



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
- Conv. to GSW
- Plug Back: _____ Plug Back Total Depth _____
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date Date Reached TD Completion Date or Recompletion Date

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

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total 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

- Letter of Confidentiality Received
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____



1087174

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

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

INSTRUCTIONS: Show important tops and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

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 Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> 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
_____ Perforate _____ Protect Casing _____ Plug Back TD _____ Plug Off Zone				

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
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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> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Tengasco, Inc.
Well Name	K.U. Endowment A 3
Doc ID	1087174

Tops

Name	Top	Datum
Anhydrite	1211	+579
Topeka	2706	-916
Heebner	2914	-1124
Toronto	2935	-1145
Lansing	2956	-1166
BKC	3183	-1393
Arbuckle	3243	-1453
RTD	3369	-1579

MUD LOG
WellSight Systems
Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: KU ENDOWMENT #3
Location: NW SE NW Sec. 30 ;Twnsp. 7 s.; Rge. 17 w.
License Number: 32278
Spud Date: 5/2/2012
Surface Coordinates: 1650' FNL & 1650' FWL
S 30 T 7s R 17w
Region: Rooks County, KS
Drilling Completed: 5/12/2012
Bottom Hole Coordinates:
Ground Elevation (ft): 1783' K.B. Elevation (ft): 1790'
Logged Interval (ft): 2600' To: 3345' Total Depth (ft): 3370'
Formation: Arbuckle
Type of Drilling Fluid: Chemical

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: TENGASCO, INC.
Address: 1327 Noose Rd.
Hays, KS. 67601

GEOLOGIST

Name: Mike Bair
Company: Basin Resources L.L.C.
Address: Longmont, CO.

FORMATION TOPS

FORMATION	LOG	SAMPLE
Anhydrite	1211 (+579)	1210 (+580)
Topeka	2706 (-916)	2706 (-916)
Heebner	2914 (-1124)	2914 (-1124)
Toronto	2935 (-1145)	2938 (-1148)
Lansing	2956 (-1166)	2956 (-1166)
BKC	3183 (-1393)	3183 (-1393)
Arbuckle	3243 (-1453)	3242 (-1453)
TD	3369 (-1579)	3370 (-1580)

DSTs

DST#1 2730-2747 45-45-45-45
 FP: (32-36)(37-45) SIP: 480-473
 REC: 6' mw (80%w, 20%m) 6' wm (40% w, 60%m)

DST#2 3039-3060 45-45-60-45
 FP: (21-26)(22-30) SIP: 105-99
 REC: 30' vsocm (3% oil, 97%m)

DST#3 3242-3280 45-45-45-45
 FP: (24-29)(29-30) SIP: 162-91
 REC: 5' free oil, 10' ocm (10% oil, 90% m)

DST#4 3275-3316 45-45-45-45 (Straddle)
 FP: (30-54)(68-92) SIP: 981-954
 REC: 10' Free oil, 53' ocm (10% oil, 80%m,10%w)
 93' socm (5% oil, 95% m) 155' Total Recovery






































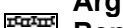

















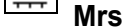

Comments













8 5/8' set at 1226'
 Production casing was ran to further test the economic potential of the Arbuckle Formation.

ROCK TYPES




















 Anhy	 Clyst	 Gyp	 Mrlst	 Shgy
 Bent	 Coal	 Igne	 Salt	 Sltst
 Brec	 Congl	 Lmst	 Shale	 Ss
 Cht	 Dol	 Meta	 Shcol	 Till

ACCESSORIES

MINERAL		FOSSIL	
 Anhy	 Gyp	 Algae	 Ostra
 Arggrn	 Hvymin	 Amph	 Pelec
 Arg	 Kaol	 Belm	 Pellet
 Bent	 Minxl	 Bioclst	 Pisolite
 Bit	 Nodule	 Brach	 Plant
 Brecfrag	 Phos	 Bryozoa	 Strom
 Calc	 Pyr	 Cephal	
 Carb	 Salt	 Coral	STRINGER
 Chtdk	 Sandy	 Crin	 Anhy
 Chtlt	 Silt	 Echin	 Arg
 Dol	 Sil	 Fish	 Bent
 Feldspar	 Sulphur	 Foram	 Coal
 Ferrpel	 Tuff	 Fossil	 Dol
 Ferr		 Gastro	 Gyp
 Glau		 Oolite	 Ls
			 Mrst

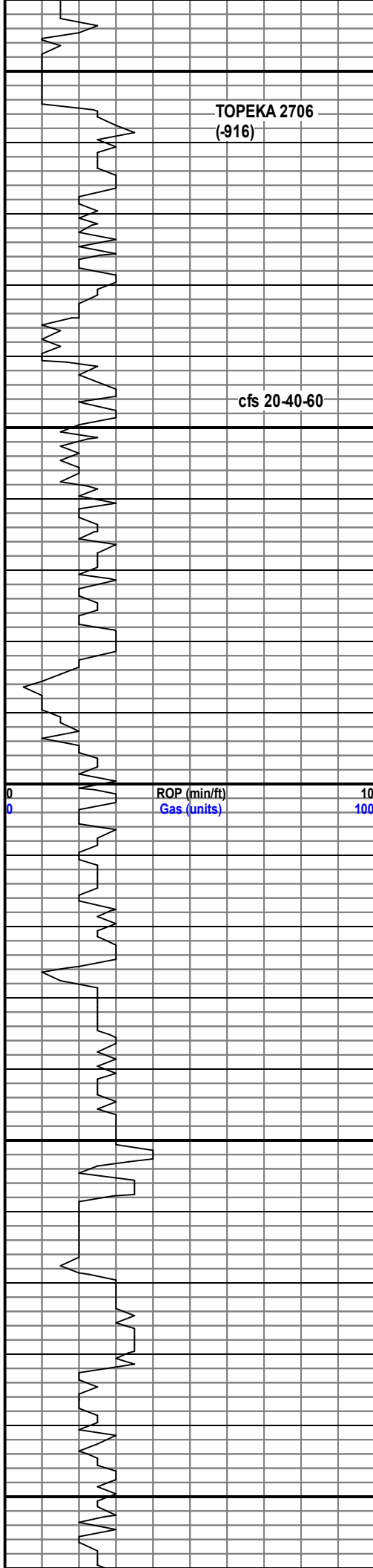
 Sltstrg	TEXTURE
 Ssstrg	 Boundst
	 Chalky
	 Cryxln
	 Earthy
	 Finexln
	 Grainst
	 Lithogr
	 Microxln
	 Mudst
	 Packst
	 Wackest

OTHER SYMBOLS

POROSITY	<input type="checkbox"/> Vuggy	ROUNDING
 Earthy	SORTING	 Rounded
 Fenest	 Well	 Subrnd
 Fracture	 Moderate	 Subang
 Inter	 Poor	 Angular
 Moldic		OIL SHOW
 Organic		 Even
 Pinpoint		
		INTERVAL
		 Core
		 Dst
		EVENT
		 Rft
		 Sidewall

<p>Curve Track 1</p> <p>ROP (min/ft) _____</p> <p>Gas (units) -----</p>	<p>Depth</p> <p>Porosity Type</p>	<p>Lithology</p>	<p>Geological Descriptions</p>	<p>Remarks</p> <p>TG (Units) _____</p> <p>C1 (units) .-----</p> <p>C2 (units) ..-----</p> <p>C3 (units) ...-----</p> <p>C4 (units)-----</p> <p>C5 (units)-----</p>
<p>ROP (min/ft) 10</p> <p>Gas (units) 100</p> <p>ANHYDRITE</p> <p>TOP 1210 +580</p>	<p>2550</p>			
<p>ROP (min/ft) 10</p> <p>Gas (units) 100</p>	<p>2600</p>			
	<p>2650</p>			<p>vis 42</p> <p>wt 8.9</p> <p>LCM 2#</p>

Sh, gry; Slst, gry, qtz, argil, ns, n/o



2700

2750

2800

2850

2900

Ls, tan-gry, fxl, foss to sl gran, ns, n/o

a/a; Sh, gry

Ls, crm, fxl to sl gran, some foss, sl ixgran to sl foss por, r pc w fr vy por, lt SFO wh bxn, spt'd surf to spt'd sat'd stn 2747 40 min

a/a v wk odor 2747 60 min

Ls, gry to crm, wkstn to pkstn, pr-sl ixgran por to Ls, tan, fxl, mdstn, ns, n/o

Ls, lt tan, a/a, sct'd cky, ns, n/o

Ls, gry, pell, sity to Ls, crm, fxl to sl gran, pr vis por, ns, n/o cky in pt

Ls, tan, dolomitic, suc, sl suc por, ns, n/o 2800

Sh, blk; Ls, a/a

Ls, brn, wkstn, ns, n/o

Ls, lt tan, fxl, mdstn, few cal xls, sct'd ck, ns, n/o

Ls, ofwh, fxl, nvp, ns, n/o

Ls, crm, wkstn, few foss frags, pr vis por, ns, n/o

Ls, gry, wkstn w sh incl, pr por, ns, n/o

Ls, crm-brn, fxl, few foss frags, ns, n/o

Ls, crm, ool, spt'd surf stn, spt'd sl ixool por, few pcs sl ixool por, lt sfo, wk od 2880

Ls, a/a, Chert, brn, fresh, dse, ns, n/o

Ls, crm to tan, fxl, few sl foss, some w sh incl, r pc Ls, crm, gran, sl-fr ixgran por, lt sfo, n/o 2900

Ls, crm, ool, pr to sl ixool por, spt'd stn, sl sfo wh bxn, cky in pt, v wk odor 2910

Ls, crm, fxl to Ls, gry, wkstn-pkstn, few fos frags, sh incl, tr pyrite, ns, n/o

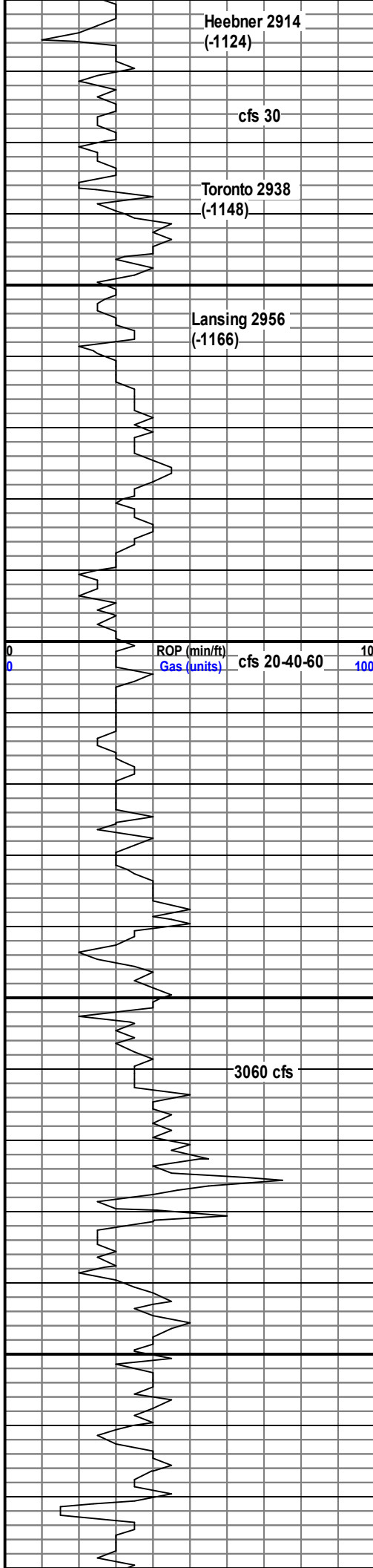
vis 62
wt 9.2
LCM 2#

DST#1 2730-2747
12' mw

vis 60
wt 9.0
LCM 2#

vis 58
wt 9.1
LCM 2#
rpm 54
pp 650#

1000



2950

3000

3050

3100

SH, blk, sl carb, platy 2926

Sh, v.c., mrn-lt gry, soft, cky; r pc Ls, wh, pr vis por, v spt'd surf stn, v sl sfo wh bxn, n/o 2940

Ls, wh, ool, pr ool por, spt'd stn, v sl sfo to Ls, tan, fxl to sl gran, even surf stn to poss lt even sat'd stn, sl sfo, pr vis por, n/o 2950

Ls, wh, fxl to slst, grn, fri; Chert, wh-crm, fresh, dse; pc Ls, ool, a/a, ns, n/o

pr sample, abdn't soft red sh 2970

Ls, wh, fxl; Chert, crm, fresh, dse, ns, n/o

Ls, fxl, nvp, v sl sfo wh bxn, some sl cky, lt surf stn, fr odor 3003 20 min

Ls, a/a to r pc Ls, wh, ool, pr to L-fr ixool por, lt stn, nsfo, v sl odor 3003 40 min

Ls, crm-tan, pr por, 1 pc Ls, wh, ool, pr por, spt'd brn stn, dse, n/o

Ls, wh-crm, fxl, r pc w cal rexln, lt stn on frac edge, n/o

Ls, of wh, ool, lt even stn, v sl sfo wh bxn, pr por; Chert, wh-crm, wk odor 3050

a/a, some cky, pr vis por, few pcs sl ixool por, lt odor 3060

Ls, ool-oom, fr oom por to few w fr vgy por, lt sat'd stn, sl-fr sfo, gd odor 3060 20 min

