.O.B. in 11 minutes  
45 - FS- No return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2023.84	104.75	Initial Hydro-static
1	10.23	103.56	Open To Flow (1)
29	28.68	109.63	Shut-In(1)
75	852.35	114.23	End Shut-In(1)
151	1943.74	119.57	Final Hydro-static

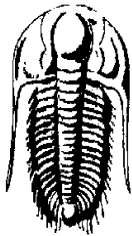
## Recovery

Length (ft)	Description	Volume (bbl)
154.00	GHOCM, 10%M, 40%G, 50%O	2.16
0.00	496' of G.I.P.	0.00

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE TESTING, INC.**

**DRILL STEM TEST REPORT**

H&C Oil Operating Inc

PO Box 86  
Plainville KS 67663

ATTN: Marc Downing

**Delbert Walt Trust #13-2**

**13-10-26 Sheridan, KS**

Job Ticket: 54475

**DST#: 7**

Test Start: 2013.10.09 @ 19:25:00

**GENERAL INFORMATION:**

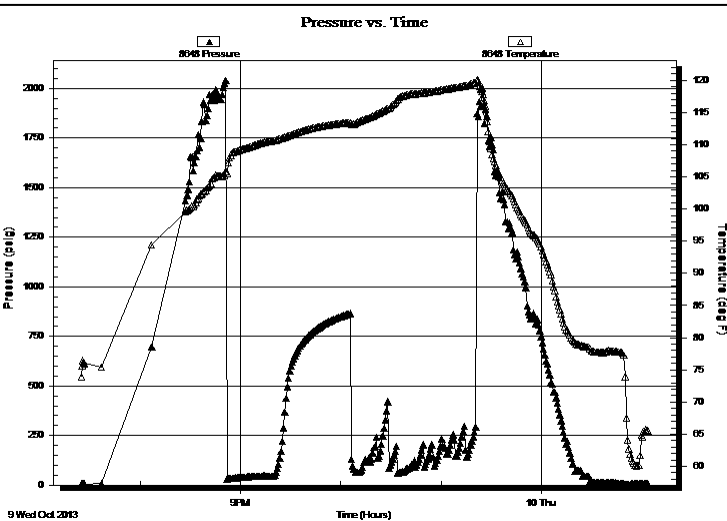
Formation: **LKC "K"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 20:52:00  
 Time Test Ended: 01:05:00  
 Interval: **4008.00 ft (KB) To 4034.00 ft (KB) (TVD)**  
 Total Depth: 4034.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches  
 Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Cody Bloedorn  
 Unit No: 53  
 Reference Elevations: 2562.00 ft (KB)  
 2556.00 ft (CF)  
 KB to GR/CF: 6.00 ft

**Serial #: 8648**

**Outside**

Press @ RunDepth: psig @ 4009.00 ft (KB)  
 Start Date: 2013.10.09 End Date: 2013.10.10  
 Start Time: 19:25:05 End Time: 01:03:29  
 Capacity: 8000.00 psig  
 Last Calib.: 2013.10.10  
 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** 30 - IF- B.O.B. in 8 minutes  
 45 - IS- Surface return for 7 minutes and then died.  
 30 - FF- B.O.B. in 11 minutes  
 45 - FS- No return



**PRESSURE SUMMARY**

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

**Recovery**

Length (ft)	Description	Volume (bbl)
154.00	GHOCM, 10%M, 40%G, 50%O	2.16
0.00	496' of G.I.P.	0.00

\* 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

**Delbert Walt Trust #13-2**

PO Box 86  
Plainville KS 67663

**13-10-26 Sheridan,KS**

ATTN: Marc Downing

Job Ticket: 54475

**DST#: 7**

Test Start: 2013.10.09 @ 19:25:00

## Tool Information

Drill Pipe:	Length: 3992.00 ft	Diameter: 3.80 inches	Volume: 56.00 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: lb
		Total Volume: 56.00 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	4008.00 ft			Final lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.00 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
------------------	-------------	------------	----------	------------	----------------

Change Over Sub	1.00			3988.00	
Shut In Tool	5.00			3993.00	
Hydraulic tool	5.00			3998.00	
Packer	5.00			4003.00	21.00 Bottom Of Top Packer
Packer	5.00			4008.00	
Stubb	1.00			4009.00	
Recorder	0.00	6799	Inside	4009.00	
Recorder	0.00	8648	Outside	4009.00	
Perforations	22.00			4031.00	
Bullnose	3.00			4034.00	26.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>47.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

H&C Oil Operating Inc

**Delbert Walt Trust #13-2**

PO Box 86  
Plainville KS 67663

**13-10-26 Sheridan,KS**

Job Ticket: 54475

**DST#: 7**

ATTN: Marc Downing

Test Start: 2013.10.09 @ 19:25:00

## 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: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1100.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
154.00	GHOCM, 10%M, 40%G, 50%O	2.160
0.00	496' of G.I.P.	0.000

