



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1074362
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: _____

1074362

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

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <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> _____	PRODUCTION INTERVAL: _____ _____
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DRILL STEM TEST REPORT

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

PO Box 86
Plainville, KS 67663

ATTN: Marc Downing

R.E.T. Unit #16-1

16-6s-22w Graham,KS

Start Date: 2012.02.09 @ 18:27:30

End Date: 2012.02.10 @ 01:23:00

Job Ticket #: 46906 DST #: 1

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

Printed: 2012.02.16 @ 10:58:15



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

H&C Oil Operating Inc.

16-6s-22w Graham,KS

PO Box 86
Plainville, KS 67663

R.E.T. Unit #16-1

Job Ticket: 46906

DST#: 1

ATTN: Marc Downing

Test Start: 2012.02.09 @ 18:27:30

GENERAL INFORMATION:

Formation: **LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:45:30

Time Test Ended: 01:23:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Rash

Unit No: 38

Interval: 3613.00 ft (KB) To 3650.00 ft (KB) (TVD)

Reference Elevations: 2372.00 ft (KB)

Total Depth: 3650.00 ft (KB) (TVD)

2367.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8354 Inside

Press @ Run Depth: 22.58 psig @ 3615.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.02.09

End Date:

2012.02.10

Last Calib.:

2012.02.10

Start Time: 18:37:30

End Time:

01:23:00

Time On Btm:

2012.02.09 @ 20:44:30

Time Off Btm:

2012.02.09 @ 22:52:30

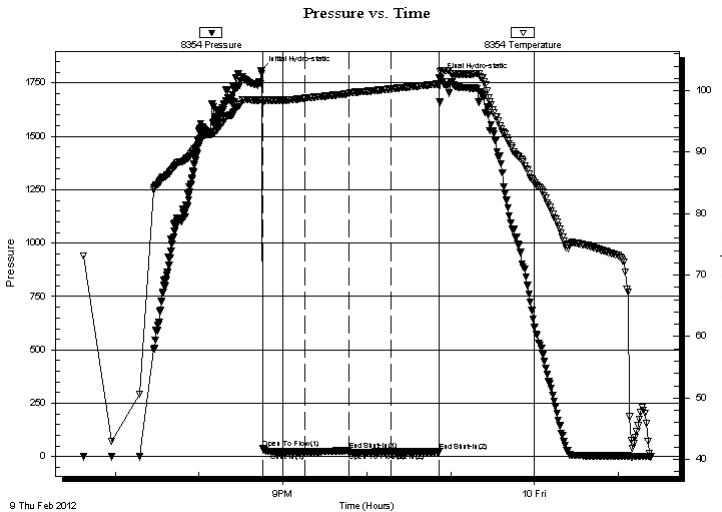
TEST COMMENT: IF-Weak surface blow. Died @ 4 minutes.

ISI-No Return.

FF-Few surface bubbles.

FSI-No Return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1808.85	98.54	Initial Hydro-static
1	38.16	97.97	Open To Flow (1)
32	22.52	98.80	Shut-In(1)
63	29.64	99.52	End Shut-In(1)
63	22.02	99.55	Open To Flow (2)
93	22.58	100.31	Shut-In(2)
127	23.55	101.11	End Shut-In(2)
128	1774.61	103.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	100%Mud	0.07

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

H&C Oil Operating Inc.

16-6s-22w Graham,KS

PO Box 86
Plainville, KS 67663

R.E.T. Unit #16-1

Job Ticket: 46906

DST#: 1

ATTN: Marc Downing

Test Start: 2012.02.09 @ 18:27:30

Tool Information

Drill Pipe:	Length: 3624.00 ft	Diameter: 3.80 inches	Volume: 50.84 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 26000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 5000.00 lb
			<u>Total Volume: 50.84 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3613.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	37.00 ft			
Tool Length:	57.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3594.00	
Shut In Tool	5.00			3599.00	
Hydraulic tool	5.00			3604.00	
Packer	5.00			3609.00	20.00 Bottom Of Top Packer
Packer	4.00			3613.00	
Stubb	1.00			3614.00	
Perforations	1.00			3615.00	
Recorder	0.00	8354	Inside	3615.00	
Recorder	0.00	8520	Outside	3615.00	
Perforations	32.00			3647.00	
Bullnose	3.00			3650.00	37.00 Bottom Packers & Anchor

Total Tool Length: 57.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

H&C Oil Operating Inc.

16-6s-22w Graham,KS

PO Box 86
Plainville, KS 67663

R.E.T. Unit #16-1

Job Ticket: 46906

DST#: 1

ATTN: Marc Downing

Test Start: 2012.02.09 @ 18:27:30

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: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.57 in³

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 bbl
5.00	100%Mud	0.070

Total Length: 5.00 ft Total Volume: 0.070 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

