



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1183520  
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: \_\_\_\_\_

1183520

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

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

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

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

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

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> <input type="checkbox"/> Other <i>(Specify)</i> _____ <i>(Submit ACO-4)</i>	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Gra Ex, LLC
Well Name	Michael 1
Doc ID	1183520

All Electric Logs Run

DIL
CN
CD
MICRO
SONIC



## DRILL STEM TEST REPORT

Prepared For: **Gra Ex, LLC**

PO Box 32  
Kingman, KS 67068

ATTN: Jeff Burk

### **Michael #1**

#### **1-24s-14w Stafford,KS**

Start Date: 2013.12.05 @ 01:37:13

End Date: 2013.12.05 @ 10:14:30

Job Ticket #: 51902                      DST #: 1

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

Printed: 2013.12.11 @ 10:41:41



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Gra Ex, LLC  
PO Box 32  
Kingman, KS 67068  
ATTN: Jeff Burk

**1-24s-14w Stafford,KS**

**Michael #1**

Job Ticket: 51902

**DST#: 1**

Test Start: 2013.12.05 @ 01:37:13

## GENERAL INFORMATION:

Formation: **LKC "B"**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 04:59:13  
 Tester: Leal Cason  
 Time Test Ended: 10:14:30  
 Unit No: 74  
 Interval: **3604.00 ft (KB) To 3626.00 ft (KB) (TVD)**  
 Reference Elevations: 1935.00 ft (KB)  
 Total Depth: 3626.00 ft (KB) (TVD)  
 1930.00 ft (CF)  
 Hole Diameter: 7.88 inches  
 Hole Condition: Good  
 KB to GR/CF: 5.00 ft

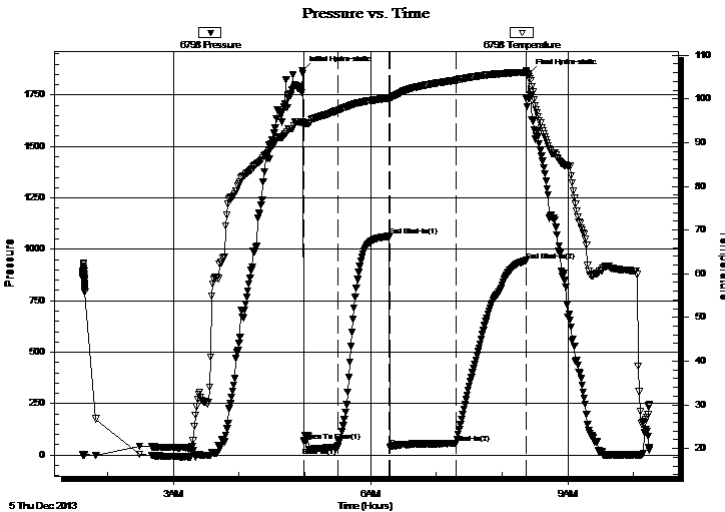
## Serial #: 6798

Inside

Press@RunDepth: 57.02 psig @ 3605.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.12.05 End Date: 2013.12.05 Last Calib.: 2013.12.05  
 Start Time: 01:37:14 End Time: 10:14:31 Time On Btm: 2013.12.05 @ 04:57:43  
 Time Off Btm: 2013.12.05 @ 08:24:28

TEST COMMENT: IF: Fair Blow , BOB in 9 minutes  
 IS: 1/2 inch Blow Back  
 FF: Strong Blow , BOB in 15 seconds  
 FS: Blow Back Built to 3 inches

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1869.91	94.70	Initial Hydro-static
2	64.86	94.46	Open To Flow (1)
32	39.57	97.35	Shut-In(1)
80	1063.10	100.15	End Shut-In(1)
80	35.78	99.90	Open To Flow (2)
141	57.02	104.30	Shut-In(2)
204	945.73	106.12	End Shut-In(2)
207	1853.92	105.23	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	2839 GIP	0.00
122.00	SGCM 4%G 96%M	0.65

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Gra Ex, LLC  
PO Box 32  
Kingman, KS 67068  
ATTN: Jeff Burk

**1-24s-14w Stafford,KS**  
**Michael #1**  
Job Ticket: 51902      **DST#: 1**  
Test Start: 2013.12.05 @ 01:37:13

**Tool Information**

Drill Pipe:	Length: 3465.00 ft	Diameter: 3.80 inches	Volume: 48.60 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: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 49.18 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3604.00 ft			Final 53000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	48.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Shut In Tool	5.00			3583.00	
Hydraulic tool	5.00			3588.00	
Jars	5.00			3593.00	
Safety Joint	2.00			3595.00	
Packer	5.00			3600.00	26.00      Bottom Of Top Packer
Packer	4.00			3604.00	
Stubb	1.00			3605.00	
Recorder	0.00	6798	Inside	3605.00	
Recorder	0.00	8367	Outside	3605.00	
Perforations	18.00			3623.00	
Bullnose	3.00			3626.00	22.00      Bottom Packers & Anchor

**Total Tool Length: 48.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Gra Ex, LLC  
PO Box 32  
Kingman, KS 67068  
ATTN: Jeff Burk

**1-24s-14w Stafford,KS**  
**Michael #1**  
Job Ticket: 51902      **DST#: 1**  
Test Start: 2013.12.05 @ 01:37:13

## 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: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.77 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4800.00 ppm			
Filter Cake: 0.02 inches			

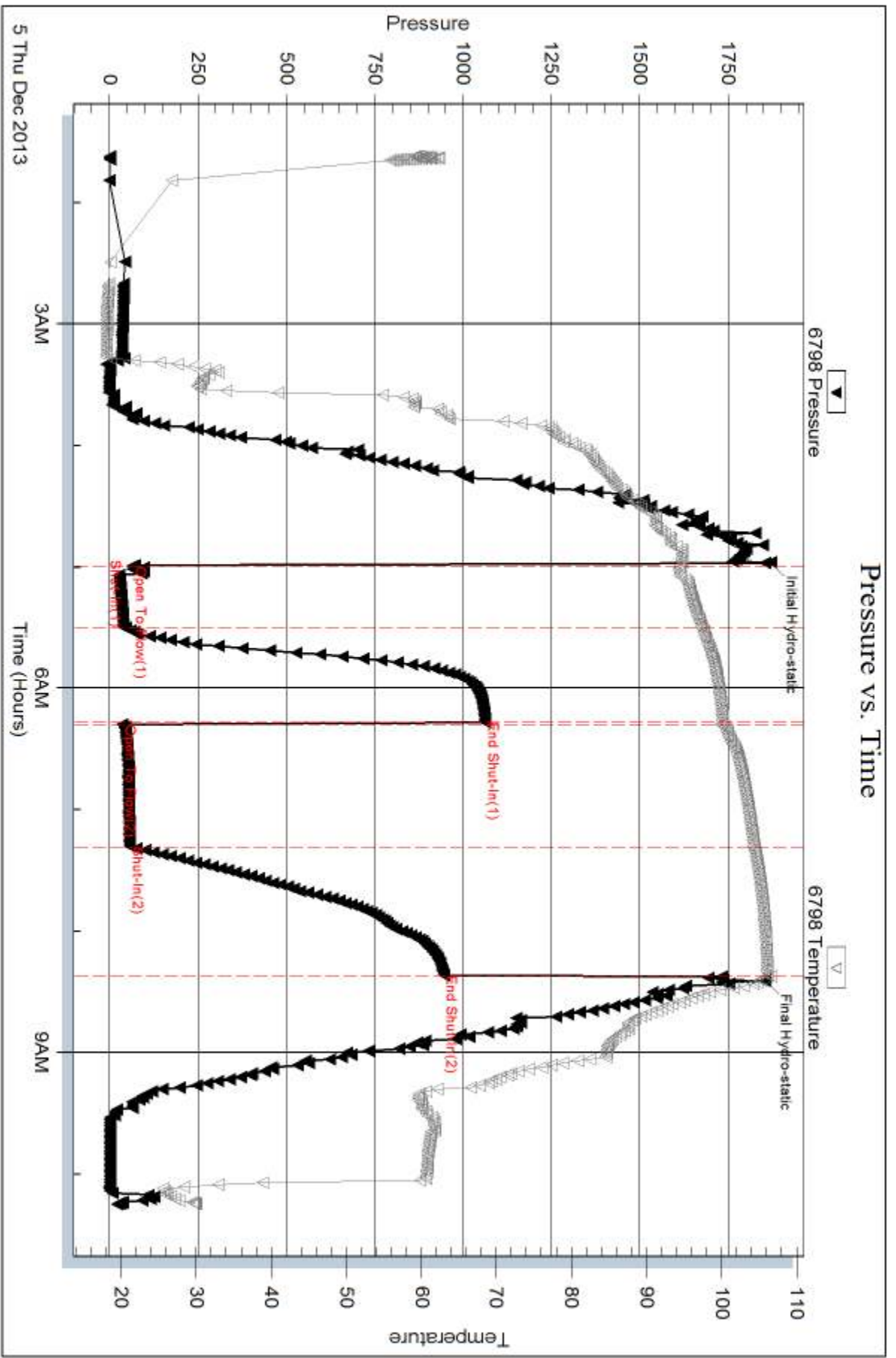
## Recovery Information

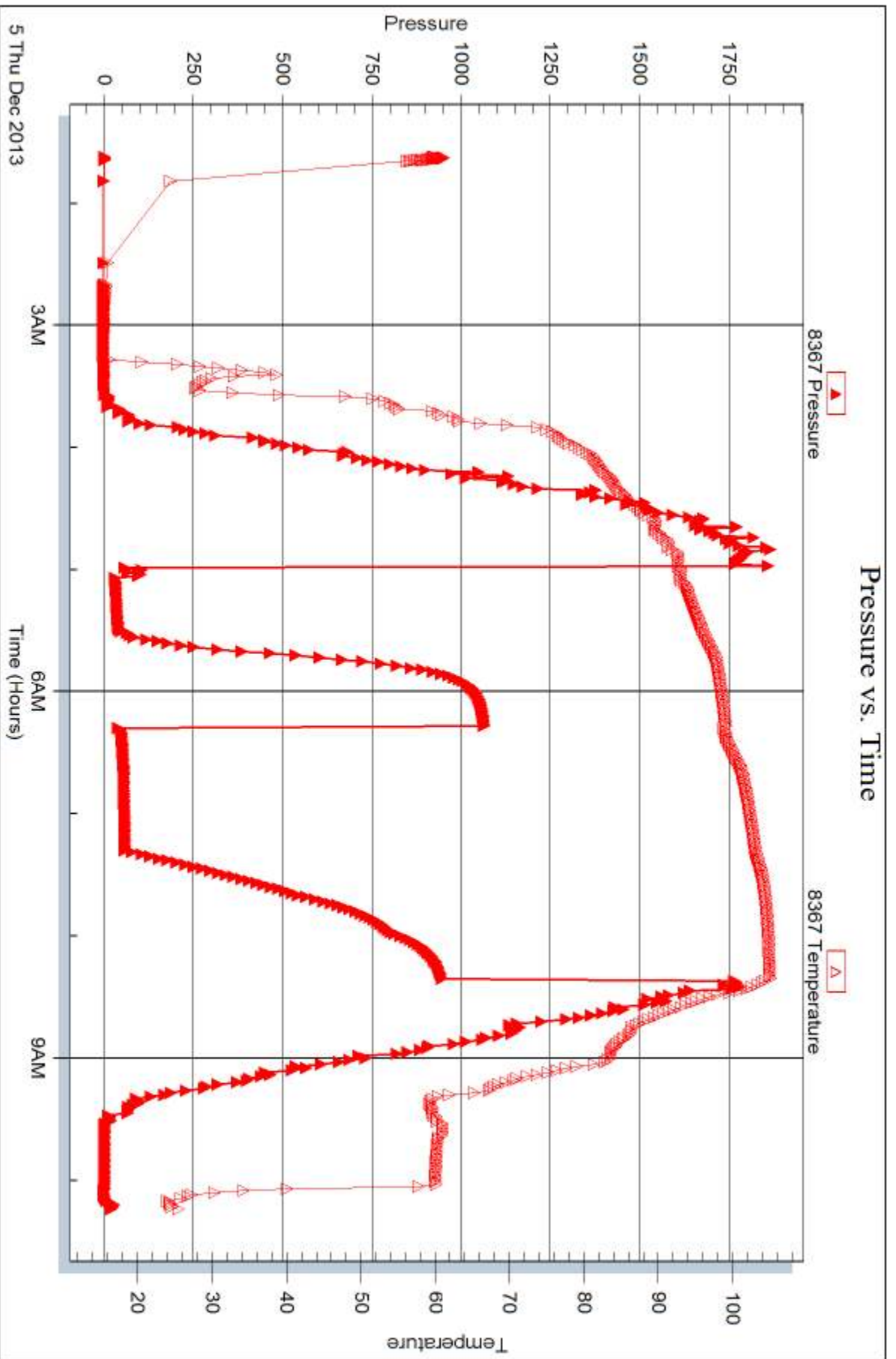
Recovery Table

Length ft	Description	Volume bbl
0.00	2839 GIP	0.000
122.00	SGCM 4%G 96%M	0.646

Total Length: 122.00 ft      Total Volume: 0.646 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:









## DRILL STEM TEST REPORT

Prepared For: **Gra Ex, LLC**

PO Box 32  
Kingman, KS 67068

ATTN: Jeff Burk

### **Michael #1**

#### **1-24s-14w Stafford,KS**

Start Date: 2013.12.05 @ 19:17:12

End Date: 2013.12.06 @ 02:57:27

Job Ticket #: 51903                      DST #: 2

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

Printed: 2013.12.11 @ 10:41:14



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Gra Ex, LLC  
PO Box 32  
Kingman, KS 67068  
ATTN: Jeff Burk

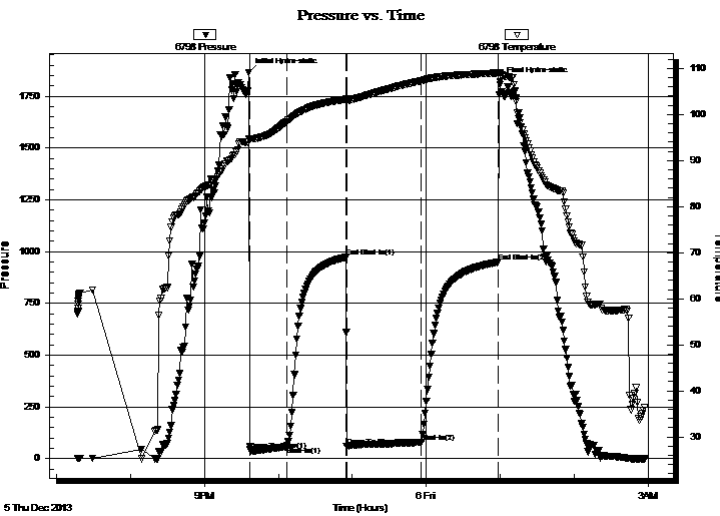
**1-24s-14w Stafford, KS**  
**Michael #1**  
Job Ticket: 51903      **DST#: 2**  
Test Start: 2013.12.05 @ 19:17:12

## GENERAL INFORMATION:

Formation: **LKC "F"**  
Deviated: No Whipstock:                      ft (KB)      Test Type: Conventional Bottom Hole (Reset)  
Time Tool Opened: 21:36:42      Tester: Leal Cason  
Time Test Ended: 02:57:27      Unit No: 74  
**Interval: 3651.00 ft (KB) To 3673.00 ft (KB) (TVD)**      Reference Elevations: 1935.00 ft (KB)  
Total Depth: 3673.00 ft (KB) (TVD)      1930.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: Good      KB to GR/CF: 5.00 ft

**Serial #: 6798      Inside**  
Press@RunDepth: 80.18 psig @ 3652.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2013.12.05      End Date: 2013.12.06      Last Calib.: 2013.12.06  
Start Time: 19:17:13      End Time: 02:57:27      Time On Btm: 2013.12.05 @ 21:35:57  
Time Off Btm: 2013.12.06 @ 00:59:42

**TEST COMMENT:** IF: Fair Blow , Built to 11 inches  
IS: No Blow Back  
FF: Fair Blow , BOB in 14 minutes  
FS: Weak Surface Blow Back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1865.68	94.79	Initial Hydro-static
1	43.53	94.50	Open To Flow (1)
31	59.07	98.49	Shut-In(1)
79	972.52	103.30	End Shut-In(1)
80	60.24	103.04	Open To Flow (2)
140	80.18	107.32	Shut-In(2)
203	949.32	109.02	End Shut-In(2)
204	1821.81	109.02	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	310 GIP	0.00
58.00	MCW 14%M 86%W	0.29
58.00	SOCM 2%O 98%M	0.29

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Gra Ex, LLC  
PO Box 32  
Kingman, KS 67068  
ATTN: Jeff Burk

**1-24s-14w Stafford,KS**  
**Michael #1**  
Job Ticket: 51903      **DST#: 2**  
Test Start: 2013.12.05 @ 19:17:12

**Tool Information**

Drill Pipe:	Length: 3527.00 ft	Diameter: 3.80 inches	Volume: 49.47 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: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 50.05 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	3651.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	48.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Shut In Tool	5.00			3630.00	
Hydraulic tool	5.00			3635.00	
Jars	5.00			3640.00	
Safety Joint	2.00			3642.00	
Packer	5.00			3647.00	26.00      Bottom Of Top Packer
Packer	4.00			3651.00	
Stubb	1.00			3652.00	
Recorder	0.00	6798	Inside	3652.00	
Recorder	0.00	8367	Outside	3652.00	
Perforations	18.00			3670.00	
Bullnose	3.00			3673.00	22.00      Bottom Packers & Anchor

**Total Tool Length: 48.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Gra Ex, LLC  
PO Box 32  
Kingman, KS 67068  
ATTN: Jeff Burk

**1-24s-14w Stafford,KS**  
**Michael #1**  
Job Ticket: 51903      **DST#: 2**  
Test Start: 2013.12.05 @ 19:17:12

## Mud and Cushion Information

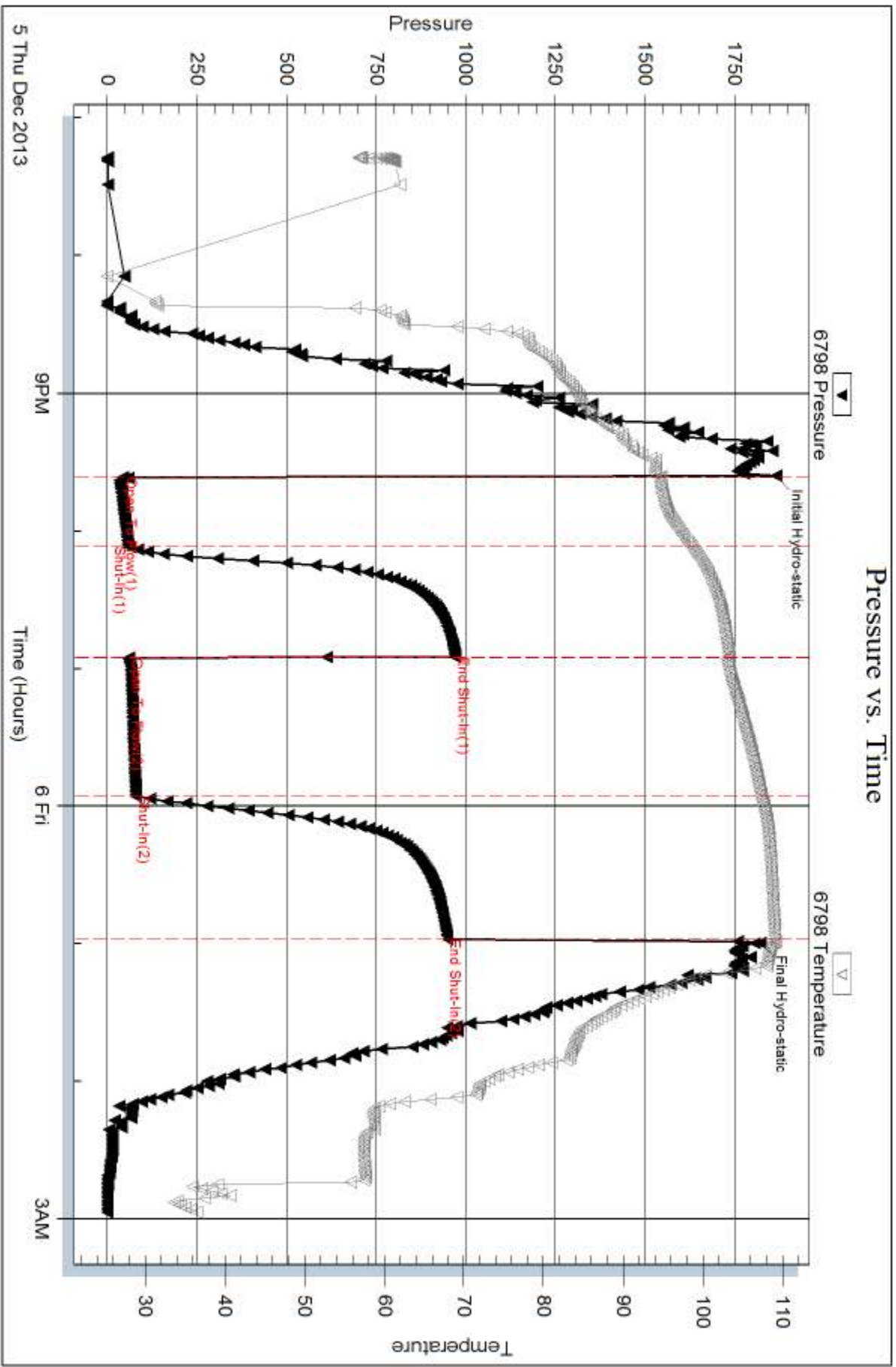
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	74000 ppm
Viscosity: 51.00 sec/qt	Cushion Volume: bbl		
Water Loss: 11.16 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 7000.00 ppm			
Filter Cake: 0.02 inches			

## Recovery Information

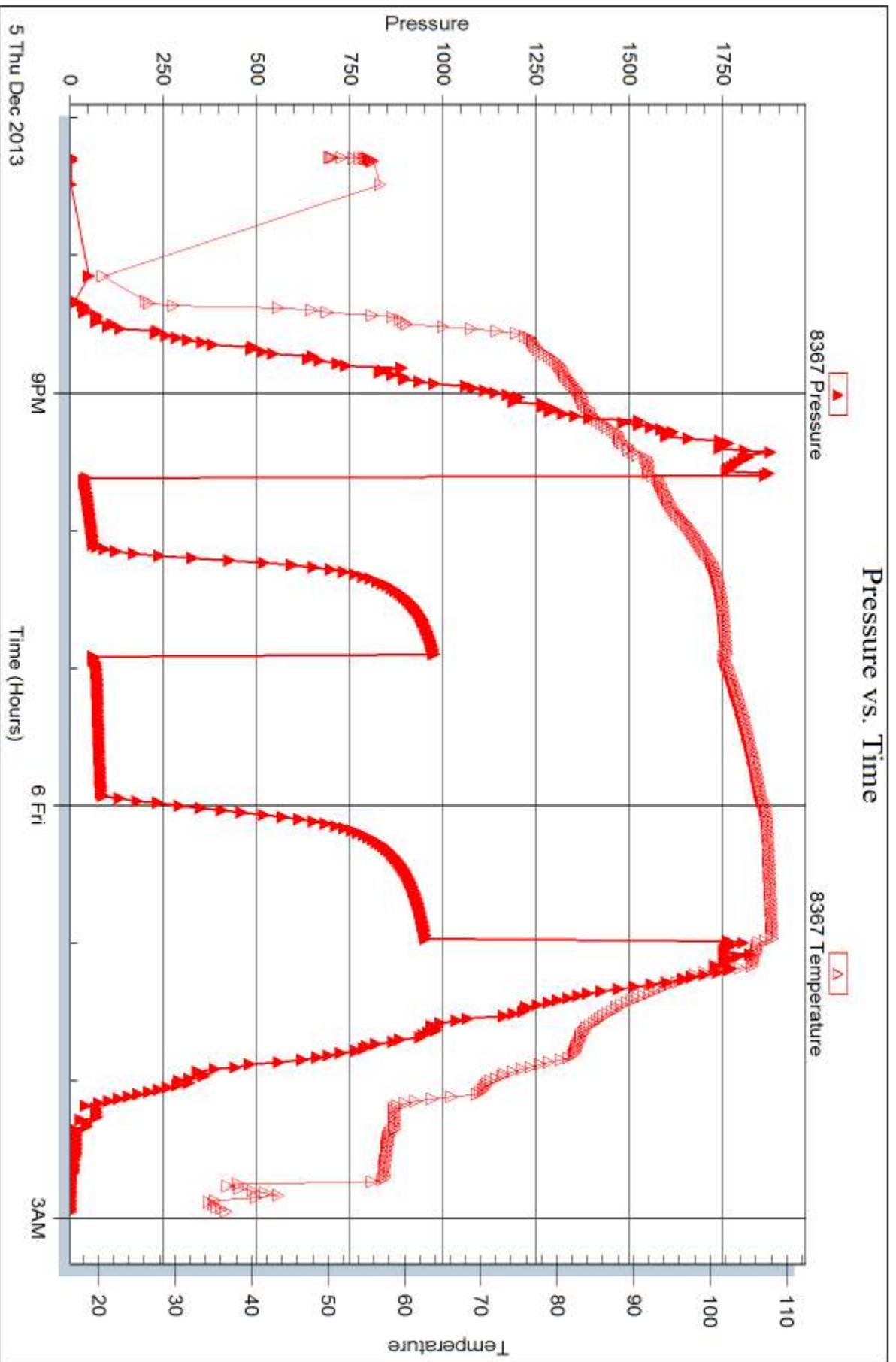
Recovery Table

Length ft	Description	Volume bbl
0.00	310 GIP	0.000
58.00	MCW 14%M 86%W	0.285
58.00	SOCM 2%O 98%M	0.285

