

**CONFIDENTIAL**

KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION

**ORIGINAL**

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**

3/9/13

OPERATOR: License # 4767  
Name: Ritchie Exploration, Inc.  
Address 1: P.O. Box 783188  
Address 2: \_\_\_\_\_  
City: Wichita State: KS Zip: 67278 + 3188  
Contact Person: John Niemberger  
Phone: (316) 691-9500  
CONTRACTOR: License # 30606  
Name: Murfin Drilling, Co. Inc.  
Wellsite Geologist: Max Lovely  
Purchaser: \_\_\_\_\_

**KCC**  
**MAR 13 2011**  
**CONFIDENTIAL**

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 #: \_\_\_\_\_  
11/23/10    12/02/10    12/02/10  
Spud Date or    Date Reached TD    Completion Date or  
Recompletion Date       Recompletion Date

API No. 15 - 109-20963-00-00  
Spot Description: 85' S & 20' E  
SE SW \_\_\_\_\_ Sec. 36 Twp. 13 S. R. 32  East  West  
575 Feet from  North /  South Line of Section  
2,000 Feet from  East /  West Line of Section  
Footages Calculated from Nearest Outside Section Corner:  
 NE     NW     SE     SW  
County: Logan  
Lease Name: Foster 36C Well #: 1  
Field Name: \_\_\_\_\_  
Producing Formation: \_\_\_\_\_  
Elevation: Ground: 2869 Kelly Bushing: 2879  
Total Depth: 4620 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: 12200 ppm Fluid volume: 900 bbls  
Dewatering method used: evaporation  
Location of fluid disposal if hauled offsite: \_\_\_\_\_  
Operator Name: \_\_\_\_\_  
Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_  
Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West  
County: \_\_\_\_\_ Permit #: \_\_\_\_\_

**INSTRUCTIONS:** An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information of side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

**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.  
Signature: \_\_\_\_\_  
Title: Production Manager Date: 3/9/11

**KCC Office Use ONLY** **RECEIVED**  
 Letter of Confidentiality Received  
Date: 3/9/11 - 3/9/13 **MAR 10 2011**  
 Confidential Release Date: \_\_\_\_\_  
 Wireline Log Received  
 Geologist Report Received  
 UIC Distribution  
ALT  I  II  III Approved by: [Signature] Date: 3/16/11  
**KCC WICHITA**

Operator Name: Ritchie Exploration, Inc. Lease Name: Taylor 360 Well #: 1

Sec. 36 Twp. 13 S. R. 32  East  West County: Logan

**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.

<p>Drill Stem Tests Taken <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i></p> <p>Samples Sent to Geological Survey <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Electric Log Submitted Electronically <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(If no, Submit Copy)</i></p> <p>List All E. Logs Run:  <b>Dual Induction Log</b>  <b>Compensated Neutron/Density Log</b></p>	<p><input type="checkbox"/> Log Formation (Top), Depth and Datum <input checked="" type="checkbox"/> Sample</p> <p>Name Top Datum</p> <p style="text-align: center;">SEE ATTACHED</p> <p style="text-align: right; font-size: 1.2em;"><b>KCC</b> <b>MAR 13 2011</b> <b>CONFIDENTIAL</b></p>
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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	12-1/4"	8-5/8"	23#	222'	common	175	3%cc, 2% gel

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				

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

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

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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**#1 Foster 36C**

575' FSL & 2000' FWL

85' S & 20' E of SE SW Section 36-13S-32W

Logan County, Kansas

API# 15-109-20963-0000

Elevation: GL: 2869', KB: 2879'

**DRILLING REPORT**

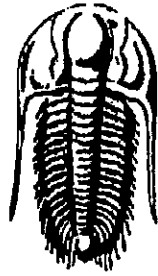
<u>Sample Tops</u>			<u>Ref.</u> <u>Well</u>
Anhydrite	2370'	+509	-7
B/Anhydrite	2396'	+483	-13
Heebner	3867'	-988	-6
Lansing	3908'	-1029	-6
LKC "C"	3945'	-1066	-3
LKC "D"	3957'	-1078	-1
LKC "E"	3986'	-1107	+3
Muncie Shale	4058'	-1179	+4
LKC "H"	4074'	-1195	+3
Stark Shale	4149'	-1270	+2
LKC "K"	4165'	-1286	-2
BKC	4232'	-1353	-4
Marmaton	4274'	-1395	-17
Altamont	4308'	-1429	-17
Pawnee	4371'	-1492	-21
Myric Station	4408'	-1529	-21
Fort Scott	4427'	-1548	-24
Cherokee Shale	4456'	-1577	-25
Johnson	4499'	-1620	-25
Mississippian	4552'	-1673	-19
RTD	4620'	-1741	

KCC  
MAR 13 2011  
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RECEIVED  
MAR 10 2011  
KCC WICHITA







**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

Prepared For: **Ritchie Exploration, Inc.**

8100 E 22nd St. r#700  
P.O. Box 783188  
Wichita, KS. 67278-3188

ATTN: Max Lovely

**36-13-32 Logan,KS**

**#1 Foster 36C**

Start Date: 2010.11.27 @ 07:10:00

End Date: 2010.11.27 @ 13:37:45

Job Ticket #: 040530 DST #: 1

**KCC  
MAR 13 2011  
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**RECEIVED  
MAR 10 2011  
KCC WICHITA**

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

Ritchie Exploration, Inc.

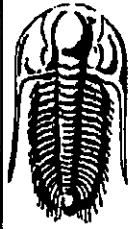
#1 Foster 36C

36-13-32 Logan,KS

DST # 1

Lansing "G"

2010.11.27



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

Ritchie Exploration, Inc.

#1 Foster 36C

8100 E22nd St. n#700  
P.O. Box 783188  
Wichita, KS. 67278-3188  
ATTN: Max Lovely

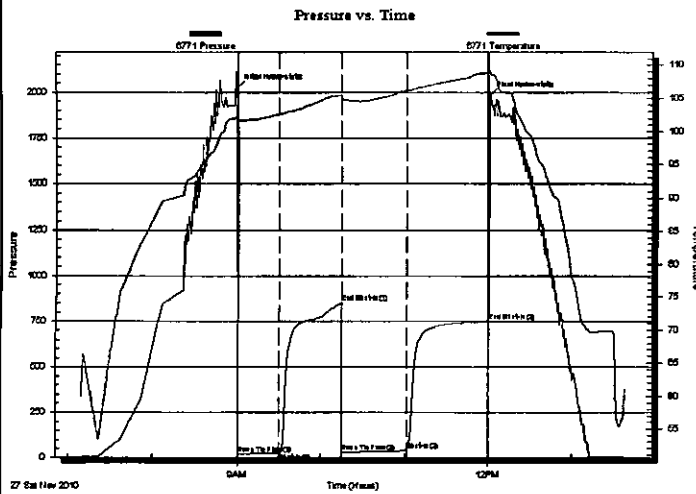
36-13-32 Logan, KS  
Job Ticket: 040530      DST#: 1  
Test Start: 2010.11.27 @ 07:10:00

### GENERAL INFORMATION:

Formation: **Lansing "G"**  
 Deviated: **No** Whipstock: **ft (KB)**  
 Time Tool Opened: 09:00:00  
 Time Test Ended: 13:37:45  
 Interval: **4002.00 ft (KB) To 4043.00 ft (KB) (TVD)**  
 Total Depth: **4043.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition: **Good**  
 Test Type: **Conventional Bottom Hole**  
 Tester: **Kevin Mack**  
 Unit No: **40**  
 Reference Elevations: **2879.00 ft (KB)**  
**2869.00 ft (CF)**  
**KB to GR/CF: 10.00 ft**

**Serial #: 6771**      **Outside**  
 Press@RunDepth: **39.00 psig @ 4003.00 ft (KB)**      Capacity: **8000.00 psig**  
 Start Date: **2010.11.27**      End Date: **2010.11.27**      Last Calib.: **2010.11.27**  
 Start Time: **07:10:15**      End Time: **13:37:45**      Time On Btmr: **2010.11.27 @ 08:59:45**  
 Time Off Btmr: **2010.11.27 @ 12:01:15**

**TEST COMMENT:** IF: Build to 1"  
 IS: No Return  
 FF: Blow started at 8 mins. build to 1/2"  
 FS: No Return



### PRESSURE SUMMARY

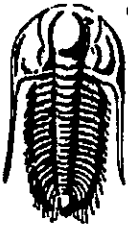
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2022.80	102.38	Initial Hydro-static
1	19.92	101.45	Open To Flow (1)
31	25.66	102.61	Shut-In(1)
76	850.31	105.44	End Shut-In(1)
76	29.84	105.04	Open To Flow (2)
122	39.00	106.12	Shut-In(2)
181	747.42	108.83	End Shut-In(2)
182	1982.26	109.23	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
50.00	OSM 100M	0.25

### Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Ritchie Exploration, Inc.