Total Length: 154.00 ft      Total Volume: 2.160 bbl

Num Fluid Samples: 0

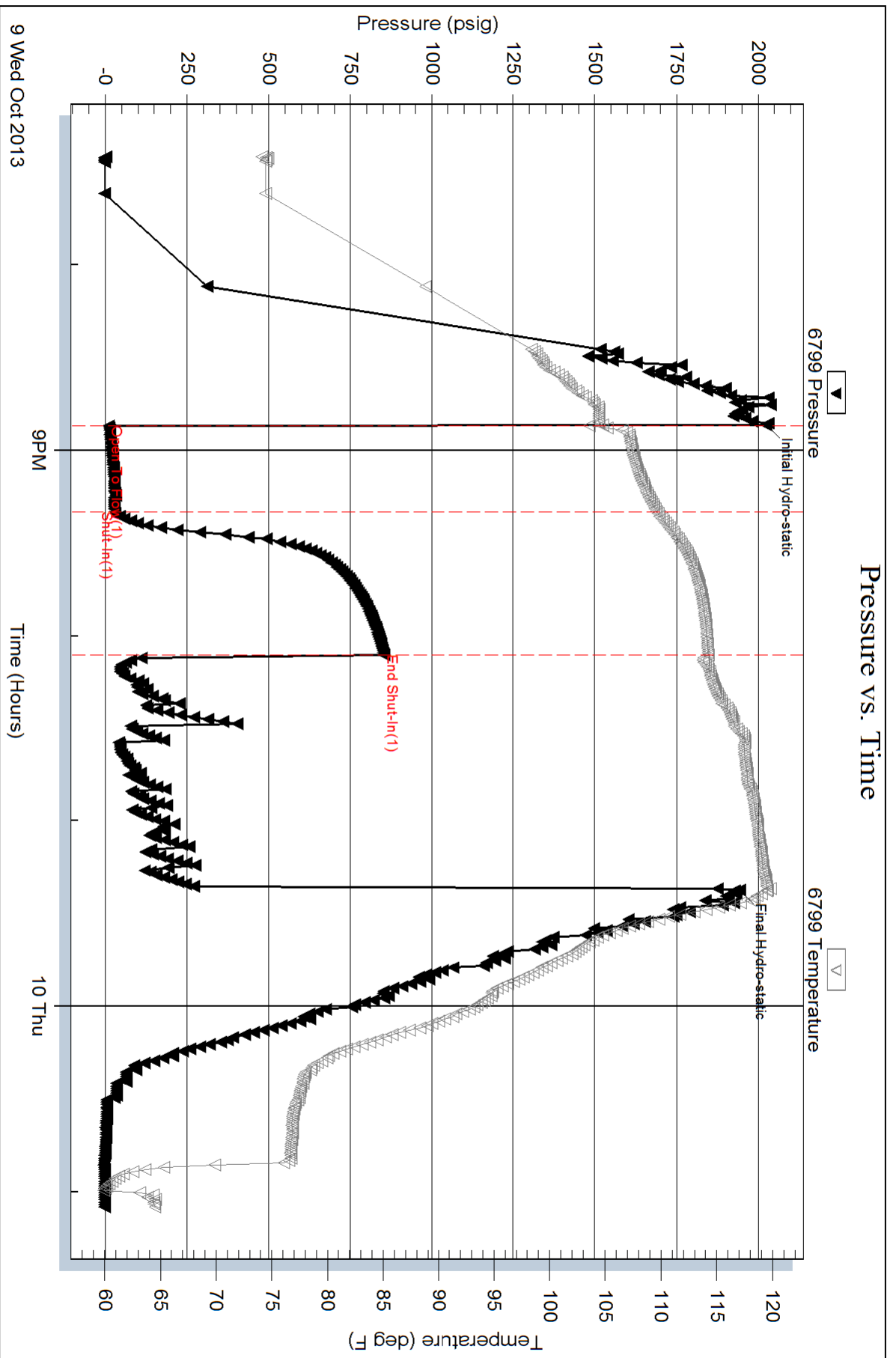
Num Gas Bombs: 0

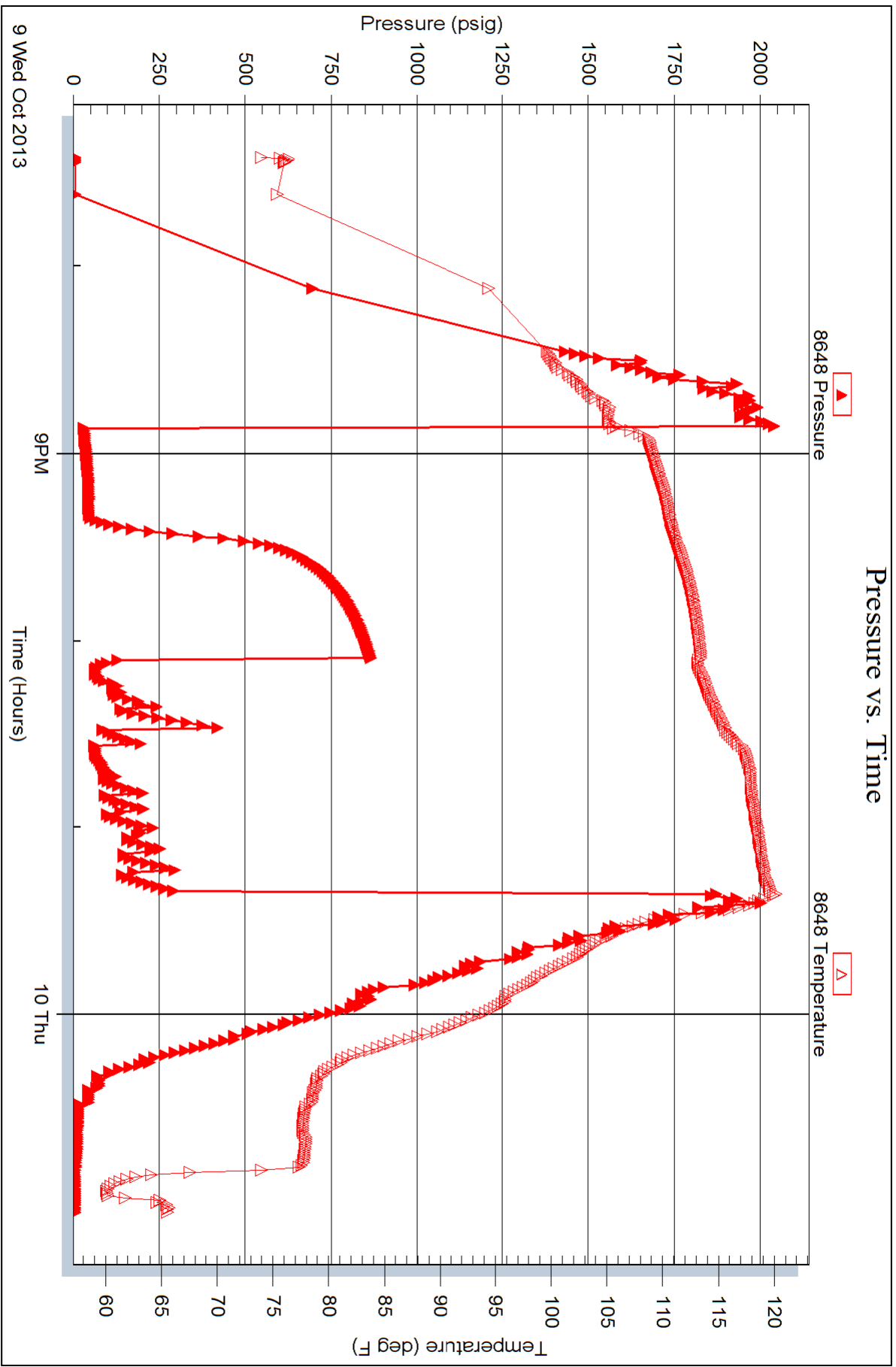
Serial #:

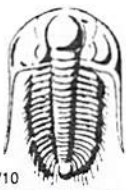
Laboratory Name:

Laboratory Location:

Recovery Comments:







# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 54469

Well Name & No. Delbert Walt Trust #13-2 Test No. 1 Date 10-6-13  
 Company H & C Oil Operating Inc Elevation 2562 KB 2556 GL  
 Address Po Box 86, Plainville KS, 67663  
 Co. Rep / Geo. Marc Downing Rig American Eagle #2  
 Location: Sec. 13 Twp. 105 Rge. 26w Co. Sheridan State KS

Interval Tested 3776 - 3836 Zone Tested LKC "A"  
 Anchor Length 60' Drill Pipe Run 3777 Mud Wt. 8.8  
 Top Packer Depth 3771 Drill Collars Run — Vis 608  
 Bottom Packer Depth 3776 Wt. Pipe Run — WL 6.0  
 Total Depth 3836 Chlorides 1,000 ppm System LCM —

Blow Description ~~IS~~ Miss Run - Hit Bridge - tried to go through  
~~IS~~ it. Didnt work - Came out with tool  
