



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1070182  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

Form must be Typed  
Form must be Signed  
All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well       Re-Entry       Workover
- Oil       WSW       SWD       SIOW
- Gas       D&A       ENHR       SIGW
- OG       GSW       Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic       Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

- Deepening       Re-perf.       Conv. to ENHR       Conv. to SWD
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE       NW       SE       SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx)      (e.g. -xxx.xxxxx)

Datum:  NAD27       NAD83       WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite: \_\_\_\_\_

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

1070182

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

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

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

Drill Stem Tests Taken <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Electric Log Run	<input type="checkbox"/> Yes <input type="checkbox"/> No			
List All E. Logs Run:				

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

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

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

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

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

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

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

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

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

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <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 <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Rama Operating Co., Inc.
Well Name	Keim 1-25
Doc ID	1070182

Tops

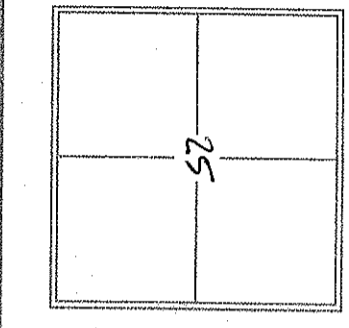
Name	Top	Datum
Topeka	2996	-1146
Heebner	3316	-1466
Simpson Shale	3350	-1478
Douglas	3350	-1500
Brown Lime	3471	-1621
Lansing	3499	-1649
Base LKC	3778	-1928
Viola	3905	-2055
Simpson Shale	4038	-2188
Simpson Sand	4054	-2204
Arbuckle	4092	-2242
RTD	4150	-2300

Joshua R. Austin Petroleum Geologist  
 Report for  
 RAMA Operating Co., Inc.

GEOLOGIST'S REPORT  
 DRILLING TIME AND SAMPLE LOG

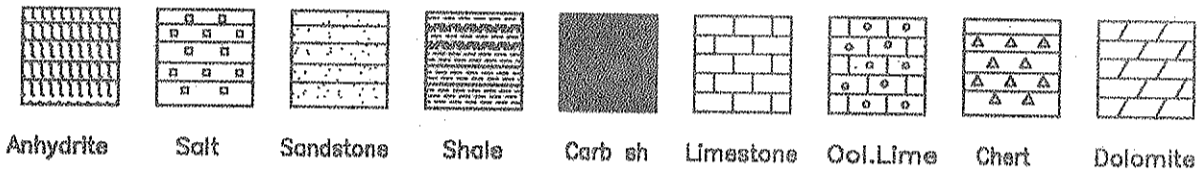
OPERATOR RAMA Operating Co., Inc  
 LEASE Keim WELL NO. L-25  
 FIELD Mopac Ext  
 LOCATION Sw-NW-Se-Se (816 FSL & 1116 FEL)  
 SEC. 25 TWP. 24s RGE 12w  
 COUNTY Stafford STATE Kansas  
 CONTRACTOR Steering Drilling Co (Fig #1)  
 COM. 12-3-2011  
 RTD 4150 LOG TO 4148  
 SAMPLES SAVED FROM 2900 TO 4150  
 DRILLING TIME KEPT FROM 2900 TO 4150  
 SAMPLES EXAMINED FROM 3000 TO 4150  
 GEOLOGICAL SUPERVISION FROM 3200 TO 4150  
 MUD UP 2919 TYPE MUD Chemical

ELEVATION  
 KB 1850  
 DF 1839  
 Measurements Are All  
 From KB  
 CASING RECORD  
 SURFACE 8 5/8" @ 270  
 PRODUCTION 5 1/2" @ 4115  
 ELECTRICAL SURVEYS  
 By log-Teck  
 Col/cdl Dil Micro  
 Sonic



REFERENCE WELL FOR STRUCTURAL COMPARISON

LEGEND



LITHOLOGY	DEPTH	DRILLING TIME (Logarithmic Scale)		SAMPLE DESCRIPTIONS	REMARKS
		LOG	DATUM		
	2900	.5	1		
	20				
	40				
	60				
	80				
	3000				
	20				
	40				

Howard

Severy

Topeka  
 2996 - 1146

Sand, grey - greyish green - cream  
 fine - v. lg sub angular sub rounded  
 Cal cement friable micaceous  
 No shales No gas kick