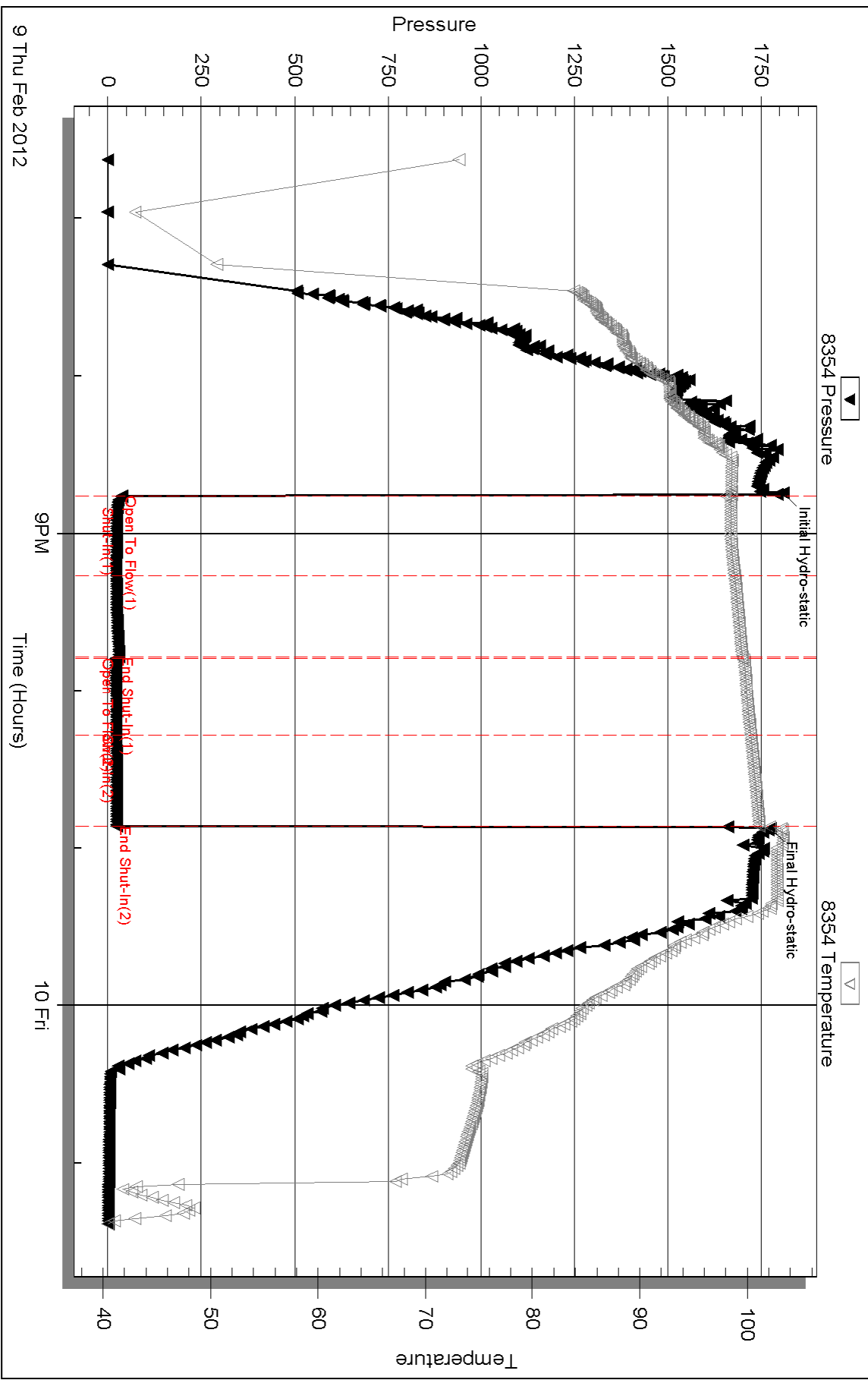
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

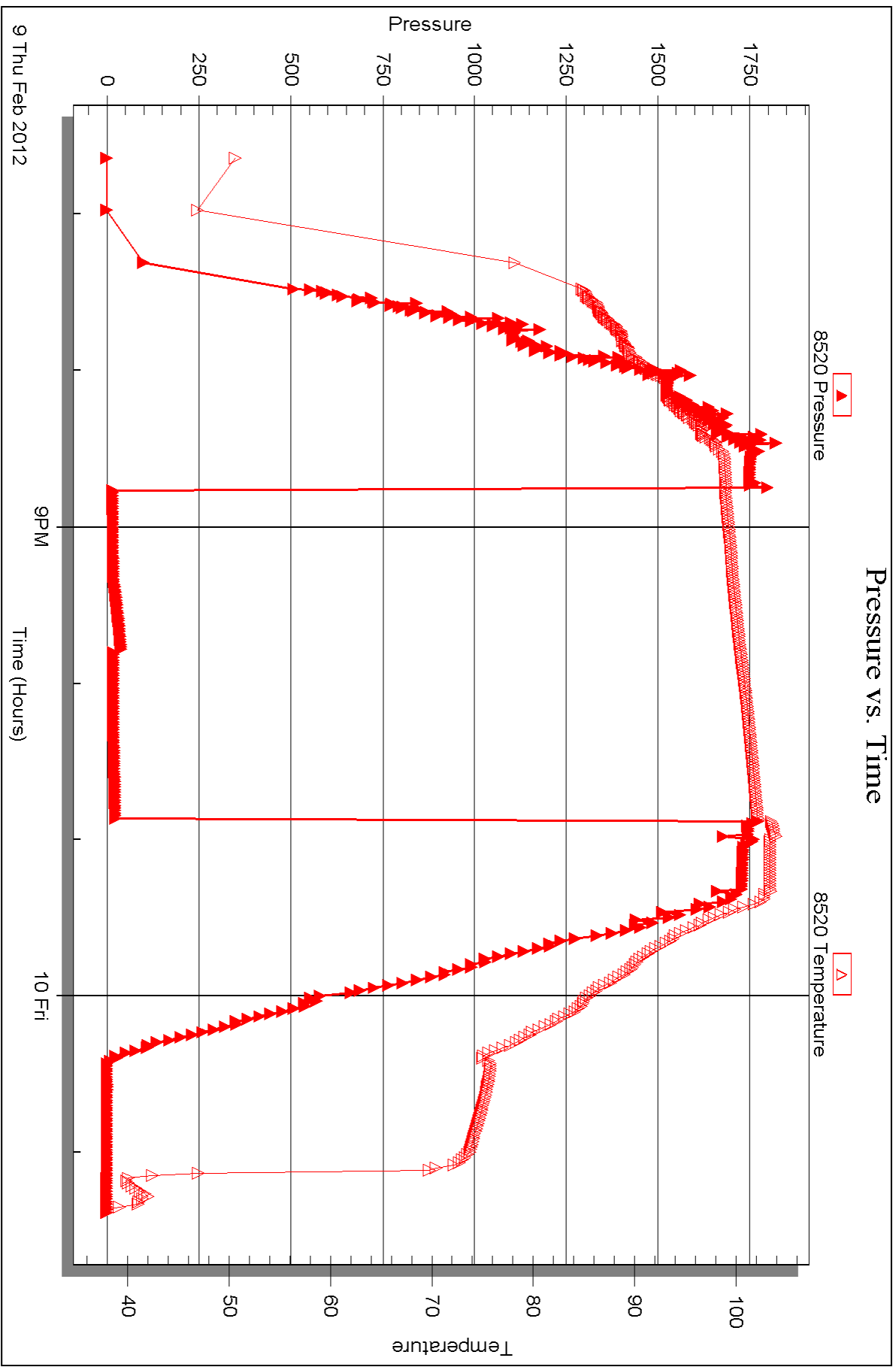


Serial #: 8520

Outside H&C Oil Operating Inc.

