Confidentiality Requested:
☐ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1111837

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: Jason Alm
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 #:

01/19/2013	01/27/2013	03/04/2013
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-065-23889-00-00
Spot Description:
SE - NE - SW - SW Sec. 14 Twp. 8 S. R. 22 ☐ East ☑ West
700 Feet from ☐ North / ☑ South Line of Section
1100 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: Faulkner Well #: 14-1
Field Name:
Producing Formation: Lansing
Elevation: Ground: 2109 Kelly Bushing: 2114
Total Vertical Depth: 3760 Plug Back Total Depth: 3729
Amount of Surface Pipe Set and Cemented at: 231 Feet
Multiple Stage Cementing Collar Used? ☐ Yes ☑ No
If yes, show depth set: Feet
If Alternate II completion, cement circulated from: 3760
feet depth to: w/ 520 sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 1500 ppm Fluid volume: 90 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: 03/25/2013
☑ **Confidential Release Date:** 03/25/2015
☑ **Wireline Log Received**
☑ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☐ I ☑ II ☐ III **Approved by:** NAOMI JAMES **Date:** 03/26/2013

1111837

Operator Name: H & C Oil Operating Inc. Lease Name: Faulkner Well #: 14-1

Sec. 14 Twp. 8 S. R. 22 ☐ 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:
Attached

☑ 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	231	common	160	3%cc, 2% gel
production	7.875	5.5	14	3749	common	150	10% salt, 5% gilsonite
production	7.875	5.5	14	3749	QMDC	370	1/4# floseal

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
4	3525 - 3532	2000 gal acid	3532
4	3472 - 3475	1800 gal acid	3475

TUBING RECORD: Size: 2.875 Set At: 3720 Packer At:

Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR. 3/8/2013

Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	80		40		34

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:
3472 -3532

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	Faulkner 14-1
Doc ID	1111837

All Electric Logs Run

Microresistivity log
Dual compensated porosity log
Dual induction log
Sonic Cement Bond log

Form	ACO1 - Well Completion
Operator	H & C Oil Operating Inc.
Well Name	Faulkner 14-1
Doc ID	1111837

Tops

Name	Top	Datum
Top Anhydrite	1690	+424
Base Anhydrite	1725	+389
Topeka	3092	-978
Heebner	3305	-1191
Toronto	3326	-1212
LKC	3338	-1224
BKC	3549	-1435
Arbuckle	3696	-1582

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/

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

Sam Brownback, Governor

January 30, 2013

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

Re: ACO1
API 15-065-23889-00-00
Faulkner 14-1
SW/4 Sec.14-08S-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

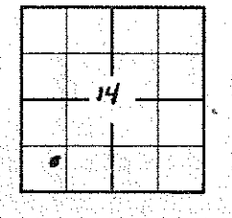
Marc Downing

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 FAULKNER # 14-1
FIELD WILDCAT
LOCATION 700' FSL & 1100' FWL
SEC. 14 TWP. 8S RGE. 22W
COUNTY GRAHAM
STATE KANSAS



PRODUCTION

ELEVATION KB 2114'
DF
GL 2109'
Drilling Measured From: KB

Samples Saved From 3100 To: TD
Drilling Time From 3000 To: TD
Samples Examined From: 3100 To: TD
Geological Supervision From 3100 To Total Depth
Wellsite Geologist Ron Nelson / Jason Alm
Electrical Surveys Pioneer Energy Services
CNL/CDL, DIL, MEL

OPERATOR H&C
CONTRACTOR AMERICAN EAGLE Rig #3
COMM: COMP:

CASING RECORD

SURF: 8 5/8" @ 231' PROD: 5 1/2" @ 3758'
TOTAL DEPTH DRILLERS: 3760'
TOTAL DEPTH LOG: 3759'

FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE TOP	ELECTRIC LOG TOP	SUB-SEA DATUM	STRUCTURAL POSITION
TOP ANHYDRITE		1690	+424	+6
BASE ANHYDRITE		1725	+389	+3
TOPEKA	3095'	3092'	-978	
HEEBNER	3306'	3305'	-1191	+19
TORONTO	3327'	3326'	-1212	+20
LKC	3339'	3338'	-1224	+20
BKC	3551'	3549'	-1435	+23
ARBUCKLE	3704'	3696'	-1582	+58

REFERENCE WELL FOR STRUCTURE Paragon Resources, Inc. – Faulkner #1
@ NE-NW-SW 14-8s-22w

DRILL STEM TESTS

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

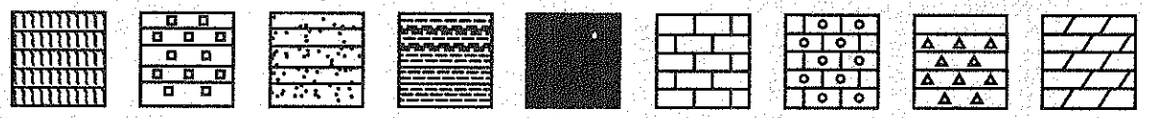
REMARKS AND RECOMMENDATIONS

Perforations:

LKC "K" Zone 3525'-3532'
LKC "H" Zone 3472'-3475'
LKC "F" Zone 3418'-3421' or "F" 3410'-3415'
LKC "D" Zone 3393'-3399'
LKC "C" Zone 3376'-3383'
LKC "A" Zone 3342'-3346'

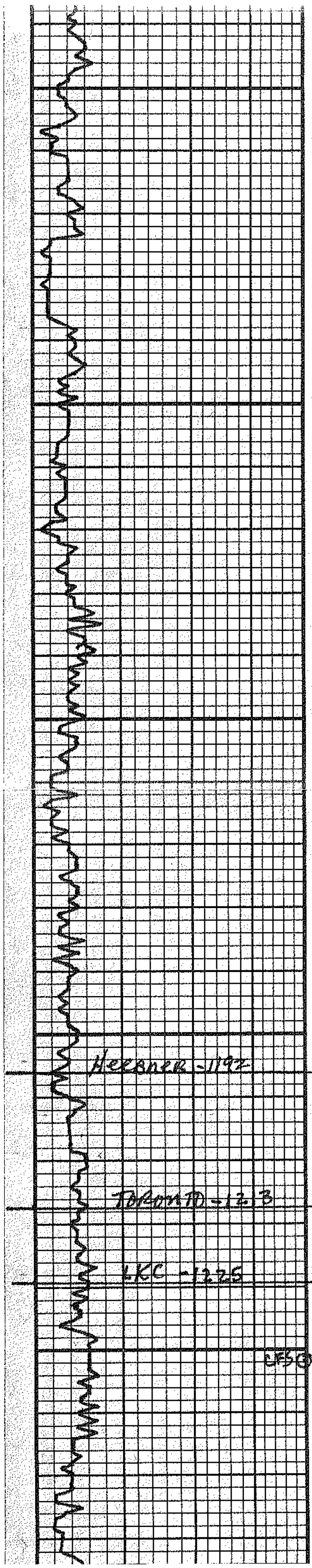
Respectfully Submitted,
Jason T Alm
1-28-2013

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″	DEPTH	LITHOLOGY	SAMPLE DESCRIPTIONS	OIL SHOWS	REMARKS
	3000				
	50				
TOPEKA - 981			gry sh		
	3100		Ls mstly gry. Sm mtld w/ sctd foss in v fn xyln cs NS. v pr ixyln		
			Ls aa w/ Sm tan dns cs		
			sh gry		
			mstly cs tan fn xyln pr ∅ NS.		
			sh v dk gry		
			Ls tan-gry v fn xyln v dns		



50

3200

50

3300

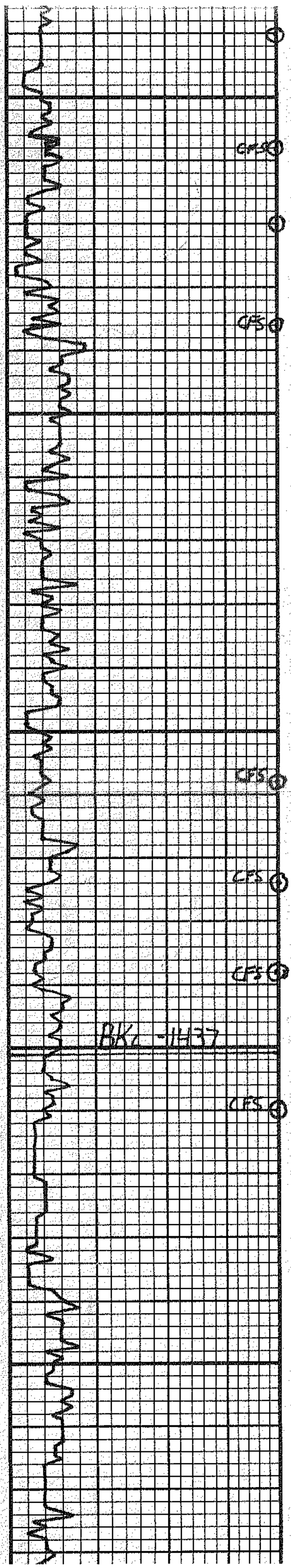
50

Shs gry dk gry Brn	
sm Blk carb ss	
gry Brn gry - Blk carb	50
Ls tan sm chky w/ foss. friable NS.	
Dns tan-gry fnxyln w/ chrt	
Ls tan chky sft friable sm foss all NS	
fn-mg micxyln NS. v pr Ø	
Sh Blk carb, mic	3200
Shs gry dk gry w/ v silty chky mttld Ls	
Sh brn, gry	
tan sucxyln Ls w/ sm dolo. gd Ø NS. sm vugdixylØ	
fn-mg Ls wh-gry fn xyln dns pr Ø NS.	
Sh v dk gry	
m xyln m oo dns, suc Ls, NS fr ppØ	50
Sh Blk carb	
Sh gry a bdnt red & Brn	
Ls tan-wh fn-md suc xyln fr-gd ixyl & ppØ NS no stn	
Sh dk gry	
chky marls fr-gd Ø NS, wh-tan	
Ls mstly fn-v fn xyln pr ixyl Ø NS.	
w/ v dns Ls & fn pcs cht NS	3300
Sh Blk carb	
Ls wh dns tight	
Shs v dk gry. Brn	
Sh a a	
Ls tan, md-fn xyln, pr ixyl Ø, NS w/ fn pcs wh tan cht all barren	
Sh gry	
Ls wh sm ool-foss in fn mat w/ fr int foss & sctd vug Ø. Sft, slod, Brn Sptd sctd stn	
Ls wh-tan mstly fn xyln dns pr ixyl Ø, NS	50
Ls a a sm gry-Brn all v fn xyln v dns no app Ø NS. w/ cht wh tan	
Shs blk carb v dk gry. gry. Brn	
Ls tan fw pcs. sl chky w/ rare sctd foss. v ss fr. v sl od, rare sptd sctd	

DST #1

DST #1
3337'-3352'
30"-45"-30"-45"
1st op sld 15' - BOB 4 min.
surf blow on S.I.
2nd op BOB 11 min.
surf blow on S.I.
IFP 33-85
FFP 90-149
SIP 1037-1000
HP 1839-1540
Rec: 2108' gas in pipe
310' GMCO
5% mud, 25% gas, 70% oil
62' OCM
20% oil 50% mud

DST #2
3384-3408'
30"-45"-30"-45"
1st op BOB 4 min
Surf blow on S.I.
2nd op BOB 4 min
Surf blow on S.I.



Ls. mo-crs, sucxyln, dolomitic, gd-vgd xyln, friable, vgsfo, vgd od, [illegible]

tan-v fn xyln dns ran Ls. v pr φ NS

Sh Blk carb

v dk gry Brn

Ls tan, sm tabul-w/gd intool φ, & gd pn-vgd oolstn, w/sfo, sl od, sm fn xyln w/sfo & gd pp & trc vug φ friable, ool cs [illegible] friable

Sh - Gry - Brn

Ls - Offwh - Tan, Fn xln, Ool. w/ Fair-Good oom ooc φ, Lt. spot oil stn φ, V. Sl. SFO, Lt. Odor, Chalky, Friable

Sh - Brn

Ls - Tan - Offwh, Subxln, Sl. Ool. w/ scat. v poor ooc φ, Barren

Sl. Δ - Lt. Gry - Wht

Ls - ala, V. DNS

Ls - ala

Sh - Blk, Carb.

Sh - Gry - Brn - Grn

Ls - Tan, Fn xln, Ool w/ Poor Scat. ooc φ, Lt. spot. oil stn in φ, V. Sl. SFO when broken, Lt. Odor

Sh - Gry - Brn

Ls - Offwh, Fn-Subxln w/ Scat. Pinpoint vugsy φ, Lt. - Fair spot. st, Fair SFO when broken, V. Lt. Odor, Mud, DNS, Sl. Chalky

Ls - Tan - Lt Brn, Fn xln, Ool. w/ Poor-Fair ooc φ, Lt. - Fair even brn st, spot. sat. in φ, FSFO, Fair Odor

Sh - Drk Gry - Blk

Ls - Wht - Tan, Fn xln, Ool w/ Fair - Good ooc & oom φ, Scat. Fair intexln φ, Fair - Good oil st - sat. GSFO, Good Odor, Pyritic, Fossil

Ls - Offwh - Tan - Sl. Mottled, Subxln, Sl. Chalky, DNS

Sh - Brn - Grn - Gry

Sh - ala

Ls - Tan, Subxln, Chalky

Sh - Brn - Grn

Ls - Tan - Offwh, Subxln w/ scat. pinpoint vugsy φ, V. Lt. tarry st in φ, Mostly DNS, Mostly Barren

Sh - Brn - Gry - Grn

Ls - Tan - Offwh, Subxln, Sl. Granular w/ v scat. pinpoint fossil φ, few pcs w/ Lt tarry st

Sh - Brn - Grn

Ls - Offwh - Lt Gry - V. Mottled, Subxln, Heavy Orange Δ, Barren

ΔV - Orange, V. Shaly - Multicolored, Barren, [illegible] DNS [illegible]

DST #2

DST #3

DST #4

DST #5

DST #6

IFP 30-179
FFP 181-296
SIP 1038-1031
HP 1644-1608
REC 310' gas
186' c gassy oil
124' GSOCWM
10% g : 10% oil : 30% w : 50% m
372' SOCMW
10% oil : 10% m : 80% wtr
BHT 110°

DST #3 3402' - 3420'
30" - 45" - 30" - 45"
1st op BOB 3 min
3 in blowback on S.I.
2nd op BOB 3 min
surf blow on S.I
IFP 27-171
FFP 176-306
SIP 994-984
HP 1642-1626
Rec: 682' GIP
1344' Gassy Oil
186' HOCM
50% Oil : 50% Mud

DST #4
3426' - 3436'
45" - 45" - 45" - 45"
1st op Built to 3 in.
Dead on S.I
2nd op Built to 2 in.
Dead on S.I.
IFP 16-29
FFP 32-46
SIP 1020-1019
HP 1649-1638
Rec: 60' Muddy Water
90% Water, 10% Mud

DST #5
3457' - 3524'
45" - 45" - 45" - 45"
1st op BOB 20 min.
surf. blow on SI
2nd op BOB 15 min.
1 in. blowback on SI
IFP 20-45
FFP 48-71
SIP 1239-1217
HP 1685-1657
Rec: 410' GIP
50' Gassy Oil
60% Oil, 40% Gas
100' HMGCO
50% Oil, 20% Gas, 30% Mud

DST #6
3518' - 3560'
45" - 45" - 45" - 45"
1st op BOB 8½ min.
Built to 3 in. on SI
2nd op BOB 16½ min.
Surf blow on SI
IFP 24-95#
FFP 107-167#
SIP 1113-1077#
HP 1715-1684#
Rec 620' GIP
310' Gassy Oil
124' GHMCWO

Sh - Brn - Gra - Gry

Ls - Tan, Microxln, DNS

Ls - ala

Sh - Gry - Brn, Few V. Well Lam. V. Fn Gr. SS clusters, DNS. Barren

sh - DNS Ss ala

SS - Dtc, Fn Gr. Sub-Rounded, Fairly Lam. Fairly Soft. w/ Poor inter-SS. ϕ. V. Tarry heavy oil ST in clusters, NSFO. No Odor, Mostly DNS. Dirty in part.