~~IS~~  
~~IS~~

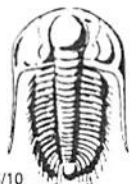
Rec	Feet of	%gas	%oil	%water	%mud

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

(A) Initial Hydrostatic \_\_\_\_\_  Test 950 T-On Location 6:30 am  
 (B) First Initial Flow \_\_\_\_\_  Jars \_\_\_\_\_ T-Started 7:09 am  
 (C) First Final Flow \_\_\_\_\_  Safety Joint \_\_\_\_\_ T-Open \_\_\_\_\_  
 (D) Initial Shut-In \_\_\_\_\_  Circ Sub \_\_\_\_\_ T-Pulled \_\_\_\_\_  
 (E) Second Initial Flow \_\_\_\_\_  Hourly Standby \_\_\_\_\_ T-Out 10:54 am  
 (F) Second Final Flow \_\_\_\_\_  Mileage 123 RT 190.65 Comments \_\_\_\_\_  
 (G) Final Shut-In \_\_\_\_\_  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic \_\_\_\_\_  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open \_\_\_\_\_  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In \_\_\_\_\_  Day Standby \_\_\_\_\_ Total 1140.65  
 Final Flow \_\_\_\_\_  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In \_\_\_\_\_ Sub Total 1140.65

