



KANSAS CORPORATION COMMISSION 1084893  
OIL & GAS CONSERVATION DIVISION

Form ACO-1  
June 2009  
Form Must Be Typed  
Form must be Signed  
All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 31739  
Name: Iuka-Carmi Development LLC  
Address 1: PO BOX 847  
Address 2: \_\_\_\_\_  
City: PRATT State: KS Zip: 67124 + 0847  
Contact Person: Kenneth C. Gates  
Phone: ( 620 ) 672-2531  
CONTRACTOR: License # 34541  
Name: Ninnescah Drilling LLC  
Wellsite Geologist: Dave Williams  
Purchaser: \_\_\_\_\_

Designate Type of Completion:

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

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

Operator: \_\_\_\_\_  
Well Name: \_\_\_\_\_  
Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_  
 Deepening     Re-perf.     Conv. to ENHR     Conv. to SWD  
 Conv. to GSW  
 Plug Back: \_\_\_\_\_ Plug Back Total Depth  
 Commingled    Permit #: \_\_\_\_\_  
 Dual Completion    Permit #: \_\_\_\_\_  
 SWD    Permit #: \_\_\_\_\_  
 ENHR    Permit #: \_\_\_\_\_  
 GSW    Permit #: \_\_\_\_\_

11/11/2011	11/21/2011	11/21/2011
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-151-22384-00-00  
Spot Description: \_\_\_\_\_  
E2 W2 NE Sec. 33 Twp. 29 S. R. 15  East  West  
1320 Feet from  North /  South Line of Section  
1650 Feet from  East /  West Line of Section  
Footages Calculated from Nearest Outside Section Corner:  
 NE     NW     SE     SW  
County: Pratt  
Lease Name: Mary Howell Ryan 1-33 Well #: 1  
Field Name: \_\_\_\_\_  
Producing Formation: Dry Hole  
Elevation: Ground: 1971 Kelly Bushing: 1984  
Total Depth: 4880 Plug Back Total Depth: \_\_\_\_\_  
Amount of Surface Pipe Set and Cemented at: 319 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: 7000 ppm Fluid volume: 800 bbls  
Dewatering method used: Evaporated  
Location of fluid disposal if hauled offsite: \_\_\_\_\_  
Operator Name: \_\_\_\_\_  
Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_  
Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West  
County: \_\_\_\_\_ Permit #: \_\_\_\_\_

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

- Letter of Confidentiality Received  
Date: \_\_\_\_\_  
 Confidential Release Date: \_\_\_\_\_  
 Wireline Log Received  
 Geologist Report Received  
 UIC Distribution  
ALT  I  II  III Approved by: Deanna Gortoo Date: 06/20/2012



1084893

Operator Name: Iuka-Carmi Development LLC Lease Name: Mary Howell Ryan 1-33 Well #: 1  
 Sec. 33 Twp. 29 S. R. 15  East  West County: Pratt

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

Drill Stem Tests Taken (Attach Additional Sheets)	<input checked="" 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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top
Cores Taken	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Resistivity Log	1970
Electric Log Run	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Micro	1970
Electric Log Submitted Electronically (If no, Submit Copy)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Sonic Log	1970
		PEL Denisty Log	1970
			Datum
			GL
			GL
			GL
			GL

List All E. Logs Run:

CASING RECORD <input checked="" 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
Surface	12.25	8.625	25	319	60/40 poz	300	

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate				
___ Protect Casing	-			
___ Plug Back TD				
___ Plug Off Zone	-			

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

TUBING RECORD:		Size:	Set At:	Packer At:	Liner Run:	<input type="checkbox"/> Yes <input type="checkbox"/> No
Date of First, Resumed Production, SWD or ENHR.			Producing Method:			
			<input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain) _____			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity	

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease (If vented, Submit ACO-18.)	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled (Submit ACO-5) <input checked="" type="checkbox"/> Other (Specify) <u>Plugged 11/21/2011</u>	PRODUCTION INTERVAL: _____ _____
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# QUALITY WELL SERVICE, INC.

