



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1093385
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: _____

1093385

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
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:				

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

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

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

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

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

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

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

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

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

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> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	H & C Oil Operating Inc.
Well Name	Kraus 24-1
Doc ID	1093385

Tops

Name	Top	Datum
Top Anhydrite	1632	+477
Base Anhydrite	1665	+444
Topeka	3087	-978
Heebner	3299	-1190
Toronto	3321	-1212
LKC	3335	-1226
BKC	3541	-1432
Marmaton	3622	-1513
Arbuckle	3696	-1587

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



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

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

Sam Brownback, Governor

September 12, 2012

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

Re: ACO1
API 15-065-23852-00-00
Kraus 24-1
NE/4 Sec.24-08S-22W
Graham County, Kansas

Dear Production Department:

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

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

Respectfully,
Charles Ramsay

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-288610

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

No. 796

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

Date	8-30-12	Sec.	24	Twp.	8	Range	22	County	Cornhusk	State	KS	On Location		Finish	1:30 PM
Lease	Krohn's	Well No.	24-1												
Location	Bryguy P-Tor W10 340 123 white														
Contractor	American Baglets														
Type Job	Surface														
Hole Size	2 3/4														
Csg.	8 5/8														
Tbg. Size															
Tool															
Cement Left in Csg.	15														
Meas Line	1436														
EQUIPMENT															
Pumptrk	No.	5													
	Helper	Graig													
Bulktrk	No.	3													
	Driver	Brett													
Bulktrk	No.	13													
	Driver	Doug													
JOB SERVICES & REMARKS															
Remarks:	The above was done to satisfaction and supervision of owner agent or contractor.														
Rat Hole															
Mouse Hole															
Centralizers															
Baskets															
D/V or Port Collar															
	8 5/8 sand cement - Brite Circulation - Mix.														
	1436 x 1436 Displace														
	Cement Circulated														
	FLOAT EQUIPMENT														
	Guide Shoe														
	Centralizer														
	Baskets														
	AFU Inserts														
	Float Shoe														
	Latch Down														
	Pumptrk Charge	PP Surface													
	Mileage	46													
	Tax														
	Discount														
	Total Charge														
X Signature															

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. 6529

Date	9-10-12	Sec.	24	Twp.	8	Range	22	County	Caravan	State	KS	On Location		Finish	1:00 a.m.
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Lease Kroy's Well No. 24-1
 Location Bigeye P. For fw 1/25 & 1/26

Contractor AMC Cementing
 Type Job Regrout Plug

Hole Size 7 7/8" T.D. 3747
 Csg. _____
 Tbg. Size _____
 Tool _____

Cement Left in Csg. _____
 Shoe Joint _____
 Meas Line _____

EQUIPMENT			
Pumptrk	No.	Cemented	
	16	Helper	OK
Bulktrk	No.	Driver	OK
	8	Driver	OK
		Driver	OK

JOB SERVICES & REMARKS

Remarks: _____
 Rat Hole 305K
 Mouse Hole _____
 Centralizers _____

Baskets		D/V or Port Collar	
1st	3628	255K	
2nd	1640	255K	
3rd	958	100K	
4th	285	405K	
5th	40'	105K	

Handling 238
 Mileage _____
 Guide Shoe _____
 Centralizer _____
 Baskets _____
 AFU Inserts _____
 Float Shoe _____
 Latch Down _____

Cement Amount Ordered 230⁶⁰ / 40⁴⁰ / 61^{1477K}
 Common 138
 Poz. Mix 92
 Gel. 8
 Calcium _____
 Hulls _____
 Salt _____
 Flowseal 50#
 Kol-Seal _____
 Mud CLR 48 _____
 CFL-117 or CD110 CAF 38 _____
 Sand _____

Float Equipment _____
 Pumptrk Charge _____
 Mileage 46 Plug _____
 Tax _____
 Discount _____
 Total Charge _____

Signature Bruce H. Rubin

COMPANY HFC Oil Operating, Inc.
 WELL Name # 24-1
 FIELD Wildcat

LOCATION 1705 FEL + 1705 FEL
 SEC. 24 T1P 4S RGE. 22W
 COUNTY Graham
 STATE Kansas

PRODUCTION Dev
 ELEVATION KB 2159
 DE CI 2152
 Drilling Method From KB To TD
 Samples Taken From 3600 To 3650
 Drilling Time From 2:50 To 10
 Samples Collected From 2950 To 2950
 Geologist Separation From 2950 To 10' from top
 Driller Separation From 2950 To 10' from top
 Drilling Separation From 2950 To 10' from top

OPERATOR HFC Oil Operating, Inc.
 CONTRACTOR American Eagle, Inc.
 COPIES: 20
 DATE: 8-20-12
 Casing Record 95-12

SAF: 95-233 3741' Above
 DIT 3741'
 TOTAL DEPTH DRILLERS: 3741'
 TOTAL DEPTH LOG: 3741'

FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE TOP	ELECTRIC LOG TOP	SUB-SEA DATUM	STRUCTURAL POSITION
Top Anhydrite	1633	1632	1414	NA
Base Anhydrite	1645	1645	1414	NA
Toronto	3691	3687	-978	NA
Hebardia	3693	3694	-1190	1b
Toronto	3695	3695	-1190	1y
LKC	3692	3692	-1226	4S
GKC	3541	3541	-1932	4S
Marmaton	3643	3642	-1513	N/A
Arbuckle	3649	3649	-1587	-22

REFERENCE WELL FOR STRUCTURE Accessed Pat. Inc.
 Kirkpatrick #1 SW-304-NE Sec. 24-4S-22W

DAILY PENETRATION BIT RECORD

DATE	DEPTH	NO.	SIZE	WELL	TYPE	DEPTH OF	FEET	YARDS

DRILL STEM TESTS

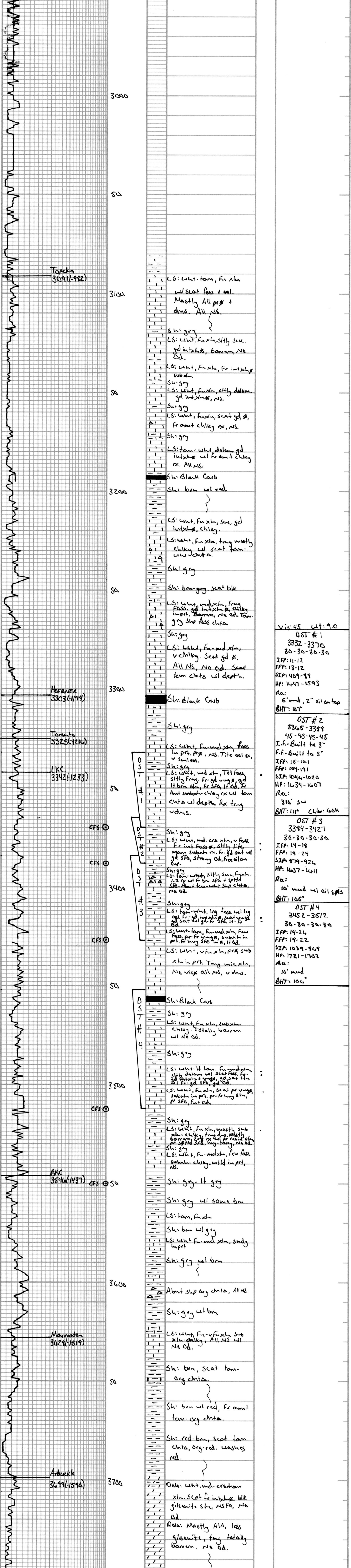
No.	Interval	HT/Time	SP/Time	FP/Time	HT-Min	REMARKS

REMARKS AND RECOMMENDATIONS: Due to DST recovery, & log evaluation, it was decided to plug & abandon the well.
 Melvin

Melvin

LEGEND

Anhydrite	Salt	Sandstone	Shale	Carb sh	Limestone	Ool. Lime	Chert	Dolomite
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DRILL STEM TEST REPORT

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

PO Box 86
Plainville KS 67663

ATTN: Marc Downing

Kraus #24-1

24 8s 22w Graham KS

Start Date: 2012.09.02 @ 14:40:00

End Date: 2012.09.02 @ 20:48:30

Job Ticket #: 46186 DST #: 1

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

Printed: 2012.09.11 @ 11:43:54



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

H&C Oil Operating Inc.

24 8s 22w Graham KS

PO Box 86
Plainville KS 67663

Kraus #24-1

Job Ticket: 46186

DST#: 1

ATTN: Marc Downing

Test Start: 2012.09.02 @ 14:40:00

GENERAL INFORMATION:

Formation: **LKC-A**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:48:00

Time Test Ended: 20:48:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Chuck Kreuzer Jr.