Total Length: 116.00 ft      Total Volume: 0.570 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments: RW Was .23 @ 32 degrees









## DRILL STEM TEST REPORT

Prepared For: **Gra Ex, LLC**

PO Box 32  
Kingman, KS 67068

ATTN: Jeff Burk

### **Michael #1**

#### **1-24s-14w Stafford,KS**

Start Date: 2013.12.06 @ 13:58:33

End Date: 2013.12.06 @ 21:04:03

Job Ticket #: 51904                      DST #: 3

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

Printed: 2013.12.11 @ 10:40:40

Gra Ex, LLC  
1-24s-14w Stafford,KS  
Michael #1  
DST # 3  
LKC "H"  
2013.12.06



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Gra Ex, LLC  
PO Box 32  
Kingman, KS 67068  
ATTN: Jeff Burk

**1-24s-14w Stafford,KS**

**Michael #1**

Job Ticket: 51904

**DST#: 3**

Test Start: 2013.12.06 @ 13:58:33

## GENERAL INFORMATION:

Formation: **LKC "H"**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 15:52:33  
 Tester: Leal Cason  
 Time Test Ended: 21:04:03  
 Unit No: 74  
 Interval: **3712.00 ft (KB) To 3728.00 ft (KB) (TVD)**  
 Reference Elevations: 1935.00 ft (KB)  
 Total Depth: 3728.00 ft (KB) (TVD)  
 1930.00 ft (CF)  
 Hole Diameter: 7.88 inches  
 Hole Condition: Good  
 KB to GR/CF: 5.00 ft

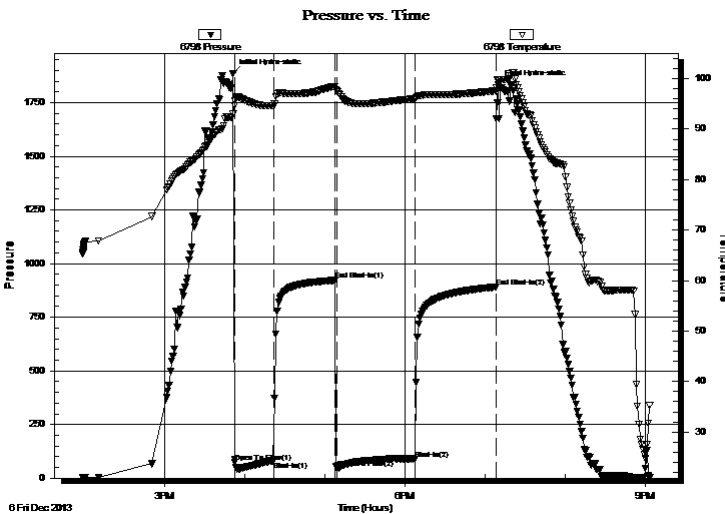
## Serial #: 6798

Inside

Press@RunDepth: 88.04 psig @ 3713.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.12.06 End Date: 2013.12.06 Last Calib.: 2013.12.06  
 Start Time: 13:58:34 End Time: 21:04:03 Time On Btm: 2013.12.06 @ 15:51:18  
 Time Off Btm: 2013.12.06 @ 19:10:03

TEST COMMENT: IF: Strong Blow , BOB in 20 seconds, GTS in 14 minutes, Gauged Gas  
 FS1: 1/4 inch Blow Back  
 FF: Strong Blow , BOB & GTS Immediate, Gauged Gas  
 FS1: 1 inch Blow Back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1886.38	93.05	Initial Hydro-static
2	73.78	95.58	Open To Flow (1)
31	80.54	94.62	Shut-In(1)
76	921.92	98.49	End Shut-In(1)
78	45.34	97.52	Open To Flow (2)
136	88.04	96.00	Shut-In(2)
197	890.44	97.61	End Shut-In(2)
199	1833.59	99.87	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	3585 GIP	0.00
122.00	SGOCM 2%G 2%O 96%M	0.65

\* Recovery from multiple tests

## Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	37.00	81.54
Last Gas Rate	0.25	44.00	92.65
Max. Gas Rate	0.25	46.00	95.82





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Gra Ex, LLC  
PO Box 32  
Kingman, KS 67068  
ATTN: Jeff Burk

**1-24s-14w Stafford,KS**  
**Michael #1**  
Job Ticket: 51904      **DST#: 3**  
Test Start: 2013.12.06 @ 13:58:33

**Tool Information**

Drill Pipe:	Length: 3590.00 ft	Diameter: 3.80 inches	Volume: 50.36 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: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 50.94 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3712.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	16.00 ft			
Tool Length:	42.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Shut In Tool	5.00			3691.00	
Hydraulic tool	5.00			3696.00	
Jars	5.00			3701.00	
Safety Joint	2.00			3703.00	
Packer	5.00			3708.00	26.00      Bottom Of Top Packer
Packer	4.00			3712.00	
Stubb	1.00			3713.00	
Recorder	0.00	6798	Inside	3713.00	
Recorder	0.00	8367	Outside	3713.00	
Perforations	12.00			3725.00	
Bullnose	3.00			3728.00	16.00      Bottom Packers & Anchor

**Total Tool Length: 42.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Gra Ex, LLC  
PO Box 32  
Kingman, KS 67068  
ATTN: Jeff Burk

**1-24s-14w Stafford,KS**  
**Michael #1**  
Job Ticket: 51904      **DST#: 3**  
Test Start: 2013.12.06 @ 13:58:33

## 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:	49.00 sec/qt	Cushion Volume:	bbbl		
Water Loss:	11.97 in <sup>3</sup>	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	10000.00 ppm				
Filter Cake:	0.02 inches				

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
0.00	3585 GIP	0.000
122.00	SGOCM 2%G 2%O 96%M	0.646

Total Length: 122.00 ft      Total Volume: 0.646 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**GAS RATES**

Gra Ex, LLC

**1-24s-14w Stafford,KS**

PO Box 32  
Kingman, KS 67068

**Michael #1**

Job Ticket: 51904

**DST#: 3**

ATTN: Jeff Burk

Test Start: 2013.12.06 @ 13:58:33

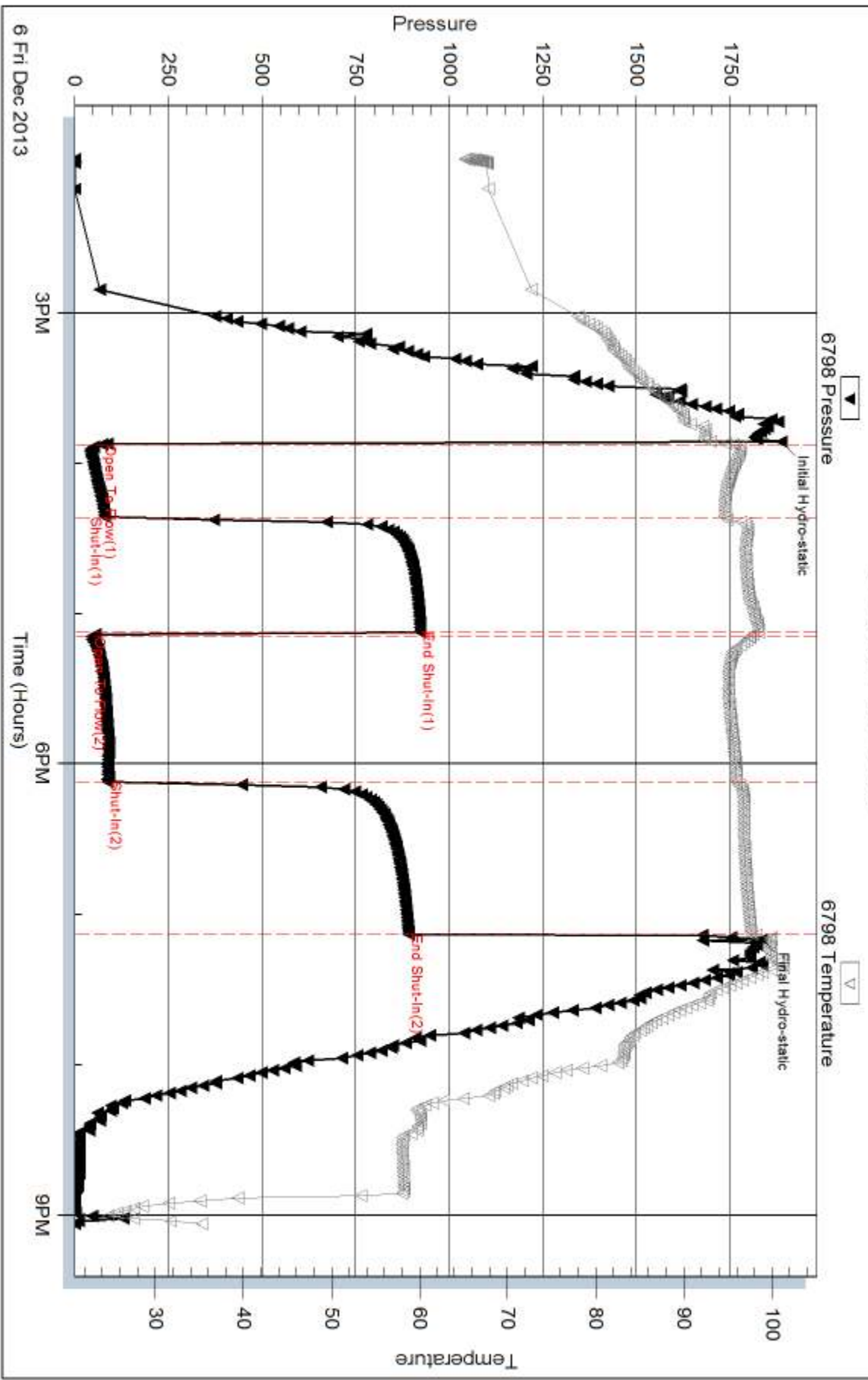
### Gas Rates Information

Temperature: 59 (deg F)  
Relative Density: 0.65  
Z Factor: 0.8

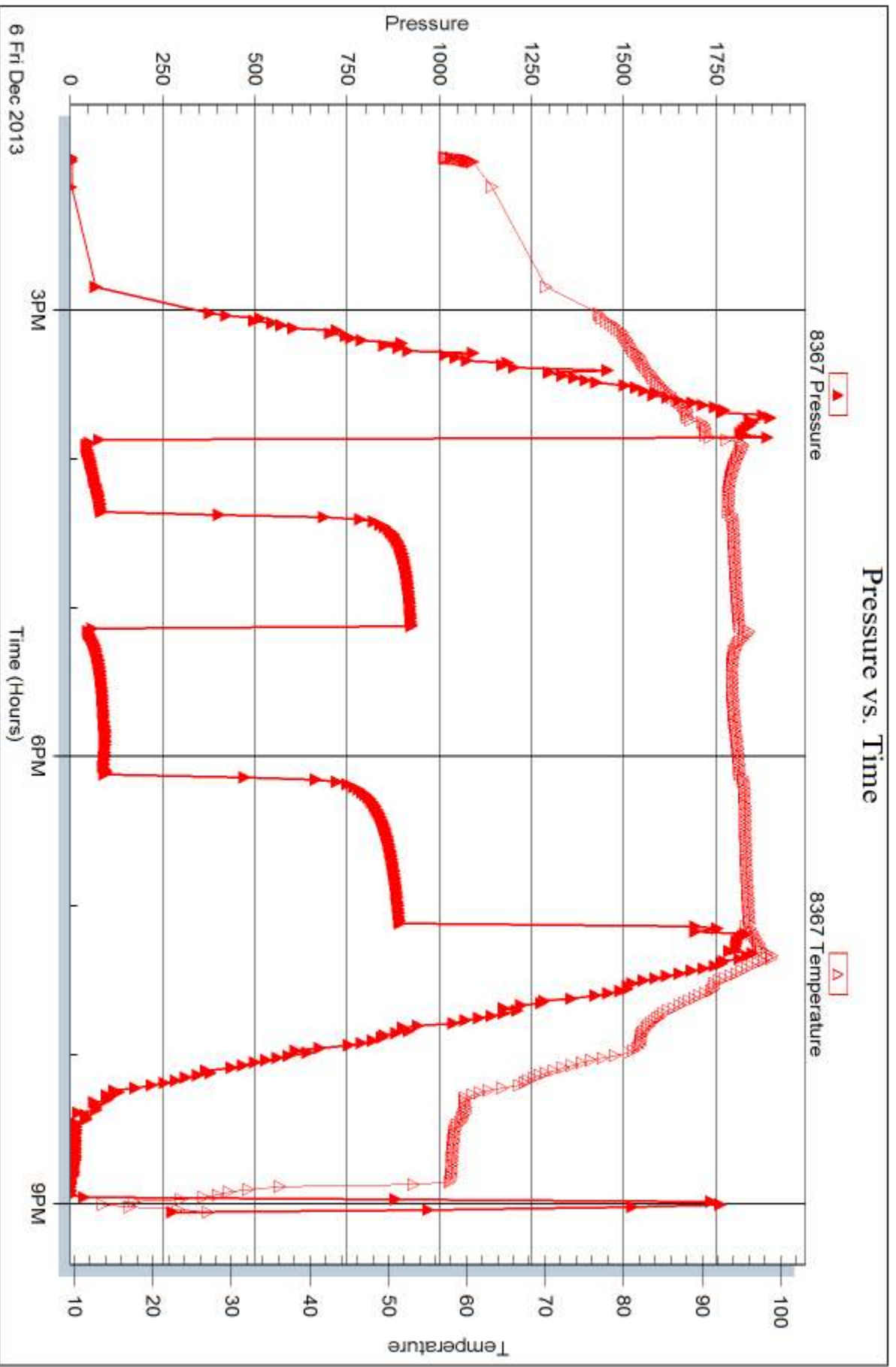
Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
1	20	0.25	37.00	81.54
1	30	0.25	46.00	95.82
2	10	0.25	29.00	68.85
2	20	0.25	38.00	83.13
2	30	0.25	42.00	89.47
2	40	0.25	44.00	92.65
2	50	0.25	44.00	92.65
2	60	0.25	44.00	92.65

