



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1156477
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: _____



1156477

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

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

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

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

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

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

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

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

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

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

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

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

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> _____ <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	H & C Oil Operating Inc.
Well Name	Rosalie 17-1
Doc ID	1156477

All Electric Logs Run

Dual induction
microresistivity log
Dual compensate porosity log
Sonic cement bond log

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

August 27, 2013

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

Re: ACO1
API 15-065-23951-00-00
Rosalie 17-1
NW/4 Sec.17-09S-24W
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

COMPANY HFC Oil Operating, Inc.
 WELL Kasalik #17-1
 FIELD Usibek
 LOCATION 2316 FmL + 660' Fur
 SEC. 17 TWP. 9S RGE. 24W
 COUNTY Graham
 STATE Kansas
 OPERATOR HFC Oil Operating, Inc.
 CONTRACTOR American Eagle, Rig #3
 COMM. 7-12-13
 CASING RECORD
 SURF: 5% @ 219' PROD: 5% @ 421'
 TOTAL DEPTH DRILLERS: 4678'
 TOTAL DEPTH LOG: 4678'

PRODUCTION LKc
 ELEVATION KB 2484
 DF 2479
 GI 2479
 Drilling Measured from: KB to: TD
 Samples Saved from: 3750 to: TD
 Drilling Time from: 3500 to: TD
 Samples Examined from: 3750 to: TD
 Geological Supervision from: [blank] to: local depth
 Wellbore Geologist: Marc Downing
 Electrical Survey: [blank]
 CML / CUL
 DTL
 MEL

FORMATION	SAMPLE TOP	ELECTRIC LOG TOP	SUBS-SEA BOTTOM	STRUCTURAL POSITION
Base Anhydrite	2194	2154	+230	-4
Topoka	3567	3540	-1076	+3
Heenan	3780	3777	-1243	+2
Taranta	3904	3901	-1317	+2
LKC	3816	3814	-1329	+5
BKC	4035	4038	-1531	+2

FORMATION TOPS AND STRUCTURAL POSITION

REFERENCE WELL FOR STRUCTURE HFC Oil Operating, Inc.
 Keffler-Fidson #17-2 1985 EST'd 520' Feet Sec. 17-9S-24W

DRILL STEM TESTS

No.	Interval	HP/Time	ISP/Time	FFP/Time	ESP/Time	HR-FRP	RECOVERY

REMARKS AND RECOMMENDATIONS: Due to structural position, DST recovery, & log evaluation, it was decided to sid 5% production casing for completion.

Perforate:
 LKC K : 4605-15
 S : 3992-95
 H : 3946-54
 D : 3856-42
 C : 3846-49
 F : 3872-3900 (Before Abandonment)

Marc Downing

LEGEND



DRILLING TIME IN MINUTES PER FOOT



Rate of Penetration Decreases

DEPTH

LITHOLOGY

SAMPLE DESCRIPTIONS

OIL SHOWS

REMARKS

3450 No drill time

3500 Topoka 3567(-1083)

3600

3700

3800 Heenan 3780(-1296)

3900 Taranta 3904(-1324)

Actual LKC Top 3822(-1338)

3900

4000

BKC 4035(-1531)

4000

RTD: 4060(-1596)
 LTD: 4076(-1594)

Sh: Black Carb
 LS: tan, med xln, fass, drms.

Sh: ggy w/ brn

LS: wht -lt tan, med xln, Seat fass, fr vngt w/ AS, Trng drms, Seat fass e w/o.

Sh: brn

LS: wmt, cal, fr-gd accs, Totally barren.

LS: tan, wmt, fr xln, PIX, vdrms. Wmt. w/lt shpenta

Sh: drk ggy w/ black, trng brn + ggy

LS: wht -lt tan, med xln, Seat frng fass, fr intxtn + vngt, fr-gd sat sh, spotted SFO, fr ad

Sh: ggy

LS: wmt, fr xln, Mostly wntly, Seat tan rx w/ fr fr vngt, lt brn str, NSFO, gd ad.

Sh: brn

LS: wmt, fr xln, subxln, chky, Seat pr eck, dead blk str. Trng pr e drms.

LS: wmt, fr xln, subxln, LS: wmt, fr xln, subxln, Trng vdrms, pr. Seat tan ch to.

LS: Black Carb

Sh: ggy w/ brn

LS: tan, fr: med xln, slth dlam. Fr-gd intxtn + vngt, gd H brn sat str w/ fr-gd SFO, fr-gd ad. Seat sml fass.

Sh: ggy

LS: wht -lt tan, med xln, pr, Seat sml vngt, 4-5 rx w/ fr str, spotted SFO, NA ad.

Sh: brn

LS: tan - wmt, med xln, frng fass, fr-gd intxtn + vngt, gd H brn sat str, fr SFO, fr ad, Seat subxln rx

Sh: ggy

LS: tan - wmt, med xln, frng fass, fr-gd intxtn + vngt, gd H brn sat str, fr SFO, fr ad, Seat subxln rx

Sh: ggy

LS: tan, fass, fr vngt, fr str, spotted SFO, H-fr ad, Rx trng ltr + PIX

Sh: ggy w/ some brn Trng slth red.

LS: tan, med xln, pr

Sh: brn

Vis: 460 Wt: 8.9

DST #1
 3846 - 3880
 30-45-30-45
 I.F. - BAB 7min / Surf SIB
 F.F. - BAB 10min / 1/4" SIB
 IFF: 59-142
 FFP: 1946-295
 SIP: 998-995
 HP: 1903-1854
 Rec:
 316' GIP
 346' GWCMO 10%, 102in, 480
 246' GCMU 10%, 84in, 10
 62' MU 90%
 BHT: 118° G=NA Culer: 32K

DST #2
 3924 - 3962
 30-45-30-45
 I.F. - BAB 3 min / BAB 12 min SIB
 F.F. - BAB 4 min / BAB 9 min SIB
 IFF: 25-112
 FFP: 119-187
 SIP: 593-592
 HP: 1883-1953
 Rec:
 1364' GIP
 558' GQ 76%
 124' GMA 10%, 56%
 BHT: 118° G=32

DST #3
 3956 - 4015
 30-45-30-20
 I.F. - BAB 3 min / 8" SIB
 F.F. - BAB 2 min / BAB 3 min SIB
 IFF: 119-100
 FFP: 47-158
 SIP: 628-594
 HP: 1946-1977
 Rec:
 1700' GIP
 30' GQ 80%
 310' GQ 50%
 62' GCM 50%, 20%
 BHT: 113 G=NA
 * While turning tool for the 2nd shut-in, tool backlashed. Tester did not think the tool was shut-in nor able to be shut-in. Decision was made to pull tool after trying for 20 min

Marc Downing

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. 7979

Date	2-11-13	Sec.	17	Twp.	9	Range	24	County	Graham	State	KS	On Location	6:45 am	Finish
Lease	Rosalie		Well No.		17-1		Location		MaKerney Kellin W to 1800 3rd 34w Sinte					
Contractor	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.													
Type Job	Surface													
Hole Size	12 1/4													
Csg.	8 5/8													
Tbg. Size														
Tool														
Cement Left in Csg.	15'													
Meas Line	Displace 1336L													
EQUIPMENT														
Pumptrk	17	No.	Cemented											
			Helper											
Bulktrk		No.	Driver	Gady										
			Driver											
Bulktrk	14	No.	Driver	Lonn. r m.										
			Driver											
JOB SERVICES & REMARKS														
Remarks:														
Rat Hole														
Mouse Hole														
Centralizers														
Baskets														
D/N or Port Collar														
8 5/8 on battens. Bst Circulation.														
M.x 16000 x Displace														
Cement Circulated.														
FLOAT EQUIPMENT														
Baskets														
AFU Inserts														
Float Shoe														
Latch Down														
Quality Oilwell														
Pumptrk Charge Surface														
Mileage 31														
Tax														
Discount														
Total Charge														
Signature														

James P. ...