Unit No: 61

Interval: 3332.00 ft (KB) To 3370.00 ft (KB) (TVD)

Reference Elevations: 2116.00 ft (KB)

Total Depth: 3370.00 ft (KB) (TVD)

2108.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8791

Inside

Press @ Run Depth: 12.29 psig @ 3336.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.02

End Date:

2012.09.02

Last Calib.:

2012.09.02

Start Time: 14:40:05

End Time:

20:48:29

Time On Btm:

2012.09.02 @ 16:35:00

Time Off Btm:

2012.09.02 @ 18:56:00

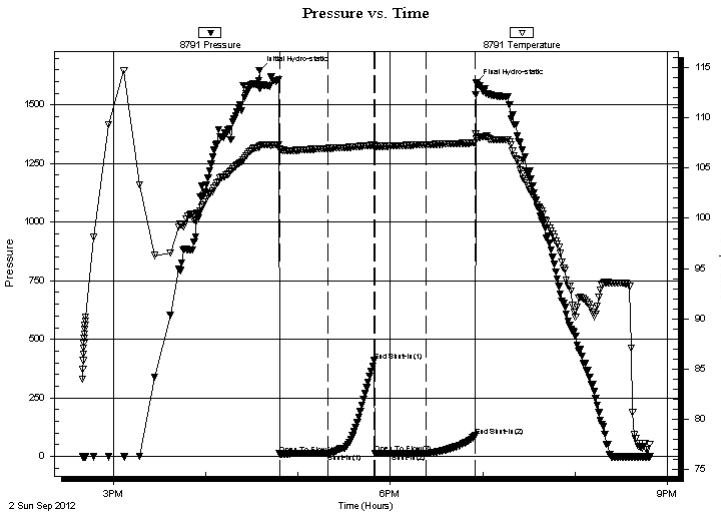
TEST COMMENT: IF: Weak surface blow, Died in 3 mins.

IS: No blow back

FF: No blow

FS: No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1647.38	107.14	Initial Hydro-static
13	106.65	106.88	Open To Flow (1)
45	11.86	106.96	Shut-In(1)
75	408.69	107.31	End Shut-In(1)
75	12.78	107.13	Open To Flow (2)
108	12.29	107.34	Shut-In(2)
140	87.75	107.52	End Shut-In(2)
141	1593.17	107.96	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud with 2" free oil	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.

24 8s 22w Graham KS

PO Box 86
Plainville KS 67663

Kraus #24-1

Job Ticket: 46186

DST#: 1

ATTN: Marc Downing

Test Start: 2012.09.02 @ 14:40:00

Tool Information

Drill Pipe:	Length: 3343.00 ft	Diameter: 3.80 inches	Volume: 46.89 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: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 45000.00 lb
			<u>Total Volume: 46.89 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	3332.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	38.00 ft			
Tool Length:	58.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3317.00	
Hydraulic tool	5.00			3322.00	
Packer	5.00			3327.00	20.00 Bottom Of Top Packer
Packer	5.00			3332.00	
Stubb	1.00			3333.00	
Perforations	2.00			3335.00	
Change Over Sub	1.00			3336.00	
Recorder	0.00	8791	Inside	3336.00	
Recorder	0.00	8673	Outside	3336.00	
Blank Spacing	30.00			3366.00	
Change Over Sub	1.00			3367.00	
Bullnose	3.00			3370.00	38.00 Bottom Packers & Anchor

Total Tool Length: 58.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

H&C Oil Operating Inc.

24 8s 22w Graham KS

PO Box 86
Plainville KS 67663

Kraus #24-1

Job Ticket: 46186

DST#: 1

ATTN: Marc Downing

Test Start: 2012.09.02 @ 14:40:00

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: 45.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1700.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mud with 2" free oil	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:

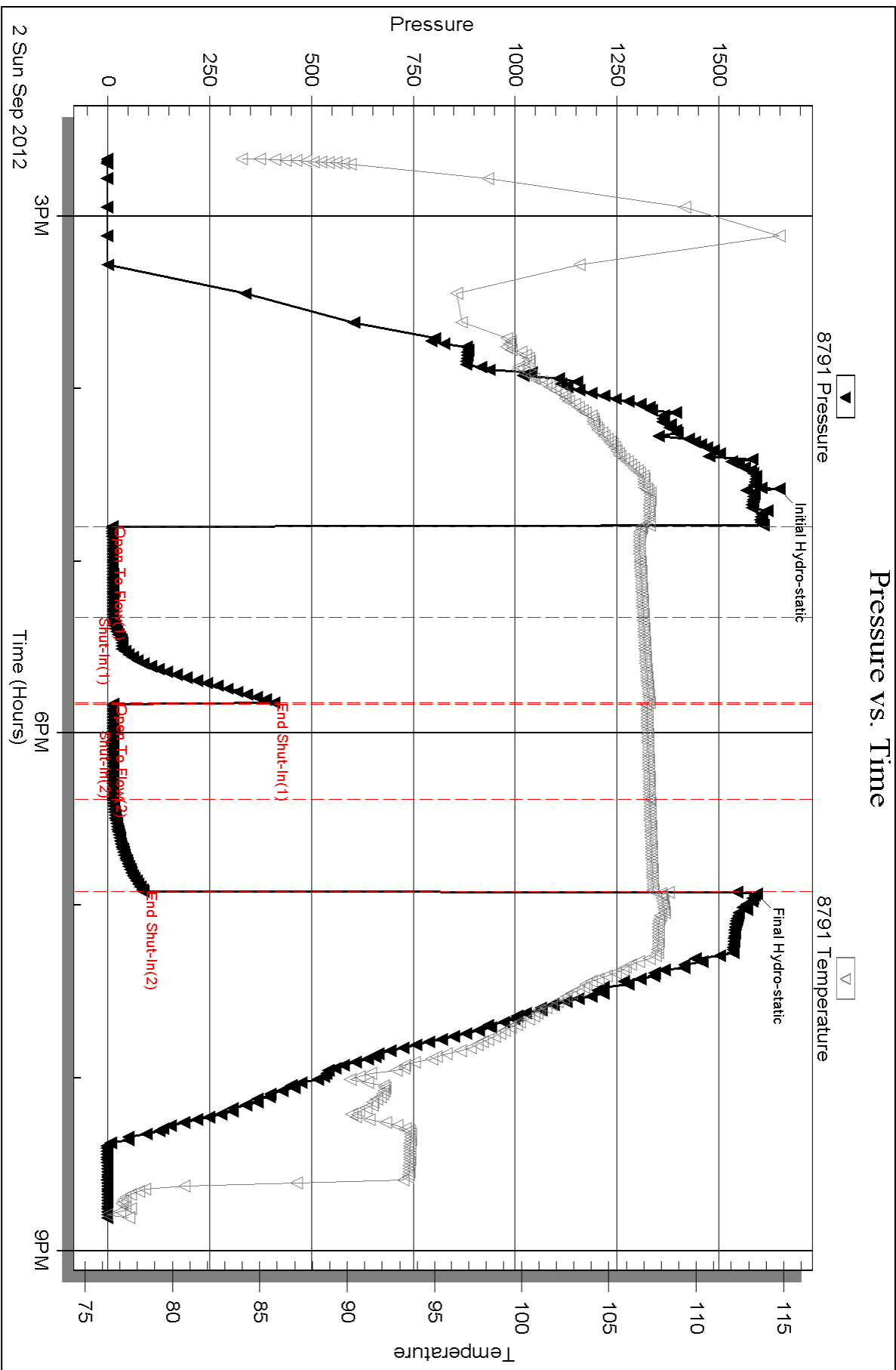
Serial #: 8791

Inside

H&C Oil Operating Inc.

Kraus #24-1

DST Test Number: 1





DRILL STEM TEST REPORT

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

PO Box 86
Plainville KS 67663

ATTN: Marc Downing

Kraus #24-1

24 8s 22w Graham KS

Start Date: 2012.09.03 @ 04:00:00

End Date: 2012.09.03 @ 09:57:30

Job Ticket #: 46187 DST #: 2

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

Printed: 2012.09.11 @ 11:42:43



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

H&C Oil Operating Inc.

24 8s 22w Graham KS

PO Box 86
Plainville KS 67663

Kraus #24-1

Job Ticket: 46187

DST#: 2

ATTN: Marc Downing

Test Start: 2012.09.03 @ 04:00:00

GENERAL INFORMATION:

Formation: **LKC-C**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:36:30

Time Test Ended: 09:57:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Kreuzer Jr.