Sh - Red - Gry, Heavy Δ - Red - Yel. - Clr, V. Dol. ↑z

Arbuckle 5510

Dolo - Wht - Off wh, Fn - Med Rhom xln w/ Poor - V. Poor intrxln ϕ, Spot. Tarry oil ST, NSFO, No Odor, V. Pyrite

Dolo - ala, less Pyrite

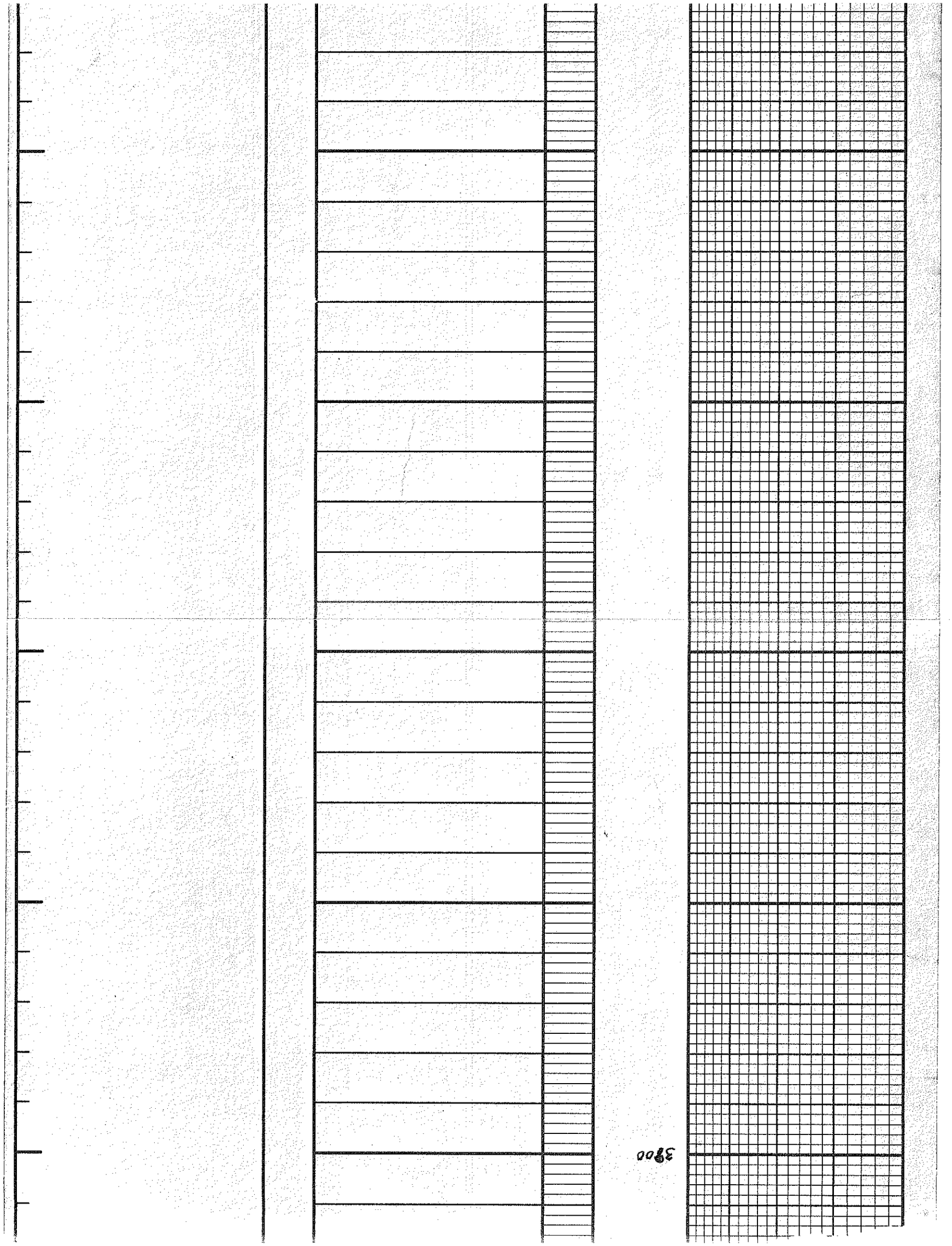
Dolo - Tan - Off wh, Fn - Sub xln w/ Poor - V. Poor ϕ. Barren, Mostly DNS

Dolo - Tan, Fn Sub. xln w/ Fair - Good intrxln ↑ vugsy ϕ. Barren. Δ - cal.

Dolo - ala

RTD - 16498

Respectfully
Jason Tate
1-28-2013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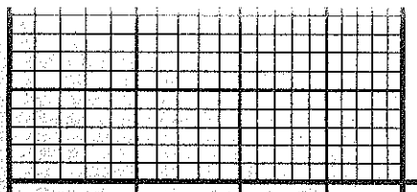
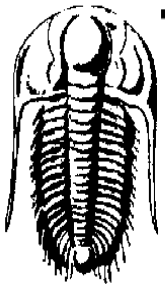


DRILLING TIME Minutes/Foot Rate of Penetration Decreases	DEPTH	LITHOLOGY	SAMPLE DESCRIPTIONS	OIL SHOWS	REMARKS

CONTRACTOR H&C OIL OPERATING, INC.
LEASE FAULKER #14-1 IP
ELEVATION 2114 KB RTD

LOCATION 700' FSL & 1100' FWL
SEC 14 TWP 8S RNG 22W
COUNTY GRAHAM STATE KANSAS



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

Faulkner #14-1

14-8s-22w Graham,KS

Start Date: 2013.01.23 @ 22:07:00
End Date: 2013.01.24 @ 06:44:00
Job Ticket #: 51579 DST #: 1

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

Printed: 2013.02.01 @ 08:32:47

DRILL STEM TEST REPORT

H&C Oil Operations Inc

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

14-8s-22w Graham,KS

Faulkner #14-1

Job Ticket: 51579 **DST#: 1**

Test Start: 2013.01.23 @ 22:07:00

GENERAL INFORMATION:

Formation: **KC "A"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 01:04:30
Time Test Ended: 06:44:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Cody Bloedorn
Unit No: 66

Interval: 3337.00 ft (KB) To 3352.00 ft (KB) (TVD)
Total Depth: 3352.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

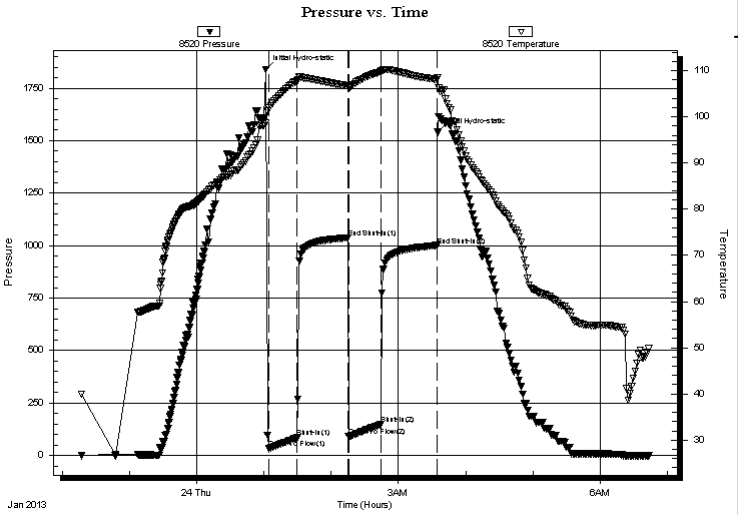
Reference Elevations: 2114.00 ft (KB)
2109.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8520 **Outside**

Press@RunDepth: 149.14 psig @ 3338.00 ft (KB)
Start Date: 2013.01.23 End Date: 2013.01.24
Start Time: 22:17:00 End Time: 06:44:00

Capacity: 8000.00 psig
Last Calib.: 2013.01.24
Time On Btm: 2013.01.24 @ 01:01:30
Time Off Btm: 2013.01.24 @ 03:35:00

TEST COMMENT: 30 - IF- B.O.B. in 4 Minutes
45 - ISI- Surface blow back
30 - FF- B.O.B. in 11 Minutes
45 - FSI- Surface blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1839.40	98.58	Initial Hydro-static
3	33.46	101.87	Open To Flow (1)
28	85.52	107.81	Shut-In(1)
74	1037.33	106.71	End Shut-In(1)
74	90.71	106.43	Open To Flow (2)
103	149.14	109.82	Shut-In(2)
153	1000.98	108.08	End Shut-In(2)
154	1540.55	108.39	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	OCM, 20%O, 80%M	0.87
310.00	GMCO, 5%M, 25%G, 70%O	4.35
0.00	2108' of G.I.P.	0.00

Gas Rates

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

DRILL STEM TEST REPORT

H&C Oil Operations Inc

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

14-8s-22w Graham,KS

Faulkner #14-1

Job Ticket: 51579 **DST#: 1**

Test Start: 2013.01.23 @ 22:07:00

GENERAL INFORMATION:

Formation: **KC "A"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 01:04:30
Time Test Ended: 06:44:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Cody Bloedorn
Unit No: 66

Interval: 3337.00 ft (KB) To 3352.00 ft (KB) (TVD)
Total Depth: 3352.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

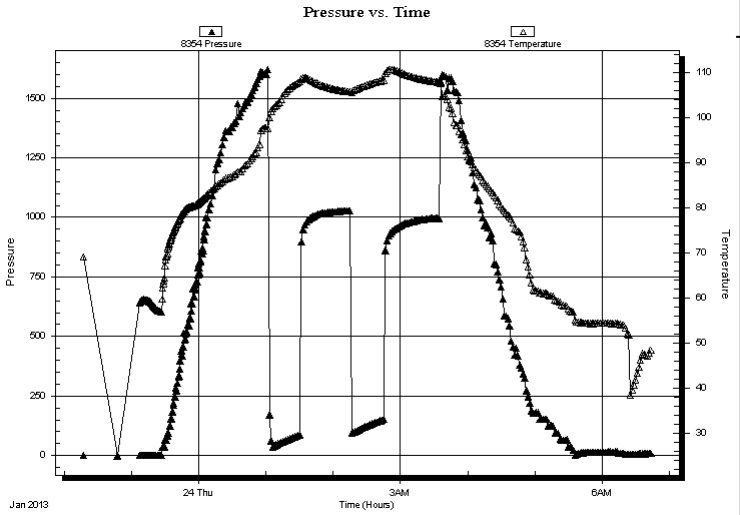
Reference Elevations: 2114.00 ft (KB)
2109.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8354 **Inside**

Press@RunDepth: psig @ 3338.00 ft (KB)
Start Date: 2013.01.23 End Date: 2013.01.24
Start Time: 22:17:00 End Time: 06:44:30

Capacity: 8000.00 psig
Last Calib.: 2013.01.24
Time On Btm:
Time Off Btm:

TEST COMMENT: 30 - IF- B.O.B. in 4 Minutes
45 - ISI- Surface blow back
30 - FF- B.O.B. in 11 Minutes
45 - FSI- Surface blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
62.00	OCM, 20%O, 80%M	0.87
310.00	GMCO, 5%M, 25%G, 70%O	4.35
0.00	2108' of G.I.P.	0.00

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

H&C Oil Operations Inc

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

14-8s-22w Graham,KS

Faulkner #14-1

Job Ticket: 51579 **DST#: 1**

Test Start: 2013.01.23 @ 22:07:00

Tool Information

Drill Pipe:	Length:	3339.00 ft	Diameter:	3.80 inches	Volume:	46.84 bbl	Tool Weight:		2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		30000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	Weight to Pull Loose:		85000.00 lb
					Total Volume:	46.84 bbl	Tool Chased		8.00 ft
Drill Pipe Above KB:		22.00 ft					String Weight:	Initial	42000.00 lb
Depth to Top Packer:		3337.00 ft						Final	48000.00 lb
Depth to Bottom Packer:		ft							
Interval between Packers:		15.00 ft							
Tool Length:		35.00 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			3318.00		
Shut In Tool	5.00			3323.00		
Hydraulic tool	5.00			3328.00		
Packer	5.00			3333.00	20.00	Bottom Of Top Packer
Packer	4.00			3337.00		
Stubb	1.00			3338.00		
Recorder	0.00	8354	Inside	3338.00		
Recorder	0.00	8520	Outside	3338.00		
Perforations	11.00			3349.00		
Bullnose	3.00			3352.00	15.00	Bottom Packers & Anchor
Total Tool Length:	**35.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

H&C Oil Operations Inc

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

14-8s-22w Graham,KS

Faulkner #14-1

Job Ticket: 51579 **DST#: 1**

Test Start: 2013.01.23 @ 22:07:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	8.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	52.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.56 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1300.00 ppm				
Filter Cake:	inches				

Recovery Information

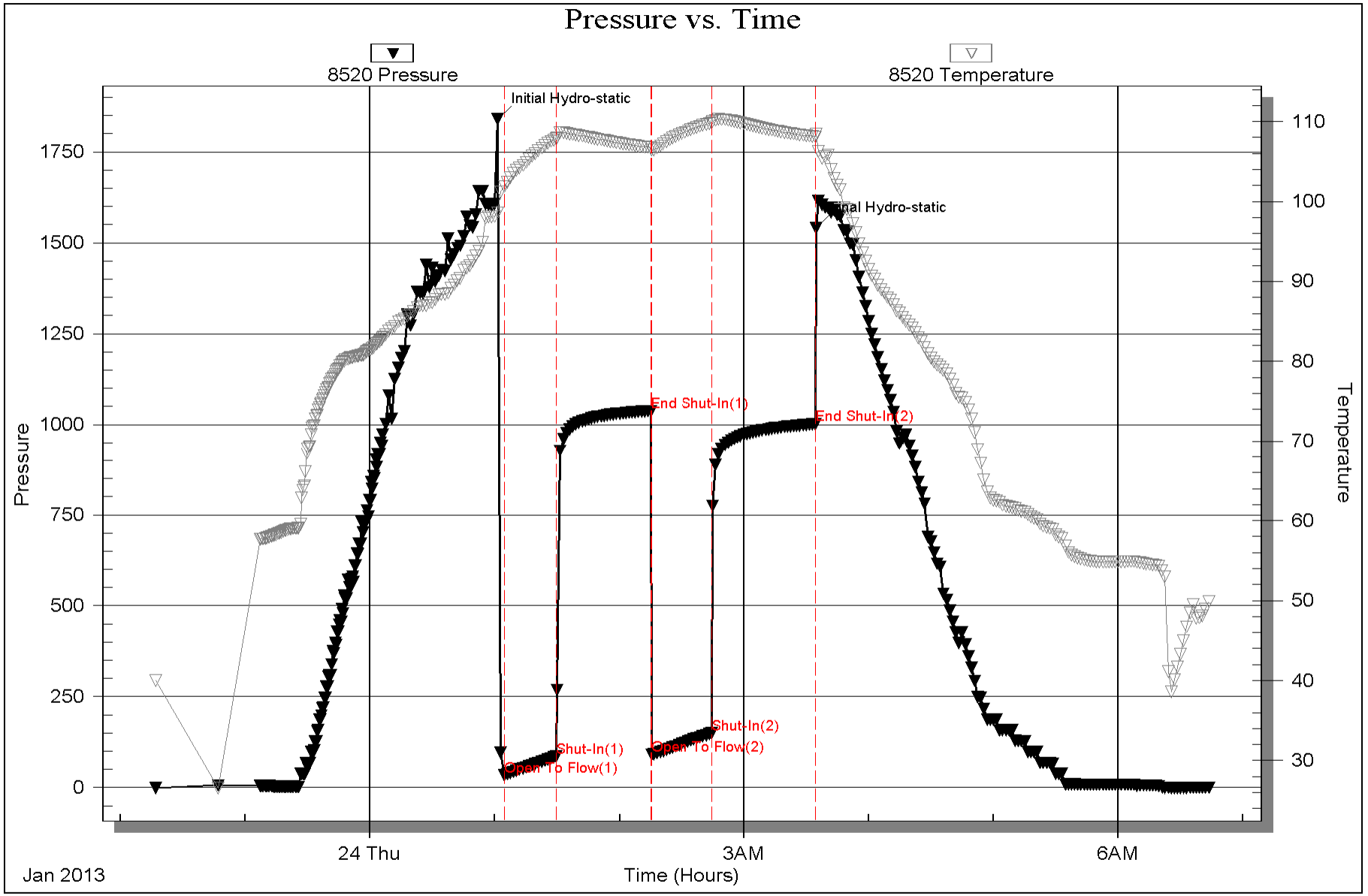
Recovery Table

Length ft	Description	Volume bbl
62.00	OCM, 20%O, 80%M	0.870
310.00	GMCO, 5%M, 25%G, 70%O	4.348
0.00	2108' of G.I.P.	0.000