ls, cream chky ool  
 few mat. pos poor vis.  
 n/s

ls, cream-wh - light grey  
 chky dense in part st. dy  
 + wh chlk

2996 -196

LS; cream chky ool  
few mott pos poor vis;  
N/S

LS; cream-wh-bk grey fxl  
chky dense in part sl. dy  
+ wh chlk

LS; cream-grey fxl chky  
to grey bossy A

LS; cream fxl chky  
poor vis; + wh chlk

LS; cream fxl chky foss/ool  
sl. green poorly dev; N/S

LS; ool dy in part  
to blk carb sh

LS; cream fxl sl. foss chky  
dense dy in part  
+ wh grey foss A

LS; cream-grey foss green  
poor vis; N/S

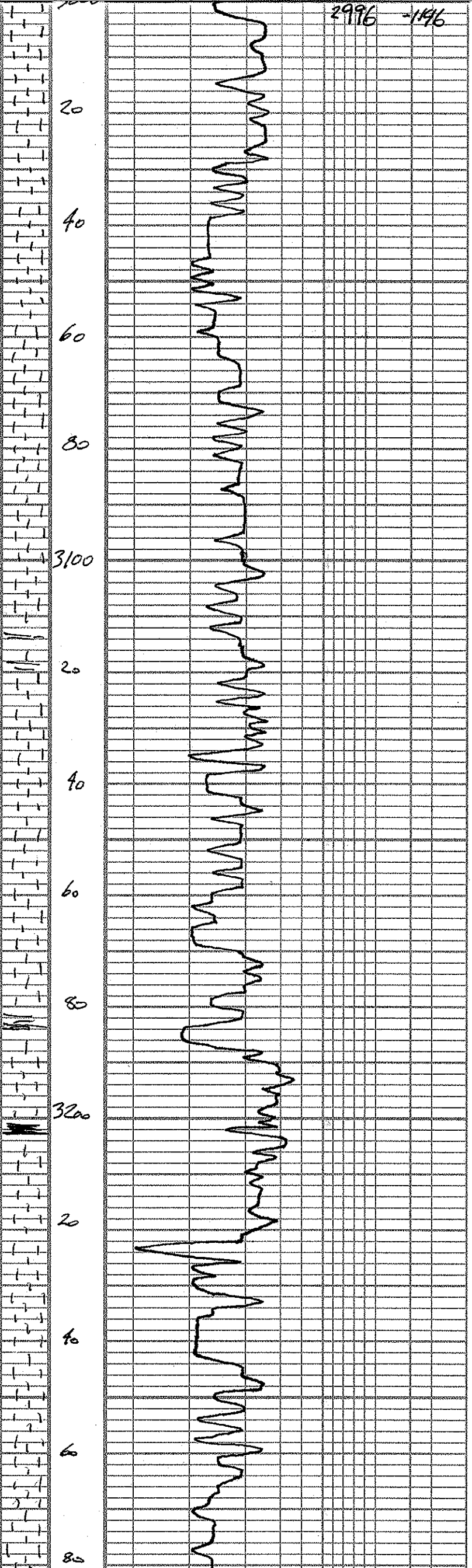
trace blk carb sh

LS; tan-cream f-med xl  
foss in part dense poorly  
dev; N/S

KB 1850

LS; cream-grey f-med xl chky  
few sparry cal poor vis; N/S

LS; cream-tan fxl chky sl. foss/ool  
poorly dev; + grey bossy A



3300

20

40

60

80

3400

20

40

60

80

3500

20

40

60

Heebner  
3316 (-1466)

Toronto

Douglas shale

Douglas shale

Brown lime  
3474 (-1624)

Lansing 3502  
(-1652)

LS: crm-tan buff fxl dense  
sli & y poor vis

SS

slug blk carb shale

gry-green sh.

LS: crm-wh fxl chky  
(dsc)

Shale: gry-gryish green mica  
in part silty

Sand: gryish green vfg

Sub roundest sub & friable  
mica in part fr-gard 19  
w/s

sand a a

+ gry-gryish green soft  
silty shale mica in part

gry-dark gry shale  
silty in part

SS

LS: Tan-brn fxl sli foss  
dense ay

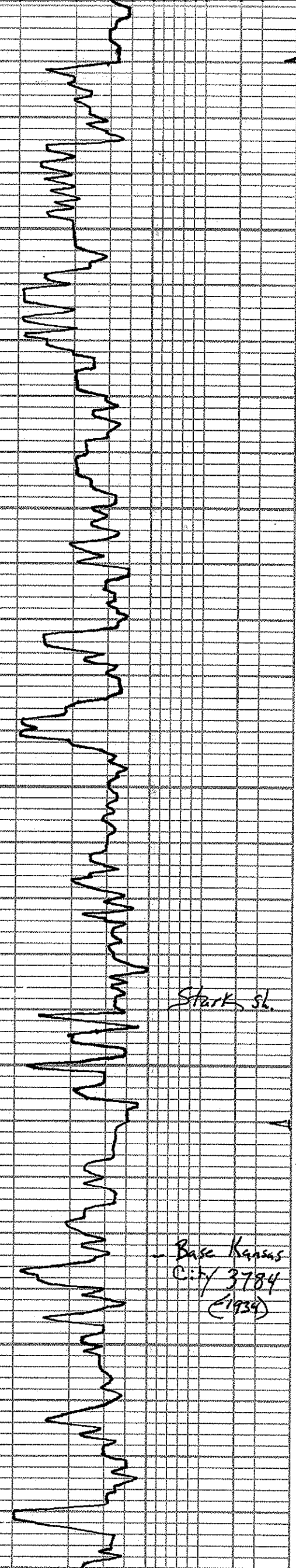
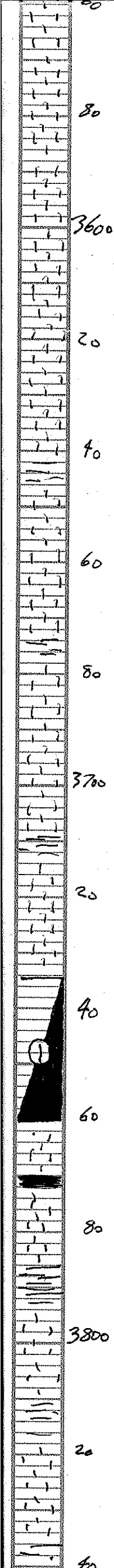
gry-dark gry soft shale

LS: crm-gry f-met xl foss  
chky in part dense poor vis  
1 (1pc) spotty brn sh N&P, no ab

LS: crm-lt gry fxl chky poorly dev  
once sample broke th. spo, fr-fractor  
dull yellow flur

gry-green shale

LS: Tan-beise f-met xl



ls. tan - beige f-met xl  
 sl: foss chky few xho  
 to brn str. Nifo Na chr

ls; crm-gry sl: foss by N/S

ls; crm sl: chky down  
 + gry spagren berry d

ls; tan-brn f-met xl, foss  
 sects of in part N/S  
 + gry-wh d

gry-Mor-green shale

ls; crm-wh foss-ool chky  
 few scabls N/S

ls; crm suboom-ool f-ool  
 (down)

ls; crm oom-ool chky  
 to ls; crm finely ool chky  
 brn str. ft. spilly str. ft odor

gry shale

ls; gry sl: chky vuggy, brn  
 str. to fo ft odor

Stark Sh.