Unit No: 61

Interval: 3365.00 ft (KB) To 3388.00 ft (KB) (TVD)

Reference Elevations: 2116.00 ft (KB)

Total Depth: 3388.00 ft (KB) (TVD)

2108.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8791

Inside

Press @ Run Depth: 190.97 psig @ 3366.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.03

End Date:

2012.09.03

Last Calib.:

2012.09.03

Start Time:

04:00:05

End Time:

09:57:29

Time On Btm:

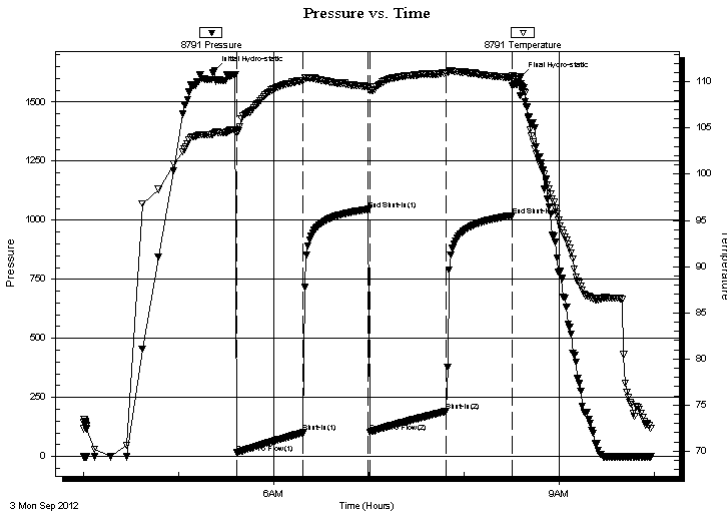
2012.09.03 @ 05:22:30

Time Off Btm:

2012.09.03 @ 08:36:00

TEST COMMENT: IF: Weak blow, Built to 3" Over 45 mins.
IS: No blow back over 45 mins.
FF: Weak blow, Built to 5" over 45 mins.
FS: No blow back over 45 mins.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1634.36	104.47	Initial Hydro-static
14	15.27	104.48	Open To Flow (1)
56	100.94	110.17	Shut-In(1)
97	1046.21	109.48	End Shut-In(1)
98	103.64	109.08	Open To Flow (2)
146	190.97	110.89	Shut-In(2)
188	1019.91	110.45	End Shut-In(2)
194	1607.26	109.61	Final Hydro-static

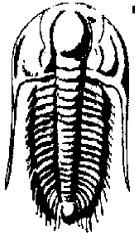
Recovery

Length (ft)	Description	Volume (bbl)
310.00	Water-100%	4.53

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.

24 8s 22w Graham KS

PO Box 86
Plainville KS 67663

Kraus #24-1

Job Ticket: 46187

DST#: 2

ATTN: Marc Downing

Test Start: 2012.09.03 @ 04:00:00

GENERAL INFORMATION:

Formation: **LKC-C**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:36:30

Time Test Ended: 09:57:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Kreuzer Jr.

Unit No: 61

Interval: 3365.00 ft (KB) To 3388.00 ft (KB) (TVD)

Reference Elevations: 2116.00 ft (KB)

Total Depth: 3388.00 ft (KB) (TVD)

2108.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8673

Outside

Press @ Run Depth: psig @ 3366.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.03 End Date: 2012.09.03

Last Calib.: 2012.09.03

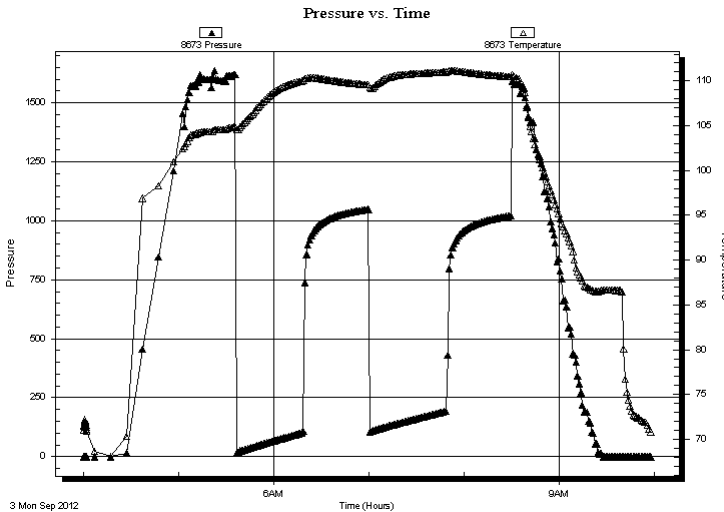
Start Time: 04:00:05 End Time: 09:57:29

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: Weak blow, Built to 3" Over 45 mins.
 IS: No blow back over 45 mins.
 FF: Weak blow, Built to 5" over 45 mins.
 FS: No blow back over 45 mins.

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
310.00	Water-100%	4.53

* 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.

24 8s 22w Graham KS

PO Box 86
Plainville KS 67663

Kraus #24-1

Job Ticket: 46187

DST#: 2

ATTN: Marc Downing

Test Start: 2012.09.03 @ 04:00:00

Tool Information

Drill Pipe:	Length: 3375.00 ft	Diameter: 3.88 inches	Volume: 49.36 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:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	480000.0 lb
			<u>Total Volume: 49.36 bbl</u>	Tool Chased	2.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial	43000.00 lb
Depth to Top Packer:	3365.00 ft			Final	44000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	23.00 ft				
Tool Length:	43.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3350.00	
Hydraulic tool	5.00			3355.00	
Packer	5.00			3360.00	20.00 Bottom Of Top Packer
Packer	5.00			3365.00	
Stubb	1.00			3366.00	
Recorder	0.00	8791	Inside	3366.00	
Recorder	0.00	8673	Outside	3366.00	
Perforations	19.00			3385.00	
Bullnose	3.00			3388.00	23.00 Bottom Packers & Anchor
Total Tool Length:	43.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

H&C Oil Operating Inc.

24 8s 22w Graham KS

PO Box 86
Plainville KS 67663

Kraus #24-1

Job Ticket: 46187

DST#: 2

ATTN: Marc Downing

Test Start: 2012.09.03 @ 04:00:00

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:

60000 ppm

Viscosity: 45.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.77 in³

Gas Cushion Type:

Resistivity: 0.10 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1700.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
310.00	Water-100%	4.534

Total Length: 310.00 ft Total Volume: 4.534 bbl

Num Fluid Samples: 0

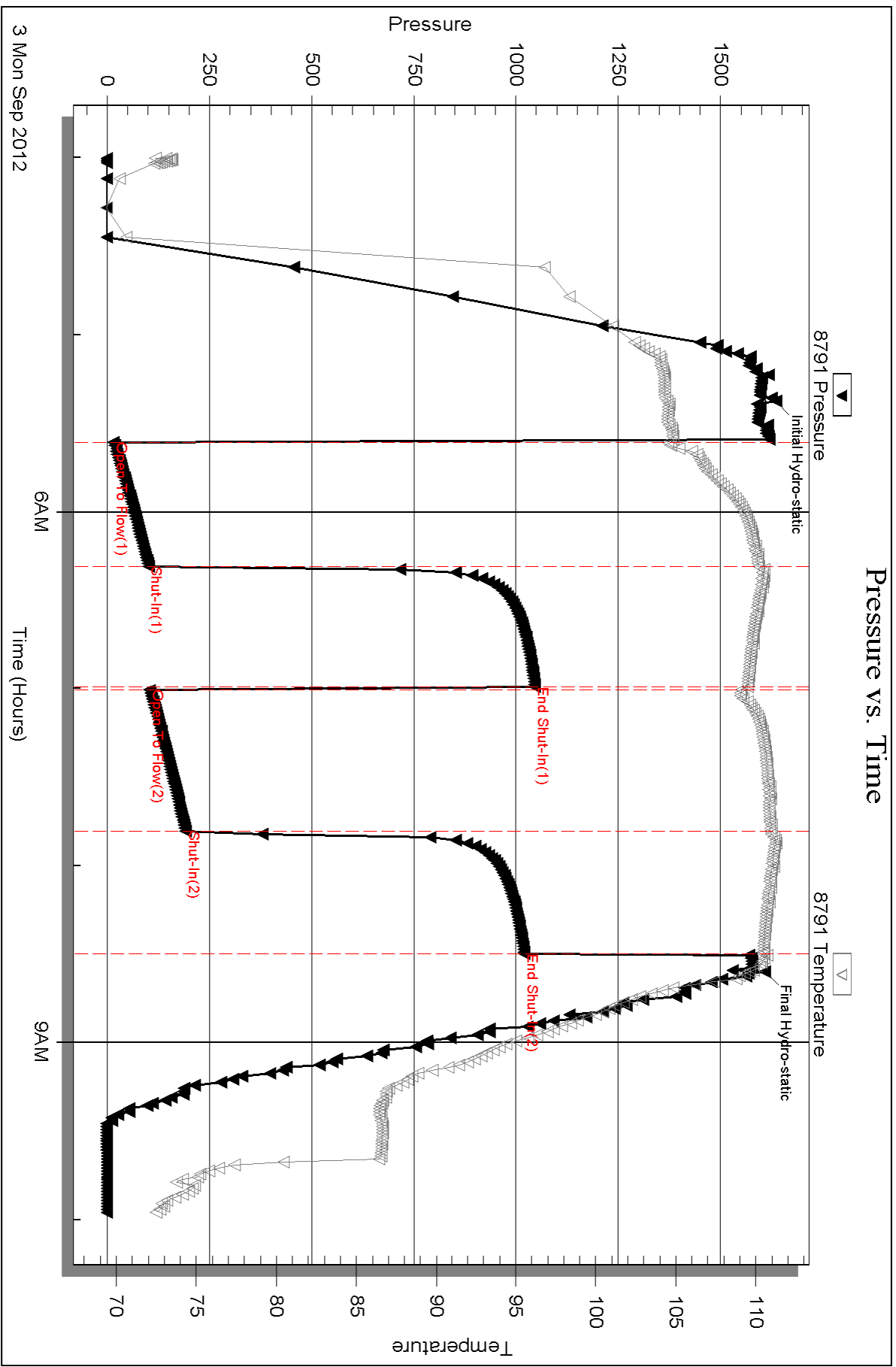
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Rw .1@80=60000