RET. Unit #16-1

DST Test Number: 1





DRILL STEM TEST REPORT

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

PO Box 86
Plainville, KS 67663

ATTN: Marc Downing

R.E.T. Unit #16-1

16-6s-22w Graham,KS

Start Date: 2012.02.10 @ 12:23:30

End Date: 2012.02.10 @ 17:46:00

Job Ticket #: 46907 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.02.16 @ 10:57:28

H&C Oil Operating Inc.

16-6s-22w Graham,KS

R.E.T. Unit #16-1

DST # 2

LKC "C-D"

2012.02.10



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

H&C Oil Operating Inc.

16-6s-22w Graham,KS

PO Box 86
Plainville, KS 67663

R.E.T. Unit #16-1

Job Ticket: 46907

DST#: 2

ATTN: Marc Downing

Test Start: 2012.02.10 @ 12:23:30

GENERAL INFORMATION:

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

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:58:00

Time Test Ended: 17:46:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Rash

Unit No: 38

Interval: 3641.00 ft (KB) To 3682.00 ft (KB) (TVD)

Reference Elevations: 2372.00 ft (KB)

Total Depth: 3682.00 ft (KB) (TVD)

2367.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8354 Inside

Press @ Run Depth: 24.20 psig @ 3643.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.02.10 End Date: 2012.02.10

Last Calib.: 2012.02.10

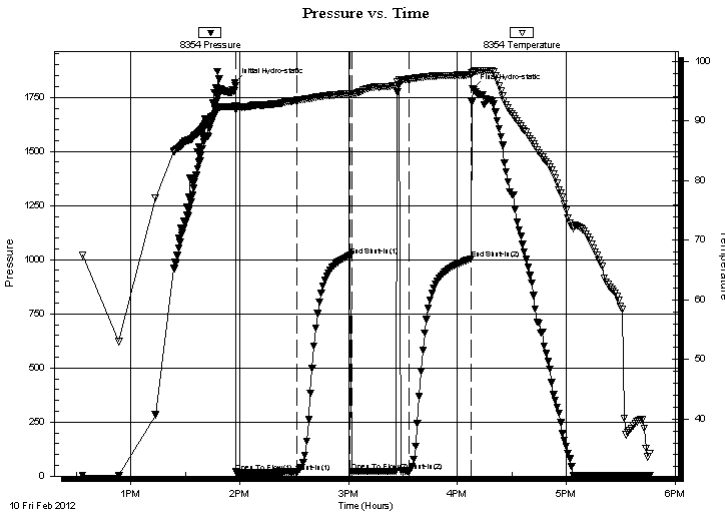
Start Time: 12:33:30 End Time: 17:46:00

Time On Btm: 2012.02.10 @ 13:57:20

Time Off Btm: 2012.02.10 @ 16:08:30

TEST COMMENT: IF-Weak surging 1/4 inch blow . Died @ 21 minutes.
IS-No Return.
FF-Few surface bubbles. Flushed tool.
FS-No Return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1816.36	92.48	Initial Hydro-static
1	19.30	91.84	Open To Flow (1)
35	19.81	93.49	Shut-In(1)
64	1018.97	94.61	End Shut-In(1)
65	21.71	94.46	Open To Flow (2)
97	24.20	97.03	Shut-In(2)
131	1003.40	97.75	End Shut-In(2)
132	1788.99	98.13	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	100%Mud	0.21

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

H&C Oil Operating Inc.

16-6s-22w Graham,KS

PO Box 86
Plainville, KS 67663

R.E.T. Unit #16-1

Job Ticket: 46907

DST#: 2

ATTN: Marc Downing

Test Start: 2012.02.10 @ 12:23:30

Tool Information

Drill Pipe:	Length: 3649.00 ft	Diameter: 3.80 inches	Volume: 51.19 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 5000.00 lb
			<u>Total Volume: 51.19 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3641.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	41.00 ft			
Tool Length:	61.00 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			3622.00	
Shut In Tool	5.00			3627.00	
Hydraulic tool	5.00			3632.00	
Packer	5.00			3637.00	20.00 Bottom Of Top Packer
Packer	4.00			3641.00	
Stubb	1.00			3642.00	
Perforations	1.00			3643.00	
Recorder	0.00	8354	Inside	3643.00	
Recorder	0.00	8520	Outside	3643.00	
Perforations	36.00			3679.00	
Bullnose	3.00			3682.00	41.00 Bottom Packers & Anchor

Total Tool Length: 61.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

H&C Oil Operating Inc.