**#1 Foster 36C**

8100 E 22nd St. n#700  
P.O. Box 783188  
Wichita, KS. 67278-3188  
ATTN: Max Lovely

**36-13-32 Logan, KS**  
Job Ticket: 040530      DST#: 1  
Test Start: 2010.11.27 @ 07:10:00

**Tool Information**

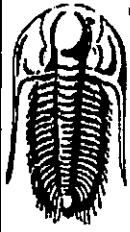
Drill Pipe:	Length: 3451.00 ft	Diameter: 3.80 inches	Volume: 48.41 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 539.00 ft	Diameter: 2.25 inches	Volume: 2.65 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 51.06 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4002.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	41.00 ft			
Tool Length:	68.00 ft			
Number of Packers:	1	Diameter: 6.75 inches		
Tool Comments:				

**Tool Description**

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3976.00	
Shut In Tool	5.00			3981.00	
Hydraulic tool	5.00			3986.00	
Jars	5.00			3991.00	
Safety Joint	2.00			3993.00	
Packer	5.00			3998.00	27.00      Bottom Of Top Packer
Packer	4.00			4002.00	
Stubb	1.00			4003.00	
Recorder	0.00	6771	Outside	4003.00	
Recorder	0.00	6667	Inside	4003.00	
Perforations	35.00			4038.00	
Bullnose	5.00			4043.00	41.00      Bottom Packers & Anchor

**Total Tool Length: 68.00**





**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Ritchie Exploration, Inc.

**#1 Foster 36C**

8100 E 22nd St. n#700  
P.O. Box 783188  
Wichita, KS. 67278-3188  
ATTN: Max Lovely

**36-13-32 Logan, KS**  
Job Ticket: 040530      **DST#: 1**  
Test Start: 2010.11.27 @ 07:10:00

**Mud and Cushion Information**

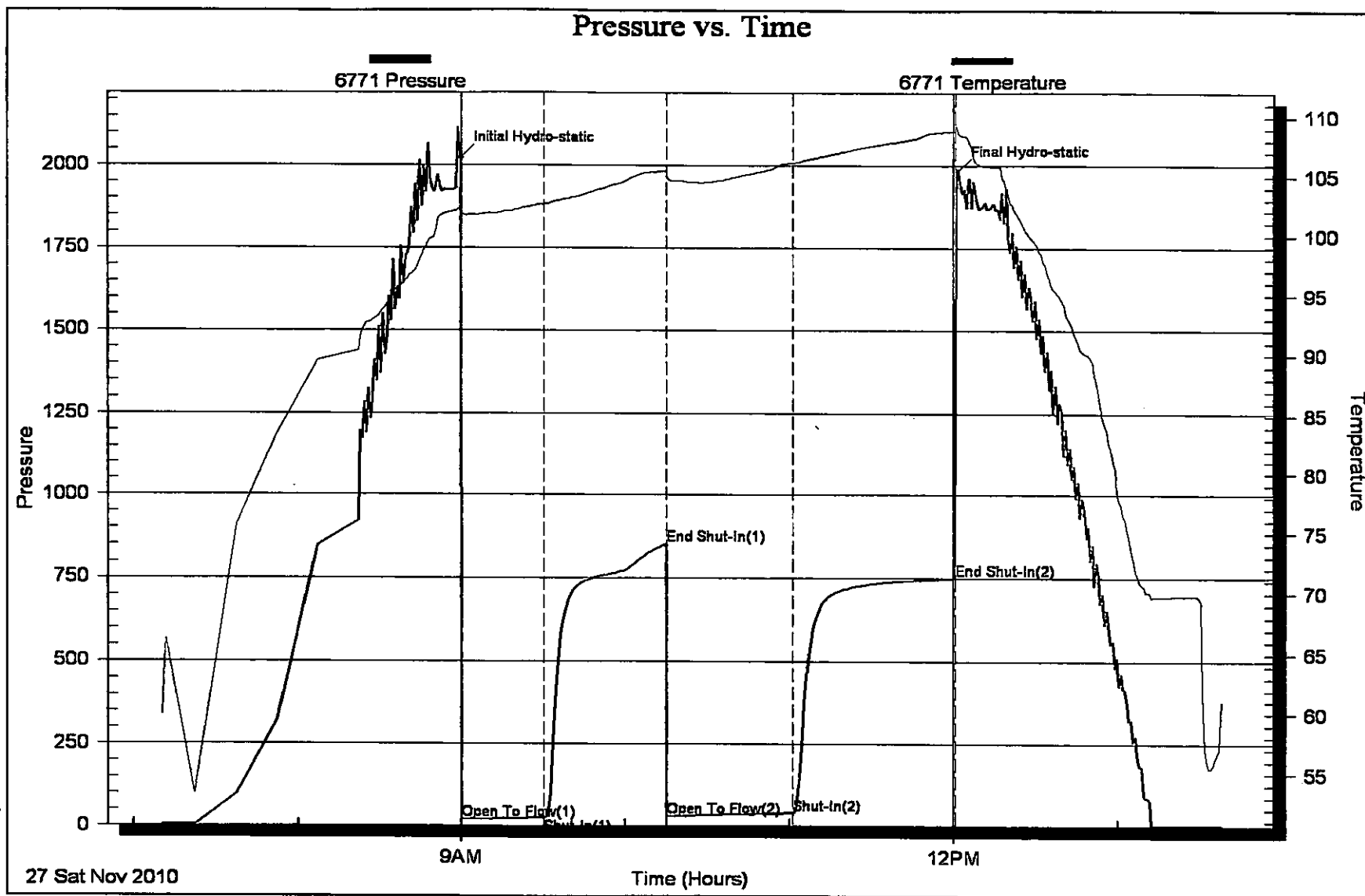
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 57.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.94 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm m	Gas Cushion Pressure: psig		
Salinity: 2300.00 ppm			
Filter Cake: 1.00 inches			

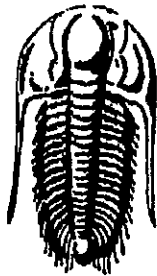
**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
50.00	OSM 100M	0.246

Total Length: 50.00 ft      Total Volume: 0.246 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc.**

8100 E 22nd St. n#700  
P.O. Box 783188  
Wichita, KS. 67278-3188

ATTN: Max Lovely

**36-13-32 Logan,KS**

**#1 Foster 36C**

Start Date: 2010.11.27 @ 23:15:00

End Date: 2010.11.28 @ 06:06:45

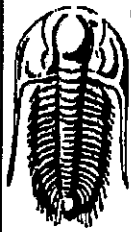
Job Ticket #: 040531          DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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





**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Ritchie Exploration, Inc.  
8100 E 22nd St. n#700  
P.O. Box 783188  
Wichita, KS. 67278-3188  
ATTN: Max Lovely

**#1 Foster 36C**  
**36-13-32 Logan,KS**  
Job Ticket: 040531      **DST#: 2**  
Test Start: 2010.11.27 @ 23:15:00

**Tool Information**

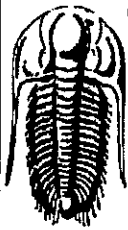
Drill Pipe:	Length: 3515.00 ft	Diameter: 3.80 inches	Volume: 49.31 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 539.00 ft	Diameter: 2.25 inches	Volume: 2.65 bbl	Weight to Pull Loose: 80000.00 lb
		<b>Total Volume:</b>	<b>51.96 bbl</b>	Tool Chased ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4056.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	18.00 ft			
Tool Length:	45.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Change Over Sub	1.00			4030.00	
Shut In Tool	5.00			4035.00	
Hydraulic tool	5.00			4040.00	
Jars	5.00			4045.00	
Safety Joint	2.00			4047.00	
Packer	5.00			4052.00	27.00      Bottom Of Top Packer
Packer	4.00			4056.00	
Stubb	1.00			4057.00	
Recorder	0.00	6771	Outside	4057.00	
Recorder	0.00	6667	Inside	4057.00	
Perforations	12.00			4069.00	
Bullnose	5.00			4074.00	18.00      Bottom Packers & Anchor

