Confidentiality Requested:
☐ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1087722

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 # 8914
Name: H & C Oil Operating Inc.
Address 1: PO BOX 86
Address 2:
City: PLAINVILLE State: KS Zip: 67663 + 0086
Contact Person: Charles Ramsay
Phone: (785) 434-7434
CONTRACTOR: License # 33493
Name: American Eagle Drilling LLC
Wellsite Geologist: Marc Downing
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 #:

07/02/2012	07/10/2012	07/11/2012
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-065-23839-00-00
Spot Description:
SE - NW - SW - NW Sec. 1 Twp. 10 S. R. 23 ☐ East ☑ West
1800 Feet from ☑ North / ☐ South Line of Section
500 Feet from ☐ East / ☑ West Line of Section

Footages Calculated from Nearest Outside Section Corner:
☐ NE ☑ NW ☐ SE ☐ SW

GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Graham
Lease Name: Griffith Well #: 1-1
Field Name:
Producing Formation: none
Elevation: Ground: 2427 Kelly Bushing: 2430
Total Vertical Depth: 4203 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 224 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: 12800 ppm Fluid volume: 60 bbls
Dewatering method used: Evaporated

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: 07/19/2012
☑ **Confidential Release Date:** 07/19/2014
☑ **Wireline Log Received**
☑ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☐ I ☑ II ☐ III **Approved by:** NAOMI JAMES **Date:** 07/24/2012

[redacted] 1087722

Operator Name: H & C Oil Operating Inc. Lease Name: Griffith Well #: 1-1

Sec. 1 Twp. 10 S. R. 23 ☐ East ☑ West County: Graham

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 ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

Dual induction, microresistivity, Dual compensated porosity

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name Attached Top Attached Datum Attached

CASING RECORD ☑ New ☐ 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
surface	12.25	8.625	23	224	common	140	3%cc, 2% gel

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate ___ Protect Casing ___ Plug Back TD ___ 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 *(Amount and Kind of Material Used)*	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: ☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION: ☐ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)* ☐ Other *(Specify)* _____

PRODUCTION INTERVAL:

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	H & C Oil Operating Inc.
Well Name	Griffith 1-1
Doc ID	1087722

Tops

Name	Top	Datum
Top anhydrite	1987	+443
Base anhydrite	2023	+407
Topeka	3457	-1027
Heebner	3675	-1245
Toronto	3695	-1265
LKC	3711	-1281
BKC	3932	-1502
Marmaton	4020	-1590
Conglomerate Sand	4118	-1688

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

Kansas
Corporation Commission

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

July 17, 2012

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

Re: ACO1
API 15-065-23839-00-00
Griffith 1-1
NW/4 Sec.01-10S-23W
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

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 Griffith #1-1

FIELD Wildcat

LOCATION 1800' FNL + 500' FWL

SEC. 1 TWP. 10s RGE. 23w

COUNTY Graham

STATE Kansas

10s 23w

1

PRODUCTION D+A

ELEVATION KB 2430
DF
GL 2425

Drilling Measured From: KB

Samples Saved From 3700 To: TD
Drilling Time From 3350 To: TD
Samples Examined From: 3700 To: TD
Geological Supervision From 3350 To Total Depth
Wellsite Geologist A. Downing, M. Downing
Electrical Surveys Log-Tech
CNL/CDL
DIL
MEL

OPERATOR H+C Oil Operating, Inc.
CONTRACTOR American Eagle, Rig #3
COMM: 7-2-12 COMP: 7-10-12

CASING RECORD

SURF: 8 5/8" @ 225' PROD: None
TOTAL DEPTH DRILLERS: 4203'
TOTAL DEPTH LOG 4172'

FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE TOP	ELECTRIC LOG TOP	SUB-SEA DATUM	STRUCTURAL POSITION
Top Anhydrite	1984	1987	+443	FL
Base Anhydrite	2024	2023	+407	FL
Topeka	3486	3457	-1027	-5
HEEBNER	3703	3675	-1245	-6
Toronto	3723	3695	-1245	-4
LKC	3740	3711	-1281	-9
BKC	3962	3932	-1502	-1
Marmaton	4056	4020	-1590	+2
Conglomerate Sand	4150	4118	-1688	-3

REFERENCE WELL FOR STRUCTURE H+C Oil Operating, Inc.
Griffith #2-1 1980' FSL + 990' FEL Sec. 2-10s-23w

DAILY PENETRATION		BIT RECORD						
DATE	DEPTH	NO	SIZE	MAKE	TYPE	DEPTH OUT	FEET	HOURS

FORMATION	INTERVAL	DESCRIPTION OF SHOW	LOG ANALYSIS B	LOG ANALYSIS S W

7515

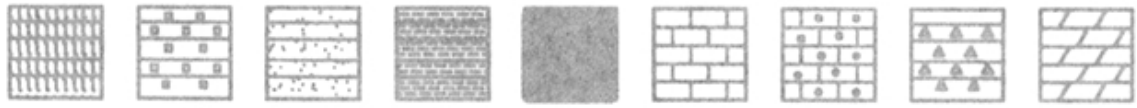
DRILL STEM TESTS

No.	Interval	IFP/Time	ISIP/Time	FFP/Time	FSIP/Time	HYD-PRM	RECOVERY

REMARKS AND RECOMMENDATIONS Due to structural position, DST recovery, + log evaluation, it was decided to plug + abandon the well.

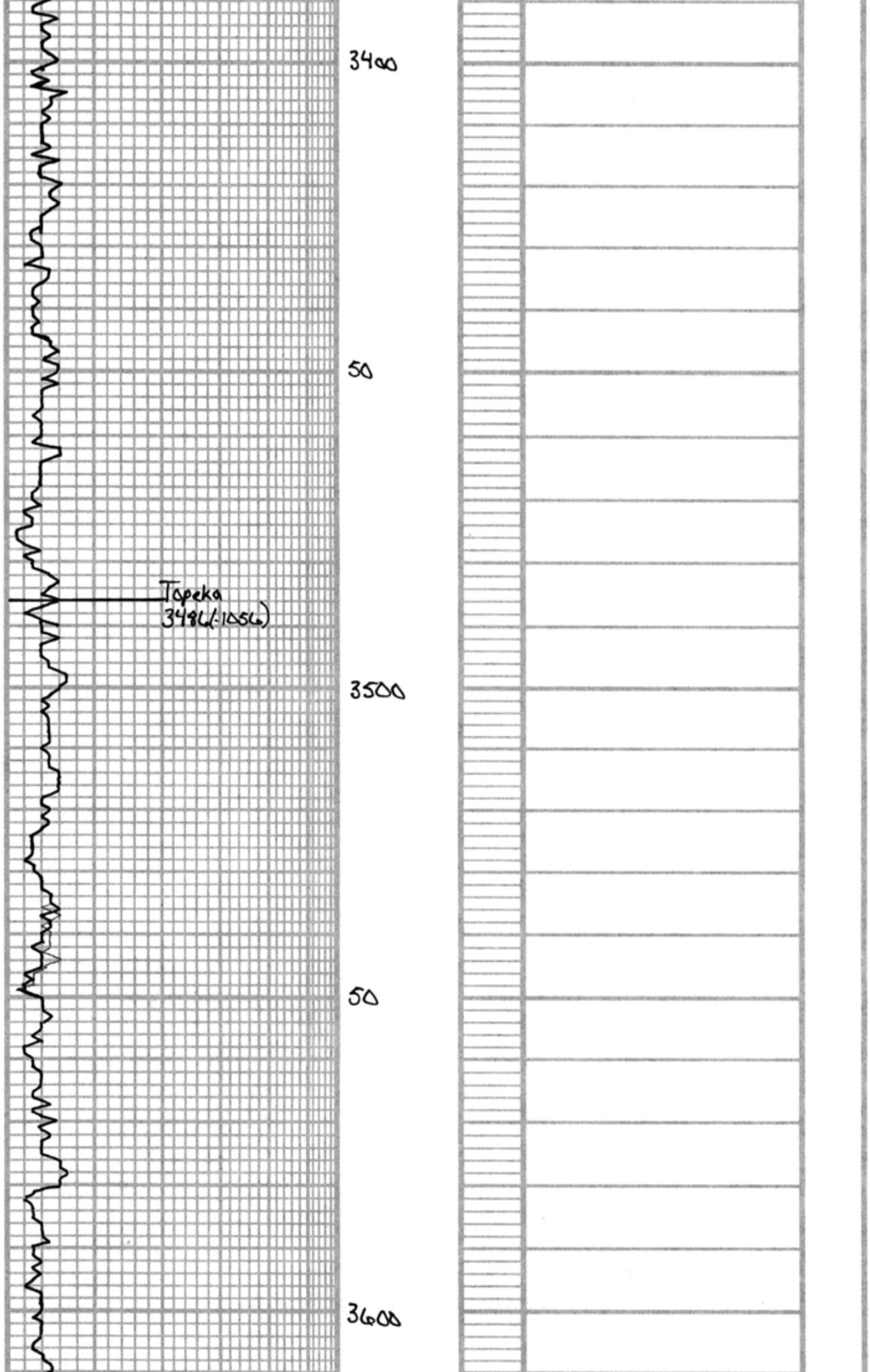
LOG 7710

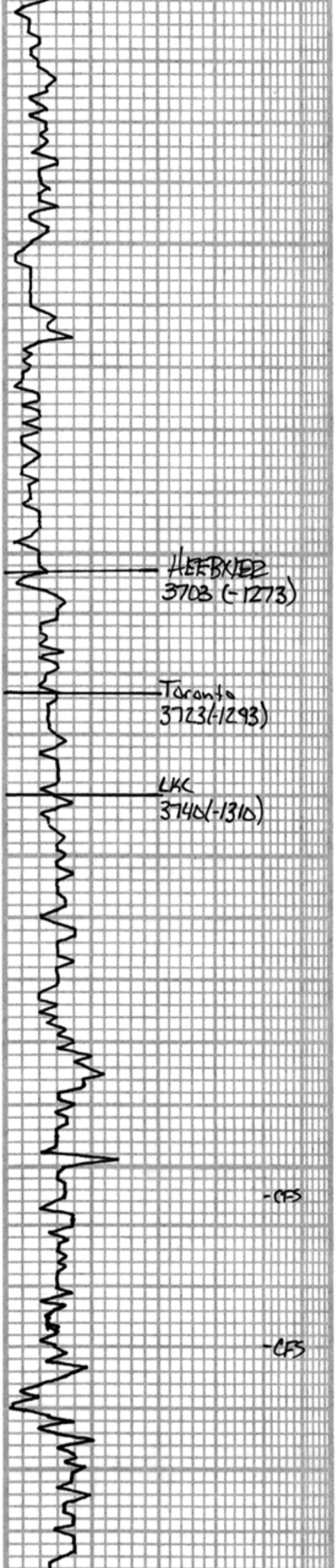
LEGEND



Anhydrite Salt Sandstone Shale Carb sh Limestone Ool.Lime Chert Dolomite

DRILLING TIME IN MINUTES PER FOOT Rate of Penetration Decreases 5" 10" 15" 20" 25"	DEPTH	LITHOLOGY	SAMPLE DESCRIPTIONS	OIL SHOWS	REMARKS
	3350				