16-6s-22w Graham,KS

PO Box 86
Plainville, KS 67663

R.E.T. Unit #16-1

Job Ticket: 46907

DST#: 2

ATTN: Marc Downing

Test Start: 2012.02.10 @ 12:23:30

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: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 in³

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 bbl
15.00	100%Mud	0.210

Total Length: 15.00 ft Total Volume: 0.210 bbl

Num Fluid Samples: 0

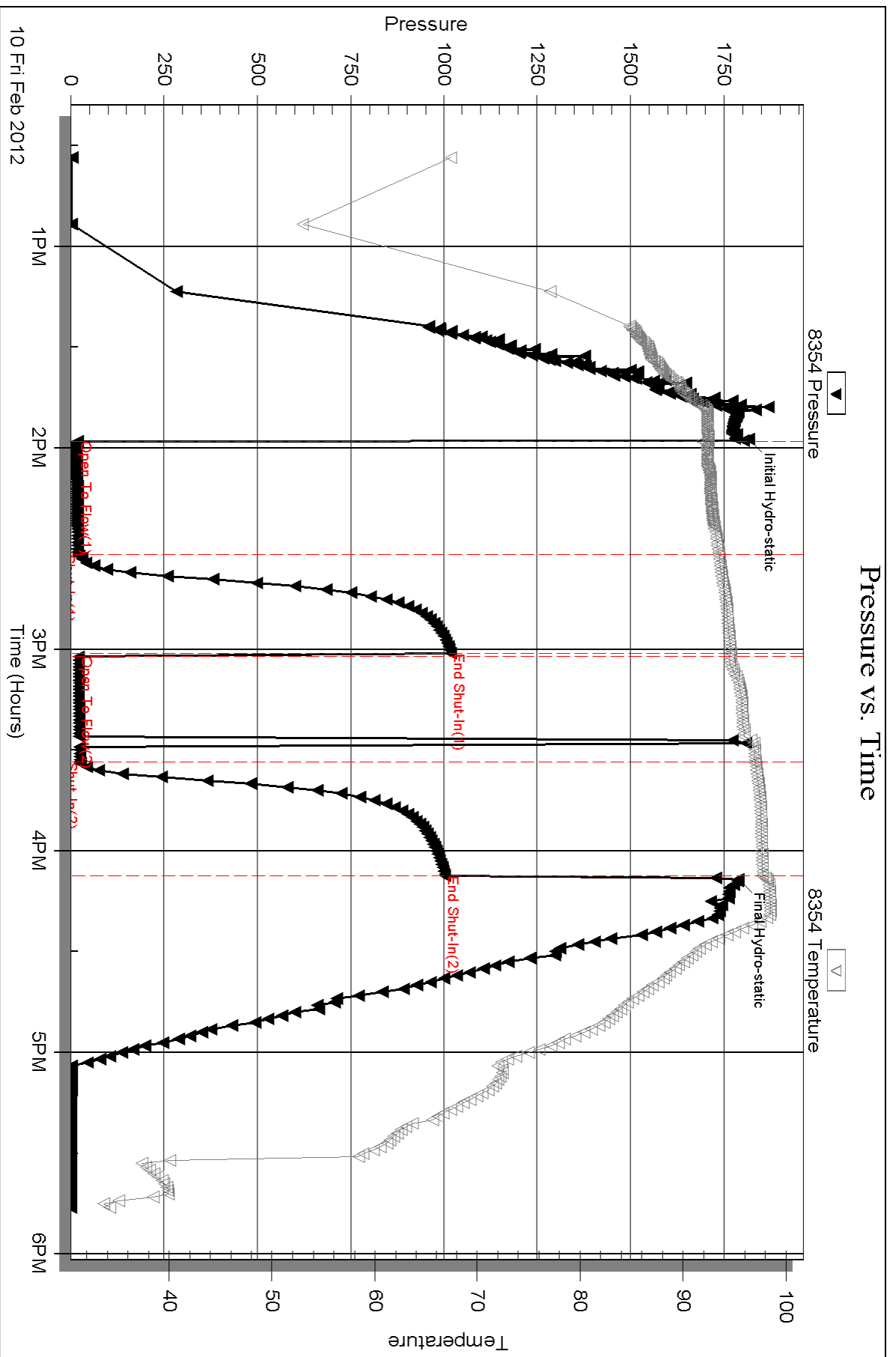
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