Total Length: 372.00 ft Total Volume: 5.218 bbl

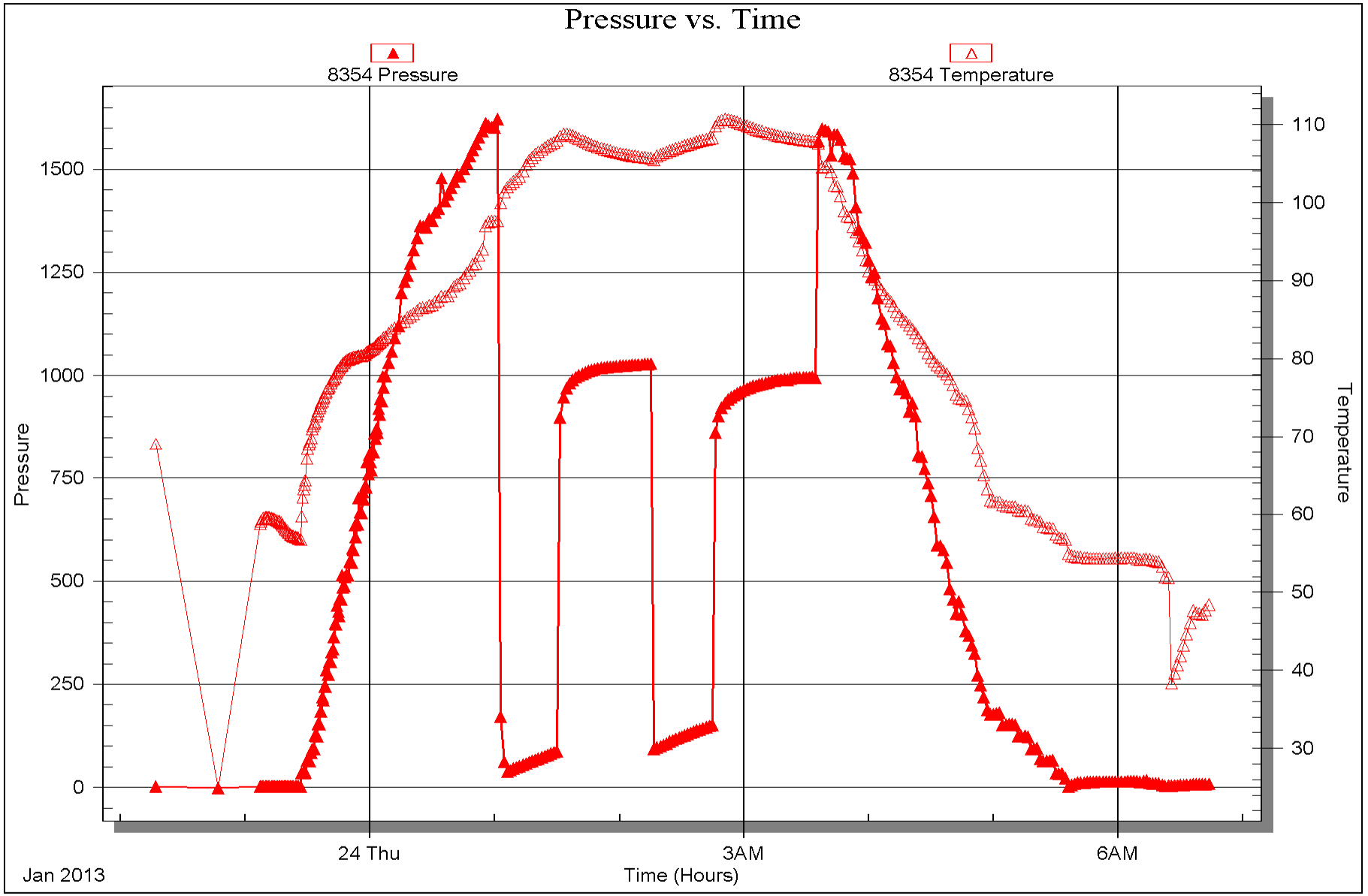
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8520 **Outside** H&C Oil Operations Inc Faulkner #14-1 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 51579 Printed: 2013.02.01 @ 08:32:50

Serial #: 8354 **Inside** H&C Oil Operations Inc Faulkner #14-1 DST Test Number: 1



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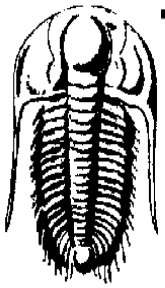


DRILL STEM TEST REPORT

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

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

Faulkner #14-1

14-8s-22w Graham,KS

Start Date: 2013.01.24 @ 17:06:00

End Date: 2013.01.24 @ 23:54:00

Job Ticket #: 51580 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.02.01 @ 08:31:08

DRILL STEM TEST REPORT

H&C Oil Operations Inc

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

14-8s-22w Graham,KS

Faulkner #14-1

Job Ticket: 51580 **DST#: 2**

Test Start: 2013.01.24 @ 17:06:00

GENERAL INFORMATION:

Formation: **KC "D"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 19:07:00
Time Test Ended: 23:54:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Cody Bloedorn
Unit No: 66

Interval: 3384.00 ft (KB) To 3408.00 ft (KB) (TVD)
Total Depth: 3408.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

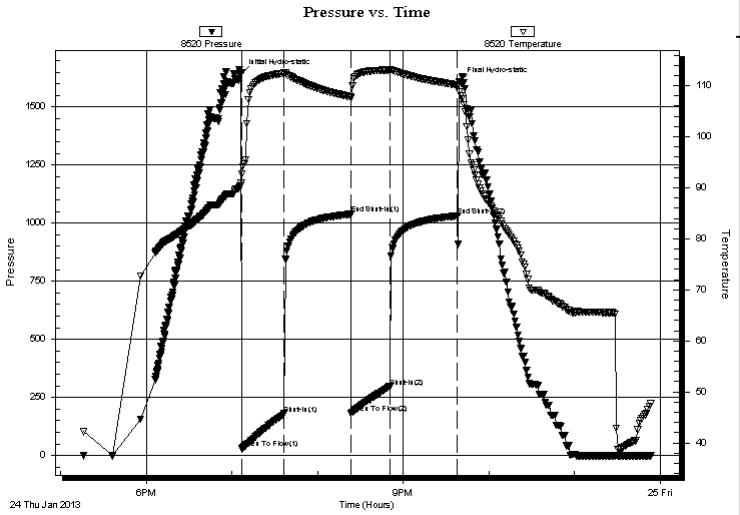
Reference Elevations: 2114.00 ft (KB)
2109.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8520 **Outside**

Press@RunDepth: 296.36 psig @ 3385.00 ft (KB)
Start Date: 2013.01.24 End Date: 2013.01.24
Start Time: 17:16:00 End Time: 23:54:00

Capacity: 8000.00 psig
Last Calib.: 2013.01.25
Time On Btm: 2013.01.24 @ 19:06:30
Time Off Btm: 2013.01.24 @ 21:39:30

TEST COMMENT: 30 - IF- B.O.B. in 4 minutes.
45 - ISI- Surface blow
30 - FF- B.O.B. in 11 Minutes
45 - FSI- Surface blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1644.22	90.92	Initial Hydro-static
1	30.86	92.65	Open To Flow (1)
30	179.15	112.47	Shut-In(1)
77	1038.12	107.85	End Shut-In(1)
77	181.90	107.57	Open To Flow (2)
104	296.36	113.09	Shut-In(2)
152	1031.14	110.12	End Shut-In(2)
153	1608.86	108.74	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
372.00	SOCMW, 10%M, 10%O, 80%W	5.22
124.00	GSOCWM, 10%G, 10%O, 30%W, 50%M	1.74
186.00	GO, 15%G, 85%0	2.61
0.00	310' of G.I.P.	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

H&C Oil Operations Inc

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

14-8s-22w Graham,KS

Faulkner #14-1

Job Ticket: 51580 **DST#: 2**

Test Start: 2013.01.24 @ 17:06:00

GENERAL INFORMATION:

Formation: **KC "D"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 19:07:00
Time Test Ended: 23:54:00

Test Type: Conventional Bottom Hole (Reset)
Tester: Cody Bloedorn
Unit No: 66

Interval: 3384.00 ft (KB) To 3408.00 ft (KB) (TVD)
Total Depth: 3408.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

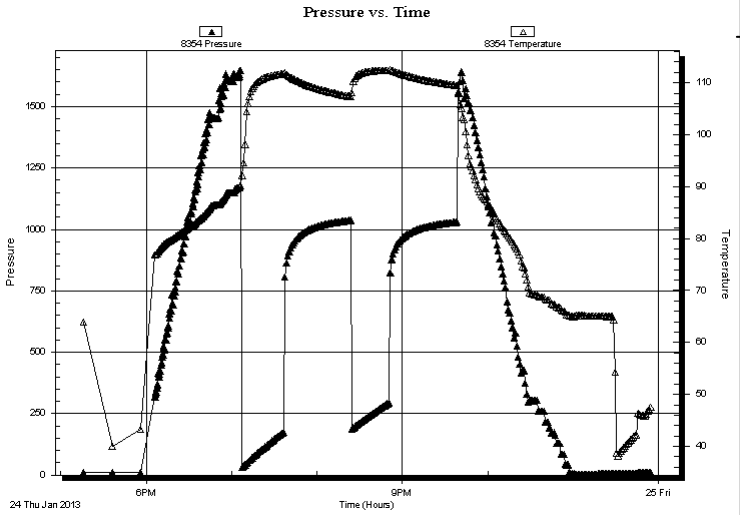
Reference Elevations: 2114.00 ft (KB)
2109.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8354 **Inside**

Press@RunDepth: psig @ 3385.00 ft (KB)
Start Date: 2013.01.24 End Date: 2013.01.24
Start Time: 17:16:00 End Time: 23:54:30

Capacity: 8000.00 psig
Last Calib.: 2013.01.25
Time On Btm:
Time Off Btm:

TEST COMMENT: 30 - IF- B.O.B. in 4 minutes.
45 - ISI- Surface blow
30 - FF- B.O.B. in 11 Minutes
45 - FSI- Surface blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
372.00	SOCMW, 10%M, 10%O, 80%W	5.22
124.00	GSOCWM, 10%G, 10%O, 30%W, 50%M	1.74
186.00	GO, 15%G, 85%0	2.61
0.00	310' of G.I.P.	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

H&C Oil Operations Inc

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

14-8s-22w Graham,KS

Faulkner #14-1

Job Ticket: 51580 **DST#: 2**

Test Start: 2013.01.24 @ 17:06:00

Tool Information

Drill Pipe:	Length:	3370.00 ft	Diameter:	3.80 inches	Volume:	47.27 bbl	Tool Weight:		2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		30000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	Weight to Pull Loose:		54000.00 lb
					Total Volume:	47.27 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		6.00 ft					String Weight:	Initial	42000.00 lb
Depth to Top Packer:		3384.00 ft						Final	48000.00 lb
Depth to Bottom Packer:		ft							
Interval between Packers:		24.00 ft							
Tool Length:		44.00 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			3365.00		
Shut In Tool	5.00			3370.00		
Hydraulic tool	5.00			3375.00		
Packer	5.00			3380.00	20.00	Bottom Of Top Packer
Packer	4.00			3384.00		
Stubb	1.00			3385.00		
Recorder	0.00	8354	Inside	3385.00		
Recorder	0.00	8520	Outside	3385.00		
Perforations	20.00			3405.00		
Bullnose	3.00			3408.00	24.00	Bottom Packers & Anchor
Total Tool Length:	**44.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

H&C Oil Operations Inc

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

14-8s-22w Graham,KS

Faulkner #14-1

Job Ticket: 51580 **DST#: 2**

Test Start: 2013.01.24 @ 17:06:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	8.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	52.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.56 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1300.00 ppm				
Filter Cake:	inches				

Recovery Information

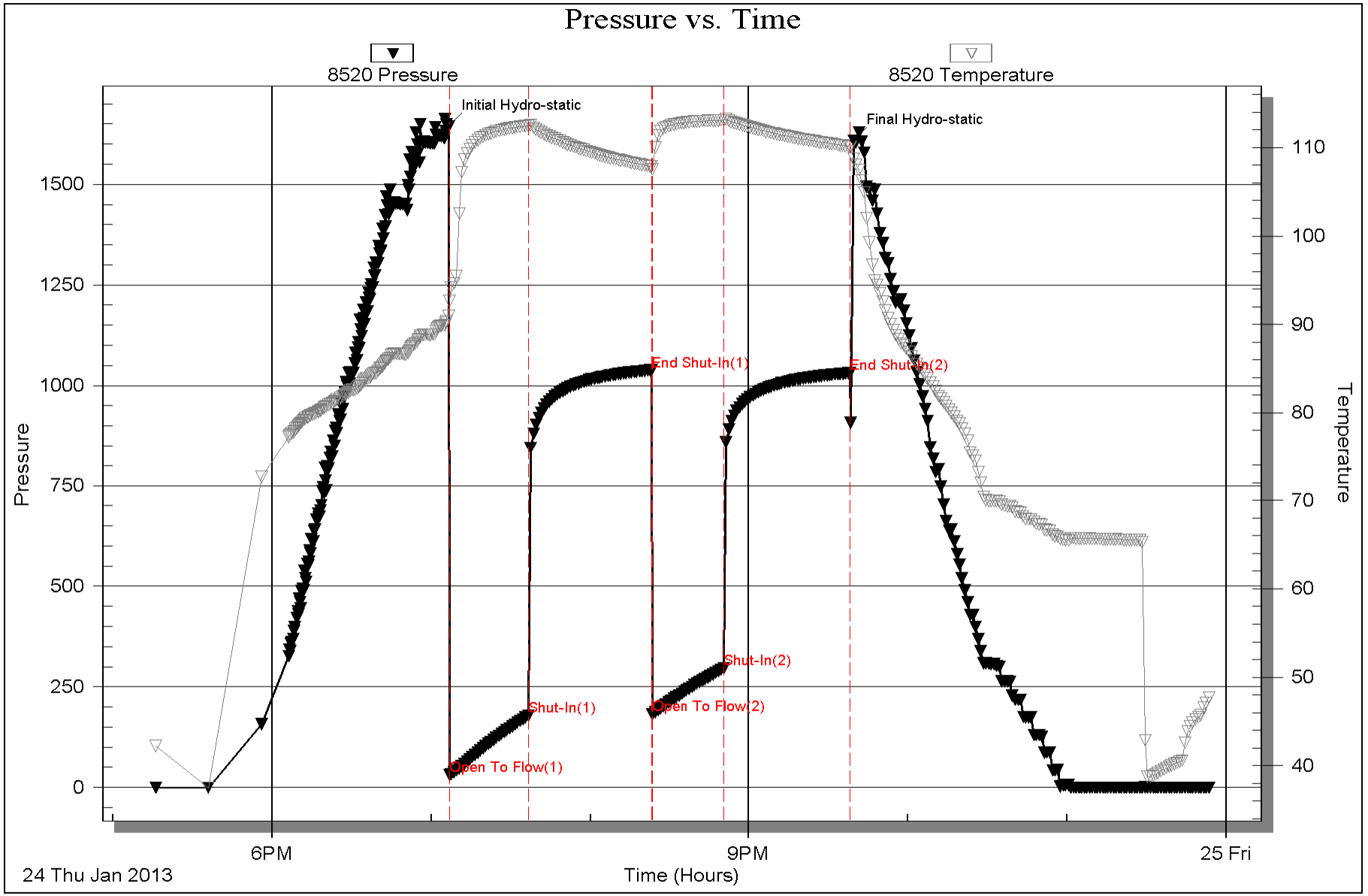
Recovery Table

Length ft	Description	Volume bbl
372.00	SOCMW, 10%M, 10%O, 80%W	5.218
124.00	GSOCWM, 10%G, 10%O, 30%W, 50%M	1.739
186.00	GO, 15%G, 85%0	2.609
0.00	310' of G.I.P.	0.000