3400
50
Topeka
3486(-1056)
3500
50
3600



50

3700

Sh: Black - carb

Ls: wht vfxn v.dse

Sh: gm - green

Ls: Tan fxn v.pol + fos w/gd ool - ooc ø NSFO No odor Tan chert in Bcsl

Sh: gm

Ls: Tan fxn, w/scatt intxn ø v.sli SFO 1-2pcs No odor v. spt stn

50

Ls: wht f-vfxn all v.dse w/ much gm ool ∆chert.

Ls: Tan - lt Tan fxn scatt intxn ø, w/ much gilsonite (Tar) NSFO - No odor

Ls: Tan - off wht all vfxn w/ 1-2pcs gilsonite stn NSFO No od - much Red - orange - Tan ∆chert

3800

DST #1

Sh: v. dark gm - Black

Ls: wht fxn, w/scatt ooc ø v.spt. stn NSFO

Ls: wht totally ool w/ good ool ø gd SFO - w/ tarnt - fr. odor.

Sh: gm - Brown

Ls: wht f-subxn, w/scatt intxn ø. No show - No odor Very chky → subxn

50

Ls: wht fxn, dse w/ some fosline → wht Lt. Tan ∆chert all Ns. - v.dse

Sh: v. dark gm - Black - carb

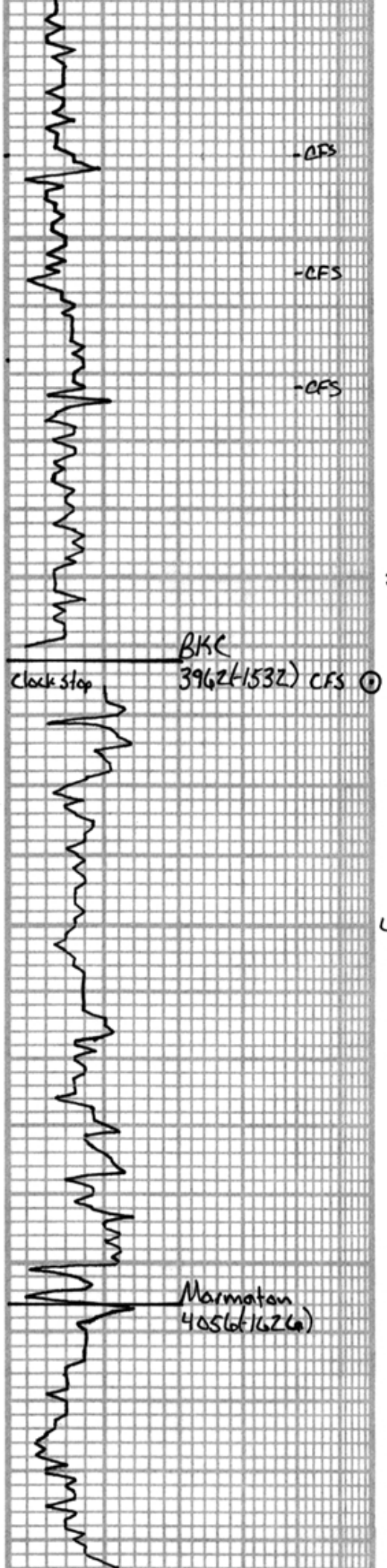
Vis: 47 Wt: 9.2

DST #1
3799 - 3830
30-30-30-30
I.F.- 3½" blow
F.F.- 2" blow
IFP: 14-38
FFP: 39-54
SIP: 449-440
HP: 1952-1919
Rec:
10' SOCMW 2% o, 68% w
60' MW 98% w
BHT: 111° Chlor: 27K

Strap: 31.46' long
* Geolograph not adjusted

Vis: 50 Wt: 9.1

DST #2
3858 - 3922
45-45-45-45
I.F.- 10" blow



3900

50

4000

50

DST #2

LS: wht fxn slt. ool + foss w/poor intervxln & poss frac 3-4 pcs w/lite stn NSFO - No odor mostly all dSE + foss -

Sh: gru - Brown

LS: wht fxn mostly dSE w/ scatt stn poor intxln NSFO No.

LS: Tan fxn gd ool + intxln w/ fr. SFO, faint od. gcl Lt. Brn stn - Becoming dSE - Δ chert

DST #3

Sh: gry

LS: wht - tan, fn xln, sml foss. Fr intxln tpx, sltly tite. gd sat stn w/ Fr SFO, Fr-gd Od.

Sh: Black Carb

LS: tan-wht, md. crs xln w/ scat lg foss. Fr intxln tvugs, poss frac. Fr-gd sat stn w/ Fr-gd SFO, Fr-gd Od. Free oil on cup.

Sh: gry w/ scat brn

LS: tan, md xln, prx. scat blk stn, No Od.

Sh: gry w/ brn

LS: wht-tan, fn-md xln, prx + dns. All NS.

Sh: brn-red, washes red.

LS: wht, md. crs xln, prx

Sh: brn-red.

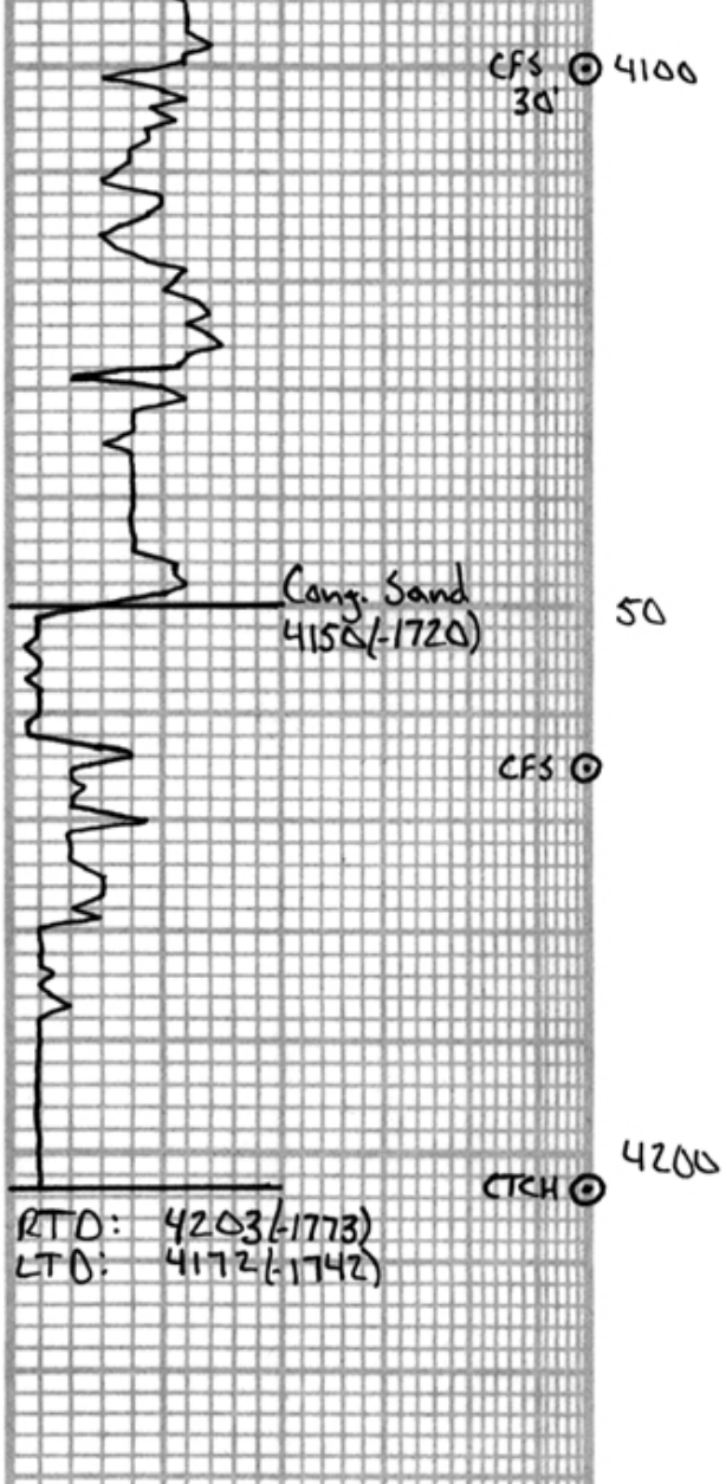
LS: tan-wht, fn-md xln, dns.

LS: wht, fn-md xln, sltly suc. 1-2 pcs w/ lt brn stn + sptd SFO in pr vugs, No Od.

LS: wht, fn xln, suc. Fr int xln w/ fr amt tan, wht, + yell cht. Rx sub xln in prt, All NS + No Od. Tang dns w/ prx.