Ls, oom, a/a to Ls, wh, fxl, nvp, ns, sl cky, wk to L fr odor 3070

Ls, crm-brn, mst fxl, few weathered rind, ns, n/o

SH, blk; Ls, lt gry-brn, mdstn, some w sh incl, micro pyrite, ns, n/o

Ls, dolomitic, sl suc por, ns to few pc Ls, crm, fgran, pr por, lt sat'd stn, r sfo wh bxn, n/o 3100

Chert, wh, trans, brn, fresh, dse, ns, n/o

considerable Chert, a/a 3120

Ls, wh, pkstn, sl vis por, lt stn, v sl sfo wh bxn sl cky to Ls, wh, grn stn (ool), v sl vis por, lt even stn, v sl sfo wh bxn, sl odor 3120

Ls, gry-brn, few pcs sl vy por, nsfo to foss, pr vis por, n/o

Chert, lt gry Ls, met wh, fxl to few lvs, wh, fxl to

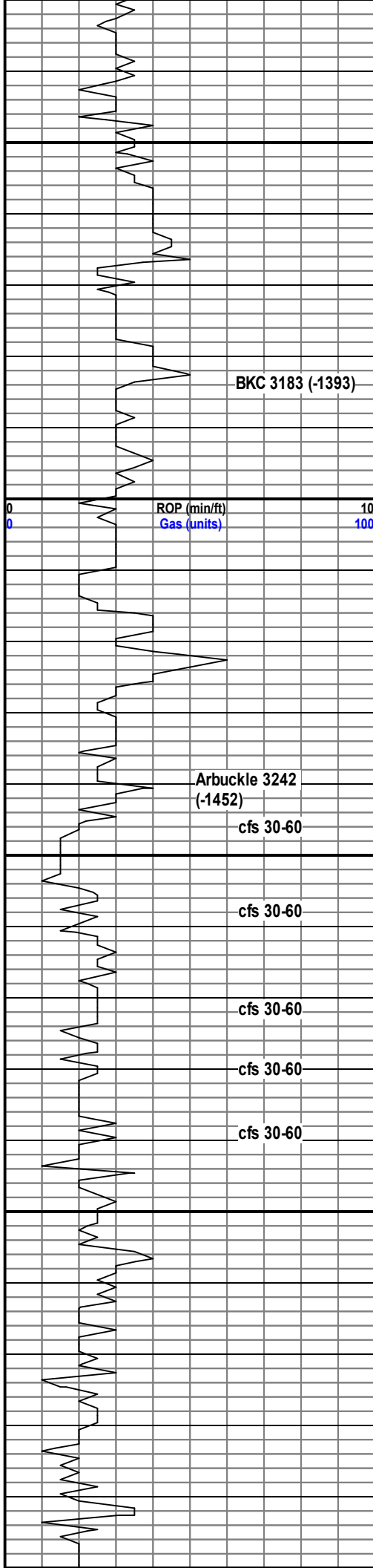
vis 48
wt 9.2
LCM 1 1/2#

NOTE: "C" Zone
fair odor, NSFO

vis 63
wt 9.2
LCM 2#

DST#2 3039 - 3060
30' SOCM

vis 48
wt 9.3
LCM 2#



3150	Chert, lt gry; Ls, mist wh, ixl to few Lw, wh, ixl to ool, sl ool por, spt'd stn, v sl sfo, n/o 3145	
	flood of Sh, blk 3145 20 min sample	
	Ls, wh-gry, fxl to foss, pr vis por, poss lt stn in few rxs, nsfo, n/o; couple pcs, Ls, wh, sl gran, v sl ixgran por, even sat'd stn, v sl sfo, n/o 3145 40/60 min	
	Ls, wh, ool, pr-sl ixool por, mst tite spt'd stn, v sl sfo few gs bbbs wh bxn, v wk odor 3160/3165	
	Chert, brn, fresh, dse; Ls, wh, fxl to ool, pr vis por, spt'd stn, v sl sfo, v wk odor 3170	
	Sh, blk; Chert, a/a to Ls, tan-brn, few foss frags, pr por, ns, n/o	
	Ls, wh, cky to Ss, qtz, f grn, calc, dse, ns, n/o	
3200	Ls, crm-tan, fxl to ool, r pc gran w lt stn, lt sfo; SH, v.c., Chert, v.c., n/o	1 1000
	a/a; sh, red, soft	
	Ls, crm, ool, spt'y sl ixool por, fr sat'd stn, fr sfo wh bxn, v low rep	
	Dolo, tan, mxl, tite, nvp, n/o, ns 3246 20 min	vis 53 wt 9.5 LCM 1#
	a/a r pc Ls, oom, spt'd stn, nsfo, n/o	DST#3 3242-3280
3250	Dolo, a/a, few pcs w hvy blk stn, sl sfo, few w xl growth on edge w lt brn oil stn, r pc w vy, mst tite; few pcs oolitic, dse, spt'd ixool por, sl sfo, poss v wk odor 3256 60	MUDCO CK 3270 vis 54 wt 9.4 W.L. 7.2 LCM 3# Chlr 2400
	Dolo, tan, f-mxl, mst tite, few pc w fr vy por, sl sfo in vgs to few spt'd surf stn, v sl sfo, incr rxs w xl growth-stn on edge 3270 30/60 min	
	Dolo, a/a to Dolo, wh, f xl, few w hvy blk live oil on edge, n/o 3280	vis 53 wt 9.4 LCM 3#
	Dolo, a/a to Dolo, f-fmxl, sl-fr ixl por, spt'd surf to sat'd stn, L-fr sfo wh bxn, lt-fr odor 3280 30 min sample: sl decr in odor 60 min	
	Dolo, wh-crm, mst barren to few pcs w xl growth on edge w oil stn; r pc Dolo, f grn, sat'd stn, fr sfo, fr ixl por; few fxl, sl vgy, w sfo in vg, many w grn stn on edge, lt-fr odor 3290 30	
3300	Dolo, wh, fxl, mst barren, couple pc dolo, wh, m-L xl, fr sfo wh bxn, sl-fr por, wk odor 3290 60	DST#4 3275-3316 Straddle
	Dolo, wh, m-lg xl, sl-fr ixl por, sl to fr vg por in few rxs, gd sfo, hvy blk oil, gd rep, strong odor 3300	
	Dolo, a/a, sl dec in sfo and odor, hvy blk oil, forms droplets; gd odor	
	Dolo, whf-mxl, most barren to dolo a/a, decr in show and odor, hvy blk oil, tarry, tr Chert, lt gry, fresh, dse, fr-gd odor 3320	
	a/a, hvy tarry oil, some sh, gry-grn, 3330	
350		

ALLIED OIL & GAS SERVICES, LLC 068401

Federal Tax I.D.# 20-8975804

SHIP TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:
Russell KS.

DATE <i>5-2-12</i>	SEC. <i>30</i>	TWP. <i>7 S</i>	RANGE <i>17 W</i>	CALLED OUT	ON LOCATION	JOB START <i>10:00 AM</i>	JOB FINISH <i>10:30 AM</i>
LEASE <i>Endowment K-4</i>	WELL# <i>A-3</i>	LOCATION <i>Stockton Isle Gas</i>				COUNTY <i>Rooks</i>	STATE <i>KANSAS</i>
OLD OR NEW (Circle one) <u>NEW</u>							

CONTRACTOR <i>American Eagle Rig #2</i>	OWNER
TYPE OF JOB <i>CONDUCTOR</i>	CEMENT
HOLE SIZE <i>17 1/4</i> T.D. <i>94'</i>	AMOUNT ORDERED <i>100 SX Comm.</i>
CASING SIZE <i>13 3/8</i> DEPTH <i>92' (89')</i>	<i>390 CC</i>
TUBING SIZE <i>8 5/8 Laminar</i> DEPTH <i>11 FT</i>	<i>290 GEL</i>
DRILL PIPE <i>Joint</i> DEPTH	
TOOL DEPTH	
PRES. MAX MINIMUM	COMMON <i>100 SX @ 16.25 1625.00</i>
MEAS. LINE SHOE JOINT	POZMIX @
CEMENT LEFT IN CSG.	GEL <i>2 SX @ 21.25 42.50</i>
PERFS.	CHLORIDE <i>4 SX @ 58.20 232.80</i>
DISPLACEMENT <i>12 1/4 BBL</i>	ASC @
EQUIPMENT	@
	@
PUMP TRUCK CEMENTER <i>Glenn G.</i>	@
# <i>419</i> HELPER <i>Woody O.</i>	@
BULK TRUCK	@
# <i>473</i> DRIVER <i>Chris G.</i>	@
BULK TRUCK	@
# DRIVER	@
	HANDLING <i>JOB TOTAL SX @ 2.25 225.00</i>
	MILEAGE <i>600 MI @ 699.60</i>
	TOTAL <i>2838.40</i>

REMARKS:
*Ran 2 Joints of 54' 13 3/8 CSG -
Set @ 94', Received CIRCULATION
of Cement w/ 100 SX Comm. 3% CC
2% GEL. Displaced 12 1/4 BBL
H2O Behind Cement, + SHOT-IN
@ 200 #.
Cement DID CIRCULATE
TO SURFACE. HANK'S*

SERVICE	
DEPTH OF JOB <i>92</i>	
PUMP TRUCK CHARGE	<i>1125.00</i>
EXTRA FOOTAGE @	
MILEAGE <i>HV MI 60 @ 7.00</i>	<i>420.00</i>
MANIFOLD <i>LV MI 60 @ 4.00</i>	<i>240.00</i>
	@
TOTAL	<i>1785.00</i>

CHARGE TO: *TENGASCO Inc.*

STREET _____

CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT	
<i>2-CENTRALIZERS</i>	<i>@ 72.00 144.00</i>
	@
	@
	@
TOTAL	_____

To: Allied Oil & Gas Services, LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

SALES TAX (If Any) *128.79*

TOTAL CHARGES *4767.40*

DISCOUNT *20/50 1361.36* IF PAID IN 30 DAYS

PRINTED NAME _____

SIGNATURE *Karl Kals*

ALLIED OIL & GAS SERVICES, LLC 053559

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:
Great Bend KS

DATE <u>5-6-12</u>	SEC <u>30</u>	TWP <u>07S</u>	RANGE <u>17W</u>	CALLED OUT	ON LOCATION	JOB START <u>9:00 am</u>	JOB FINISH <u>5:15 pm</u>
LEASE <u>K.U. Entomun</u>		WELL# <u>3</u>		LOCATION <u>1 S. Stockton, 1/2 E. South into</u>		COUNTY <u>Rooks</u>	STATE <u>KS</u>
OLD OR NEW (Circle one)							

CONTRACTOR American Eagle # 3
 TYPE OF JOB Intermediate
 HOLE SIZE 8 1/2 T.D. 1230
 CASING SIZE 5 5/8 DEPTH 1236 + 11 = 1247
 TUBING SIZE _____ DEPTH _____
 DRILL PIPE 4 1/2 DEPTH _____
 TOOL _____ DEPTH _____
 PRES. MAX _____ MINIMUM _____
 MEAS. LINE _____ SHOE JOINT 6.44
 CEMENT LEFT IN CSG. _____
 PERFS. _____
 DISPLACEMENT freshwater

OWNER Tengasco
 CEMENT
 AMOUNT ORDERED 580 580 580 580 580 580 580 580 580 580
2 3/4 gal

EQUIPMENT

PUMP TRUCK CEMENTER Shane K
 # 338 HELPER Dustin C
 BULK TRUCK
 # 410 DRIVER Joel M
 BULK TRUCK
 # 428 DRIVER Kevin E

COMMON	<u>580</u>	@	<u>16.25</u>	<u>9.425.00</u>
POZMIX		@		
GEL	<u>11</u>	@	<u>21.25</u>	<u>233.75</u>
CHLORIDE	<u>20</u>	@	<u>58.20</u>	<u>1164.00</u>
ASC		@		
		@		
		@		
		@		
		@		
		@		
		@		
		@		
HANDLING	<u>627.14</u>	@	<u>2.10</u>	<u>1.316.93</u>
MILEAGE	<u>28.62</u> 60 <u>60 X</u>	@	<u>2.35</u>	<u>4.035.72</u>
TOTAL				<u>16175.31</u>

REMARKS:

See Cement Log

SERVICE

DEPTH OF JOB	<u>1247</u>			
PUMP TRUCK CHARGE				<u>1125.00</u>
EXTRA FOOTAGE	<u>747</u>	@	<u>.95</u>	<u>709.65</u>
MILEAGE	<u>Hum 60</u>	@	<u>7.00</u>	<u>420.00</u>
MANIFOLD		@		
	<u>Hum 60</u>	@	<u>4.00</u>	<u>240.00</u>
		@		

TOTAL 2.494.60

CHARGE TO: Tengasco
 STREET _____
 CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

<u>5 centralizer</u>	@			
<u>2 Baskets</u>	@	<u>478.00</u>		<u>956.00</u>
<u>AFA insert & Ball</u>	@	<u>382.00</u>		<u>382.00</u>
<u>Rubber Plug</u>	@	<u>112.00</u>		<u>112.00</u>
<u>guide shoe (open)</u>	@			
TOTAL				<u>1450.00</u>

To: Allied Oil & Gas Services, LLC.
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