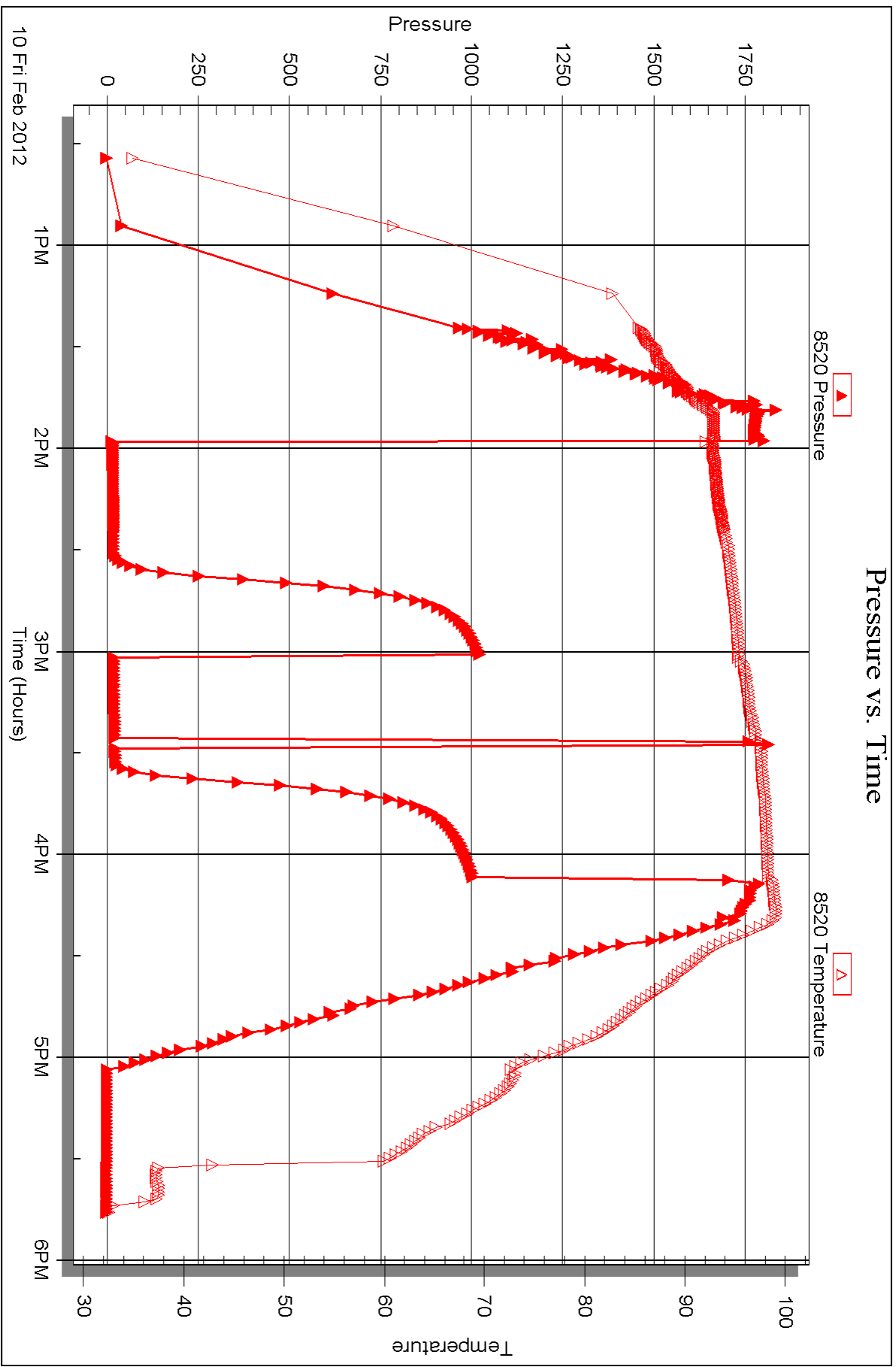


Serial #: 8520

Outside H&C Oil Operating Inc.

RET. Unit #16-1

DST Test Number: 2





DRILL STEM TEST REPORT

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

PO Box 86
Plainville, KS 67663

ATTN: Marc Downing

R.E.T. Unit #16-1

16-6s-22w Graham,KS

Start Date: 2012.02.11 @ 08:56:30

End Date: 2012.02.11 @ 14:41:23

Job Ticket #: 46908 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.02.16 @ 10:56:53

H&C Oil Operating Inc.

16-6s-22w Graham,KS

R.E.T. Unit #16-1

DST # 3

LKC "H-J"

2012.02.11



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

H&C Oil Operating Inc.

16-6s-22w Graham,KS

PO Box 86
Plainville, KS 67663

R.E.T. Unit #16-1

Job Ticket: 46908

DST#: 3

ATTN: Marc Downing

Test Start: 2012.02.11 @ 08:56:30

GENERAL INFORMATION:

Formation: **LKC "H-J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:47:53

Time Test Ended: 14:41:23

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Rash

Unit No: 38

Interval: 3724.00 ft (KB) To 3785.00 ft (KB) (TVD)

Reference Elevations: 2372.00 ft (KB)

Total Depth: 3785.00 ft (KB) (TVD)

2367.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8354 Inside

Press @ Run Depth: 19.22 psig @ 3763.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.02.11 End Date: 2012.02.11

Last Calib.: 2012.02.11

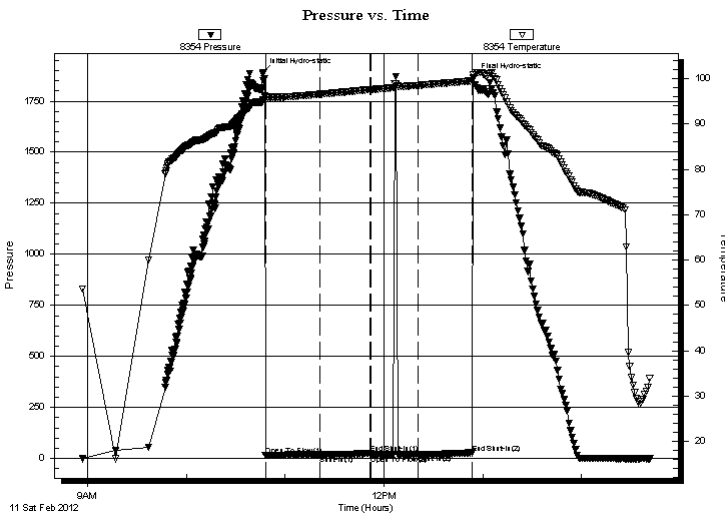
Start Time: 08:56:53 End Time: 14:41:23

Time On Btm: 2012.02.11 @ 10:46:33

Time Off Btm: 2012.02.11 @ 12:54:23

TEST COMMENT: IF-Weak building blow . Built to 1/2 inch. Died off to surface.
 IS-No Return.
 FF-Few surface bubbles. Flushed tool. Weak surface blow .
 FS-No Return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1890.66	95.18	Initial Hydro-static
2	15.85	95.68	Open To Flow (1)
35	17.63	96.55	Shut-In(1)
65	25.77	97.57	End Shut-In(1)
66	17.16	97.58	Open To Flow (2)
95	19.22	98.51	Shut-In(2)
127	27.93	99.49	End Shut-In(2)
128	1864.03	100.80	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	100%Mud	0.07

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

H&C Oil Operating Inc.