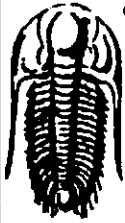
3367

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	11-21-11	Sec.	33	Twp.	29	Range	15	County	PROTT	State	KS	On Location		Finish	1.30
Lease	11421 Howell Rd			Well No.	1-33			Location	CASH KS 142 S HWY E 2010						
Contractor	ATHEMESHh Orls 101							Owner	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.						
Type Job	PTA							Charge To	TJKA - CACMI DEV. LLL						
Hole Size	7 7/8							T.D.							
Csg.								Depth							
Tbg. Size								Depth							
Tool								Depth							
Cement Left in Csg.								Shoe Joint	The above was done to satisfaction and supervision of owner agent or contractor.						
Meas Line								Displace	Cement Amount Ordered 2.20 @ 60/40 4 1/2 GAL						
<b>EQUIPMENT</b>															
Pumptrk	3	No.	15200			Common	132								
Bulktrk	5	No.	1015			Poz. Mix	30								
Bulktrk		No.				Gel.	0								
Pickup		No.	1020			Calcium									
<b>JOB SERVICES &amp; REMARKS</b>															
Rat Hole	30% 60/40 4 1/2 GAL							Hulls							
Mouse Hole	22% 60/40 4 1/2 GAL							Salt							
Centralizers								Flowseal							
Baskets								Kol-Seal							
D/V or Port Collar								Mud CLR 48							
1st Plug	4325'							CFL-117 or CD110 CAF 38							
	30% 60/40 4 1/2 GAL							Sand							
	DRIP w/ H <sub>2</sub> O							Handling	220						
								Mileage	2.5						
<b>FLOAT EQUIPMENT</b>															
2nd Plug	350'							Guide Shoe							
	30% 60/40 4 1/2 GAL							Centralizer							
	DRIP w/ H <sub>2</sub> O							Baskets							
								AFU Inserts							
3rd Plug	350'							Float Shoe							
	30% 60/40 4 1/2 GAL							Latch Down							
	DRIP w/ H <sub>2</sub> O														
4th Plug	60'							Pumptrk Charge	PTA						
	22% 60/40 4 1/2 GAL							Mileage	2.5						
Signature	TODD BRADY														
								Tax							
								Discount							
								Total Charge							



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

Iuka-Carmi Development

33-29S-15W Pratt,KS

PO Box 847  
Pratt, KS 67124

Mary Howell Ryan1-33

Job Ticket: 44037

DST#: 1

ATTN: Dave Williams

Test Start: 2011.11.16 @ 08:45:15

### GENERAL INFORMATION:

Formation: Lansing "B"  
Deviated: No Whipstock ft (KB)  
Time Tool Opened: 11:41:15  
Time Test Ended: 17:15:45

Test Type: Conventional Bottom Hole (Initial)  
Tester: Leal Cason  
Unit No: 45

Interval: 4071.00 ft (KB) To 4093.00 ft (KB) (TVD)  
Total Depth: 4093.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1984.00 ft (KB)  
1971.00 ft (CF)  
KB to GR/CF: 13.00 ft

Serial #: 6798

Inside

Press@RunDepth: 23.73 psig @ 4072.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.11.16

End Date:

2011.11.16

Last Calib.: 2011.11.16

Start Time: 08:45:16

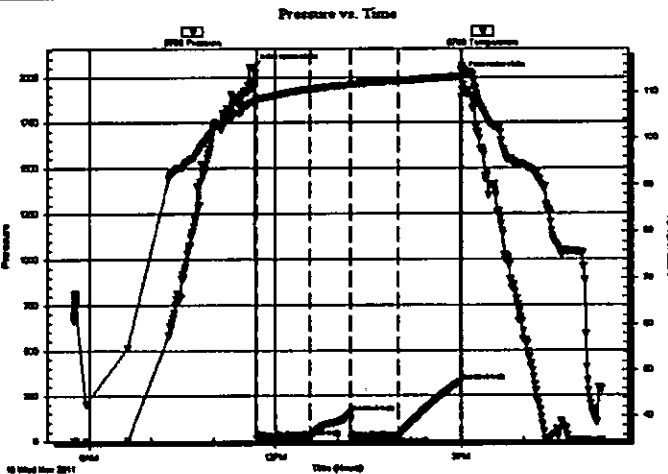
End Time:

17:15:45

Time On Btm 2011.11.16 @ 11:39:15

Time Off Btm 2011.11.16 @ 15:00:30

TEST COMMENT: IF: Fair Blow, BOB in 7 minutes  
IS: 1 inch Blow back  
FF: Weak Blow, BOB in 30 minutes  
FS: No Blow back



### PRESSURE SUMMARY

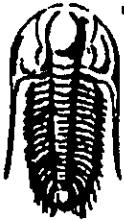
Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2054.22	108.06	Initial Hydro-static
2	12.48	108.59	Open To Flow (1)
54	19.16	110.72	Shut-In(1)
93	152.34	111.71	End Shut-In(1)
94	15.32	111.78	Open To Flow (2)
139	23.73	112.57	Shut-In(2)
200	326.39	113.43	End Shut-In(2)
202	2012.52	115.70	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
0.00	1178 GP	0.00
25.00	SGCM 2%G 98%M	0.35

### Gas Rates

	Choke (Inches)	Pressure (psig)	Gas Rate (Mcfd)



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Iuka-Carmi Development

33-29S-15W Pratt,KS

PO Box 847  
Pratt, KS 67124

Mary Howell Ryan1-33

Job Ticket: 44037

DST#: 1

ATTN: Dave Williams

Test Start: 2011.11.16 @ 08:45:15

**Tool Information**

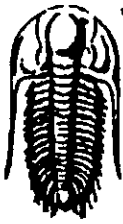
Drill Pipe:	Length: 4052.00 ft	Diameter: 3.80 inches	Volume: 56.84 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 45000.00 lb
			<u>Total Volume: 56.84 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	4071.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	49.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			4049.00	
Hydraulic tool	5.00			4054.00	
Jars	5.00			4059.00	
Safety Joint	2.00			4061.00	
Packer	5.00			4066.00	27.00 Bottom Of Top Packer
Packer	5.00			4071.00	
Stubb	1.00			4072.00	
Recorder	0.00	6798	Inside	4072.00	
Recorder	0.00	8367	Outside	4072.00	
Perforations	18.00			4090.00	
Bullnose	3.00			4093.00	22.00 Bottom Packers & Anchor