### Pressure vs. Time









## DRILL STEM TEST REPORT

Prepared For: **Gra Ex, LLC**

PO Box 32  
Kingman, KS 67068

ATTN: Jeff Burk

### **Michael #1**

#### **1-24s-14w Stafford,KS**

Start Date: 2013.12.07 @ 07:42:59

End Date: 2013.12.07 @ 14:24:29

Job Ticket #: 51905                      DST #: 4

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

Printed: 2013.12.11 @ 10:38:40

Gra Ex, LLC  
1-24s-14w Stafford,KS  
Michael #1  
DST # 4  
LKC "I, & J"  
2013.12.07



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Gra Ex, LLC  
PO Box 32  
Kingman, KS 67068  
ATTN: Jeff Burk

**1-24s-14w Stafford,KS**

**Michael #1**

Job Ticket: 51905

**DST#: 4**

Test Start: 2013.12.07 @ 07:42:59

## GENERAL INFORMATION:

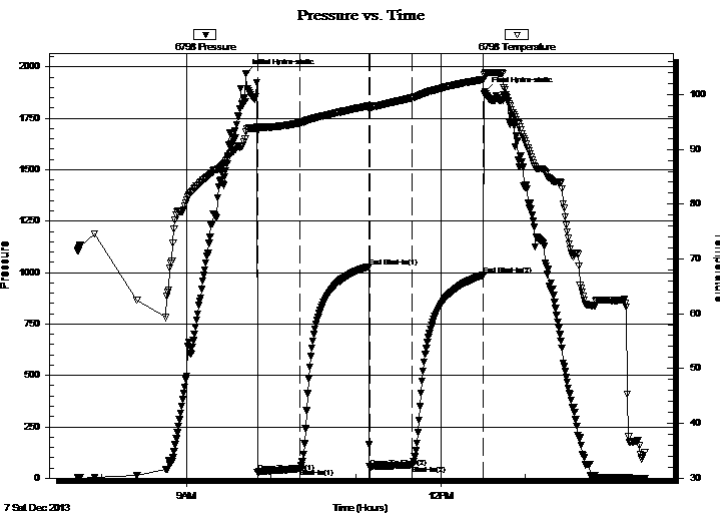
Formation: **LKC "I, & J"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 09:50:14  
 Time Test Ended: 14:24:29  
 Interval: **3737.00 ft (KB) To 3775.00 ft (KB) (TVD)**  
 Total Depth: 3775.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Leal Cason  
 Unit No: 74  
 Reference Elevations: 1935.00 ft (KB)  
 1930.00 ft (CF)  
 KB to GR/CF: 5.00 ft

## Serial #: 6798

Inside

Press@RunDepth: 63.74 psig @ 3738.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.12.07 End Date: 2013.12.07 Last Calib.: 2013.12.07  
 Start Time: 07:43:00 End Time: 14:24:29 Time On Btm: 2013.12.07 @ 09:42:14  
 Time Off Btm: 2013.12.07 @ 12:31:14

TEST COMMENT: IF: Weak Blow , Built to 1 inch  
 IS: No Blow Back  
 FF: Weak Blow , Built to 1/2 inch  
 FS: No Blow Back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1969.21	93.27	Initial Hydro-static
8	29.16	93.22	Open To Flow (1)
39	48.21	94.85	Shut-In(1)
87	1028.94	97.96	End Shut-In(1)
88	55.12	97.70	Open To Flow (2)
118	63.74	99.43	Shut-In(2)
168	988.58	102.78	End Shut-In(2)
169	1880.69	103.76	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
65.00	SGCM 2%G 98%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**

Gra Ex, LLC  
PO Box 32  
Kingman, KS 67068  
ATTN: Jeff Burk

**1-24s-14w Stafford,KS**  
**Michael #1**  
Job Ticket: 51905 **DST#: 4**  
Test Start: 2013.12.07 @ 07:42:59

**Tool Information**

Drill Pipe:	Length: 3622.00 ft	Diameter: 3.80 inches	Volume: 50.81 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: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose:	65000.00 lb
			<u>Total Volume: 51.39 bbl</u>	Tool Chased	ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial	54000.00 lb
Depth to Top Packer:	3737.00 ft			Final	54000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	38.00 ft				
Tool Length:	64.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Shut In Tool	5.00			3716.00	
Hydraulic tool	5.00			3721.00	
Jars	5.00			3726.00	
Safety Joint	2.00			3728.00	
Packer	5.00			3733.00	26.00 Bottom Of Top Packer
Packer	4.00			3737.00	
Stubb	1.00			3738.00	
Recorder	0.00	6798	Inside	3738.00	
Recorder	0.00	8367	Outside	3738.00	
Perforations	34.00			3772.00	
Bullnose	3.00			3775.00	38.00 Bottom Packers & Anchor

**Total Tool Length: 64.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Gra Ex, LLC  
PO Box 32  
Kingman, KS 67068  
ATTN: Jeff Burk

**1-24s-14w Stafford,KS**  
**Michael #1**  
Job Ticket: 51905      **DST#: 4**  
Test Start: 2013.12.07 @ 07:42:59

## Mud and Cushion Information

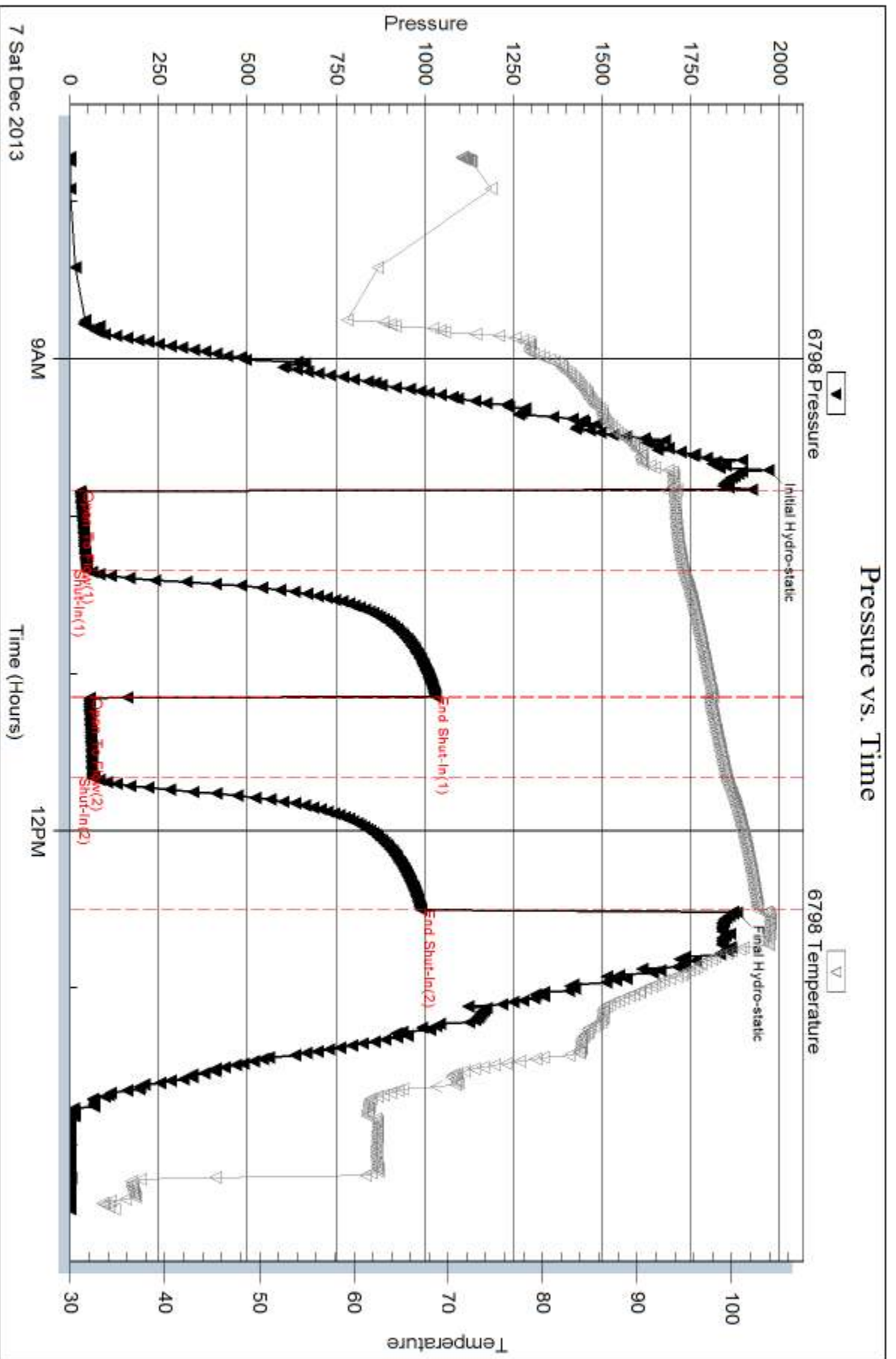
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 53.00 sec/qt	Cushion Volume: bbl		
Water Loss: 11.97 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 10000.00 ppm			
Filter Cake: 0.02 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
65.00	SGCM 2%G 98%M	0.320

Total Length: 65.00 ft      Total Volume: 0.320 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:









## DRILL STEM TEST REPORT

Prepared For: **Gra Ex, LLC**

PO Box 32  
Kingman, KS 67068

ATTN: Jeff Burk

### **Michael #1**

#### **1-24s-14w Stafford,KS**

Start Date: 2013.12.08 @ 02:03:25

End Date: 2013.12.08 @ 09:13:32

Job Ticket #: 51906                      DST #: 5

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

Printed: 2013.12.11 @ 10:37:44



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Gra Ex, LLC  
PO Box 32  
Kingman, KS 67068  
ATTN: Jeff Burk

**1-24s-14w Stafford,KS**

**Michael #1**

Job Ticket: 51906

**DST#: 5**

Test Start: 2013.12.08 @ 02:03:25

## GENERAL INFORMATION:

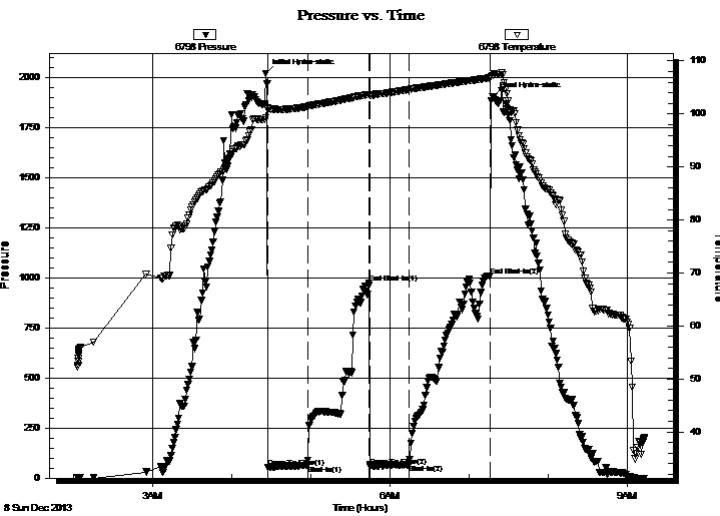
Formation: **LKC "K & L"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 04:27:55  
 Time Test Ended: 09:13:32  
 Interval: **3782.00 ft (KB) To 3840.00 ft (KB) (TVD)**  
 Total Depth: 3840.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Leal Cason  
 Unit No: 74  
 Reference Elevations: 1935.00 ft (KB)  
 1930.00 ft (CF)  
 KB to GR/CF: 5.00 ft