16-6s-22w Graham,KS

PO Box 86
Plainville, KS 67663

R.E.T. Unit #16-1

Job Ticket: 46908

DST#: 3

ATTN: Marc Downing

Test Start: 2012.02.11 @ 08:56:30

Tool Information

Drill Pipe:	Length: 3715.00 ft	Diameter: 3.80 inches	Volume: 52.11 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 4000.00 lb
			<u>Total Volume: 52.11 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3724.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	61.00 ft			
Tool Length:	81.00 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			3705.00	
Shut In Tool	5.00			3710.00	
Hydraulic tool	5.00			3715.00	
Packer	5.00			3720.00	20.00 Bottom Of Top Packer
Packer	4.00			3724.00	
Stubb	1.00			3725.00	
Perforations	5.00			3730.00	
Change Over Sub	1.00			3731.00	
Drill Pipe	31.00			3762.00	
Change Over Sub	1.00			3763.00	
Recorder	0.00	8354	Inside	3763.00	
Recorder	0.00	8520	Outside	3763.00	
Perforations	19.00			3782.00	
Bullnose	3.00			3785.00	61.00 Bottom Packers & Anchor

Total Tool Length: 81.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

H&C Oil Operating Inc.

16-6s-22w Graham,KS

PO Box 86
Plainville, KS 67663

R.E.T. Unit #16-1

Job Ticket: 46908

DST#: 3

ATTN: Marc Downing

Test Start: 2012.02.11 @ 08:56:30

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: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.59 in³

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 bbl
5.00	100%Mud	0.070

Total Length: 5.00 ft Total Volume: 0.070 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8354

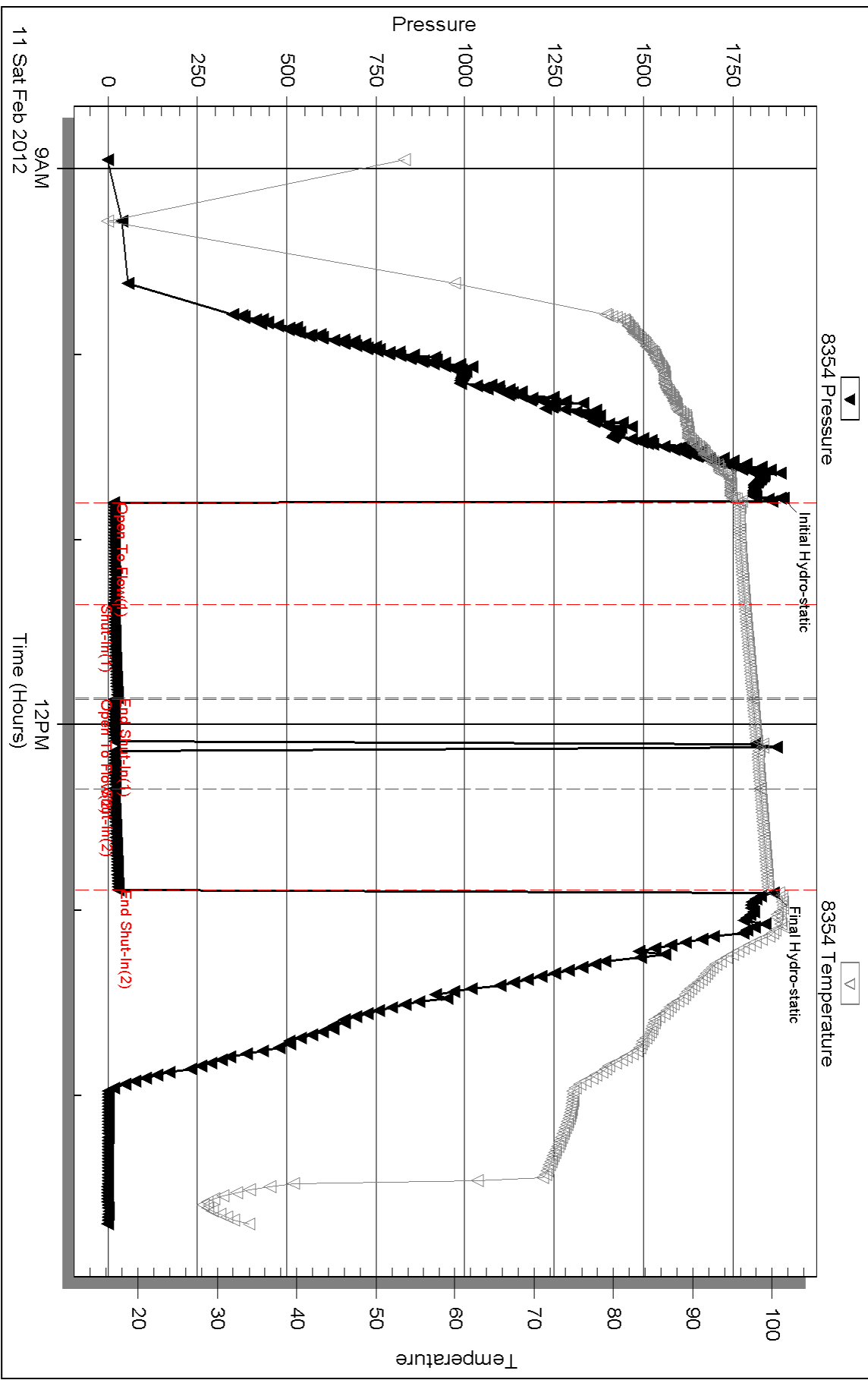
Inside

H&C Oil Operating Inc.