Approved By \_\_\_\_\_ Our Representative Cody Bledorn

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 54470

Well Name & No. Delbert Walf Trust 13-2 Test No. 2 Date 10-6-13  
 Company H&C Oil Operating Inc Elevation 2562 KB 2556 GL  
 Address Po Box 86, Plainville KS, 67663  
 Co. Rep / Geo. Marc Downing Rig American Eagle #2  
 Location: Sec. 13 Twp. 10s Rge. 26w Co. Sheridan State KS

Interval Tested 3776 - 3836 Zone Tested LKC "A"  
 Anchor Length 60' Drill Pipe Run 3777' Mud Wt. 8.8  
 Top Packer Depth 3771 Drill Collars Run — Vis 60+  
 Bottom Packer Depth 3776 Wt. Pipe Run — WL 6.0  
 Total Depth 3836 Chlorides 1,000 ppm System LCM —

Blow Description IF- 1/4" blow, died back to surface blow  
ISI - No return  
FF - No blow  
FSI - No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>6</u>	<u>SOCM</u>	<u>5</u>		<u>95</u>	
<u>1</u>	<u>Free oil</u>	<u>100</u>			

Rec Total 7' BHT 1030 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1876  Test 1150 T-On Location 4:46 pm  
 (B) First Initial Flow 23  Jars — T-Started 5:14 pm  
 (C) First Final Flow 25  Safety Joint — T-Open 6:37 pm  
 (D) Initial Shut-In 576  Circ Sub — T-Pulled 8:37 pm  
 (E) Second Initial Flow 25  Hourly Standby — T-Out 10:22 pm  
 (F) Second Final Flow 26  Mileage 123 RT 190.65 Comments —  
 (G) Final Shut-In 518  Sampler —  
 (H) Final Hydrostatic 1819  Straddle —  Ruined Shale Packer —  
 Shale Packer —  Ruined Packer —

Initial Open 30  Extra Packer —  Extra Copies —  
 Initial Shut-In 30  Extra Recorder — Sub Total 0  
 Final Flow 30  Day Standby — Total 1340.65  
 Final Shut-In 30  Accessibility — MP/DST Disc't —  
 Sub Total 1340.65

Approved By \_\_\_\_\_ Our Representative Cody [Signature]

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 54471

Well Name & No. Delbert Walt Trust #13-2 Test No. 3 Date 10-7-13  
 Company H&C Oil Operating INC Elevation 2562 KB 2556 GL  
 Address Po Box 86, Plainville KS, 67663  
 Co. Rep / Geo. Marc Downing Rig American Eagle #2  
 Location: Sec. 13 Twp. 105 Rge. 26W Co. Sheridan State KS

Interval Tested 3831 - 3880 Zone Tested LKC "C-D"  
 Anchor Length 49' Drill Pipe Run 3838' Mud Wt. 9.0  
 Top Packer Depth 3826 Drill Collars Run — Vis 03  
 Bottom Packer Depth 3831 Wt. Pipe Run — WL 5.8  
 Total Depth 3880 Chlorides 1100 ppm System LCM 4#

Blow Description IF - B.O.B. in 10 Minutes  
ISI - surface return  
FF - 6.5" blow  
FSI - Surface return

Rec	Feet of	%gas	%oil	%water	%mud
<u>62</u>	<u>MW</u>		<u>60</u>	<u>40</u>	
<u>114</u>	<u>OCM</u>	<u>20</u>		<u>80</u>	
<u>10</u>	<u>Free oil</u>	<u>100</u>			

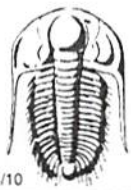
Rec Total 186' BHT 111° Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1908  Test 1150 T-On Location 5:45 am  
 (B) First Initial Flow 31  Jars — T-Started 6:24 am  
 (C) First Final Flow 74  Safety Joint — T-Open 8:45 am  
 (D) Initial Shut-In 604  Circ Sub — T-Pulled 11:45 pm  
 (E) Second Initial Flow 79  Hourly Standby — T-Out 1:46 pm  
 (F) Second Final Flow 105  Mileage 123 RT 190.65 Comments —  
 (G) Final Shut-In 549  Sampler —  
 (H) Final Hydrostatic 1834  Straddle —

Initial Open 45  Ruined Shale Packer —  
 Initial Shut-In 45  Ruined Packer —  
 Final Flow 45  Extra Packer —  
 Final Shut-In 45  Extra Recorder —  
 Day Standby — Sub Total 0  
 Accessibility — Total 1340.65  
 Sub Total 1340.65 MP/DST Disc't —

Approved By \_\_\_\_\_ Our Representative Cody Bloedorn

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 54472

Well Name & No. Delbert Walt Trust #13-2 Test No. 4 Date 10-7-13  
 Company H & C Oil Operating INC Elevation 2562 KB 2556 GL  
 Address Po Box 86, Plainville KS, 67663  
 Co. Rep / Geo. Marc Downing Rig American Eagle #2  
 Location: Sec. 13 Twp. 10s Rge. 26w Co. Sheridan State KS