**Total Tool Length:      45.00**



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Ritchie Exploration, Inc.  
8100 E 22nd St. n#700  
P.O. Box 783188  
Wichita, KS. 67278-3188  
ATTN: Max Lovely

**#1 Foster 36C**  
**36-13-32 Logan,KS**  
Job Ticket: 040531      **DST#: 2**  
Test Start: 2010.11.27 @ 23:15:00

**Mud and Cushion Information**

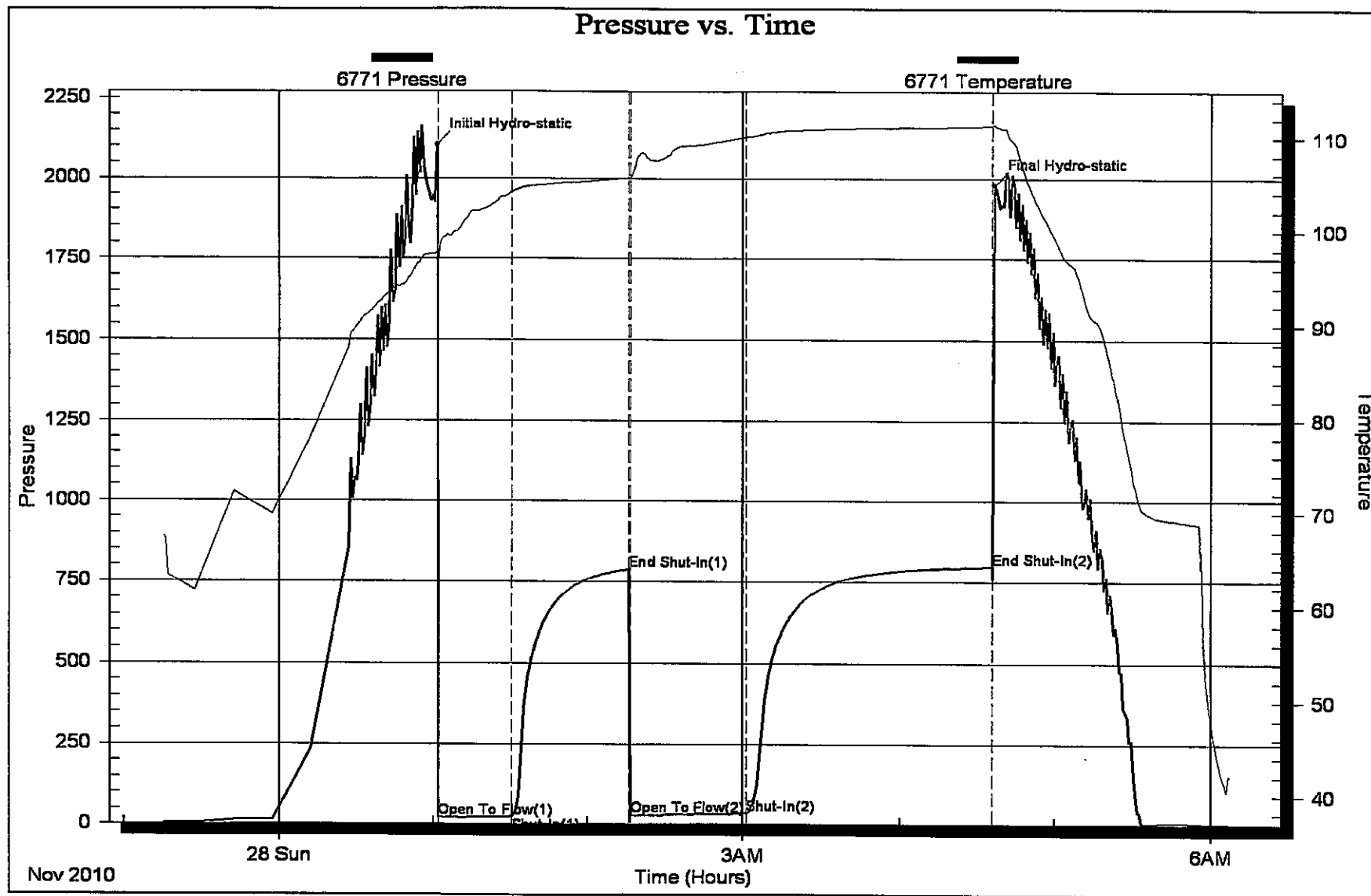
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	29000 ppm
Viscosity: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.54 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 2500.00 ppm			
Filter Cake: 1.00 inches			

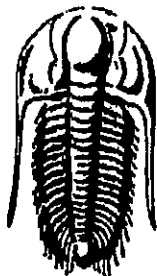
**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
30.00	OSVM30W70M	0.148

Total Length: 30.00 ft      Total Volume: 0.148 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments: water salinity .4@43 degrees= 29,000





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc.**

8100 E 22nd St. n#700  
P.O. Box 783188  
Wichita, KS. 67278-3188

ATTN: Max Lovely

**36-13-32 Logan,KS**

**#1 Foster 36C**

Start Date: 2010.11.28 @ 11:38:00

End Date: 2010.11.28 @ 17:07:45

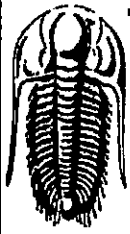
Job Ticket #: 040532      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Ritchie Exploration, Inc.  
8100 E 22nd St. r#700  
P.O. Box 783188  
Wichita, KS. 67278-3188  
ATTN: Max Lovely

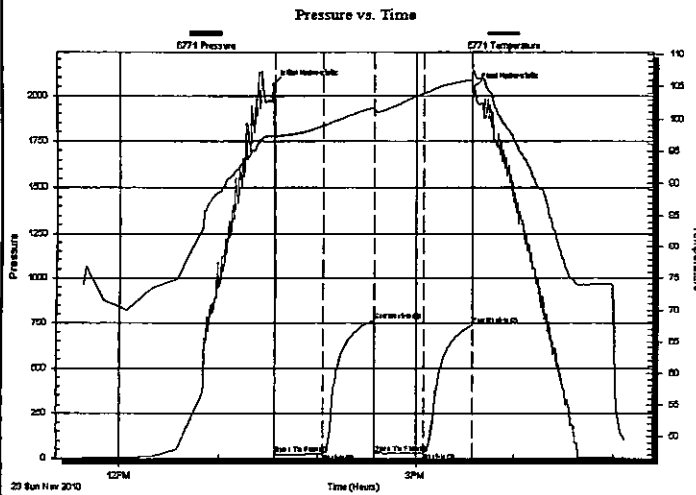
**#1 Foster 36C**  
**36-13-32 Logan,KS**  
Job Ticket: 040532      **DST#: 3**  
Test Start: 2010.11.28 @ 11:38:00

## GENERAL INFORMATION:

Formation: **Lansing "H"**  
 Deviated: No Whipstock      ft (KB)  
 Time Tool Opened: 13:33:45  
 Time Test Ended: 17:07:45  
 Interval: **4057.00 ft (KB) To 4091.00 ft (KB) (TVD)**  
 Total Depth: **4091.00 ft (KB) (TVD)**  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole  
 Tester: Kevin Mack  
 Unit No: 40  
 Reference Elevations: 2879.00 ft (KB)  
 2869.00 ft (CF)  
 KB to GR/CF: 10.00 ft

**Serial #: 6771**      Inside  
 Press@RunDepth: 30.83 psig @ 4058.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2010.11.28      End Date: 2010.11.28      Last Calib.: 2010.11.28  
 Start Time: 11:38:15      End Time: 17:07:45      Time On Btm: 2010.11.28 @ 13:32:45  
 Time Off Btm: 2010.11.28 @ 15:35:00

**TEST COMMENT:** IF: Build to 1/2"  
 IS: No Return  
 FF: Surface Blow started @ 20 min.  
 FS: No Return



## PRESSURE SUMMARY

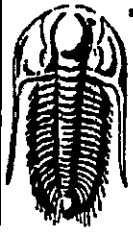
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2058.62	97.41	Initial Hydro-static
1	23.10	97.09	Open To Flow (1)
31	24.45	98.88	Shut-In(1)
62	762.90	101.71	End Shut-In(1)
63	30.95	101.36	Open To Flow (2)
92	30.83	103.92	Shut-In(2)
122	737.35	106.06	End Shut-In(2)
123	2044.04	107.49	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 100M	0.05