RET. Unit #16-1

DST Test Number: 3

Pressure vs. Time

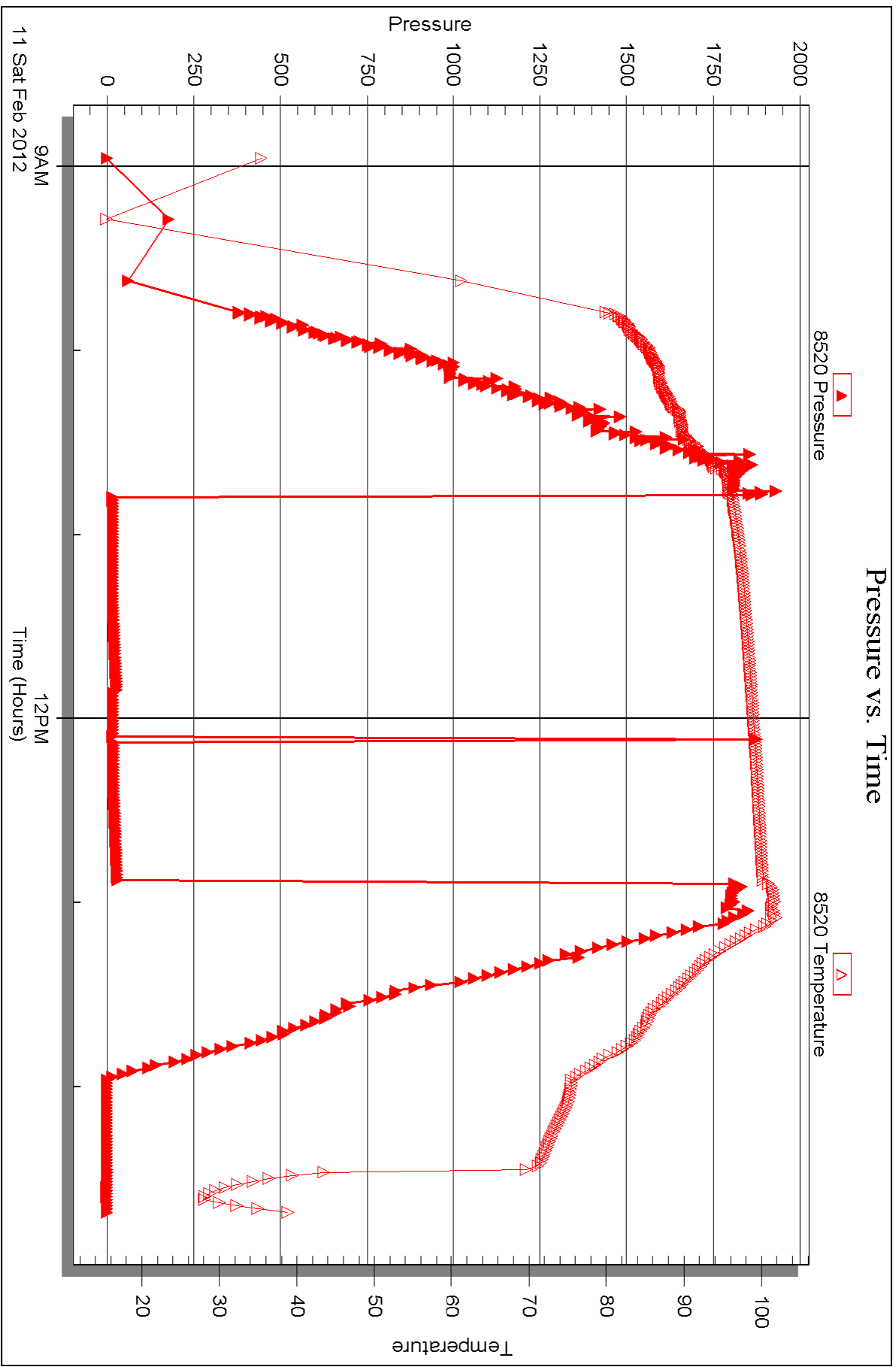


Serial #: 8520

Outside H&C Oil Operating Inc.

RET. Unit #16-1

DST Test Number: 3





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED
FEB 13 2012

Test Ticket

NO. 46906

4/10

Well Name & No. R.E.T. Unit #16-1 Test No. 1 Date 2-9-12
 Company HTC Oil Operating Inc. Elevation 2372 KB 2367 GL
 Address P.O. Box 86 Plainville, KS 67663
 Co. Rep / Geo. Mauc Downing Rig American Eagle 7
 Location: Sec. 16 Twp. 6S Rge. 22W Co. Graham State KS

Interval Tested 3613-3650 Zone Tested LKC "A"
 Anchor Length 37 Drill Pipe Run _____ Mud Wt. 8.8
 Top Packer Depth 3608 Drill Collars Run 0 Vis 53
 Bottom Packer Depth 3613 Wt. Pipe Run 0 WL 7.6
 Total Depth 3650 Chlorides 1000 ppm System LCM 1#

Blow Description IF- weak surface blow. Died @ 4 minutes,
ISI- No Return,
FF- Few surface bubbles,
FST- No Return,

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 103 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1809 Test 1125 T-On Location 1600
 (B) First Initial Flow 38 Jars _____ T-Started 1845
 (C) First Final Flow 23 Safety Joint _____ T-Open 2045
 (D) Initial Shut-In 30 Circ Sub _____ T-Pulled 2250
 (E) Second Initial Flow 22 Hourly Standby _____ T-Out 0115
 (F) Second Final Flow 23 Mileage 70X2 190 Comments Part-1828
 (G) Final Shut-In 24 Sampler _____
 (H) Final Hydrostatic 1775 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1321
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1321

Approved By _____ Our Representative [Signature]

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



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED
FEB 13 2012

Test Ticket

NO. 46907

Well Name & No. R.E.T. Unit #16-1 BY: _____ Test No. 2 Date 2-10-12
 Company HTC Oil Operating Inc. Elevation 2372 KB 2367 GL _____
 Address P.O. Box 86 Plainville, KS 67663
 Co. Rep / Geo. Maic Downing Rig American Eagle 3
 Location: Sec. 16 Twp. 6S Rge. 22W Co. Graham State KS

Interval Tested 3641-3682 Zone Tested LKC "C-D"
 Anchor Length 41' Drill Pipe Run 3649 Mud Wt. 8.7
 Top Packer Depth 3636 Drill Collars Run 0 Vis 52
 Bottom Packer Depth 3641 Wt. Pipe Run 0 WL 8.0
 Total Depth 3682 Chlorides 1000 ppm System LCM 1"