## Serial #: 6798

Inside

Press@RunDepth: 69.30 psig @ 3783.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.12.08 End Date: 2013.12.08 Last Calib.: 2013.12.08  
 Start Time: 02:03:26 End Time: 09:13:32 Time On Btm: 2013.12.08 @ 04:26:10  
 Time Off Btm: 2013.12.08 @ 07:18:10

TEST COMMENT: IF: Strong Blow , BOB in 30 seconds, GTS in 27 minutes  
 IS: Blow Back Built to BOB in 6 minutes  
 FF: Strong Blow , BOB & GTS Immediate, Caught Sample, TSTM  
 FS: Would Not Bleed Off



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2021.54	99.34	Initial Hydro-static
2	53.22	100.93	Open To Flow (1)
32	63.66	101.40	Shut-In(1)
79	973.66	103.71	End Shut-In(1)
80	59.97	103.46	Open To Flow (2)
109	69.30	104.60	Shut-In(2)
171	1009.55	106.82	End Shut-In(2)
172	1903.07	107.26	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	3636 GIP	0.00
134.00	SGCM 4%G 96%M	0.81

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Gra Ex, LLC  
PO Box 32  
Kingman, KS 67068  
ATTN: Jeff Burk

**1-24s-14w Stafford,KS**  
**Michael #1**  
Job Ticket: 51906 **DST#: 5**  
Test Start: 2013.12.08 @ 02:03:25

**Tool Information**

Drill Pipe:	Length: 3653.00 ft	Diameter: 3.80 inches	Volume: 51.24 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: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 51.82 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3782.00 ft			Final 53000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	58.00 ft			
Tool Length:	84.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Shut In Tool	5.00			3761.00	
Hydraulic tool	5.00			3766.00	
Jars	5.00			3771.00	
Safety Joint	2.00			3773.00	
Packer	5.00			3778.00	26.00 Bottom Of Top Packer
Packer	4.00			3782.00	
Stubb	1.00			3783.00	
Recorder	0.00	6798	Inside	3783.00	
Recorder	0.00	8367	Outside	3783.00	
Perforations	5.00			3788.00	
Change Over Sub	1.00			3789.00	
Drill Pipe	32.00			3821.00	
Change Over Sub	1.00			3822.00	
Perforations	15.00			3837.00	
Bullnose	3.00			3840.00	58.00 Bottom Packers & Anchor

**Total Tool Length: 84.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Gra Ex, LLC  
PO Box 32  
Kingman, KS 67068  
ATTN: Jeff Burk

**1-24s-14w Stafford,KS**  
**Michael #1**  
Job Ticket: 51906      **DST#: 5**  
Test Start: 2013.12.08 @ 02:03:25

## 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: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.76 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4800.00 ppm			
Filter Cake: 0.02 inches			

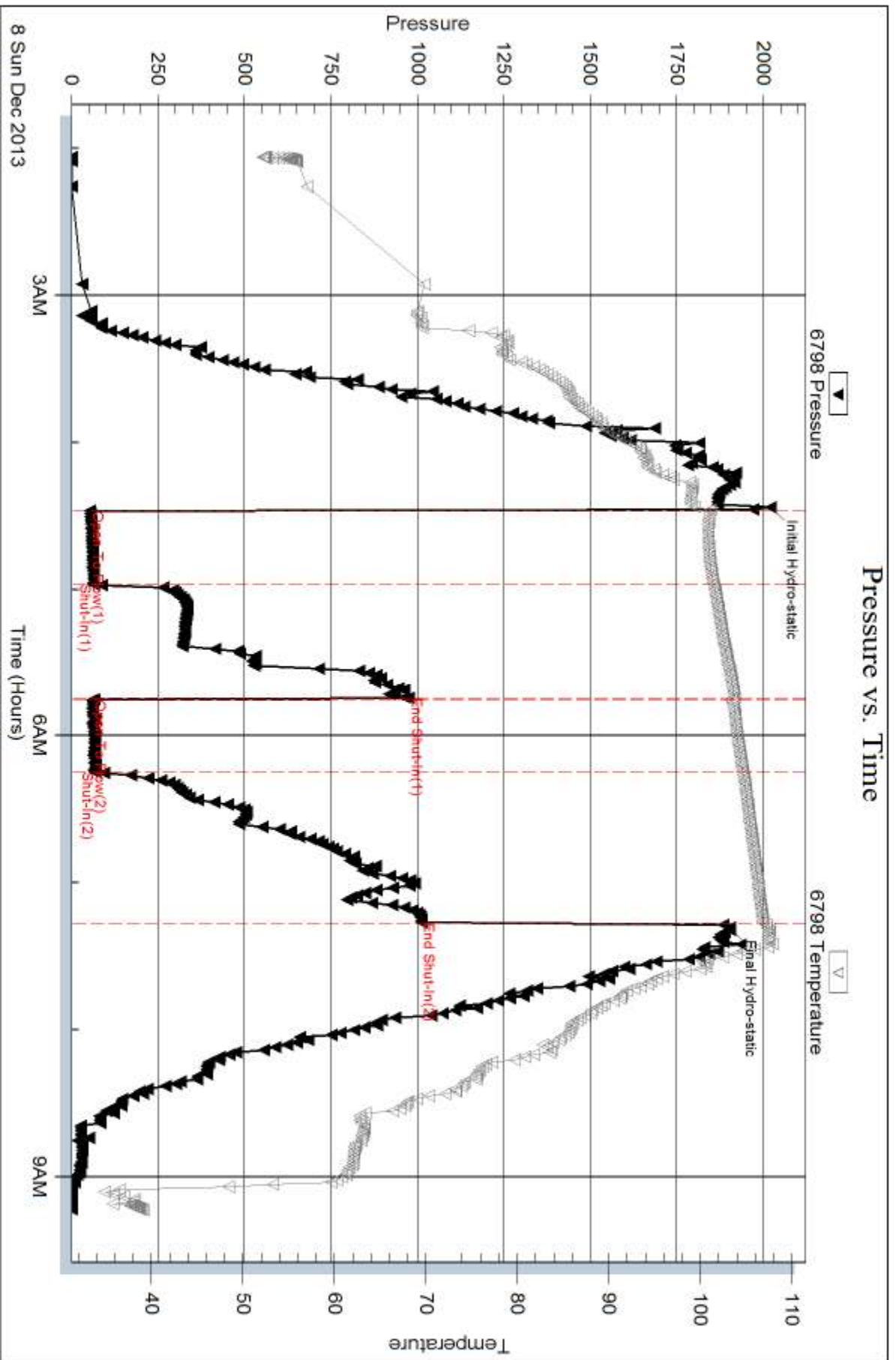
## Recovery Information

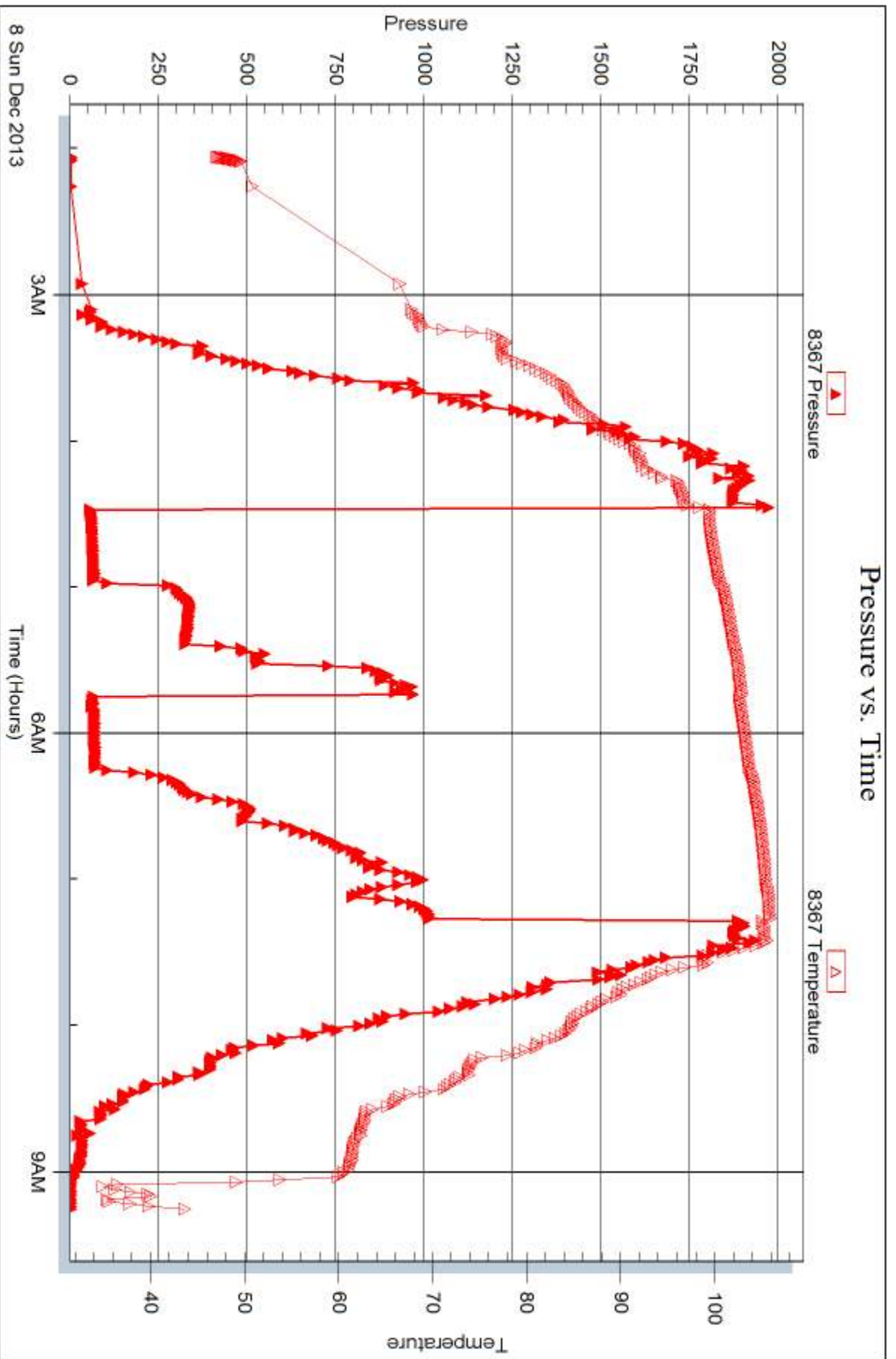
Recovery Table

Length ft	Description	Volume bbl
0.00	3636 GIP	0.000
134.00	SGCM 4%G 96%M	0.814

Total Length: 134.00 ft      Total Volume: 0.814 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:

### Pressure vs. Time







## DRILL STEM TEST REPORT

Prepared For: **Gra Ex, LLC**

PO Box 32  
Kingman, KS 67068

ATTN: Jeff Burk

### **Michael #1**

#### **1-24s-14w Stafford,KS**

Start Date: 2013.12.08 @ 23:50:35

End Date: 2013.12.09 @ 08:31:05

Job Ticket #: 51907                      DST #: 6

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

Printed: 2013.12.11 @ 10:37:04





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Gra Ex, LLC  
 PO Box 32  
 Kingman, KS 67068  
 ATTN: Jeff Burk

**1-24s-14w Stafford, KS**

**Michael #1**

Job Ticket: 51907

**DST#: 6**

Test Start: 2013.12.08 @ 23:50:35

## GENERAL INFORMATION:

Formation: **Mississippi Conglome**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:10:35

Time Test Ended: 08:31:05

Test Type: Conventional Bottom Hole (Reset)

Tester: Leal Cason

Unit No: 74

**Interval: 3940.00 ft (KB) To 3970.00 ft (KB) (TVD)**

Reference Elevations: 1935.00 ft (KB)

Total Depth: 3970.00 ft (KB) (TVD)

1930.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 6798**

**Inside**

Press@RunDepth: 1247.02 psig @ 3941.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.12.08

End Date:

2013.12.09

Last Calib.:

2013.12.09

Start Time: 23:50:36

End Time:

08:31:05

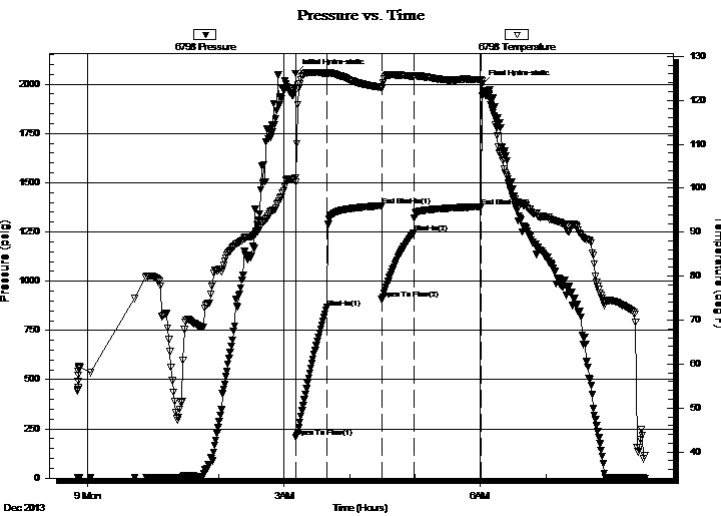
Time On Btm:

2013.12.09 @ 03:10:20

Time Off Btm:

2013.12.09 @ 06:01:35

**TEST COMMENT:** IF: Strong Blow , BOB in 1 minute  
 IS: Blow Back Built to 3 inches  
 FF: Strong Blow , BOB in 1 minute  
 FS: Blow Back Built to 3 inches



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2055.61	102.41	Initial Hydro-static
1	206.44	101.37	Open To Flow (1)
29	865.98	126.13	Shut-In(1)
79	1384.19	122.87	End Shut-In(1)
79	907.90	122.79	Open To Flow (2)
109	1247.02	125.55	Shut-In(2)
171	1378.91	124.66	End Shut-In(2)
172	1998.80	123.73	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
2294.00	Water	31.11
310.00	GMCW 6%G 14%M 80%W	4.35
186.00	GCM 5%G 95%M	2.61

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Gra Ex, LLC  
PO Box 32  
Kingman, KS 67068  
ATTN: Jeff Burk

**1-24s-14w Stafford,KS**  
**Michael #1**  
Job Ticket: 51907      **DST#: 6**  
Test Start: 2013.12.08 @ 23:50:35

**Tool Information**

Drill Pipe:	Length: 3810.00 ft	Diameter: 3.80 inches	Volume: 53.44 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: 117.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 54.02 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3940.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	56.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Shut In Tool	5.00			3919.00	
Hydraulic tool	5.00			3924.00	
Jars	5.00			3929.00	
Safety Joint	2.00			3931.00	
Packer	5.00			3936.00	26.00      Bottom Of Top Packer
Packer	4.00			3940.00	
Stubb	1.00			3941.00	
Recorder	0.00	6798	Inside	3941.00	
Recorder	0.00	8367	Outside	3941.00	
Perforations	26.00			3967.00	
Bullnose	3.00			3970.00	30.00      Bottom Packers & Anchor

**Total Tool Length: 56.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Gra Ex, LLC  
PO Box 32  
Kingman, KS 67068  
ATTN: Jeff Burk

**1-24s-14w Stafford,KS**  
**Michael #1**  
Job Ticket: 51907      **DST#: 6**  
Test Start: 2013.12.08 @ 23:50:35

## 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:	72000 ppm
Viscosity: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.77 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4800.00 ppm			
Filter Cake: 0.02 inches			

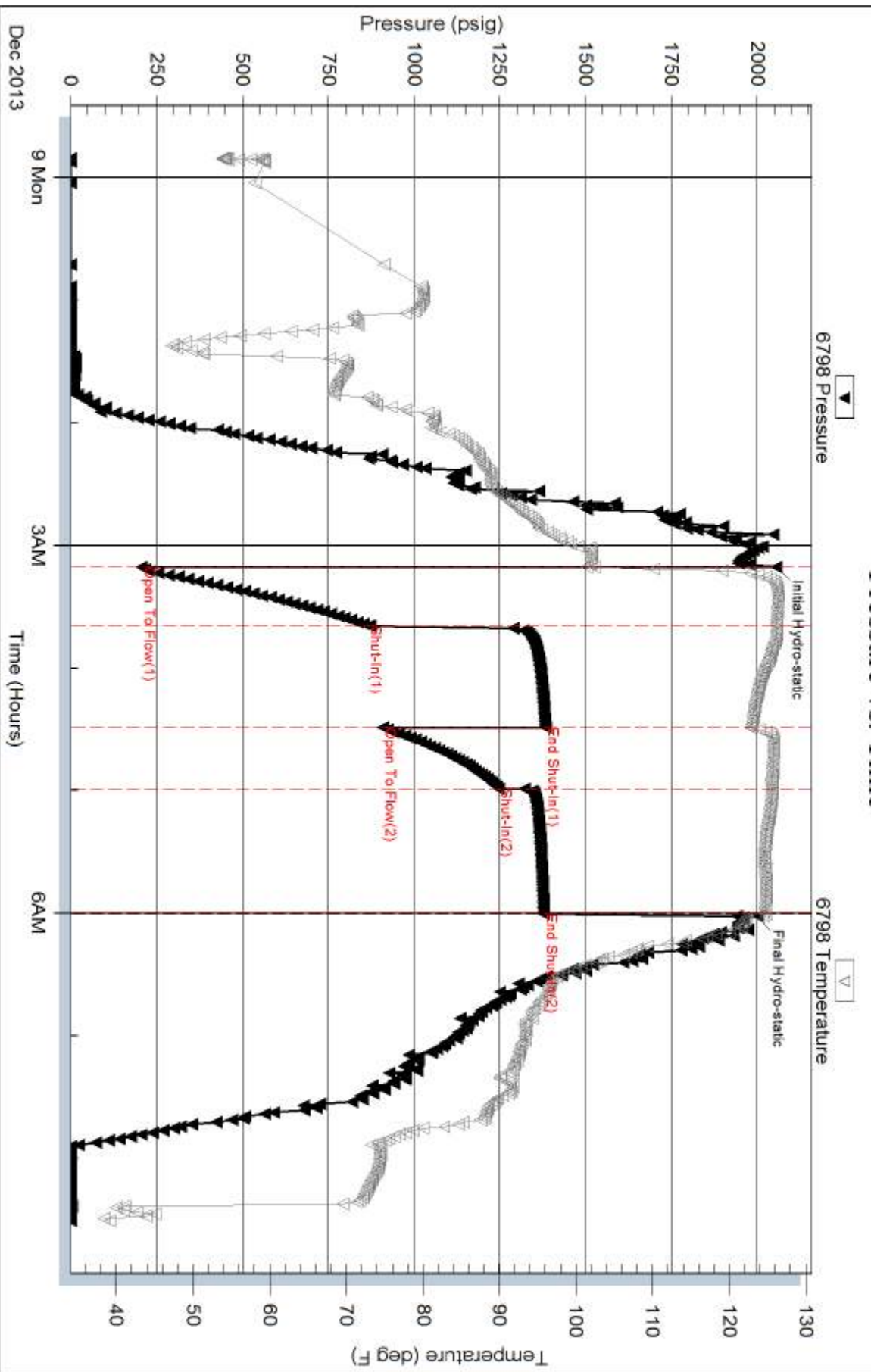
## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2294.00	Water	31.113
310.00	GMCW 6%G 14%M 80%W	4.348
186.00	GCM 5%G 95%M	2.609

Total Length: 2790.00 ft      Total Volume: 38.070 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments: RW w as .18 @ 42 degrees

### Pressure vs. Time

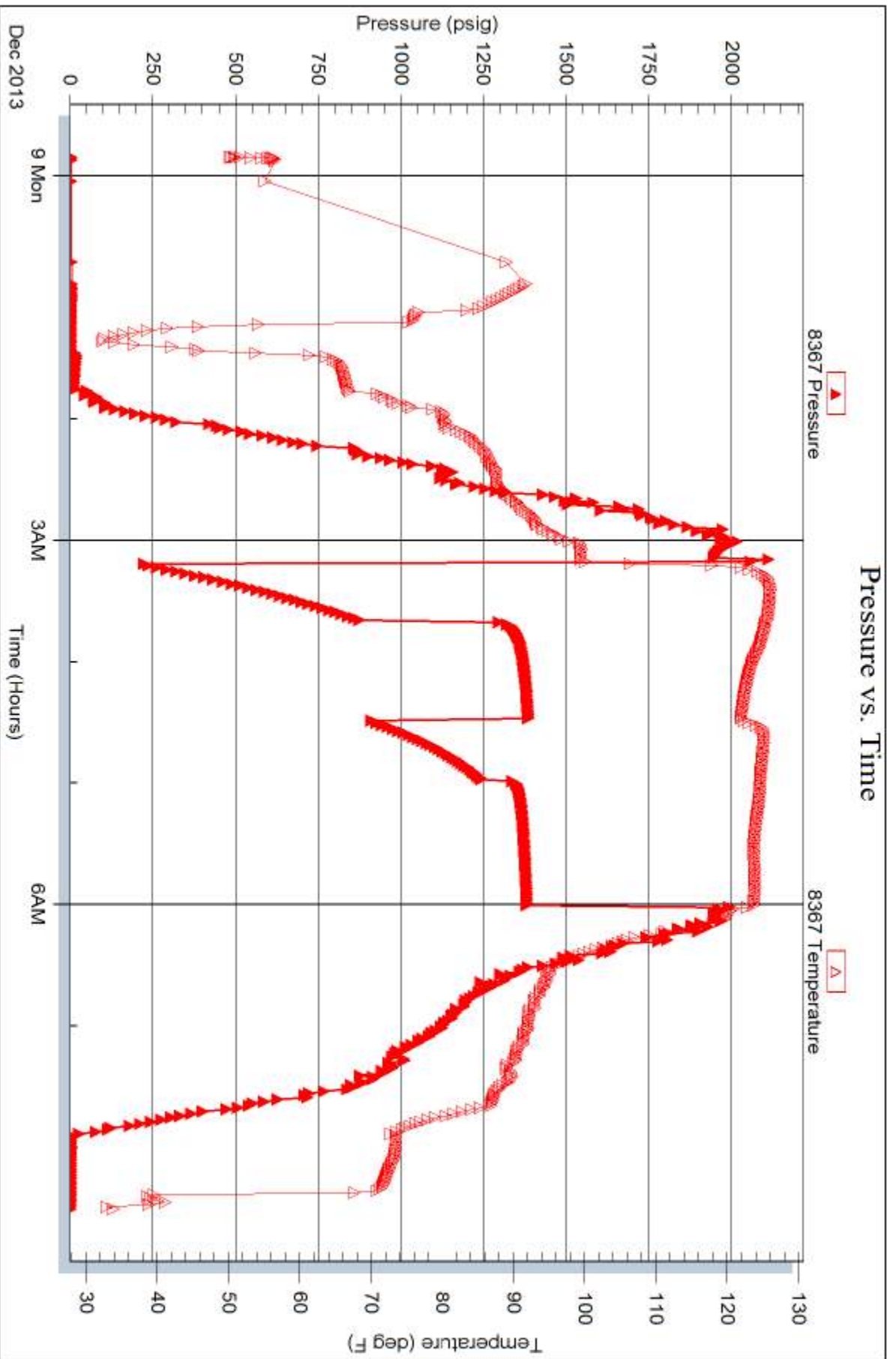


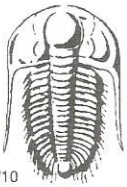
Serial #: 8367

Outside Gra Ex, LLC

Michael #1

DST Test Number: 6





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 51902

Well Name & No. Michael 1 Test No. 1 Date 12/04/13  
 Company Gra Ex, LLC Elevation 1935 KB 1930 GL  
 Address PO Box 32 Kingman, KS 67608  
 Co. Rep / Geo. Jeff Burk Rig Petromark 2  
 Location: Sec. 1 Twp. 24S Rge. 14W Co. Stafford State KS

Interval Tested 3604 - 3626 Zone Tested Lansing "B"  
 Anchor Length 22 Drill Pipe Run 3465 Mud Wt. 9.4  
 Top Packer Depth 3599 Drill Collars Run 117 Vis 54  
 Bottom Packer Depth 3604 Wt. Pipe Run 0 WL 8-8  
 Total Depth 3624 Chlorides 4800 ppm System LCM

Blow Description IF: Fair Blow, BOB in 9 minutes  
ISI: 1/2 inch Blow Back  
FF: Strong Blow, BOB in 15 seconds  
FSL: Blow Back Built to 3 inches

Rec	Feet of	%gas	%oil	%water	%mud
<u>2839</u>	<u>Feet of GIP</u>				
<u>122</u>	<u>Feet of SGCM</u>	<u>4</u>			<u>96</u>