**Total Tool Length: 49.00**



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Iuka-Carmi Development

33-29S-15W Pratt, KS

PO Box 847  
Pratt, KS 67124

Mary Howell Ryan1-33

Job Ticket: 44037      DST#: 1

ATTN: Dave Williams

Test Start: 2011.11.16 @ 08:45:15

**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: 57.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.98 in<sup>2</sup>

Gas Cushion Type:

Gas Cushion Pressure:

psig

Resistivity: ohm.m

Salinity: 6000.00 ppm

Filter Cake: 0.20 inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
0.00	1178 GIP	0.000
25.00	SGCM 2%G 98%M	0.351

Total Length: 25.00 ft      Total Volume: 0.351 bbl

Num Fluid Samples: 0

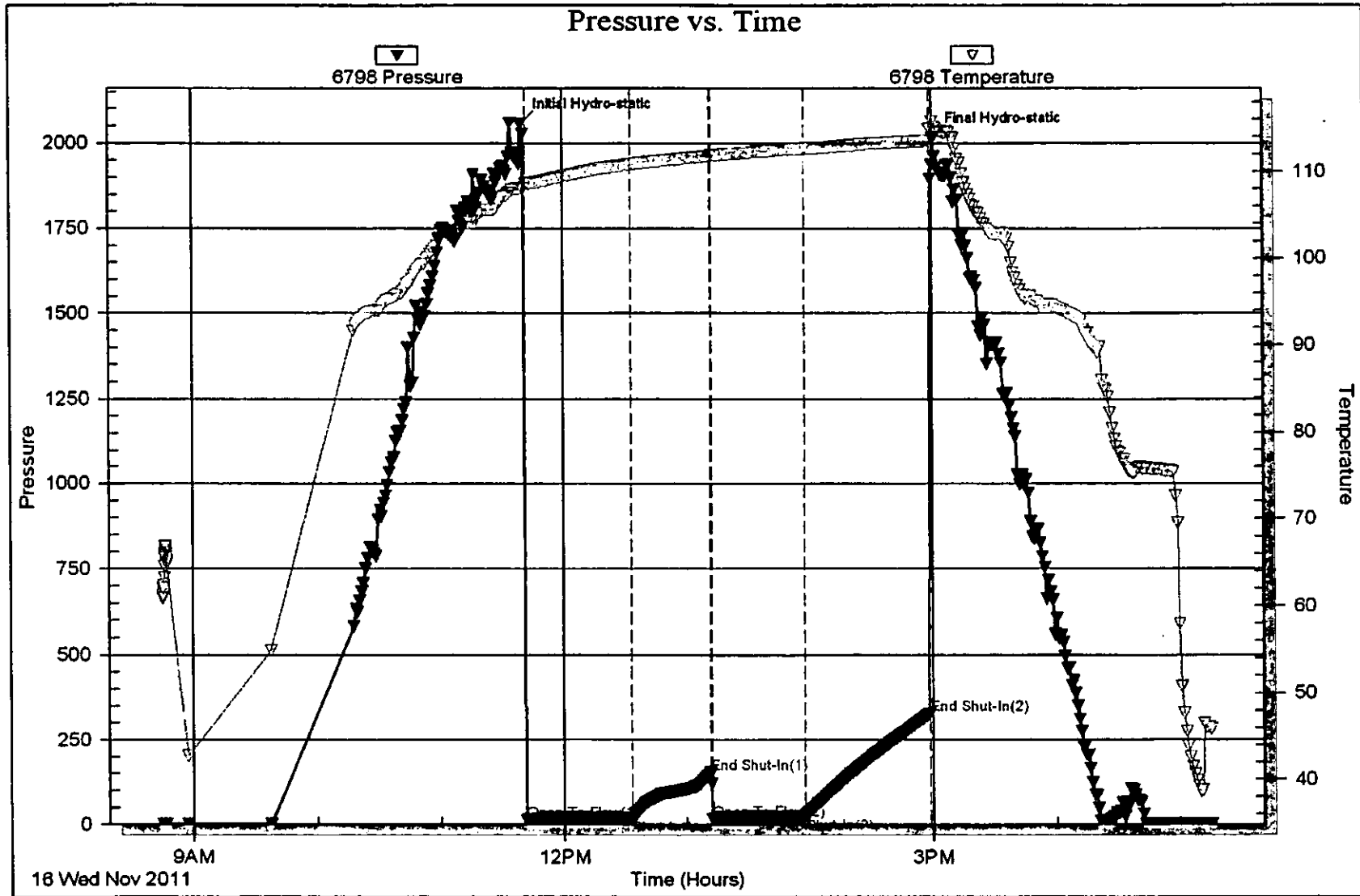
Num Gas Bombs: 0

Serial #:

Laboratory Name:

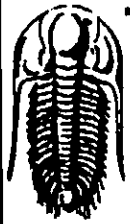
Laboratory Location:

Recovery Comments:









**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Iuka-Carmi Development

**33-29S-15W Pratt,KS**

PO Box 847  
Pratt, KS 67124

**Mary Howell Ryan1-33**

Job Ticket: 44038      DST#: 2

ATTN: Dave Williams

Test Start: 2011.11.17 @ 03:58:07

**Tool Information**

Drill Pipe:	Length: 4147.00 ft	Diameter: 3.80 inches	Volume: 58.17 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 45000.00 lb
			<u>Total Volume: 58.17 bbl</u>	Tool Chased: ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial: 40000.00 lb
Depth to Top Packer:	4149.00 ft			Final: 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	52.00 ft			
Tool Length:	79.00 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			4127.00	
Hydraulic tool	5.00			4132.00	
Jars	5.00			4137.00	
Safety Joint	2.00			4139.00	
Packer	5.00			4144.00	27.00      Bottom Of Top Packer
Packer	5.00			4149.00	
Stubb	1.00			4150.00	
Recorder	0.00	6798	Inside	4150.00	
Recorder	0.00	8367	Outside	4150.00	
Perforations	11.00			4161.00	
Change Over Sub	1.00			4162.00	
Drill Pipe	30.00			4192.00	
Change Over Sub	1.00			4193.00	
Perforations	5.00			4198.00	
Bullnose	3.00			4201.00	52.00      Bottom Packers & Anchor

**Total Tool Length: 79.00**



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

FLUID SUMMARY

Iuka-Carmi Development

33-29S-15W Pratt,KS

PO Box 847  
Pratt, KS 67124

Mary Howell Ryan1-33

Job Ticket: 44038      DST#: 2

ATTN: Dave Williams

Test Start: 2011.11.17 @ 03:58:07

### Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 60.00 sec/qt  
Water Loss: 7.97 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 6000.00 ppm  
Filter Cake: 0.20 inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psig

Oil API: deg API  
Water Salinity: 110000 ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
240.00	Water	3.367
20.00	MCW 45%M 55%W	0.281