SALES TAX (If Any) _____
 TOTAL CHARGES 20.120.16
 DISCOUNT 5.432.75 IF PAID IN 30 DAYS
14.687.41

PRINTED NAME _____
 SIGNATURE X Keith Kuceli

ALLIED OIL & GAS SERVICES, LLC 056115

Federal Tax I.D.# 20-5975804

10 P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:
Russell

DATE <u>5-13-12</u>	SEC <u>30</u>	TWP. <u>7s</u>	RANGE <u>17</u>	CALLED OUT	ON LOCATION	JOB START <u>10:00</u>	JOB FINISH <u>10:30</u>
K. U. Endowment LEASE	WELL # <u>A-3</u>	LOCATION <u>Section 13 SE 31ND</u>	COUNTY <u>ROCKS</u>	STATE <u>KS</u>			
OLD OR NEW (Circle one)							

CONTRACTOR American Eagle #2
 TYPE OF JOB Pipe ~~Anchor~~
 HOLE SIZE 7 7/8 T.D. 3370
 CASING SIZE 5 1/2 14 1/2 New DEPTH 3369
 TUBING SIZE _____ DEPTH _____
 DRILL PIPE _____ DEPTH _____
 TOOL _____ DEPTH _____
 PRES. MAX _____ MINIMUM _____
 MEAS. LINE _____ SHOE JOINT 18
 CEMENT LEFT IN CSG. 18
 PERFS. _____
 DISPLACEMENT 81 3/4 bbl

OWNER _____
 CEMENT AMOUNT ORDERED 180sk ASC
 COMMON _____ @ _____
 POZMIX _____ @ _____
 GEL _____ @ _____
 CHLORIDE _____ @ _____
 ASC _____ @ _____

EQUIPMENT
 PUMP TRUCK CEMENTER Yokel
 # 409 HELPER Tony
 BULK TRUCK
 # 410 DRIVER Robert Y.
 BULK TRUCK
 # _____ DRIVER _____
Gen 1, 3, 6, 10, 20, 60

med float 4 1/2" x 2" gel @ 1.27 6035.00
180 sk ASC @ 19.00 3420.00
 HANDLING 2.26 @ 2.25 508.50
 MILEAGE 13.108 @ .11 1441.88
 TOTAL 6005.38

REMARKS:

ran 81 3/4 of 5 1/2 14 1/2 New set at 3369
 circulated 1 Hr on bottom, cement rest
 hole w 30 sk, mixed 12 bbl med float (spicer)
 Pulley by 150 sk ASC, closed line & released
 latch down plug and displaced 82 bbls
 H₂O, washed Plug @ 180 sk #
 released pressure and Plug Held
 Plug Down & OK
THANKS!

SERVICE

DEPTH OF JOB 3370
 PUMP TRUCK CHARGE 2225.00
 EXTRA FOOTAGE @ _____
 MILEAGE MLV SB @ 7.00 406.00
 MANIFOLD MLV SB @ 4.00 232.00
 CMHD @ 2.00 NK.

CHARGE TO: Tengasco
 STREET _____
 CITY _____ STATE _____ ZIP _____

TOTAL 2863.00

PLUG & FLOAT EQUIPMENT

5 1/2 float shoe @ 3.01 361
centralizers 6 @ 34 204
latch down @ _____ 194

TOTAL 762.00

To: Allied Oil & Gas Services, LLC.
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

SALES TAX (If Any) 303.47
 TOTAL CHARGES 9,630.38
 DISCOUNT 20/50 2550.04 IF PAID IN 30 DAYS

PRINTED NAME _____
 SIGNATURE Keith Lock

ALLIED OIL & GAS SERVICES, LLC

0561

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665SERVICE POINT:
Russell

DATE 5-21-18	SEC 20	TWP. 7	RANGE 17	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
NO PREVIOUS LEASE	WELL # A-3	LOCATION Station 15 SE Sec 20				COUNTY Russell	STATE KS
OLD OR NEW (Circle one)							

CONTRACTOR WC	OWNER
TYPE OF JOB Service	CEMENT
HOLE SIZE _____ T.D. _____	AMOUNT ORDERED 106 sq Class A
CASING SIZE 5 1/2" DEPTH _____	
TUBING SIZE 3 1/2" DEPTH _____	
DRILL PIPE _____ DEPTH _____	
TOOL _____ DEPTH 3000	
PRES. MAX _____ MINIMUM _____	
MEAS. LINE _____ SHOE JOINT _____	
CEMENT LEFT IN CSG. _____	
PERFS. 3305-10 3310-95	
DISPLACEMENT 9 gal	

COMMON 1/2" 5/8" @ 16.25 1600	
POZMIX @ _____	
GEL @ _____	
CHLORIDE @ _____	
ASC @ _____	
HANDLING 100 @ 2.25 225	344
MILEAGE 3.2 @ 16.38 52.4	1638
TOTAL _____	

EQUIPMENT

PUMP TRUCK CEMENTER Kelly	
# 419 HELPER Tony	
BULK TRUCK DRIVER Lucky	
# 417 DRIVER _____	
BULK TRUCK DRIVER _____	
# _____ DRIVER _____	

REMARKS:

3305 10' - 3310 95' allow for packer & 3312 test hole to 1300' hole, check rate & 3314 - 1000' - 500' 3 min, set packer to green & 3313 cemented annulus with 100' slurry. 9 gal. pressure & flow hole tested 2 hr. (24 hr) (24 hr), worked down that way 3000' from 12-01 hole, set pump in 1300' well to 1300' - 1300' 8500' + Thanks!

SERVICE

DEPTH OF JOB _____	1150'
PUMP TRUCK CHARGE _____	
EXTRA FOOTAGE @ _____	
MILEAGE 3.2 @ 7.18 23.0	41.0
MANIFOLD @ _____	
MILU 5/8" @ 4.0	250
5/8" MAN @ 2.40	16.2

CHARGE TO: Tongas 46
STREET _____
CITY _____ STATE _____ ZIP _____



DRILL STEM TEST REPORT

Prepared For: **Tengasco Inc**

PO Box 458
Hays KS 67601

ATTN: Rod Tremblay

KU Endowment A #3

30-7s-17w Rooks,KS

Start Date: 2012.05.09 @ 01:53:17

End Date: 2012.05.09 @ 07:47:47

Job Ticket #: 44788 DST #: 1

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

Printed: 2012.05.16 @ 13:21:27



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Tengasco Inc
 PO Box 458
 Hays KS 67601
 ATTN: Rod Tremblay

30-7s-17w Rooks,KS
KU Endowment A #3
 Job Ticket: 44788 **DST#: 1**
 Test Start: 2012.05.09 @ 01:53:17

GENERAL INFORMATION:

Formation: **Topeka**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 03:10:17
 Time Test Ended: 07:47:47
 Interval: **2730.00 ft (KB) To 2747.00 ft (KB) (TVD)**
 Total Depth: 2747.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Jeff Brown
 Unit No: 44
 Reference Elevations: 1780.00 ft (KB)
 1773.00 ft (CF)
 KB to GR/CF: 7.00 ft

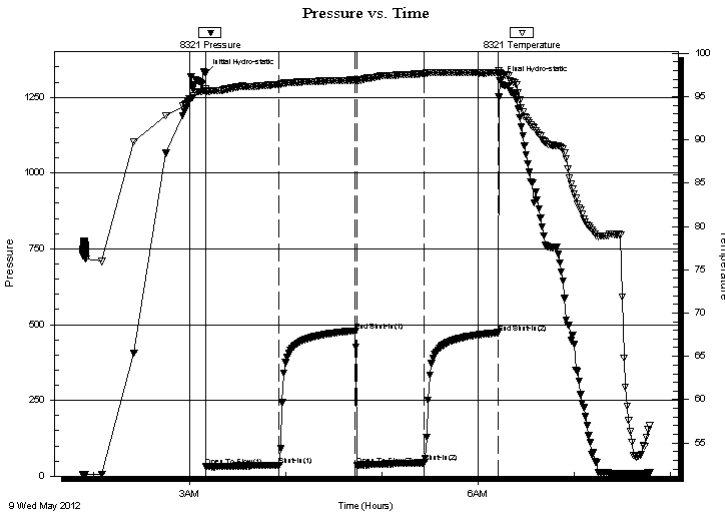
Serial #: 8321

Inside

Press @ Run Depth: 44.80 psig @ 2731.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.05.09 End Date: 2012.05.09 Last Calib.: 2012.05.09
 Start Time: 01:53:18 End Time: 07:46:47 Time On Btm: 2012.05.09 @ 03:09:47
 Time Off Btm: 2012.05.09 @ 06:13:17

TEST COMMENT: IFP-Weak blow built to 3 in
 ISI-Dead no blow back
 FFP-Weak blow built to 1 in
 FSI-Dead no blow back

PRESSURE SUMMARY



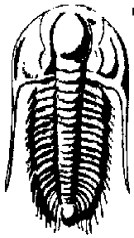
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1329.13	95.85	Initial Hydro-static
1	31.58	95.61	Open To Flow (1)
46	36.16	96.40	Shut-In(1)
94	479.53	96.90	End Shut-In(1)
95	36.69	96.80	Open To Flow (2)
137	44.80	97.66	Shut-In(2)
183	473.19	97.73	End Shut-In(2)
184	1305.02	97.70	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
6.00	MW 20%M 80%W	0.08
6.00	WN 40%W 60%M	0.08

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Tengasco Inc
 PO Box 458
 Hays KS 67601
 ATTN: Rod Tremblay

30-7s-17w Rooks,KS
KU Endowment A #3
 Job Ticket: 44788 **DST#: 1**
 Test Start: 2012.05.09 @ 01:53:17

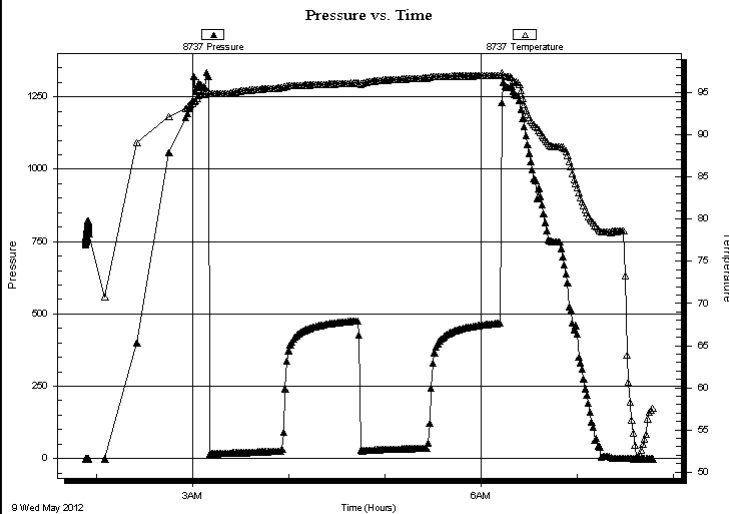
GENERAL INFORMATION:

Formation: **Topeka**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 03:10:17 Tester: Jeff Brown
 Time Test Ended: 07:47:47 Unit No: 44
 Interval: **2730.00 ft (KB) To 2747.00 ft (KB) (TVD)** Reference Elevations: 1780.00 ft (KB)
 Total Depth: 2747.00 ft (KB) (TVD) 1773.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 7.00 ft

Serial #: 8737 Outside

Press @ Run Depth: psig @ 2731.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.05.09 End Date: 2012.05.09 Last Calib.: 2012.05.09
 Start Time: 01:53:15 End Time: 07:46:44 Time On Btm:
 Time Off Btm:

TEST COMMENT: IFP-Weak blow built to 3 in
 ISI-Dead no blow back
 FFP-Weak blow built to 1 in
 FSI-Dead no blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
6.00	MW 20%M 80%W	0.08
6.00	WN 40%W 60%M	0.08

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Tengasco Inc

30-7s-17w Rooks,KS

PO Box 458
Hays KS 67601

KU Endowment A #3

Job Ticket: 44788

DST#: 1

ATTN: Rod Tremblay

Test Start: 2012.05.09 @ 01:53:17

Tool Information

Drill Pipe:	Length: 2714.00 ft	Diameter: 3.80 inches	Volume: 38.07 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 2000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 38.07 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	2730.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	17.00 ft			
Tool Length:	45.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			2703.00	
Shut In Tool	5.00			2708.00	
Hydraulic tool	5.00			2713.00	
Jars	5.00			2718.00	
Safety Joint	3.00			2721.00	
Packer	4.00			2725.00	28.00 Bottom Of Top Packer
Packer	5.00			2730.00	
Stubb	1.00			2731.00	
Recorder	0.00	8321	Inside	2731.00	
Recorder	0.00	8737	Outside	2731.00	
Perforations	13.00			2744.00	
Bullnose	3.00			2747.00	17.00 Bottom Packers & Anchor

Total Tool Length: 45.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Tengasco Inc

30-7s-17w Rooks,KS

PO Box 458
Hays KS 67601

KU Endowment A #3

Job Ticket: 44788

DST#: 1

ATTN: Rod Tremblay

Test Start: 2012.05.09 @ 01:53:17

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: sec/qt

Cushion Volume:

bbbl

Water Loss: in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
6.00	MW 20%M 80%W	0.084
6.00	WN 40%W 60%M	0.084