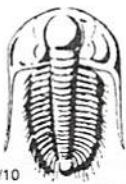
Interval Tested 3879 - 3903 Zone Tested LKC "E & F"  
 Anchor Length 24' Drill Pipe Run 3869 Mud Wt. 9.0  
 Top Packer Depth 3874 Drill Collars Run - Vis 63  
 Bottom Packer Depth 3879 Wt. Pipe Run - WL 5.8  
 Total Depth 3903 Chlorides 1100 ppm System LCM 4H  
 Blow Description IF - 9" blow  
ISI - No return  
FF - 6" blow  
FSI - No return for 10 Min. Then Weak Surface blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>124</u>	<u>WM</u>			<u>50</u>	<u>50</u>
<u>40</u>	<u>OCWM</u>		<u>15</u>	<u>5</u>	<u>80</u>
<u>5</u>	<u>Free oil</u>		<u>100</u>		

Rec Total 169 BHT 118° Gravity - API RW .39 @ 60 °F Chlorides 38,000 ppm  
 (A) Initial Hydrostatic 1934  Test 1150 T-On Location 9:07 pm  
 (B) First Initial Flow 8  Jars \_\_\_\_\_ T-Started 9:23 pm  
 (C) First Final Flow 47  Safety Joint \_\_\_\_\_ T-Open 10:47 pm  
 (D) Initial Shut-In 954  Circ Sub \_\_\_\_\_ T-Pulled 1:47 am  
 (E) Second Initial Flow 54  Hourly Standby \_\_\_\_\_ T-Out 3:30 am  
 (F) Second Final Flow 84  Mileage 123 RT 190.65 Comments \_\_\_\_\_  
 (G) Final Shut-In 929  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1891  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 45  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In 45  Day Standby \_\_\_\_\_ Total 1340.65  
 Final Flow 45  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 45 Sub Total 1340.65

Approved By \_\_\_\_\_ Our Representative Cody B...  
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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 54473

Well Name & No. Delbert Walt Trust #13-2 Test No. 5 Date 10-8-13  
 Company H&C Oil Operating Inc Elevation 2562 KB 2556 GL  
 Address Po Box 86, Plainville KS, 67663  
 Co. Rep / Geo. Marc Downing Rig American Eagle #2  
 Location: Sec. 13 Twp. 10S Rge. 26W Co. Sheridan State KS

Interval Tested 3934 - 3985 Zone Tested LKC "H-I"  
 Anchor Length 51' Drill Pipe Run 3930' Mud Wt. 9.1  
 Top Packer Depth 3929 Drill Collars Run — Vis 50  
 Bottom Packer Depth 3934 Wt. Pipe Run — WL 6.0  
 Total Depth 3985 Chlorides 1100 ppm System LCM 2#

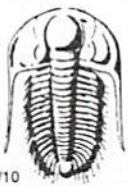
Blow Description IF - B.O.B. in 5 minutes  
ISI - 1/2" return in 8 minutes. Stayed there throughout  
FF - B.O.B. in 6 minutes  
FSI - 8" return

Rec	Feet of	%gas	%oil	%water	%mud
<u>62</u>	<u>60CMW</u>	<u>10</u>	<u>10</u>	<u>50</u>	<u>30</u>
<u>124</u>	<u>60CM</u>	<u>20</u>	<u>20</u>	<u>—</u>	<u>60</u>
<u>154</u>	<u>6MCWO</u>	<u>10</u>	<u>80</u>	<u>50</u>	<u>5</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of <u>589' of G.I.P.</u>	%gas	%oil	%water	%mud
Rec Total	<u>340'</u> BHT <u>1110</u>	Gravity	API RW	@	°F Chlorides

(A) Initial Hydrostatic 2006  Test 1150 T-On Location 2:26 pm  
 (B) First Initial Flow 30  Jars — T-Started 2:47 pm  
 (C) First Final Flow 87  Safety Joint — T-Open 4:37 pm  
 (D) Initial Shut-In 1001  Circ Sub — T-Pulled 7:07 pm  
 (E) Second Initial Flow 94  Hourly Standby — T-Out 9:23 pm  
 (F) Second Final Flow 138  Mileage 123 RT 190.65 Comments —  
 (G) Final Shut-In 981  Sampler —  
 (H) Final Hydrostatic 1916  Straddle —  
 Shale Packer —  Ruined Shale Packer —  
 Extra Packer —  Ruined Packer —  
 Extra Recorder —  Extra Copies —  
 Initial Open 30  Day Standby — Sub Total 0  
 Initial Shut-In 45  Accessibility — Total 1340.65  
 Final Flow 30 Sub Total 1340.65 MP/DST Disc't —  
 Final Shut-In 45

Approved By \_\_\_\_\_ Our Representative Lody Blad

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO.