Total Length: 260.00 ft      Total Volume: 3.648 bbl

Num Fluid Samples: 0

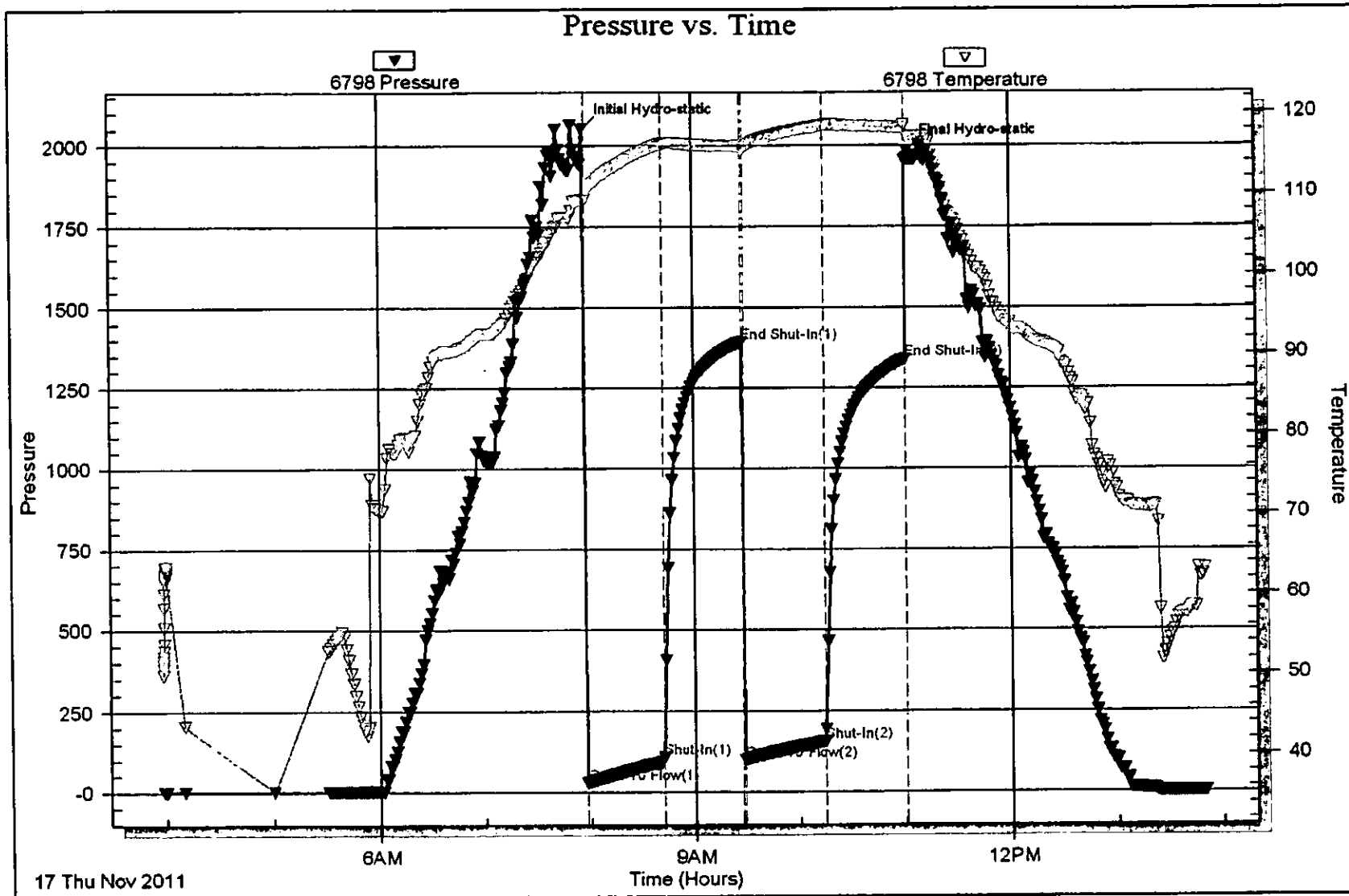
Num Gas Bombs: 0

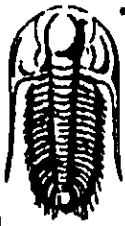
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW was .095 @ 55 degrees





**TRILOBITE TESTING, INC**

## DRILL STEM TEST REPORT

Luka-Carmi Development

33-29S-15W Pratt, KS

PO Box 847  
Pratt, KS 67124

Mary Howell Ryan1-33

ATTN: Dave Williams

Job Ticket: 44039      DST#: 3

Test Start: 2011.11.18 @ 18:20:59

### GENERAL INFORMATION:

Formation: Cherokee Sand  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 20:33:59  
 Time Test Ended: 01:46:44

Test Type: Conventional Bottom Hole (Reset)  
 Tester: Leal Cason  
 Unit No: 45

Interval: 4544.00 ft (KB) To 4578.00 ft (KB) (TVD)  
 Total Depth: 4578.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1984.00 ft (KB)  
 1971.00 ft (CF)  
 KB to GR/CF: 13.00 ft

Serial #: 6798

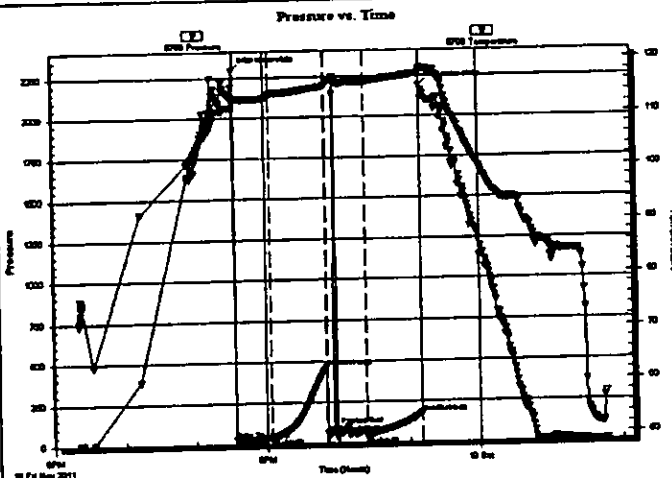
Inside

Press@RunDepth: 35.64 psig @ 4545.00 ft (KB)  
 Start Date: 2011.11.18      End Date: 2011.11.19  
 Start Time: 18:21:00      End Time: 01:46:44

Capacity: 8000.00 psig  
 Last Calib.: 2011.11.19  
 Time On Btm: 2011.11.18 @ 20:32:59  
 Time Off Btm: 2011.11.18 @ 23:09:59

### TEST COMMENT:

IF: Weak Surface Blow  
 IS: No Blow  
 FF: Weak Surface Blow, Dead @ 2 minutes, Flushed Tool, No Blow  
 FSt: No Blow



### PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2295.15	112.01	Initial Hydro-static
1	27.92	112.73	Open To Flow (1)
31	33.20	113.61	Shut-In(1)
77	465.55	115.11	End Shut-In(1)
78	54.77	115.25	Open To Flow (2)
83	66.89	116.15	Flushed Tool
111	35.64	115.90	Shut-In(2)
157	177.88	117.38	End Shut-In(2)
157	2185.75	118.11	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
30.00	SGCM 2%G 98%M	0.42

\* Recovery from multiple tests

### Gas Rates

Choke (Inches)	Pressure (psig)	Gas Rate (Mcfd)



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Iuka-Carmi Development

33-29S-15W Pratt, KS

PO Box 847  
Pratt, KS 67124

Mary Howell Ryan1-33

Job Ticket: 44039      DST#: 3

ATTN: Dave Williams

Test Start: 2011.11.18 @ 18:20:59

**Tool Information**

Drill Pipe:	Length: 4523.00 ft	Diameter: 3.80 inches	Volume: 63.45 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 45000.00 lb
			<u>Total Volume: 63.45 bbl</u>	Tool Chased 3.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	4544.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	34.00 ft			
Tool Length:	61.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