Total Length: 12.00 ft Total Volume: 0.168 bbl

Num Fluid Samples: 0

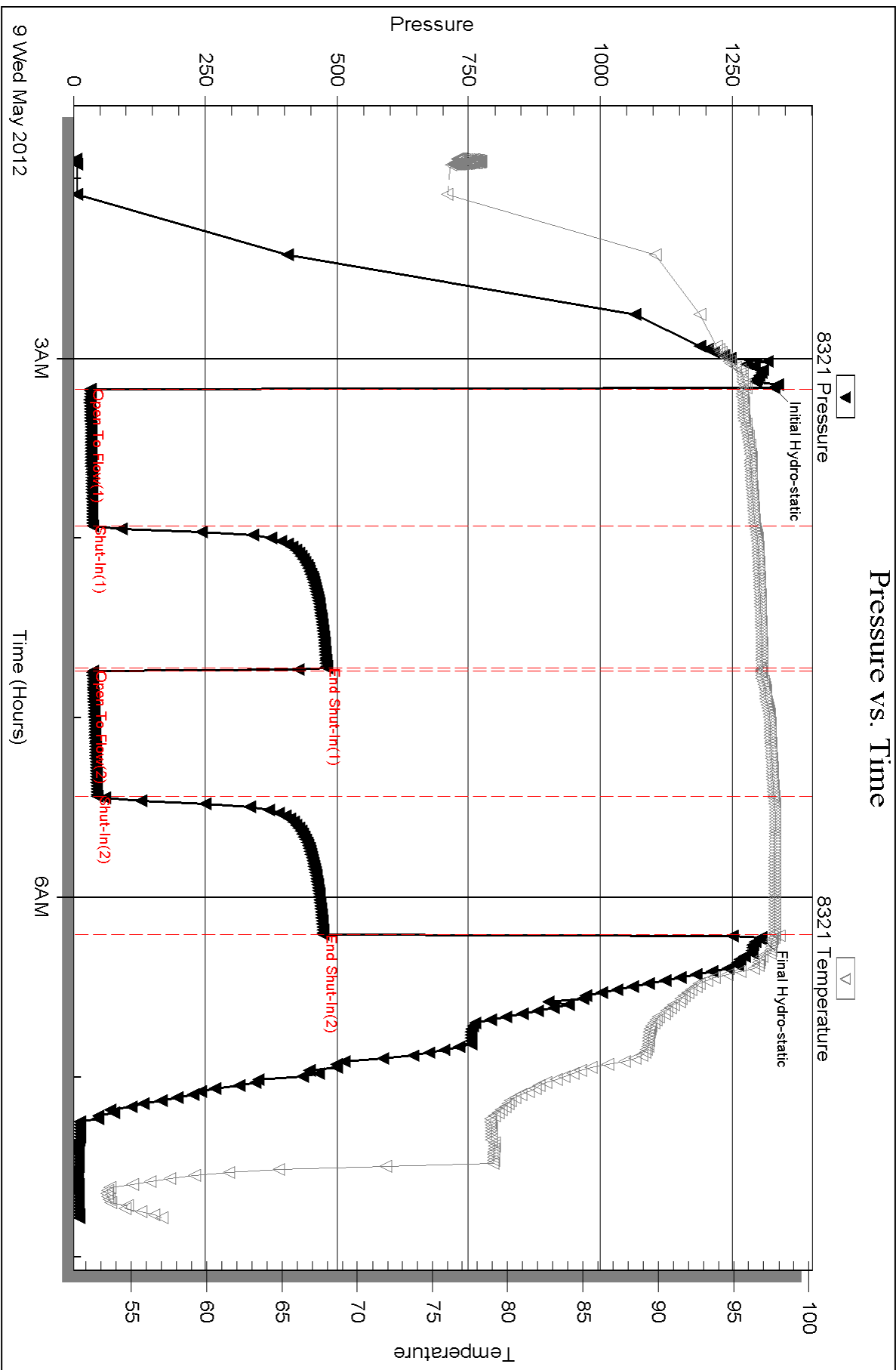
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

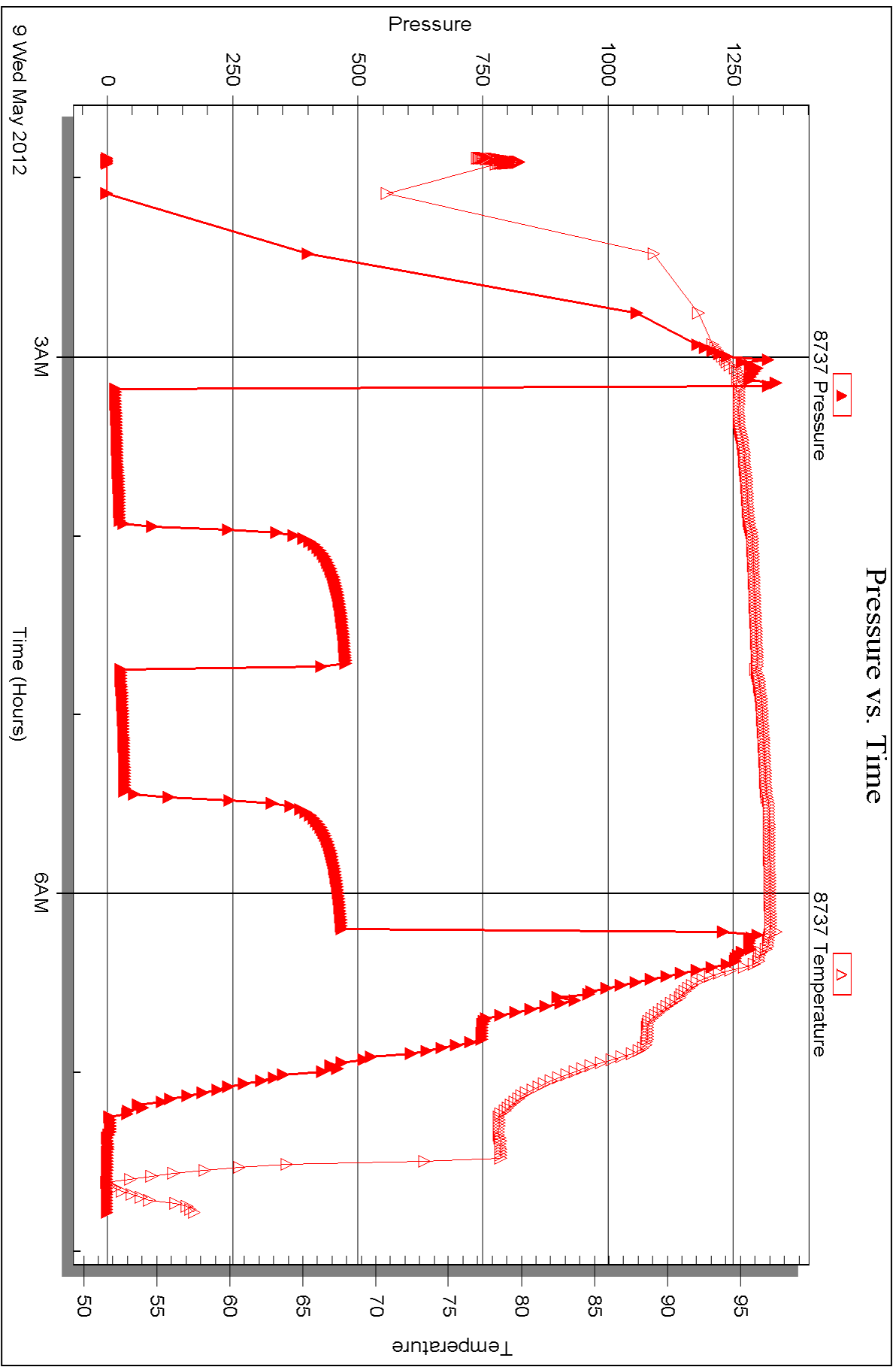


Serial #: 8737

Outside Tengasco Inc

KU Endowment A #3

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Tengasco Inc**

PO Box 458
Hays KS 67601

ATTN: Rod Tremblay

KU Endowment A #3

30-7s-17w Rooks,KS

Start Date: 2012.05.10 @ 08:39:21

End Date: 2012.05.10 @ 15:00:51

Job Ticket #: 44789 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.05.16 @ 13:20:40



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Tengasco Inc
 PO Box 458
 Hays KS 67601
 ATTN: Rod Tremblay

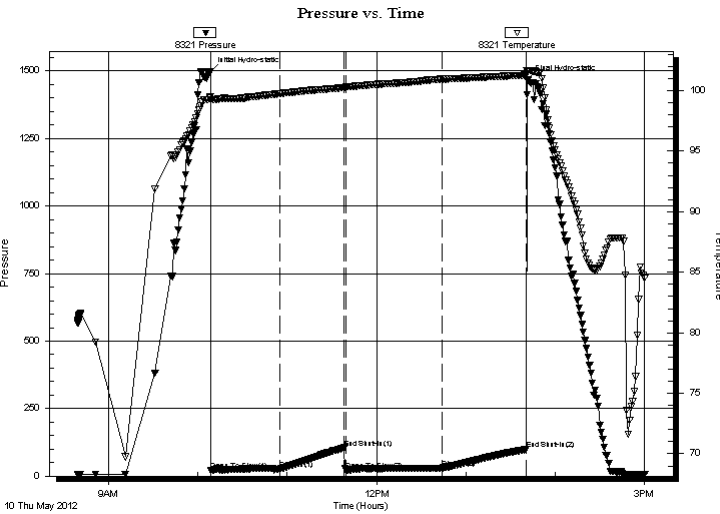
30-7s-17w Rooks,KS
KU Endowment A #3
 Job Ticket: 44789 **DST#: 2**
 Test Start: 2012.05.10 @ 08:39:21

GENERAL INFORMATION:

Formation: **Lansing-G**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 10:08:51
 Time Test Ended: 15:00:51
 Interval: **3039.00 ft (KB) To 3060.00 ft (KB) (TVD)**
 Total Depth: 3060.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Jeff Brown
 Unit No: 44
 Reference Elevations: 1780.00 ft (KB)
 1773.00 ft (CF)
 KB to GR/CF: 7.00 ft

Serial #: 8321 Inside
 Press @ Run Depth: 30.02 psig @ 3040.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.05.10 End Date: 2012.05.10 Last Calib.: 2012.05.10
 Start Time: 08:39:22 End Time: 14:59:51 Time On Btm: 2012.05.10 @ 10:08:21
 Time Off Btm: 2012.05.10 @ 13:41:21

TEST COMMENT: IFP-Weak blow built to 2 in
 ISI-Dead no blow back
 FFP-Weak blow built to 2 1/2 in
 FSI-Dead no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1497.44	99.48	Initial Hydro-static
1	21.07	99.21	Open To Flow (1)
47	26.26	99.75	Shut-In(1)
90	104.56	100.25	End Shut-In(1)
91	21.67	100.33	Open To Flow (2)
156	30.02	100.94	Shut-In(2)
212	98.74	101.28	End Shut-In(2)
213	1467.76	101.67	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	VSOCM 3%O 97%M	0.42

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Tengasco Inc
PO Box 458
Hays KS 67601
ATTN: Rod Tremblay

30-7s-17w Rooks,KS
KU Endowment A #3
Job Ticket: 44789 **DST#: 2**
Test Start: 2012.05.10 @ 08:39:21

GENERAL INFORMATION:

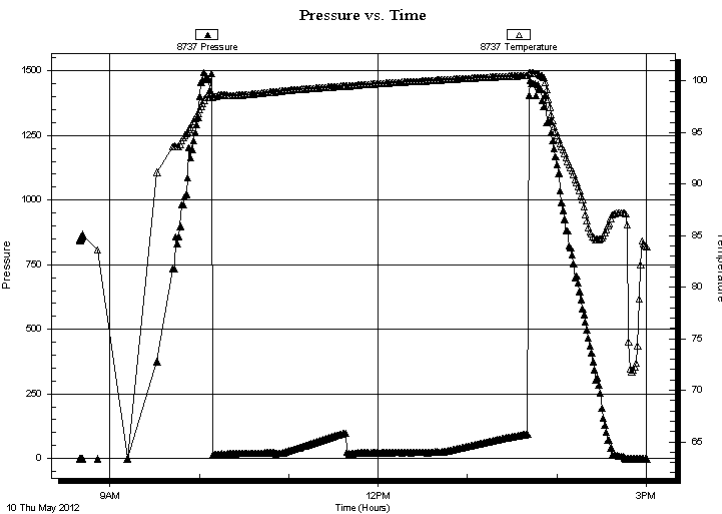
Formation: **Lansing-G**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened: 10:08:51 Tester: Jeff Brown
Time Test Ended: 15:00:51 Unit No: 44
Interval: 3039.00 ft (KB) To 3060.00 ft (KB) (TVD) Reference Elevations: 1780.00 ft (KB)
Total Depth: 3060.00 ft (KB) (TVD) 1773.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 7.00 ft

Serial #: 8737

Outside

Press@RunDepth: psig @ 3040.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2012.05.10 End Date: 2012.05.10 Last Calib.: 2012.05.10
Start Time: 08:39:38 End Time: 15:00:07 Time On Btm:
Time Off Btm:

TEST COMMENT: IFP-Weak blow built to 2 in
ISI-Dead no blow back
FFP-Weak blow built to 2 1/2 in
FSI-Dead no blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
30.00	V SOCM 3%O 97%M	0.42