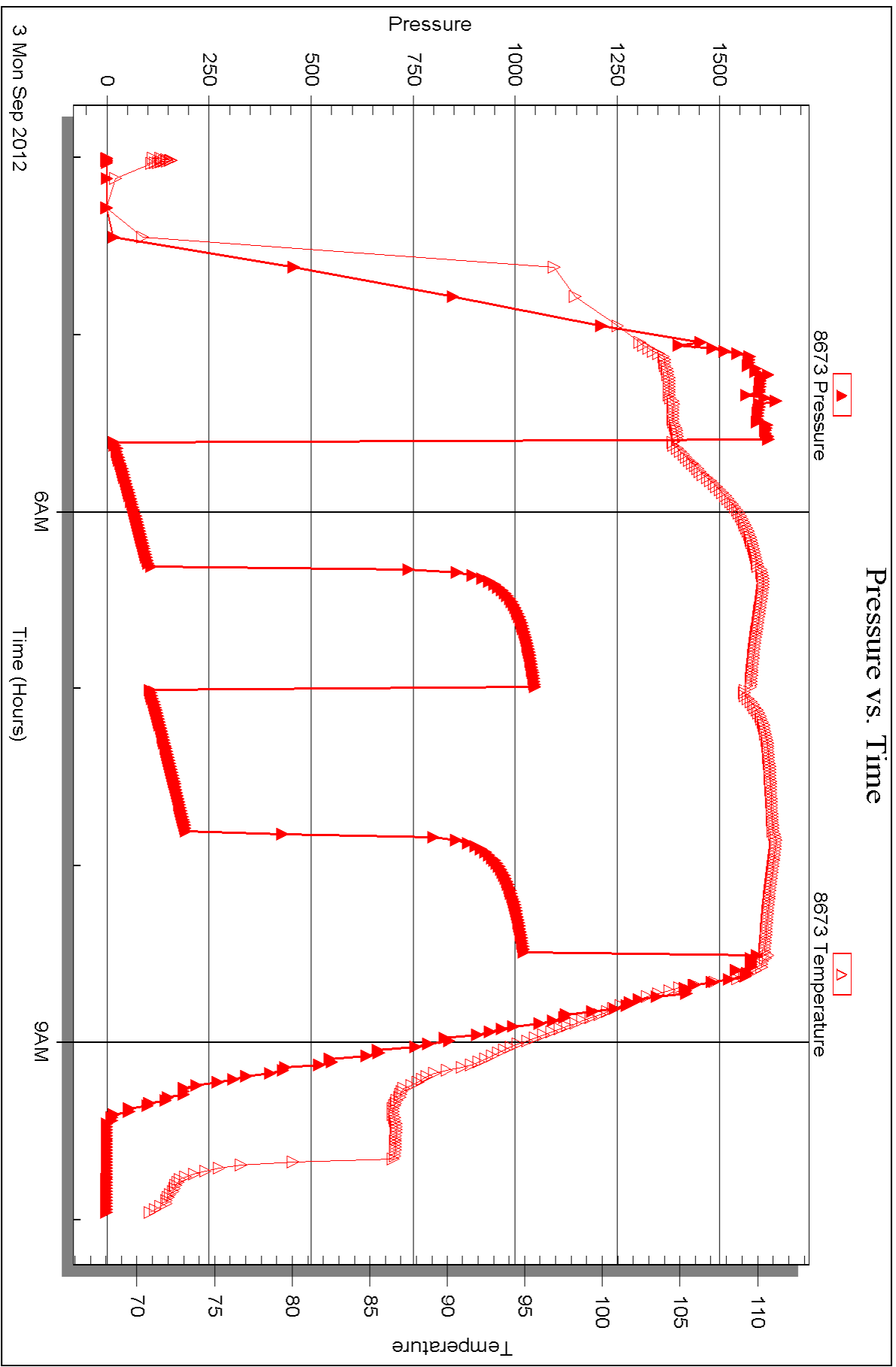


Serial #: 8673

Outside H&C Oil Operating Inc.

Kraus #24-1

DST Test Number: 2





DRILL STEM TEST REPORT

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

PO Box 86
Plainville KS 67663

ATTN: Marc Downing

Kraus #24-1

24 8s 22w Graham KS

Start Date: 2012.09.03 @ 17:40:00

End Date: 2012.09.03 @ 23:16:00

Job Ticket #: 46187 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.09.11 @ 11:41:58



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

H&C Oil Operating Inc.

24 8s 22w Graham KS

PO Box 86
Plainville KS 67663

Kraus #24-1

Job Ticket: 46187

DST#: 3

ATTN: Marc Downing

Test Start: 2012.09.03 @ 17:40:00

GENERAL INFORMATION:

Formation: **LKC D,E,F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:33:00

Time Test Ended: 23:16:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Kreutzer Jr.

Unit No: 61

Interval: 3384.00 ft (KB) To 3427.00 ft (KB) (TVD)

Reference Elevations: 2116.00 ft (KB)

Total Depth: 3427.00 ft (KB) (TVD)

2108.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8791

Inside

Press @ Run Depth: 24.31 psig @ 3390.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.03

End Date:

2012.09.03

Last Calib.:

2012.09.03

Start Time: 17:40:05

End Time:

23:15:59

Time On Btm:

2012.09.03 @ 19:31:00

Time Off Btm:

2012.09.03 @ 21:25:30

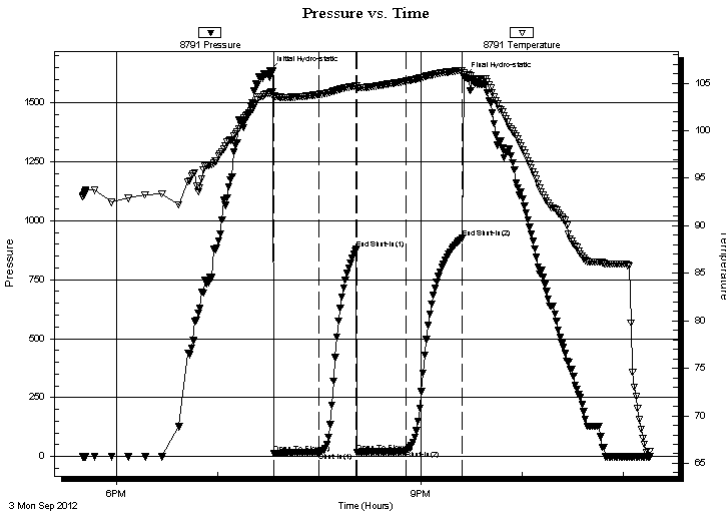
TEST COMMENT: IF: Weak surface blow, Died in 20 mins.

IS: No blow back over 30 mins.

FF: No blow over 30 mins.