Total Length: 682.00 ft Total Volume: 9.566 bbl

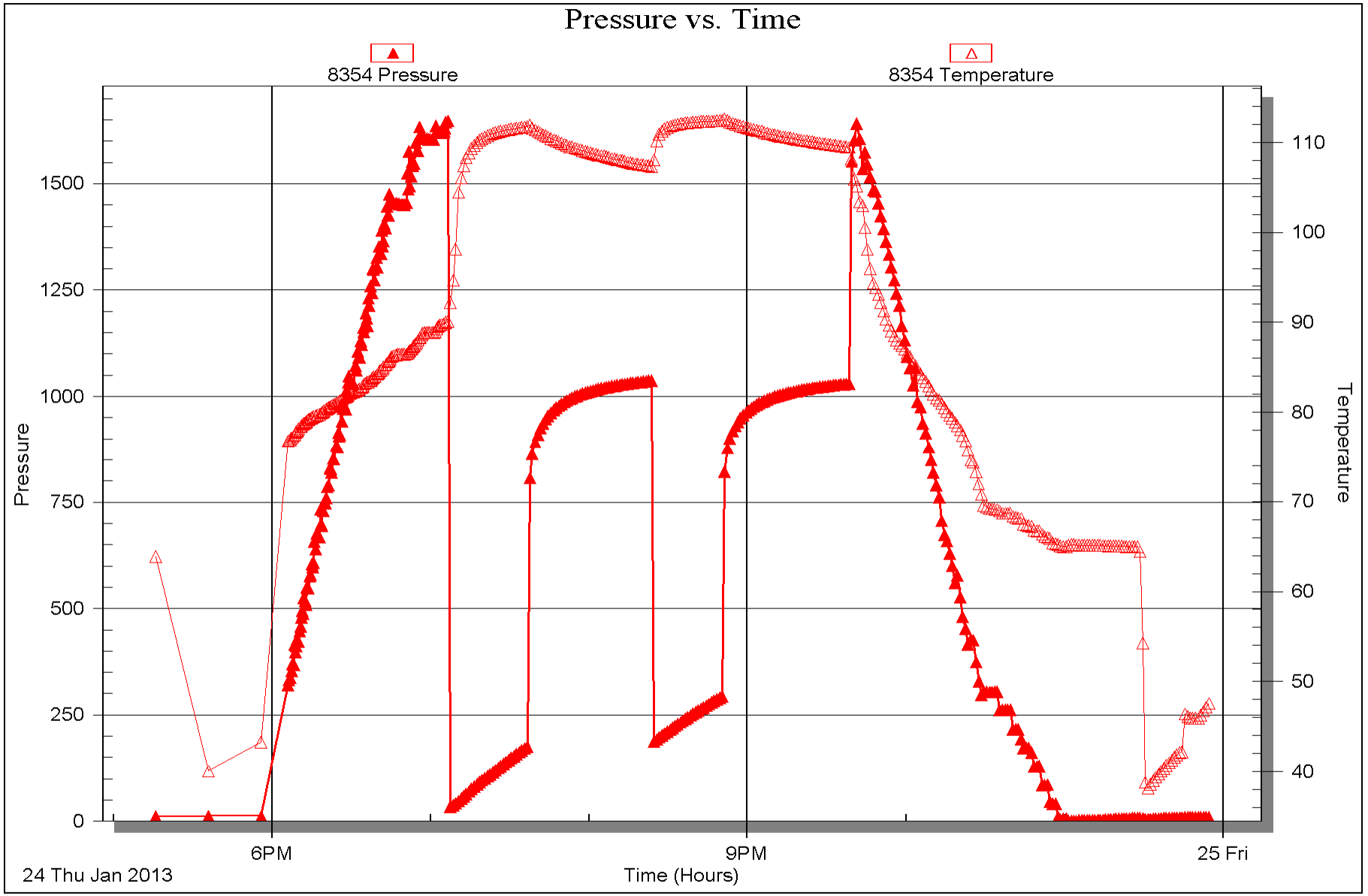
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8520 **Outside** H&C Oil Operations Inc Faulkner #14-1 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 51580 Printed: 2013.02.01 @ 08:31:11

Serial #: 8354 **Inside** H&C Oil Operations Inc Faulkner #14-1 DST Test Number: 2



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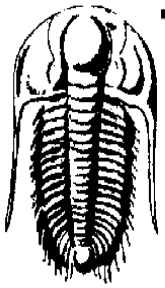


TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

Faulkner #14-1

14-8s-22w Graham,KS

Start Date: 2013.01.25 @ 06:26:00
End Date: 2013.01.25 @ 13:13:30
Job Ticket #: 51581 DST #: 3

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

Printed: 2013.02.01 @ 08:30:04

DRILL STEM TEST REPORT

H&C Oil Operations Inc

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

14-8s-22w Graham,KS

Faulkner #14-1

Job Ticket: 51581 **DST#: 3**

Test Start: 2013.01.25 @ 06:26:00

GENERAL INFORMATION:

Formation: **KC "E"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 08:31:00
Time Test Ended: 13:13:30

Test Type: Conventional Bottom Hole (Reset)
Tester: Cody Bloedorn
Unit No: 66

Interval: 3402.00 ft (KB) To 3420.00 ft (KB) (TVD)
Total Depth: 3420.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

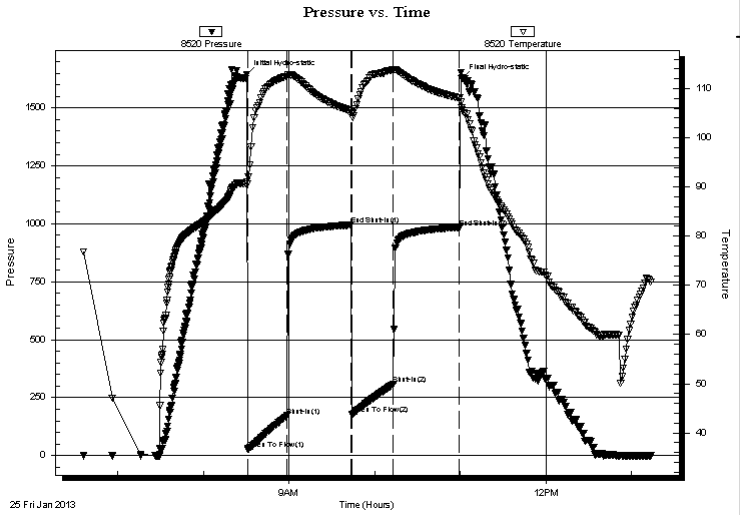
Reference Elevations: 2114.00 ft (KB)
2109.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8520 **Outside**

Press@RunDepth: 306.85 psig @ 3403.00 ft (KB)
Start Date: 2013.01.25 End Date: 2013.01.25
Start Time: 06:36:00 End Time: 13:13:30

Capacity: 8000.00 psig
Last Calib.: 2013.01.25
Time On Btm: 2013.01.25 @ 08:30:30
Time Off Btm: 2013.01.25 @ 11:01:00

TEST COMMENT: 30 - IF- B.O.B. in 3 minutes
45 - ISI- 3" blow back
30 - FF- B.O.B. in 3 Minutes
45 - FSI- Weak surface blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1642.82	91.00	Initial Hydro-static
1	27.27	90.60	Open To Flow (1)
28	171.35	112.51	Shut-In(1)
73	994.84	105.43	End Shut-In(1)
74	176.77	105.04	Open To Flow (2)
103	306.85	113.76	Shut-In(2)
149	984.64	108.10	End Shut-In(2)
151	1626.06	106.07	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
186.00	HOCM, 50%O, 50%M	2.61
1344.00	GO, 20%G, 80%O	18.85
0.00	682' of G.I.P.	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

H&C Oil Operations Inc

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

14-8s-22w Graham,KS

Faulkner #14-1

Job Ticket: 51581 **DST#: 3**

Test Start: 2013.01.25 @ 06:26:00

GENERAL INFORMATION:

Formation: **KC "E"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 08:31:00
Time Test Ended: 13:13:30

Test Type: Conventional Bottom Hole (Reset)
Tester: Cody Bloedorn
Unit No: 66

Interval: 3402.00 ft (KB) To 3420.00 ft (KB) (TVD)
Total Depth: 3420.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

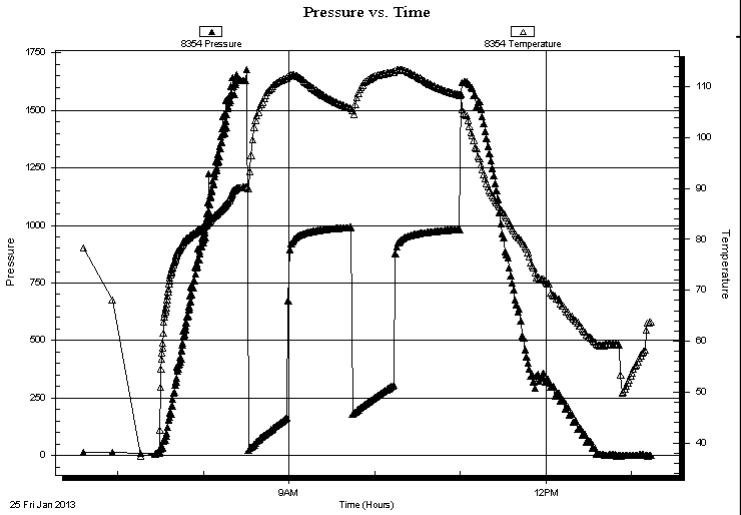
Reference Elevations: 2114.00 ft (KB)
2109.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8354 **Inside**

Press@RunDepth: psig @ 3403.00 ft (KB)
Start Date: 2013.01.25 End Date: 2013.01.25
Start Time: 06:36:00 End Time: 13:14:00

Capacity: 8000.00 psig
Last Calib.: 2013.01.25
Time On Btm:
Time Off Btm:

TEST COMMENT: 30 - IF- B.O.B. in 3 minutes
45 - ISI- 3" blow back
30 - FF- B.O.B. in 3 Minutes
45 - FSI- Weak surface blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
186.00	HOCM, 50%O, 50%M	2.61
1344.00	GO, 20%G, 80%O	18.85
0.00	682' of G.I.P.	0.00

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

H&C Oil Operations Inc

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

14-8s-22w Graham,KS

Faulkner #14-1

Job Ticket: 51581 **DST#: 3**

Test Start: 2013.01.25 @ 06:26:00

Tool Information

Drill Pipe:	Length:	3400.00 ft	Diameter:	3.80 inches	Volume:	47.69 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:	2.25 inches	Volume:	0.00 bbl	Weight to Pull Loose:		49000.00 lb
					Total Volume:	47.69 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		18.00 ft					String Weight:	Initial	42000.00 lb
Depth to Top Packer:		3402.00 ft						Final	45000.00 lb
Depth to Bottom Packer:		ft							
Interval between Packers:		18.00 ft							
Tool Length:		38.00 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			3383.00		
Shut In Tool	5.00			3388.00		
Hydraulic tool	5.00			3393.00		
Packer	5.00			3398.00	20.00	Bottom Of Top Packer
Packer	4.00			3402.00		
Stubb	1.00			3403.00		
Recorder	0.00	8354	Inside	3403.00		
Recorder	0.00	8520	Outside	3403.00		
Perforations	14.00			3417.00		
Bullnose	3.00			3420.00	18.00	Bottom Packers & Anchor
Total Tool Length:	**38.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

H&C Oil Operations Inc

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

14-8s-22w Graham,KS

Faulkner #14-1

Job Ticket: 51581 **DST#: 3**

Test Start: 2013.01.25 @ 06:26:00

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:	60.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.77 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
186.00	HOCM, 50%O, 50%M	2.609
1344.00	GO, 20%G, 80%O	18.853
0.00	682' of G.I.P.	0.000

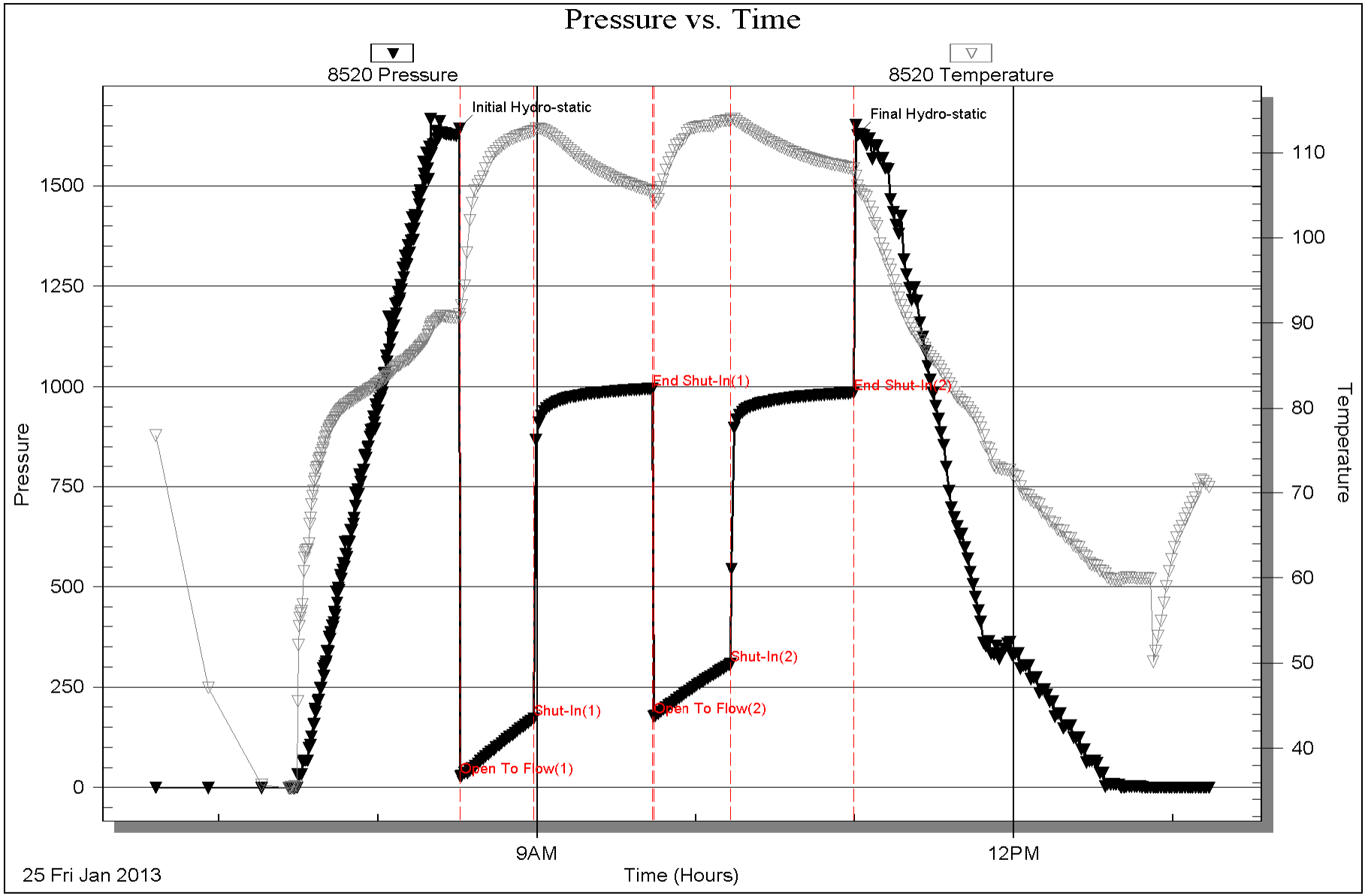
Total Length: 1530.00 ft Total Volume: 21.462 bbl

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

Laboratory Name: Laboratory Location:

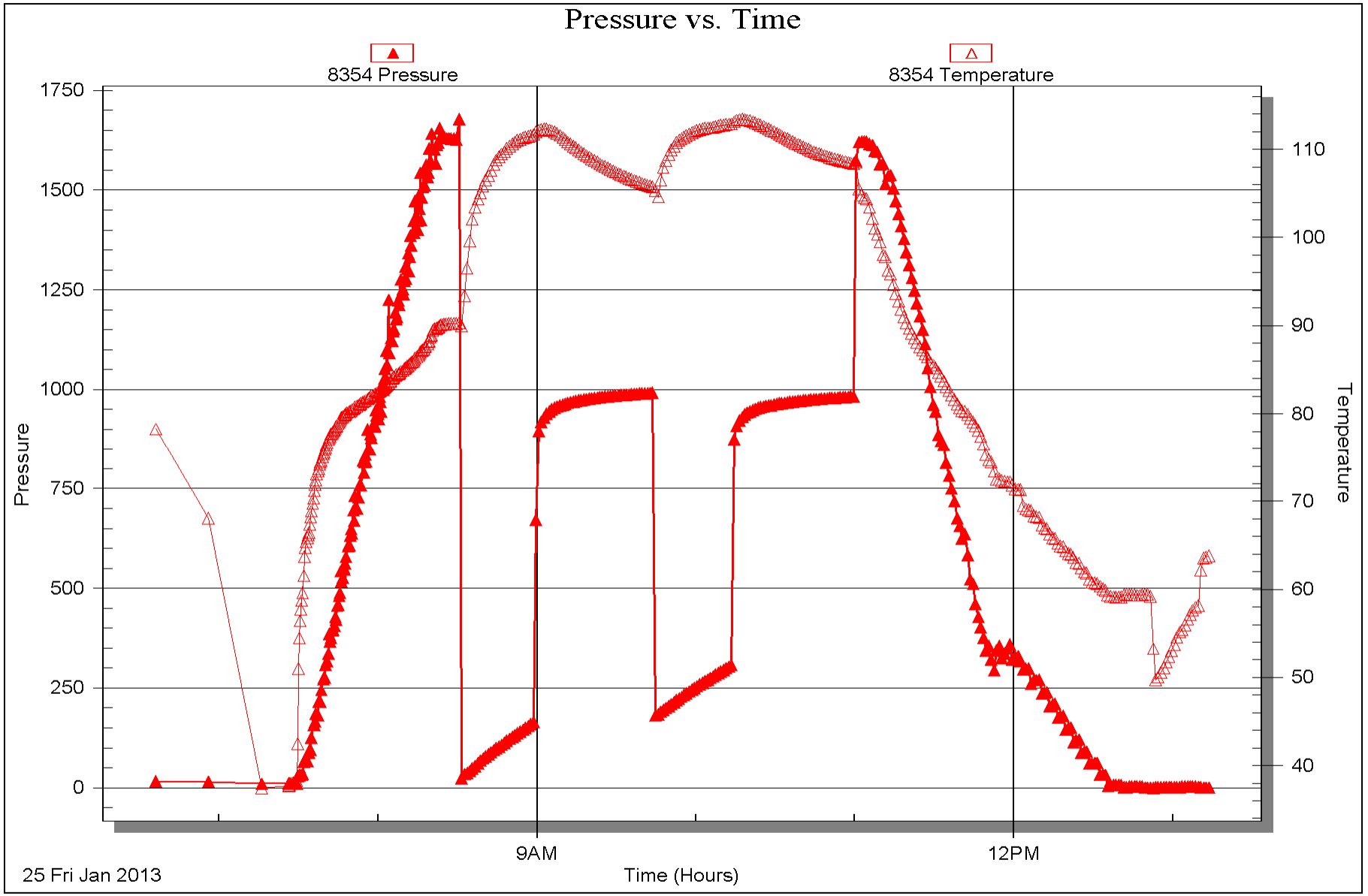
Recovery Comments: Gravity: 36 @ 60 Degrees= 36