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Ritchie Exploration, Inc.  
8100 E22nd St. n#700  
P.O. Box 783188  
Wichita, KS. 67278-3188  
ATTN: Max Lovely

**#1 Foster 36C**  
**36-13-32 Logan,KS**  
Job Ticket: 040532      **DST#: 3**  
Test Start: 2010.11.28 @ 11:38:00

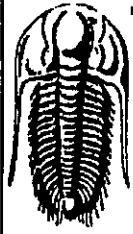
**Tool Information**

Drill Pipe:	Length: 3516.00 ft	Diameter: 3.80 inches	Volume: 49.32 bbl	Tool Weight: 2500.00 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: 539.00 ft	Diameter: 2.25 inches	Volume: 2.65 bbl	Weight to Pull Loose: 78000.00 lb
			<b>Total Volume: 51.97 bbl</b>	Tool Chased ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4057.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	34.00 ft			
Tool Length:	56.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4036.00	
Shut In Tool	5.00			4041.00	
Hydraulic tool	5.00			4046.00	
Safety Joint	2.00			4048.00	
Packer	5.00			4053.00	22.00      Bottom Of Top Packer
Packer	4.00			4057.00	
Stubb	1.00			4058.00	
Recorder	0.00	6771	Inside	4058.00	
Recorder	0.00	6667	Outside	4058.00	
Perforations	28.00			4086.00	
Bulinose	5.00			4091.00	34.00      Bottom Packers & Anchor

**Total Tool Length: 56.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Ritchie Exploration, Inc.

**#1 Foster 36C**

8100 E 22nd St. n#700  
P.O. Box 783188  
Wichita, KS. 67278-3188  
ATTN: Max Lovely

**36-13-32 Logan,KS**  
Job Ticket: 040532      **DST#: 3**  
Test Start: 2010.11.28 @ 11:38:00

## 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: 59.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.76 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 3000.00 ppm			
Filter Cake: 1.00 inches			

## Recovery Information

Recovery Table

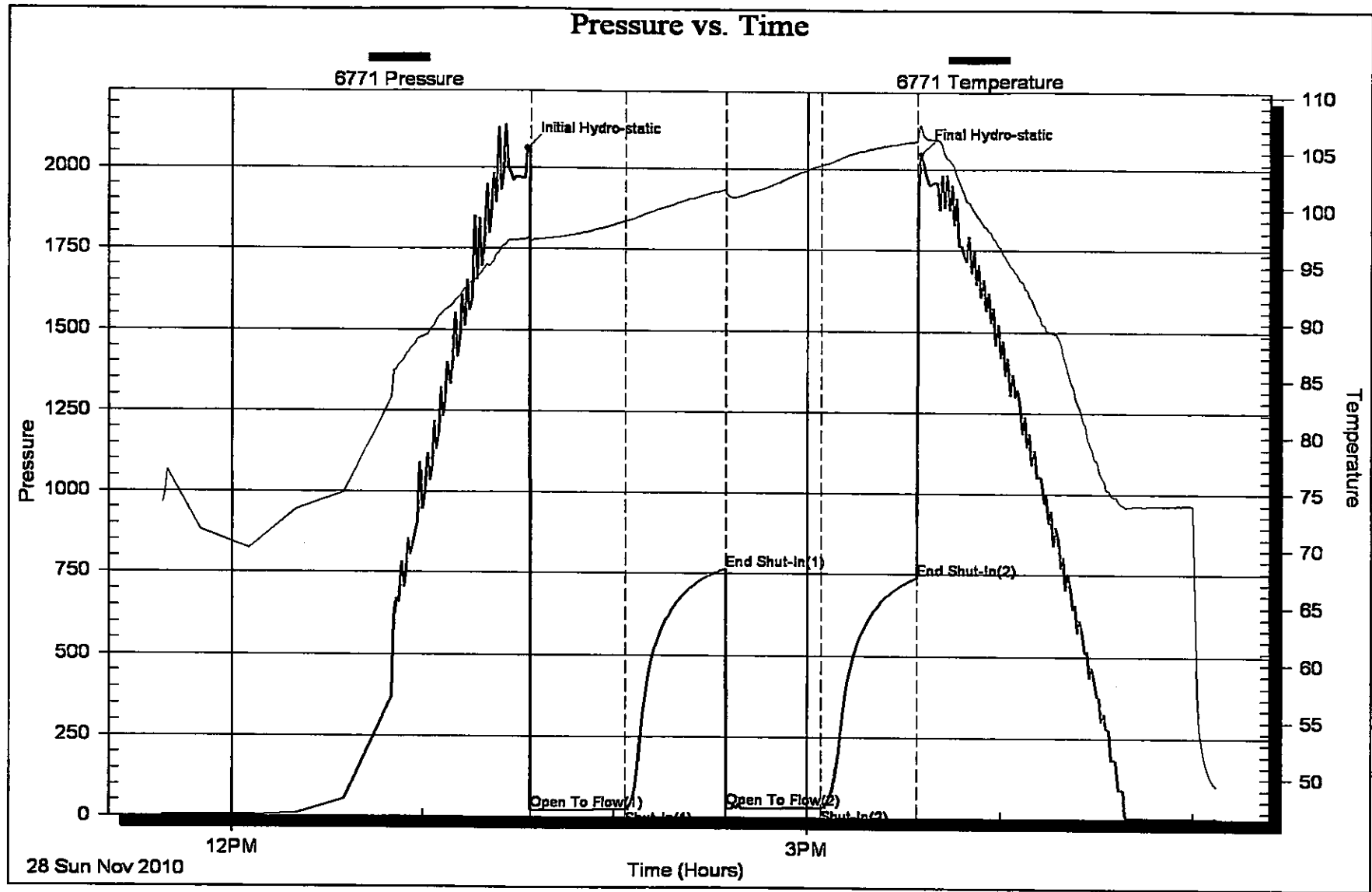
Length ft	Description	Volume bbl
10.00	Mud 100M	0.049

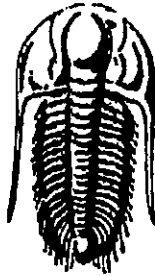
Total Length: 10.00 ft      Total Volume: 0.049 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:





**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

Prepared For: **Ritchie Exploration, Inc.**

8100 E 22nd St. r#700  
P.O. Box 783188  
Wichita, KS. 67278-3188

ATTN: Max Lovely

**36-13-32 Logan,KS**

**#1 Foster 36C**

Start Date: 2010.11.29 @ 07:30:00

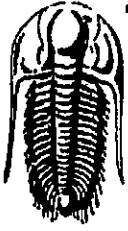
End Date: 2010.11.29 @ 13:40:45

Job Ticket #: 040533      DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Ritchie Exploration, Inc.  
8100 E 22nd St. n#700  
P.O. Box 783188  
Wichita, KS. 67278-3188  
ATTN: Max Lovely

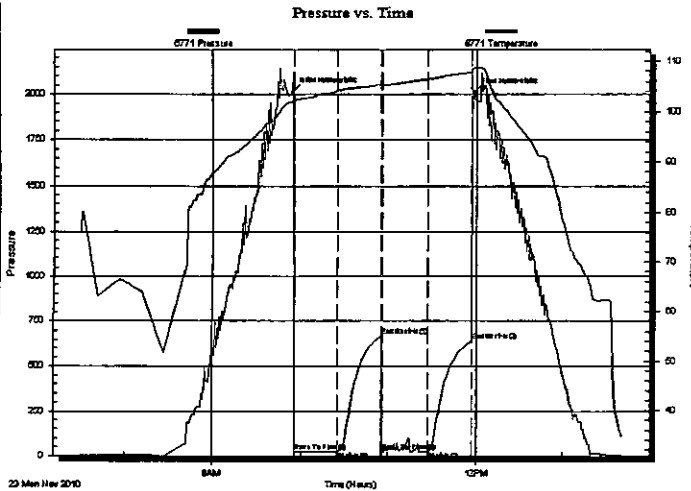
**#1 Foster 36C**  
**36-13-32 Logan,KS**  
Job Ticket: 040533      DST#: 4  
Test Start: 2010.11.29 @ 07:30:00