blk Carb shale

ls; crm-wh sl: brn-blk str  
 chky foss-ool few foss  
 blk brn-blk heavy ft odor

blk Carb shale

Base Kansas  
 City 3784  
 (1934)

gry-gryish green silty sh

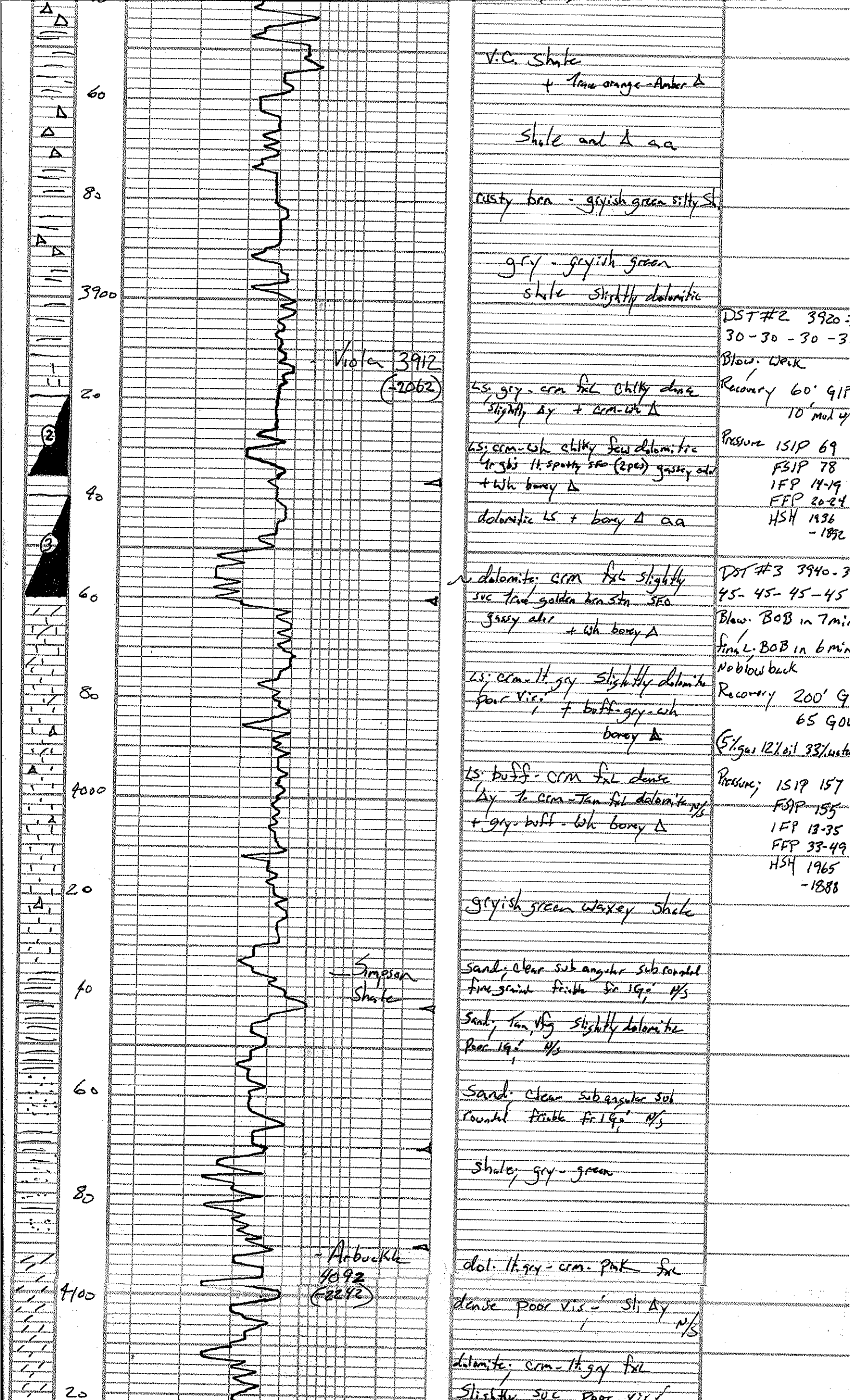
ls; crm-th; gry sl: dense  
 poor vibs

gry-blk shale

ls; crm-th; gry sl: dense dY  
 + orange berry d

LS

DST #1 3735-3  
 30-30-30-30  
 Blow: weak  
 Recovery 10' Mud  
 Pressures ISIP 969  
 FSIP 686  
 IFP 12-45  
 FFP 20-33  
 HSH 1810  
 -1865



V.C. Shale  
+ tan orange-amber Δ

Shale and Δ aa

rusty brn - greyish green silty sh

gry - greyish green  
shale slightly dolomitic

DST #2 3920 -  
30 - 30 - 30 - 3  
Blow: WPK  
Recovery 60' 91P  
10' mud up  
Pressure 151P 69  
FSIP 78  
IFP 14-19  
FFP 20-24  
HSH 1936  
-1892

Violon 3912  
(39062)

LS: gry - crm fxl Chlky dense  
slightly Δy + crm-wh Δ

LS: crm-wh chlky few dolomitic  
to sh. lt. spotty sfo (2pc) gassy ool  
+ wh bony Δ

dolomitic LS + bony Δ aa

N. dolomite: crm fxl slightly  
suc tan golden brn sfo  
gassy ool + wh bony Δ

DST #3 3940 - 3  
45 - 45 - 45 - 45  
Blow: BOB in 7 min  
Final BOB in 6 min  
No blow back  
Recovery 200' G  
65 G00  
(5% gas 12% oil 33% water)

LS: crm-lt. gry slightly dolomite  
poor vis. + buff-gry-wh  
bony Δ

LS: buff - crm fxl dense  
Δy to crm-tan fxl dolomite n/s  
+ gry buff - wh bony Δ

Pressure: 151P 157  
FSIP 155  
IFP 13-35  
FFP 33-49  
HSH 1965  
-1888

greyish green waxy shale

Simpson  
Shale

Sand: clear sub angular sub rounded  
fine grain friable fr 1 1/2" n/s

Sand: tan, v. slightly dolomite  
Poor 1 1/2" n/s

Sand: clear sub angular sub  
rounded friable fr 1 1/2" n/s

shale; gry - green

Arbuckle  
4092  
(40812)

dol. lt. gry - crm. pink fxl  
dense poor vis. - sl. Δy  
n/s

dolomite: crm-lt. gry fxl  
slightly suc poor vis.