FS: No blow back over 30 mins.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1637.31	104.00	Initial Hydro-static
2	13.54	103.52	Open To Flow (1)
29	18.06	103.83	Shut-In(1)
51	879.37	104.74	End Shut-In(1)
52	18.89	104.41	Open To Flow (2)
81	24.31	105.23	Shut-In(2)
114	925.68	106.36	End Shut-In(2)
115	1611.13	106.09	Final Hydro-static

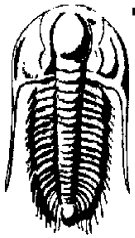
Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud with oil specs	0.14

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

H&C Oil Operating Inc.

24 8s 22w Graham KS

PO Box 86
Plainville KS 67663

Kraus #24-1

Job Ticket: 46187

DST#: 3

ATTN: Marc Downing

Test Start: 2012.09.03 @ 17:40:00

GENERAL INFORMATION:

Formation: **LKC D,E,F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:33:00

Time Test Ended: 23:16:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Kreutzer Jr.

Unit No: 61

Interval: 3384.00 ft (KB) To 3427.00 ft (KB) (TVD)

Reference Elevations: 2116.00 ft (KB)

Total Depth: 3427.00 ft (KB) (TVD)

2108.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8673 Outside

Press @ Run Depth: psig @ 3390.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.03 End Date: 2012.09.03

Last Calib.: 2012.09.03

Start Time: 17:40:05 End Time: 23:15:59

Time On Btm:

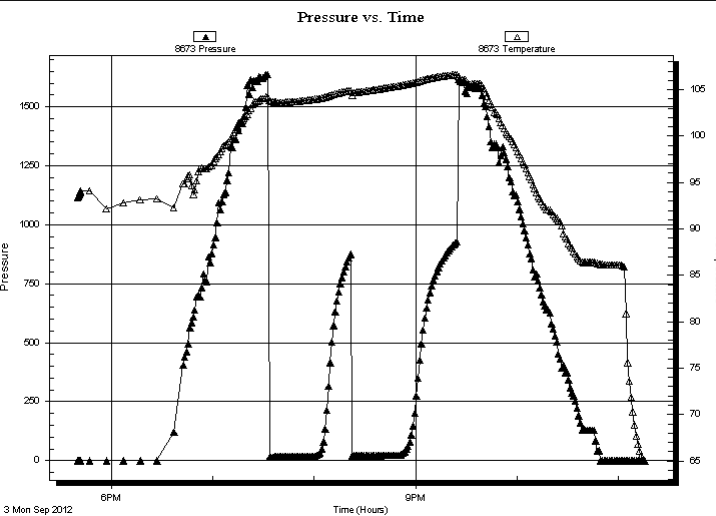
Time Off Btm:

TEST COMMENT: IF: Weak surface blow , Died in 20 mins.

IS: No blow back over 30 mins.

FF: No blow over 30 mins.

FS: No blow back over 30 mins.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud w ith oil specs	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.

24 8s 22w Graham KS

PO Box 86
Plainville KS 67663

Kraus #24-1

Job Ticket: 46187

DST#: 3

ATTN: Marc Downing

Test Start: 2012.09.03 @ 17:40:00

Tool Information

Drill Pipe:	Length: 3377.00 ft	Diameter: 3.80 inches	Volume: 47.37 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: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 48000.00 lb
			<u>Total Volume: 47.37 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 43000.00 lb
Depth to Top Packer:	3384.00 ft			Final 43000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	43.00 ft			
Tool Length:	63.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut In Tool	5.00			3369.00	
Hydraulic tool	5.00			3374.00	
Packer	5.00			3379.00	20.00 Bottom Of Top Packer
Packer	5.00			3384.00	
Stubb	1.00			3385.00	
Perforations	4.00			3389.00	
Change Over Sub	1.00			3390.00	
Recorder	0.00	8791	Inside	3390.00	
Recorder	0.00	8673	Outside	3390.00	
Blank Spacing	31.00			3421.00	
Change Over Sub	1.00			3422.00	
Perforations	2.00			3424.00	
Bullnose	3.00			3427.00	43.00 Bottom Packers & Anchor

Total Tool Length: 63.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

H&C Oil Operating Inc.

24 8s 22w Graham KS

PO Box 86
Plainville KS 67663

Kraus #24-1

Job Ticket: 46187

DST#: 3

ATTN: Marc Downing

Test Start: 2012.09.03 @ 17:40:00

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: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	mud w ith oil specs	0.140

Total Length: 10.00 ft Total Volume: 0.140 bbl

Num Fluid Samples: 0

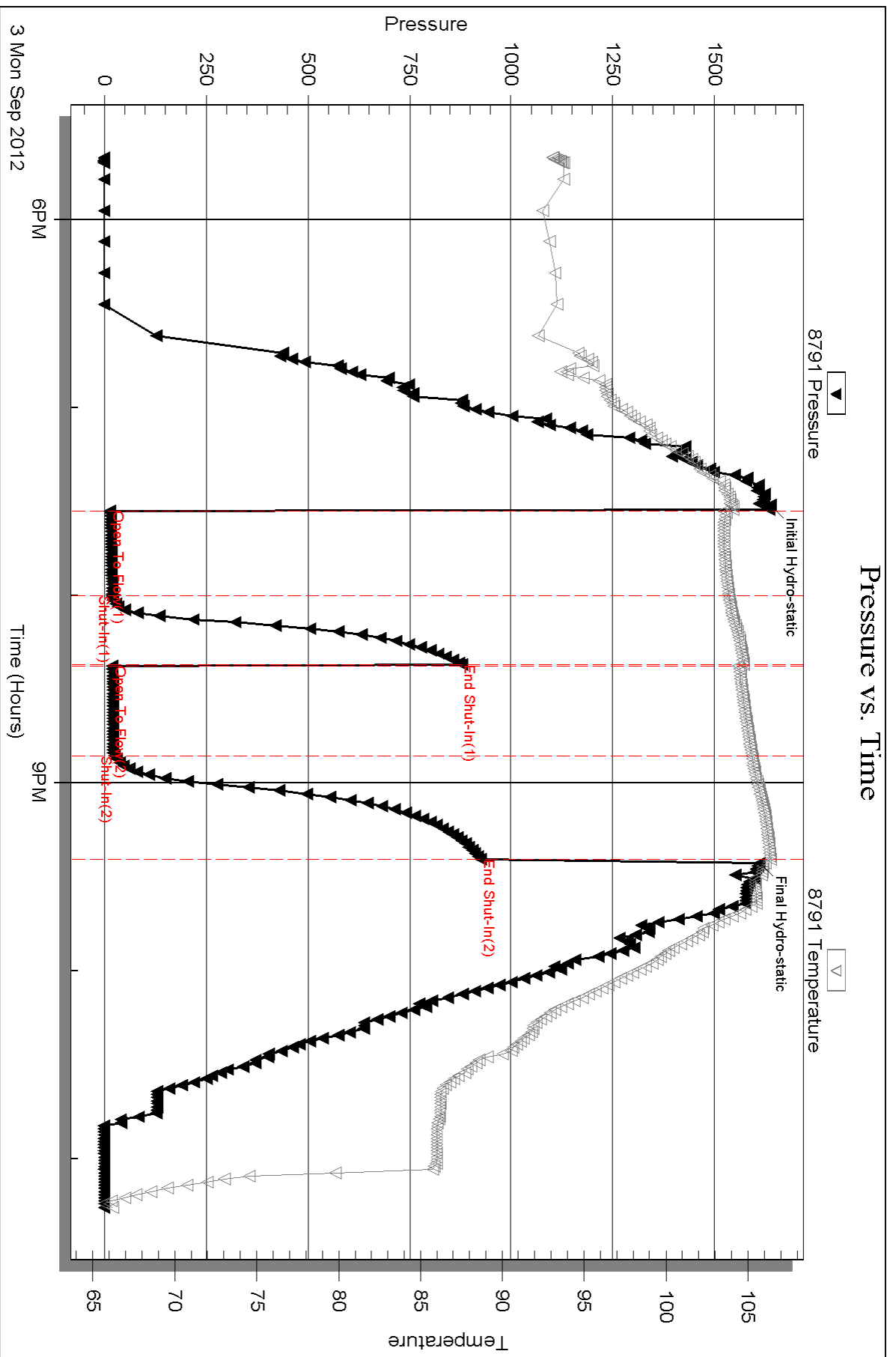
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