X Signature

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025

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

No. 7936

Cell 785-324-1041

Date	17-20-13	Sec.	17	Twp.	9	Range	24	County	Graham	State	KS	On Location		Finish	11:00 AM	
Lease	Rosalie															
Contractor	American Eagle 3															
Type Job	Production															
Hole Size	17 7/8"															
Csg. Size	5 1/2" 14# New															
Tbg. Size																
Tool																
Cement Left in Csg.	21.64'															
Meas Line	99 BLU															
EQUIPMENT																
Pumptrk	15	No.	Cementer	Billy												
Bulktrk	19	No.	Helper	David												
Bulktrk	14	No.	Driver	Lannie M.												
JOB SERVICES & REMARKS																
Remarks:																
Rat Hole																
Mouse Hole	46, 65, 81															
Centralizers	2, 3, 4, 5, 6, 23, 7, 8, 9, 10, 21															
Baskets	2, 22, 47, 66, 82															
DV or Port Collar																
Pipe on bottom, break Circulation																
1 pump 500 gal mud clear 48																
1 plug Rathole w/ 30 sx. Hook																
40 5 1/2" casing + mix cement																
570 SX Cement total. Short down																
Revised plug + wash pump + lines																
Hook to casing + displaced with																
99 Bls of water.																
Revised + held.																
Lift - pressure 1000 #																
Land plug to 1800 #																
Cement did not Circulate																
FLOAT EQUIPMENT																
Guide Shoe																
Centralizer	12 tubes 3 Reg															
Baskets	5															
AFU inserts																
Float Shoe	1															
Latch Down	1															
25 Recip. Scratches																
Pumptrk Charge																
Mileage	31															
TAXES																
															Tax	
															Discount	
															Total Charge	
Signature Bob Plante																

Location Wakeeney, Ks. N to Realine Rd, W to
Owner 180 Rd 32 to KRA, 3/4 W 3/4 S

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

Charge To H-C oil operating

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

Cement Amount Ordered 450 SX QMDC 4 1/2 Flt Seal
150 SX Q Flt C 10 1/2 Salt S/Gilsonite 500 gal
Common mud clear 48 150 KAPAC

Pos. Mix 450 QMDC 4 1/2 Flt Seal

Get. Calcium Hulls

Salt 13 Flowseal 750# 150#

Kol-Seal 750# Mud CLR 48 500 gal

CFL-117 or CD110 CAF 38 Sand

Handling 620 Mileage

Centralizer 12 tubes 3 Reg

Baskets 5 AFU inserts

Float Shoe 1 Latch Down 1

25 Recip. Scratches

Pumptrk Charge Mileage 31

Signature Bob Plante



DRILL STEM TEST REPORT

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

PO Box 86
Plainville KS 67663

ATTN: Marc Downing

Rosalie #17-1

17-9s-24w Graham,KS

Start Date: 2013.07.17 @ 00:45:00

End Date: 2013.07.17 @ 14:16:15

Job Ticket #: 53929 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.07.19 @ 10:47:27



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

H&C Oil Operating Inc

17-9s-24w Graham,KS

PO Box 86
Plainville KS 67663

Rosalie #17-1

Job Ticket: 53929

DST#: 1

ATTN: Marc Downing

Test Start: 2013.07.17 @ 00:45:00

GENERAL INFORMATION:

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

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:55:45

Time Test Ended: 14:16:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Cody Bloedorn

Unit No: 53

Interval: 3840.00 ft (KB) To 3880.00 ft (KB) (TVD)

Total Depth: 3880.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2479.00 ft (KB)

2475.00 ft (CF)

KB to GR/CF: 4.00 ft

Serial #: 6799

Inside

Press @ RunDepth: 295.58 psig @ 3845.00 ft (KB)

Start Date: 2013.07.17

End Date:

2013.07.17

Start Time: 00:45:05

End Time:

14:16:15

Capacity: 8000.00 psig

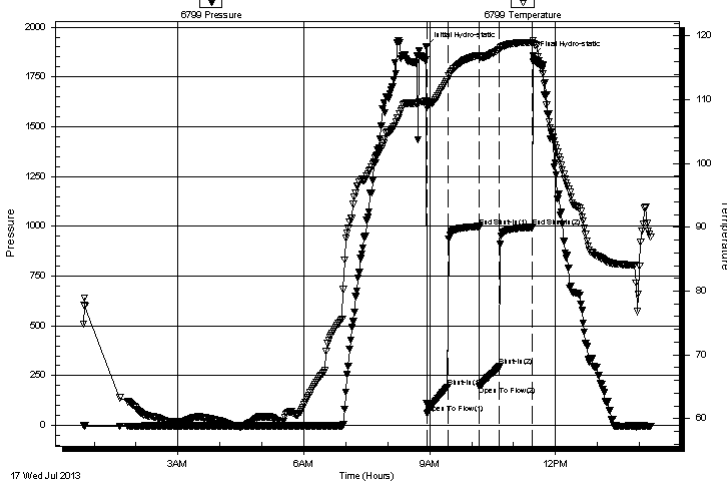
Last Calib.: 2013.07.17

Time On Btm: 2013.07.17 @ 08:55:15

Time Off Btm: 2013.07.17 @ 11:28:00

TEST COMMENT: 30 - IF- B.O.B. in 7 minutes
45 - IS- Surface return throughout
30 - FF- B.O.B. in 10 minutes
45 - FS- 1/4" return throughout

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1903.45	109.80	Initial Hydro-static
1	59.77	109.29	Open To Flow (1)
31	192.74	113.18	Shut-In(1)
76	998.64	116.94	End Shut-In(1)
76	196.60	116.67	Open To Flow (2)
105	295.58	117.82	Shut-In(2)
151	995.15	118.94	End Shut-In(2)
153	1854.99	119.30	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	MW, 10%M, 90%W	0.87
248.00	SOCMW, 10%M, 10%O, 80%W	3.48
340.00	GHOCWM, 10%G, 10%W, 40%O, 40%M	4.77
0.00	310' of G.I.P.	0.00

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

H&C Oil Operating Inc

PO Box 86
Plainville KS 67663

ATTN: Marc Downing

17-9s-24w Graham,KS

Rosalie #17-1

Job Ticket: 53929

DST#: 1

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GENERAL INFORMATION:

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Test Type: Conventional Bottom Hole (Initial)

Tester: Cody Bloedorn

Unit No: 53

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Reference Elevations: 2479.00 ft (KB)

Total Depth: 3880.00 ft (KB) (TVD)

2475.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 4.00 ft

Serial #: 8648 **Outside**

Press@RunDepth: psig @ 3845.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.07.17

End Date: 2013.07.17

Last Calib.: 2013.07.17

Start Time: 00:45:05

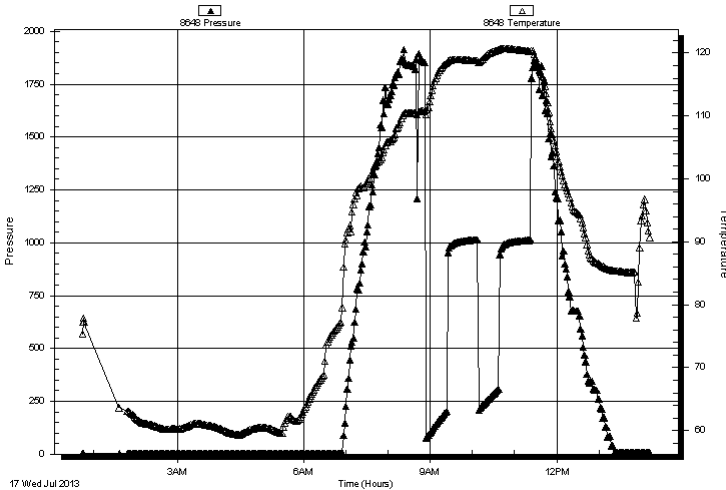
End Time: 14:13:30

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 - IF- B.O.B. in 7 minutes
45 - IS- Surface return throughout
30 - FF- B.O.B. in 10 minutes
45 - FS- 1/4" return throughout

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
62.00	MW, 10%M, 90%W	0.87
248.00	SOCMW, 10%M, 10%O, 80%W	3.48
340.00	GHOCWM, 10%G, 10%W, 40%O, 40%M	4.77
0.00	310' of G.I.P.	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

H&C Oil Operating Inc

17-9s-24w Graham,KS

PO Box 86
Plainville KS 67663

Rosalie #17-1

Job Ticket: 53929

DST#: 1

ATTN: Marc Downing

Test Start: 2013.07.17 @ 00:45:00

Tool Information

Drill Pipe:	Length: 3844.00 ft	Diameter: 3.80 inches	Volume: 53.92 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 53.92 bbl</u>	Tool Chased 25.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 41000.00 lb
Depth to Top Packer:	3840.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	40.00 ft			
Tool Length:	61.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: on tool open, tagged btm early... had to open up tool and let it slid 15 feet. then picked back up on tool, set in slips, added last piece and reopened tool.slid 10 more feet to btm.