**Tool Description**

**Length (ft)    Serial No.    Position    Depth (ft)    Accum. Lengths**

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4522.00	
Hydraulic tool	5.00			4527.00	
Jars	5.00			4532.00	
Safety Joint	2.00			4534.00	
Packer	5.00			4539.00	27.00      Bottom Of Top Packer
Packer	5.00			4544.00	
Stubb	1.00			4545.00	
Recorder	0.00	6798	Inside	4545.00	
Recorder	0.00	8367	Outside	4545.00	
Perforations	30.00			4575.00	
Bullnose	3.00			4578.00	34.00      Bottom Packers & Anchor

**Total Tool Length: 61.00**



**TRIOLOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

Iuka-Carmi Development

33-29S-15W Pratt, KS

PO Box 847  
Pratt, KS 67124

Mary Howell Ryan1-33

Job Ticket: 44039

DST#: 3

ATTN: Dave Williams

Test Start: 2011.11.18 @ 18:20:59

### Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 56.00 sec/qt  
Water Loss: 23.94 in<sup>3</sup>  
Resistivity: ohm m  
Salinity: 14000.00 ppm  
Filter Cake: 0.20 inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psig

Oil API: deg API  
Water Salinity: ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	SGCM 2%G 98%M	0.421

Total Length: 30.00 ft      Total Volume: 0.421 bbl

Num Fluid Samples: 0

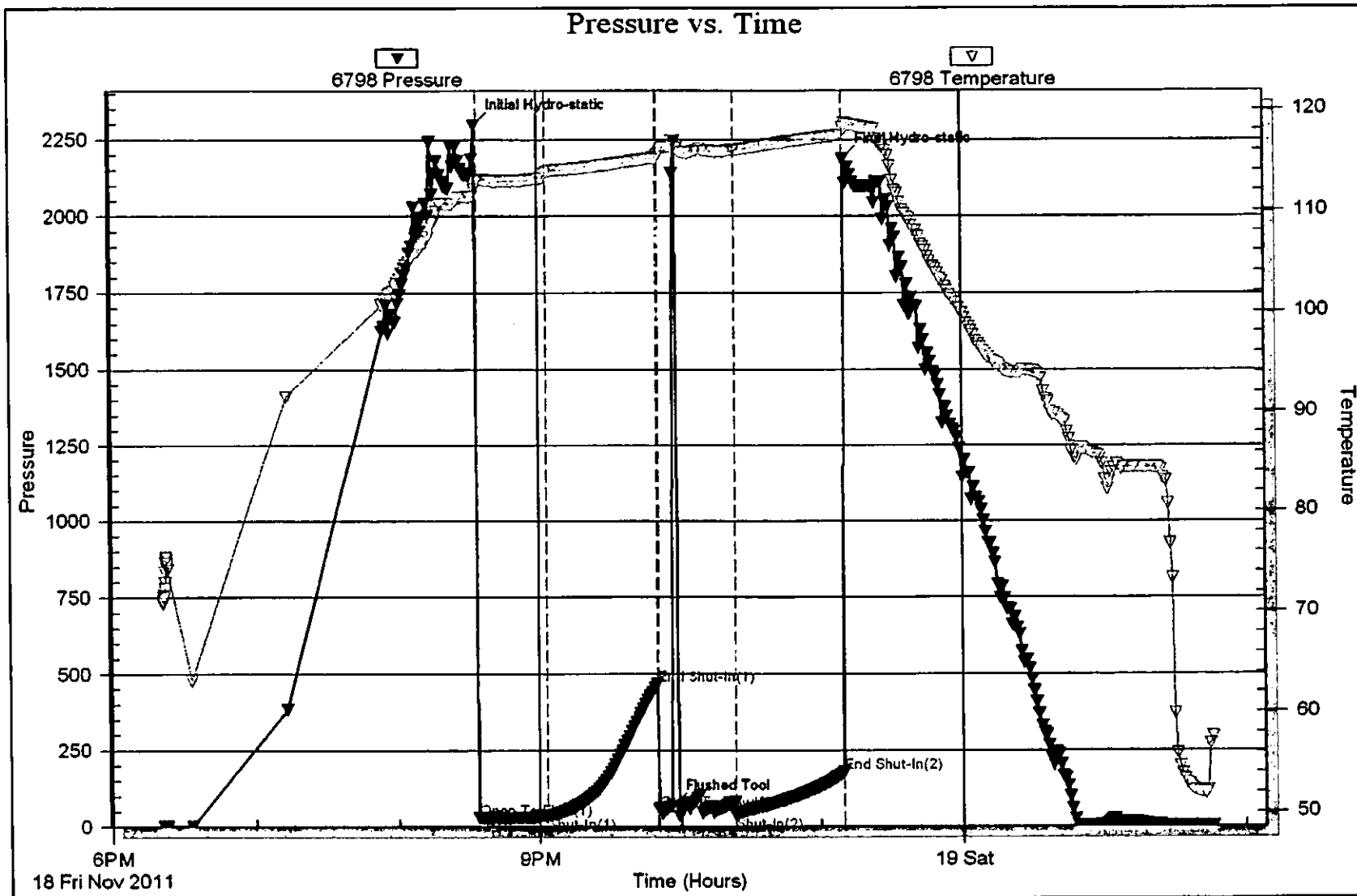
Num Gas Bombs: 0

Serial #:

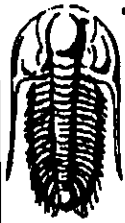
Laboratory Name:

Laboratory Location:

Recovery Comments:







**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

Iuka-Carmi Development

33-29S-15W Pratt, KS

PO Box 847  
Pratt, KS 67124

Mary Howell Ryan1-33

Job Ticket: 44040 DST#: 4

ATTN: Dave Williams

Test Start: 2011.11.20 @ 23:30:19

### GENERAL INFORMATION:

Formation: Cherokee Sand  
 Deviated: No Whipstock ft (KB)  
 Time Tool Opened: 02:18:19  
 Time Test Ended: 07:48:23

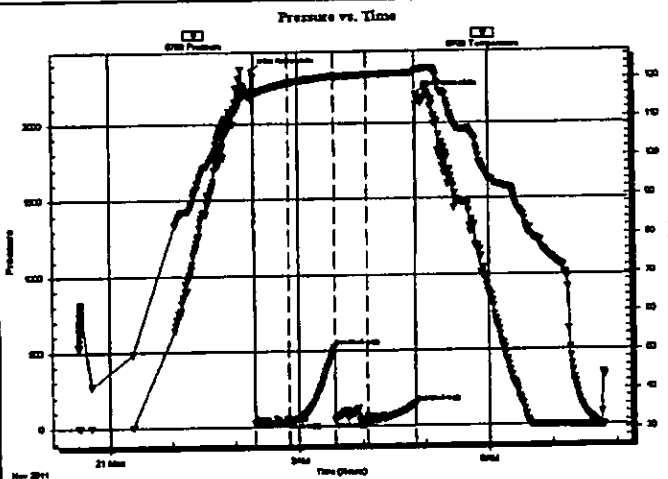
Test Type: Conventional Straddle (Reset)  
 Tester: Leal Cason  
 Unit No: 45

Interval: 4532.00 ft (KB) To 4586.00 ft (KB) (TVD)  
 Total Depth: 4880.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1984.00 ft (KB)  
 1971.00 ft (CF)  
 KB to GR/CF: 13.00 ft

Serial #: 6798 Inside  
 Press@RunDepth: 30.89 psig @ 4533.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2011.11.20 End Date: 2011.11.21 Last Calib.: 2011.11.21  
 Start Time: 23:30:20 End Time: 07:48:22 Time On Btm: 2011.11.21 @ 02:16:19  
 Time Off Btm: 2011.11.21 @ 04:51:34

TEST COMMENT: IF: Weak Surface Blow  
 IS: No Blow  
 FF: Weak Surface Blow  
 FS: No Blow



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2347.15	116.56	Initial Hydro-static
2	24.76	116.42	Open To Flow (1)
34	31.44	118.84	Shut-in(1)
78	523.91	120.52	End Shut-in(1)
78	43.98	120.31	Open To Flow (2)
109	30.89	120.78	Shut-in(2)
155	149.29	121.33	End Shut-in(2)
156	2187.66	122.00	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
25.00	SGCM 1%G 99%M	0.35

\* Recovery from multiple tests

### Gas Rates

Choke (Inches)	Pressure (psig)	Gas Rate (Mcft/d)





**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Iuka-Carmi Development

33-29S-15W Pratt,KS

PO Box 847  
Pratt, KS 67124

Mary Howell Ryan1-33

Job Ticket: 44040 DST#: 4

ATTN: Dave Williams

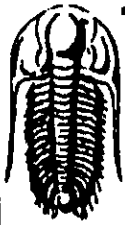
Test Start: 2011.11.20 @ 23:30:19

**Tool Information**

Drill Pipe:	Length: 4525.00 ft	Diameter: 3.80 inches	Volume: 63.47 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 52000.00 lb
			<u>Total Volume: 63.47 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	4532.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	4586.00 ft			
Interval between Packers:	54.00 ft			
Tool Length:	374.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4511.00	
Hydraulic tool	5.00			4516.00	
Jars	5.00			4521.00	
Safety Joint	2.00			4523.00	
Packer	5.00			4528.00	26.00 Bottom Of Top Packer
Packer	4.00			4532.00	
Stubb	1.00			4533.00	
Recorder	0.00	6798	Inside	4533.00	
Recorder	0.00	8367	Outside	4533.00	
Perforations	5.00			4538.00	
Change Over Sub	1.00			4539.00	
Drill Pipe	32.00			4571.00	
Change Over Sub	1.00			4572.00	
Perforations	13.00			4585.00	
Blank Off Sub	1.00			4586.00	54.00 Tool Interval
Packer	3.00			4589.00	
Perforations	2.00			4591.00	
Change Over Sub	1.00			4592.00	
Drill Pipe	284.00			4876.00	
Change Over Sub	1.00			4877.00	
Recorder	0.00	8649	Below	4877.00	
Bullnose	3.00			4880.00	294.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>374.00</b>				