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Tengasco Inc

30-7s-17w Rooks,KS

PO Box 458
Hays KS 67601

KU Endowment A #3

Job Ticket: 44789

DST#: 2

ATTN: Rod Tremblay

Test Start: 2012.05.10 @ 08:39:21

Tool Information

Drill Pipe:	Length: 3028.00 ft	Diameter: 3.80 inches	Volume: 42.47 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 42.47 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 51000.00 lb
Depth to Top Packer:	3039.00 ft			Final 51000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	21.00 ft			
Tool Length:	49.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3012.00	
Shut In Tool	5.00			3017.00	
Hydraulic tool	5.00			3022.00	
Jars	5.00			3027.00	
Safety Joint	3.00			3030.00	
Packer	4.00			3034.00	28.00 Bottom Of Top Packer
Packer	5.00			3039.00	
Stubb	1.00			3040.00	
Recorder	0.00	8321	Inside	3040.00	
Recorder	0.00	8737	Outside	3040.00	
Perforations	17.00			3057.00	
Bullnose	3.00			3060.00	21.00 Bottom Packers & Anchor

Total Tool Length: 49.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Tengasco Inc

30-7s-17w Rooks,KS

PO Box 458
Hays KS 67601

KU Endowment A #3

Job Ticket: 44789

DST#: 2

ATTN: Rod Tremblay

Test Start: 2012.05.10 @ 08:39:21

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: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1800.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	VSOCM 3%O 97%M	0.421

Total Length: 30.00 ft Total Volume: 0.421 bbl

Num Fluid Samples: 0

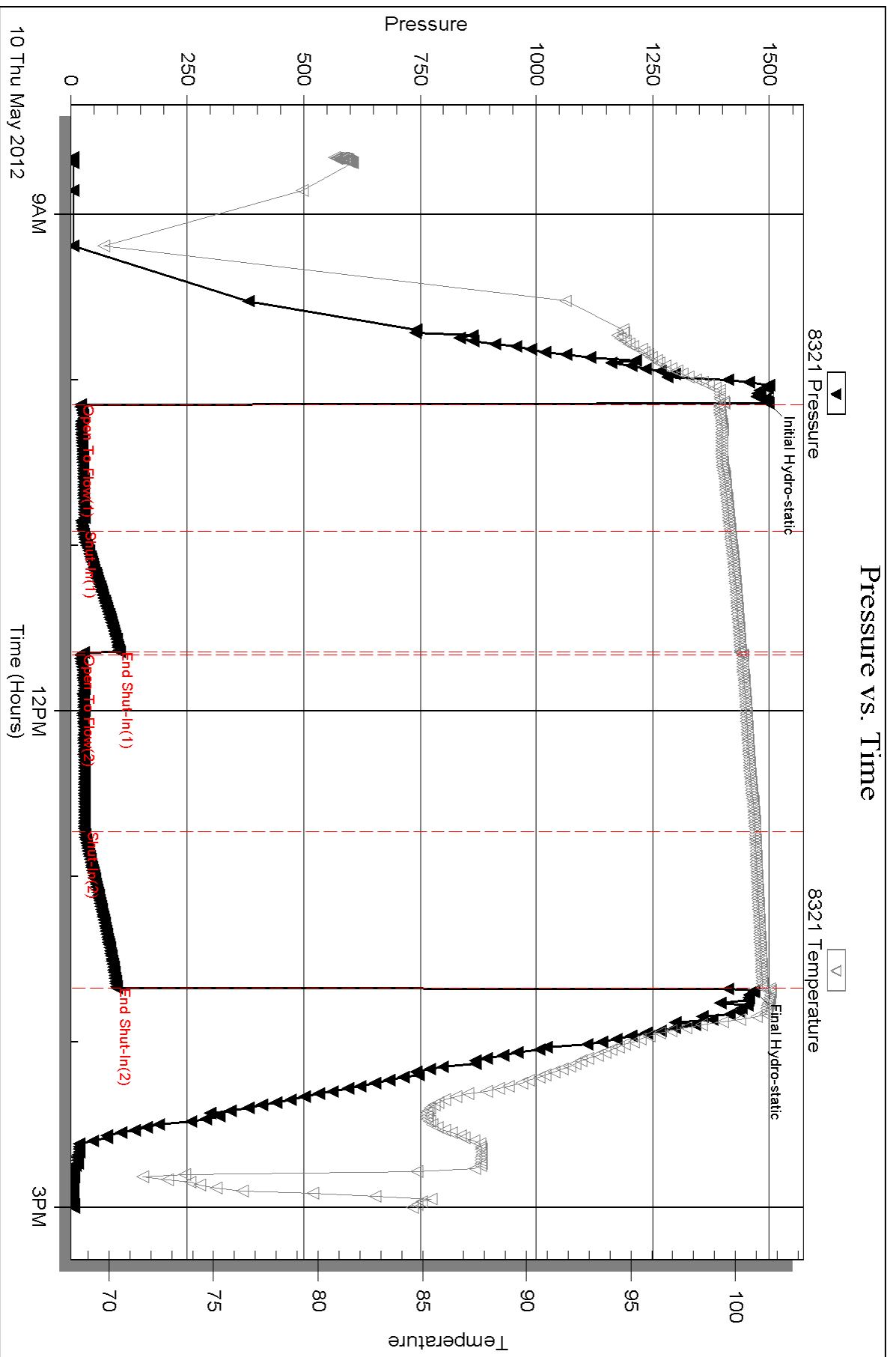
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

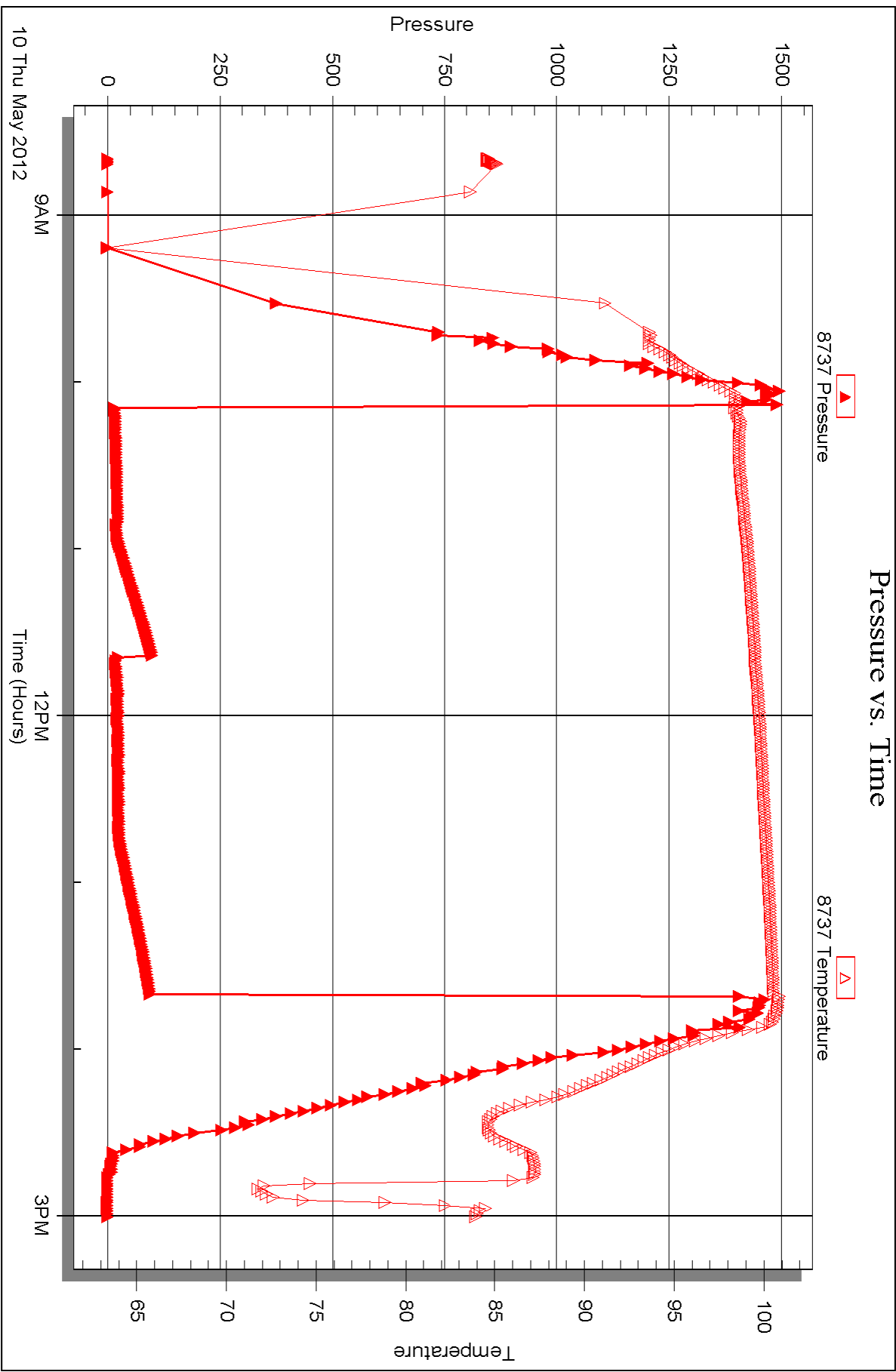


Serial #: 8737

Outside Tengasco Inc

KU Endowment A #3

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Tengasco Inc**

PO Box 458
Hays KS 67601

ATTN: Rod Tremblay

KU Endowment A #3

30-7s-17w Rooks,KS

Start Date: 2012.05.11 @ 13:33:03

End Date: 2012.05.11 @ 19:54:03

Job Ticket #: 44790 DST #: 3

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

Printed: 2012.05.16 @ 13:19:43



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Tengasco Inc
 PO Box 458
 Hays KS 67601
 ATTN: Rod Tremblay

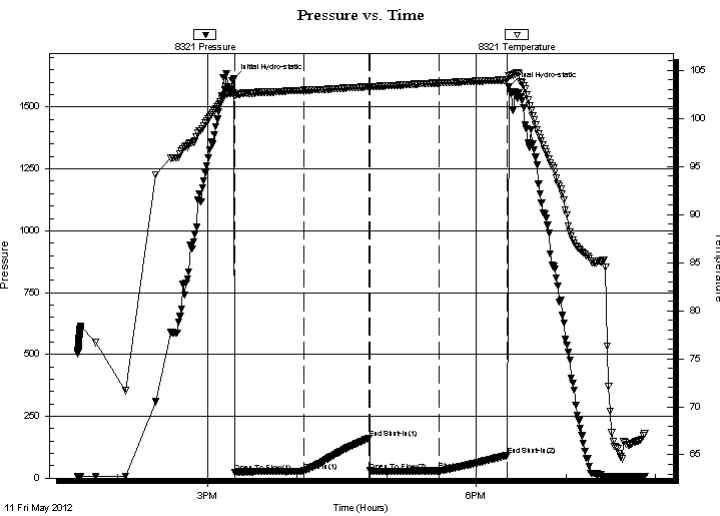
30-7s-17w Rooks,KS
KU Endowment A #3
 Job Ticket: 44790 **DST#: 3**
 Test Start: 2012.05.11 @ 13:33:03

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 15:18:03
 Time Test Ended: 19:54:03
 Interval: **3242.00 ft (KB) To 3280.00 ft (KB) (TVD)**
 Total Depth: 3280.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Jeff Brown
 Unit No: 44
 Reference Elevations: 1780.00 ft (KB)
 1773.00 ft (CF)
 KB to GR/CF: 7.00 ft

Serial #: 8321 Inside
 Press @ Run Depth: 30.05 psig @ 3245.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.05.11 End Date: 2012.05.11 Last Calib.: 2012.05.11
 Start Time: 13:33:04 End Time: 19:53:03 Time On Btm: 2012.05.11 @ 15:17:33
 Time Off Btm: 2012.05.11 @ 18:21:33

TEST COMMENT: IFP-Weak blow built to 1 3/4 in
 ISI-Dead no blow back
 FFP-Weak blow built to 1/4 in
 FSI-Dead no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1613.21	102.68	Initial Hydro-static
1	24.08	102.40	Open To Flow (1)
47	29.46	102.93	Shut-In(1)
91	162.09	103.30	End Shut-In(1)
91	29.28	103.28	Open To Flow (2)
138	30.05	103.69	Shut-In(2)
183	91.14	104.01	End Shut-In(2)
184	1582.05	104.40	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	OCM 10%O 90%M	0.14
5.00	Oil 100%	0.07

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Tengasco Inc

30-7s-17w Rooks,KS

PO Box 458
Hays KS 67601

KU Endowment A #3

Job Ticket: 44790 **DST#: 3**

ATTN: Rod Tremblay

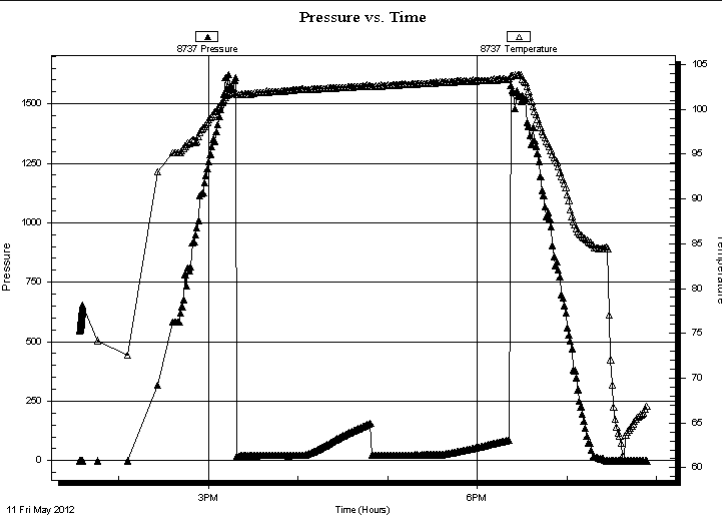
Test Start: 2012.05.11 @ 13:33:03

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 15:18:03 Tester: Jeff Brown
 Time Test Ended: 19:54:03 Unit No: 44
Interval: 3242.00 ft (KB) To 3280.00 ft (KB) (TVD) Reference Elevations: 1780.00 ft (KB)
 Total Depth: 3280.00 ft (KB) (TVD) 1773.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 7.00 ft