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3820.00	
Shut In Tool	5.00			3825.00	
Hydraulic tool	5.00			3830.00	
Packer	5.00			3835.00	21.00 Bottom Of Top Packer
Packer	5.00			3840.00	
Stubb	1.00			3841.00	
Perforations	3.00			3844.00	
Change Over Sub	1.00			3845.00	
Recorder	0.00	6799	Inside	3845.00	
Recorder	0.00	8648	Outside	3845.00	
Drill Pipe	31.00			3876.00	
Change Over Sub	1.00			3877.00	
Bullnose	3.00			3880.00	40.00 Bottom Packers & Anchor

Total Tool Length: 61.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

H&C Oil Operating Inc

17-9s-24w Graham,KS

PO Box 86
Plainville KS 67663

Rosalie #17-1

Job Ticket: 53929

DST#: 1

ATTN: Marc Downing

Test Start: 2013.07.17 @ 00:45:00

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:

32000 ppm

Viscosity: 46.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1100.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
62.00	MW, 10%M, 90%W	0.870
248.00	SOCMW, 10%M, 10%O, 80%W	3.479
340.00	GHOCWM, 10%G, 10%W, 40%O, 40%M	4.769
0.00	310' of G.I.P.	0.000

Total Length: 650.00 ft Total Volume: 9.118 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

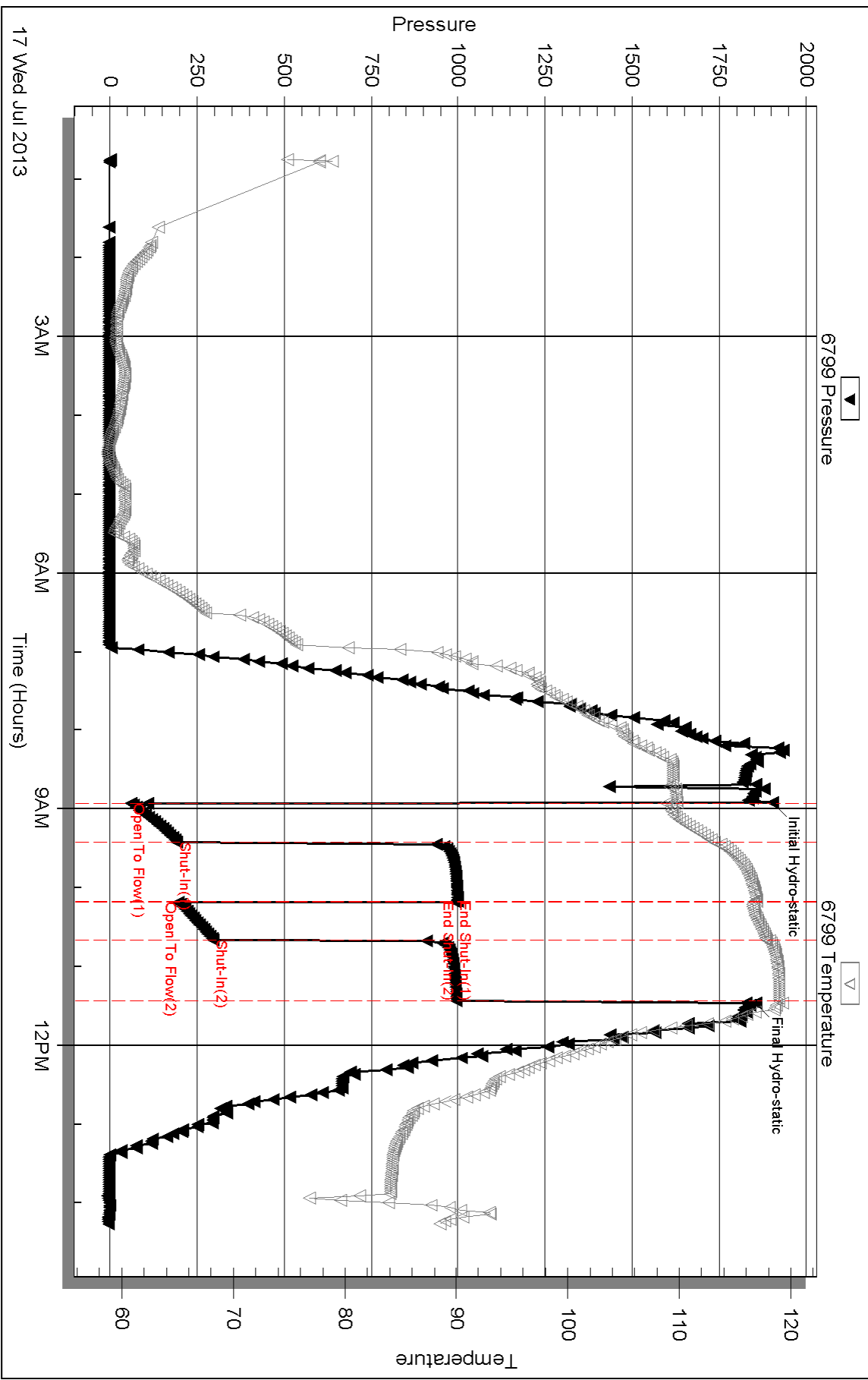
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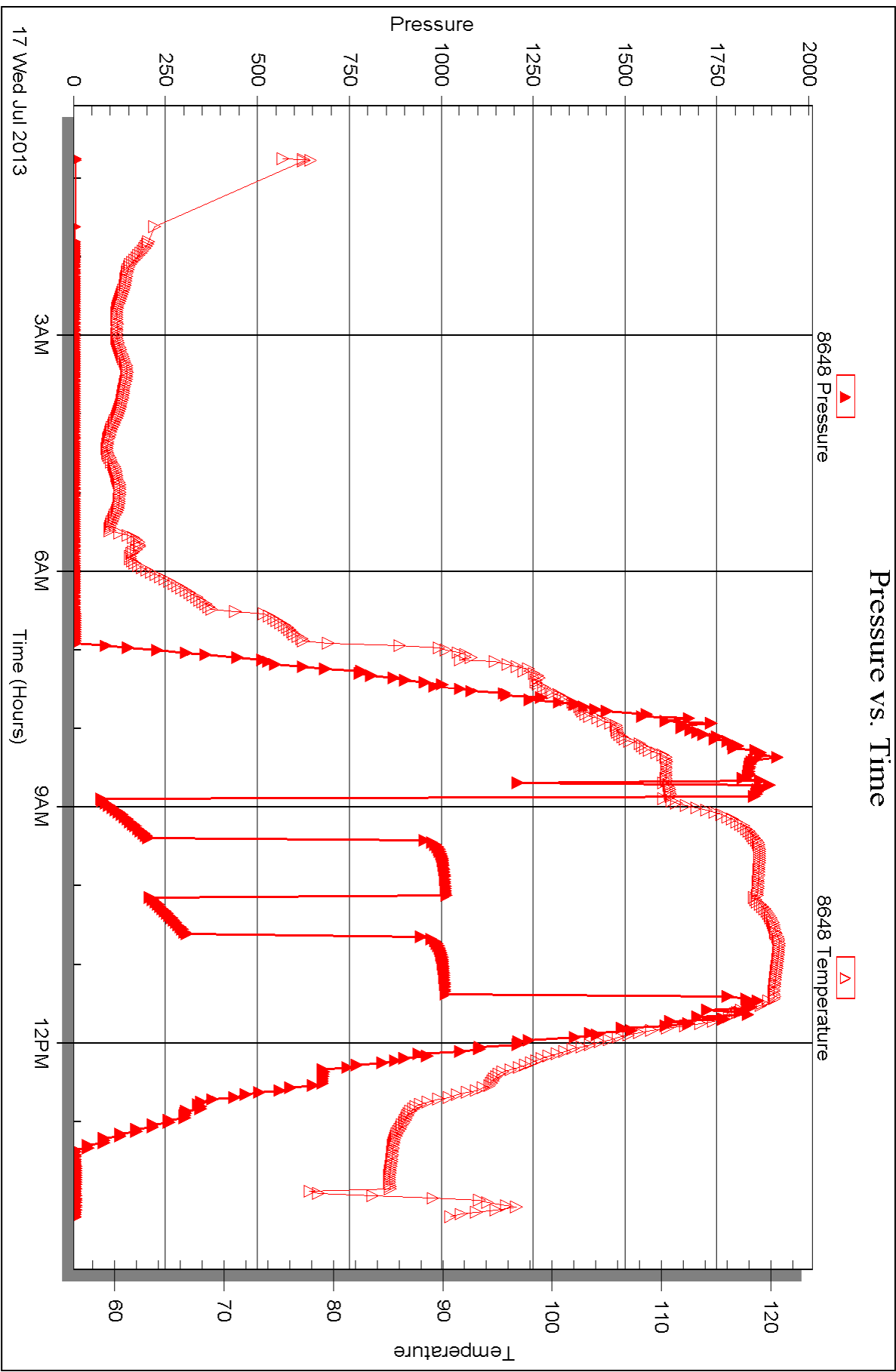
Laboratory Name:

Laboratory Location:

Recovery Comments: Salinity: .22 @ 70 degrees = 32000

Pressure vs. Time







DRILL STEM TEST REPORT

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

PO Box 86
Plainville KS 67663

ATTN: Marc Downing

Rosalie #17-1

17-9s-24w Graham,KS

Start Date: 2013.07.18 @ 05:17:00

End Date: 2013.07.18 @ 14:14:45

Job Ticket #: 53930 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.07.19 @ 10:46:50



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

H&C Oil Operating Inc

17-9s-24w Graham,KS

PO Box 86
Plainville KS 67663

Rosalie #17-1

Job Ticket: 53930

DST#: 2

ATTN: Marc Downing

Test Start: 2013.07.18 @ 05:17:00

GENERAL INFORMATION:

Formation: **LKC "H"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:40:15

Time Test Ended: 14:14:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Cody Bloedorn

Unit No: 53

Interval: 3926.00 ft (KB) To 3962.00 ft (KB) (TVD)

Reference Elevations: 2479.00 ft (KB)

Total Depth: 3962.00 ft (KB) (TVD)

2475.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 4.00 ft

Serial #: 6799

Inside

Press @ RunDepth: 187.98 psig @ 3959.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.07.18

End Date:

2013.07.18

Last Calib.:

2013.07.18

Start Time: 05:17:05

End Time:

14:14:45

Time On Btm:

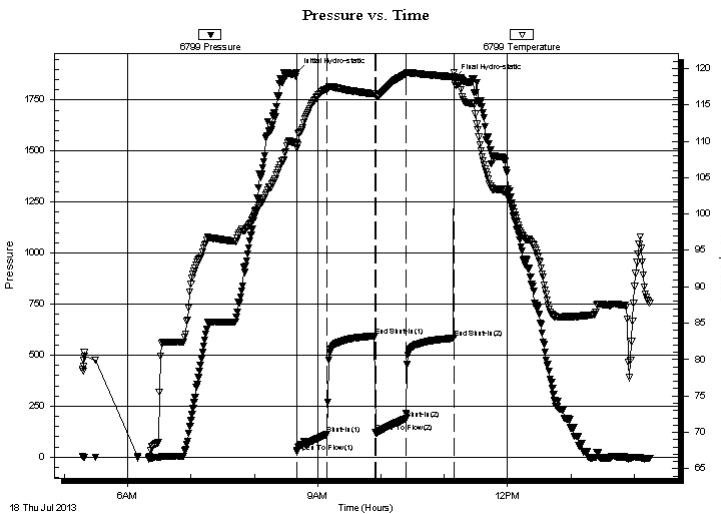
2013.07.18 @ 08:40:00

Time Off Btm:

2013.07.18 @ 11:09:15

TEST COMMENT: 30 - IF- B.O.B. in 3 minutes
45 - IS- B.O.B. in 12 minutes
30 - FF- B.O.B. instantly
45 - FS- B.O.B. in 9 minutes

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1883.98	109.70	Initial Hydro-static
1	25.45	109.01	Open To Flow (1)
29	112.39	117.15	Shut-In(1)
74	593.50	116.51	End Shut-In(1)
75	119.81	116.21	Open To Flow (2)
104	187.98	119.21	Shut-In(2)
149	582.93	118.80	End Shut-In(2)
150	1853.09	119.42	Final Hydro-static

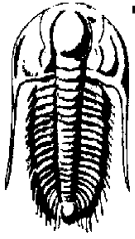
Recovery

Length (ft)	Description	Volume (bbl)
124.00	GMCO, 10%G, 40%M, 50%O	1.74
558.00	GO, 30%G, 70%O	7.83
0.00	1364' of G.I.P.	0.00

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

H&C Oil Operating Inc

17-9s-24w Graham,KS

PO Box 86
Plainville KS 67663

Rosalie #17-1

Job Ticket: 53930

DST#: 2

ATTN: Marc Downing

Test Start: 2013.07.18 @ 05:17:00

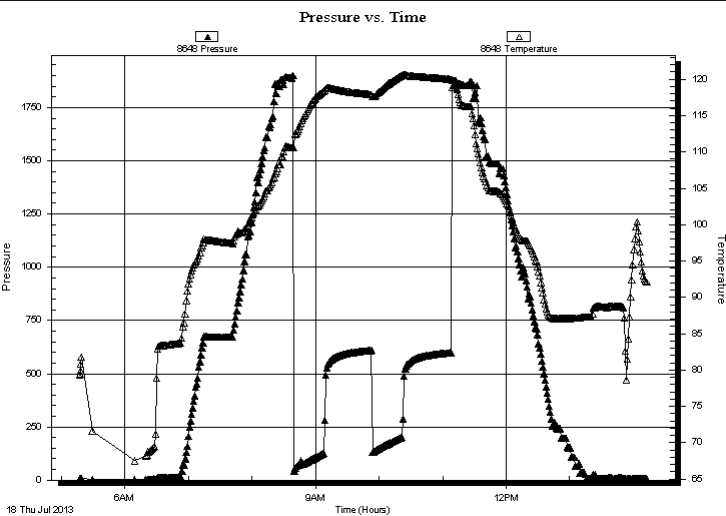
GENERAL INFORMATION:

Formation: LKC "H"	
Deviated: No Whipstock:	ft (KB)
Time Tool Opened: 08:40:15	Test Type: Conventional Bottom Hole (Reset)
Time Test Ended: 14:14:45	Tester: Cody Bloedorn
	Unit No: 53
Interval: 3926.00 ft (KB) To 3962.00 ft (KB) (TVD)	Reference Elevations: 2479.00 ft (KB)
Total Depth: 3962.00 ft (KB) (TVD)	2475.00 ft (CF)
Hole Diameter: 7.88 inches	Hole Condition: Fair
	KB to GR/CF: 4.00 ft

Serial #: 8648 Outside

Press @ Run Depth:	psig @ 3959.00 ft (KB)	Capacity:	8000.00 psig
Start Date:	2013.07.18	End Date:	2013.07.18
Start Time:	05:17:05	End Time:	14:12:45
		Time On Btm:	
		Time Off Btm:	

TEST COMMENT: 30 - IF- B.O.B. in 3 minutes
45 - IS- B.O.B. in 12 minutes
30 - FF- B.O.B. instantly
45 - FS- B.O.B. in 9 minutes



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
124.00	GMCO, 10%G, 40%M, 50%O	1.74
558.00	GO, 30%G, 70%O	7.83
0.00	1364' of G.I.P.	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

H&C Oil Operating Inc

17-9s-24w Graham,KS

PO Box 86
Plainville KS 67663

Rosalie #17-1

Job Ticket: 53930

DST#: 2

ATTN: Marc Downing

Test Start: 2013.07.18 @ 05:17:00

Tool Information

Drill Pipe:	Length: 3937.00 ft	Diameter: 3.80 inches	Volume: 55.23 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: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 49000.00 lb
			<u>Total Volume: 55.23 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3926.00 ft			Final 44000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	36.00 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
------------------	-------------	------------	----------	------------	----------------