54474

Well Name & No. Delbert Walt Trust #13-2 Test No. 6 Date 10-9-13  
 Company H & C Oil Operating Inc Elevation 2562 KB 2556 GL  
 Address PO Box 86, Plainville KS, 67663  
 Co. Rep / Geo. Marc Downing Rig American Eagle #2  
 Location: Sec. 13 Twp. 10s Rge. 26W Co. Sheridan State Ks

Interval Tested 3965 - 4012 Zone Tested LKC "I & J"  
 Anchor Length 47' Drill Pipe Run 3961' Mud Wt. 9.1  
 Top Packer Depth 3960 Drill Collars Run — Vis 50  
 Bottom Packer Depth 3965 Wt. Pipe Run — WL 6.0  
 Total Depth 4012 Chlorides 1100 ppm System LCM —  
 Blow Description IF - B.O.B. in 5 minutes  
ISI - No return  
FF - B.O.B. in 4 minutes  
FSI - No return

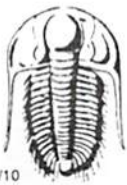
Rec	Feet of	%gas	%oil	%water	%mud
<u>124</u>	<u>GHOCM</u>	<u>50</u>	<u>40</u>	<u>10</u>	<u>—</u>
<u>30</u>	<u>SOCM</u>	<u>—</u>	<u>5</u>	<u>95</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>713' G.I.P.</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>

Rec Total 154 BHT 111° Gravity — API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic 1999  Test 1250 T-On Location 4:00am  
 (B) First Initial Flow 30  Jars — T-Started 4:37am  
 (C) First Final Flow 59  Safety Joint — T-Open 6:39am  
 (D) Initial Shut-In 1034  Circ Sub — T-Pulled 9:09am  
 (E) Second Initial Flow 62  Hourly Standby — T-Out 11:22am  
 (F) Second Final Flow 84  Mileage 123 RT 190.65 Comments \*Over 4,000 Feet\*  
 (G) Final Shut-In 1023  Sampler —  
 (H) Final Hydrostatic 1880  Straddle —  Ruined Shale Packer —  
 Shale Packer —  Ruined Packer —  
 Extra Packer —  Extra Copies —  
 Initial Open 30  Extra Recorder — Sub Total 0  
 Initial Shut-In 45  Day Standby — Total 1440.65  
 Final Flow 30  Accessibility — MP/DST Disc't —  
 Final Shut-In 45 Sub Total 1440.65

Approved By \_\_\_\_\_ Our Representative Cody Bloedorn

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 54475

Well Name & No. Delbert Walt Trust #13-2 Test No. 7 Date 10-9-13  
 Company H & C Oil Operating Inc Elevation 2562 KB 2556 GL  
 Address Po Box 86, Plainville KS, 67663  
 Co. Rep / Geo. Marc Downing Rig American Eagle #2  
 Location: Sec. 13 Twp. 10s Rge. 26w Co. Sheridan State KS

Interval Tested 4008 - 4034 Zone Tested LKC "K"  
 Anchor Length 26' Drill Pipe Run 3992' Mud Wt. 9.1  
 Top Packer Depth 4003 Drill Collars Run — Vis 50  
 Bottom Packer Depth 4008 Wt. Pipe Run — WL 6.0  
 Total Depth 4034 Chlorides 1100 ppm System LCM —

Blow Description IF - B.O.B. in 8 minutes  
ISI - Surface return for 7 minutes. Died.  
FF - B.O.B. in 11 minutes  
FSI - No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>154</u>	<u>640CM</u>	<u>40</u>	<u>50</u>	<u>10</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of <u>496' G.I.P.</u>	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 154 BHT 1140 Gravity — API RW — @ —° F Chlorides — ppm

(A) Initial Hydrostatic <u>2023</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>7:02 pm</u>
(B) First Initial Flow <u>10</u>	<input type="checkbox"/> Jars	T-Started <u>7:25 pm</u>
(C) First Final Flow <u>28</u>	<input type="checkbox"/> Safety Joint	T-Open <u>8:52 pm</u>
(D) Initial Shut-In <u>852</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>11:22 pm</u>
(E) Second Initial Flow	<input type="checkbox"/> Hourly Standby	T-Out <u>1:05 am</u>
(F) Second Final Flow	<input checked="" type="checkbox"/> Mileage <u>123 RT</u> 190.65	Comments
(G) Final Shut-In	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1943</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Day Standby	Total <u>1240.65</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1240.65</u>	

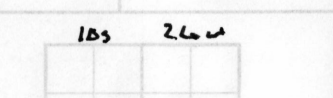
Approved By \_\_\_\_\_ Our Representative Cody Black

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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: H&C Oil Operating, Inc.  
 WELL: Delbert Walt #13-2



FIELD: Gurk  
 LOCATION: 1980' FNL + 1650' FEL  
 SEC. 13 TWP. 10S RGE. 26W

PRODUCTION: LKC  
 ELEVATION: KB 2569  
 DF: 2562  
 GL: 2562

COUNTY: Sheridan  
 STATE: Kansas

OPERATOR: H&C Oil Operating, Inc.  
 CONTRACTOR: American Eagle, Rig #2

COMP: Casing Record  
 SURF: 4 3/4" @ 222'  
 PROD: 5 1/2" @ 4104'  
 TOTAL DEPTH DRILLERS: 4105'  
 TOTAL DEPTH LOG: 4104'

Drilling Measured From: KB  
 Samples Saved From: 3750 To: TD  
 Drilling Time From: 3450 To: TD  
 Samples Examined From: 3750 To: TD  
 Geological Supervision From: 3450 To Total Depth  
 Wellsite Geologist: Marc Downing  
 Electrical Survey: Pioneer

FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE TOP	ELECTRIC LOG TOP	SUB-SEA BASE	STRUCTURAL POSITION
Top Anhydrite		2180	+383	+1
Base Anhydrite		2220	+349	+2
Tapoka	3567	3564	-995	-2
HEEBNER	3780	3777	-1208	-1
Taranta	3803	3800	-1231	-3
LKC	3822	3819	-1250	-5
BKC	4053	4049	-1490	-4

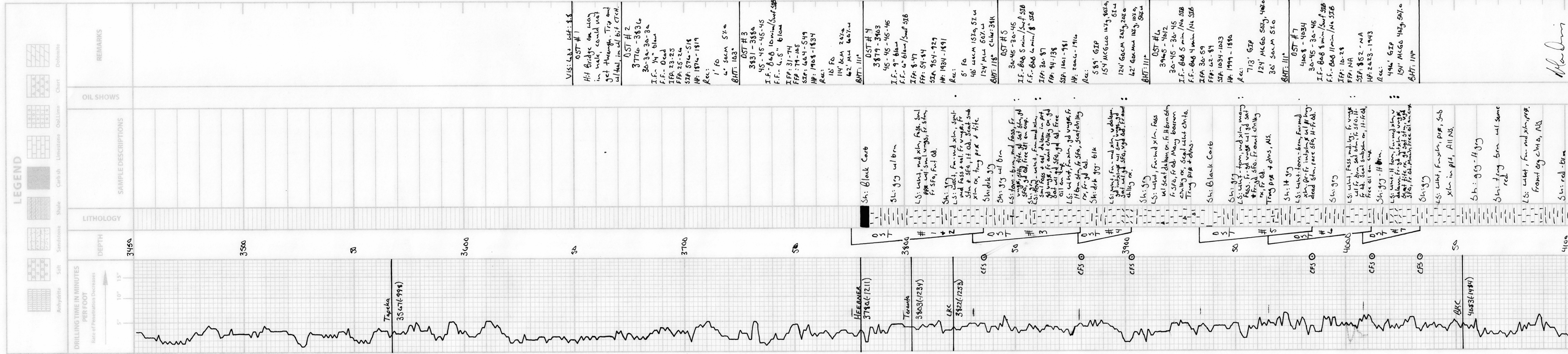
REFERENCE WELL FOR STRUCTURE: H&C Oil Operating, Inc.  
 Delbert Walt #13-1 2641' FNL + 2200' FEL Sec. 13-10S-26W

**DRILL STEM TESTS**

No.	Interval	IFP/Time	ISIP/Time	FFP/Time	FSIP/Time	IHP-FHP	RECOVERY

REMARKS AND RECOMMENDATIONS: Due to structural position, DST recovery, + log evaluation, it was decided to set 5 1/2" production casing for completion.

Perforate:  
 LKC K: 4014-21  
 J: 3995-4001  
 H: 3950-56  
 D: 3855-58  
 C: 3847-49



REMARKS: Vis: Lat. Lat: 8.8  
 DST #1  
 Hit Bridge on way in hole, could not get through. Trip out w/ tool, in w/ bit CTCH.  
 DST #2  
 3770-3830  
 30-30-30-30  
 I.F.- 1/4" blank  
 F.F.- Dead  
 I.F.A. 23-25  
 F.F.A. 25-26  
 S.F.P. 570-518  
 H.P. 1870-1819  
 Rec: 1' FO  
 4' secm 5%  
 BHT: 103'  
 DST #3  
 3831-3880  
 45-45-45-45  
 I.F.- 0.60 10 min / Surf 518  
 F.F.- 4.5" blank  
 I.F.P. 31-74  
 F.F.P. 79-105  
 S.F.P. 604-549  
 H.P. 1908-1834  
 Rec: 10' FO  
 114' secm 20%  
 62' M.M. 60%  
 BHT: 111'  
 DST #4  
 3879-3903  
 45-45-45-45  
 I.F.- 9" blank  
 F.F.- 6-61 min / Surf 518  
 I.F.P. 8-47  
 F.F.P. 51-84  
 S.F.P. 951-929  
 H.P. 1934-1891  
 Rec: 5' FO  
 45' secm 15%  
 57%  
 124' M.M. 60%  
 BHT: 118' C.M.: 38K  
 DST #5  
 3945-4012  
 30-45-30-45  
 I.F.- 0.60 5 min / Surf 518  
 F.F.- 0.60 6 min / Surf 518  
 I.F.P. 30-87  
 F.F.P. 94-138  
 S.F.P. 1001-981  
 H.P. 2000-1910  
 Rec: 589' GIP  
 154' MCG 100%  
 124' GOCM 20%  
 42' GOCM 10%  
 BHT: 111'  
 DST #6  
 4008-4012  
 30-45-30-45  
 I.F.- 0.60 5 min / No 518  
 F.F.- 0.60 4 min / No 518  
 I.F.P. 30-59  
 F.F.P. 42-81  
 S.F.P. 1034-1023  
 H.P. 1999-1890  
 Rec: 713' GIP  
 124' MCG 50%  
 30' secm 5%  
 BHT: 111'  
 DST #7  
 4008-4034  
 30-45-30-45  
 I.F.- 0.60 8 min / Surf 518  
 F.F.- 0.60 11 min / No 518  
 I.F.P. 10-28  
 F.F.P. NA  
 S.F.P. 852-NA  
 H.P. 2023-1943  
 Rec: 496' GIP  
 154' MCG 40%  
 46%  
 BHT: 114'