F.F.- 5" blow
IFP: 30-42
FFP: 41-52
SIP: 529-447
HP: 1917-1920
Rec:
10' FO
50' HOCM 45% o
BHT: 110° G= 36

DST # 3
3918 - 3965
I.F.- weak surf
F.F.- Dead
30 - 30 - 30 - 30
IFP: 14-17
FFP: 17-14
SIP: 435 - 113
HP: 1945 - 1927
Rec:
6' mud w/ oil spots.
BHT: 105°



Sh: gry

Sh: gry wl Fr amt wht. tom LS stringers. Scat tom + org cht△.

Sh: brn-red, washes red.

Mostly cht△, scat SS clast, crs grain, pr sort, sub Ang. gd IGX, cht△ wl gd vugX. All wl v hvy blk sat stn, Asph. 1-2 rx wl pr SFO, NO Od.

Sh: brn-red, washes red

Scatt SS clast fn-md grain, same well sort, mostly pr sort, Ang. Tarry Stain, rare SFO, No Od. Abnt red + org, yel cht△. hvy stn. Trng All wht + yel cht△, Shp, fresh. Totally barren.

Nelson Deering

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025 Home Office P.O. Box 32 Russell, KS 67665 No. 899

Cell 785-324-1041

	Sec.	Twp.	Range	County	State	On Location	Finish
Date 7-11-12	1	10	23	GRAHAM	KANSAS		4:00 AM

Lease GRIFFITH Well No. # 1-1 Location WAKEENEY N TO REDLINE · 1S - E-INTO

Contractor AMERICAN EAGLE # 3

Type Job R. PLUG

Hole Size 7 7/8"

Csg. 4 1/2"

Tbg. Size

Tool

Cement Left in Csg.

Meas Line

T.D.

Depth

Depth

Depth

Shoe Joint

Displace

Owner H & C OIL

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 To H & C OIL

Street PO Box 86

City PLAINVILLE State KS, 67663

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

Cement Amount Ordered 205 60/40 POZ - 4% GEL - 1/4 LB FLO

EQUIPMENT

Pumptrk # 5 No. Cementer Helper BRETT

Bulktrk # 8 No. Driver Driver CODY

Bulktrk P/U No. Driver Driver CISCO

JOB SERVICES & REMARKS

Remarks:

Rat Hole

Mouse Hole

Centralizers

Baskets

D/V or Port Collar

1ST @ 2000'	25 SKS
2ND @ 1,150'	100 SKS
3RD @ 275'	40 SKS
4TH @ 40'	10 SKS
RAT HOLE	30 SKS
	205 SKS

THANK YOU!

x Signature Brad Used Parker

Common	123
Poz. Mix	82
Gel.	7
Calcium	
Hulls	
Salt	
Flowseal	50 #
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	212
Mileage	

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
	1 - 8 5/8" WOODEN PLUG
Pumptrk Charge	plug
Mileage	44
Tax	
Discount	
Total Charge	

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025 Home Office P.O. Box 32 Russell, KS 67665 No. 890

Cell 785-324-1041

	Sec.	Twp.	Range	County	State	On Location	Finish
Date 7-3-12	1	10	23	GRAHAM	KANSAS		12:45 AM

Lease GRIFFITH Well No. #1-1 Location WAKEENEY, N TO HWY 1E-1½S-E INTO

Contractor AMERICAN EAGLE #2

Type Job SURFACE

Hole Size 12¼" T.D. 226'

Csg. 8⅝" Depth 226'

Tbg. Size Depth

Tool Depth

Cement Left in Csg. Shoe Joint 15'

Meas Line Displace 13 BLS

Owner H & C OIL

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 To H & C OIL

Street P.O. Box 86

City PLAINVILLE State KS, 67663

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

Cement Amount Ordered 150 com 3%cc 2%gel

EQUIPMENT

Pumptrk #15 No. Cementer/Helper NICK

Bulktrk #13 No. Driver/Driver LONNIE

Bulktrk PU No. Driver/Driver CISCO

JOB SERVICES & REMARKS

Remarks:

Rat Hole

Mouse Hole

Centralizers

Baskets

D/V or Port Collar

CEMENT DID CIRCULATE!

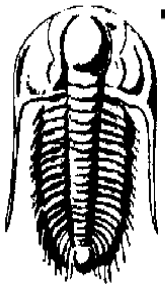
THANK YOU!

X Signature Brad Butler

Common	150
Poz. Mix	
Gel.	3
Calcium	5
Hulls	
Salt	
Flowseal	
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	158
Mileage	

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
Pumptrk Charge	Surface
Mileage	44
Tax	
Discount	
Total Charge	



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

PO Box 86
Plainville, KS 67663

ATTN: Al Downing

Griffith #1-1

1-10s-23w Graham,KS

Start Date: 2012.07.07 @ 21:45:41
End Date: 2012.07.08 @ 04:52:11
Job Ticket #: 47825 DST #: 1

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

Printed: 2012.07.18 @ 15:42:45

DRILL STEM TEST REPORT

H&C Oil Operating, Inc.

PO Box 86
Plainville, KS 67663

ATTN: Al Dow ning

1-10s-23w Graham,KS

Griffith #1-1

Job Ticket: 47825 **DST#: 1**

Test Start: 2012.07.07 @ 21:45:41

GENERAL INFORMATION:

Formation: **E-F**
Deviated: No Whipstock: 0.00 ft (KB)
Time Tool Opened: 00:26:56
Time Test Ended: 04:52:11

Test Type: Conventional Bottom Hole (Initial)
Tester: Jason McLemore
Unit No: 54

Interval: 3799.00 ft (KB) To 3830.00 ft (KB) (TVD)
Total Depth: 3830.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

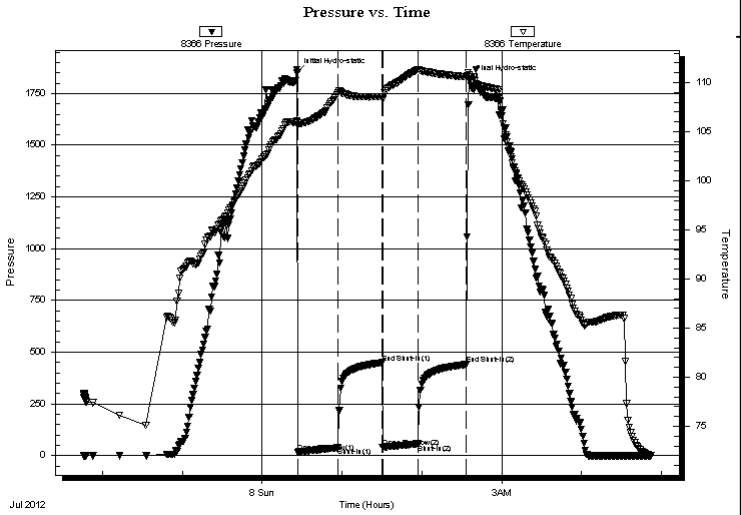
Reference Elevations: 2430.00 ft (KB)
2425.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8366 **Inside**

Press@RunDepth: 56.31 psig @ 3802.00 ft (KB)
Start Date: 2012.07.07 End Date: 2012.07.08
Start Time: 21:45:43 End Time: 04:52:11

Capacity: 8000.00 psig
Last Calib.: 2012.07.08
Time On Btm: 2012.07.08 @ 00:26:11
Time Off Btm: 2012.07.08 @ 02:35:26

TEST COMMENT: IFP-Weak Blow , Built to 3-1/2"
ISI-Dead
FFP-Weak Blow , Built to 2"
FSI-Dead



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1851.56	106.09	Initial Hydro-static
1	16.07	105.66	Open To Flow (1)
31	37.61	108.98	Shut-In(1)
64	448.99	108.55	End Shut-In(1)
65	38.67	108.30	Open To Flow (2)
91	56.31	111.29	Shut-In(2)
127	439.71	110.58	End Shut-In(2)
130	1818.65	110.76	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	Muddy Water-80%W-20%M	0.84
10.00	VSOCMW-2%O-63%W-35%M	0.14

Gas Rates

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

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

H&C Oil Operating, Inc.

PO Box 86
Plainville, KS 67663

ATTN: Al Dow ning

1-10s-23w Graham,KS

Griffith #1-1

Job Ticket: 47825 **DST#: 1**

Test Start: 2012.07.07 @ 21:45:41

GENERAL INFORMATION:

Formation: **E-F**
Deviated: No Whipstock: 0.00 ft (KB)
Time Tool Opened: 00:26:56
Time Test Ended: 04:52:11

Test Type: Conventional Bottom Hole (Initial)
Tester: Jason McLemore
Unit No: 54

Interval: 3799.00 ft (KB) To 3830.00 ft (KB) (TVD)
Total Depth: 3830.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

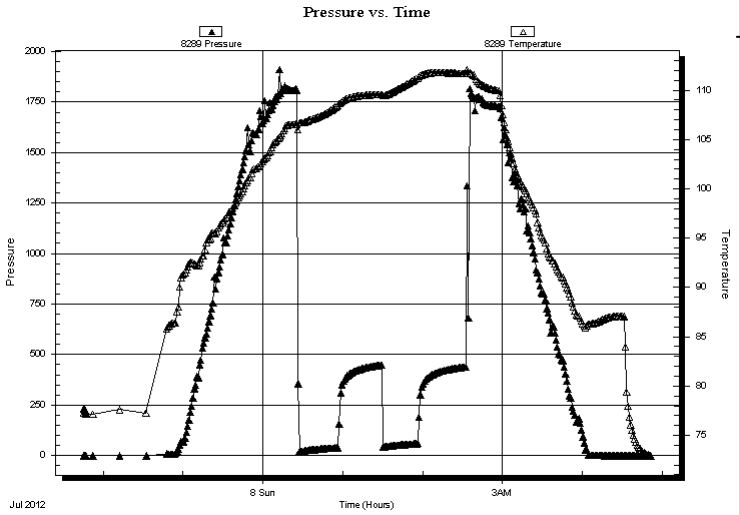
Reference Elevations: 2430.00 ft (KB)
2425.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8289 **Outside**

Press@RunDepth: psig @ 3802.00 ft (KB)
Start Date: 2012.07.07 End Date: 2012.07.08
Start Time: 21:45:13 End Time: 04:51:56

Capacity: 8000.00 psig
Last Calib.: 2012.07.08
Time On Btm:
Time Off Btm:

TEST COMMENT: IFP-Weak Blow , Built to 3-1/2"
ISI-Dead
FFP-Weak Blow , Built to 2"
FSI-Dead



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	Muddy Water-80%W-20%M	0.84
10.00	VSOCMW-2%O-63%W-35%M	0.14

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

H&C Oil Operating, Inc.