Serial #: 8520 **Outside** H&C Oil Operations Inc Faulkner #14-1 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 51581 Printed: 2013.02.01 @ 08:30:06

Serial #: 8354 **Inside** H&C Oil Operations Inc Faulkner #14-1 DST Test Number: 3



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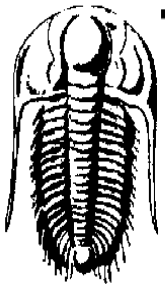


TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

Faulkner #14-1

14-8s-22w Graham,KS

Start Date: 2013.01.25 @ 19:31:30
End Date: 2013.01.26 @ 02:17:30
Job Ticket #: 50333 DST #: 4

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

Printed: 2013.02.01 @ 08:28:54

DRILL STEM TEST REPORT

H&C Oil Operations Inc

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

14-8s-22w Graham,KS

Faulkner #14-1

Job Ticket: 50333 **DST#: 4**

Test Start: 2013.01.25 @ 19:31:30

GENERAL INFORMATION:

Formation: **LKC "F"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 21:27:40
Time Test Ended: 02:17:30

Test Type: Conventional Bottom Hole (Initial)
Tester: Dustin Rash
Unit No: 66

Interval: 3426.00 ft (KB) To 3436.00 ft (KB) (TVD)
Total Depth: 3436.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

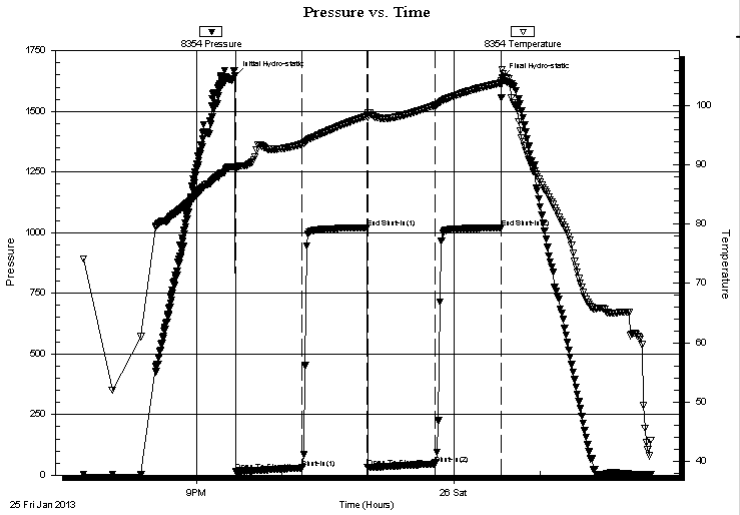
Reference Elevations: 2114.00 ft (KB)
2109.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8354 **Inside**

Press@RunDepth: 46.35 psig @ 3429.00 ft (KB)
Start Date: 2013.01.25 End Date: 2013.01.26
Start Time: 19:41:30 End Time: 02:17:30

Capacity: 8000.00 psig
Last Calib.: 2013.01.26
Time On Btm: 2013.01.25 @ 21:27:20
Time Off Btm: 2013.01.26 @ 00:33:30

TEST COMMENT: IF-Weak building blow . Built to 3 inches.
ISI-No Return.
FF-Weak building blow . Built to 2 inches.
FSI-No Return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1649.13	89.65	Initial Hydro-static
1	15.90	89.21	Open To Flow (1)
47	28.68	93.52	Shut-In(1)
92	1020.06	98.26	End Shut-In(1)
93	32.35	97.97	Open To Flow (2)
140	46.35	100.08	Shut-In(2)
186	1018.97	103.86	End Shut-In(2)
187	1637.92	106.14	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	10%Mud/90%Water	0.84

Gas Rates

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

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

H&C Oil Operations Inc

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

14-8s-22w Graham,KS

Faulkner #14-1

Job Ticket: 50333 **DST#: 4**

Test Start: 2013.01.25 @ 19:31:30

GENERAL INFORMATION:

Formation: **LKC "F"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 21:27:40
Time Test Ended: 02:17:30

Test Type: Conventional Bottom Hole (Initial)
Tester: Dustin Rash
Unit No: 66

Interval: 3426.00 ft (KB) To 3436.00 ft (KB) (TVD)
Total Depth: 3436.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

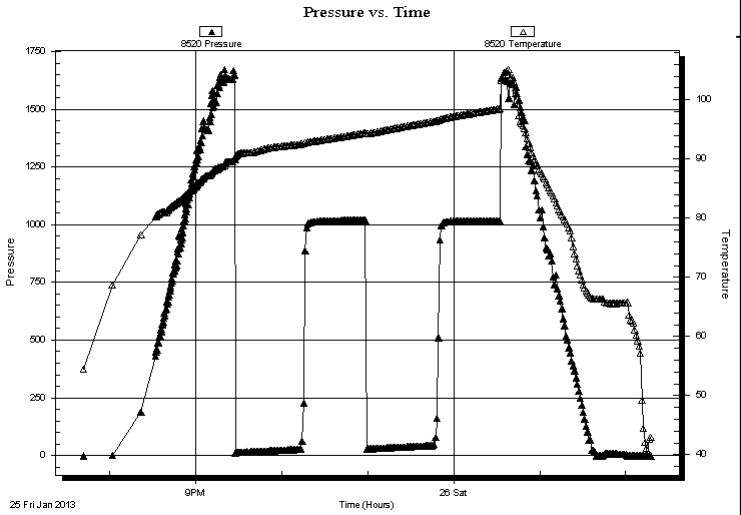
Reference Elevations: 2114.00 ft (KB)
2109.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8520 **Outside**

Press@RunDepth: psig @ 3429.00 ft (KB)
Start Date: 2013.01.25 End Date: 2013.01.26
Start Time: 19:41:45 End Time: 02:17:15

Capacity: 8000.00 psig
Last Calib.: 2013.01.26
Time On Btm:
Time Off Btm:

TEST COMMENT: IF-Weak building blow . Built to 3 inches.
ISI-No Return.
FF-Weak building blow . Built to 2 inches.
FSI-No Return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	10%Mud/90%Water	0.84

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

H&C Oil Operations Inc

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

14-8s-22w Graham,KS

Faulkner #14-1

Job Ticket: 50333 **DST#: 4**

Test Start: 2013.01.25 @ 19:31:30

Tool Information

Drill Pipe:	Length:	3430.00 ft	Diameter:	3.80 inches	Volume:	48.11 bbl	Tool Weight:		2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.70 inches	Volume:	0.00 bbl	Weight set on Packer:		24000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	Weight to Pull Loose:		5000.00 lb
					Total Volume:	48.11 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		24.00 ft					String Weight:	Initial	42000.00 lb
Depth to Top Packer:		3426.00 ft						Final	43000.00 lb
Depth to Bottom Packer:		ft							
Interval between Packers:		10.00 ft							
Tool Length:		30.00 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			3407.00		
Shut In Tool	5.00			3412.00		
Hydraulic tool	5.00			3417.00		
Packer	5.00			3422.00	20.00	Bottom Of Top Packer
Packer	4.00			3426.00		
Stubb	1.00			3427.00		
Perforations	2.00			3429.00		
Recorder	0.00	8354	Inside	3429.00		
Recorder	0.00	8520	Outside	3429.00		
Perforations	4.00			3433.00		
Bullnose	3.00			3436.00	10.00	Bottom Packers & Anchor
Total Tool Length:	**30.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

H&C Oil Operations Inc

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

14-8s-22w Graham,KS

Faulkner #14-1

Job Ticket: 50333 **DST#: 4**

Test Start: 2013.01.25 @ 19:31:30

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	35000 ppm
Viscosity:	49.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.78 in³	Gas Cushion Type:			
Resistivity:	0.37 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1400.00 ppm				
Filter Cake:	inches				

Recovery Information

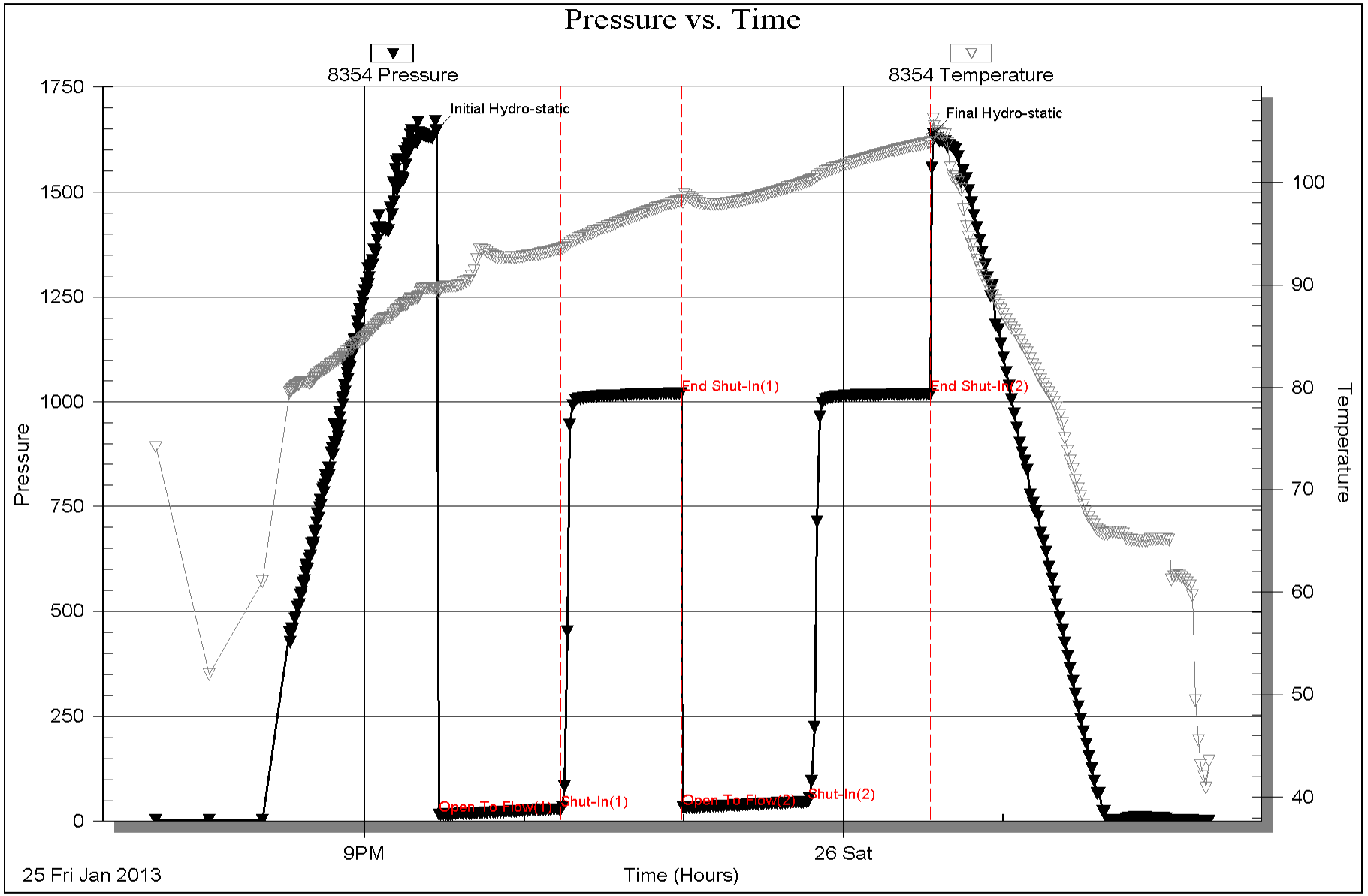
Recovery Table

Length ft	Description	Volume bbl
60.00	10%Mud/90%Water	0.842

Total Length: 60.00 ft Total Volume: 0.842 bbl

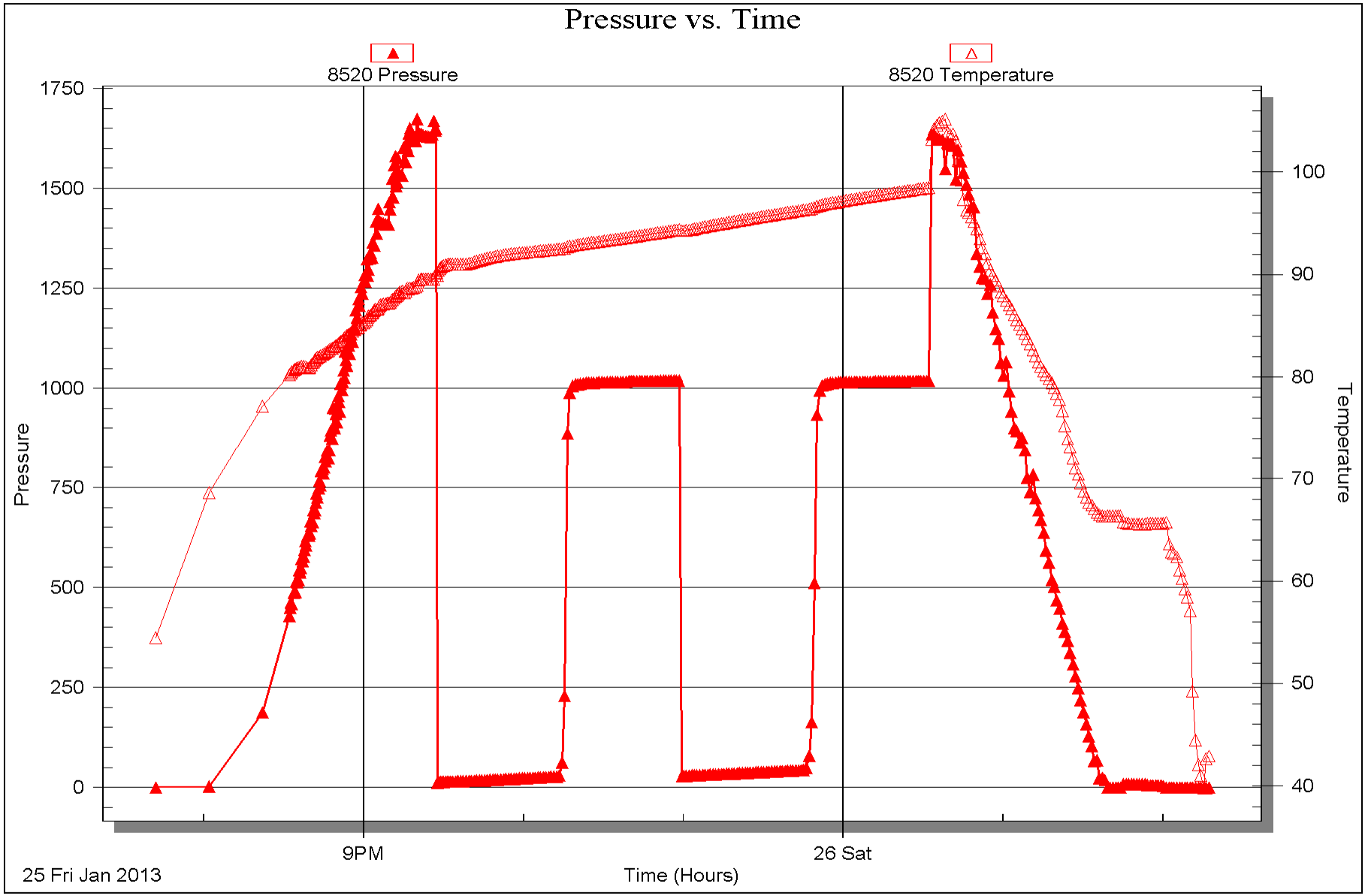
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8354 **Inside** H&C Oil Operations Inc Faulkner #14-1 DST Test Number: 4