20  
40

Rotary Total Depth  
4150 (2300)

Slightly suc poor v. f  
+ grey berry A  
SS

dolomite. com fxl fr. good  
com type: (barren)



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Rama Operating Co Inc

**25-24s-12w Stafford,KS**

101 S Main ST  
Stafford, KS 67578+1429

**Keim # 1-25**

Job Ticket: 44111

**DST#: 1**

ATTN: Robin L Austin/Josh

Test Start: 2011.11.29 @ 23:03:02

## GENERAL INFORMATION:

Formation: **Lansing K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:09:32

Time Test Ended: 07:49:47

Test Type: Conventional Bottom Hole (Initial)

Tester: Chris Staats

Unit No: 34

**Interval: 3735.00 ft (KB) To 3760.00 ft (KB) (TVD)**

Reference Elevations: 1850.00 ft (KB)

Total Depth: 3760.00 ft (KB) (TVD)

1841.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

**Serial #: 8166 Outside**

Press @ RunDepth: 33.28 psig @ 3736.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.11.29

End Date:

2011.11.30

Last Calib.: 2011.11.30

Start Time: 23:10:07

End Time:

07:56:47

Time On Btm: 2011.11.30 @ 03:15:02

Time Off Btm: 2011.11.30 @ 05:18:17

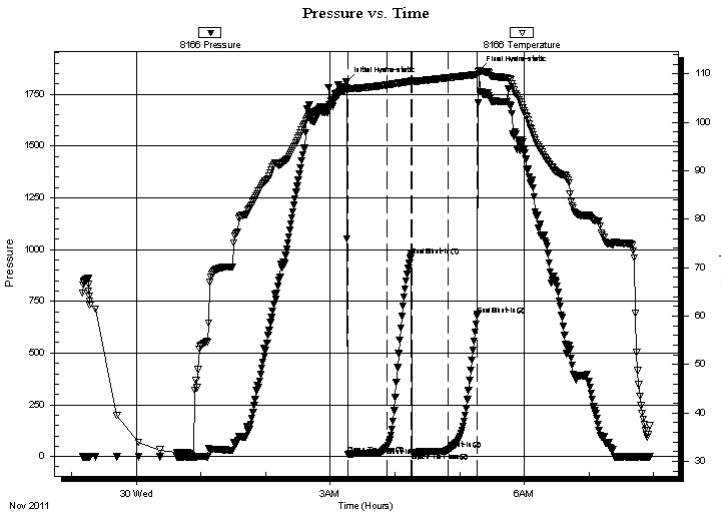
TEST COMMENT: IF: Weak blow 1 3/4"

ISI: No blow back

FF: No blow

FSI: No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1810.26	107.18	Initial Hydro-static
2	12.01	106.93	Open To Flow (1)
38	45.43	107.69	Shut-In(1)
60	969.60	108.46	End Shut-In(1)
61	20.40	108.37	Open To Flow (2)
95	33.28	109.18	Shut-In(2)
122	686.12	109.88	End Shut-In(2)
124	1865.40	110.70	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	MUD 100% mud	0.05

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Rama Operating Co Inc

**25-24s-12w Stafford,KS**

101 S Main ST  
Stafford, KS 67578+1429

**Keim # 1-25**

Job Ticket: 44111

**DST#: 1**

ATTN: Robin L Austin/Josh

Test Start: 2011.11.29 @ 23:03:02

## 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: 46.00 sec/qt

Cushion Volume: bbl

Water Loss: 7.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure: psig

Salinity: 4000.00 ppm

Filter Cake: 0.02 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	MUD 100% mud	0.049

Total Length: 10.00 ft      Total Volume: 0.049 bbl

Num Fluid Samples: 0

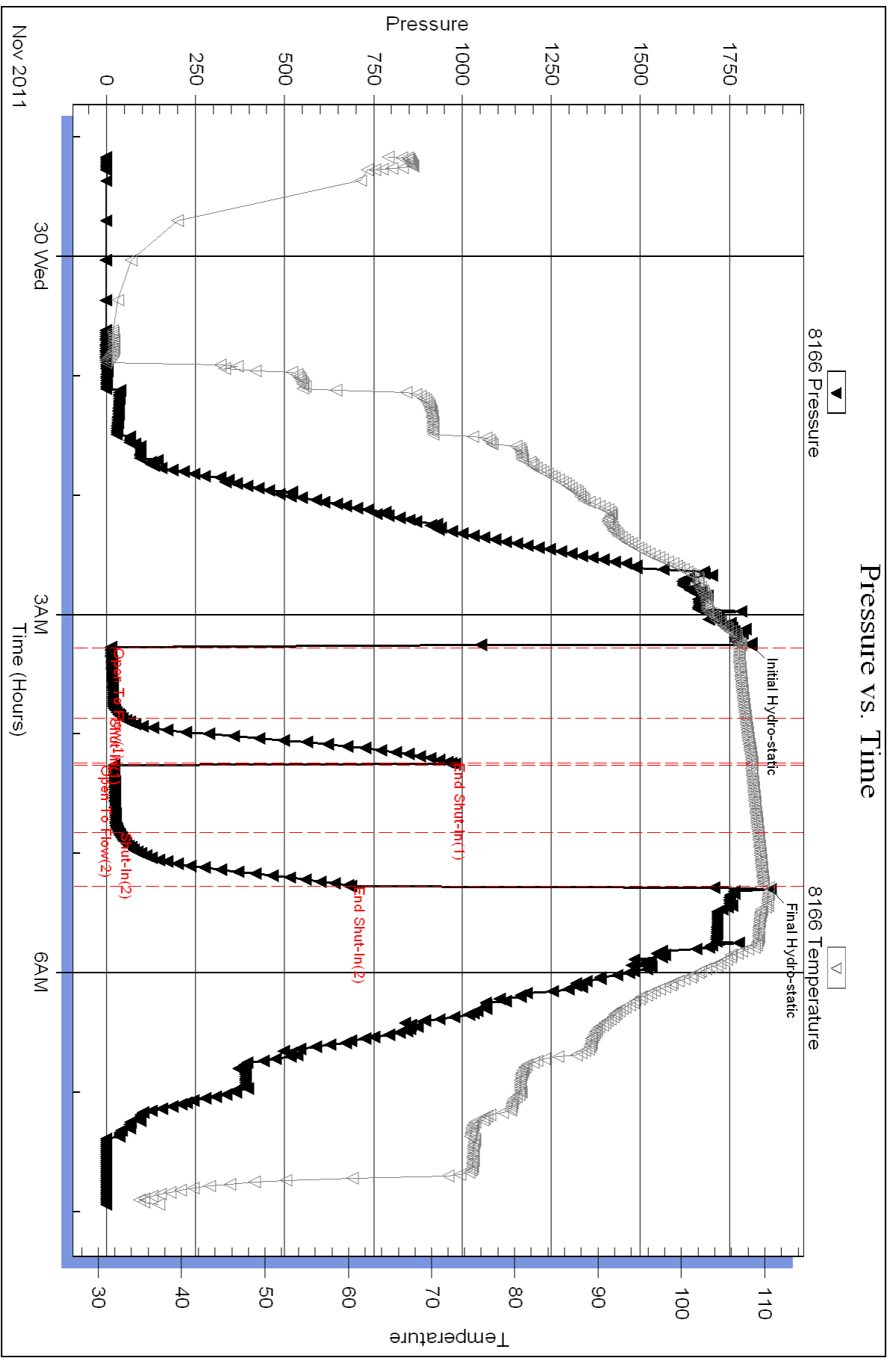
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