Marc Downing

RTD: 4105 (1536)  
 LTD: 4104 (1535)

# QUALITY C'LLWELL 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. 7389

Date	10-1-13	Sec.	13	Twp.	10	Range	26	County	Shenandoah	State	Ks	On Location		Finish	3:15 p.m.	
Lease	Delbert Walt Trust															
Well No.	13-2															
Contractor	American Eagle #12															
Type Job	Surface															
Hole Size	12 1/4															
Csg.	8 5/8															
Tbg. Size																
Tool																
Cement Left in Csg.	15'															
Meas Line	Displace 1336															
EQUIPMENT																
Pumptrk	15	No.	Cementite													
		Helper	Mick													
Bulktrk		No.	Driver													
		Driver	Mick													
Bulktrk	1	No.	Driver													
		Driver	Chad													
JOB SERVICES & REMARKS																
Remarks:																
Rat Hole																
Mouse Hole																
Centralizers																
Baskets																
DV or Porf Collar																
8 5/8 on bottom B+C Concentration																
Mix (basic) Displace																
Cement Circulated																
QUALITY OILWELL CEMENTING																
FLOAT EQUIPMENT																
Guide Shoe																
Centralizer																
Baskets																
AFU Inserts																
Float Shoe																
Latch Down																
Pumptrk Charge Surface																
Mileage 34																
Tax																
Discount																
Total Charge																
X Signature	Seward Fisher															

Owner  
To Quality Oilwell Cementing, Inc.  
You are hereby requested to rent cementing equipment and furnish  
cement and helper to assist owner or contractor to do work as listed.

Charge To HAC  
Street  
City  
State  
The above was done to satisfaction and supervision of owner agent or contractor.  
Cement Amount Ordered 100 cum 3/100 2/16E

Common 160  
Poz. Mix  
Gel. 3  
Calcium 5

Hulls  
Salt  
Flowseal  
Kol-Seal  
Mud CLR 48  
CFL-117 or CD110 CAF 38

Sand  
Handling 168  
Mileage  
Guide Shoe  
Centralizer  
Baskets  
AFU Inserts  
Float Shoe  
Latch Down

Pumptrk Charge Surface  
Mileage 34

Tax  
Discount  
Total Charge

X Signature Seward Fisher

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025

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

No. 7204

Cell 785-324-1041

Date	10-10-13	Sec.	13	Twp.	10	Range	26	County	Sheridan	State	KS	On Location		Finish	5:00AM
------	----------	------	----	------	----	-------	----	--------	----------	-------	----	-------------	--	--------	--------

Location St. Peter, W

Lease Delbert Walt Trust Well No. 13-2

Contractor American Eagle 2

Type Job Top to Bottom Long String

Hole Size 7 7/8 T.D. 4105

Csg. 5 1/2 14# Depth 4100.56

Tbg. Size Depth

Tool Depth

Cement Left in Csg. Shoe Joint 21.37

Meas Line Displace 99 1/2 bbl

EQUIPMENT	
Pumptrk	5 No. Cementer <u>Lonnie W. P4 Travis</u>
Bulktrk	12 No. Driver <u>Chad</u>
Bulktrk	9 No. Driver <u>David</u>

**JOB SERVICES & REMARKS**

Remarks:

Rat Hole 30 SX

Mouse Hole

Centralizers 1, 2, 3, 4, 5, 6, 7, 8, 9, 47, 51, 64, 74

Baskets 48, 65, 75

D/V or Port Collar

Pipe on bottom brake circulation pumped 500 gal Mud CLR 48 with 10 bbl Pw behind it. Plugged Rat hole with 30 SX Qmdc 1/4 # Flow. Hooked to 5 1/2 mixed 420 SX Qmdc 1/4 # Flow and 180 SX Q-ProC. Shut down washed pump and lines. Released Plug and displaced with 99 1/2 bbl Pw plug landed and held. Cement shd circulate

Lift Pressure at 1500 psi

Plug landed at 3000 psi

Mileage 34

	Tax
	Discount
	Total Charge

X Signature Bob Plank

Owner  
To Quality Oilwell Cementing, Inc.  
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Charge H&C Oil Operating Inc.

Street

City

State

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Amount Ordered 450 SX Qmdc 1/4 # Flow, 180 SX

Q-ProC 10% sett 5% gilsand

Common 450 Qmdc

Res Mix 180 p.w.c

Gel.

Calcium

Hulls

Salt 16

Flowseal 112#

Kol-Seal 900#

Mud CLR 48 500 gal

CFL-117 or CD110 CAF 38

Sand

Handling 655

Mileage

FLOAT EQUIPMENT

Guide Shoe

Centralizer 13 turbos

Baskets 3

AFU inserts

Float Shoe

Latch Down

Pumptrk Charge

Mileage

proce Long String