**GENERAL INFORMATION:**

Formation: **Lansing "K"**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 09:55:15  
Time Test Ended: 13:40:45  
Interval: **4148.00 ft (KB) To 4185.00 ft (KB) (TVD)**  
Total Depth: **4185.00 ft (KB) (TVD)**  
Hole Diameter: **7.88 inches** Hole Condition: **Good**  
Test Type: **Conventional Bottom Hole**  
Tester: **Kevin Mack**  
Unit No: **40**  
Reference Elevations: **2879.00 ft (KB)**  
**2869.00 ft (CF)**  
KB to GR/CF: **10.00 ft**

**Serial #: 6771**      **Inside**  
Press@RunDepth: **23.91 psig @ 4149.00 ft (KB)**      Capacity: **8000.00 psig**  
Start Date: **2010.11.29**      End Date: **2010.11.29**      Last Calib.: **2010.11.29**  
Start Time: **07:30:15**      End Time: **13:40:45**      Time On Btm: **2010.11.29 @ 09:54:15**  
Time Off Btm: **2010.11.29 @ 11:58:30**

**TEST COMMENT:** IF: Surface Blow started at 5 minutes, Died at 20 minutes.  
IS: No Return  
FF: No Blow  
FS: No return



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2015.26	102.11	Initial Hydro-static
1	24.24	101.39	Open To Flow (1)
31	23.35	104.12	Shut-In (1)
62	671.68	105.44	End Shut-In (1)
62	26.44	105.32	Open To Flow (2)
93	23.91	106.47	Shut-In (2)
123	642.61	107.74	End Shut-In (2)
125	2013.11	108.54	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
5.00	Mud 100M	0.02

**Gas Rates**

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



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Ritchie Exploration, Inc.  
8100 E.22nd St. r#700  
P.O. Box 783188  
Wichita, KS. 67278-3188  
ATTN: Max Lovely

**#1 Foster 36C**  
**36-13-32 Logan, KS**  
Job Ticket: 040533      DST#: 4  
Test Start: 2010.11.29 @ 07:30:00

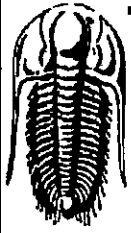
**Tool Information**

Drill Pipe:	Length: 3617.00 ft	Diameter: 3.80 inches	Volume: 50.74 bbl	Tool Weight: 2200.00 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: 539.00 ft	Diameter: 2.25 inches	Volume: 2.65 bbl	Weight to Pull Loose: 80000.00 lb
			<b>Total Volume: 53.39 bbl</b>	Tool Chased ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4148.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	37.00 ft			
Tool Length:	59.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

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

Change Over Sub	1.00			4127.00	
Shut In Tool	5.00			4132.00	
Hydraulic tool	5.00			4137.00	
Safety Joint	2.00			4139.00	
Packer	5.00			4144.00	22.00      Bottom Of Top Packer
Packer	4.00			4148.00	
Stubb	1.00			4149.00	
Recorder	0.00	6771	Inside	4149.00	
Recorder	0.00	6667	Outside	4149.00	
Perforations	31.00			4180.00	
Bullnose	5.00			4185.00	37.00      Bottom Packers & Anchor

**Total Tool Length: 59.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Ritchie Exploration, Inc.  
8100 E 22nd St. n#700  
P.O. Box 783188  
Wichita, KS. 67278-3188  
ATTN: Max Lovely

**#1 Foster 36C**  
**36-13-32 Logan, KS**  
Job Ticket: 040533      DST#: 4  
Test Start: 2010.11.29 @ 07:30:00

## 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: 60.00 sec/qt	Cushion Volume: bbl		
Water Loss: 10.35 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 3300.00 ppm			
Filter Cake: 2.00 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud 100M	0.025

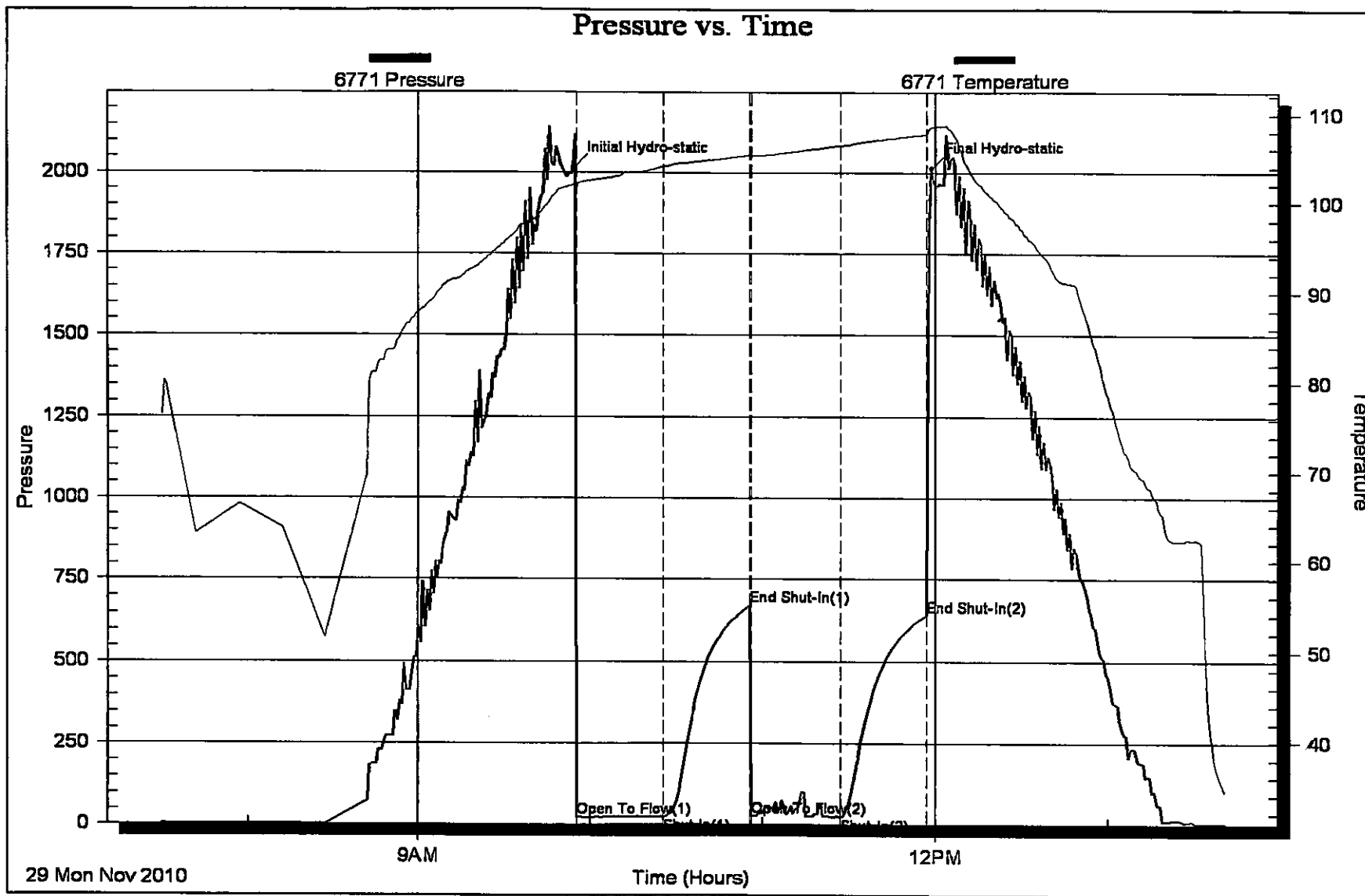
Total Length: 5.00ft      Total Volume: 0.025 bbl

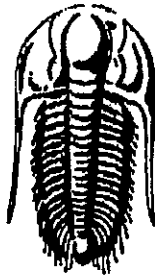
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments:







**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc.**

8100 E 22nd St. n#700  
P.O. Box 783188  
Wichita, KS. 67278-3188

ATTN: Max Lovely

**36-13-32 Logan,KS**

**#1 Foster 36C**

Start Date: 2010.11.30 @ 11:35:00

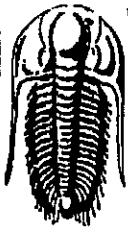
End Date: 2010.11.30 @ 17:58:00

Job Ticket #: 040534      DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Ritchie Exploration, Inc.  
8100 E22nd St. rt#700  
P.O. Box 783188  
Wichita, KS. 67278-3188  
ATTN: Max Lovely