Trilobite Testing, Inc Ref. No: 50333 Printed: 2013.02.01 @ 08:28:57

Serial #: 8520 **Outside** H&C Oil Operations Inc Faulkner #14-1 DST Test Number: 4



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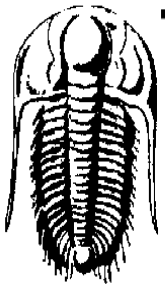


DRILL STEM TEST REPORT

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

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

Faulkner #14-1

14-8s-22w Graham,KS

Start Date: 2013.01.26 @ 12:08:30

End Date: 2013.01.26 @ 18:24:00

Job Ticket #: 50334 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.02.01 @ 08:43:18

DRILL STEM TEST REPORT

H&C Oil Operations Inc

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

14-8s-22w Graham,KS

Faulkner #14-1

Job Ticket: 50334 **DST#: 5**

Test Start: 2013.01.26 @ 12:08:30

GENERAL INFORMATION:

Formation: **LKC "H-J"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:35:40
Time Test Ended: 18:24:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Dustin Rash
Unit No: 66

Interval: 3457.00 ft (KB) To 3524.00 ft (KB) (TVD)
Total Depth: 3524.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

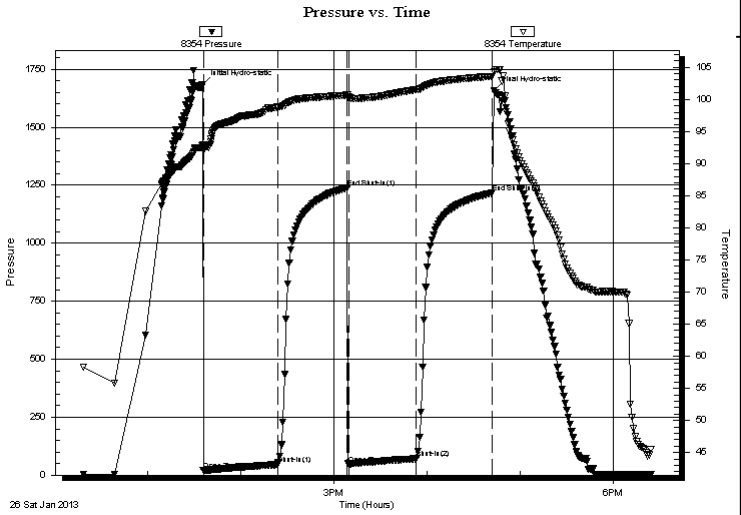
Reference Elevations: 2114.00 ft (KB)
2109.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8354 **Inside**

Press@RunDepth: 71.12 psig @ 3496.00 ft (KB)
Start Date: 2013.01.26 End Date: 2013.01.26
Start Time: 12:18:30 End Time: 18:24:00

Capacity: 8000.00 psig
Last Calib.: 2013.01.26
Time On Btm: 2013.01.26 @ 13:35:30
Time Off Btm: 2013.01.26 @ 16:43:00

TEST COMMENT: IF-Fair building blow . BOB @ 20 minutes.
ISI-Weak surface return @ 1 minute. Died @ 9 minutes.
FF-Fair building blow . BOB @ 15 minutes 30 seconds.
FSI-Return @ 1 minute. Built to 1 inch.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1684.83	92.86	Initial Hydro-static
1	19.97	92.04	Open To Flow (1)
48	45.10	98.76	Shut-In(1)
93	1239.02	100.65	End Shut-In(1)
94	48.36	100.32	Open To Flow (2)
138	71.12	101.50	Shut-In(2)
187	1216.64	103.55	End Shut-In(2)
188	1657.03	104.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
100.00	20%Gas/50%Oil/30%Mud	1.40
50.00	40%Gas/60%Oil	0.70
0.00	410' G.I.P.	0.00

Gas Rates

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

DRILL STEM TEST REPORT

H&C Oil Operations Inc

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

14-8s-22w Graham,KS

Faulkner #14-1

Job Ticket: 50334 **DST#: 5**

Test Start: 2013.01.26 @ 12:08:30

GENERAL INFORMATION:

Formation: **LKC "H-J"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:35:40
Time Test Ended: 18:24:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Dustin Rash
Unit No: 66

Interval: 3457.00 ft (KB) To 3524.00 ft (KB) (TVD)
Total Depth: 3524.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

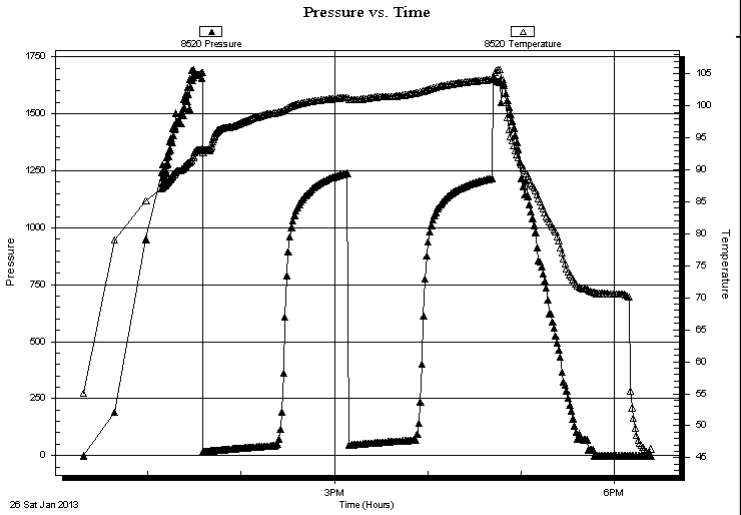
Reference Elevations: 2114.00 ft (KB)
2109.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8520 **Outside**

Press@RunDepth: psig @ 3496.00 ft (KB)
Start Date: 2013.01.26 End Date: 2013.01.26
Start Time: 12:18:45 End Time: 18:23:15

Capacity: 8000.00 psig
Last Calib.: 2013.01.26
Time On Btm:
Time Off Btm:

TEST COMMENT: IF-Fair building blow . BOB @ 20 minutes.
ISI-Weak surface return @ 1 minute. Died @ 9 minutes.
FF-Fair building blow . BOB @ 15 minutes 30 seconds.
FSI-Return @ 1 minute. Built to 1 inch.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
100.00	20%Gas/50%Oil/30%Mud	1.40
50.00	40%Gas/60%Oil	0.70
0.00	410' G.I.P.	0.00

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

H&C Oil Operations Inc

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

14-8s-22w Graham,KS

Faulkner #14-1

Job Ticket: 50334 **DST#: 5**

Test Start: 2013.01.26 @ 12:08:30

Tool Information

Drill Pipe:	Length:	3463.00 ft	Diameter:	3.80 inches	Volume:	48.58 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:		22000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	Weight to Pull Loose:		5000.00 lb
					Total Volume:	48.58 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		26.00 ft					String Weight:	Initial	44000.00 lb
Depth to Top Packer:		3457.00 ft						Final	44000.00 lb
Depth to Bottom Packer:		ft							
Interval between Packers:		67.00 ft							
Tool Length:		87.00 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			3438.00		
Shut In Tool	5.00			3443.00		
Hydraulic tool	5.00			3448.00		
Packer	5.00			3453.00	20.00	Bottom Of Top Packer
Packer	4.00			3457.00		
Stubb	1.00			3458.00		
Perforations	5.00			3463.00		
Change Over Sub	1.00			3464.00		
Drill Pipe	31.00			3495.00		
Change Over Sub	1.00			3496.00		
Recorder	0.00	8354	Inside	3496.00		
Recorder	0.00	8520	Outside	3496.00		
Perforations	25.00			3521.00		
Bullnose	3.00			3524.00	67.00	Bottom Packers & Anchor
Total Tool Length:	**87.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

H&C Oil Operations Inc

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

14-8s-22w Graham,KS

Faulkner #14-1

Job Ticket: 50334 **DST#: 5**

Test Start: 2013.01.26 @ 12:08:30

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	38 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	56.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.78 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1400.00 ppm				
Filter Cake:	inches				

Recovery Information

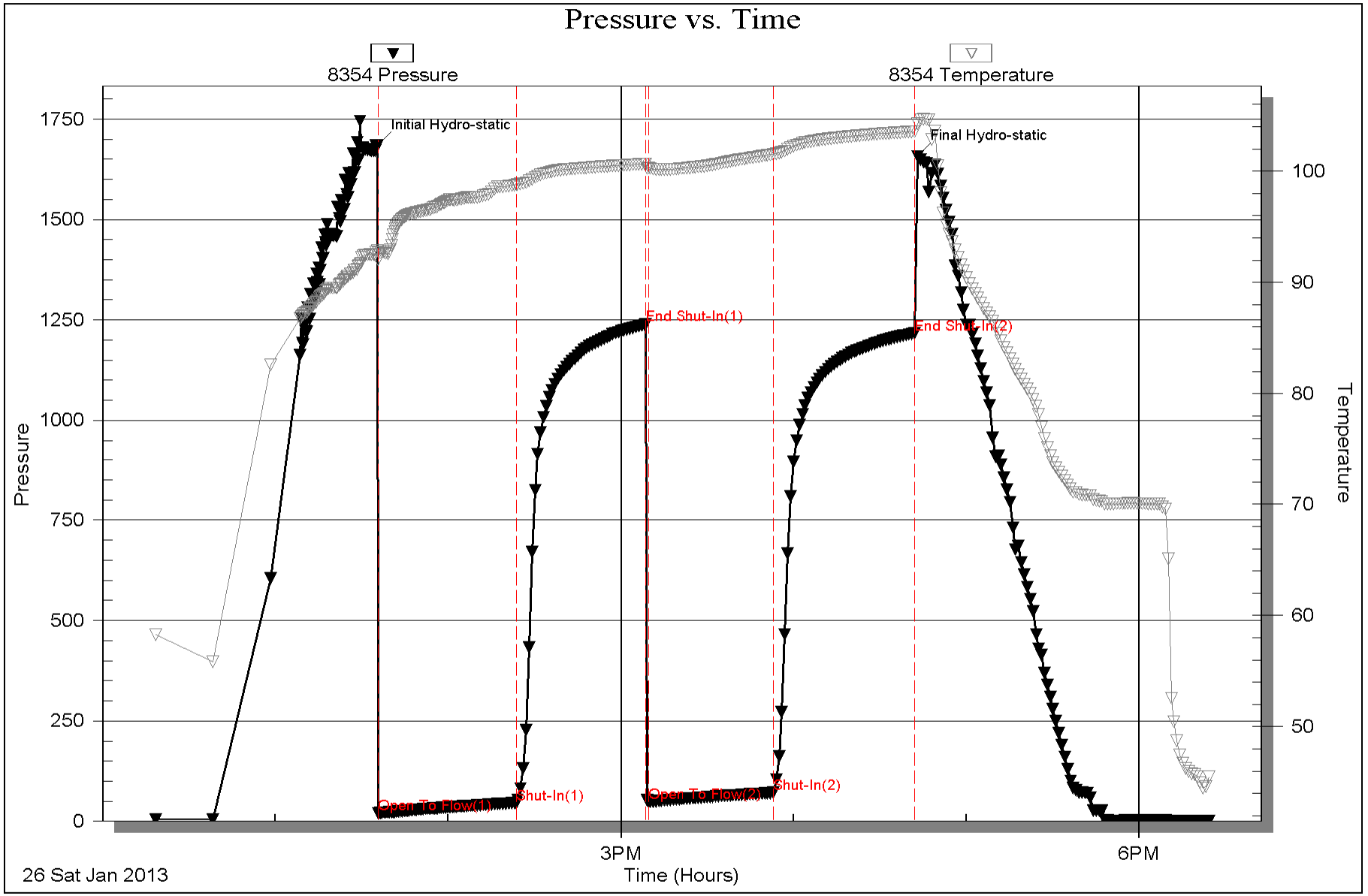
Recovery Table

Length ft	Description	Volume bbl
100.00	20%Gas/50%Oil/30%Mud	1.403
50.00	40%Gas/60%Oil	0.701
0.00	410' G.I.P.	0.000

Total Length: 150.00 ft Total Volume: 2.104 bbl

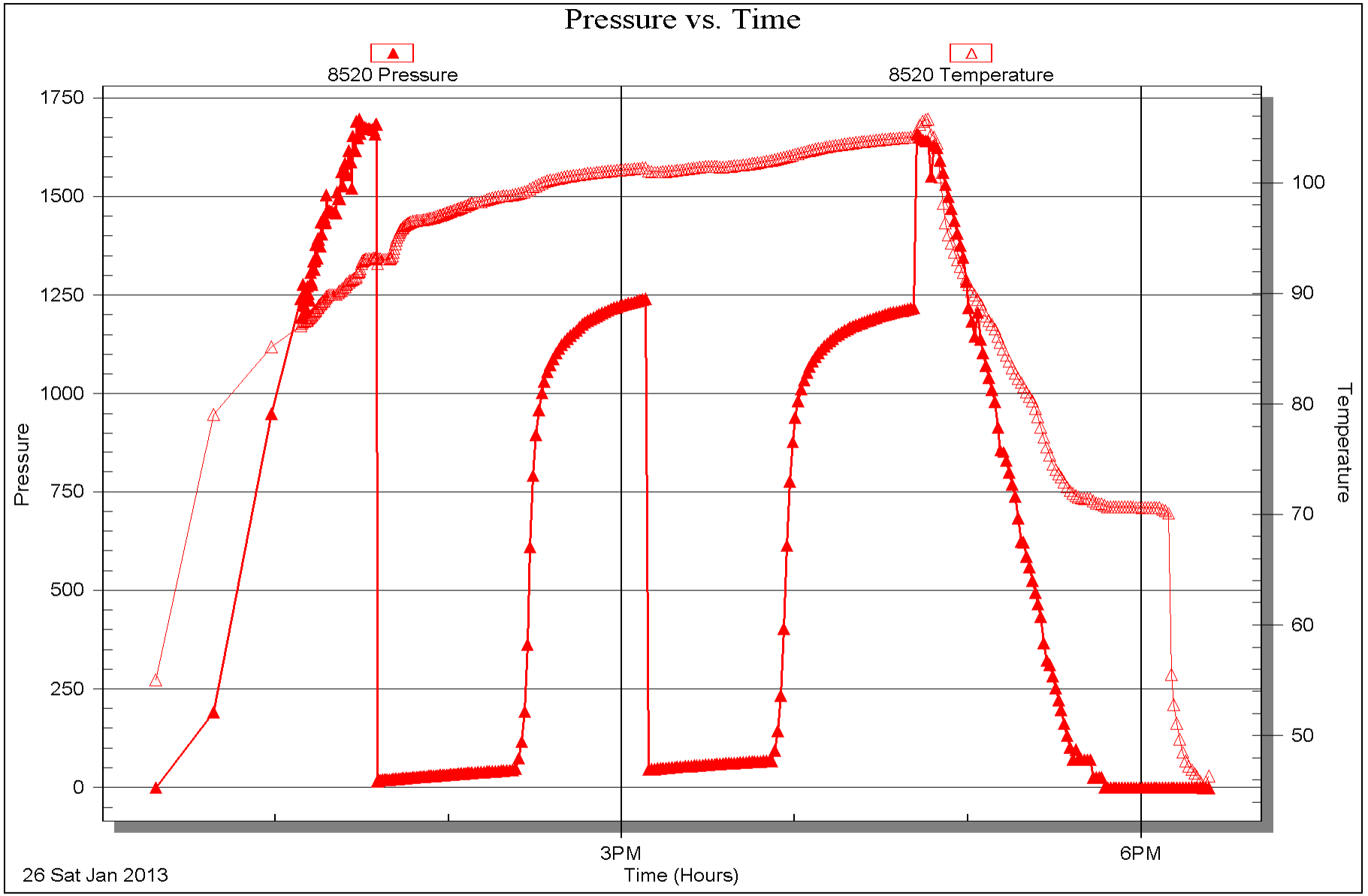
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8354 **Inside** H&C Oil Operations Inc Faulkner #14-1 DST Test Number: 5



Trilobite Testing, Inc Ref. No: 50334 Printed: 2013.02.01 @ 08:43:21

Serial #: 8520 **Outside** H&C Oil Operations Inc Faulkner #14-1 DST Test Number: 5