Blow Description IF-Weak surging 1/4 inch blow. Died @ 21 minutes.
ISF- No Return.
FF- Few surface bubbles. Flushed Tool.
FSF- No Return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>				<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 15 BHT 98 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1816 Test 1125 T-On Location 1145
 (B) First Initial Flow 19 Jars _____ T-Started 1230
 (C) First Final Flow 20 Safety Joint _____ T-Open 1359
 (D) Initial Shut-In 1019 Circ Sub _____ T-Pulled 1605
 (E) Second Initial Flow 22 Hourly Standby _____ T-Out 1745
 (F) Second Final Flow 24 Mileage 70XZ 196 Comments BHT-1223
 (G) Final Shut-In 1003 Sampler _____
 (H) Final Hydrostatic 1789 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 30 Extra Recorder _____ Sub Total 8
 Initial Shut-In 30 Day Standby _____ Total 1321
 Final Flow 30 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 30 Sub Total 1321

Approved By _____ Our Representative D. Rash

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED
FEB 13 2012
BY: _____

Test Ticket

NO. 46908

Well Name & No. R.E.T. Unit #16-1 Test No. 3 Date 2-11-12
 Company HTC Oil Operating, Inc. Elevation 2372 KB 2367 GL
 Address P.O. Box 86 Plainville, KS 67663
 Co. Rep / Geo. Marc Downing Rig American Eagle #3
 Location: Sec. 16 Twp. 6S Rge. 22W Co. Graham State KS

Interval Tested ~~3724-3785~~ 3724-3785 Zone Tested LKC "H-5"
 Anchor Length 61' Drill Pipe Run 3715 Mud Wt. 9.1
 Top Packer Depth 3719 Drill Collars Run 0 Vis 54
 Bottom Packer Depth 3724 Wt. Pipe Run 0 WL 7.6
 Total Depth 3785 Chlorides 1000 ppm System LCM 2#

Blow Description IF - weak building blow. Built to 1/2 inch. Died off to surface.
IST - No Return.
FF - Few surface bubbles. Flushed Tool. Weak surface blow.
FST - No Return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 101 Gravity 1125 API RW @ _____ °F Chlorides _____ ppm
 (A) Initial Hydrostatic 1891 Test 1125 T-On Location 0800
 (B) First Initial Flow 16 Jars _____ T-Started 0900
 (C) First Final Flow 18 Safety Joint _____ T-Open 1059
 (D) Initial Shut-In 26 Circ Sub _____ T-Pulled 1300
 (E) Second Initial Flow 17 Hourly Standby _____ T-Out 1445
 (F) Second Final Flow 19 Mileage 70X2 196' Comments BWT-0856
 (G) Final Shut-In 28 Sampler _____
 (H) Final Hydrostatic 1864 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1321
 Accessibility _____ MP/DST Disc't _____

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

Sub Total 1321
 Approved By _____ Our Representative D. Rask

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.

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
Ward Loyd, Commissioner
Thomas E. Wright, Commissioner

Sam Brownback, Governor

February 16, 2012

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

Re: ACO1
API 15-065-23803-00-00
R.E.T. Unit 16-1
SE/4 Sec.16-06S-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,
Charlie 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. 457

Date	7-3-12	Sec.	16	Range	6	22	County	Graham	State	Kansas	On Location	9:50AM
Lease	RET Unit	Well No.	No. 1	Location Bogue NW 3/4 SW 9/4 15W								
Contractor	American Eagle Rig 3											
Type Job	Surface											
Hole Size	12 1/4	T.D.	280									
Csg.	8 1/2	Depth	280									
Tbg. Size	Depth											
Tool	Depth											
Cement Left in Csg.	12 1/2'											
Meas Line	Displace 16 3/4 BA											
EQUIPMENT												
Pumptrk	No. 5	Cementer	Steve									
Bulktrk	No. 8	Helper	Bob									
Bulktrk	No.	Driver	Phil Neal									
JOB SERVICES & REMARKS												
Remarks:	The above was done to satisfaction and supervision of owner agent or contractor.											
Rat Hole	Cement Amount Ordered 170 Common Seal											
Mouse Hole	2 Seal											
Centralizers	Common 170											
Baskets	Poz. Mix											
DW or Port Collar	Gel. 3											
	Calcium 6											
	Hulls											
	Salt											
	Flowseal											
	Kol-Seal											
	Mud CLR 48											
	CFL-117 or CD110 CAF 38											
	Sand											
	Handling 179											
	Mileage											
	FLOAT EQUIPMENT											
	Guide Shoe											
	Centralizer											
	Baskets											
	AFU Inserts											
	Float Shoe											
	Latch Down											
	Pumptrk Charge Surface											
	Mileage 48											
	Tax											
	Discount											
	Total Charge											
X Signature	[Signature]											

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

625

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

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

No.

Sec.	Twp.	Range	County	State	On Location	Finish
16	6	22	Cerahman	KS		8.4 Spm
Date	Well No.	Location				
2-12-17	16-1	HILLCITY to RR 4E N into				
Contractor <u>American Energy</u>						
Type Job <u>Rotary Plug</u>						
T.D. <u>3917</u>						
Depth						
Depth						
Depth						
Shoe Joint						
Displace						
EQUIPMENT						
Pumptrk	No.	Cement				
9		Helper	Common <u>123</u>			
Bulktrk	No.	Driver	Poz. Mix <u>52</u>			
		Driver	Gel. <u>7</u>			
Bulktrk	No.	Driver	Calcium			
		Driver	Hulls			
JOB SERVICES & REMARKS						
Remarks:						
Rat Hole <u>30 SIC</u>						
Mouse Hole						
Centralizers						
Baskets						
DN or Port Collar						
<u>1st 2033 255K 2min</u>						
<u>2nd 1267 1005K 18+6</u>						
<u>3rd 327 409K 8+1</u>						
<u>4th 40 105K</u>						
Guide Shoe						
Centralizer						
Baskets						
AFU Inserts						
Float Shoe						
Latch Down						
Pumptrk Charge <u>plug</u>						
Mileage <u>48</u>						
Tax						
Discount						
Total Charge						

X Signature Bunchard