Change Over Sub	1.00			3906.00	
Shut In Tool	5.00			3911.00	
Hydraulic tool	5.00			3916.00	
Packer	5.00			3921.00	21.00 Bottom Of Top Packer
Packer	5.00			3926.00	
Stubb	1.00			3927.00	
Perforations	32.00			3959.00	
Recorder	0.00	6799	Inside	3959.00	
Recorder	0.00	8648	Outside	3959.00	
Bullnose	3.00			3962.00	36.00 Bottom Packers & Anchor
Total Tool Length:	57.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

H&C Oil Operating Inc

17-9s-24w Graham,KS

PO Box 86
Plainville KS 67663

Rosalie #17-1

Job Ticket: 53930

DST#: 2

ATTN: Marc Downing

Test Start: 2013.07.18 @ 05:17:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 41.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1400.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
124.00	GMCO, 10%G, 40%M, 50%O	1.739
558.00	GO, 30%G, 70%O	7.827
0.00	1364' of G.I.P.	0.000

Total Length: 682.00 ft Total Volume: 9.566 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

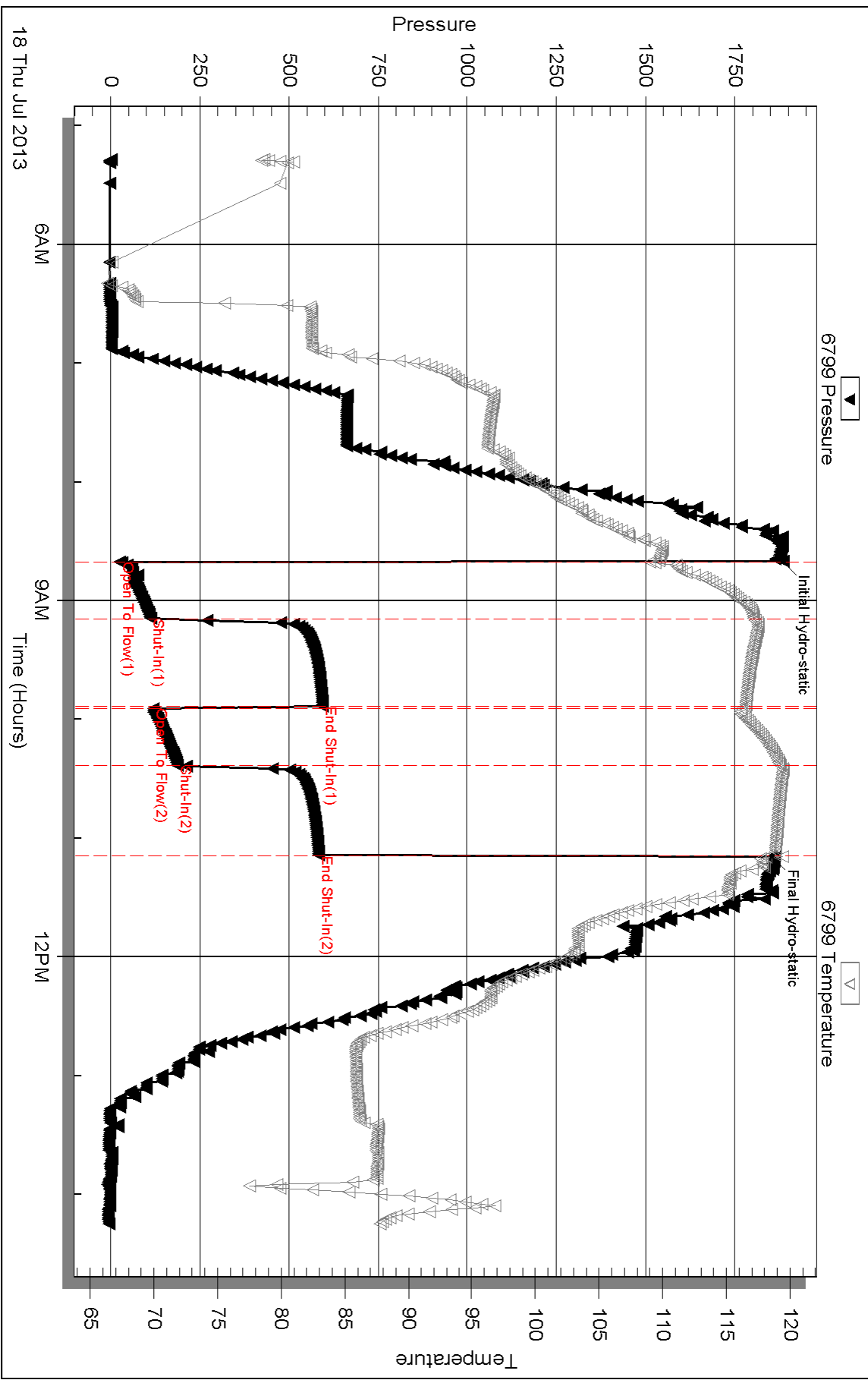
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity = 34 @ 80 Degrees = 32