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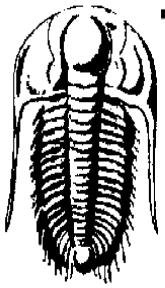


DRILL STEM TEST REPORT

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

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

Faulkner #14-1

14-8s-22w Graham,KS

Start Date: 2013.01.27 @ 02:31:15

End Date: 2013.01.27 @ 09:24:45

Job Ticket #: 50335 DST #: 6

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.02.01 @ 08:25:58

DRILL STEM TEST REPORT

H&C Oil Operations Inc

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

14-8s-22w Graham,KS

Faulkner #14-1

Job Ticket: 50335 **DST#: 6**

Test Start: 2013.01.27 @ 02:31:15

GENERAL INFORMATION:

Formation: **LKC "K-L"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:15:35
Time Test Ended: 09:24:45

Test Type: Conventional Bottom Hole (Initial)
Tester: Dustin Rash
Unit No: 66

Interval: 3518.00 ft (KB) To 3560.00 ft (KB) (TVD)
Total Depth: 3560.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

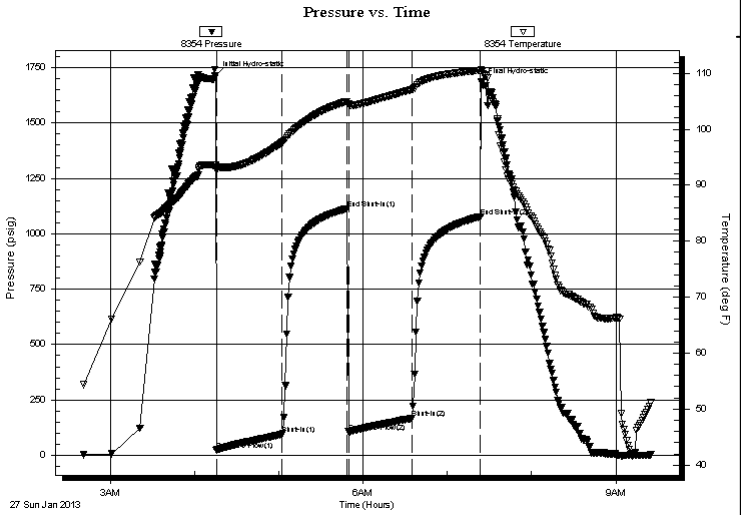
Reference Elevations: 2114.00 ft (KB)
2109.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8354 **Inside**

Press@RunDepth: 166.78 psig @ 3555.00 ft (KB)
Start Date: 2013.01.27 End Date: 2013.01.27
Start Time: 02:41:15 End Time: 09:24:45

Capacity: 8000.00 psig
Last Calib.: 2013.01.27
Time On Btm: 2013.01.27 @ 04:15:25
Time Off Btm: 2013.01.27 @ 07:24:15

TEST COMMENT: IF-Strong building blow . BOB @ 8 minutes 30 seconds.
ISI-Return @ 1 minute. Built to 3 inches.
FF-Fair building blow . BOB @ 16 minutes 30 seconds.
FSI-Weak surface return @ 2 minutes. Died @ 11 minutes.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1714.60	93.60	Initial Hydro-static
1	23.70	92.65	Open To Flow (1)
47	94.94	97.60	Shut-In(1)
94	1112.98	104.98	End Shut-In(1)
95	106.63	104.52	Open To Flow (2)
140	166.78	107.08	Shut-In(2)
189	1077.29	110.52	End Shut-In(2)
189	1684.12	110.69	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	20%Gas/40%Oil/10%Water/30%Mud	1.74
310.00	20%Gas/80%Oil	4.35
0.00	620' G.I.P.	0.00

Gas Rates

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

DRILL STEM TEST REPORT

H&C Oil Operations Inc

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

14-8s-22w Graham,KS

Faulkner #14-1

Job Ticket: 50335 **DST#: 6**

Test Start: 2013.01.27 @ 02:31:15

GENERAL INFORMATION:

Formation: **LKC "K-L"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:15:35
Time Test Ended: 09:24:45

Test Type: Conventional Bottom Hole (Initial)
Tester: Dustin Rash
Unit No: 66

Interval: 3518.00 ft (KB) To 3560.00 ft (KB) (TVD)
Total Depth: 3560.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

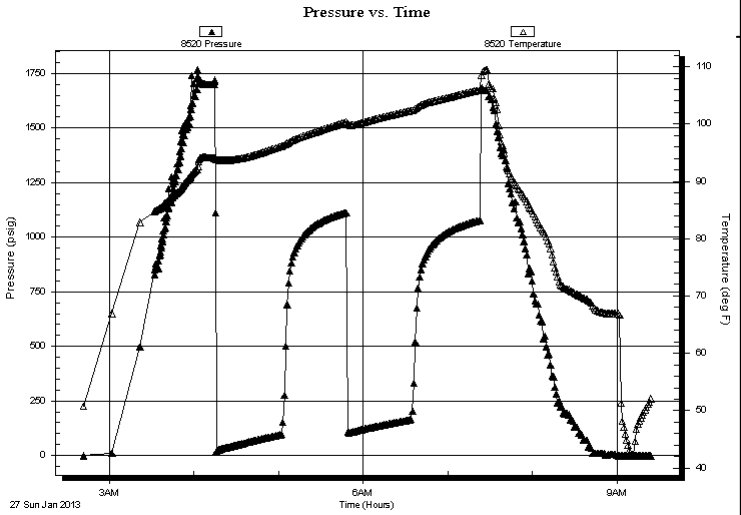
Reference Elevations: 2114.00 ft (KB)
2109.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8520 **Outside**

Press@RunDepth: psig @ 3555.00 ft (KB)
Start Date: 2013.01.27 End Date: 2013.01.27
Start Time: 02:41:30 End Time: 09:24:30

Capacity: 8000.00 psig
Last Calib.: 2013.01.27
Time On Btm:
Time Off Btm:

TEST COMMENT: IF-Strong building blow . BOB @ 8 minutes 30 seconds.
ISI-Return @ 1 minute. Built to 3 inches.
FF-Fair building blow . BOB @ 16 minutes 30 seconds.
FSI-Weak surface return @ 2 minutes. Died @ 11 minutes.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
124.00	20%Gas/40%Oil/10%Water/30%Mud	1.74
310.00	20%Gas/80%Oil	4.35
0.00	620' G.I.P.	0.00

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

H&C Oil Operations Inc

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

14-8s-22w Graham,KS

Faulkner #14-1

Job Ticket: 50335 **DST#: 6**

Test Start: 2013.01.27 @ 02:31:15

Tool Information

Drill Pipe:	Length:	3526.00 ft	Diameter:	3.80 inches	Volume:	49.46 bbl	Tool Weight:		2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.70 inches	Volume:	0.00 bbl	Weight set on Packer:		24000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	Weight to Pull Loose:		5000.00 lb
					Total Volume:	49.46 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		28.00 ft					String Weight:	Initial	44000.00 lb
Depth to Top Packer:		3518.00 ft						Final	44000.00 lb
Depth to Bottom Packer:		ft							
Interval between Packers:		42.00 ft							
Tool Length:		62.00 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			3499.00		
Shut In Tool	5.00			3504.00		
Hydraulic tool	5.00			3509.00		
Packer	5.00			3514.00	20.00	Bottom Of Top Packer
Packer	4.00			3518.00		
Stubb	1.00			3519.00		
Perforations	3.00			3522.00		
Change Over Sub	1.00			3523.00		
Drill Pipe	31.00			3554.00		
Change Over Sub	1.00			3555.00		
Recorder	0.00	8354	Inside	3555.00		
Recorder	0.00	8520	Outside	3555.00		
Perforations	2.00			3557.00		
Bullnose	3.00			3560.00	42.00	Bottom Packers & Anchor
Total Tool Length:	**62.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

H&C Oil Operations Inc

PO Box 86
Plainville KS 67663

ATTN: Ron Nelson

14-8s-22w Graham,KS

Faulkner #14-1

Job Ticket: 50335 **DST#: 6**

Test Start: 2013.01.27 @ 02:31:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	34 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	56.00 sec/qt	Cushion Volume:	bbl		
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 bbl
124.00	20%Gas/40%Oil/10%Water/30%Mud	1.739
310.00	20%Gas/80%Oil	4.348
0.00	620' G.I.P.	0.000

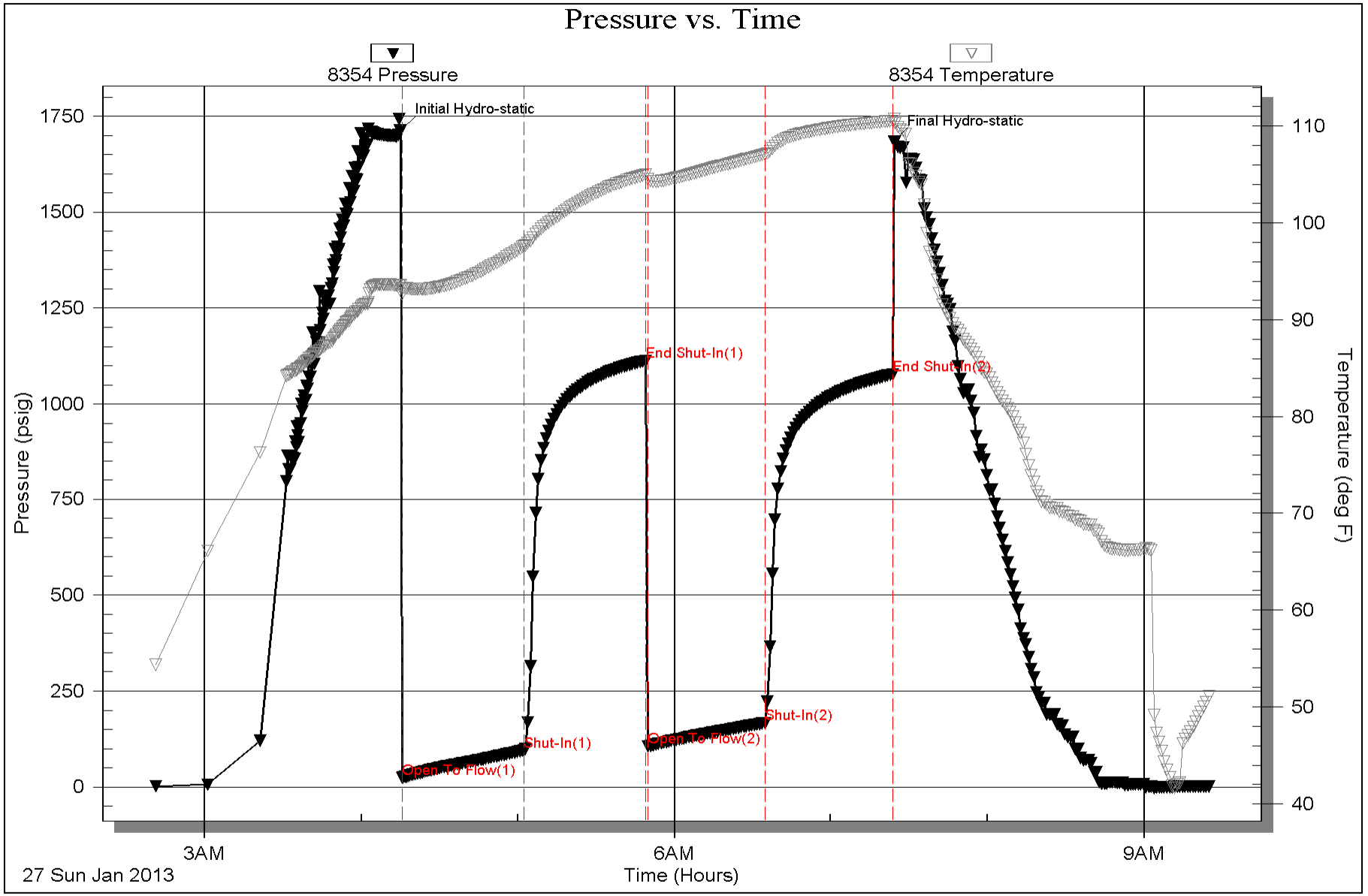
Total Length: 434.00 ft Total Volume: 6.087 bbl

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

Laboratory Name: Laboratory Location:

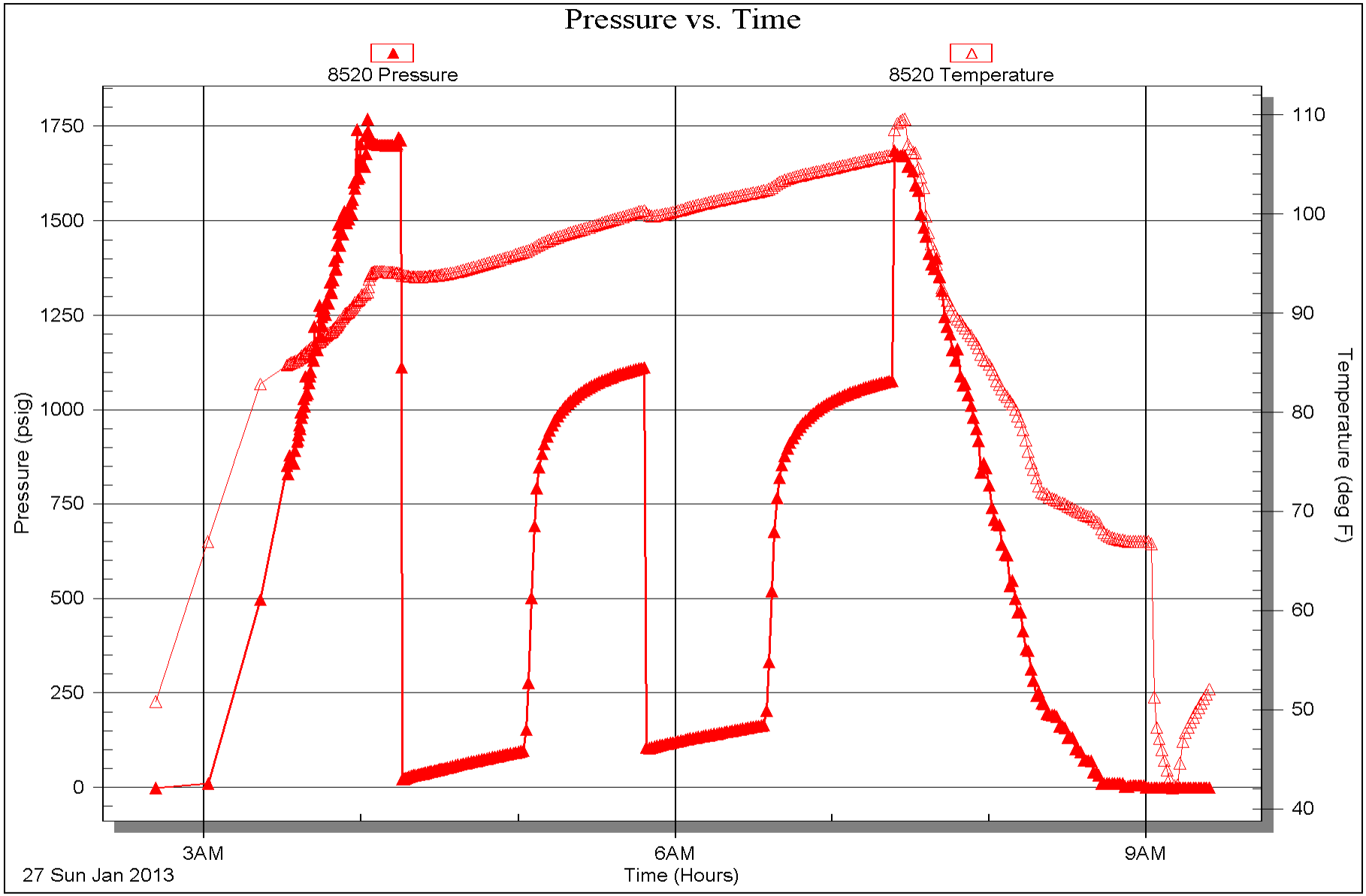
Recovery Comments:

Serial #: 8354 **Inside** H&C Oil Operations Inc Faulkner #14-1 DST Test Number: 6



Trilobite Testing, Inc Ref. No: 50335 Printed: 2013.02.01 @ 08:26:01

Serial #: 8520 **Outside** H&C Oil Operations Inc Faulkner #14-1 DST Test Number: 6



Trilobite Testing, Inc Ref. No: 50335 Printed: 2013.02.01 @ 08:26:01

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 51579

Well Name & No. Faulkner 14-1 Test No. 1 Date 1-23-13

Company H & C oil Operating Inc Elevation 2114 KB 2109 GL

Address Po Box 86, Plainville KS, 67663

Co. Rep / Geo. Gator 623-3592 Rig Eagle #3

Location: Sec. 14 Twp. 8S Rge. 22W Co. Graham State KS

Interval Tested 3337-3352 Zone Tested KC "A"