PO Box 86
Plainville, KS 67663

ATTN: Al Downing

1-10s-23w Graham,KS

Griffith #1-1

Job Ticket: 47825 **DST#: 1**

Test Start: 2012.07.07 @ 21:45:41

Tool Information

Drill Pipe:	Length:	3804.00 ft	Diameter:	3.80 inches	Volume:	53.36 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:		60000.00 lb
					Total Volume:	53.36 bbl	Tool Chased		2.00 ft
Drill Pipe Above KB:		26.00 ft					String Weight:	Initial	45000.00 lb
Depth to Top Packer:		3799.00 ft						Final	45000.00 lb
Depth to Bottom Packer:		ft							
Interval between Packers:		31.00 ft							
Tool Length:		52.00 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			3779.00		
Shut In Tool	5.00			3784.00		
Hydraulic tool	5.00			3789.00		
Packer	5.00			3794.00	21.00	Bottom Of Top Packer
Packer	5.00			3799.00		
Stubb	1.00			3800.00		
Perforations	2.00			3802.00		
Recorder	0.00	8366	Inside	3802.00		
Recorder	0.00	8289	Outside	3802.00		
Perforations	25.00			3827.00		
Bullnose	3.00			3830.00	31.00	Bottom Packers & Anchor
Total Tool Length:	**52.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

H&C Oil Operating, Inc.

PO Box 86
Plainville, KS 67663

ATTN: Al Downing

1-10s-23w Graham,KS

Griffith #1-1

Job Ticket: 47825 **DST#: 1**

Test Start: 2012.07.07 @ 21:45:41

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:	27000 ppm
Viscosity:	47.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.18 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1300.00 ppm				
Filter Cake:	inches				

Recovery Information

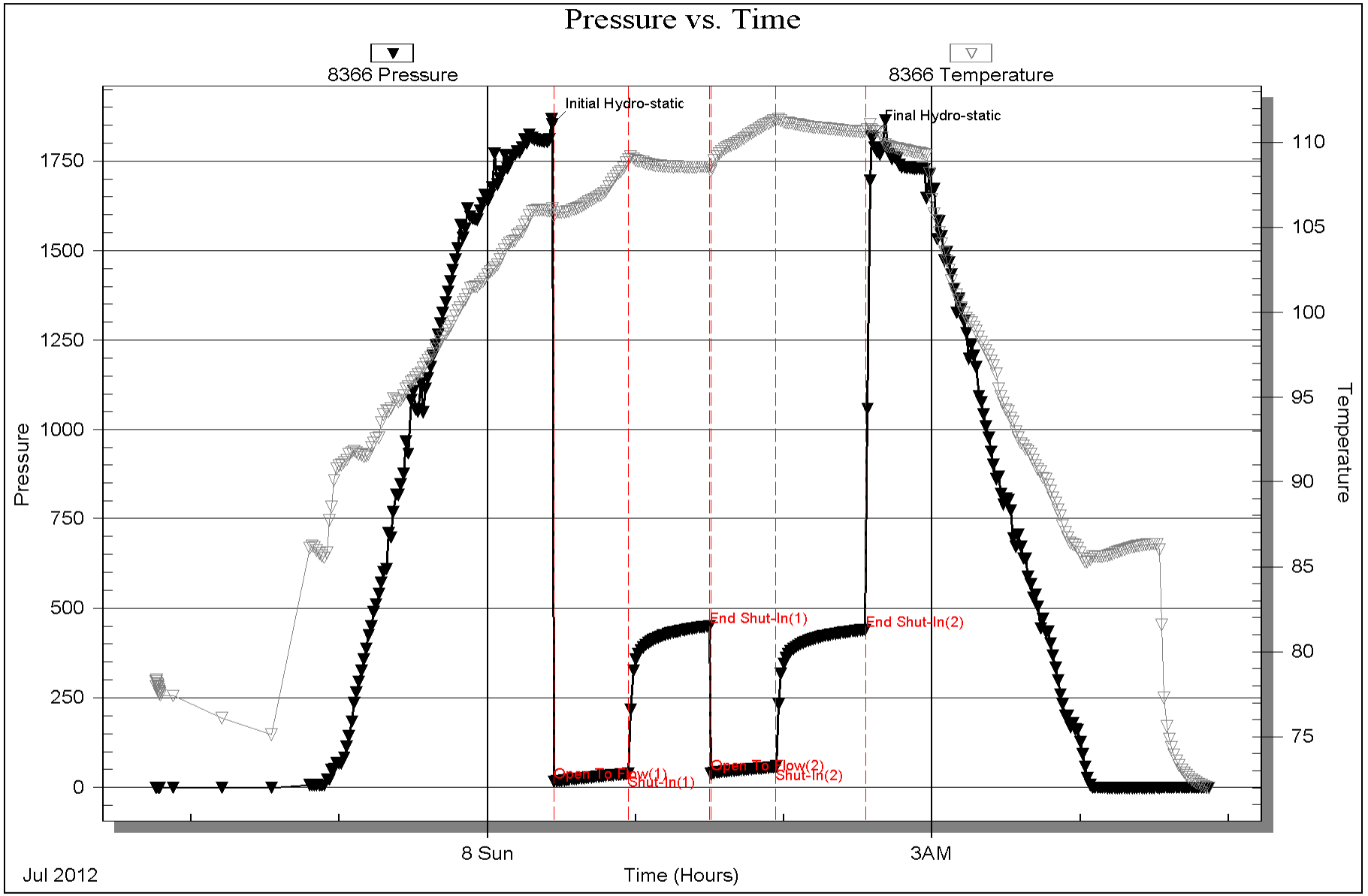
Recovery Table

Length ft	Description	Volume bbl
60.00	Muddy Water-80%W-20%M	0.842
10.00	VSOCMW-2%O-63%W-35%M	0.140

Total Length: 70.00 ft Total Volume: 0.982 bbl

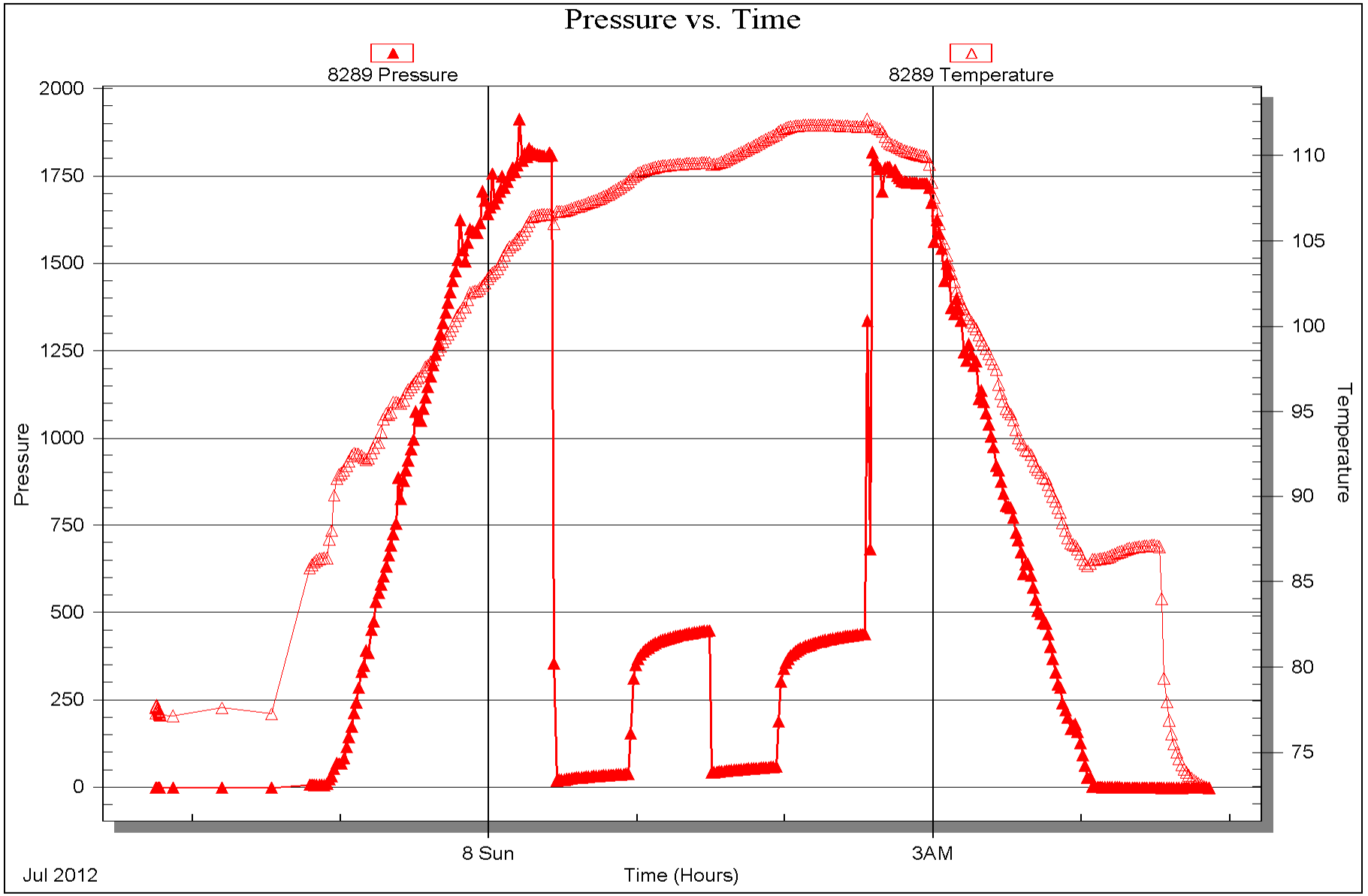
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8366 **Inside** H&C Oil Operating, Inc. Griffith #1-1 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 47825 Printed: 2012.07.18 @ 15:42:49

Serial #: 8289 **Outside** H&C Oil Operating, Inc. Griffith #1-1 DST Test Number: 1



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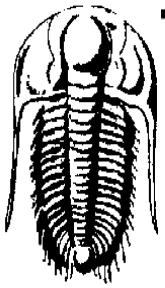


TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

PO Box 86
Plainville, KS 67663

ATTN: Al Downing

Griffith #1-1

1-10s-23w Graham,KS

Start Date: 2012.07.08 @ 18:30:58
End Date: 2012.07.09 @ 01:35:13
Job Ticket #: 47826 DST #: 2

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

Printed: 2012.07.18 @ 15:41:51

DRILL STEM TEST REPORT

H&C Oil Operating, Inc.