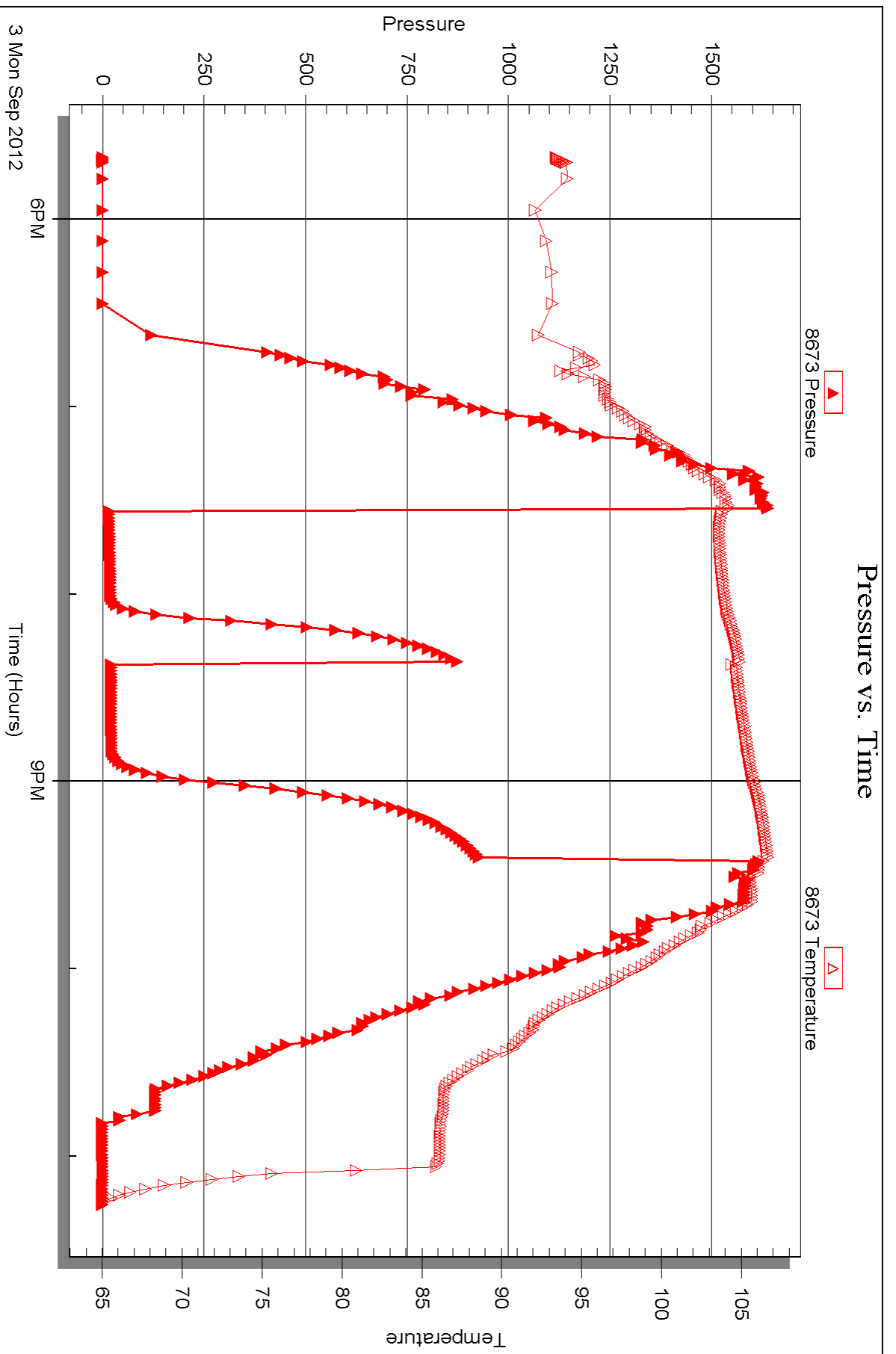


Serial #: 8673

Outside H&C Oil Operating Inc.

Kraus #24-1

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 46187

Printed: 2012.09.11 @ 11:42:03



DRILL STEM TEST REPORT

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

PO Box 86
Plainville KS 67663

ATTN: Marc Downing

Kraus #24-1

24 8s 22w Graham KS

Start Date: 2012.09.04 @ 10:00:00

End Date: 2012.09.04 @ 14:38:00

Job Ticket #: 46188 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.09.11 @ 11:41:06



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

H&C Oil Operating Inc.

24 8s 22w Graham KS

PO Box 86
Plainville KS 67663

Kraus #24-1

Job Ticket: 46188

DST#: 4

ATTN: Marc Downing

Test Start: 2012.09.04 @ 10:00:00

GENERAL INFORMATION:

Formation: **LKC H,J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:19:30

Time Test Ended: 14:38:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Kreuzer Jr.

Unit No: 61

Interval: 3452.00 ft (KB) To 3515.00 ft (KB) (TVD)

Reference Elevations: 2116.00 ft (KB)

Total Depth: 3515.00 ft (KB) (TVD)

2108.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8791

Inside

Press @ Run Depth: 21.76 psig @ 3458.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.04

End Date:

2012.09.04

Last Calib.: 2012.09.04

Start Time: 10:00:05

End Time:

14:37:59

Time On Btm: 2012.09.04 @ 11:18:00

Time Off Btm: 2012.09.04 @ 13:25:30

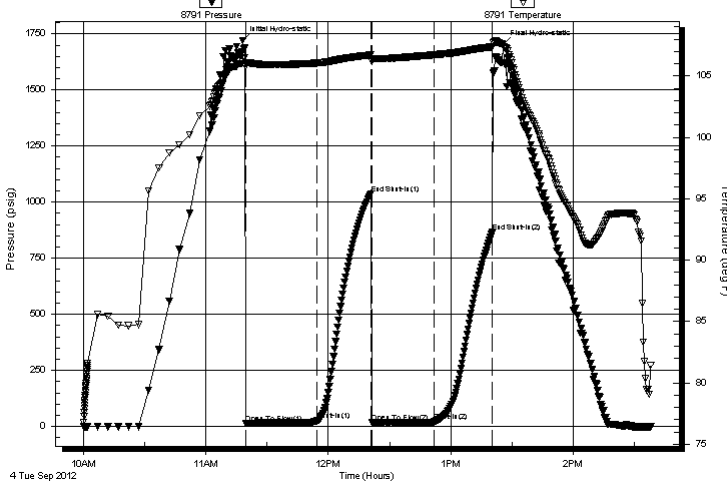
TEST COMMENT: IF: Weak blow, Died in 8 mins.

IS: No blow back

FF: No blow

FS: No blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1721.00	106.14	Initial Hydro-static
2	14.19	105.78	Open To Flow (1)
37	25.54	106.05	Shut-In(1)
63	1038.53	106.72	End Shut-In(1)
64	17.69	106.19	Open To Flow (2)
94	21.76	106.72	Shut-In(2)
123	867.55	107.38	End Shut-In(2)
128	1702.79	107.55	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud-100%m	0.14

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

H&C Oil Operating Inc.

24 8s 22w Graham KS

PO Box 86
Plainville KS 67663

Kraus #24-1

Job Ticket: 46188

DST#: 4

ATTN: Marc Downing

Test Start: 2012.09.04 @ 10:00:00

GENERAL INFORMATION:

Formation: **LKC H,J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:19:30

Time Test Ended: 14:38:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Chuck Kreutzer Jr.

Unit No: 61

Interval: 3452.00 ft (KB) To 3515.00 ft (KB) (TVD)

Total Depth: 3515.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2116.00 ft (KB)

2108.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8673 Outside

Press @ Run Depth: psig @ 3458.00 ft (KB)

Start Date: 2012.09.04

End Date:

2012.09.04

Capacity: 8000.00 psig

Last Calib.:

2012.09.04

Start Time: 10:00:05

End Time:

14:37:59

Time On Btm:

Time Off Btm:

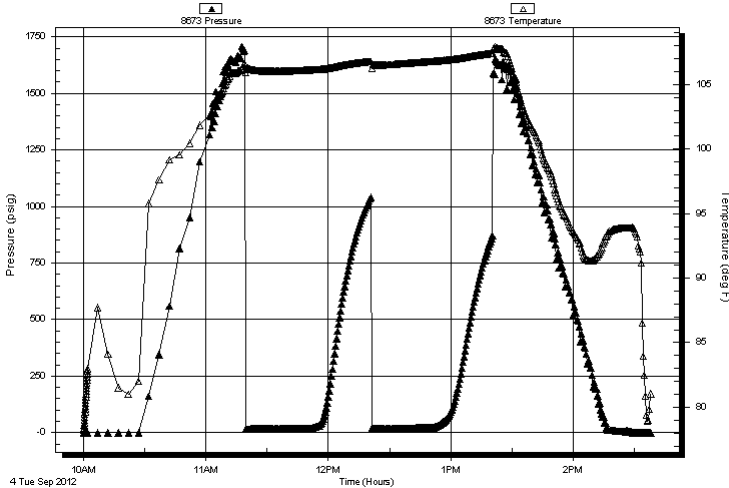
TEST COMMENT: IF: Weak blow , Died in 8 mins.