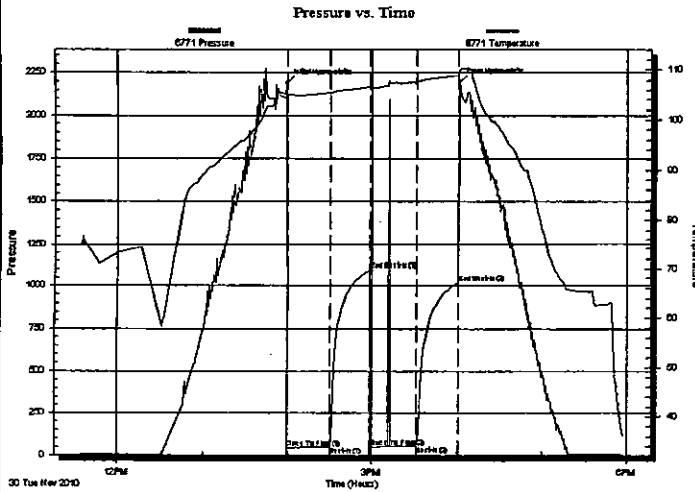
**#1 Foster 36C**  
**36-13-32 Logan, KS**  
Job Ticket: 040534      DST#: 5  
Test Start: 2010.11.30 @ 11:35:00

## GENERAL INFORMATION:

Formation: **Myric Station**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 13:59:30  
 Time Test Ended: 17:58:00  
 Interval: **4394.00 ft (KB) To 4420.00 ft (KB) (TVD)**  
 Total Depth: **4420.00 ft (KB) (TVD)**  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole  
 Tester: Kevin Mack  
 Unit No: 40  
 Reference Elevations: 2879.00 ft (KB)  
 2869.00 ft (CF)  
 KB to GR/CF: 10.00 ft

**Serial #: 6771**      Inside  
 Press@RunDepth: 57.14 psig @ 4395.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2010.11.30      End Date: 2010.11.30      Last Calib.: 2010.11.30  
 Start Time: 11:35:15      End Time: 17:58:00      Time On Btm: 2010.11.30 @ 13:59:15  
 Time Off Btm: 2010.11.30 @ 16:01:15

**TEST COMMENT:** IF: Build to 1/4"  
 IS: No Return  
 FF: Flushed tol at 10 minutes surface blow at 15 minutes  
 FS: No Return



## PRESSURE SUMMARY

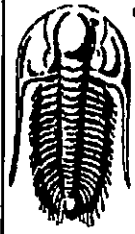
Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2188.73	105.49	Initial Hydro-static
1	46.45	104.95	Open To Flow (1)
31	49.18	105.39	Shut-In (1)
60	1095.14	106.58	End Shut-In (1)
60	51.99	106.29	Open To Flow (2)
92	57.14	107.64	Shut-In (2)
121	1017.50	108.92	End Shut-In (2)
122	2196.24	109.91	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	OSM 100M	0.05

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Ritchie Exploration, Inc.

**#1 Foster 36C**

8100 E.22nd St. r#700  
P.O. Box 783188  
Wichita, KS. 67278-3188  
ATTN: Max Lovely

**36-13-32 Logan,KS**

Job Ticket: 040534

DST#: 5

Test Start: 2010.11.30 @ 11:35:00

**Tool Information**

Drill Pipe:	Length: 3865.00 ft	Diameter: 3.80 inches	Volume: 54.22 bbl	Tool Weight: 2200.00 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: 539.00 ft	Diameter: 2.25 inches	Volume: 2.65 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 56.87 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4394.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.00 ft			
Tool Length:	48.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

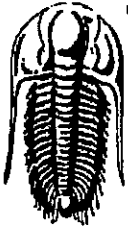
Tool Comments:

**Tool Description**

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

Change Over Sub	1.00			4373.00	
Shut In Tool	5.00			4378.00	
Hydraulic tool	5.00			4383.00	
Safety Joint	2.00			4385.00	
Packer	5.00			4390.00	22.00 Bottom Of Top Packer
Packer	4.00			4394.00	
Stubb	1.00			4395.00	
Recorder	0.00	6771	Inside	4395.00	
Recorder	0.00	6667	Outside	4395.00	
Perforations	20.00			4415.00	
Bullnose	5.00			4420.00	26.00 Bottom Packers & Anchor

**Total Tool Length: 48.00**



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Ritchie Exploration, Inc.  
8100 E 22nd St. r#700  
P.O. Box 783188  
Wichita, KS. 67278-3188  
ATTN: Max Lovely

**#1 Foster 36C**  
**36-13-32 Logan,KS**  
Job Ticket: 040534      DST#: 5  
Test Start: 2010.11.30 @ 11:35:00

**Mud and Cushion Information**

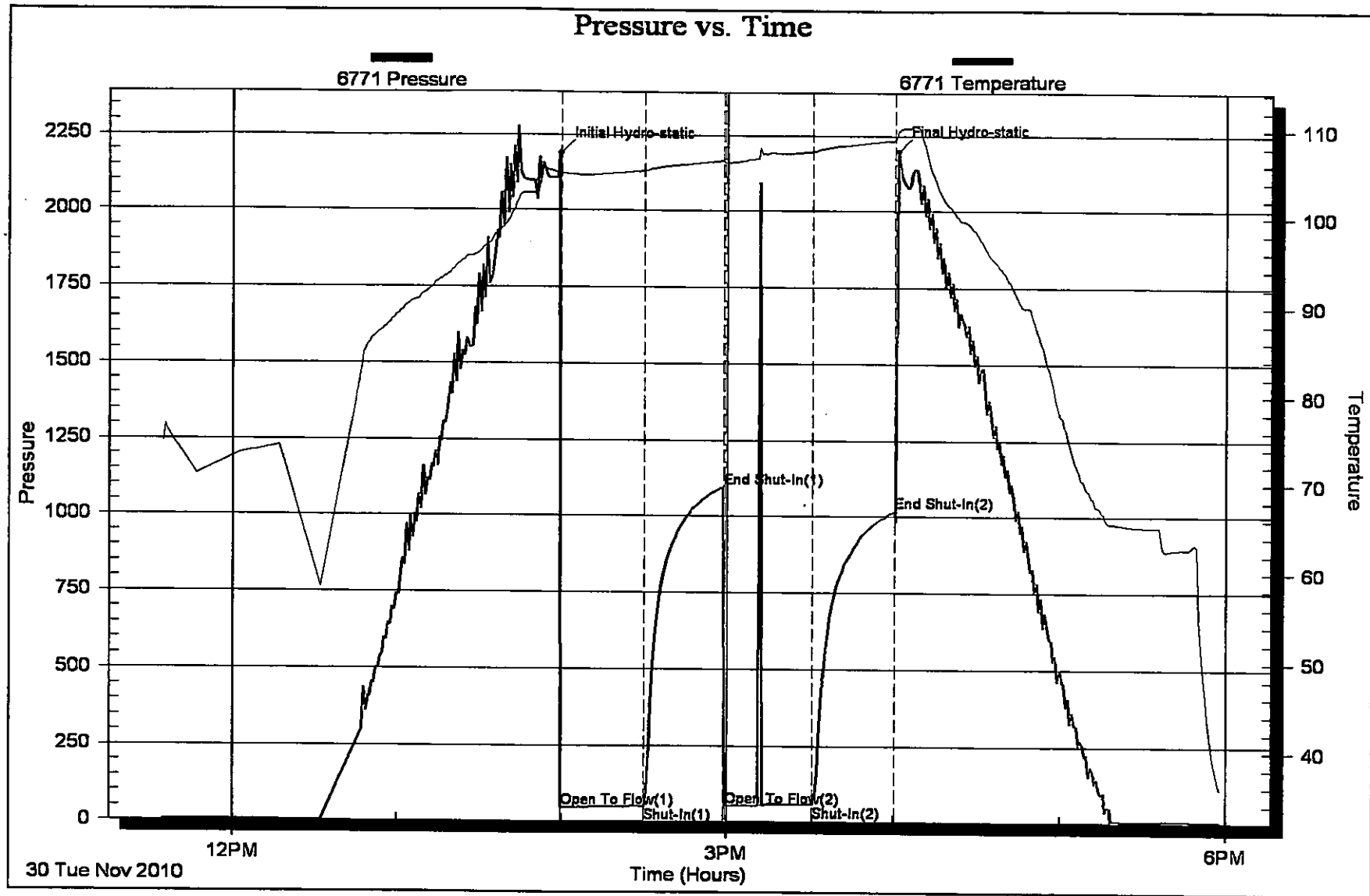
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 51.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.18 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 3000.00 ppm			
Filter Cake: 1.00 inches			