Pressure vs. Time

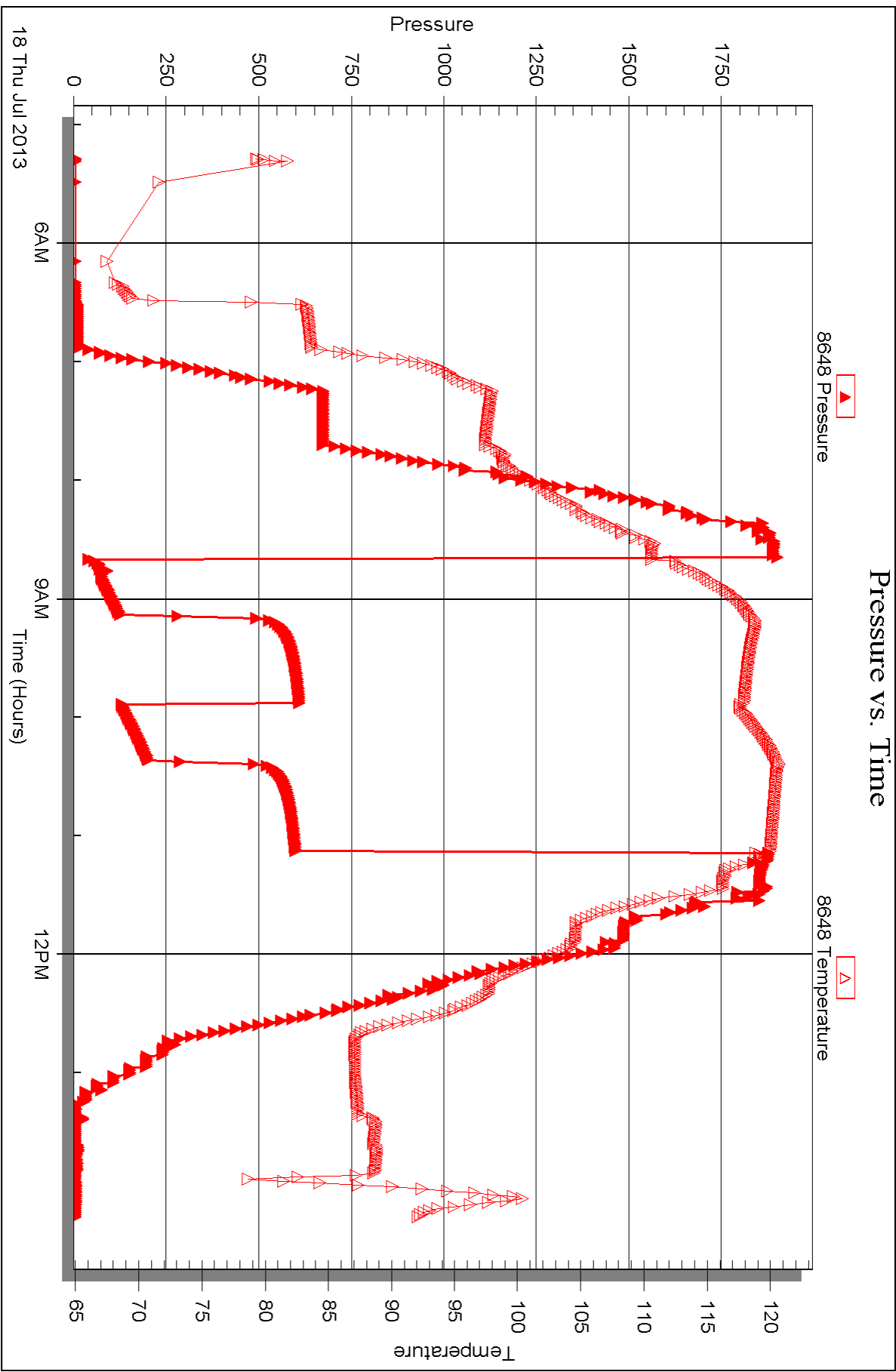


Serial #: 8648

Outside H&C Oil Operating Inc

Rosalie #17-1

DST Test Number: 2





DRILL STEM TEST REPORT

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

PO Box 86
Plainville KS 67663

ATTN: Marc Downing

Rosalie #17-1

17-9s-24w Graham,KS

Start Date: 2013.07.18 @ 23:30:00

End Date: 2013.07.19 @ 07:22:00

Job Ticket #: 53931 DST #: 3

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

Printed: 2013.07.19 @ 10:45:54



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

H&C Oil Operating Inc

17-9s-24w Graham,KS

PO Box 86
Plainville KS 67663

Rosalie #17-1

Job Ticket: 53931

DST#: 3

ATTN: Marc Downing

Test Start: 2013.07.18 @ 23:30:00

GENERAL INFORMATION:

Formation: **LKC "I,J,K"**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 02:07:45
 Tester: Cody Bloedorn
 Time Test Ended: 07:22:00
 Unit No: 53
 Interval: **3956.00 ft (KB) To 4015.00 ft (KB) (TVD)**
 Reference Elevations: 2479.00 ft (KB)
 Total Depth: 4015.00 ft (KB) (TVD)
 2475.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 KB to GR/CF: 4.00 ft

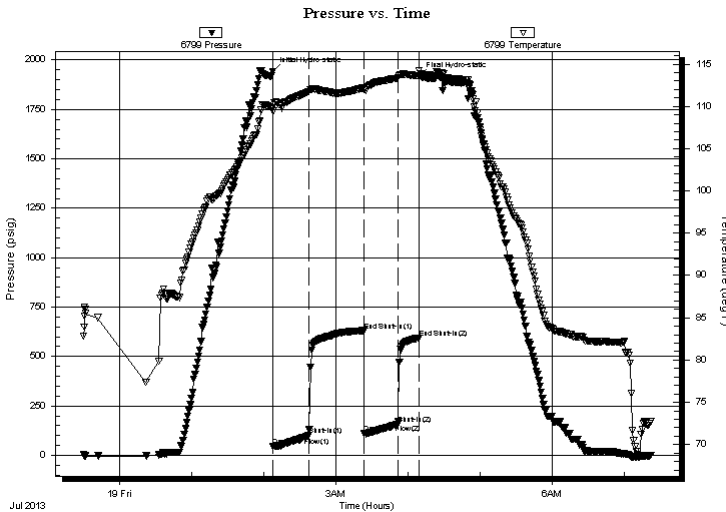
Serial #: 6799

Inside

Press @ Run Depth: 158.39 psig @ 3961.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.07.18 End Date: 2013.07.19 Last Calib.: 2013.07.19
 Start Time: 23:30:05 End Time: 07:21:59 Time On Btm: 2013.07.19 @ 02:07:30
 Time Off Btm: 2013.07.19 @ 04:09:00

TEST COMMENT: 30 - IF- B.O.B. in 3 minutes
 45 - IS- 8" return
 30 - FF- B.O.B. in 2 minutes
 20 - FS- B.O.B. in 3 minutes

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1940.55	109.85	Initial Hydro-static
1	47.17	109.43	Open To Flow (1)
30	100.13	111.75	Shut-In(1)
76	628.14	112.18	End Shut-In(1)
76	110.60	112.00	Open To Flow (2)
104	158.39	113.37	Shut-In(2)
122	594.40	113.60	End Shut-In(2)
122	1917.62	114.25	Final Hydro-static

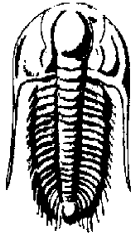
Recovery

Length (ft)	Description	Volume (bbl)
62.00	GOCM, 20%O, 30%M, 50%G	0.87
310.00	GO, 50%G, 50%O	4.35
30.00	GO, 20%G, 80%O	0.42
0.00	1700' of G.I.P.	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

H&C Oil Operating Inc

PO Box 86
Plainville KS 67663

ATTN: Marc Downing

17-9s-24w Graham,KS

Rosalie #17-1

Job Ticket: 53931

DST#: 3

Test Start: 2013.07.18 @ 23:30:00

GENERAL INFORMATION:

Formation: **LKC "I,J,K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:07:45

Time Test Ended: 07:22:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Cody Bloedorn

Unit No: 53

Interval: **3956.00 ft (KB) To 4015.00 ft (KB) (TVD)**

Reference Elevations: 2479.00 ft (KB)

Total Depth: 4015.00 ft (KB) (TVD)

2475.00 ft (CF)

Hole Diameter: 7.88 inches

Hole Condition: Fair

KB to GR/CF: 4.00 ft

Serial #: 8648 Outside

Press @ Run Depth: psig @ 3961.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.07.18

End Date: 2013.07.19

Last Calib.: 2013.07.19

Start Time: 23:30:50

End Time: 07:20:59

Time On Btm:

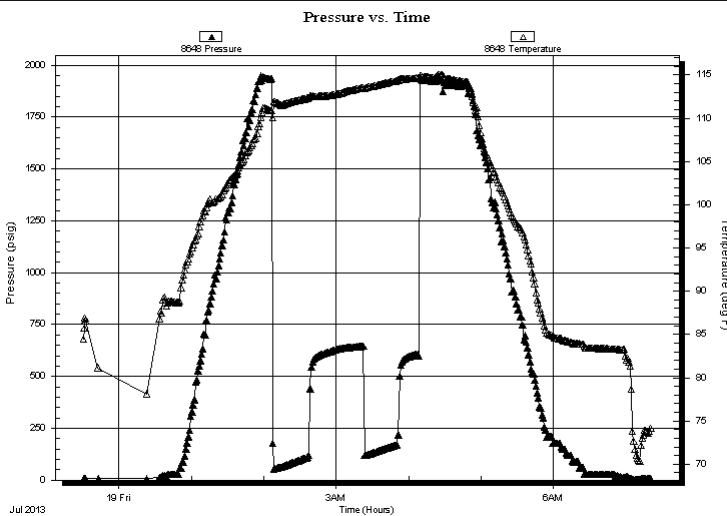
Time Off Btm:

TEST COMMENT: 30 - IF- B.O.B. in 3 minutes

45 - IS- 8" return

30 - FF- B.O.B. in 2 minutes

20 - FS- B.O.B. in 3 minutes



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
62.00	GOCM, 20%O, 30%M, 50%G	0.87
310.00	GO, 50%G, 50%O	4.35
30.00	GO, 20%G, 80%O	0.42
0.00	1700' of G.I.P.	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

H&C Oil Operating Inc

17-9s-24w Graham,KS

PO Box 86
Plainville KS 67663

Rosalie #17-1

Job Ticket: 53931

DST#: 3

ATTN: Marc Downing

Test Start: 2013.07.18 @ 23:30:00

Tool Information

Drill Pipe:	Length: 3968.00 ft	Diameter: 3.80 inches	Volume: 55.66 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 46000.00 lb
			<u>Total Volume: 55.66 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3956.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	59.00 ft			
Tool Length:	80.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: *****on final shut in tool back lashed questioned being truly shut in so we pulled it after being shut in for 20 min.*****