IS: No blow back

FF: No blow

FS: No blow back

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud-100%m	0.14

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.

24 8s 22w Graham KS

PO Box 86
Plainville KS 67663

Kraus #24-1

Job Ticket: 46188

DST#: 4

ATTN: Marc Downing

Test Start: 2012.09.04 @ 10:00:00

Tool Information

Drill Pipe:	Length: 3438.00 ft	Diameter: 3.80 inches	Volume: 48.23 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: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 50000.00 lb
		Total Volume: 48.23 bbl		Tool Chased 2.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 47000.00 lb
Depth to Top Packer:	3452.00 ft			Final 47000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	60.00 ft			
Tool Length:	80.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut In Tool	5.00			3437.00	
Hydraulic tool	5.00			3442.00	
Packer	5.00			3447.00	20.00 Bottom Of Top Packer
Packer	5.00			3452.00	
Stubb	1.00			3453.00	
Perforations	4.00			3457.00	
Change Over Sub	1.00			3458.00	
Recorder	0.00	8791	Inside	3458.00	
Recorder	0.00	8673	Outside	3458.00	
Blank Spacing	30.00			3488.00	
Change Over Sub	21.00			3509.00	
Bullnose	3.00			3512.00	60.00 Bottom Packers & Anchor

Total Tool Length: 80.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

H&C Oil Operating Inc.

24 8s 22w Graham KS

PO Box 86
Plainville KS 67663

Kraus #24-1

Job Ticket: 46188

DST#: 4

ATTN: Marc Downing

Test Start: 2012.09.04 @ 10:00:00

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: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1900.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	mud-100%m	0.140

Total Length: 10.00 ft Total Volume: 0.140 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

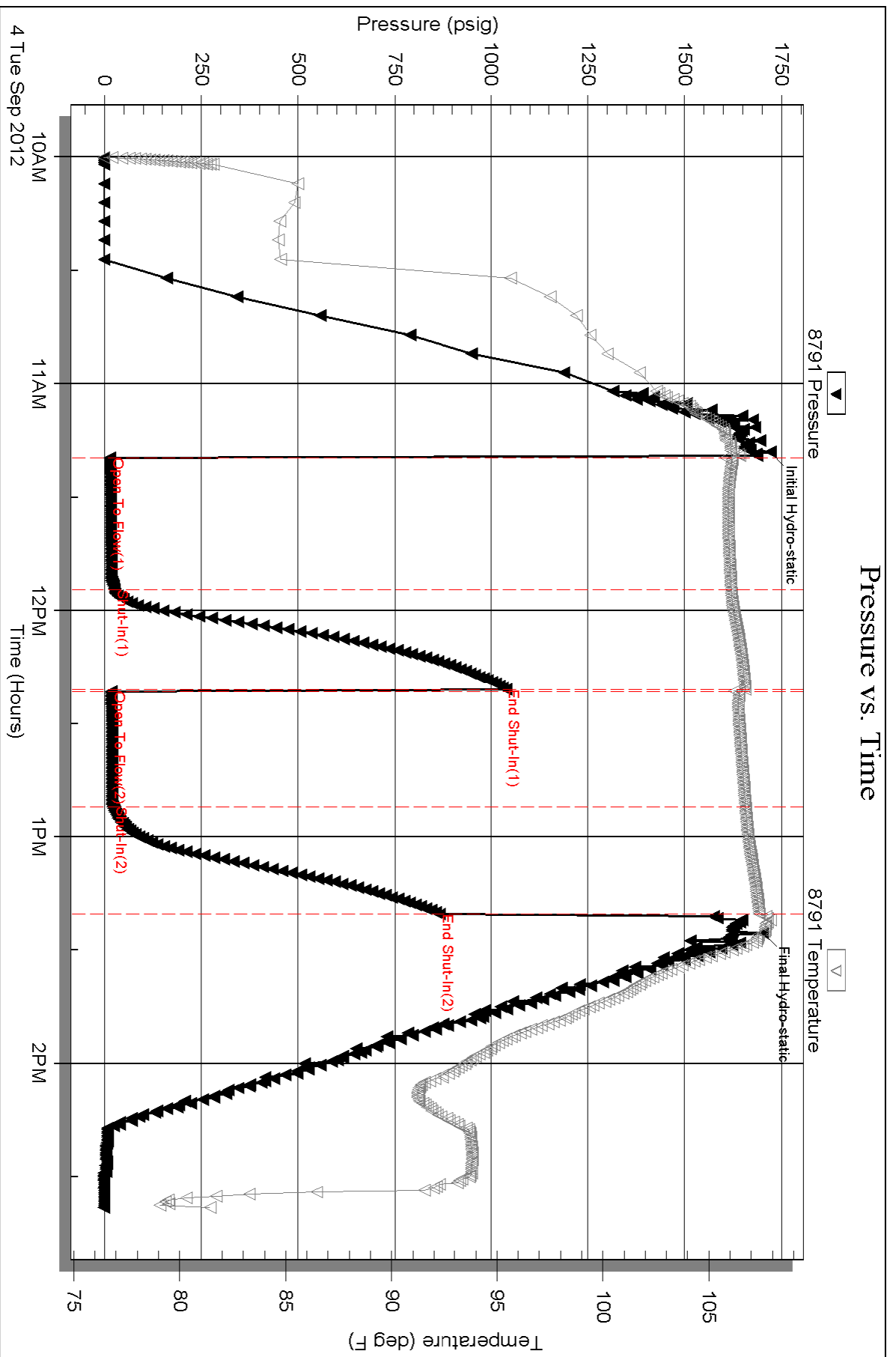
Serial #: 8791

Inside

H&C Oil Operating Inc.

Kraus #24-1

DST Test Number: 4

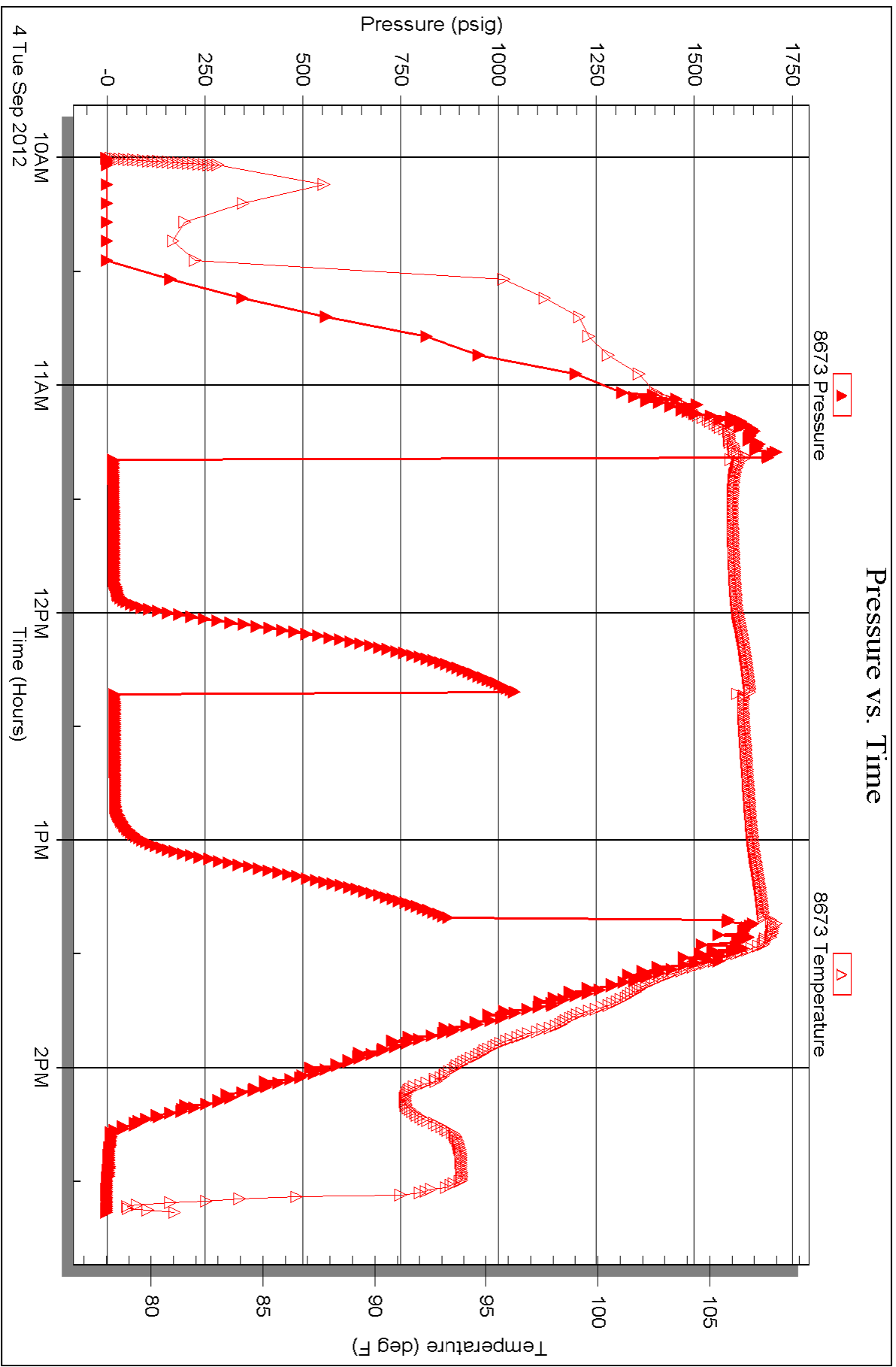


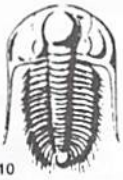
Serial #: 8673

Outside H&C Oil Operating Inc.