Rec Total 122 BHT 106 Gravity NIC API RW NIC @ NIC °F Chlorides NIC ppm

(A) Initial Hydrostatic 1870  Test 1150 T-On Location 20:30  
 (B) First Initial Flow 65  Jars 250 T-Started 01:37  
 (C) First Final Flow 40  Safety Joint 75 T-Open 04:59  
 (D) Initial Shut-In 1063  Circ Sub \_\_\_\_\_ T-Pulled 8:21  
 (E) Second Initial Flow 36  Hourly Standby 5 4.75h 475 T-Out 10:41  
 (F) Second Final Flow 57  Mileage (50) 77.50 Comments \_\_\_\_\_  
 (G) Final Shut-In 946  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1954  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 2027.50

Initial Open 30  
 Initial Shut-In 45  
 Final Flow 60  
 Final Shut-In 60

Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Sub Total 0  
 Total 2027.50  
 MP/DST Disc't

Approved By [Signature] Our Representative [Signature]  
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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 51903

Well Name & No. Michael 1 Test No. 2 Date 12/09/13  
 Company Gra Ex, LLC Elevation 1935 KB 1930 GL  
 Address PO Box 32 Kingman, KS 67608  
 Co. Rep / Geo. Jeff Burk Rig Petromark 2  
 Location: Sec. 1 Twp. 24S Rge. 14W Co. Stafford State KS

Interval Tested 3651 - 3673 Zone Tested Lansing "F"  
 Anchor Length 22 Drill Pipe Run 3527 Mud Wt. 9.4  
 Top Packer Depth 3646 Drill Collars Run 117 Vis 51  
 Bottom Packer Depth 3651 Wt. Pipe Run 0 WL 11.2  
 Total Depth 3673 Chlorides 7000 ppm System LCM

Blow Description IF: Fair Blow, Built to 11 inches  
ISF: NO Blow Back  
FF: Fair Blow, BOB in 14 minutes  
FSI: Weak surface Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>310</u>	<u>GFP</u>				
<u>58</u>	<u>SOCM</u>	<u>2</u>			<u>98</u>
<u>58</u>	<u>MCW</u>		<u>86</u>		<u>14</u>

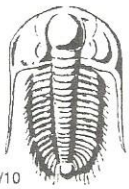
Rec Total 116 BHT 109 Gravity N/C API RW .23 @ 32 °F Chlorides 74000 ppm

(A) Initial Hydrostatic <u>1866</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>18:45</u>
(B) First Initial Flow <u>44</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>19:17</u>
(C) First Final Flow <u>59</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>21:36</u>
(D) Initial Shut-In <u>973</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>00:58</u>
(E) Second Initial Flow <u>60</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>02:57</u>
(F) Second Final Flow <u>80</u>	<input checked="" type="checkbox"/> Mileage <u>(50)</u> <u>77.50</u>	Comments
(G) Final Shut-In <u>949</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1822</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	Total <u>1552.50</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't <input checked="" type="checkbox"/>
	Sub Total <u>1552.50</u>	

Approved By [Signature] Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 51904

Well Name & No. Michael 1 Test No. 3 Date 12/06/13  
 Company Gra EX, LLC Elevation 1935 KB 1930 GL  
 Address PO Box 32 Kingman, KS 67608  
 Co. Rep / Geo. Jeff Burk Rig Petromark 2  
 Location: Sec. 1 Twp. 24S Rge. 14W Co. Stafford State KS

Interval Tested 3712 - 3728 Zone Tested Lansing "H"  
 Anchor Length 16 Drill Pipe Run 3590 Mud Wt. 9.3  
 Top Packer Depth 3707 Drill Collars Run 117 Vis 49  
 Bottom Packer Depth 3712 Wt. Pipe Run 0 WL 12.0  
 Total Depth 3728 Chlorides 10,000 ppm System LCM

Blow Description IF: strong Blow, BOB in 20 seconds, GTS in 14 minutes, Gauged Gas  
ISI: 1/4 inch Blow Back

FF: strong Blow, BOB + GTS immediate, Gauged Gas  
FSI: 1 inch Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>3585</u>	<u>GLP</u>				
<u>122</u>	<u>SGOCM</u>	<u>2</u>	<u>2</u>	<u>96</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 122 BHT 100 Gravity NIC API RW NIC @ NIC° F Chlorides NIC ppm

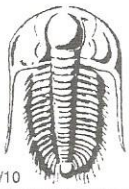
(A) Initial Hydrostatic 1886  Test 1150 T-On Location 13:00  
 (B) First Initial Flow 74  Jars 250 T-Started 13:58  
 (C) First Final Flow 81  Safety Joint 75 T-Open 15:52  
 (D) Initial Shut-In 922  Circ Sub \_\_\_\_\_ T-Pulled 19:08  
 (E) Second Initial Flow 45  Hourly Standby \_\_\_\_\_ T-Out 21:04  
 (F) Second Final Flow 88  Mileage (50) 77.50 Comments \_\_\_\_\_  
 (G) Final Shut-In 890  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1834  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 60  Day Standby \_\_\_\_\_ Total 1552.50  
 Final Shut-In 60  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1552.50

Approved By [Signature] Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 51905

4/10

Well Name & No. Michael 1 Test No. 4 Date 12/07/13  
 Company Gra Ex, LLC Elevation 1935 KB 1930 GL  
 Address PO Box 32 Kingman, KS 67608  
 Co. Rep / Geo. Jeff Burk Rig Petromark 2  
 Location: Sec. 1 Twp. 24S Rge. 14W Co. Stafford State KS

Interval Tested 3737 - 3775 Zone Tested Lansing "I+J"  
 Anchor Length 38 Drill Pipe Run 3622 Mud Wt. 9.3  
 Top Packer Depth 3732 Drill Collars Run 117 Vis 53  
 Bottom Packer Depth 3737 Wt. Pipe Run 0 WL 12.0  
 Total Depth 3775 Chlorides 10,000 ppm System LCM

Blow Description IF: Weak Blow, Built to 1 inch  
ISI: No Blow Back  
FF: Weak Blow, Built to 1/2 inch  
FSI: No Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>65</u>	<u>56CM</u>	<u>2</u>		<u>98</u>	
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

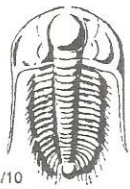
Rec Total 65 BHT 103 Gravity NIC API RW NIC @ NIC °F Chlorides NIC ppm

(A) Initial Hydrostatic	<u>1969</u>	<input checked="" type="checkbox"/> Test	<u>1150</u>	T-On Location	<u>07:15</u>
(B) First Initial Flow	<u>29</u>	<input checked="" type="checkbox"/> Jars	<u>250</u>	T-Started	<u>07:42</u>
(C) First Final Flow	<u>48</u>	<input checked="" type="checkbox"/> Safety Joint	<u>75</u>	T-Open	<u>09:50</u>
(D) Initial Shut-In	<u>1029</u>	<input type="checkbox"/> Circ Sub		T-Pulled	<u>12:30</u>
(E) Second Initial Flow	<u>55</u>	<input type="checkbox"/> Hourly Standby		T-Out	<u>14:24</u>
(F) Second Final Flow	<u>64</u>	<input checked="" type="checkbox"/> Mileage	<u>50</u> <u>77.50</u>	Comments	
(G) Final Shut-In	<u>989</u>	<input type="checkbox"/> Sampler			
(H) Final Hydrostatic	<u>1981</u>	<input type="checkbox"/> Straddle		<input type="checkbox"/> Ruined Shale Packer	
		<input type="checkbox"/> Shale Packer		<input type="checkbox"/> Ruined Packer	

Initial Open	<u>30</u>	<input type="checkbox"/> Extra Packer		<input type="checkbox"/> Extra Copies	
Initial Shut-In	<u>45</u>	<input type="checkbox"/> Extra Recorder		Sub Total	<u>0</u>
Final Flow	<u>30</u>	<input type="checkbox"/> Day Standby		Total	<u>1552.50</u>
Final Shut-In	<u>45</u>	<input type="checkbox"/> Accessibility		MP/DST Disc't	
		Sub Total	<u>1552.50</u>		

Approved By \_\_\_\_\_ Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 51906

Well Name & No. Michael 1 Test No. 5 Date 12/08/13  
 Company Gra Ex, LLC Elevation 1935 KB 1930 GL  
 Address PO Box 32 Kingman, KS 67608  
 Co. Rep / Geo. Jeff Burk Rig Petromark 2  
 Location: Sec. 1 Twp. 24S Rge. 14W Co. Stafford State KS

Interval Tested 3782 - 3840 Zone Tested Lansing "K+L"  
 Anchor Length 58 Drill Pipe Run 3653 Mud Wt. 9.4  
 Top Packer Depth 3777 Drill Collars Run 117 Vis 54  
 Bottom Packer Depth 3782 Wt. Pipe Run 0 WL 10.8  
 Total Depth 3840 Chlorides 7000 ppm System LCM

Blow Description IF: Strong Blow, BOB in 30 seconds, GTS in 27 minutes  
ISI: Blow Back Built to BOB in 6 minutes  
FF: Strong Blow, BOB + GTS immediate, ~~was~~ caught sample, TSTM  
FST: Would NOT bleed off

Rec	Feet of	%gas	%oil	%water	%mud
<u>3636</u>	<u>GI P</u>				
<u>134</u>	<u>SGCM</u>	<u>4</u>			<u>96</u>

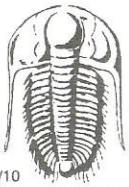
Rec Total 134 BHT 107 Gravity NIC API RW NIC @ NIC °F Chlorides NIC ppm

(A) Initial Hydrostatic <u>2022</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>01:00</u>
(B) First Initial Flow <u>53</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>02:03</u>
(C) First Final Flow <u>64</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>04:27</u>
(D) Initial Shut-In <u>974</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>07:16</u>
(E) Second Initial Flow <u>60</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>09:13</u>
(F) Second Final Flow <u>69</u>	<input checked="" type="checkbox"/> Mileage <u>50</u> <u>77.50</u>	Comments
(G) Final Shut-In <u>1009</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1903</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1552.50</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't <input checked="" type="checkbox"/>
	Sub Total <u>1552.50</u>	

Approved By [Signature]

Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 51907

4/10

Well Name & No. Michael 1 Test No. 6 Date 12/08/13  
 Company Gra EX, LLC Elevation 1935 KB 1930 GL  
 Address PO Box 32 Kingman, KS 67608  
 Co. Rep / Geo. Jeff Burk Rig Petromark 2  
 Location: Sec. 1 Twp. 24S Rge. 14W Co. Stafford State KS

Interval Tested 3940 - 3970 Zone Tested Mississippi conglomerate  
 Anchor Length 30 Drill Pipe Run 3810 Mud Wt. 9.5  
 Top Packer Depth 3935 Drill Collars Run 117 Vis 56  
 Bottom Packer Depth 3940 Wt. Pipe Run 0 WL 10.8  
 Total Depth 3970 Chlorides 10,000 ppm System LCM

Blow Description IF: Strong Blow, BOB in 1 minute  
ISI: Blow Back Built to 3 inches  
FF: Strong Blow, BOB in 1 minute  
FST: Blow Back Built to 3 inches

Rec	Feet of	%gas	%oil	%water	%mud
<u>126</u>	<u>GCM</u>	<u>5</u>			<u>95</u>
<u>310</u>	<u>GMCW</u>	<u>6</u>		<u>80</u>	<u>14</u>
<u>2294</u>	<u>Water</u>				

Rec Total 2790 BHT 124 Gravity N/C API RW .18 @ 412 °F Chlorides 72,000 ppm

(A) Initial Hydrostatic <u>2056</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>22:30</u>
(B) First Initial Flow <u>206</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>23:50</u>
(C) First Final Flow <u>866</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>03:10</u>
(D) Initial Shut-In <u>1384</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>06:00</u>
(E) Second Initial Flow <u>908</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>08:31</u>
(F) Second Final Flow <u>1247</u>	<input checked="" type="checkbox"/> Mileage <u>50.77.50</u>	Comments
(G) Final Shut-In <u>1379</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1999</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1552.50</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't <input checked="" type="checkbox"/>
	Sub Total <u>1552.50</u>	

Approved By [Signature]

Our Representative [Signature]

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PAGE 1 of 1	CONTRACT NO 1001703	INVOICE DATE 12/13/2013
INVOICE NUMBER <b>1718 - 91359414</b>		

Pratt (620) 672-1201  
 B GRA-EX LLC  
 I PO Box: 32  
 L KINGMAN  
 L KS US 67068  
 T  
 O ATTN: ACCOUNTS PAYABLE

J LEASE NAME Michael 1  
 O LOCATION  
 B COUNTY Stafford  
 S STATE KS  
 I JOB DESCRIPTION Cement-New Well Casing/Pi  
 T  
 E JOB CONTACT

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
40670997	19843		Net - 30 days	01/12/2014