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

Change Over Sub	1.00			3936.00	
Shut In Tool	5.00			3941.00	
Hydraulic tool	5.00			3946.00	
Packer	5.00			3951.00	21.00 Bottom Of Top Packer
Packer	5.00			3956.00	
Stubb	1.00			3957.00	
Perforations	3.00			3960.00	
Change Over Sub	1.00			3961.00	
Recorder	0.00	6799	Inside	3961.00	
Recorder	0.00	8648	Outside	3961.00	
Drill Pipe	31.00			3992.00	
Change Over Sub	1.00			3993.00	
Perforations	19.00			4012.00	
Bullnose	3.00			4015.00	59.00 Bottom Packers & Anchor

Total Tool Length: 80.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

H&C Oil Operating Inc

17-9s-24w Graham,KS

PO Box 86
Plainville KS 67663

Rosalie #17-1

Job Ticket: 53931

DST#: 3

ATTN: Marc Downing

Test Start: 2013.07.18 @ 23:30:00

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: 7.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3700.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
62.00	GOCM, 20%O, 30%M, 50%G	0.870
310.00	GO, 50%G, 50%O	4.348
30.00	GO, 20%G, 80%O	0.421
0.00	1700' of G.I.P.	0.000

Total Length: 402.00 ft

Total Volume: 5.639 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

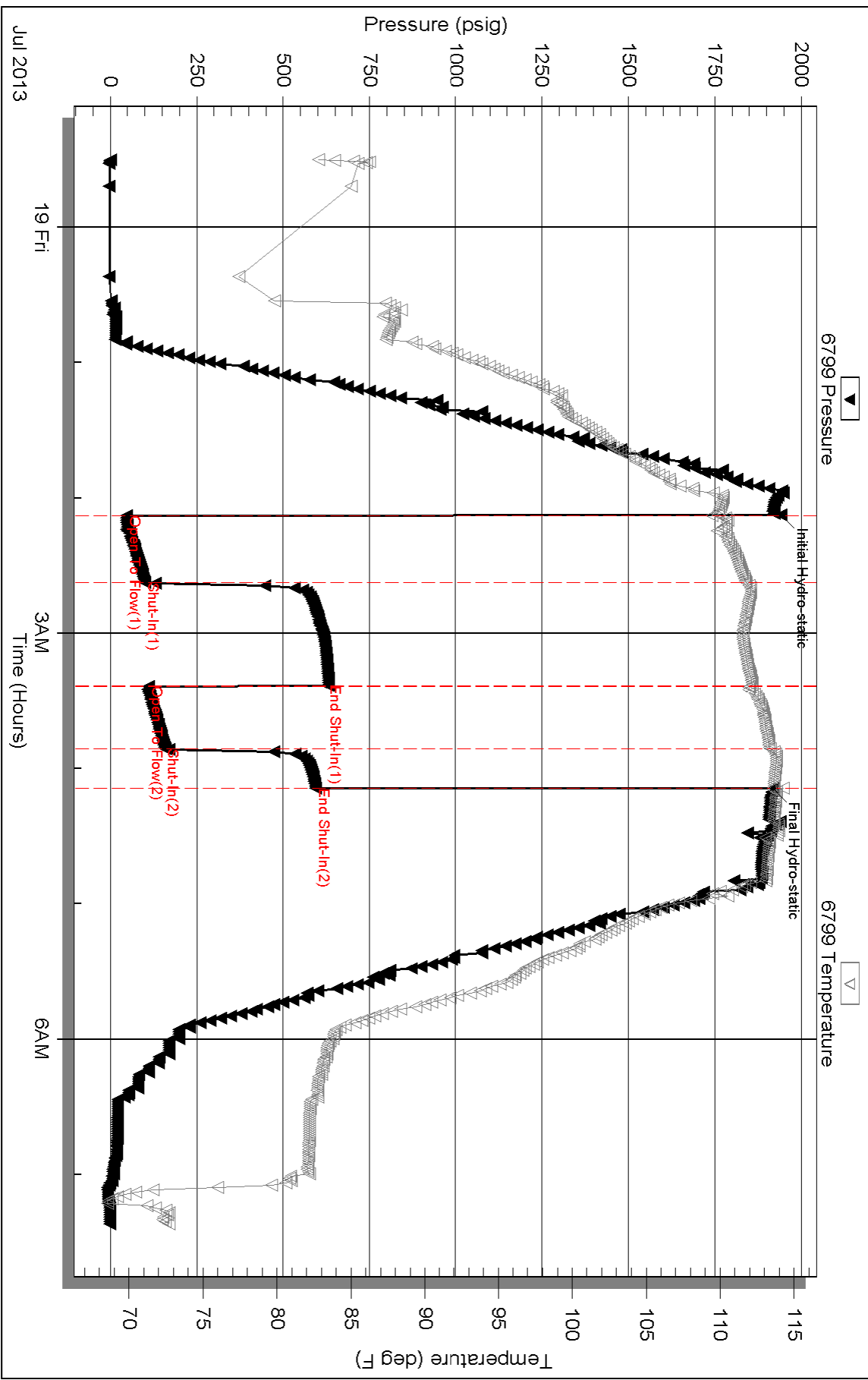
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

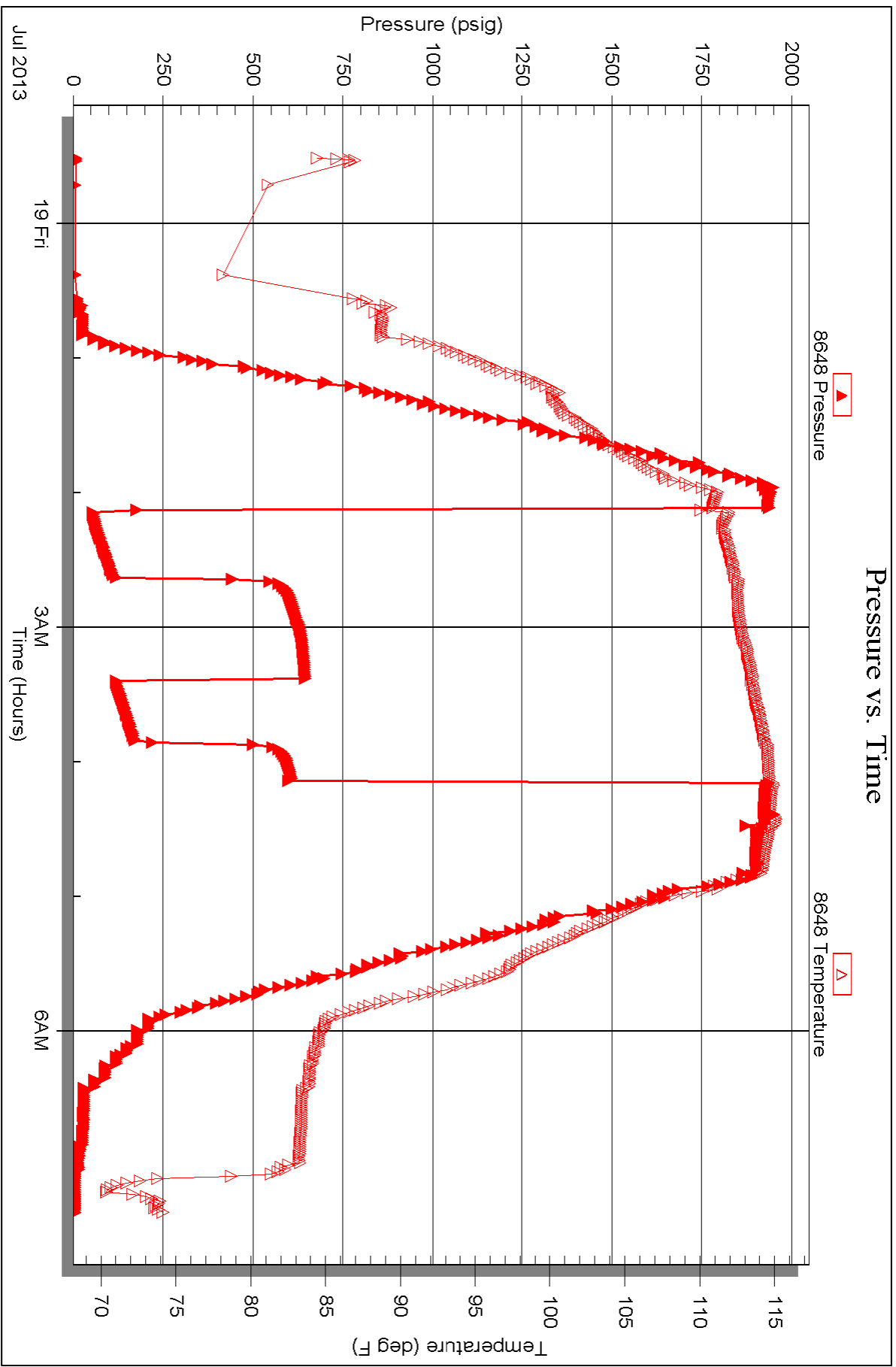


Serial #: 8648

Outside H&C Oil Operating Inc

Rosalie #17-1

DST Test Number: 3





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53929

Well Name & No. Rosalie #17-1 Test No. 1 Date 7-17-13
 Company H&C Oil Operating Inc Elevation 2479 KB 2475 GL
 Address PO Box 86, Plainville KS, 67663
 Co. Rep / Geo. Marc Downing Rig American Eagle 3
 Location: Sec. 17 Twp. 9S Rge. 24W Co. Graham State KS