Kraus #24-1

DST Test Number: 4





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 46186

4/10

Well Name & No. Kraus #24-1 Test No. 1 Date 9-2-2012
 Company HEC oil operating Inc Elevation 2116 KB 2108 GL
 Address P.O. Box 86 Plainville KS. 67663
 Co. Rep / Geo. Marc Downing Rig American Eagle #2
 Location: Sec. 24 Twp. 8S Rge. 22W Co. Graham State Ks

Interval Tested 3332 3370 Zone Tested LKC-A
 Anchor Length 38 Drill Pipe Run 3343 Mud Wt. 9.0
 Top Packer Depth 3327 Drill Collars Run -0- Vis 45
 Bottom Packer Depth 3332 Wt. Pipe Run -0- WL 6.8
 Total Depth 3370 Chlorides 1,700 ppm System LCM 1#

Blow Description IFI: Weak surface blow, Died in 3mins.
ISI: No blow back
FF: No blow
FSI: No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Mud with air, oil on top</u>				

Rec Total 5 BHT 107 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1647</u>	<input checked="" type="checkbox"/> Test 1150	T-On Location <u>13:40</u>
(B) First Initial Flow <u>11</u>	<input type="checkbox"/> Jars	T-Started <u>14:40</u>
(C) First Final Flow <u>12</u>	<input type="checkbox"/> Safety Joint	T-Open <u>16:50</u>
(D) Initial Shut-In <u>409</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>18:50</u>
(E) Second Initial Flow <u>13</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>20:50</u>
(F) Second Final Flow <u>12</u>	<input checked="" type="checkbox"/> Mileage <u>80x2 = 160x1.55 = 248</u>	Comments _____
(G) Final Shut-In <u>88</u>	<input type="checkbox"/> Sampler	_____
(H) Final Hydrostatic <u>1593</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1398</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't _____
	Sub Total <u>1398</u>	

Approved By _____ Our Representative Chuck Kuyta

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



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. **46187**

4/10

Well Name & No. Kraus # 24-1 Test No. 2 Date 9-3-2012
 Company H&C oil operating Inc. Elevation 2116 KB 2108 GL
 Address P.O. Box 86 Plainville Ks. 67663
 Co. Rep / Geo. Marc Downing Rig American Eagle #2
 Location: Sec. 24 Twp. 8S Rge. 22W Co. Graham State Ks.

Interval Tested 3365 3388 Zone Tested LKC-C
 Anchor Length 23 Drill Pipe Run 3375 Mud Wt. 9.0
 Top Packer Depth 3360 Drill Collars Run -0- Vis 45
 Bottom Packer Depth 3365 Wt. Pipe Run -0- WL 6.8
 Total Depth 3388 Chlorides 1,700 ppm System LCM 1#

Blow Description IF: Weak blow, Built to 3 in over 45 mins.

ISI: No blow back over 45 mins.

FF: Weak blow, Built to 5 in. over 45 mins.

FSI: No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>310</u>	<u>water</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 310 BHT 111 Gravity 1150 API RW .1 @ 80 °F Chlorides 69,000 ppm

(A) Initial Hydrostatic 1634 Test 1150 T-On Location 3:30

(B) First Initial Flow 15 Jars T-Started 4:00

(C) First Final Flow 101 Safety Joint T-Open 5:36

(D) Initial Shut-In 1046 Circ Sub T-Pulled 8:30

(E) Second Initial Flow 104 Hourly Standby T-Out 9:57

(F) Second Final Flow 191 Mileage 80x2 = 160x1.55 248 Comments

(G) Final Shut-In 1020 Sampler

(H) Final Hydrostatic 1607 Straddle Ruined Shale Packer

Shale Packer Ruined Packer

Initial Open 45 Extra Packer Extra Copies

Initial Shut-In 45 Extra Recorder Sub Total 0

Final Flow 45 Day Standby Total 1398

Final Shut-In 45 Accessibility MP/DST Disc't

Sub Total 1398

Approved By _____

Our Representative Chuck Hester

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



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 46187

Well Name & No. Kraus #24-1 Test No. 3 Date 9-3-2012
 Company H&C Oil Operating Inc. Elevation 2116 KB 2108 GL
 Address P.O. Box 86 Plainville KS. 67663
 Co. Rep / Geo. Marc Downing Rig American Eagle #2
 Location: Sec. 24 Twp. 8S Rge. 22W Co. Graham State KS

Interval Tested 3384 3427 Zone Tested LKC - D - F
 Anchor Length 43 Drill Pipe Run 3377 Mud Wt. 9.1
 Top Packer Depth 3379 Drill Collars Run -0- Vis 58
 Bottom Packer Depth 3384 Wt. Pipe Run -0- WL 7.6
 Total Depth 3427 Chlorides 2000 ppm System LCM 1

Blow Description IF: Weak blow, surface blow died in 20 mins.
ISF: No blow back
FF: No blow
FSF: No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>mud with oil specs</u>				

Rec Total 10 BHT 105 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1637</u>	<input checked="" type="checkbox"/> Test 1150	T-On Location <u>17:00</u>
(B) First Initial Flow <u>14</u>	<input type="checkbox"/> Jars	T-Started <u>17:48</u>
(C) First Final Flow <u>18</u>	<input type="checkbox"/> Safety Joint	T-Open <u>19:33</u>
(D) Initial Shut-In <u>879</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>21:20</u>
(E) Second Initial Flow <u>19</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>23:16</u>
(F) Second Final Flow <u>24</u>	<input checked="" type="checkbox"/> Mileage <u>80x2=160x</u> 248	Comments _____
(G) Final Shut-In <u>926</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1611</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>30</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>30</u>	<input type="checkbox"/> Day Standby	Total <u>1398</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't _____
	Sub Total <u>1398</u>	

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



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. **46188**

4/10

Well Name & No. Kraus #24-1 Test No. 4 Date 9-4-2012
 Company H&C operating Inc. Elevation 2116 KB 2108 GL
 Address P.O. Box 86 Plainville Ks. 67663
 Co. Rep / Geo. Marc Downing Rig American Eagle
 Location: Sec. 24 Twp. 8S Rge. 22W Co. Graham State Ks

Interval Tested 3452 3512 Zone Tested LKC-H₂T
 Anchor Length 60 Drill Pipe Run 3438 Mud Wt. 9.1
 Top Packer Depth 3447 Drill Collars Run -0- Vis 58
 Bottom Packer Depth 3452 Wt. Pipe Run -0- WL 7.6
 Total Depth 3512 Chlorides 1,900 ppm System LCM 1

Blow Description IFI: Weak blow dead in 8 mins.

ISFI: No blow back

FF: No blow

FSFI: No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>mud</u>				

Rec Total 10 BHT 106 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1721 Test 1150 T-On Location 9:50
 (B) First Initial Flow 14 Jars _____ T-Started 10:00
 (C) First Final Flow 26 Safety Joint _____ T-Open 11:19
 (D) Initial Shut-In 1039 Circ Sub _____ T-Pulled 13:20
 (E) Second Initial Flow 18 Hourly Standby _____ T-Out 14:38
 (F) Second Final Flow 22 Mileage 80x2=160x1.55 ⁴⁹⁶ Comments Loaded tools on
 (G) Final Shut-In 868 Sampler _____ 9-5-12 at 18:13
 (H) Final Hydrostatic 1703 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 800
 Day Standby 1d 3.5hrs Total 2446
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1646

Approved By _____

Our Representative Chuck [Signature]

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