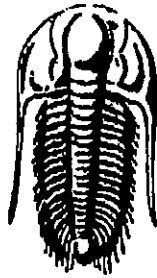
**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
10.00	OSM 100M	0.049

Total Length: 10.00 ft      Total Volume: 0.049 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc.**

8100 E 22nd St. n#700  
P.O. Box 783188  
Wichita, KS. 67278-3188

ATTN: Max Lovely

**36-13-32 Logan,KS**

**#1 Foster 36C**

Start Date: 2010.12.01 @ 03:00:00

End Date: 2010.12.01 @ 09:28:00

Job Ticket #: 040535          DST #: 6

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Ritchie Exploration, Inc.

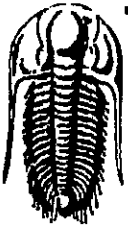
#1 Foster 36C

36-13-32 Logan,KS

DST # 6

Fort Scott

2010.12.01



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Ritchie Exploration, Inc.

**#1 Foster 36C**

8100 E 22nd St. r#700  
P.O. Box 783188  
Wichita, KS. 67278-3188  
ATTN: Max Lovely

**36-13-32 Logan,KS**

Job Ticket: 040535      DST#: 6

Test Start: 2010.12.01 @ 03:00:00

## GENERAL INFORMATION:

Formation: **Fort Scott**

Deviated: No Whipstock      ft (KB)

Time Tool Opened: 05:20:00

Time Test Ended: 09:28:00

Test Type: Conventional Bottom Hole

Tester: Kevin Mack

Unit No: 40

Interval: **4423.00 ft (KB) To 4456.00 ft (KB) (TVD)**

Reference Elevations: 2879.00 ft (KB)

Total Depth: 4456.00 ft (KB) (TVD)

2869.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

**Serial #: 6771**

Inside

Press@RunDepth: 25.68 psig @ 4459.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2010.12.01

End Date:

2010.12.01

Last Calib.: 2010.12.01

Start Time: 03:00:15

End Time:

09:28:00

Time On Btmr 2010.12.01 @ 05:19:00

Time Off Btmr 2010.12.01 @ 07:35:45

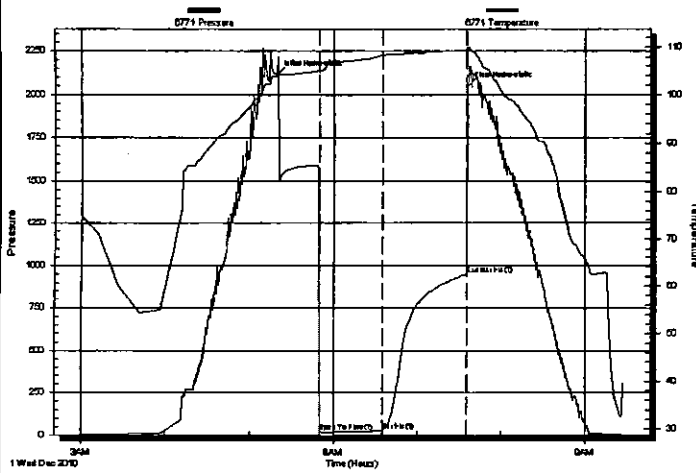
TEST COMMENT: IF:

IS:

FF: Blow started at 10mins Build to 1/4 inch

FS: No return

Pressure vs. Time



## PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2115.80	103.98	Initial Hydro-static
31	21.43	104.73	Open To Flow (1)
76	25.68	108.29	Shut-In(1)
137	950.65	109.40	End Shut-In(1)
137	2046.84	109.95	Final Hydro-static

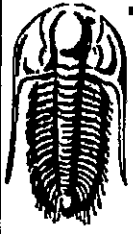
## Recovery

Length (ft)	Description	Volume (bbl)
5.00	OCM 70M 30o	0.02
5.00	Free oil 100o	0.02

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Ritchie Exploration, Inc.  
8100 E 22nd St. n#700  
P.O. Box 783188  
Wichita, KS. 67278-3188  
ATTN: Max Lovely

**#1 Foster 36C**  
**36-13-32 Logan, KS**  
Job Ticket: 040535      DST#: 6  
Test Start: 2010.12.01 @ 03:00:00

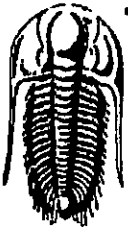
**Tool Information**

Drill Pipe:	Length: 3897.00 ft	Diameter: 3.80 inches	Volume: 54.66 bbl	Tool Weight: 2200.00 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: 539.00 ft	Diameter: 2.25 inches	Volume: 2.65 bbl	Weight to Pull Loose: 80000.00 lb
			<b>Total Volume: 57.31 bbl</b>	Tool Chased: ft
Drill Pipe Above KB:	ft			String Weight: Initial 72000.00 lb
Depth to Top Packer:	4458.00 ft			Final 72000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	33.00 ft			
Tool Length:	55.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		
Tool Comments:				

**Tool Description**

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4437.00	
Shut In Tool	5.00			4442.00	
Hydraulic tool	5.00			4447.00	
Safety Joint	2.00			4449.00	
Packer	5.00			4454.00	22.00      Bottom Of Top Packer
Packer	4.00			4458.00	
Stubb	1.00			4459.00	
Recorder	0.00	6771	Inside	4459.00	
Recorder	0.00	6667	Outside	4459.00	
Perforations	27.00			4486.00	
Bullnose	5.00			4491.00	33.00      Bottom Packers & Anchor

**Total Tool Length: 55.00**



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Ritchie Exploration, Inc.