PO Box 86
Plainville, KS 67663

ATTN: Al Dow ning

1-10s-23w Graham,KS

Griffith #1-1

Job Ticket: 47826 **DST#: 2**

Test Start: 2012.07.08 @ 18:30:58

GENERAL INFORMATION:

Formation: **H-I-J**
Deviated: No Whipstock: 0.00 ft (KB)
Time Tool Opened: 20:26:13
Time Test Ended: 01:35:13

Test Type: Conventional Bottom Hole (Reset)
Tester: Jason McLemore
Unit No: 54

Interval: 3858.00 ft (KB) To 3922.00 ft (KB) (TVD)
Total Depth: 3922.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

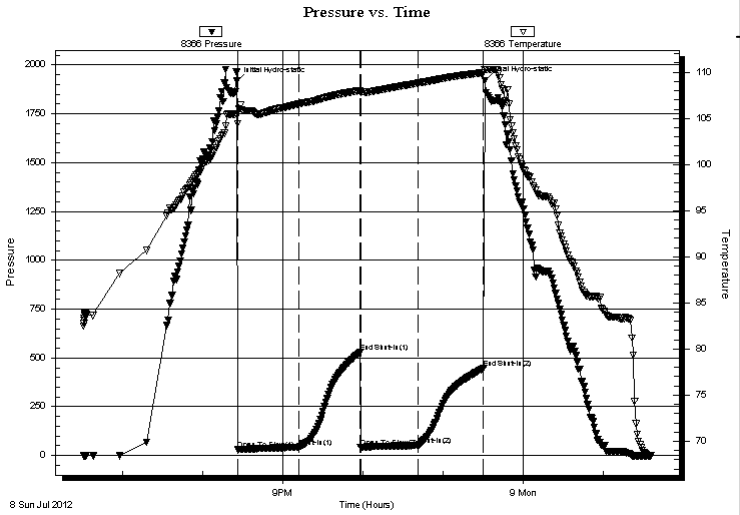
Reference Elevations: 2430.00 ft (KB)
2425.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8366 **Inside**

Press@RunDepth: 51.90 psig @ 3894.00 ft (KB)
Start Date: 2012.07.08 End Date: 2012.07.09
Start Time: 18:31:00 End Time: 01:35:13

Capacity: 8000.00 psig
Last Calib.: 2012.07.09
Time On Btm: 2012.07.08 @ 20:25:28
Time Off Btm: 2012.07.08 @ 23:31:13

TEST COMMENT: IFP-Fair Blow , Built to 10"
ISI-Dead
FFP-Weak Blow , Built to 5"
FSI-Dead



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1917.31	105.44	Initial Hydro-static
1	30.40	104.45	Open To Flow (1)
47	42.16	106.58	Shut-In(1)
93	528.26	108.02	End Shut-In(1)
93	41.41	107.85	Open To Flow (2)
136	51.90	108.82	Shut-In(2)
185	447.09	109.94	End Shut-In(2)
186	1919.56	110.26	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Free Oil	0.14
50.00	HOCM-45%O-55%M	0.70

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

H&C Oil Operating, Inc.

PO Box 86
Plainville, KS 67663

ATTN: Al Dow ning

1-10s-23w Graham,KS

Griffith #1-1

Job Ticket: 47826 **DST#: 2**

Test Start: 2012.07.08 @ 18:30:58

GENERAL INFORMATION:

Formation: **H-I-J**
Deviated: No Whipstock: 0.00 ft (KB)
Time Tool Opened: 20:26:13
Time Test Ended: 01:35:13

Test Type: Conventional Bottom Hole (Reset)
Tester: Jason McLemore
Unit No: 54

Interval: 3858.00 ft (KB) To 3922.00 ft (KB) (TVD)
Total Depth: 3922.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

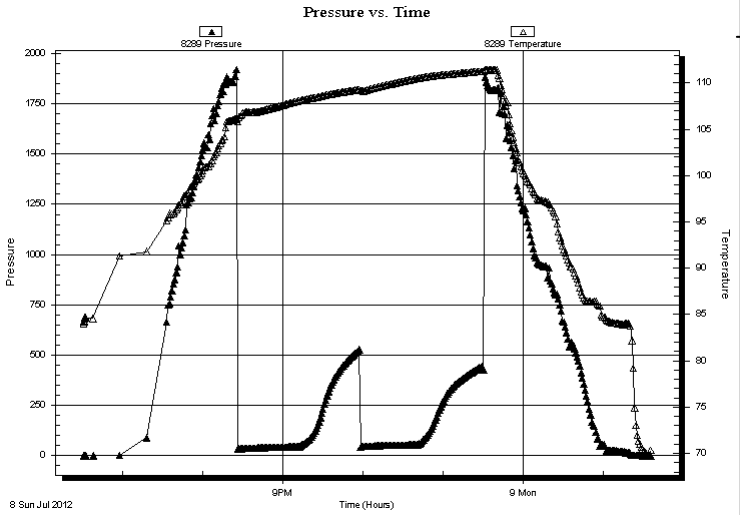
Reference Elevations: 2430.00 ft (KB)
2425.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8289 **Outside**

Press@RunDepth: psig @ 3894.00 ft (KB)
Start Date: 2012.07.08 End Date: 2012.07.09
Start Time: 18:31:10 End Time: 01:35:38

Capacity: 8000.00 psig
Last Calib.: 2012.07.09
Time On Btm:
Time Off Btm:

TEST COMMENT: IFP-Fair Blow , Built to 10"
ISI-Dead
FFP-Weak Blow , Built to 5"
FSI-Dead



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Free Oil	0.14
50.00	HOCM-45%O-55%M	0.70

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

H&C Oil Operating, Inc.

PO Box 86
Plainville, KS 67663

ATTN: Al Downing

1-10s-23w Graham,KS

Griffith #1-1

Job Ticket: 47826 **DST#: 2**

Test Start: 2012.07.08 @ 18:30:58

Tool Information

Drill Pipe:	Length:	3868.00 ft	Diameter:	3.80 inches	Volume:	54.26 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.70 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	
					Total Volume:	54.26 bbl	

Drill Pipe Above KB:	31.00 ft
Depth to Top Packer:	3858.00 ft
Depth to Bottom Packer:	ft
Interval between Packers:	64.00 ft
Tool Length:	85.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:	2000.00 lb
Weight set on Packer:	25000.00 lb
Weight to Pull Loose:	50000.00 lb
Tool Chased	0.00 ft
String Weight: Initial	47000.00 lb
Final	47000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3838.00		
Shut In Tool	5.00			3843.00		
Hydraulic tool	5.00			3848.00		
Packer	5.00			3853.00	21.00	Bottom Of Top Packer
Packer	5.00			3858.00		
Stubb	1.00			3859.00		
Perforations	2.00			3861.00		
Change Over Sub	1.00			3862.00		
Blank Spacing	31.00			3893.00		
Change Over Sub	1.00			3894.00		
Recorder	0.00	8366	Inside	3894.00		
Recorder	0.00	8289	Outside	3894.00		
Perforations	25.00			3919.00		
Bullnose	3.00			3922.00	64.00	Bottom Packers & Anchor
Total Tool Length:	**85.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

H&C Oil Operating, Inc.

PO Box 86
Plainville, KS 67663

ATTN: Al Downing

1-10s-23w Graham,KS

Griffith #1-1

Job Ticket: 47826 **DST#: 2**

Test Start: 2012.07.08 @ 18:30:58

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	36 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	50.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.78 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1500.00 ppm				
Filter Cake:	inches				

Recovery Information

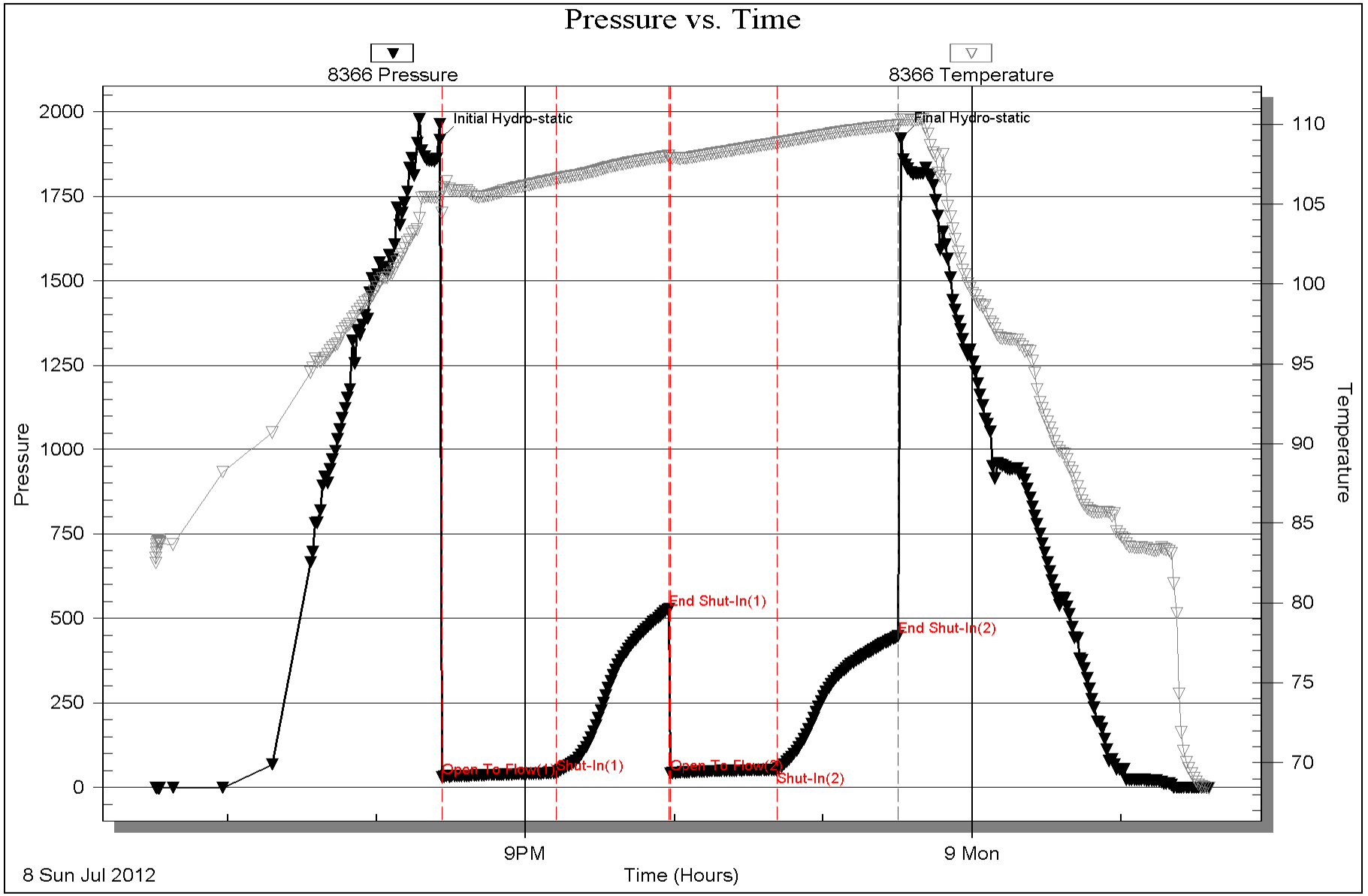
Recovery Table

Length ft	Description	Volume bbl
10.00	Free Oil	0.140
50.00	HOCM-45%O-55%M	0.701

Total Length: 60.00 ft Total Volume: 0.841 bbl

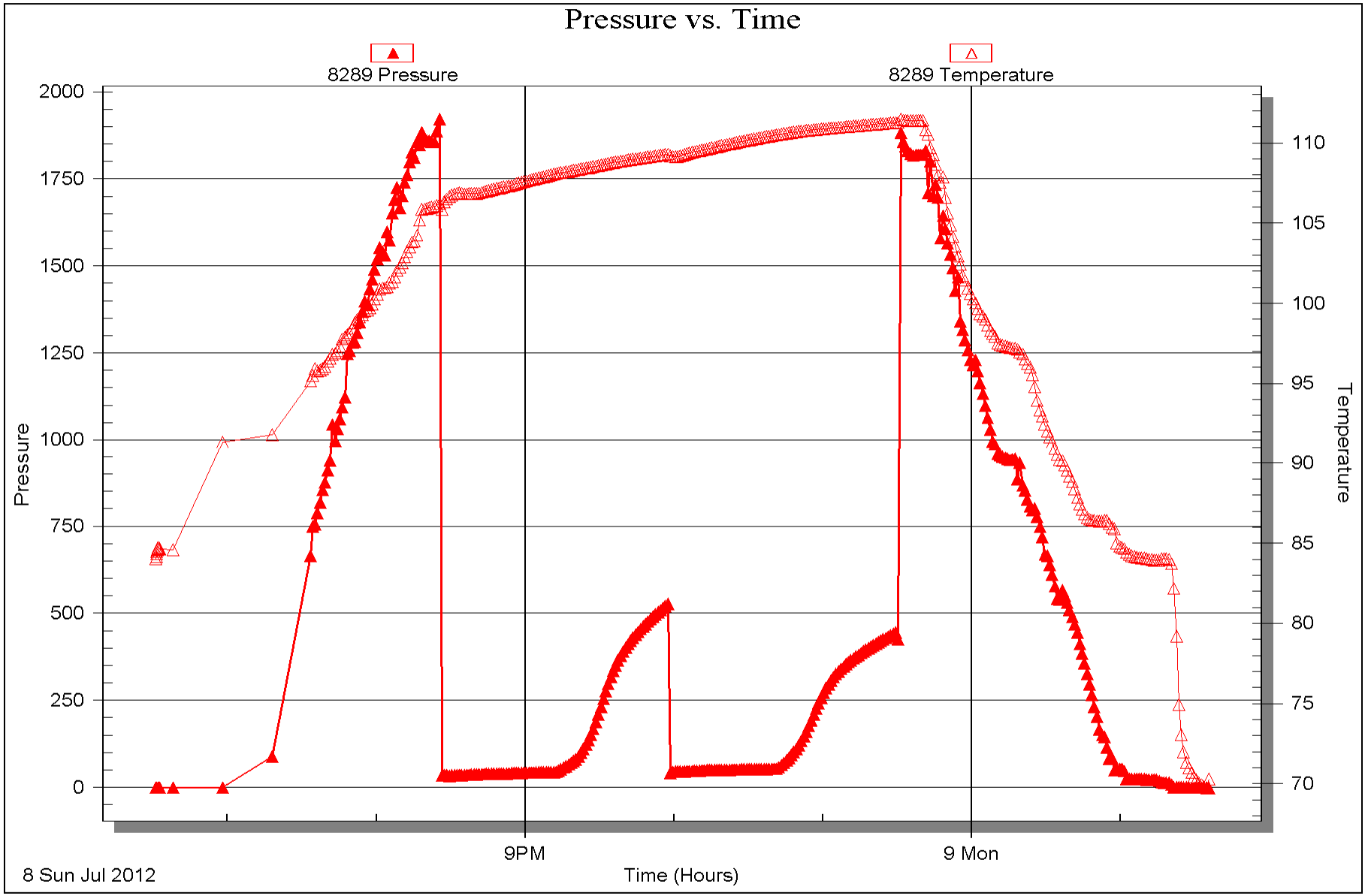
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8366 **Inside** H&C Oil Operating, Inc. Griffith #1-1 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 47826 Printed: 2012.07.18 @ 15:41:53

Serial #: 8289 **Outside** H&C Oil Operating, Inc. Griffith #1-1 DST Test Number: 2



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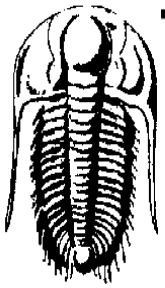


TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

PO Box 86
Plainville, KS 67663

ATTN: Al Downing

Griffith #1-1

1-10s-23w Graham,KS

Start Date: 2012.07.09 @ 10:00:15
End Date: 2012.07.09 @ 16:04:30
Job Ticket #: 47827 DST #: 3

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

Printed: 2012.07.18 @ 15:41:04

DRILL STEM TEST REPORT

H&C Oil Operating, Inc.

PO Box 86
Plainville, KS 67663

ATTN: Al Dow ning

1-10s-23w Graham,KS

Griffith #1-1

Job Ticket: 47827 **DST#: 3**

Test Start: 2012.07.09 @ 10:00:15

GENERAL INFORMATION:

Formation: **K-L**
Deviated: No Whipstock: 0.00 ft (KB)
Time Tool Opened: 12:19:00
Time Test Ended: 16:04:30

Test Type: Conventional Bottom Hole (Reset)
Tester: Jason McLemore
Unit No: 54

Interval: 3918.00 ft (KB) To 3965.00 ft (KB) (TVD)
Total Depth: 3965.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

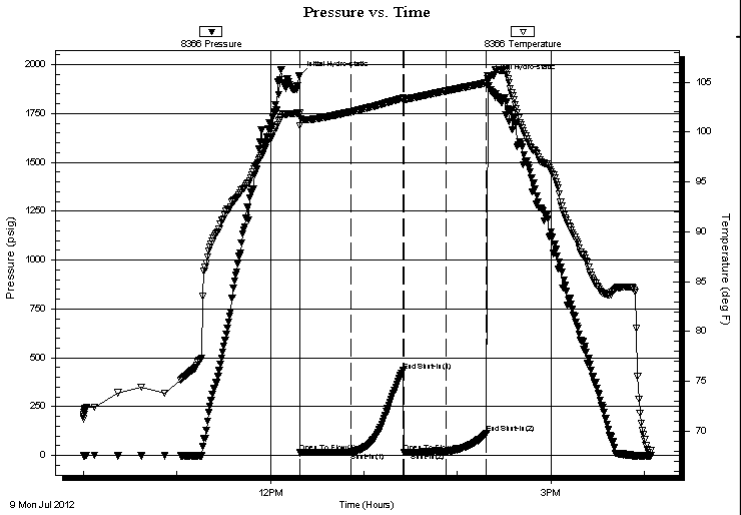
Reference Elevations: 2430.00 ft (KB)
2425.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8366 **Inside**

Press@RunDepth: 17.66 psig @ 3957.00 ft (KB)
Start Date: 2012.07.09 End Date: 2012.07.09
Start Time: 10:00:17 End Time: 16:04:30

Capacity: 8000.00 psig
Last Calib.: 2012.07.09
Time On Btm: 2012.07.09 @ 12:18:45
Time Off Btm: 2012.07.09 @ 14:19:30

TEST COMMENT: IFP-Weak Surface Blow
ISI-Dead
FFP-Dead
FSI-Dead



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1944.64	101.88	Initial Hydro-static
1	14.33	100.63	Open To Flow (1)
34	17.26	102.03	Shut-In(1)
67	434.71	103.39	End Shut-In(1)
67	17.29	103.24	Open To Flow (2)
94	17.66	104.10	Shut-In(2)
120	113.41	104.93	End Shut-In(2)
121	1927.15	105.61	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
6.00	Mud With Oil Specks	0.08

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

H&C Oil Operating, Inc.

PO Box 86
Plainville, KS 67663

ATTN: Al Dow ning

1-10s-23w Graham,KS

Griffith #1-1

Job Ticket: 47827 **DST#: 3**

Test Start: 2012.07.09 @ 10:00:15

GENERAL INFORMATION:

Formation: **K-L**
Deviated: No Whipstock: 0.00 ft (KB)
Time Tool Opened: 12:19:00
Time Test Ended: 16:04:30

Test Type: Conventional Bottom Hole (Reset)
Tester: Jason McLemore
Unit No: 54

Interval: 3918.00 ft (KB) To 3965.00 ft (KB) (TVD)
Total Depth: 3965.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

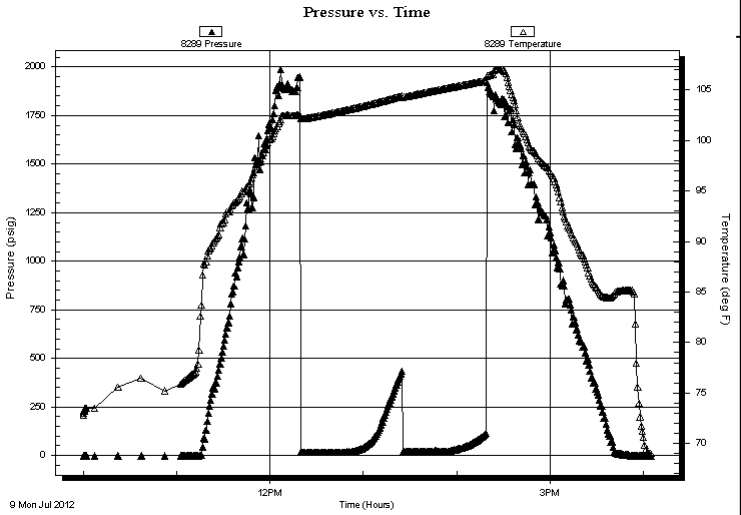
Reference Elevations: 2430.00 ft (KB)
2425.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8289 **Outside**

Press@RunDepth: psig @ 3957.00 ft (KB)
Start Date: 2012.07.09 End Date: 2012.07.09
Start Time: 10:00:10 End Time: 16:04:53

Capacity: 8000.00 psig
Last Calib.: 2012.07.09
Time On Btm:
Time Off Btm:

TEST COMMENT: IFP-Weak Surface Blow
ISI-Dead
FFP-Dead
FSI-Dead



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
6.00	Mud With Oil Specks	0.08

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

H&C Oil Operating, Inc.

PO Box 86
Plainville, KS 67663

ATTN: Al Downing

1-10s-23w Graham,KS

Griffith #1-1

Job Ticket: 47827 **DST#: 3**

Test Start: 2012.07.09 @ 10:00:15

Tool Information

Drill Pipe:	Length:	3928.00 ft	Diameter:	3.80 inches	Volume:	55.10 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:		50000.00 lb
					Total Volume:	55.10 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		31.00 ft					String Weight:	Initial	48000.00 lb
Depth to Top Packer:		3918.00 ft						Final	48000.00 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	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3898.00		
Shut In Tool	5.00			3903.00		
Hydraulic tool	5.00			3908.00		
Packer	5.00			3913.00	21.00	Bottom Of Top Packer
Packer	5.00			3918.00		
Stubb	1.00			3919.00		
Perforations	5.00			3924.00		
Change Over Sub	1.00			3925.00		
Blank Spacing	31.00			3956.00		
Change Over Sub	1.00			3957.00		
Recorder	0.00	8366	Inside	3957.00		
Recorder	0.00	8289	Outside	3957.00		
Perforations	5.00			3962.00		
Bullnose	3.00			3965.00	47.00	Bottom Packers & Anchor
Total Tool Length:	**68.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

H&C Oil Operating, Inc.

PO Box 86
Plainville, KS 67663

ATTN: Al Downing

1-10s-23w Graham,KS

Griffith #1-1

Job Ticket: 47827 **DST#: 3**

Test Start: 2012.07.09 @ 10:00:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	47.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.18 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1300.00 ppm				
Filter Cake:	inches				

Recovery Information

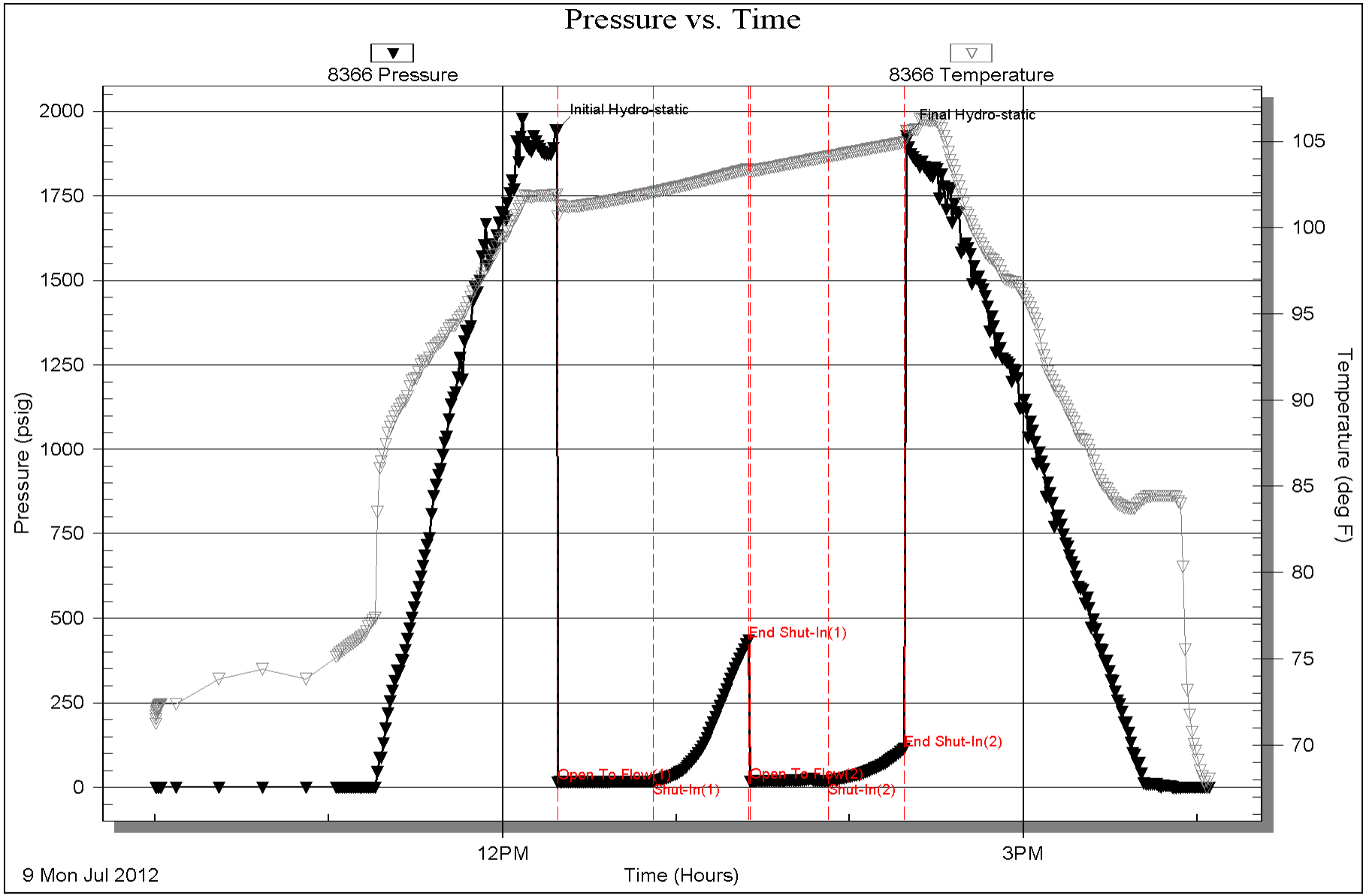
Recovery Table

Length ft	Description	Volume bbl
6.00	Mud With Oil Specks	0.084

Total Length: 6.00 ft Total Volume: 0.084 bbl

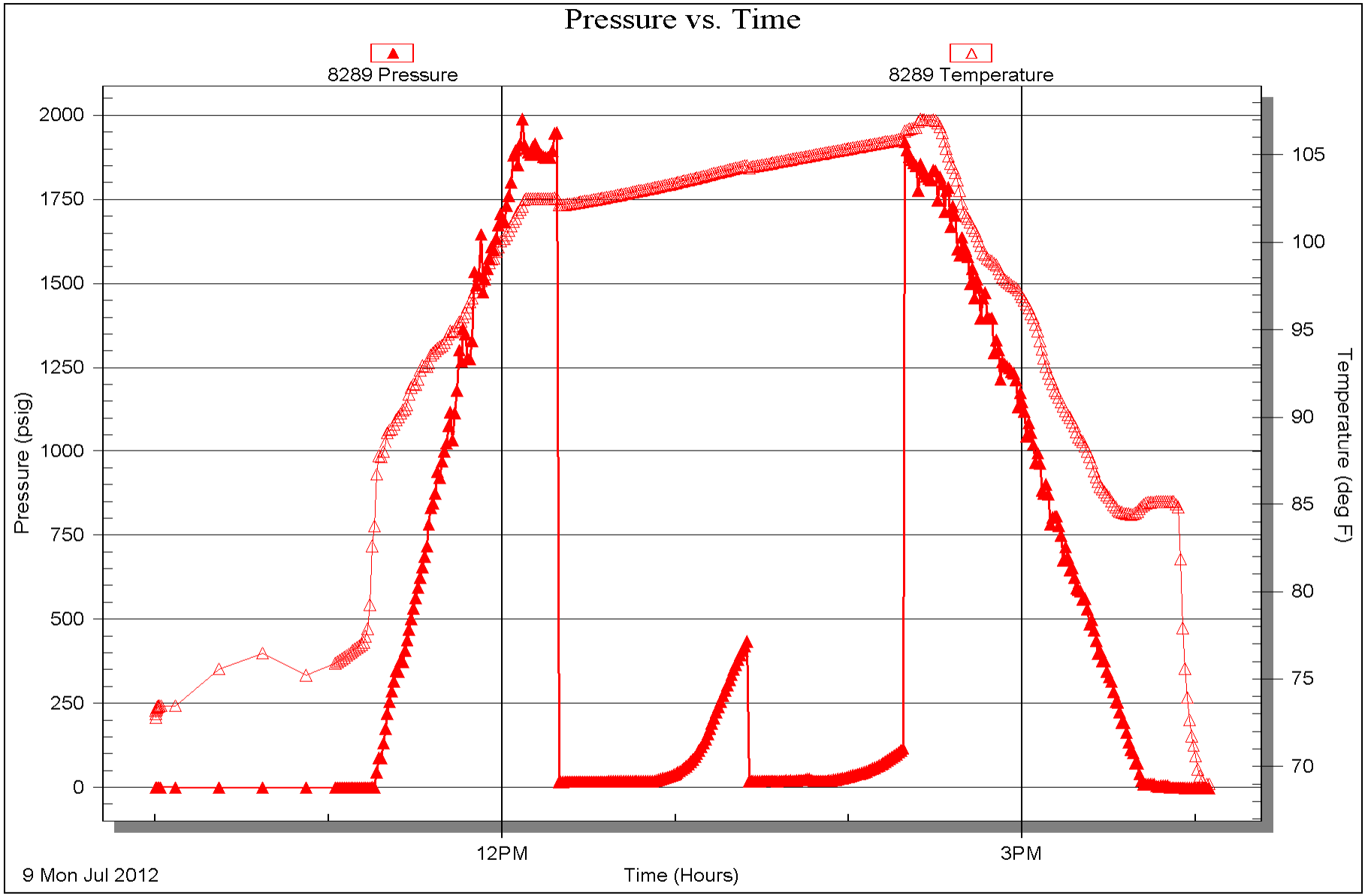
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8366 **Inside** H&C Oil Operating, Inc. Griffith #1-1 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 47827 Printed: 2012.07.18 @ 15:41:06

Serial #: 8289 **Outside** H&C Oil Operating, Inc. Griffith #1-1 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 47827 Printed: 2012.07.18 @ 15:41:07

TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

4/10

Test Ticket

NO. 47825

Well Name & No. Griffith #1-1 Test No. 1 Date 7-7-12

Company HEC Oil Operating, Inc. Elevation 2430 KB 2425 GL

Address PO Box 86, Plainville, KS. 67663

Co. Rep / Geo. Al Downing Rig American Eagle #3

Location: Sec. 1 Twp. 10 s Rge. 23w Co. Graham State KS

Interval Tested 3799-3830 Zone Tested E-F

Anchor Length 31' Drill Pipe Run 3804 Mud Wt. 9.2

Top Packer Depth 3794 Drill Collars Run 0 Vis 47

Bottom Packer Depth 3799 Wt. Pipe Run 0 WL 7.2

Total Depth 3830 Chlorides 1,300 ppm System LCM 2 #

Blow Description IFP- Weak Blow, Built to 3 1/2"

ISI- Dead

FFP- Weak Blow, Built to 2"

FSI- Dead

Rec 10	Feet of VSOCMW	%gas 2	%oil 63	%water 35	%mud	
Rec 60	Feet of Muddy Water	%gas	%oil 80	%water 20	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	

Rec Total 70 BHT 111° Gravity ____ API RW .233 @ 74 °F Chlorides 27,000 ppm

(A) Initial Hydrostatic 1852

(B) First Initial Flow 16

(C) First Final Flow 38

(D) Initial Shut-In 449

(E) Second Initial Flow 39

(F) Second Final Flow 56

(G) Final Shut-In 440

(H) Final Hydrostatic 1819

Initial Open 30

Initial Shut-In 30

Final Flow 30

Final Shut-In 30

- [x] Test
- [ ] Jars
- [ ] Safety Joint
- [ ] Circ Sub
- [ ] Hourly Standby
- [x] Mileage 100 rt
- [ ] Sampler
- [ ] Straddle
- [ ] Shale Packer
- [ ] Extra Packer
- [ ] Extra Recorder
- [ ] Day Standby
- [ ] Accessibility

Sub Total

T-On Location 20:49

T-Started 21:43

T-Open 24:25

T-Pulled 2:25

T-Out 4:57

Comments

- [ ] Ruined Shale Packer
- [ ] Ruined Packer
- [ ] Extra Copies

Sub Total

Total

MP/DST Disc't

Approved By ____ Our Representative Jason McLemore Thank You

TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

4/10

Test Ticket

NO. 47826

Well Name & No. Griffith #1-1 Test No. 2 Date 7-8-12

Company H & C Oil Operating, Inc. Elevation 2430 KB 2425 GL

Address PO Box 86, Plainville, Ks. 67663

Co. Rep / Geo. Al - Marc Downing Rig American Eagle #3

Location: Sec. 1 Twp. 10s Rge. 23w Co. Graham State KS

Interval Tested 3858 - 3922 Zone Tested H I J

Anchor Length 64' Drill Pipe Run 3868 Mud Wt. 9.1

Top Packer Depth 3853 Drill Collars Run 0 Vis 50

Bottom Packer Depth 3858 Wt. Pipe Run 0 WL 6.8

Total Depth 3922 Chlorides 1500 ppm System LCM 2#

Blow Description IFP - Fair Blow, Built to 10"

ISI - Dead

FFP - Weak Blow, Built to 5"

FSI - Dead

Rec 10	Feet of Free oil	%gas	%oil	%water	%mud
Rec 50	Feet of HOCM	%gas	45 %oil	%water 55	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 60 BHT Gravity 36 API RW @ °F Chlorides ppm

(A) Initial Hydrostatic 1917	☑ Test	T-On Location 18:15	
(B) First Initial Flow 30	☐ Jars	T-Started 18:28	
(C) First Final Flow 42	☐ Safety Joint	T-Open 20:25	
(D) Initial Shut-In 528	☐ Circ Sub	T-Pulled 23:25	
(E) Second Initial Flow 41	☐ Hourly Standby	T-Out 1:34	
(F) Second Final Flow 52	☑ Mileage 100 rt	Comments	
(G) Final Shut-In 447	☐ Sampler		
(H) Final Hydrostatic 1920	☐ Straddle	☐ Ruined Shale Packer	
	☐ Shale Packer	☐ Ruined Packer	
Initial Open 45	☐ Extra Packer	☐ Extra Copies	
Initial Shut-In 45	☐ Extra Recorder	Sub Total	
Final Flow 45	☐ Day Standby	Total	
Final Shut-In 45	☐ Accessibility	MP/DST Disc't	
	Sub Total		

Approved By Our Representative Jason McLemore Thank You

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

4/10

Test Ticket

NO. 47827

Well Name & No. Griffith #1-1 Test No. 3 Date 7-9-12

Company H & C Oil Operating, Inc. Elevation 2430 KB 2425 GL

Address PO Box 86, Plainville, Ks. 67663

Co. Rep / Geo. Marc Downing Rig American Eagle #3

Location: Sec. 1 Twp. 10s Rge. 23w Co. Graham State KS

Interval Tested 3918 - 3965 Zone Tested K-L

Anchor Length 47' Drill Pipe Run 3928 Mud Wt. 9.1

Top Packer Depth 3913 Drill Collars Run 0 Vis 59

Bottom Packer Depth 3918 Wt. Pipe Run 0 WL 6.8

Total Depth 3965 Chlorides 1700 ppm System LCM 2#

Blow Description IFP - Weak surface Blow

ISI - Dead

FFP - Dead

FSI - Dead

Rec 6	Feet of Mud w/oil specks	%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	Feet of	%gas	%oil	%water	%mud

Rec Total 6 BHT Gravity API RW @ °F Chlorides ppm

(A) Initial Hydrostatic 1945

(B) First Initial Flow 14

(C) First Final Flow 17

(D) Initial Shut-In 435

(E) Second Initial Flow 17

(F) Second Final Flow 18

(G) Final Shut-In 113

(H) Final Hydrostatic 1927

Initial Open 30

Initial Shut-In 30

Final Flow 30

Final Shut-In 30

- ☑ Test
- ☐ Jars
- ☐ Safety Joint
- ☐ Circ Sub
- ☐ Hourly Standby
- ☑ Mileage 100 rt
- ☐ Sampler
- ☐ Straddle
- ☐ Shale Packer
- ☐ Extra Packer
- ☐ Extra Recorder
- ☐ Day Standby
- ☐ Accessibility

Sub Total

T-On Location 9:50

T-Started 9:58

T-Open 12:18

T-Pulled 14:18

T-Out 16:04

Comments

- ☐ Ruined Shale Packer
- ☐ Ruined Packer
- ☐ Extra Copies

Sub Total

Total

MP/DST Disc't

Approved By

Our Representative Jason McLemore Thank You