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Iuka-Carmi Development

33-29S-15W Pratt, KS

PO Box 847  
Pratt, KS 67124

Mary Howell Ryan1-33

Job Ticket: 44040      DST#: 4

ATTN: Dave Williams

Test Start: 2011.11.20 @ 23:30:19

**Mud and Cushion Information**

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 37.00 sec/qt

Water Loss: 8.79 in<sup>3</sup>

Resistivity: ohm m

Salinity: 9000.00 ppm

Filter Cake: 0.20 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbbl

psig

Oil API:

Water Salinity:

deg API

ppm

**Recovery Information**

**Recovery Table**

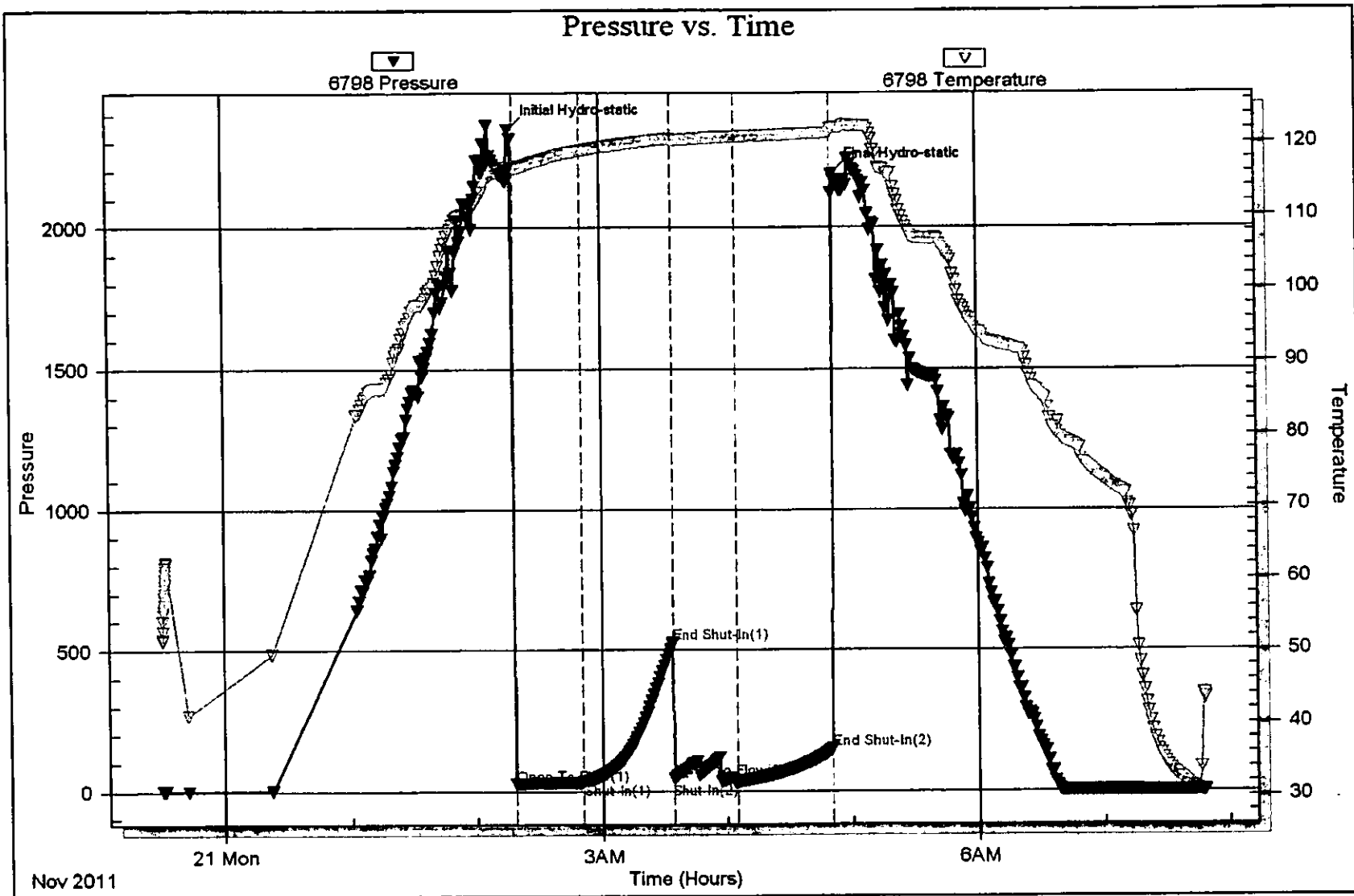
Length ft	Description	Volume bbl
25.00	SGOM 1%G 99%M	0.351

Total Length: 25.00 ft      Total Volume: 0.351 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:



Serial #: 8649

Below (Stratford) Development

Mary Howell Ryan 1-33

DST Test Number: 4