Anchor Length 15' Drill Pipe Run 3339' Mud Wt. 8.5

Top Packer Depth 3332 Drill Collars Run — Vis 52

Bottom Packer Depth 3337 Wt. Pipe Run — WL 7.6

Total Depth 3352 Chlorides 1300 ppm System LCM —

Blow Description IF - B.O.B. in 4 Minutes
ISI - Surface blow back
FF - B.O.B. in 11 Minutes
FSI - Surface blow back

Rec 62	Feet of OCM	%gas 20	%oil	%water 80	%mud	
Rec 310	Feet of GMCO	%gas 25	%oil 70	%water 5	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of 2168' of G.I.P.	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	

Rec Total 372' BHT 108° Gravity — API RW — @ — F Chlorides — ppm

(A) Initial Hydrostatic 1839	☒ Test 1150	T-On Location 9:45pm	
(B) First Initial Flow 33	☐ Jars	T-Started 10:07pm	
(C) First Final Flow 85	☐ Safety Joint	T-Open 1:00am	
(D) Initial Shut-In 1037	☐ Circ Sub	T-Pulled 3:30am	
(E) Second Initial Flow 90	☐ Hourly Standby	T-Out 6:45am	
(F) Second Final Flow 149	☒ Mileage 120RT 186	Comments	
(G) Final Shut-In 1,000	☐ Sampler		
(H) Final Hydrostatic 1540	☐ Straddle	☐ Ruined Shale Packer	
	☐ Shale Packer	☐ Ruined Packer	
Initial Open 30	☐ Extra Packer	☐ Extra Copies	
Initial Shut-In 45	☐ Extra Recorder	Sub Total 0	
Final Flow 30	☐ Day Standby	Total 1336	
Final Shut-In 45	☐ Accessibility	MP/DST Disc't	
	Sub Total 1336		

Approved By _____ Our Representative Cody Blair

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

4/10

Test Ticket

NO. 51580

Well Name & No. Faulkner 14-1 Test No. 2 Date 1-24-12

Company H & C Oil Operating Inc Elevation 2114 KB 2109 GL

Address Po Box 86, Plainville KS, 67663

Co. Rep / Geo. Gator Rig Eagle #3

Location: Sec. 14 Twp. 8S Rge. 22W Co. Graham State KS

Interval Tested 3384 - 3408 Zone Tested KC "D"

Anchor Length 24' Drill Pipe Run 3370 Mud Wt. 8.5

Top Packer Depth 3379 Drill Collars Run — Vis 52

Bottom Packer Depth 3384 Wt. Pipe Run — WL 7.6

Total Depth 3408 Chlorides 1300 ppm System LCM —

Blow Description IF - B.O.B. in 4 Minutes
ISI - Surface blow
FF - B.O.B. in 11 Minutes
FSI - Surface blow back

Rec 372	Feet of SOCMW	%gas 10	%oil 80	%water 10	%mud
Rec 124	Feet of GSOCWM	%gas 10	%oil 10	%water 30	%mud 50
Rec 186	Feet of GO	%gas 15	%oil 85	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of 310' of G.I.P.	%gas	%oil	%water	%mud

Rec Total 682' BHT 110° Gravity — API RW ____ @ ____ °F Chlorides ____ ppm

(A) Initial Hydrostatic 1644	☒ Test 1150	T-On Location 4:45pm
(B) First Initial Flow 30	☐ Jars	T-Started 5:06pm
(C) First Final Flow 179	☐ Safety Joint	T-Open 7:07pm
(D) Initial Shut-In 1038	☐ Circ Sub	T-Pulled 9:37pm
(E) Second Initial Flow 181	☐ Hourly Standby	T-Out 11:54pm
(F) Second Final Flow 296	☒ Mileage 120 RT 186	Comments
(G) Final Shut-In 1031	☐ Sampler	
(H) Final Hydrostatic 1608	☐ Straddle	☐ Ruined Shale Packer
	☐ Shale Packer	☐ Ruined Packer
Initial Open 30	☐ Extra Packer	☐ Extra Copies
Initial Shut-In 45	☐ Extra Recorder	Sub Total 0
Final Flow 30	☐ Day Standby	Total 1336
Final Shut-In 45	☐ Accessibility	MP/DST Disc't
	Sub Total 1336	

Approved By ____ Our Representative Cody

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

4/10

Test Ticket

NO. 51581

Well Name & No. Faulkner 14-1 Test No. 3 Date 1-25-13

Company H & C Oil Operating Inc Elevation 2114 KB 2109 GL

Address Po Box 86, Plainville KS, 67663

Co. Rep / Geo. Gator Rig Am. Eagle #3

Location: Sec. 14 Twp. 8s Rge. 22W Co. Grahan State KS

Interval Tested 3402 - 3420 Zone Tested KC E

Anchor Length 18' Drill Pipe Run 3400 Mud Wt. 8.8

Top Packer Depth 3397 Drill Collars Run — Vis 60

Bottom Packer Depth 3402 Wt. Pipe Run — WL 6.8

Total Depth 3420 Chlorides 1300 ppm System LCM —

Blow Description IF - B.O.B. in 3 Minutes
ISI - 3" blow back
FF - B.O.B. in 3 Minutes
FSI - weak surface blow back.

Rec 186	Feet of HOCM	%gas 50	%oil	%water 50	%mud	
Rec 1344	Feet of GO	%gas 20	%oil 80	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of 682' of G.I.P.	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	

Rec Total 1530' BHT 108° Gravity ~~36~~ API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1642	☒ Test 1150	T-On Location 5:55am	
(B) First Initial Flow 27	☐ Jars	T-Started 6:26am	
(C) First Final Flow 171	☐ Safety Joint	T-Open 8:30am	
(D) Initial Shut-In 994	☐ Circ Sub	T-Pulled 11:00am	
(E) Second Initial Flow 176	☐ Hourly Standby	T-Out 1:14pm	
(F) Second Final Flow 306	☒ Mileage 120 RT 186	Comments 36@60° - Gravity ~~36~~ 36	
(G) Final Shut-In 984	☐ Sampler		
(H) Final Hydrostatic 1626	☐ Straddle	☐ Ruined Shale Packer	
	☐ Shale Packer	☐ Ruined Packer	
Initial Open 30	☐ Extra Packer	☐ Extra Copies	
Initial Shut-In 45	☐ Extra Recorder	Sub Total 0	
Final Flow 30	☐ Day Standby	Total 1336	
Final Shut-In 45	☐ Accessibility	MP/DST Disc't	
	Sub Total 1336		

Approved By _____ Our Representative Cody Bledsoe

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

4/10

Test Ticket

NO. 50333

Well Name & No. Faulkner #14-1 Test No. 4 Date 1-25-13

Company H&C Oil Operations, Inc. Elevation 2114 KB 2109 GL

Address P.O. Box 86 Plainville, KS 67663

Co. Rep / Geo. _____ Rig American Eagle #3

Location: Sec. 14 Twp. 8S Rge. 22W Co. Graham State KS

Interval Tested 3426-3436 Zone Tested LKC "F"

Anchor Length 10' Drill Pipe Run _____ Mud Wt. 9.0

Top Packer Depth 3421 Drill Collars Run 0 Vis 49

Bottom Packer Depth 3426 Wt. Pipe Run 0 WL 6.8

Total Depth 3436 Chlorides 1400 ppm System LCM 2.0#

Blow Description IF- Weak building blow. Built to 3 inches.
ISI- No Return.
FF- Weak building blow. Built to 2 inches.
FSI- No Return.

Rec 60	Feet of Muddy Water	%gas	%oil	90 %water	10 %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 60 BHT 106 Gravity _____ API RW .366 @ 37 °F Chlorides 35,000 ppm

(A) Initial Hydrostatic 1649	☑ Test 1150	T-On Location 1900	
(B) First Initial Flow 16	☐ Jars	T-Started ~~1900~~ 1945	
(C) First Final Flow 29	☐ Safety Joint	T-Open 2128	
(D) Initial Shut-In 1020	☐ Circ Sub	T-Pulled 0030	
(E) Second Initial Flow 32	☐ Hourly Standby	T-Out 0215	
(F) Second Final Flow 46	☑ Mileage 60X2 186	Comments ~~BHT~~ - 1931	
(G) Final Shut-In 1019	☐ Sampler		
(H) Final Hydrostatic 1638	☐ 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 1336	
Final Shut-In 45	☐ Accessibility	MP/DST Disc't	
	Sub Total 1336		

Approved By _____ Our Representative _____

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 50334

Well Name & No. Faulkner #14-1 Test No. 5 Date 1-26-13

Company HTC Oil Operations, Inc. Elevation 2114 KB 2109 GL

Address P.O. Box 86 Plainville, KS 67663

Co. Rep / Geo. Rig American Eagle #3

Location: Sec. 14 Twp. 8S Rge. 22W Co. Graham State KS

Interval Tested 3457-3524 Zone Tested LKC "H-J"

Anchor Length 67' Drill Pipe Run 3463 Mud Wt. 9.0

Top Packer Depth 3452 Drill Collars Run 0 Vis 56

Bottom Packer Depth 3457 Wt. Pipe Run 0 WL 6.8

Total Depth 3524 Chlorides 1400 ppm System LCM 1

Blow Description IF-Fair building blow. BOB @ 20minutes,
ISI-Return @ 1minute. Died @ 9minutes. Surface return,
FF-Fair building blow. BOB @ 15minutes 30seconds,
FSI-Return @ 1minute, Built to 1inch

Rec 50	Feet of Gassy O:1	40 %gas	60 %oil	%water	%mud
Rec 100	Feet of HOCGM	20 %gas	50 %oil	%water	30 %mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of 410' G.I.P.	%gas	%oil	%water	%mud

Rec Total 150 BHT 104 Gravity 38 API RW @ °F Chlorides ppm

(A) Initial Hydrostatic 1685	☑ Test 1150	T-On Location 1130	
(B) First Initial Flow 20	☐ Jars	T-Started 1210	
(C) First Final Flow 45	☐ Safety Joint	T-Open 1336	
(D) Initial Shut-In 1239	☐ Circ Sub	T-Pulled 1640	
(E) Second Initial Flow 48	☐ Hourly Standby	T-Out 1830	
(F) Second Final Flow 71	☑ Mileage 60X2 186	Comments Batt-1208	
(G) Final Shut-In 1217	☐ Sampler		
(H) Final Hydrostatic 1657	☐ 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 1336	
Final Shut-In 45	☐ Accessibility	MP/DST Disc't	
	Sub Total 1336		

Approved By Our Representative

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 50335

Well Name & No. Faulkner #14-1 Test No. 6 Date 1-27-13

Company H-C Oil Operations, Inc. Elevation 2114 KB 2109 GL

Address P.O. Box 86 Plainville, KS 67663

Co. Rep / Geo. _____ Rig American Eagle 3

Location: Sec. 14 Twp. 08S Rge. 22W Co. Graham State KS

Interval Tested 3518-3560 Zone Tested LKC "K+L"

Anchor Length 42' Drill Pipe Run 3526 Mud Wt. 9.0

Top Packer Depth 3513 Drill Collars Run 0 Vis 56

Bottom Packer Depth 3518 Wt. Pipe Run 0 WL 6.8

Total Depth 3560 Chlorides 1400 ppm System LCM 1

Blow Description IF- Strong building blow. BOB @ 8 minutes 30 seconds,
ISI- Return @ 1 minute, Built to 3 inches,
FF- Fair building blow, BOB @ 16 minutes, 30 seconds,
FSI- Weak surface return @ 2 minutes. Died @ 11 minutes.

Rec	30	Feet of	Gassy Oil	20	%gas	80	%oil	%water	%mud
Rec	124	Feet of	GHOCWM	20	%gas	40	%oil	10 %water	30 %mud
Rec		Feet of			%gas		%oil	%water	%mud
Rec		Feet of			%gas		%oil	%water	%mud
Rec		Feet of	620' G.I.P		%gas		%oil	%water	%mud

Rec Total 434 BHT 111 Gravity 34 API RW ____ @ ____ °F Chlorides N/A ppm

(A) Initial Hydrostatic 1715
(B) First Initial Flow 24
(C) First Final Flow 95
(D) Initial Shut-In 1113
(E) Second Initial Flow 107
(F) Second Final Flow 167
(G) Final Shut-In 1077
(H) Final Hydrostatic 1684

Initial Open 45
Initial Shut-In 45
Final Flow 45
Final Shut-In 45

- ☑ Test 1150
- ☐ Jars
- ☐ Safety Joint
- ☐ Circ Sub
- ☐ Hourly Standby
- ☑ Mileage 60X2 186
- ☐ Sampler
- ☐ Straddle
- ☐ Shale Packer
- ☐ Extra Packer
- ☐ Extra Recorder
- ☐ Day Standby
- ☐ Accessibility

Sub Total 1336

T-On Location 0145
T-Started 0245
T-Open 0416
T-Pulled 0720
T-Out 0930
Comments BATT-0231

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

Sub Total 0
Total 1336
MP/DST Disc't

Approved By _____ Our Representative D. Rash

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QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025 Home Office P.O. Box 32 Russell, KS 67665 No. 6350
Cell 785-324-1041

Date	Sec.	Twp.	Range	County	State	On Location	Finish
1-28-13	14	8	22	Graham	KS		4:45 p.m.

Location: Bogue + P Ter Rd 3W to 320 Rd 1/4 S E into

Lease: Faulkner Well No. 14-1

Owner

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

Contractor: American Eagle #3

Type Job: Production String

Hole Size: 7 7/8 T.D. 3762

Charge To: H & C

Csg. 5 1/2 Depth 3750

Street

Tbg. Size Depth

City State

Tool Depth

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

Cement Left in Csg. 20.40 Shoe Joint 20.40

Cement Amount Ordered 400 QMDC 1/4# Flo
150 com 10% Salt + 5% Gilsonite 500 gal Mud Clear

Meas Line Displace 91 BL

EQUIPMENT

	No.		
Pumptrk	9	Cementer	Craig
		Helper	
Bulktrk	#14	Driver	Cody
		Driver	Lonnie M
Bulktrk	#112	Driver	
		Driver	Lonnie W

JOB SERVICES & REMARKS

Remarks:

Rat Hole 30 SK

Mouse Hole

Centralizers

Baskets

D/V or Port Collar

5 1/2 set @ 3750 - Insert @ 3729.60
Est Circulation - Pump 500 gal mud
Clear + 10 BL Spacer - Plug Rathole
30 SK Cement 5 1/2 with 370 SK
QMDC @ 11.5 ppg + 150 SK 10% Salt
5% Gilsonite @ 14.8 ppg - Clear
Lines + Displace Plug.
Cement Circulated
Plug landed @ 1700# Held
Release Pressure Dry.

Signature: Charles R Ramsey

Common	150
Poz. Mix	400 QMDC
Gel.	
Calcium	
Hulls	
Salt	13
Flowseal	200 #
Kol-Seal	750 #
Mud CLR 48	500 gal
CFL-117 or CD110 CAF 38	
Sand	
Handling	572
Mileage	

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	10 Turbolizers
Baskets	6
AFU Inserts	
Float Shoe	1
Latch Down	1
Pumptrk Charge	Prod Long String
Mileage	46
Tax	
Discount	
Total Charge	

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. 6297

Date	Sec.	Twp.	Range	County	State	On Location	Finish
1-19-13	14	8	22	GRAHAM	KANSAS		7:45 pm

Location BOGUE S TO PEER: W 3MI. TO 320RD S/INTO

Lease FAULKNER Well No. 14-1

Owner H&C OIL

Contractor A.E #3

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 12¼" T.D. 233'

Csg. 8⅝" Depth 233'

Charge To H&C OIL

Street P.O. Box 860

Tbg. Size Depth

City PLAINVILLE State KS, 67663

Tool Depth

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

Cement Left in Csg. Shoe Joint 15'

Cement Amount Ordered 160 com 3%CC 2%GEL ¼ FLO

Meas Line Displace 13¾ Bbls.

EQUIPMENT

Pumptrk #15 No. Cementer Helper NICK

Bulktrk #14 No. Driver Driver BILLY

Bulktrk #4 No. Driver Driver CISCO

JOB SERVICES & REMARKS

Remarks:

Rat Hole

Mouse Hole

Centralizers

Baskets

D/V or Port Collar

CEMENT DID CIRCULATE!

THANK YOU!

Common	160
Poz. Mix	
Gel.	3
Calcium	5
Hulls	
Salt	
Flowseal	
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	163
Mileage	
FLOAT EQUIPMENT	
Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
Pumptrk Charge	Surface
Mileage	46
Tax	
Discount	
Total Charge	

X Signature