	QTY	U of M	UNIT PRICE	INVOICE AMOUNT
<i>For Service Dates: 12/10/2013 to 12/10/2013</i>				
0040670997				
171809335A Cement-New Well Casing/Pi 12/10/2013				
Cement P.T.A.				
60/40 POZ	200.00	EA	9.00	1,800.00
Cement Gel	344.00	EA	0.19	64.50
"Unit Mileage Chg (PU, cars one way)"	25.00	MI	3.19	79.69
Heavy Equipment Mileage	50.00	MI	5.25	262.50
"Proppant & Bulk Del. Chgs., per ton mil	215.00	EA	1.20	258.00
Depth Charge; 4001'-5000'	1.00	EA	1,890.00	1,890.00
Blending & Mixing Service Charge	200.00	BAG	1.05	210.00
"Service Supervisor, first 8 hrs on loc.	1.00	EA	131.25	131.25

PLEASE REMIT TO:	SEND OTHER CORRESPONDENCE TO:	SUB TOTAL	4,695.94
BASIC ENERGY SERVICES,LP	BASIC ENERGY SERVICES,LP	TAX	133.31
PO BOX 841903	801 CHERRY ST, STE 2100	INVOICE TOTAL	4,829.25
DALLAS, TX 75284-1903	FORT WORTH, TX 76102		







Customer <b>GRAEX LLC</b>	Lease No.	Date <b>12-10-13</b>
Lease <b>Michael</b>	Well # <b>1</b>	
Field Order # <b>4335</b>	Station <b>Pratt</b>	Casing <b>4 1/2</b>
		Depth <b>4149</b>
Type Job <b>CNW PTA</b>	Formation	County <b>Stafford</b>
		State <b>KS</b>
		Legal Description <b>1-24-14</b>

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid		RATE	PRESS	ISIP
Depth	Depth	From	To	Pre Pad		Max		5 Min.
Volume	Volume	From	To	Pad		Min		10 Min.
Max Press	Max Press	From	To	Frac		Avg		15 Min.
Well Connection	Annulus Vol.	From	To			HHP Used		Annulus Pressure
Plug Depth	Packer Depth	From	To	Flush		Gas Volume		Total Load

Customer Representative <b>Jim</b>	Station Manager <b>Kevin</b>	Treater <b>JOE</b>
------------------------------------	------------------------------	--------------------

Service Units	<b>19905</b>	<b>19847</b>	<b>19959</b>	<b>19860</b>	<b>25443</b>				
Driver Names	<b>ED</b>	<b>Jerry</b>			<b>JOE</b>				

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
1715					on LOC / safety meeting
					Plug 1 set @ 4149'
1915			15	5	H2O spacer
			12		mix 50SK of 60/40 P02 @ 13.7#
			3		H2O spacer
1933			52	5	mud spacer
					Plug 2 set 850'
2100			10	5	H2O spacer
			12		mix 50SK 60/40 P02 @ 13.7#
2110			2	5	H2O spacer
					Plug 3 set @ 490'
2120			5	5	H2O spacer
			12		mix 50SK 60/40 P02 @ 13.7#
2130			1	5	H2O spacer
					Plug 4 60'
2145			5		mix 20SK 60/40 P02 13.7#
102200			7		Plug RH 30SK 60/40 P02 13.7#
					JOB COMPLETE
					Thank you
					JOE



PAGE 1 of 1	CONF NO 1001703	INVOICE DATE 12/04/2013
<b>INVOICE NUMBER</b> <b>1718 - 91353257</b>		

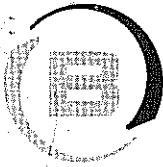
Pratt (620) 672-1201  
 B GRA-EX LLC  
 I PO Box: 32  
 L KINGMAN  
 L KS US 67068  
 T  
 O ATTN: ACCOUNTS PAYABLE

J LEASE NAME Michael 1  
 O LOCATION  
 B COUNTY Stafford  
 S STATE KS  
 I JOB DESCRIPTION Cement-New Well Casing/Pi  
 T  
 E JOB CONTACT

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
40668413	19843		Net - 30 days	01/03/2014

	QTY	U of M	UNIT PRICE	INVOICE AMOUNT
<i>For Service Dates: 12/01/2013 to 12/01/2013</i>				
0040668413				
171809585A Cement-New Well Casing/Pi 12/01/2013				
Cement 8 5/8" Surface				
A Serv Lite	175.00	EA	9.75	1,706.11 T
Common Cement	175.00	EA	12.00	2,099.81 T
Celloflake	88.00	EA	2.77	244.18 T
Calcium Chloride	789.00	EA	0.79	621.29 T
"Top Rubber Cmt Plug, 8 5/8" ""	1.00	EA	168.74	168.74
"Unit Mileage Chg (PU, cars one way)"	25.00	MI	3.19	79.68
Heavy Equipment Mileage	50.00	MI	5.25	262.48
"Proppant & Bulk Del. Chgs., per ton mil	398.00	EA	1.20	477.56
Depth Charge; 0-500'	1.00	EA	749.94	749.94
Blending & Mixing Service Charge	350.00	BAG	1.05	367.47
Plug Container Util. Chg.	1.00	EA	187.48	187.48
"Service Supervisor, first 8 hrs on loc.	1.00	EA	131.24	131.24

<b>PLEASE REMIT TO:</b>	<b>SEND OTHER CORRESPONDENCE TO:</b>	<b>SUB TOTAL</b>	<b>7,095.98</b>
BASIC ENERGY SERVICES, LP	BASIC ENERGY SERVICES, LP	<b>TAX</b>	<b>334.00</b>
PO BOX 841903	801 CHERRY ST, STE 2100	<b>INVOICE TOTAL</b>	<b>7,429.98</b>
DALLAS, TX 75284-1903	FORT WORTH, TX 76102		



**BASIC**<sup>SM</sup>  
ENERGY SERVICES  
PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61  
P.O. Box 8613  
Pratt, Kansas 67124  
Phone 620-672-1201

FIELD SERVICE TICKET  
1718 09585 A

1-245-14W

DATE \_\_\_\_\_ TICKET NO. \_\_\_\_\_

DATE OF JOB	12-1-13	DISTRICT	Pratt, Kansas		NEW WELL <input checked="" type="checkbox"/>	OLD WELL <input type="checkbox"/>	PROD <input type="checkbox"/>	INJ <input type="checkbox"/>	WDW <input type="checkbox"/>	CUSTOMER ORDER NO.:	
CUSTOMER	Gra Ex, LLC.				LEASE	Michael				WELL NO.	1
ADDRESS					COUNTY	Stafford		STATE	Kansas		
CITY					STATE						
AUTHORIZED BY					SERVICE CREW	C. Messick; E. Masquez; D. Phye					
					JOB TYPE	C. N. W. - Surface					
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM	PM	TIME	
37,216	.75						12-1-13			1:30	
						ARRIVED AT JOB				5:30	
						START OPERATION				4:30	
19,889-19,843	.75					FINISH OPERATION				5:15	
70,959-19,918	.75					RELEASED	12-1-13			5:30	
						MILES FROM STATION TO WELL	25				

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: [Signature]  
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
P CP106	A Serv Lite Blend Cement	sh	175	\$	2,275.00
P CP100C	Common Cement	sh	175	\$	2,800.00
P CC102	Cell plate	Lb	88	\$	325.60
P CC109	Calcium Chloride	Lb	789	\$	828.45
P CF105	Top Rubber Plug, 8 5/8"	ea	1	\$	225.00
P E100	Pickup Mileage	mi	25	\$	106.25
P E101	Heavy Equipment Mileage	mi	50	\$	350.00
P E113	Bulk Delivery	tm	398	\$	636.00
P CE200	Cement Pump 0 Feet To 500 Feet	hrs	4	\$	4,000.00
P CE246	Blending and mixing	sh	350	\$	490.00
P CF504	Plug container	Job	1	\$	250.00
P S003	Service Supervisor	hrs	8	\$	175.00

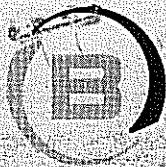
SUB TOTAL  
K69.97 7,095.98

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON \$	
MATERIALS	%TAX ON \$	
TOTAL		

SERVICE REPRESENTATIVE <u>[Signature]</u>	THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: <u>[Signature]</u> (WELL OWNER OPERATOR CONTRACTOR OR AGENT)
--	--

FIELD SERVICE ORDER NO.



**BASIC**  
ENERGY SERVICES  
PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61  
P.O. Box 8613  
Pratt, Kansas 67124  
Phone 620-672-1201

FIELD SERVICE TICKET  
1718 09535 A

1-245-14W

DATE TICKET NO.

DATE OF JOB: 12-1-13	DISTRICT: Pratt, Kansas	NEW WELL <input type="checkbox"/>	OLD WELL <input type="checkbox"/>	PROD <input type="checkbox"/>	INJ <input type="checkbox"/>	WDW <input type="checkbox"/>	CUSTOMER ORDER NO.:
CUSTOMER: Gra Ex, LLC	LEASE: Michael	WELL NO. 1					
ADDRESS:	COUNTY: Stafford	STATE: Kansas					
CITY:	STATE:	SERVICE CREW: C. Messick, E. Marquez, D. Phye					
AUTHORIZED BY:	JOB TYPE: C.N.W. Surface						

EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM/PM	TIME
37216	75						12-1-13		
						ARRIVED AT JOB:		AM/PM	5:04
						START OPERATION		AM/PM	4:30
19889-19843	75					FINISH OPERATION		AM/PM	5:15
70454-19418	75					RELEASED	12-1-13	AM/PM	5:30
						MILES FROM STATION TO WELL			25

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: *[Signature]*  
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CP106	A/Semi Lite Blend Cement	sh	175	\$	2,275.00
CF100C	Common Cement	sh	175	\$	2,800.00
CC102	Cell Plate	Lb	88	\$	325.60
CC104	Calcium Chloride	lb	739	\$	828.45
CF105	Top Rubber Plug, 8 5/8"	ea	1	\$	225.00
E100	Pickup Mileage	mi	25	\$	106.25
E101	Heavy Equipment Mileage	mi	50	\$	350.00
E113	Bulk Delivery	ton	393	\$	636.00
CE200	Cement Pump Off to 500 feet	hrs	4	\$	1,000.00
CE240	Blending and mixing	sh	350	\$	490.00
CF504	Plug container	Job	1	\$	250.00
S003	Service Supervisor	hrs	8	\$	175.00

SUB TOTAL  
1694 7095.98

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON \$	
MATERIALS	%TAX ON \$	
TOTAL		

SERVICE REPRESENTATIVE: <i>[Signature]</i>	THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: <i>[Signature]</i>
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)	

FIELD SERVICE ORDER NO.

Customer Gard Ex, LLC	Lease No.	Date 12-1-13
Lease Michael	Well # 1	
Field Order # 9585	Station Pratt, Kansas	Casing 8 7/8 24 1/2
Type Job C.N.V. - Surface	Depth 481 Feet	County Stafford
	Formation	State Kansas
		Legal Description 1-245-14W

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size 8 7/8 24 1/2	Tubing Size LB/FT	Shots/Ft 175 sacks A	Acid Serv-lite with 6%	Pre Pad Gel, 300	Rate 25 Lb	Press cu. FT. 15h	ISIP 5 ft. cell plate	
Depth 481 Feet	Depth	From	To 13.3 Lb.	Pre Pad Gal. 8.39 Gal.	Max 1.66		5 Min.	
Volume 30.6 Bbl.	Volume	From	To	Pre Pad	Min		10 Min.	
Max Press 300 P.S.I.	Max Press	From 175	To 175	Pre Pad Cement with 2	Avg Calcium chloride,		15 Min.	25 Lb./st. cell plate
Well Connection Flucon	Annulus Vol. aliner	From	To		HHP Used		Annulus Pressure	
Plug Depth 480 Feet	Packer Depth	From	To	Flush 30 Bbl. Fresh	Gas Volume Water		Total Load	

Customer Representative Jim Michols	Station Manager Kevin Gordley	Treater Clarence R. Messich
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Service Units	37,216	19,899	19,843	70,959	19,918				
Driver Names	Messich	Masavez	Phye						

Time A.M.	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
3:45					Trucks on location and hold safety meeting.
4:20					Casing being run upon arrival.
4:20					Casing in well. Circulate for 5 minutes.
4:30	200			5	Start Fresh water Pre-Flush.
	225		10	5	Start mixing 175 sacks A Serv Lite cement.
	175		61	5	Start mixing 175 sacks common cement.
	-0-		98		Stop pumping. Shut in well. Release Top Rubber Plug. Open well.
4:50	150			5	Start Fresh water Displacement.
5:00	300		30		Plug down. Shut in well.
					Circulated cement to the cellar.
					Wash up pump truck.
5:30					Job Complete.
					Thank You.
					Clarence, Edmundo, Dale