## DRILL STEM TEST REPORT

Prepared For: **Rama Operating Co Inc**

101 S Main ST  
Stafford, KS 67578+1429

ATTN: Robin L Austin/Josh

**Keim # 1-25**

**25-24s-12w Stafford,KS**

Start Date: 2011.12.01 @ 00:48:08

End Date: 2011.12.01 @ 09:47:38

Job Ticket #: 44112                      DST #: 2

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

Printed: 2011.12.13 @ 11:51:32



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Rama Operating Co Inc

**25-24s-12w Stafford,KS**

101 S Main ST  
Stafford, KS 67578+1429

**Keim # 1-25**

Job Ticket: 44112

**DST#: 2**

ATTN: Robin L Austin/Josh

Test Start: 2011.12.01 @ 00:48:08

## GENERAL INFORMATION:

Formation: **Viola**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:24:08

Time Test Ended: 09:47:38

Test Type: Conventional Bottom Hole (Reset)

Tester: Chris Staats

Unit No: 34

**Interval: 3920.00 ft (KB) To 3926.00 ft (KB) (TVD)**

Reference Elevations: 1850.00 ft (KB)

Total Depth: 3926.00 ft (KB) (TVD)

1841.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

**Serial #: 8166 Outside**

Press @ RunDepth: 24.07 psig @ 3921.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.12.01

End Date:

2011.12.01

Last Calib.:

2011.12.01

Start Time: 00:48:13

End Time:

09:47:38

Time On Btm:

2011.12.01 @ 05:22:38

Time Off Btm:

2011.12.01 @ 07:29:38

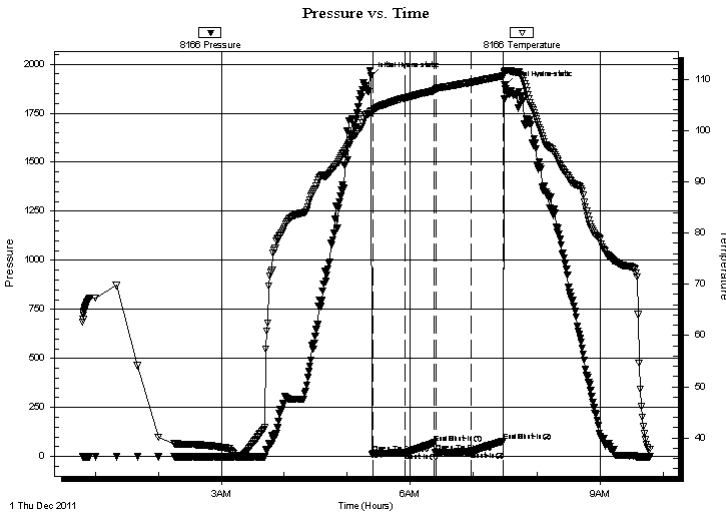
TEST COMMENT: IF: Weak blow 1/2" Blow Died

IS: No blow back

FF: No blow

FS: No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1936.97	103.81	Initial Hydro-static
2	14.47	103.79	Open To Flow (1)
32	19.49	106.35	Shut-In(1)
60	69.56	107.75	End Shut-In(1)
62	20.11	108.11	Open To Flow (2)
95	24.07	109.38	Shut-In(2)
126	78.58	110.62	End Shut-In(2)
127	1892.85	111.54	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	60' GIP	0.00
10.00	MUD with OIL SPOTS IN TOOL	0.05

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Rama Operating Co Inc

**25-24s-12w Stafford,KS**

101 S Main ST  
Stafford, KS 67578+1429

**Keim # 1-25**

Job Ticket: 44112

**DST#: 2**

ATTN: Robin L Austin/Josh

Test Start: 2011.12.01 @ 00:48:08

## Tool Information

Drill Pipe:	Length: 3693.00 ft	Diameter: 3.80 inches	Volume: 51.80 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 217.00 ft	Diameter: 2.25 inches	Volume: 1.07 bbl	Weight to Pull Loose:	65000.00 lb
			<u>Total Volume: 52.87 bbl</u>	Tool Chased	2.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	3920.00 ft			Final	60000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	16.00 ft				
Tool Length:	37.00 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			3900.00	
Shut In Tool	5.00			3905.00	
Hydraulic tool	5.00			3910.00	
Packer	5.00			3915.00	21.00 Bottom Of Top Packer
Packer	5.00			3920.00	
Stubb	1.00			3921.00	
Recorder	0.00	6773	Outside	3921.00	
Recorder	0.00	8166	Outside	3921.00	
Perforations	12.00			3933.00	
Bullnose	3.00			3936.00	16.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>37.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Rama Operating Co Inc

**25-24s-12w Stafford,KS**

101 S Main ST  
Stafford, KS 67578+1429

**Keim # 1-25**

Job Ticket: 44112

**DST#: 2**

ATTN: Robin L Austin/Josh

Test Start: 2011.12.01 @ 00:48:08

## 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: 8.19 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.02 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	60' GIP	0.000
10.00	MUD with OIL SPOTS IN TOOL	0.049