Serial #: 8737 Outside
 Press @ Run Depth: psig @ 3245.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.05.11 End Date: 2012.05.11 Last Calib.: 2012.05.11
 Start Time: 13:33:53 End Time: 19:53:52 Time On Btm:
 Time Off Btm:

TEST COMMENT: IFP-Weak blow built to 1 3/4 in
 ISI-Dead no blow back
 FFP-Weak blow built to 1/4 in
 FSI-Dead no blow back



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

Recovery		
Length (ft)	Description	Volume (bbl)
10.00	OCM 10%O 90%M	0.14
5.00	Oil 100%	0.07

* Recovery from multiple tests

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Tengasco Inc

30-7s-17w Rooks,KS

PO Box 458
Hays KS 67601

KU Endowment A #3

Job Ticket: 44790

DST#: 3

ATTN: Rod Tremblay

Test Start: 2012.05.11 @ 13:33:03

Tool Information

Drill Pipe:	Length: 3246.00 ft	Diameter: 3.80 inches	Volume: 45.53 bbl	Tool Weight: 2200.00 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: 60000.00 lb
			Total Volume: 45.53 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	3242.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	38.00 ft			
Tool Length:	66.00 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			3215.00	
Shut In Tool	5.00			3220.00	
Hydraulic tool	5.00			3225.00	
Jars	5.00			3230.00	
Safety Joint	3.00			3233.00	
Packer	4.00			3237.00	28.00 Bottom Of Top Packer
Packer	5.00			3242.00	
Stubb	1.00			3243.00	
Perforations	2.00			3245.00	
Recorder	0.00	8321	Inside	3245.00	
Recorder	0.00	8737	Outside	3245.00	
Perforations	32.00			3277.00	
Bullnose	3.00			3280.00	38.00 Bottom Packers & Anchor

Total Tool Length: 66.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Tengasco Inc

30-7s-17w Rooks,KS

PO Box 458
Hays KS 67601

KU Endowment A #3

Job Ticket: 44790

DST#: 3

ATTN: Rod Tremblay

Test Start: 2012.05.11 @ 13:33:03

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

26 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2400.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
10.00	OCM 10%O 90%M	0.140
5.00	Oil 100%	0.070

Total Length: 15.00 ft Total Volume: 0.210 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

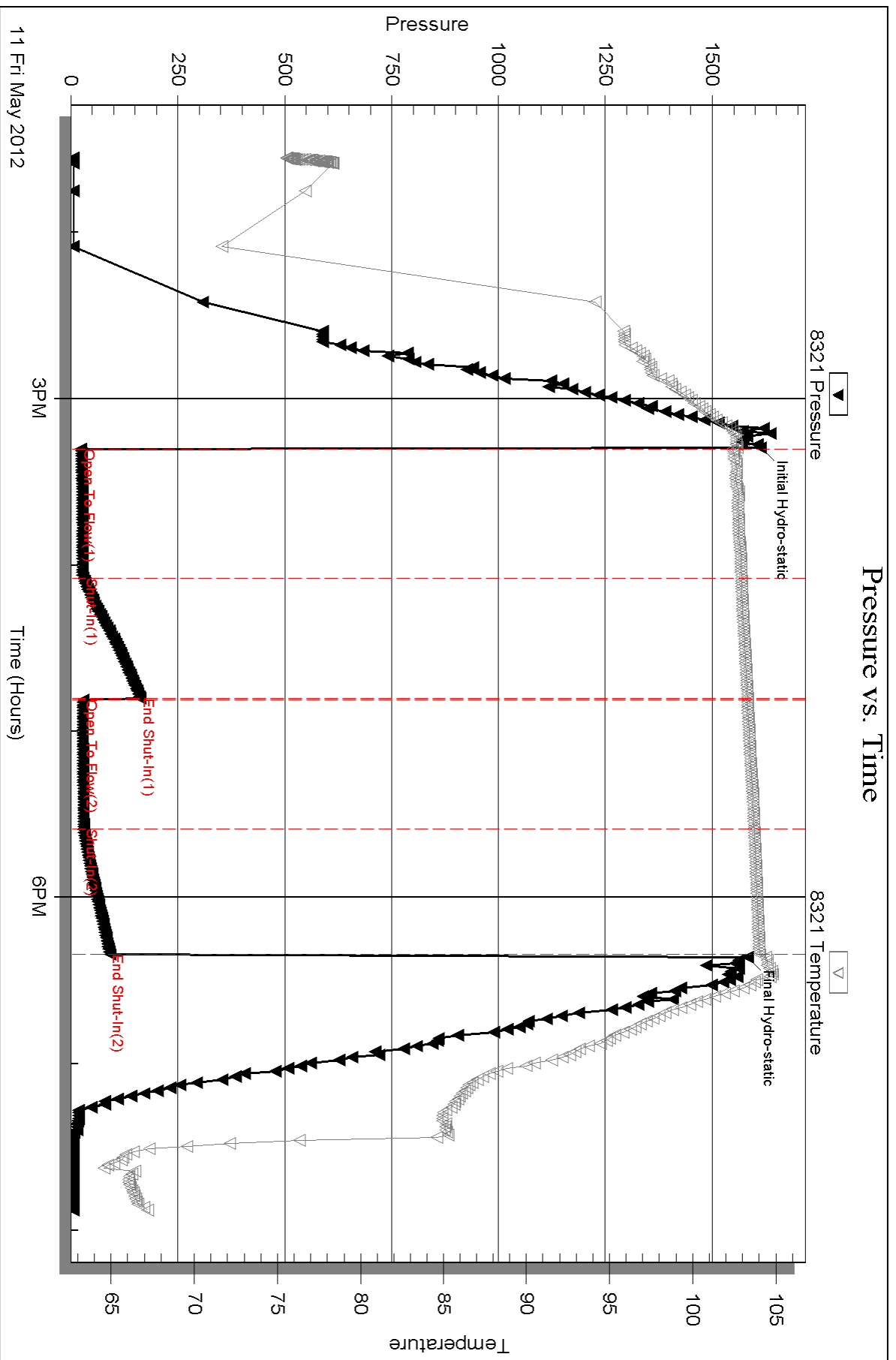
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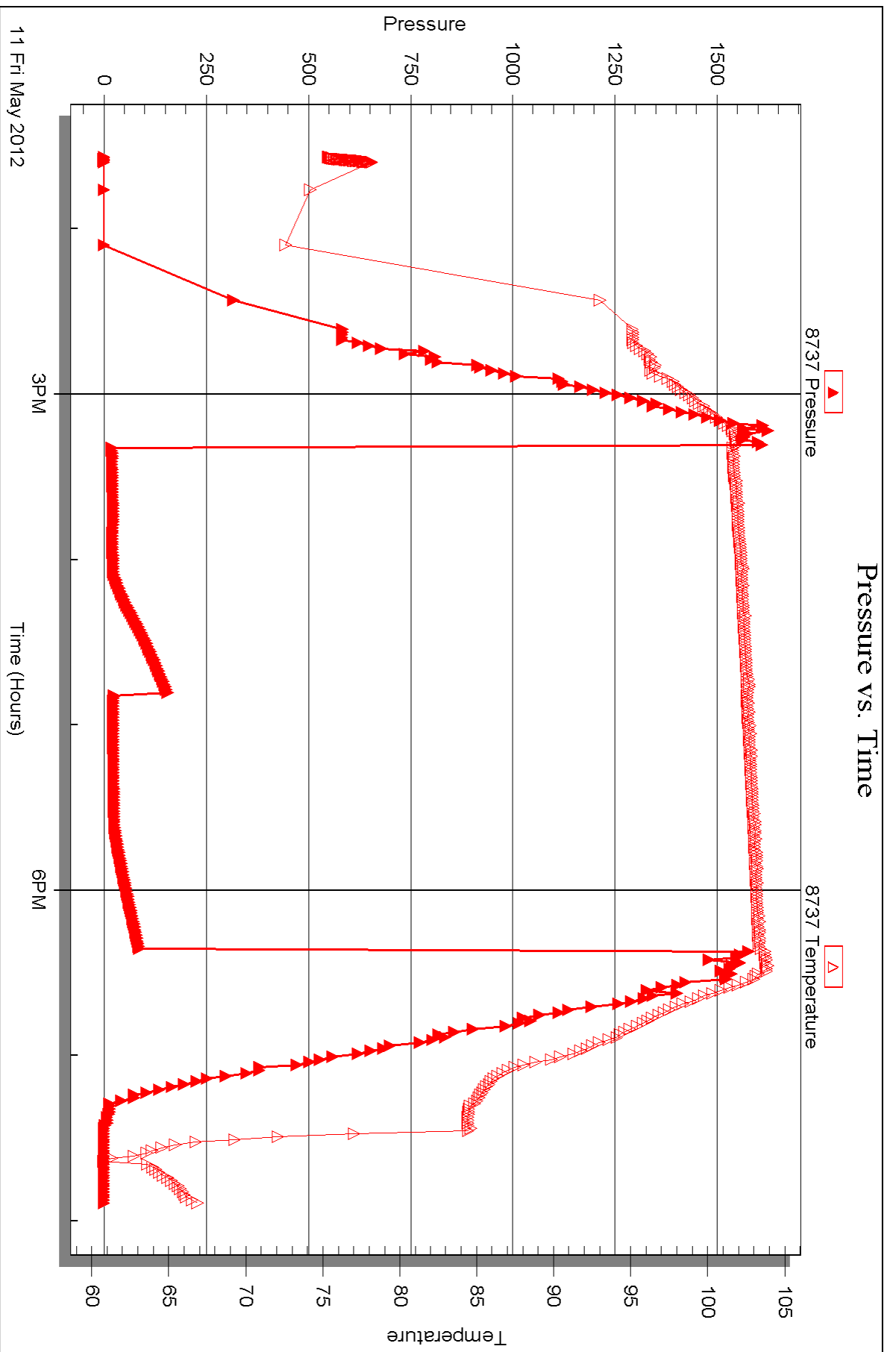
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





11 Fri May 2012



DRILL STEM TEST REPORT

Prepared For: **Tengasco Inc**

PO Box 458
Hays KS 67601

ATTN: Rod Tremblay

KU Endowment A #3

30-7s-17w Rooks,KS

Start Date: 2012.05.12 @ 14:10:14

End Date: 2012.05.12 @ 20:20:44

Job Ticket #: 44791 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.05.16 @ 13:13:18



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Tengasco Inc

30-7s-17w Rooks,KS

PO Box 458
Hays KS 67601

KU Endowment A #3

ATTN: Rod Tremblay

Job Ticket: 44791

DST#: 4

Test Start: 2012.05.12 @ 14:10:14

GENERAL INFORMATION:

Formation: **Abuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:33:14

Time Test Ended: 20:20:44

Test Type: Conventional Straddle (Reset)

Tester: Jeff Brown

Unit No: 44

Interval: 3275.00 ft (KB) To 3316.00 ft (KB) (TVD)

Reference Elevations: 1780.00 ft (KB)

Total Depth: 3369.00 ft (KB) (TVD)

1773.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: 8321 Inside

Press @ Run Depth: 92.45 psig @ 3279.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.05.12 End Date: 2012.05.12

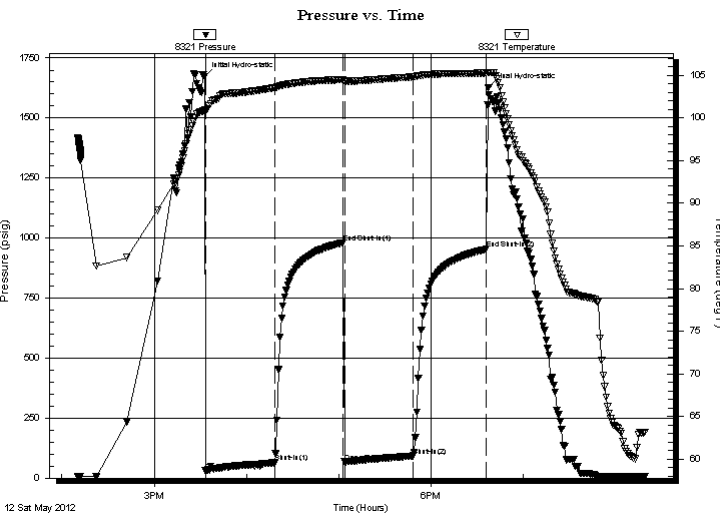
Last Calib.: 2012.05.12

Start Time: 14:10:15 End Time: 20:18:44

Time On Btm: 2012.05.12 @ 15:32:44

Time Off Btm: 2012.05.12 @ 18:37:14

TEST COMMENT: IFP-Good blow built to 10 3/4 in
ISI-Dead no blow back
FFP-Fair blow built to 7 1/4 in
FSI-Dead no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1672.93	100.96	Initial Hydro-static
1	29.88	100.74	Open To Flow (1)
46	64.10	103.52	Shut-In(1)
90	981.30	104.46	End Shut-In(1)
91	67.53	104.30	Open To Flow (2)
136	92.45	104.81	Shut-In(2)
183	954.17	105.24	End Shut-In(2)
185	1626.96	105.32	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
93.00	VSOCM 5%O 95%M	1.30
52.00	OCWM 10%O 10%W 80%M	0.73
10.00	Oil 100%	0.14