Interval Tested 3840 - 3880 Zone Tested LKC "C&D"
 Anchor Length 40' Drill Pipe Run 3844' Mud Wt. 8.9
 Top Packer Depth 3835 Drill Collars Run — Vis 46
 Bottom Packer Depth 3840 Wt. Pipe Run — WL 7.2
 Total Depth 3880 Chlorides 1,100 ppm System LCM —

Blow Description IF - B.O.B. in 7 minutes
IS - Surface return throughout
FF - B.O.B. in 10 minutes
FSI - 1/4" return throughout

Rec	Feet of	%gas	%oil	%water	%mud
<u>62</u>	<u>MW</u>			<u>90</u>	<u>10</u>
<u>248</u>	<u>SOC MW</u>	<u>10</u>	<u>80</u>	<u>10</u>	<u>10</u>
<u>340</u>	<u>GHO CWM</u>	<u>10</u>	<u>40</u>	<u>10</u>	<u>40</u>
	<u>310' G.I.P.</u>				

Rec Total 650' BHT 118° Gravity — API RW, 22 @ 70 °F Chlorides 32,000 ppm

(A) Initial Hydrostatic 1903 Test 1150 T-On Location 12:45am
 (B) First Initial Flow 59 Jars _____ T-Started 1:28am
 (C) First Final Flow 192 Safety Joint _____ T-Open 9:38am
 (D) Initial Shut-In 998 Circ Sub _____ T-Pulled 12:08pm
 (E) Second Initial Flow 196 Hourly Standby 5.25h 525 T-Out 3:00pm
 (F) Second Final Flow 275 Mileage 121 RT 187.55 Comments Wait on Rig.
 (G) Final Shut-In 995 Sampler _____
 (H) Final Hydrostatic 1854 Straddle _____

Initial Open 30 Ruined Shale Packer _____
 Initial Shut-In 45 Ruined Packer _____
 Final Flow 30 Extra Packer _____
 Final Shut-In 45 Extra Recorder _____
 Day Standby _____ Sub Total 0
 Accessibility _____ Total 1862.55
 Sub Total 1862.55 MP/DST Disc't _____

Approved By _____ Our Representative Cody Bl...

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53930

Well Name & No. Rosalie # 17-1 Test No. 2 Date 7-18-13
 Company H&C Oil Operating INC Elevation 2479 KB 2475 GL
 Address Po Box 86, Plainville KS, 67663
 Co. Rep / Geo. Marc Downing Rig American Eagle 3
 Location: Sec. 17 Twp. 19S Rge. 24W Co. Graham State KS

Interval Tested 3926-3962 Zone Tested LKC "H"
 Anchor Length 36' Drill Pipe Run 3937' Mud Wt. 9.1
 Top Packer Depth 3921 Drill Collars Run — Vis 41
 Bottom Packer Depth 3926 Wt. Pipe Run — WL 6.8
 Total Depth 3962 Chlorides 1,400 ppm System LCM —
 Blow Description IF - B.O.B. in 3 minutes
ISI - B.O.B. in 12 minutes
FF - B.O.B. instantly
FSI - B.O.B. in 9 minutes

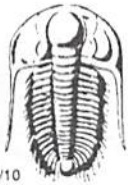
Rec	Feet of	%gas	%oil	%water	%mud
<u>124</u>	<u>6MCO</u>	<u>10</u>	<u>50</u>	<u>40</u>	
<u>558</u>	<u>60</u>	<u>30</u>	<u>70</u>		
	<u>1364' G.I.P.</u>				

Rec Total 682' BHT 118° Gravity 32 API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>1883</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>4:53am</u>
(B) First Initial Flow <u>25</u>	<input type="checkbox"/> Jars	T-Started <u>5:17am</u>
(C) First Final Flow <u>112</u>	<input type="checkbox"/> Safety Joint	T-Open <u>8:39am</u>
(D) Initial Shut-In <u>593</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>11:09am</u>
(E) Second Initial Flow <u>119</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>2:15pm</u>
(F) Second Final Flow <u>187</u>	<input checked="" type="checkbox"/> Mileage <u>121 RT</u> 187.55	Comments
(G) Final Shut-In <u>582</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1853</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>45'</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1337.55</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1337.55</u>	

Approved By _____ Our Representative Cody Blak

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53931

Well Name & No. Rosalie #17-1 Test No. 3 Date 7-18-13
 Company H & C Oil Operating Inc Elevation 2479 KB 2475 GL
 Address Po Box 86, Plainville KS, 67663
 Co. Rep / Geo. Marc Downing Rig American Eagle 3
 Location: Sec. 17 Twp. 9s Rge. 24w Co. Graham State KS

Interval Tested 3956 - 4015 Zone Tested LKC 'I-K'
 Anchor Length 59' Drill Pipe Run 3968' Mud Wt. 9.1
 Top Packer Depth 3951 Drill Collars Run — Vis 45
 Bottom Packer Depth 3956 Wt. Pipe Run — WL 7.8
 Total Depth 4015 Chlorides 3,700 ppm System LCM —

Blow Description IF - B.O.B. in 3 minutes
ISI - 8" return
FF - B.O.B. in 2 minutes
FSI - ~~not recorded~~ B.O.B. in 3 minutes

Rec	Feet of	%gas	%oil	%water	%mud
<u>62</u>	<u>GOCM</u>	<u>50</u>	<u>20</u>	<u>30</u>	
<u>310</u>	<u>GO</u>	<u>50</u>	<u>50</u>		
<u>30</u>	<u>GO</u>	<u>20</u>	<u>80</u>		
	<u>1700' G.I.P.</u>				

Rec Total 402' BHT 113° Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>1940</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>11:08pm</u>
(B) First Initial Flow <u>47</u>	<input type="checkbox"/> Jars <u>—</u>	T-Started <u>11:30pm</u>
(C) First Final Flow <u>100</u>	<input type="checkbox"/> Safety Joint <u>—</u>	T-Open <u>2:07 am</u>
(D) Initial Shut-In <u>628</u>	<input type="checkbox"/> Circ Sub <u>—</u>	T-Pulled <u>4:30 am</u>
(E) Second Initial Flow <u>110</u>	<input type="checkbox"/> Hourly Standby <u>—</u>	T-Out <u>7:21 am</u>
(F) Second Final Flow <u>158</u>	<input checked="" type="checkbox"/> Mileage <u>121 RT</u> 187.55	Comments <u>ran 20min. final shut in b/c I thought I had tool problems.</u>
(G) Final Shut-In <u>594</u>	<input type="checkbox"/> Sampler <u>—</u>	<input type="checkbox"/> Ruined Shale Packer <u>—</u>
(H) Final Hydrostatic <u>1917</u>	<input type="checkbox"/> Straddle <u>—</u>	<input type="checkbox"/> Ruined Packer <u>—</u>
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer <u>—</u>	<input type="checkbox"/> Extra Copies <u>—</u>
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer <u>—</u>	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder <u>—</u>	Total <u>1337.55</u>
Final Shut-In <u>20</u>	<input type="checkbox"/> Day Standby <u>—</u>	MP/DST Disc't <u>—</u>
	<input type="checkbox"/> Accessibility <u>—</u>	
	Sub Total <u>1337.55</u>	

Approved By _____ Our Representative Cody Blum

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