Total Length: 10.00 ft      Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

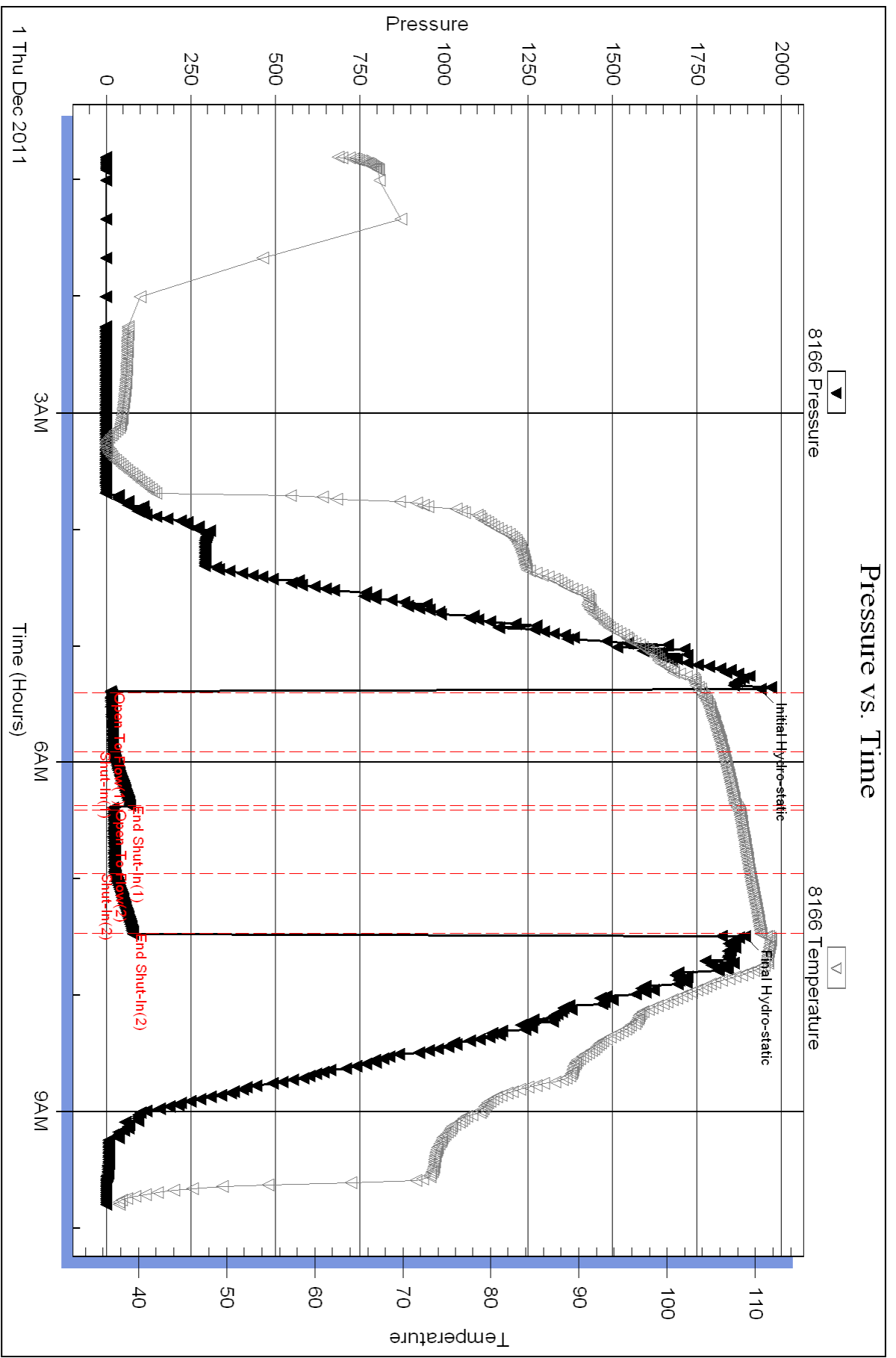
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **Rama Operating Co Inc**

101 S Main ST  
Stafford, KS 67578+1429

ATTN: Robin L Austin/Josh

**Keim # 1-25**

**25-24s-12w Stafford,KS**

Start Date: 2011.12.01 @ 17:56:06

End Date: 2011.12.02 @ 02:53:21

Job Ticket #: 44046                      DST #: 3

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

Printed: 2011.12.13 @ 11:50:14



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Rama Operating Co Inc

**25-24s-12w Stafford, KS**

101 S Main ST  
Stafford, KS 67578+1429

**Keim # 1-25**

Job Ticket: 44046

**DST#: 3**

ATTN: Robin L Austin/Josh

Test Start: 2011.12.01 @ 17:56:06

## GENERAL INFORMATION:

Formation: **Viola**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:02:51

Time Test Ended: 02:53:21

Test Type: Conventional Bottom Hole (Reset)

Tester: Leal Cason

Unit No: 45

**Interval: 3940.00 ft (KB) To 3960.00 ft (KB) (TVD)**

Reference Elevations: 1850.00 ft (KB)

Total Depth: 3960.00 ft (KB) (TVD)

1841.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

**Serial #: 6798 Inside**

Press @ Run Depth: 49.57 psig @ 3941.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.12.01 End Date: 2011.12.02

Last Calib.: 2011.12.02

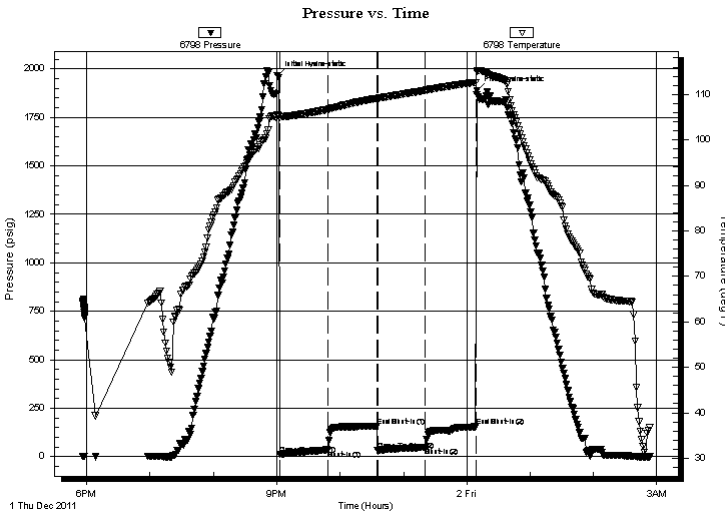
Start Time: 17:56:07 End Time: 02:53:21

Time On Btm: 2011.12.01 @ 21:00:36

Time Off Btm: 2011.12.02 @ 00:09:51

**TEST COMMENT:** IF: Fair Blow, BOB in 7 minutes  
IS: No Blow back  
FF: Fair Blow, BOB in 6 minutes  
FS: No Blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1964.87	105.41	Initial Hydro-static
3	13.13	104.96	Open To Flow (1)
48	35.00	106.71	Shut-In(1)
95	157.14	109.14	End Shut-In(1)
95	33.38	109.11	Open To Flow (2)
141	49.57	110.89	Shut-In(2)
188	154.98	112.66	End Shut-In(2)
190	1888.68	115.17	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	200 GIP	0.00
65.00	GOWCM 5%G 12%O 33%W 50%M	0.32

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Rama Operating Co Inc

**25-24s-12w Stafford,KS**

101 S Main ST  
Stafford, KS 67578+1429

**Keim # 1-25**

Job Ticket: 44046

**DST#: 3**

ATTN: Robin L Austin/Josh

Test Start: 2011.12.01 @ 17:56:06

## Tool Information

Drill Pipe:	Length: 3725.00 ft	Diameter: 3.80 inches	Volume: 52.25 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 217.00 ft	Diameter: 2.25 inches	Volume: 1.07 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 53.32 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	3940.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 ft			
Tool Length:	40.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Shut In Tool	5.00			3925.00	
Hydraulic tool	5.00			3930.00	
Packer	5.00			3935.00	20.00 Bottom Of Top Packer
Packer	5.00			3940.00	
Stubb	1.00			3941.00	
Recorder	0.00	6798	Inside	3941.00	
Recorder	0.00	8367	Outside	3941.00	
Perforations	16.00			3957.00	
Bullnose	3.00			3960.00	20.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>40.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Rama Operating Co Inc

**25-24s-12w Stafford,KS**

101 S Main ST  
Stafford, KS 67578+1429

**Keim # 1-25**

Job Ticket: 44046

**DST#: 3**

ATTN: Robin L Austin/Josh

Test Start: 2011.12.01 @ 17:56:06

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

60000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbf

Water Loss: 9.18 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 7200.00 ppm

Filter Cake: 0.20 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbf
0.00	200 GIP	0.000
65.00	GOWCM 5%G 12%O 33%W 50%M	0.320

Total Length: 65.00 ft      Total Volume: 0.320 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW w as .25 @ 35 degrees

Serial #: 6798

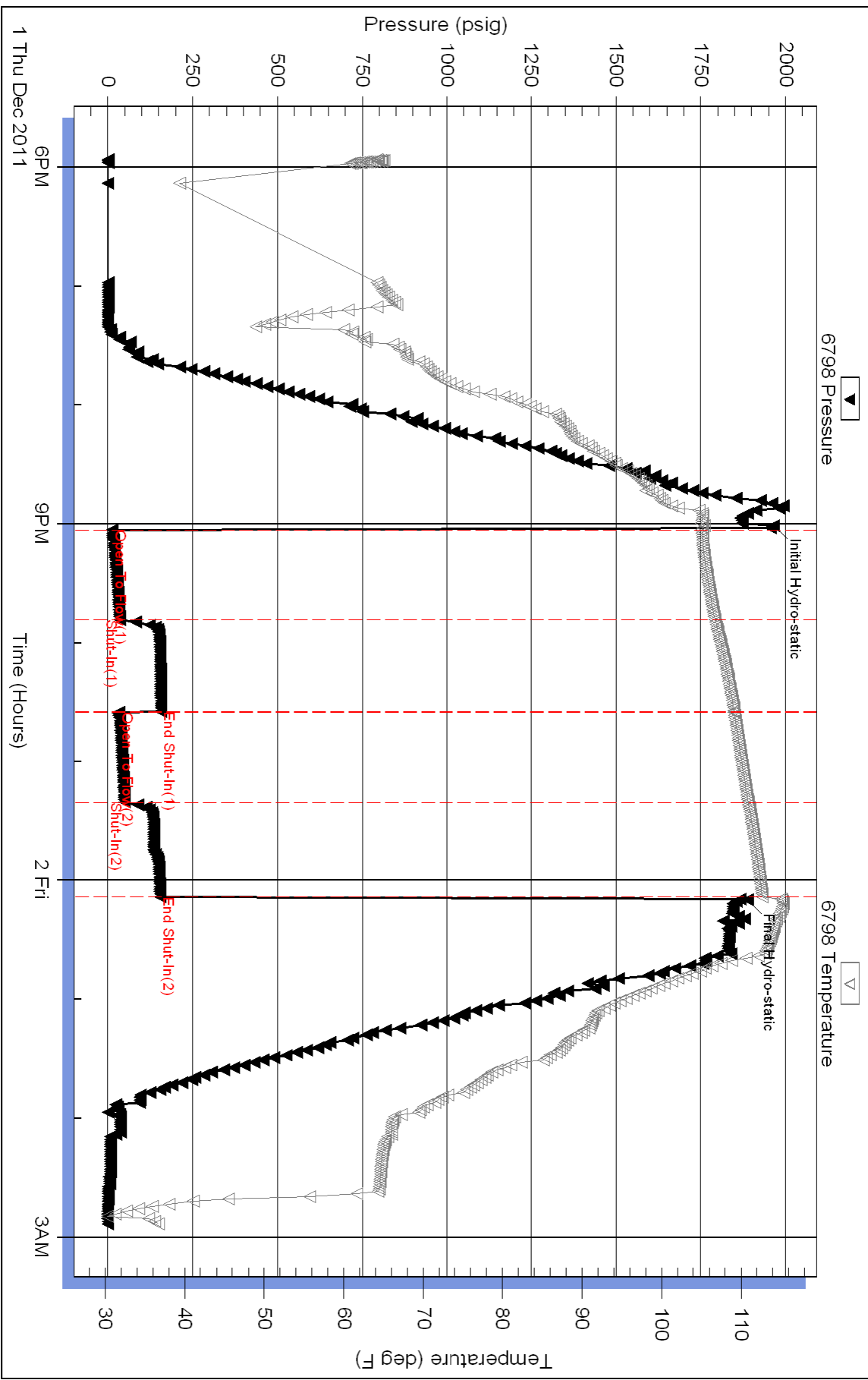
Inside

Rama Operating Co Inc

Keim # 1-25

DST Test Number: 3

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 44046

Printed: 2011.12.13 @ 11:50:16

Operator <b>RAMA OPERATING</b>	Lease No.	Date <b>12-3-11</b>	
Lease <b>KEIM</b>	Well # <b>1-23</b>		
Field Order # <b>5065</b>	Station <b>PRATT KS</b>	Casing <b>5 1/2</b>	Depth <b>4150</b>
Type Job <b>CNW 5 1/2 LOW STAG</b>	Formation	County <b>STAFFORD</b>	State <b>KS</b>
		Legal Description <b>25-24-12</b>	

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid		RATE	PRESS	ISIP
<b>5 1/2</b>								
Depth <b>4115</b>	Depth	From	To	Pre Pad	Max			5 Min.
Volume <b>100</b>	Volume	From	To	Pad	Min			10 Min.
Max Press <b>1,500</b>	Max Press	From	To	Frac	Avg			15 Min.
Well Connection <b>P-C</b>	Annulus Vol.	From	To		HHP Used			Annulus Pressure
Plug Depth <b>4102</b>	Packer Depth	From	To	Flush	Gas Volume			Total Load

Customer Representative	Station Manager <b>DAVE SCOTT</b>	Treater <b>Robert Johnson</b>
Service Units <b>37900</b>	<b>33708</b>	<b>20920</b>
Driver Names <b>Sullivan</b>	<b>Melton</b>	<b>Hunter</b>
	<b>19832</b>	<b>21010</b>

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
<b>12:30</b>					on loc. Salt water
					Run 96 JTC 5 1/2 14 csp.
					cont 2, 4, 6, 8, 10, 12
<b>8:35</b>					CASING ON BOTTOM
<b>8:50</b>					HOOK UP TO CIRC.
<b>9:50</b>	<b>150</b>		<b>12</b>	<b>3</b>	1st mud flush
			<b>10</b>		2nd H <sub>2</sub> O spacer
			<b>4</b>		mix cont 125 sk AM 2 e 153 PPG.
			<b>30</b>		cont mixed shut down wash pump/Limit
					Polys Plug
				<b>6</b>	1st Pump
	<b>350</b>		<b>80</b>		1st P.S.
	<b>500</b>		<b>90</b>	<b>4</b>	slow rate
<b>10:30</b>	<b>1,100</b>		<b>100</b>		plug down
			<b>6</b>		plug Ret 4. w/ 20 sk before per cont
					50B completed
					Thank you

# QUALITY WELL SERVICE, INC.

Federal Tax I.D. # 481187368

5369

Home Office 324 Simpson St., Pratt, KS 67124

Todd's Cell 620-388-5422  
Office / Fax 620-672-3663

Rich's Cell 620-727-3409  
Brady's Cell 620-727-6964

Date	Sec.	Twp.	Range	County	State	On Location	Finish
11-23-11	25	24	12	STAFFORD	KI	6:45	9:00
Lease	KEIM		Well No.	1-25		Location	STAFFORD KI 25 3/4 E
Contractor	STEELING REG #1			Owner	N INTO		
Type Job	SURFACE			To Quality Well Service, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.			
Hole Size	12 1/4	T.D.	\$ 270		Charge To		
Csg.	35/8 24"	Depth	270.16		RAMA OPERATING Co. INC		
Tbg. Size		Depth	Street				
Tool		Depth	City State				
Cement Left in Csg.		Shoe Joint	20'		The above was done to satisfaction and supervision of owner agent or contractor.		
Meas Line		Displace	15.9		Cement Amount Ordered 225 SK Common		
<b>EQUIPMENT</b>				2 1/2 GAL 3 1/2 CC 1/4" CF			
Pumptrk	8	No.	JERRO		Common 225		
Bulktrk	7	No.	MOVE		Poz. Mix		
Bulktrk		No.			Gel. 4		
Pickup		No.	TODD		Calcium 8		
<b>JOB SERVICES &amp; REMARKS</b>				Hulls			
Rat Hole				Salt			
Mouse Hole				Flowseal			
Centralizers				Kol-Seal			
Baskets				Mud CLR 48			
D/V or Port Collar				CFL-117 or CD110 CAF 38			
Run 6 1/2' 35/8 24" csg				Sand			
SET 7 267'				Handling 237			
				Mileage 25			
MIX: Pump SK Common				<b>8 1/2 FLOAT EQUIPMENT</b>			
2 1/2 GAL 3 1/2 CC 1/4" CF				Guide Shoe			
15 1/2 GAL 1.3643				Centralizer			
				Baskets			
SHR OWN				AFU Inserts			
RELEASE PLUG				Float Shoe			
DISP 15.9 Bbls total				Latch Down			
CLOSE VALVE ON CSG				1 WOODEN PLUG			
OPEN CIRC THRU W3							
CIRC CMT TO PIT				Pumptrk Charge SURFACE			
				Mileage 25			
THANKS				PLEASE CALL APPROX			
TODD JERSON & MIKE							
Signature <i>[Signature]</i>							
				Tax			
				Discount			
				Total Charge			



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



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

Mark Sievers, Chairman  
Ward Loyd, Commissioner  
Thomas E. Wright, Commissioner

Sam Brownback, Governor

January 19, 2012

Robin L. Austin  
Rama Operating Co., Inc.  
101 S MAIN ST  
STAFFORD, KS 67578-1429

Re: ACO1  
API 15-185-23724-00-00  
Keim 1-25  
SE/4 Sec.25-24S-12W  
Stafford 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,  
Robin L. Austin