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Tengasco Inc

30-7s-17w Rooks,KS

PO Box 458
Hays KS 67601

KU Endowment A #3

ATTN: Rod Tremblay

Job Ticket: 44791

DST#: 4

Test Start: 2012.05.12 @ 14:10:14

GENERAL INFORMATION:

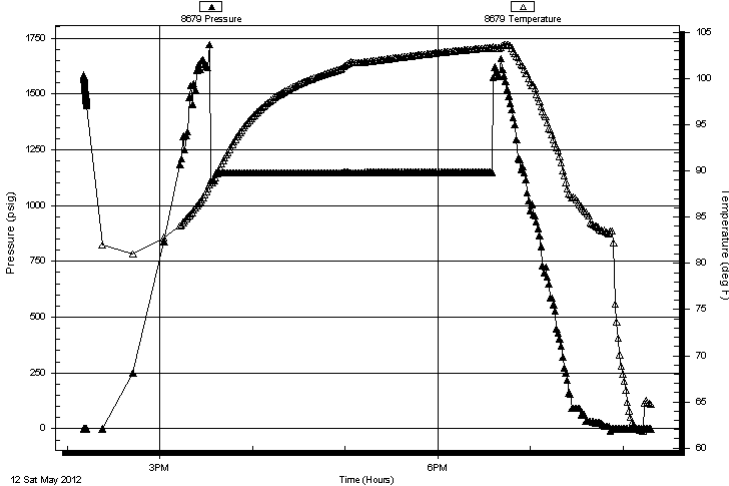
Formation: **Abuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 15:33:14
 Time Test Ended: 20:20:44
Interval: 3275.00 ft (KB) To 3316.00 ft (KB) (TVD)
 Total Depth: 3369.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Straddle (Reset)
 Tester: Jeff Brown
 Unit No: 44
 Reference Elevations: 1780.00 ft (KB)
 1773.00 ft (CF)
 KB to GR/CF: 7.00 ft

Serial #: 8679 Below (Straddle)

Press @RunDepth: psig @ 3319.00 ft (KB)
 Start Date: 2012.05.12 End Date: 2012.05.12
 Start Time: 14:10:31 End Time: 20:18:00
 Capacity: 8000.00 psig
 Last Calib.: 2012.05.12
 Time On Btm:
 Time Off Btm:

TEST COMMENT: IFP-Good blow built to 10 3/4 in
 ISI-Dead no blow back
 FFP-Fair blow built to 7 1/4 in
 FSI-Dead no blow back

Pressure vs. Time



PRESSURE SUMMARY

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

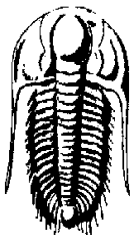
Recovery

Length (ft)	Description	Volume (bbl)
93.00	VSOCM 5%O 95%M	1.30
52.00	OCWM 10%O 10%W 80%M	0.73
10.00	Oil 100%	0.14

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Tengasco Inc

30-7s-17w Rooks,KS

PO Box 458
Hays KS 67601

KU Endowment A #3

ATTN: Rod Tremblay

Job Ticket: 44791 **DST#: 4**

Test Start: 2012.05.12 @ 14:10:14

GENERAL INFORMATION:

Formation: **Abuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:33:14

Time Test Ended: 20:20:44

Test Type: Conventional Straddle (Reset)

Tester: Jeff Brown

Unit No: 44

Interval: **3275.00 ft (KB) To 3316.00 ft (KB) (TVD)**

Reference Elevations: 1780.00 ft (KB)

Total Depth: 3369.00 ft (KB) (TVD)

1773.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: 8737 Outside

Press @ Run Depth: psig @ 3279.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.05.12 End Date: 2012.05.12

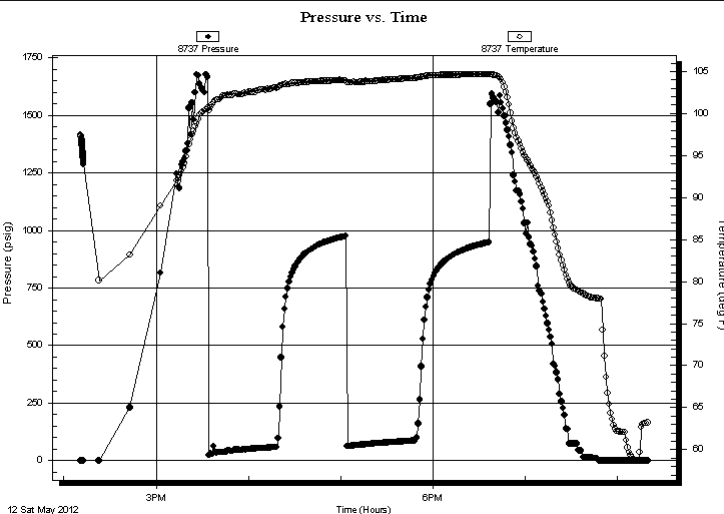
Last Calib.: 2012.05.12

Start Time: 14:10:54 End Time: 20:19:23

Time On Btm:

Time Off Btm:

TEST COMMENT: IFP-Good blow built to 10 3/4 in
ISI-Dead no blow back
FFP-Fair blow built to 7 1/4 in
FSI-Dead no blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
93.00	VSOCM 5%O 95%M	1.30
52.00	OCWM 10%O 10%W 80%M	0.73
10.00	Oil 100%	0.14

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Tengasco Inc

30-7s-17w Rooks,KS

PO Box 458
Hays KS 67601

KU Endowment A #3

Job Ticket: 44791

DST#: 4

ATTN: Rod Tremblay

Test Start: 2012.05.12 @ 14:10:14

Tool Information

Drill Pipe:	Length: 3277.00 ft	Diameter: 3.80 inches	Volume: 45.97 bbl	Tool Weight: 2400.00 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: 60000.00 lb
			<u>Total Volume: 45.97 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	3275.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	3316.00 ft			
Interval between Packers:	41.00 ft			
Tool Length:	122.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3248.00	
Shut In Tool	5.00			3253.00	
Hydraulic tool	5.00			3258.00	
Jars	5.00			3263.00	
Safety Joint	3.00			3266.00	
Packer	4.00			3270.00	28.00 Bottom Of Top Packer
Packer	5.00			3275.00	
Stubb	1.00			3276.00	
Perforations	2.00			3278.00	
Change Over Sub	1.00			3279.00	
Recorder	0.00	8321	Inside	3279.00	
Recorder	0.00	8737	Outside	3279.00	
Drill Pipe	30.00			3309.00	
Change Over Sub	1.00			3310.00	
Perforations	2.00			3312.00	
Blank Off Sub	1.00			3313.00	
Stubb	3.00			3316.00	41.00 Tool Interval
Packer	1.00			3317.00	
Stubb	1.00			3318.00	
Change Over Sub	1.00			3319.00	
Recorder	0.00	8679	Below	3319.00	
Drill Pipe	31.00			3350.00	
Change Over Sub	1.00			3351.00	
Perforations	15.00			3366.00	
Bullnose	3.00			3369.00	53.00 Bottom Packers & Anchor

Total Tool Length: 122.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Tengasco Inc

30-7s-17w Rooks,KS

PO Box 458
Hays KS 67601

KU Endowment A #3

Job Ticket: 44791

DST#: 4

ATTN: Rod Tremblay

Test Start: 2012.05.12 @ 14:10:14

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

21 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2400.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
93.00	VSOCM 5%O 95%M	1.305
52.00	OCWM 10%O 10%W 80%M	0.729
10.00	Oil 100%	0.140

Total Length: 155.00 ft

Total Volume: 2.174 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

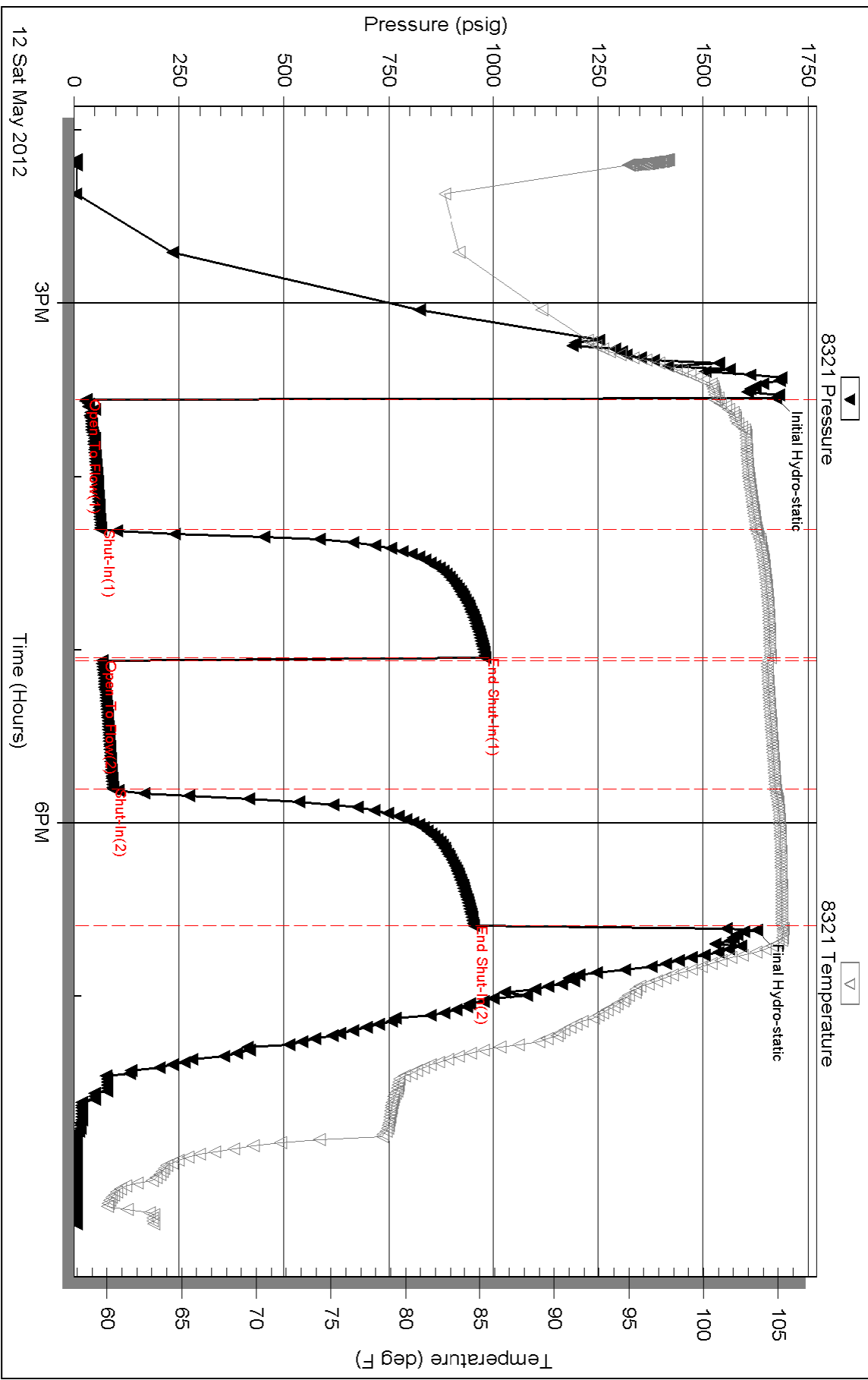
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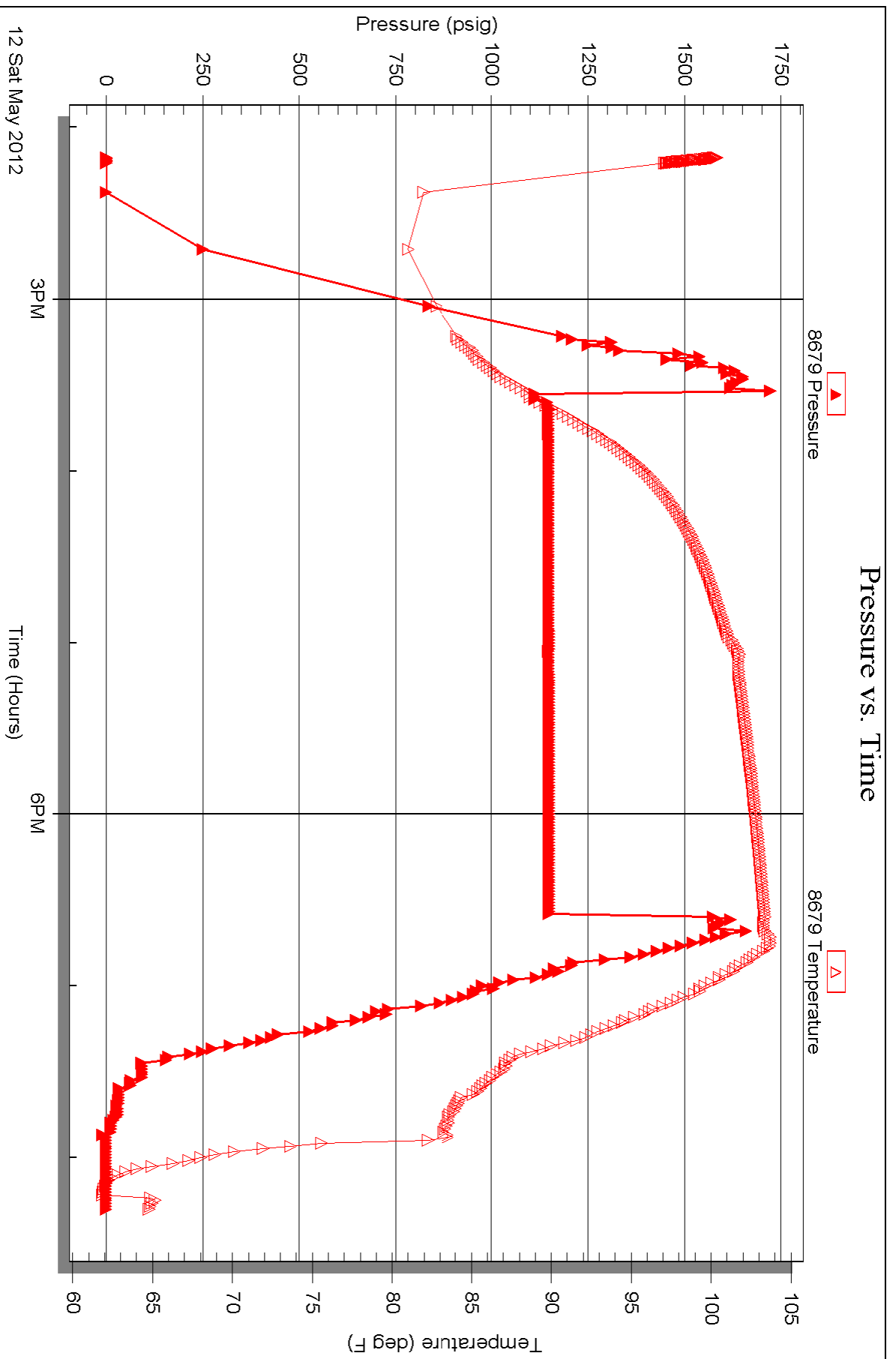
Laboratory Name:

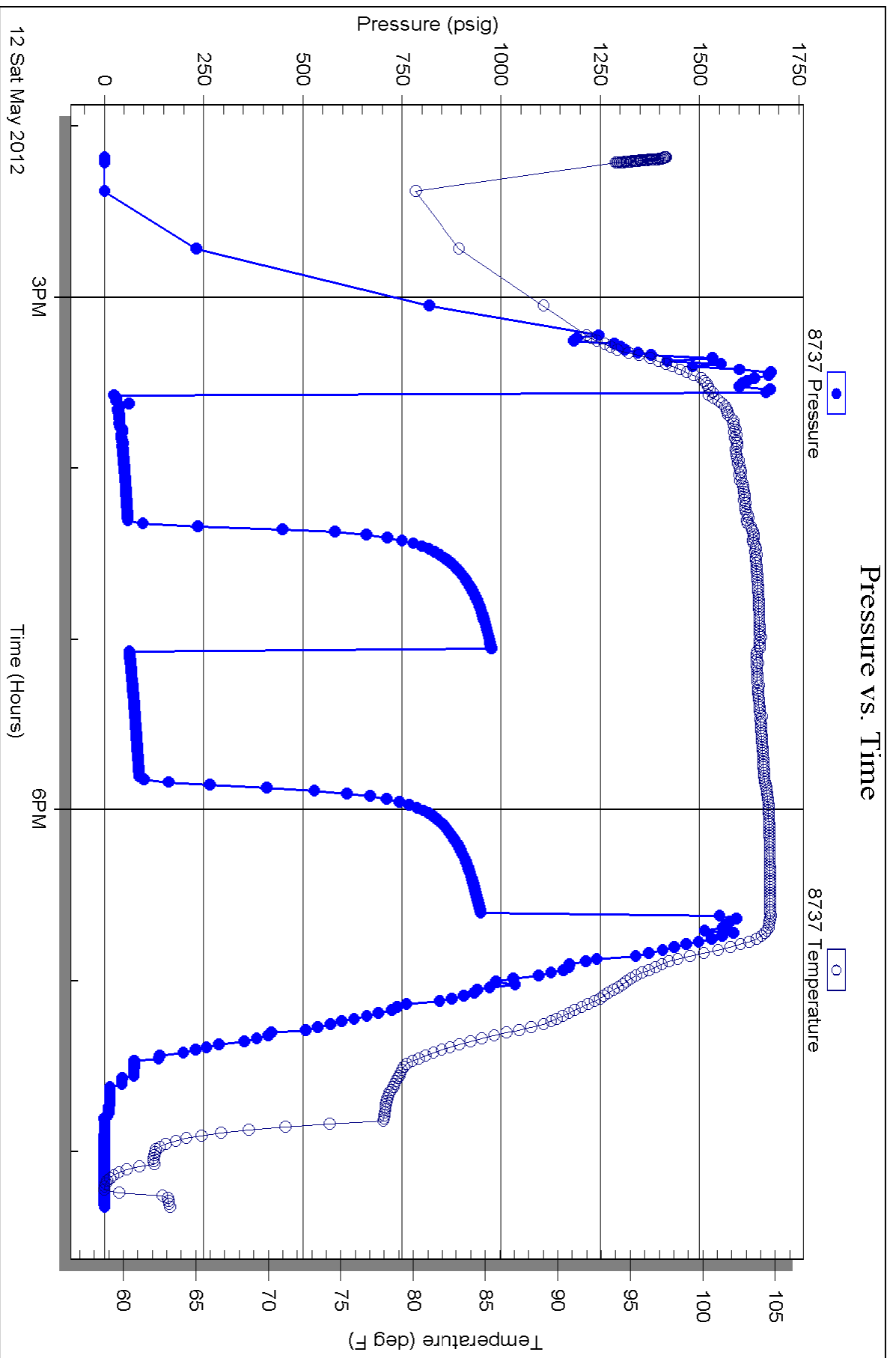
Laboratory Location:

Recovery Comments:

Pressure vs. Time









TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 44788

Well Name & No. K4 ENDOWMENT A #3 Test No. 1 Date 5-9-12
 Company TENGAS CO INC Elevation 1790 KB 1783 GL
 Address 1327 NOOSE RD PO BOX 458 HAYS KS 67601
 Co. Rep / Geo. MIKE BAIR Rig AMERICAN EAGLE #2
 Location: Sec. 30 Twp. 7 S Rge. 17 W Co. ROCKS State KS

Interval Tested 2730-2747 Zone Tested TOPEKA
 Anchor Length 17 Drill Pipe Run 2714 Mud Wt. 9.3
 Top Packer Depth 2725 Drill Collars Run 0 Vis 29
 Bottom Packer Depth 2730 Wt. Pipe Run 0 WL
 Total Depth 2747 Chlorides 63000 ppm System LCM

Blow Description IF Weak Blow Built TO 3 IN
IS-Dead NO Blow Back
FF Weak Blow Built TO 1 IN
FS-Dead NO Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>40</u>	<u>MW</u>			<u>80%</u>	<u>20%</u>
<u>40</u>	<u>WM</u>			<u>40%</u>	<u>60%</u>

Rec Total 12 BHT 98 Gravity API RW .304 @ 45.1 °F Chlorides 37,000 ppm

(A) Initial Hydrostatic 1329 Test 1150 T-On Location 1:23
 (B) First Initial Flow 32 Jars 250 T-Started 1:53
 (C) First Final Flow 36 Safety Joint 75 T-Open 3:11
 (D) Initial Shut-In 480 Circ Sub T-Pulled 6:11
 (E) Second Initial Flow 37 Hourly Standby T-Out 7:47
 (F) Second Final Flow 45 Mileage 84 130.20 RT
 (G) Final Shut-In 473 Sampler
 (H) Final Hydrostatic 1305 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 1605.20
 Final Shut-In 45 Accessibility MP/DST Disc't
 Sub Total 1605.20

Approved By _____ Our Representative Jeff Brown

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



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 44789

Well Name & No. K4 Endowment A #3 Test No. 2 Date 5-10-12
 Company Tengas CO INC Elevation 1790 KB 1783 GL
 Address PO Box 458 Hays KS 67601
 Co. Rep / Geo. Mike Bair Rig American Eagle #2
 Location: Sec. 30 Twp. 7S Rge. 17W Co. Rooks State KS

Interval Tested 3039 - 3060 Zone Tested Lansing-G
 Anchor Length 21 Drill Pipe Run 3028 Mud Wt. 8.9
 Top Packer Depth 3034 Drill Collars Run 0 Vis 56
 Bottom Packer Depth 3039 Wt. Pipe Run 0 WL 64
 Total Depth 3060 Chlorides 1300 ppm System LCM 1

Blow Description FF-Weak Blow BUILT TO 2 IN
ISI-Dead NO Blow Back
FF-Weak Blow BUILT TO 2 1/2 IN
ISI-Dead NO Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
30	USOCM		3%		97%

Rec Total 30 BHT 101 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1497 Test 1150 T-On Location 7:43
 (B) First Initial Flow 21 Jars 250 T-Started 8:39
 (C) First Final Flow 26 Safety Joint 75 T-Open 10:10
 (D) Initial Shut-In 105 Circ Sub _____ T-Pulled 13:40
 (E) Second Initial Flow 22 Hourly Standby _____ T-Out 15:00
 (F) Second Final Flow 30 Mileage 130.20 Comments _____
 (G) Final Shut-In 99 Sampler _____
 (H) Final Hydrostatic 1468 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1605.20
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1605.20

Initial Open 45
 Initial Shut-In 45
 Final Flow 600
 Final Shut-In 400

Approved By _____ Our Representative Jeff Brown

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



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 44790

Well Name & No. K4 Endowment A #3 Test No. 3 Date 5-11-12
 Company Tengas CO INC Elevation 1790 KB 1783 GL
 Address PO Box 458 Hays 67601
 Co. Rep / Geo. Mike Bair Rig American Eagle #2
 Location: Sec. 30 Twp. 7s Rge. 17W Co. Rooks State KS

Interval Tested 3242-3280 Zone Tested ARBuckle
 Anchor Length 38 Drill Pipe Run 3240 Mud Wt. 9.4
 Top Packer Depth 3237 Drill Collars Run 0 Vis 54
 Bottom Packer Depth 3242 Wt. Pipe Run 0 WL 7.2
 Total Depth 3280 Chlorides 2400 ppm System LCM 3

Blow Description IF-Weak Blow Built To 1 3/4 IN
ISI-Dead NO Blow Back
FP-Weak Blow Built To 1/4
FSE-Dead NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>OCM</u>		<u>10</u>		<u>90</u>
<u>5</u>	<u>Oil</u>		<u>100</u>		

Rec Total 15 BHT 104 Gravity 22.0 API RW @ ° F Chlorides ppm

(A) Initial Hydrostatic 11613 Test 1150 T-On Location 13:15
 (B) First Initial Flow 24 Jars 250 T-Started 13:33
 (C) First Final Flow 29 Safety Joint 75 T-Open 15:20
 (D) Initial Shut-In 1162 Circ Sub T-Pulled 18:20
 (E) Second Initial Flow 29 Hourly Standby T-Out 19:54
 (F) Second Final Flow 30 Mileage 130.20 Comments _____
 (G) Final Shut-In 91 Sampler _____
 (H) Final Hydrostatic 1582 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1605.20
 Accessibility _____ MP/DST Disc't _____

Initial Open 45
 Initial Shut-In 45
 Final Flow 45
 Final Shut-In 45
 Sub Total 1605.20

Approved By _____ Our Representative Jeff Brown

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TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 44791

Well Name & No. K4 Endowment A #3 Test No. 4 Date 5-12-12
 Company Tengas CO INC Elevation 1790 KB 1783 GL
 Address PO Box 458 Hays 67601
 Co. Rep / Geo. Mike Bair Rig American Eagle #2
 Location: Sec. 30 Twp. 7S Rge. 17W Co. Rooks State KS

Interval Tested 3275-3316 Zone Tested ARBUCKLE
 Anchor Length 41-Anchor 53-Tail Drill Pipe Run 3277 Mud Wt. 9.3
 Top Packer Depth 3270 Drill Collars Run 0 Vis 55
 Bottom Packer Depth 3275 Wt. Pipe Run 0 WL 7.2
 Total Depth 3369 Chlorides 2400 ppm System LCM 3

Blow Description IF GOOD BLOW BUILT TO 10 3/4 IN
EST-Dead No Blow Back
IF Fair Blow Built To 7 1/4
EST-Dead No Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
93	SOCM		5		95
52	OCWM		10	10	80
10	Oil		100		

Rec Total 155 BHT 105 Gravity 21 API RW 1261 @ 64.3°F Chlorides 28000 ppm

(A) Initial Hydrostatic <u>11673</u>	<input checked="" type="checkbox"/> Test 1150	T-On Location <u>11:53</u>
(B) First Initial Flow <u>30</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>14:10</u>
(C) First Final Flow <u>264</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>15:35</u>
(D) Initial Shut-In <u>981</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>18:35</u>
(E) Second Initial Flow <u>268</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>20:20</u>
(F) Second Final Flow <u>92</u>	<input checked="" type="checkbox"/> Mileage 130.20	Comments
(G) Final Shut-In <u>954</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>11627</u>	<input checked="" type="checkbox"/> Straddle 600	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Open <u>45</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>45</u>	<input type="checkbox"/> Day Standby	Total <u>2205.20</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>2205.20</u>	

Approved By _____ Our Representative Jeff Brown

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