**#1 Foster 36C**

8100 E 22nd St. n#700  
P.O. Box 783188  
Wichita, KS. 67278-3188  
ATTN: Max Lovely

**36-13-32 Logan,KS**  
Job Ticket: 040535      DST#: 6  
Test Start: 2010.12.01 @ 03:00:00

**Mud and Cushion Information**

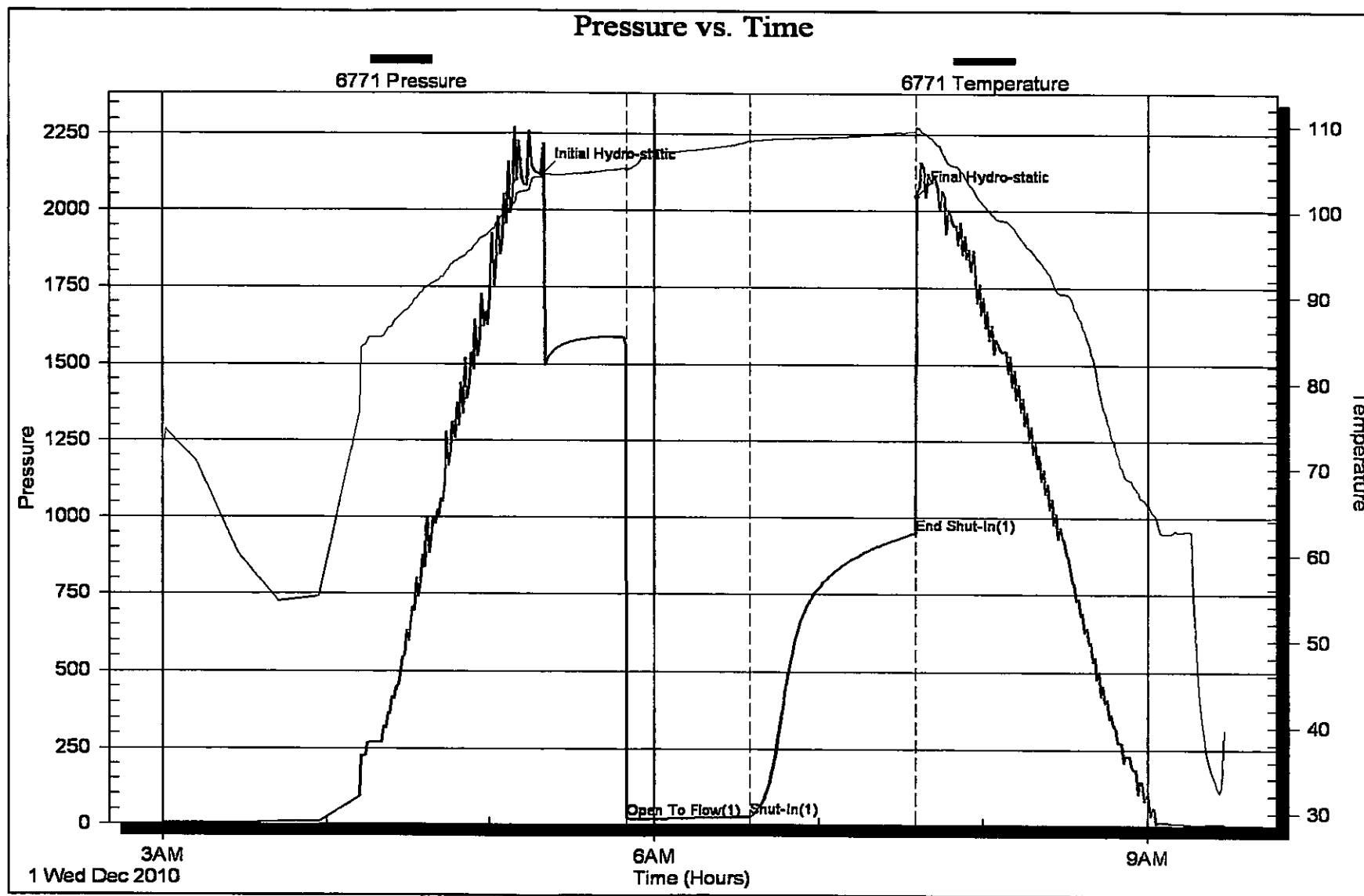
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 52.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.58 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 3000.00 ppm			
Filter Cake: 1.00 inches			

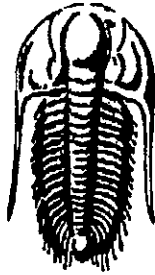
**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
5.00	OCM 70M 30o	0.025
5.00	Free oil 100o	0.025

Total Length: 10.00 ft      Total Volume: 0.050 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc.**

8100 E 22nd St. n#700  
P.O. Box 783188  
Wichita, KS. 67278-3188

ATTN: Max Lovely

**36-13-32 Logan,KS**

**#1 Foster 36C**

Start Date: 2010.12.01 @ 17:11:02

End Date: 2010.12.01 @ 23:30:32

Job Ticket #: 040537      DST #: 7

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Ritchie Exploration, Inc.

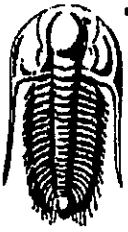
#1 Foster 36C

36-13-32 Logan,KS

DST # 7

Johnson

2010.12.01



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Ritchie Exploration, Inc.  
8100 E 22nd St. r#700  
P.O. Box 783188  
Wichita, KS. 67278-3188  
ATTN: Max Lovely

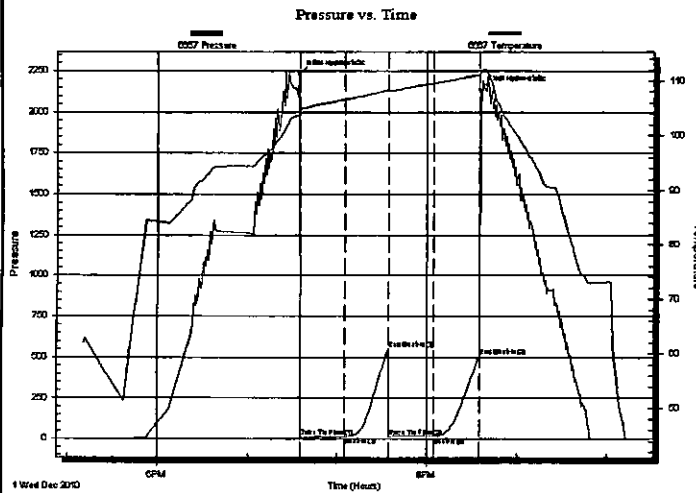
**#1 Foster 36C**  
**36-13-32 Logan, KS**  
Job Ticket: 040537      DST#: 7  
Test Start: 2010.12.01 @ 17:11:02

## GENERAL INFORMATION:

Formation: **Johnson**  
Deviated: No Whipstock:                      ft (KB)  
Time Tool Opened: 19:34:32  
Time Test Ended: 23:30:32  
Interval: **4477.00 ft (KB) To 4510.00 ft (KB) (TVD)**  
Total Depth: **4510.00 ft (KB) (TVD)**  
Hole Diameter: **7.88 inches** Hole Condition: Fair  
Test Type: Conventional Bottom Hole  
Tester: Shane McBride  
Unit No: 40  
Reference Elevations: 2879.00 ft (KB)  
2869.00 ft (CF)  
KB to GR/CF: 10.00 ft

**Serial #: 6667**      **Outside**  
Press@RunDepth: 15.77 psig @ 4478.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2010.12.01      End Date: 2010.12.01      Last Calib.: 2010.12.01  
Start Time: 17:11:02      End Time: 23:13:32      Time On Btm: 2010.12.01 @ 19:34:02  
Time Off Btm: 2010.12.01 @ 21:35:32

**TEST COMMENT:** 1/2" in blow died back to 1/4" in.  
No return  
No blow  
No return



## PRESSURE SUMMARY

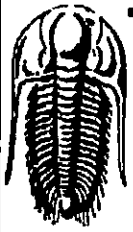
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2229.53	104.20	Initial Hydro-static
1	13.31	104.16	Open To Flow (1)
31	14.69	106.56	Shut-In (1)
61	550.86	108.37	End Shut-In (1)
61	15.31	108.12	Open To Flow (2)
91	15.77	109.61	Shut-In (2)
121	505.73	111.11	End Shut-In (2)
122	2136.11	111.36	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
2.00	mud 100%rn	0.01

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Ritchie Exploration, Inc.  
8100 E22nd St. n#700  
P.O. Box 783188  
Wichita, KS. 67278-3188  
ATTN: Max Lovely

**#1 Foster 36C**  
**36-13-32 Logan, KS**  
Job Ticket: 040537      **DST#: 7**  
Test Start: 2010.12.01 @ 17:11:02

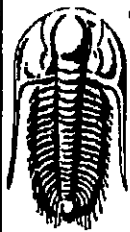
**Tool Information**

Drill Pipe:	Length: 3931.00 ft	Diameter: 3.80 inches	Volume: 55.14 bbl	Tool Weight: 1500.00 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: 539.00 ft	Diameter: 2.25 inches	Volume: 2.65 bbl	Weight to Pull Loose: 95000.00 lb
			<b>Total Volume: 57.79 bbl</b>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 72000.00 lb
Depth to Top Packer:	4477.00 ft			Final 72000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	33.00 ft			
Tool Length:	55.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

**Tool Description**

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4456.00	
Shut In Tool	5.00			4461.00	
Hydraulic tool	5.00			4466.00	
Safety Joint	2.00			4468.00	
Packer	5.00			4473.00	22.00 Bottom Of Top Packer
Packer	4.00			4477.00	
Stubb	1.00			4478.00	
Recorder	0.00	6771	Inside	4478.00	
Recorder	0.00	6667	Outside	4478.00	
Perforations	27.00			4505.00	
Bullnose	5.00			4510.00	33.00 Bottom Packers & Anchor

**Total Tool Length: 55.00**



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration, Inc.

#1 Foster 36C

8100 E22nd St. n#700  
P.O. Box 783188  
Wichita, KS. 67278-3188  
ATTN: Max Lovely

36-13-32 Logan, KS

Job Ticket: 040537

DST#: 7

Test Start: 2010.12.01 @ 17:11:02

### Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 52.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.57 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm m	Gas Cushion Pressure: psig		
Salinity: 3000.00 ppm			
Filter Cake: 1.00 inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	mud 100% m	0.010

Total Length: 2.00 ft      Total Volume: 0.010 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:

