



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1237491  
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: \_\_\_\_\_



1237491

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

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

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

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

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

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

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

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

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

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

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

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

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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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> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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# GLOBAL CEMENTING, L.L.C.

1449

REMIT TO 18048 170RD  
RUSSELL, KS 67665

SERVICE POINT: Russell KS

DATE <u>7-17-14</u>	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START	JOB FINISH <u>10:45 AM</u>
LEASE # <u>PK cemented</u>	WELL #. <u>2</u>	LOCATION			COUNTY <u>Phillips</u>	STATE <u>KS</u>	
OLD OR NEW (CIRCLE ONE)							

CONTRACTOR White Knight Drilling Rig #1

TYPE OF JOB Plug

HOLE SIZE 3 1/2" T.D. 3450

CASING SIZE 4 1/2" DEPTH

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG.

PERFS

DISPLACEMENT

EQUIPMENT

PUMP TRUCK # 11 CEMENTER Coody

BULK TRUCK # B1 HELPER Brod

BULK TRUCK # DRIVER Mark

BULK TRUCK # DRIVER

REMARKS:

1 plug 50 sks 1390

2 plug 100 sks 850

3 plug 50 sks 270

Center 400 100 sks Rt 300 sks wipe plug

CHARGE TO: Castle Resources

STREET

CITY STATE ZIP

Global Cementing, L.L.C.,  
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Gary Clark

SIGNATURE [Signature]

OWNER

CEMENT AMOUNT ORDERED 240 sks 60% 40 gel  
1/4 lb Fluorocel

COMMON @

POZMIX @

GEL @

CHLORIDE @

ASC @

HANDLING @

MILEAGE @

TOTAL

SERVICE

DEPTH OF JOB

PUMP TRUCK CHARGE

EXTRA FOOTAGE @

MILEAGE 36 x 2 @

MANIFOLD @

TOTAL

PLUG & FLOAT EQUIPMENT

TOTAL

SALES TAX (If Any)

TOTAL CHARGES

DISCOUNT IF PAID IN 30 DAYS

# GLOBAL CEMENTING, L.L.C.

1446

REMIT TO 18048 170RD  
RUSSELL, KS 67665

SERVICE POINT: Russell

DATE <u>9-12-16</u>	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START	JOB FINISH <u>8:45 AM</u>
LEASE <u>Pharmacia</u>	WELL # <u>2</u>	LOCATION			COUNTY <u>PHILLIPS CO</u>	STATE <u>KS</u>	
OLD OR NEW (CIRCLE ONE)							

CONTRACTOR White Knight Drilling Rig #1

TYPE OF JOB Supp

HOLE SIZE 12 1/4 T.D. 2174

CASING SIZE 8 5/8 DEPTH

TUBING SIZE 1 1/2 DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG.

PERFS

DISPLACEMENT

OWNER

CEMENT AMOUNT ORDERED 150 SKS 3% CC 2% GEL

EQUIPMENT

PUMP TRUCK CEMENTER Cody Ross

# P1 HELPER Road

BULK TRUCK DRIVER Payton

# B4

BULK TRUCK DRIVER

#

COMMON @

POZMIX @

GEL @

CHLORIDE @

ASC @

HANDLING @

MILEAGE @

TOTAL

REMARKS:

Ran 5 joints of 8 5/8 casing + landing joint

Est Circulation Hooked up pumped 150 SKS

Circulated cement and displaced 125 bbls

off H2C shut in at 200 PSI

CHARGE TO: Castle Resources

STREET

CITY STATE ZIP

Global Cementing, L.L.C.,  
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME

SIGNATURE Terry Austin

SERVICE

DEPTH OF JOB

PUMP TRUCK CHARGE

EXTRA FOOTAGE @

MILEAGE 360 @

MANIFOLD @

TOTAL

PLUG & FLOAT EQUIPMENT

@

@

@

@

@

TOTAL

SALES TAX (If Any)

TOTAL CHARGES

DISCOUNT IF PAID IN 30 DAYS



## DRILL STEM TEST REPORT

Prepared For: **Castle Resources, Inc**

PO Box 87  
Schoenchen KS 67667

ATTN: Gerry Green

### **Pfannenstiel #2**

### **11-5s-18w Phillips KS**

Start Date: 2014.09.15 @ 06:07:05

End Date: 2014.09.15 @ 10:01:30

Job Ticket #: 59351      DST #: 1

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.09.17 @ 11:11:44

Castle Resources, Inc  
11-5s-18w Phillips KS  
Pfannenstiel #2  
DST # 1  
Toronto - LKC "A"  
2014.09.15



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Castle Resources, Inc

11-5s-18w Phillips KS

PO Box 87  
Schoenchen KS 67667

Pfannenstiel #2

Job Ticket: 59351

DST#: 1

ATTN: Gerry Green

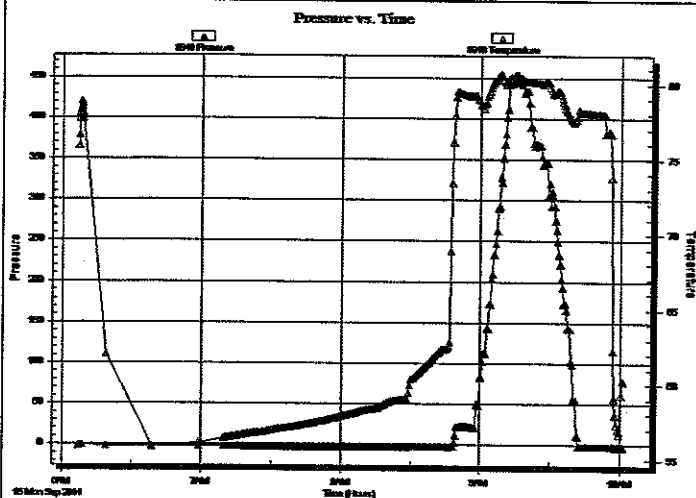
Test Start: 2014.09.15 @ 06:07:05

**GENERAL INFORMATION:**

Formation: **Toronto - LKC "A"**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened:  
 Tester: Cody Bloedorn  
 Time Test Ended: 10:01:30  
 Unit No: 73  
 Interval: **3090.00 ft (KB) To 3150.00 ft (KB) (TVD)**  
 Reference Elevations: 1948.00 ft (KB)  
 Total Depth: 3150.00 ft (KB) (TVD)  
 1943.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 KB to GR/CF: 5.00 ft

Serial #: **8940** Outside  
 Press@RunDepth: psig @ 3127.00 ft (KB)  
 Capacity: 8000.00 psig  
 Start Date: 2014.09.15 End Date: 2014.09.15 Last Calib.: 2014.09.15  
 Start Time: 06:07:05 End Time: 10:01:30  
 Time On Btm:  
 Time Off Btm:

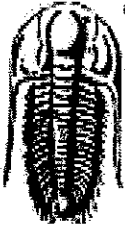
TEST COMMENT: Hit bridge roughly 1000' up. could not get through it. come out of hole with tool to clean up hole.



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

Recovery		
Length (ft)	Description	Volume (bbl)

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Castle Resources, Inc

11-5s-18w Phillips KS

PO Box 87  
Schoenchen KS 67667

**Pfannenstiel #2**

Job Ticket: 59351

**DST#: 1**

ATTN: Gerry Green

Test Start: 2014.09.15 @ 06:07:05

## 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: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 200.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl

Total Length:                      ft      Total Volume:                      bbl

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

Laboratory Name:                      Laboratory Location:

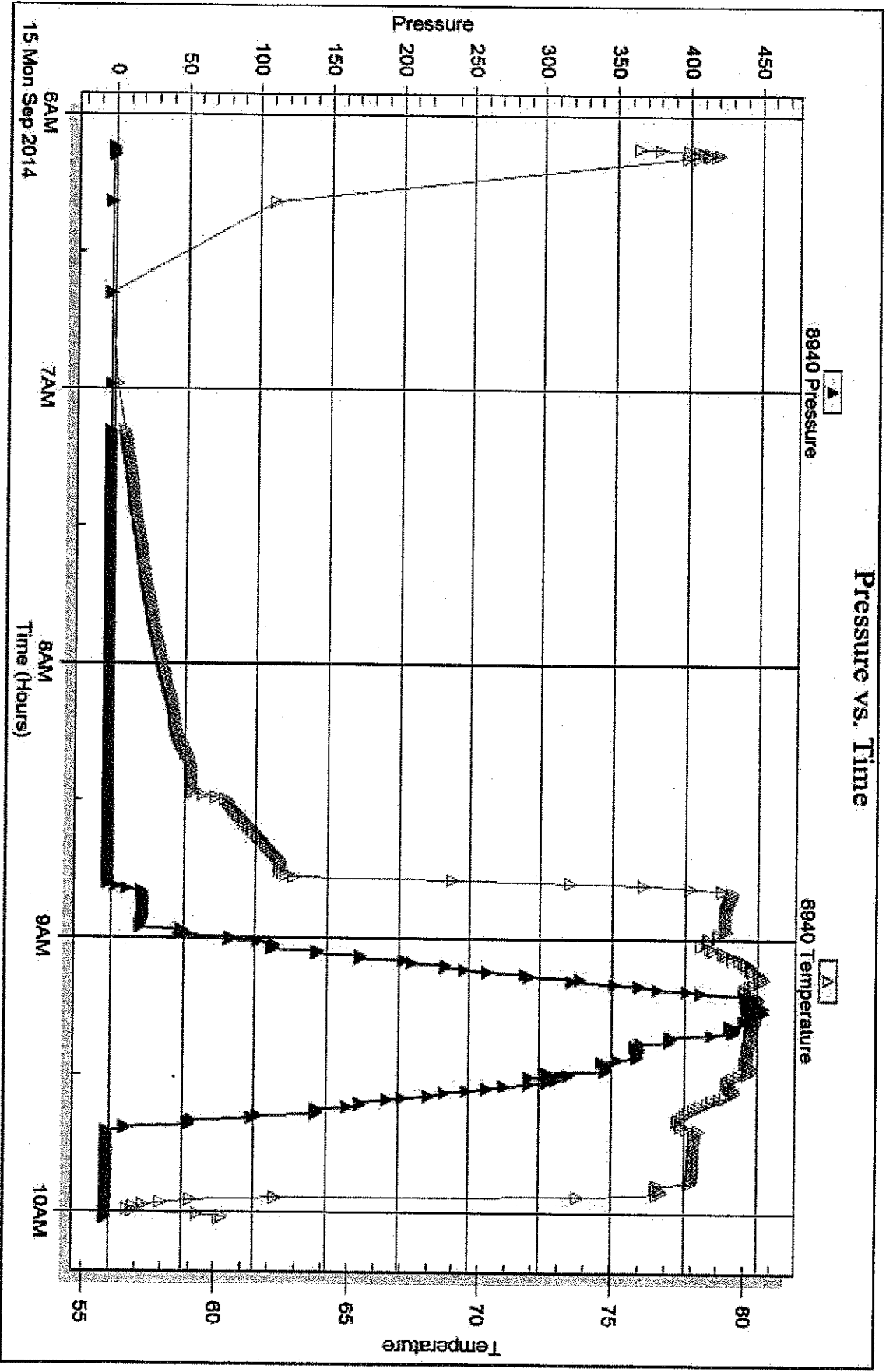
Recovery Comments:

Serial #: 8940

Outside Castle Resources, Inc

Flammsteel #2

DST Test Number: 1

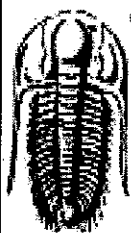


Tribble Testing, Inc

Ref. No: 59351

Printed: 2014.09.17 @ 11:11:46





**TRIOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Castle Resources, Inc  
 PO Box 87  
 Schoenchen KS 67667  
 ATTN: Gerry Green

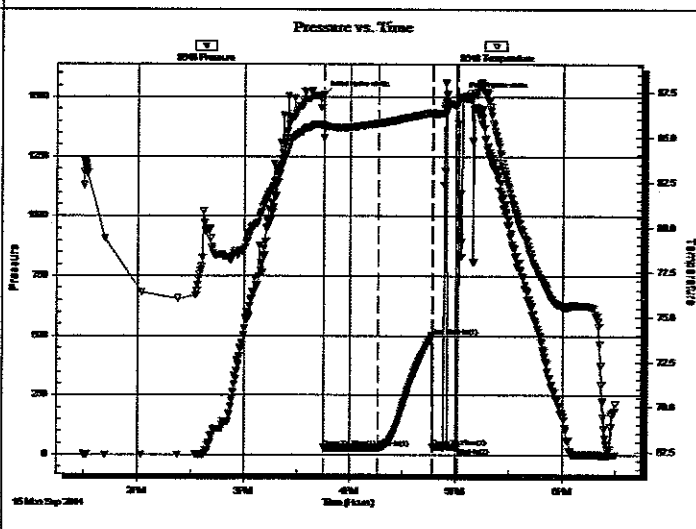
**11-5s-18w Phillips KS**  
**Pfannenstiel #2**  
 Job Ticket: 59352      **DST#: 2**  
 Test Start: 2014.09.15 @ 13:30:00

## GENERAL INFORMATION:

Formation: **Toronto - LKC A**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 15:45:15  
 Time Test Ended: 18:30:00  
 Interval: **3090.00 ft (KB) To 3150.00 ft (KB) (TVD)**  
 Total Depth: 3150.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Cody Bloedorn  
 Unit No: 73  
 Reference Elevations: 1948.00 ft (KB)  
 1943.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 8648**      **Inside**  
 Press@RunDepth: 30.32 psig @ 3127.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2014.09.15      End Date: 2014.09.15      Last Calib.: 2014.09.15  
 Start Time: 13:30:05      End Time: 18:29:59      Time On Btm: 2014.09.15 @ 15:45:00  
 Time Off Btm: 2014.09.15 @ 17:03:45

**TEST COMMENT:** 30 - IF- 1/4" blow, died @ 14 minutes  
 30 - IS- No return  
 15 - FF- No blow for 5 minutes, flushed tool, surged and died. pulled tool

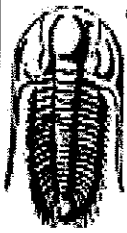


PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1509.32	85.66	Initial Hydro-static
1	30.47	85.00	Open To Flow (1)
31	30.32	85.78	Shut-in(1)
62	500.08	86.39	End Shut-in(1)
63	31.57	86.22	Open To Flow (2)
76	32.87	86.82	Shut-in(2)
79	1501.92	87.21	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
5.00	Mud - Oil spots, 100%M	0.07

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Castle Resources, Inc  
PO Box 87  
Schoenchen KS 67667  
  
ATTN: Gerry Green

**11-5s-18w Phillips KS**  
**Pfannenstiel #2**  
Job Ticket: 59352      **DST#: 2**  
Test Start: 2014.09.15 @ 13:30:00

**Tool Information**

Drill Pipe:	Length: 3102.00 ft	Diameter: 3.80 inches	Volume: 43.51 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 80000.00 lb
			<b>Total Volume: 43.51 bbl</b>	Tool Chased 0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	3090.00 ft			Final 38000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	60.00 ft			
Tool Length:	81.00 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			3070.00	
Shut In Tool	5.00			3075.00	
Hydraulic tool	5.00			3080.00	
Packer	5.00			3085.00	21.00      Bottom Of Top Packer
Packer	5.00			3090.00	
Stubb	1.00			3091.00	
Perforations	3.00			3094.00	
Change Over Sub	1.00			3095.00	
Drill Pipe	31.00			3126.00	
Change Over Sub	1.00			3127.00	
Recorder	0.00	8648	Inside	3127.00	
Recorder	0.00	8940	Outside	3127.00	
Perforations	20.00			3147.00	
Bullnose	3.00			3150.00	60.00      Bottom Packers & Anchor

**Total Tool Length: 81.00**

Serial #: 8648

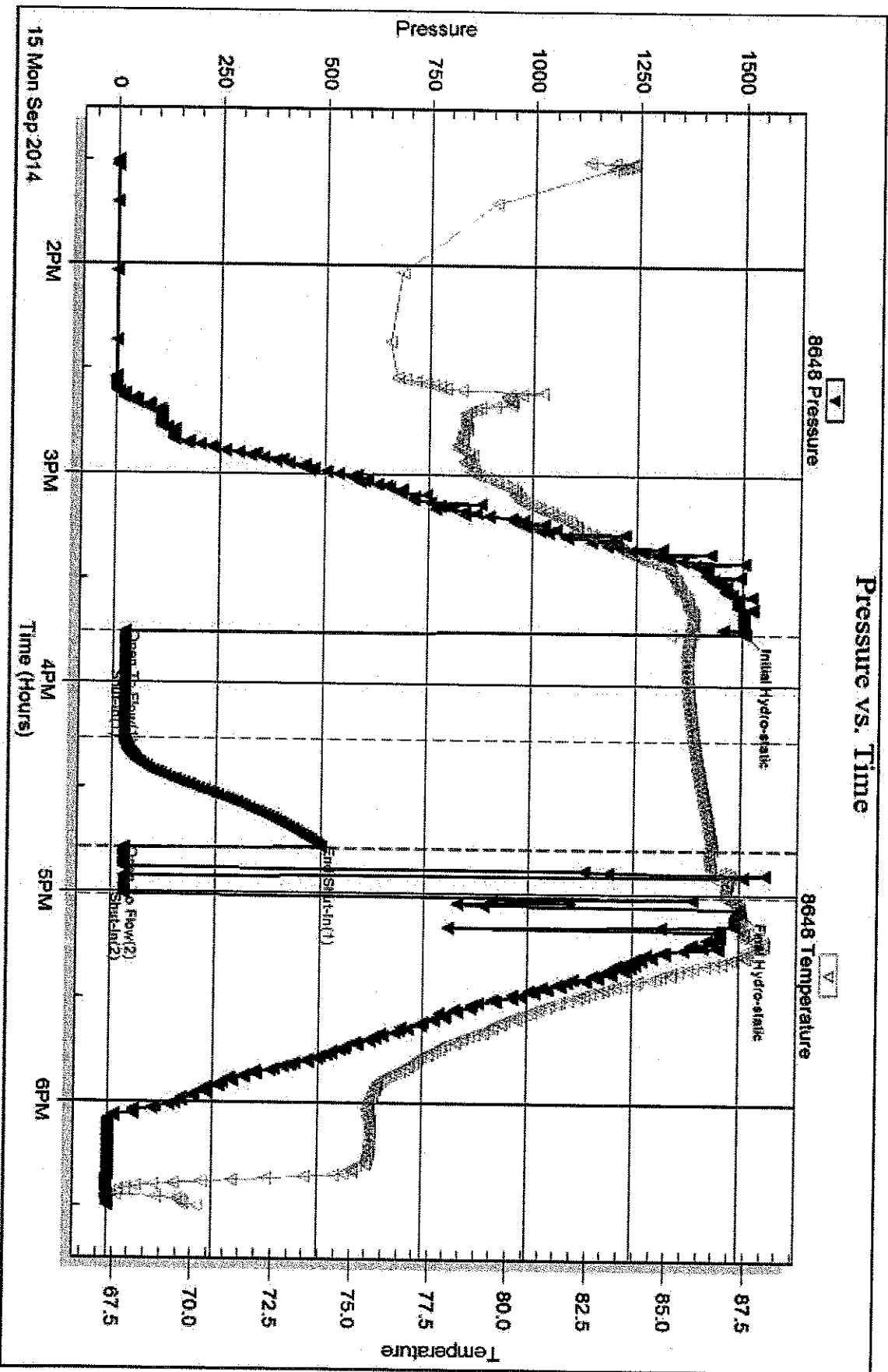
Inside

Castle Resources, Inc

Flammensiel #2

DST Test Number: 2

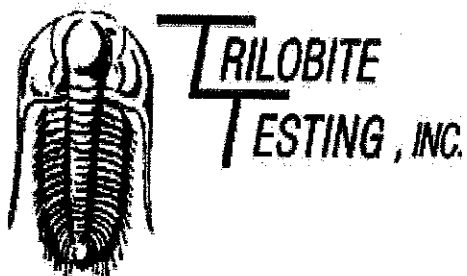
### Pressure vs. Time



Tribble Testing, Inc

Ref. No: 59352

Printed: 2014.09.17 @ 11:11:24



## DRILL STEM TEST REPORT

Prepared For: **Castle Resources, Inc**

PO Box 87  
Schoenchen KS 67667

ATTN: Gerry Green

### **Pfannenstiel #2**

### **11-5s-18w Phillips KS**

Start Date: 2014.09.16 @ 09:02:00

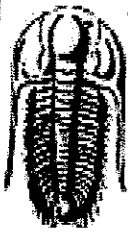
End Date: 2014.09.16 @ 13:45:00

Job Ticket #: 59353                      DST #: 3

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.09.17 @ 11:10:36

Castle Resources, Inc    11-5s-18w Phillips KS    Pfannenstiel #2    DST # 3    LKC "LJ"    2014.09.16



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Castle Resources, Inc

**11-5s-18w Phillips KS**

PO Box 87  
Schoenchen KS 67667

**Pfannenstiel #2**

ATTN: Gerry Green

Job Ticket: 59353

**DST#: 3**

Test Start: 2014.09.16 @ 09:02:00

## GENERAL INFORMATION:

Formation: **LKC "I-J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:00:15

Time Test Ended: 13:45:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Cody Bloedorn

Unit No: 73

Interval: **3276.00 ft (KB) To 3315.00 ft (KB) (TVD)**

Total Depth: 3315.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1948.00 ft (KB)

1943.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 8940** Outside

Press@RunDepth: psig @ 3280.00 ft (KB)

Start Date: 2014.09.16

End Date: 2014.09.16

Capacity: 8000.00 psig

Last Calib.: 2014.09.16

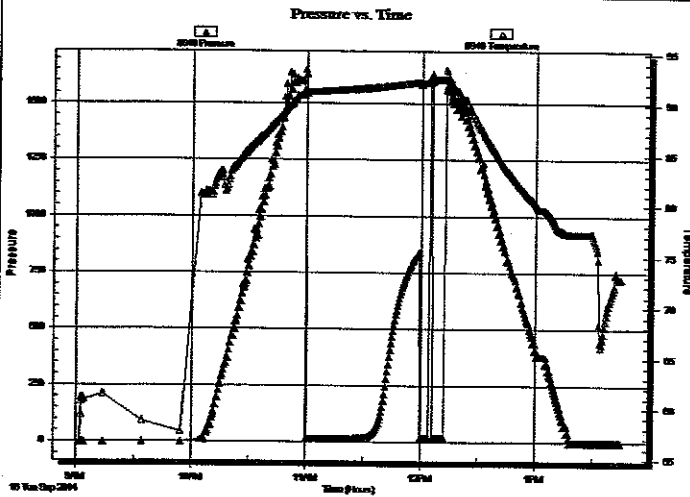
Start Time: 09:02:05

End Time: 13:44:59

Time On Btm:

Time Off Btm:

**TEST COMMENT:** 30 - IF- Surface blow, died in 18 minutes  
30 - IS- No return  
15 - FF- no blow for 5 min. flushed tool, surged and died, pulled tool



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
3.00	SOCM, 5%O, 95%M	0.04
3.00	Free Oil, 100%O	0.04

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Castle Resources, Inc

11-5s-18w Phillips KS

PO Box 87  
Schoenchen KS 67667

**Pfannenstiel #2**

Job Ticket: 59353

**DST#: 3**

ATTN: Gerry Green

Test Start: 2014.09.16 @ 09:02:00

**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: 46.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 1.00 inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbbl
3.00	SOCM, 5%O, 95%M	0.042
3.00	Free Oil, 100%O	0.042

Total Length: 6.00 ft      Total Volume: 0.084 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

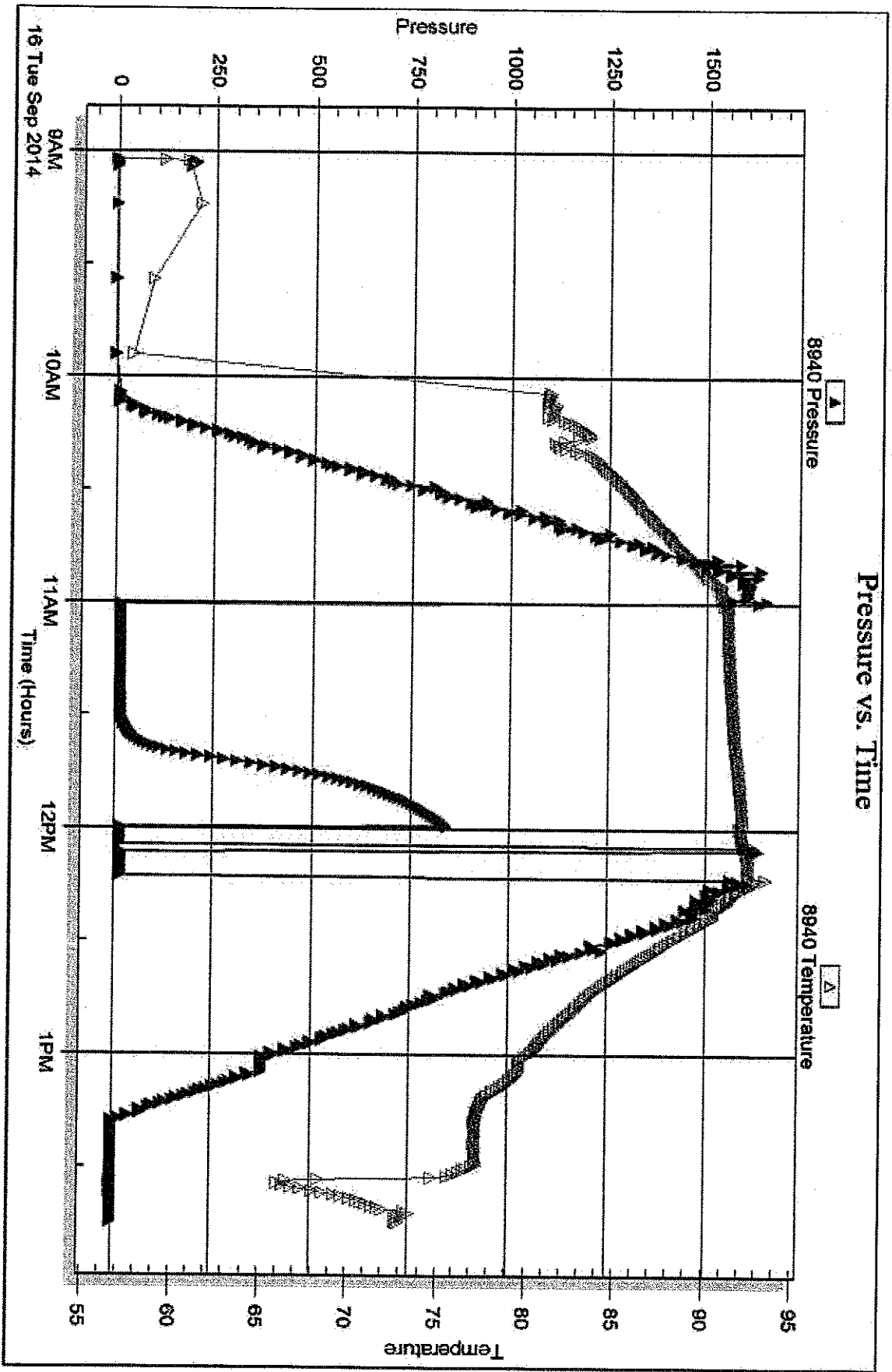
Recovery Comments:

Serial #: 8940

Outside Castle Resources, Inc.

Flammsteel #2

DST Test Number: 3



Tribble Testing, Inc

Ref. No: 59353

Printed: 2014.09.17 @ 11:10:37



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 59352

Well Name & No. Pfannenstiel #2 Test No. 2 Date 9-15-14  
 Company Castle Resources, Inc Elevation 1945 KB 1943 GL  
 Address Po Box 87, Schoenchen KS, 67667  
 Co. Rep / Geo. Jerry Green Rig White Knight  
 Location: Sec. 11 Twp. 55 Rge. 18w Co. Phillips State KS

Interval Tested 3090-3150 Zone Tested Tor-A  
 Anchor Length 60' Drill Pipe Run 3102' Mud Wt. 9.1  
 Top Packer Depth 3085 Drill Collars Run — Vis 48  
 Bottom Packer Depth 3090 Wt. Pipe Run — WL 8.0  
 Total Depth 3150 Chlorides 200 ppm System LCM 1

Blow Description IF - 74" @ blow, dred @ 14 minutes  
ISI - No return  
FF - No blow for 5 minutes, flushed tool, surged & dred. Pulled tool  
FST -

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Mud - Oil Spots</u>			<u>100</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 5 BHT 86° Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1509  Test 1150 T-On Location 1300  
 (B) First Initial Flow 30  Jars — T-Started 1330  
 (C) First Final Flow 30  Safety Joint — T-Open 1546  
 (D) Initial Shut-In 500  Circ Sub — T-Pulled 1708  
 (E) Second Initial Flow 31  Hourly Standby — T-Out 1830  
 (F) Second Final Flow 32  Mileage 118RT 182.90  
 (G) Final Shut-In —  Sampler —  
 (H) Final Hydrostatic 1501  Straddle —  
 Shale Packer —  
 Extra Packer —  
 Extra Recorder —  
 Day Standby —  
 Accessibility —  
 Sub Total 1332.90

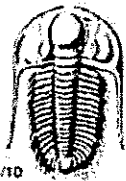
Initial Open 30  
 Initial Shut-In 30  
 Final Flow 15  
 Final Shut-In —

Comments Hotel  
 Ruined Shale Packer —  
 Ruined Packer —  
 Extra Copies —  
 Sub Total 0  
 Total 1332.90  
 MP/DST Disc't —

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

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





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 59353

Well Name & No. Pfannenstiel #2 Test No. 3 Date 9-16-14  
 Company Castle Resources, Inc Elevation 1948 KB 1943 GL  
 Address Po Box 87, Schoenchen KS, 67667  
 Co. Rep / Geo. Jerry Green Rig White Knight  
 Location: Sec. 11 Twp. 5s Rge. 18w Co. Phillips State KS

Interval Tested 3276-3315 Zone Tested "I, J"  
 Anchor Length 39' Drill Pipe Run 3360' Mud Wt. 9.4  
 Top Packer Depth 3271 Drill Collars Run — Vis 46  
 Bottom Packer Depth 3276 Wt. Pipe Run — WL 8.0  
 Total Depth 3315 Chlorides 800 ppm System LCM 1 #

Blow Description IF - Surface blow, died in 18 minutes  
ISI - No return  
FF - No blow for 5 min. flushed tool, surged & died - Pulled tool  
FSI -

Rec	Feet of	%gas	%oil	%water	%mud
<u>3</u>	<u>SOCM</u>	<u>5</u>		<u>95</u>	
<u>3</u>	<u>Free Oil</u>	<u>100</u>			

Rec Total 6' BHT 91° Gravity — API RW — @ —° F Chlorides — ppm

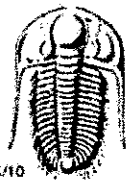
(A) Initial Hydrostatic 1632  Test 1150 T-On Location 0844  
 (B) First Initial Flow 14  Jars — T-Started 0902  
 (C) First Final Flow 15  Safety Joint — T-Open 1059  
 (D) Initial Shut-In 838  Circ Sub — T-Pulled 1208  
 (E) Second Initial Flow 16  Hourly Standby — T-Out 1345  
 (F) Second Final Flow 13  Mileage 118RTK2 182.90  
 (G) Final Shut-In —  Sampler — 182.90  
 (H) Final Hydrostatic 1616  Straddle —  
 Shale Packer —  
 Extra Packer —  
 Extra Recorder —  
 Day Standby —  
 Accessibility —

Comments 9/17/14 @ 5:30 am Loaded tools  
to Hotel

Initial Open 30  
 Initial Shut-In 30  
 Final Flow 15  
 Final Shut-In —  
 Sub Total 1515.80  
 Total 1515.80  
 MP/DST Disc't —

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

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



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 59351

Well Name & No. Pfannenstiel #2 Test No. 1 Date 9-15-14  
 Company Castle Resources, Inc Elevation 1948 KB 1943 GL  
 Address Po Box 87, Schoenchen KS, 67667  
 Co. Rep / Geo. Jerry Green Rig White knight  
 Location: Sec. 11 Twp. 5s Rge. 18w Co. Phillips State KS

Interval Tested 3090-3150 Zone Tested Tor-A  
 Anchor Length 60' Drill Pipe Run 3102' Mud Wt. 9.1  
 Top Packer Depth 3085 Drill Collars Run - Vis 48  
 Bottom Packer Depth 3090 Wt. Pipe Run - WL 8.6  
 Total Depth 3150 Chlorides 200 ppm System LCM 1

Blow Description IF- Hit Bridge 1000' down could NOT  
ISD- get through it. come out of hole  
FF- with Tool to clean up hole.  
FEI- 9:18 Am. Hit Bridge.

Rec	Feet of	%gas	%oil	%water	%mud

Rec Total \_\_\_\_\_ BHT \_\_\_\_\_ Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic \_\_\_\_\_  Test 950 T-On Location 0547  
 (B) First Initial Flow \_\_\_\_\_  Jars \_\_\_\_\_ T-Started 0607  
 (C) First Final Flow \_\_\_\_\_  Safety Joint \_\_\_\_\_ T-Open \_\_\_\_\_  
 (D) Initial Shut-In \_\_\_\_\_  Circ Sub \_\_\_\_\_ T-Pulled \_\_\_\_\_  
 (E) Second Initial Flow \_\_\_\_\_  Hourly Standby \_\_\_\_\_ T-Out 1002  
 (F) Second Final Flow \_\_\_\_\_  Mileage 118BT 182.90 Comments Hit bridge  
 (G) Final Shut-In \_\_\_\_\_  Sampler \_\_\_\_\_ \* Hotel \*  
 (H) Final Hydrostatic \_\_\_\_\_  Straddle \_\_\_\_\_

Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Initial Open \_\_\_\_\_  
 Initial Shut-In \_\_\_\_\_  
 Final Flow \_\_\_\_\_  
 Final Shut-In \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1132.90  
 Total 1132.90  
 MP/DST Disc't \_\_\_\_\_

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

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

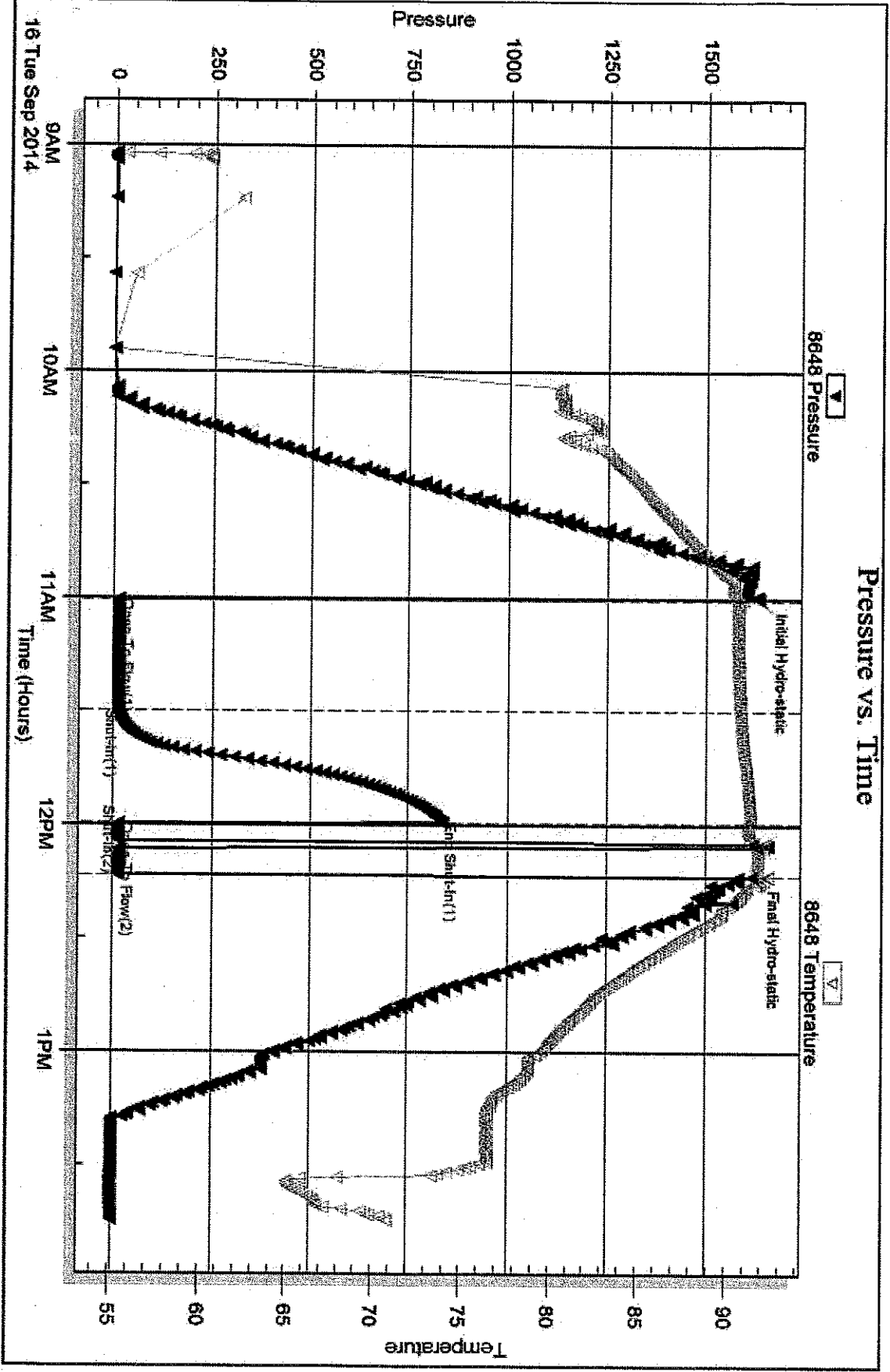
Serial #: 8648

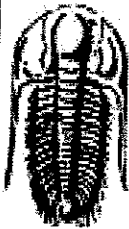
Inside

Castle Resources, Inc

Framenstiel #2

DST Test Number: 3





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Castle Resources, Inc

**11-5s-18w Phillips KS**

PO Box 87  
Schoenchen KS 67667

**Pfannenstiel #2**

Job Ticket: 59353

**DST#: 3**

ATTN: Gerry Green

Test Start: 2014.09.16 @ 09:02:00

## Tool Information

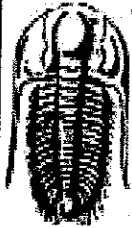
Drill Pipe:	Length: 3260.00 ft	Diameter: 3.80 inches	Volume: 45.73 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 42000.00 lb
			<u>Total Volume: 45.73 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 37000.00 lb
Depth to Top Packer:	3276.00 ft			Final 37000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	39.00 ft			
Tool Length:	60.00 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			3256.00	
Shut In Tool	5.00			3261.00	
Hydraulic tool	5.00			3266.00	
Packer	5.00			3271.00	21.00 Bottom Of Top Packer
Packer	5.00			3276.00	
Stubb	1.00			3277.00	
Perforations	3.00			3280.00	
Recorder	0.00	8648	Inside	3280.00	
Recorder	0.00	8940	Outside	3280.00	
Perforations	32.00			3312.00	
Bullnose	3.00			3315.00	39.00 Bottom Packers & Anchor

**Total Tool Length: 60.00**



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Castle Resources, Inc  
 PO Box 87  
 Schoenchen KS 67667  
 ATTN: Gerry Green

**11-5s-18w Phillips KS**  
**Pfannenstiel #2**  
 Job Ticket: 59353 **DST#: 3**  
 Test Start: 2014.09.16 @ 09:02:00

**GENERAL INFORMATION:**

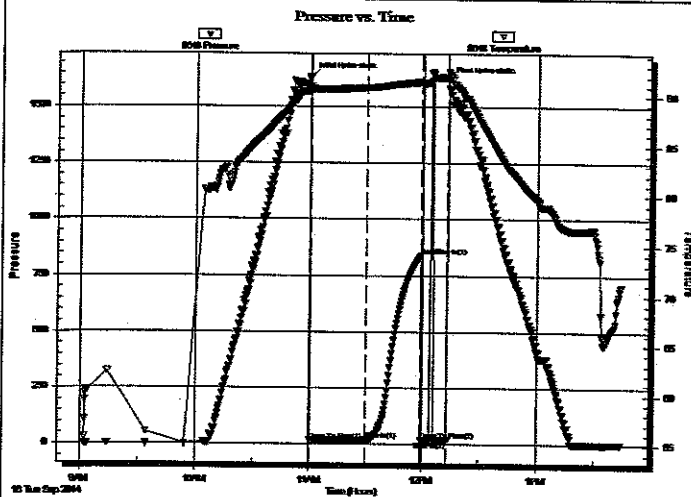
Formation: **LKC "I-J"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 11:00:15  
 Time Test Ended: 13:45:00  
 Interval: **3276.00 ft (KB) To 3315.00 ft (KB) (TVD)**  
 Total Depth: 3315.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Cody Bloedorn  
 Unit No: 73  
 Reference Elevations: 1948.00 ft (KB)  
 1943.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 8648**

Inside

Press@RunDepth: 15.74 psig @ 3280.00 ft (KB)  
 Start Date: 2014.09.16 End Date: 2014.09.16 Capacity: 8000.00 psig  
 Start Time: 09:02:05 End Time: 13:44:59 Last Calib.: 2014.09.16  
 Time On Btm: 2014.09.16 @ 11:00:00  
 Time Off Btm: 2014.09.16 @ 12:13:30

**TEST COMMENT:** 30 - IF- Surface blow, died in 18 minutes  
 30 - IS- No return  
 15 - FF- no blow for 5 min. flushed tool, surged and died, pulled tool



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1632.74	90.99	Initial Hydro-static
1	14.79	90.46	Open To Flow (1)
30	15.74	90.85	Shut-In(1)
60	838.56	91.46	End Shut-In(1)
60	16.90	91.20	Open To Flow (2)
74	13.48	91.90	Shut-In(2)
74	1616.54	92.46	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
3.00	SOCM, 5%O, 95%M	0.04
3.00	Free Oil, 100%O	0.04

\* Recovery from multiple tests

**Gas Rates**

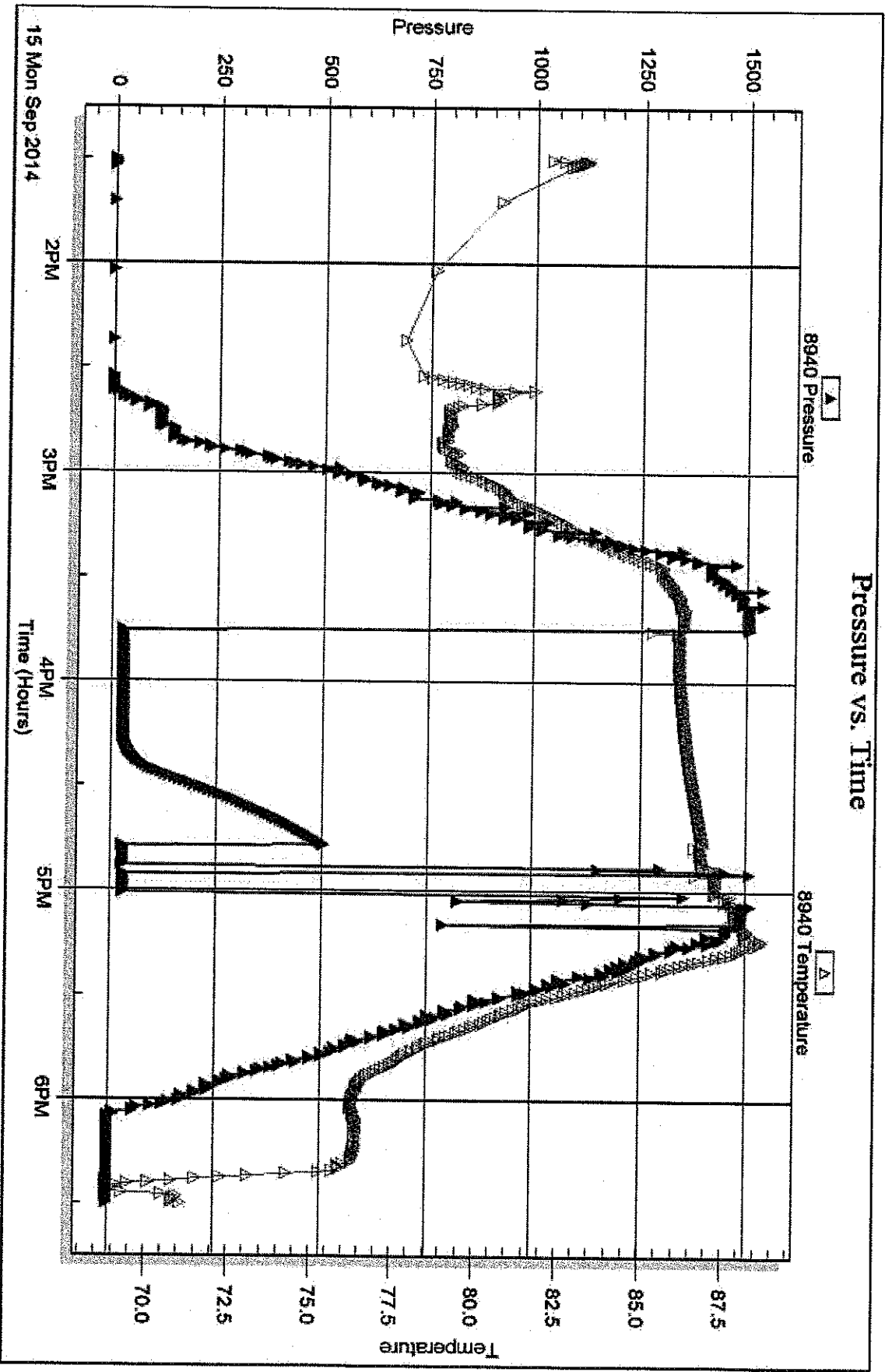
Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

Serial #: 8940

Outside Castle Resources, Inc

Flannister #2

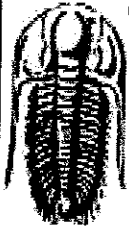
DST Test Number: 2



Trioble Testing, Inc

Ref. No: 59352

Printed: 2014.09.17 @ 11:11:24



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Castle Resources, Inc  
 PO Box 87  
 Schoenchen KS 67667  
 ATTN: Gerry Green

**11-5s-18w Phillips KS**  
**Pfannenstiel #2**  
 Job Ticket: 59352      **DST#: 2**  
 Test Start: 2014.09.15 @ 13:30:00

## Mud and Cushion Information

Mud Type: Gel Chem  
 Mud Weight: 9.00 lb/gal  
 Viscosity: 48.00 sec/qt  
 Water Loss: 7.99 in<sup>3</sup>  
 Resistivity: ohm.m  
 Salinity: 200.00 ppm  
 Filter Cake: 1.00 inches

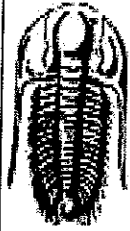
Cushion Type:  
 Cushion Length: ft      Oil API: deg API  
 Cushion Volume: bbl      Water Salinity: ppm  
 Gas Cushion Type:  
 Gas Cushion Pressure: psig

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud - Oil spots, 100%M	0.070

Total Length: 5.00 ft      Total Volume: 0.070 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:



**TRILOBITE TESTING, INC**

**DRILL STEM TEST REPORT**

Castle Resources, Inc

11-5s-18w Phillips KS

PO Box 87  
Schoenchen KS 67667

Pfannenstiel #2

Job Ticket: 59352

DST#: 2

ATTN: Gerry Green

Test Start: 2014.09.15 @ 13:30:00

**GENERAL INFORMATION:**

Formation: **Toronto - LKC A**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 15:45:15  
Time Test Ended: 18:30:00

Test Type: Conventional Bottom Hole (Reset)  
Tester: Cody Bloedorn  
Unit No: 73

Interval: **3090.00 ft (KB) To 3150.00 ft (KB) (TVD)**  
Total Depth: 3150.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches  
Hole Condition: Fair

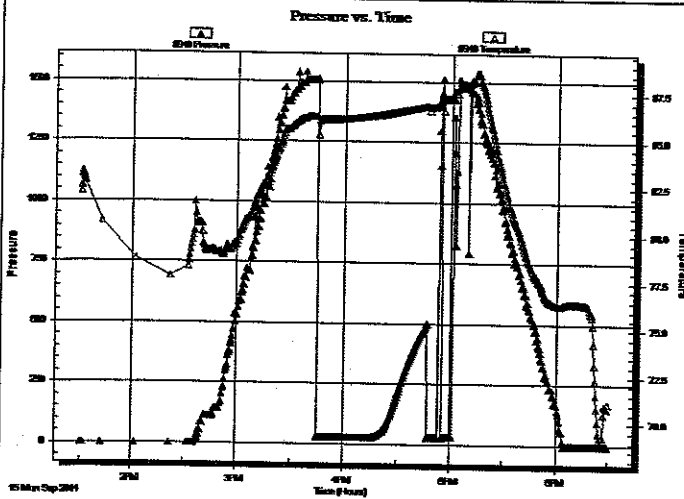
Reference Elevations: 1948.00 ft (KB)  
1943.00 ft (CF)  
KB to GR/CF: 5.00 ft

Serial #: **8940** Outside

Press@RunDepth: psig @ 3127.00 ft (KB)  
Start Date: 2014.09.15 End Date: 2014.09.15  
Start Time: 13:30:05 End Time: 18:29:59

Capacity: 8000.00 psig  
Last Calib.: 2014.09.15  
Time On Btm:  
Time Off Btm:

**TEST COMMENT:** 30 - IF- 1/4" blow, died @ 14 minutes  
30 - ISF- No return  
15 - FF- No blow for 5 minutes, flushed tool, surged and died. pulled tool



**PRESSURE SUMMARY**

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

**Recovery**

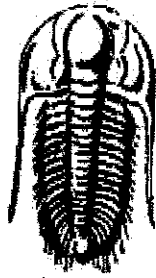
Length (ft)	Description	Volume (bbl)
5.00	Mud - Oil spots, 100%M	0.07

\* Recovery from multiple tests

**Gas Rates**

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





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Castle Resources, Inc**

PO Box 87  
Schoenchen KS 67667

ATTN: Gerry Green

### **Pfannenstiel #2**

#### **11-5s-18w Phillips KS**

Start Date: 2014.09.15 @ 13:30:00

End Date: 2014.09.15 @ 18:30:00

Job Ticket #: 59352                      DST #: 2

Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

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

Printed: 2014.09.17 @ 11:11:23

Castle Resources, Inc

11-5s-18w Phillips KS

Pfannenstiel #2

DST # 2

Toronto - LKC A

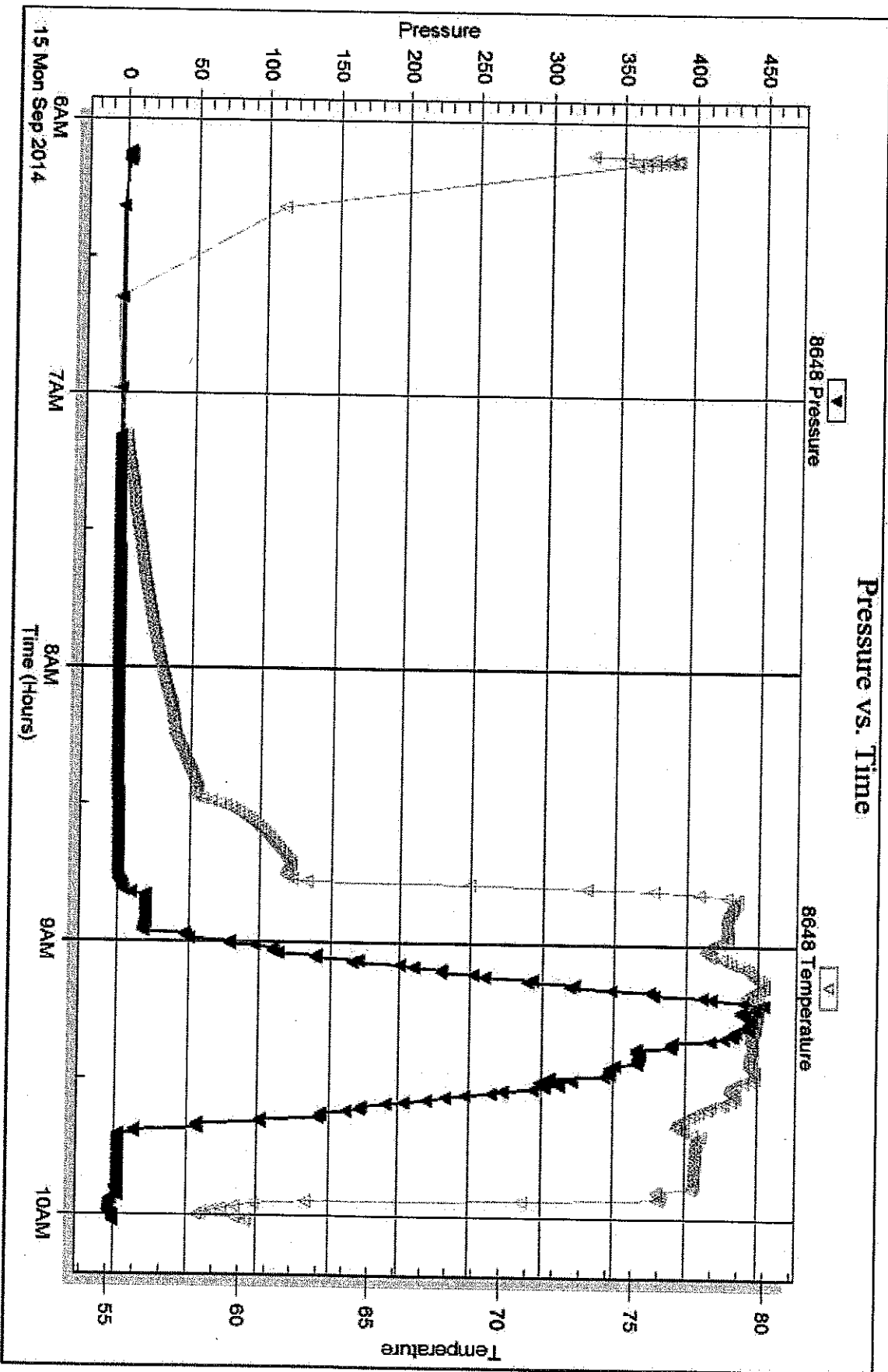
2014.09.15

Serial #: 8648

Inside Castle Resources, Inc

Flammestiel #2

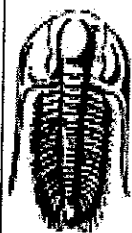
DST Test Number: 1



Tribble Testing, Inc

Ref. No: 59351

Printed: 2014.09.17 @ 11:11:46



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Castle Resources, Inc

**11-5s-18w Phillips KS**

PO Box 87  
Schoenchen KS 67667

**Pfannenstiel #2**

Job Ticket: 59351

**DST#: 1**

ATTN: Gerry Green

Test Start: 2014.09.15 @ 06:07:05

## Tool Information

Drill Pipe:	Length: 3102.00 ft	Diameter: 3.80 inches	Volume: 43.51 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 2500.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: lb
		<b>Total Volume:</b>	<b>43.51 bbl</b>	Tool Chased: 0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial lb
Depth to Top Packer:	3090.00 ft			Final lb
Depth to Bottom Packer:	ft			
Interval between Packers:	60.00 ft			
Tool Length:	81.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: Hit a bridge roughly a 1000' down, not enough weight to open tool. tried pushing through bridge. Did not work. Came out of hole with tool to clean up the hole.

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3070.00	
Shut In Tool	5.00			3075.00	
Hydraulic tool	5.00			3080.00	
Packer	5.00			3085.00	21.00 Bottom Of Top Packer
Packer	5.00			3090.00	
Stubb	1.00			3091.00	
Perforations	3.00			3094.00	
Change Over Sub	1.00			3095.00	
Drill Pipe	31.00			3126.00	
Change Over Sub	1.00			3127.00	
Recorder	0.00	8648	Inside	3127.00	
Recorder	0.00	8940	Outside	3127.00	
Perforations	20.00			3147.00	
Bullnose	3.00			3150.00	60.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>81.00</b>				





## DRILL STEM TEST REPORT

Prepared For: **Castle Resources, Inc**

PO Box 87  
Schoenchen KS 67667

ATTN: Gerry Green

### **Pfannenstiel #2**

### **11-5s-18w Phillips KS**

Start Date: 2014.09.15 @ 06:07:05

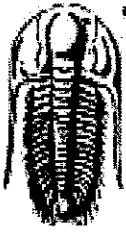
End Date: 2014.09.15 @ 10:01:30

Job Ticket #: 59351                      DST #: 1

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.09.17 @ 11:11:44

Castle Resources, Inc  
11-5s-18w Phillips KS  
Pfannenstiel #2  
DST # 1  
Toronto - LKC "A"  
2014.09.15



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Castle Resources, Inc  
 PO Box 87  
 Schoenchen KS 67667  
 ATTN: Gerry Green

**11-5s-18w Phillips KS**  
**Pfannenstiel #2**  
 Job Ticket: 59351      **DST#: 1**  
 Test Start: 2014.09.15 @ 06:07:05

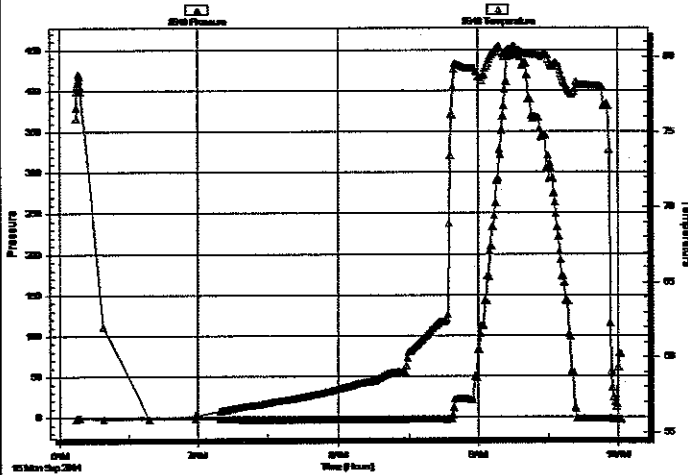
### GENERAL INFORMATION:

Formation: **Toronto - LKC "A"**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Cody Bloedorn  
 Time Tool Opened:  
 Time Test Ended: 10:01:30  
 Unit No: 73  
 Interval: **3090.00 ft (KB) To 3150.00 ft (KB) (TVD)**  
 Total Depth: 3150.00 ft (KB) (TVD)  
 Reference Elevations: 1948.00 ft (KB)  
 1943.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 KB to GR/CF: 5.00 ft

**Serial #: 8940 Outside**  
 Press@RunDepth: psig @ 3127.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2014.09.15      End Date: 2014.09.15      Last Calib.: 2014.09.15  
 Start Time: 06:07:05      End Time: 10:01:30      Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** Hit bridge roughly 1000' up. could not get through it. come out of hole w/ tool to clean up hole.

Pressure vs. Time



### PRESSURE SUMMARY

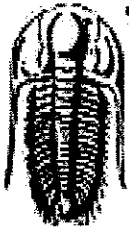
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

### Recovery

Length (ft)	Description	Volume (bbl)

### Gas Rates

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



**TRIOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Castle Resources, Inc

**11-5s-18w Phillips KS**

PO Box 87  
Schoenchen KS 67667

**Pfannenstiel #2**

Job Ticket: 59351

**DST#: 1**

ATTN: Gerry Green

Test Start: 2014.09.15 @ 06:07:05

## 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: 48.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 200.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl

Total Length:

ft

Total Volume:

bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

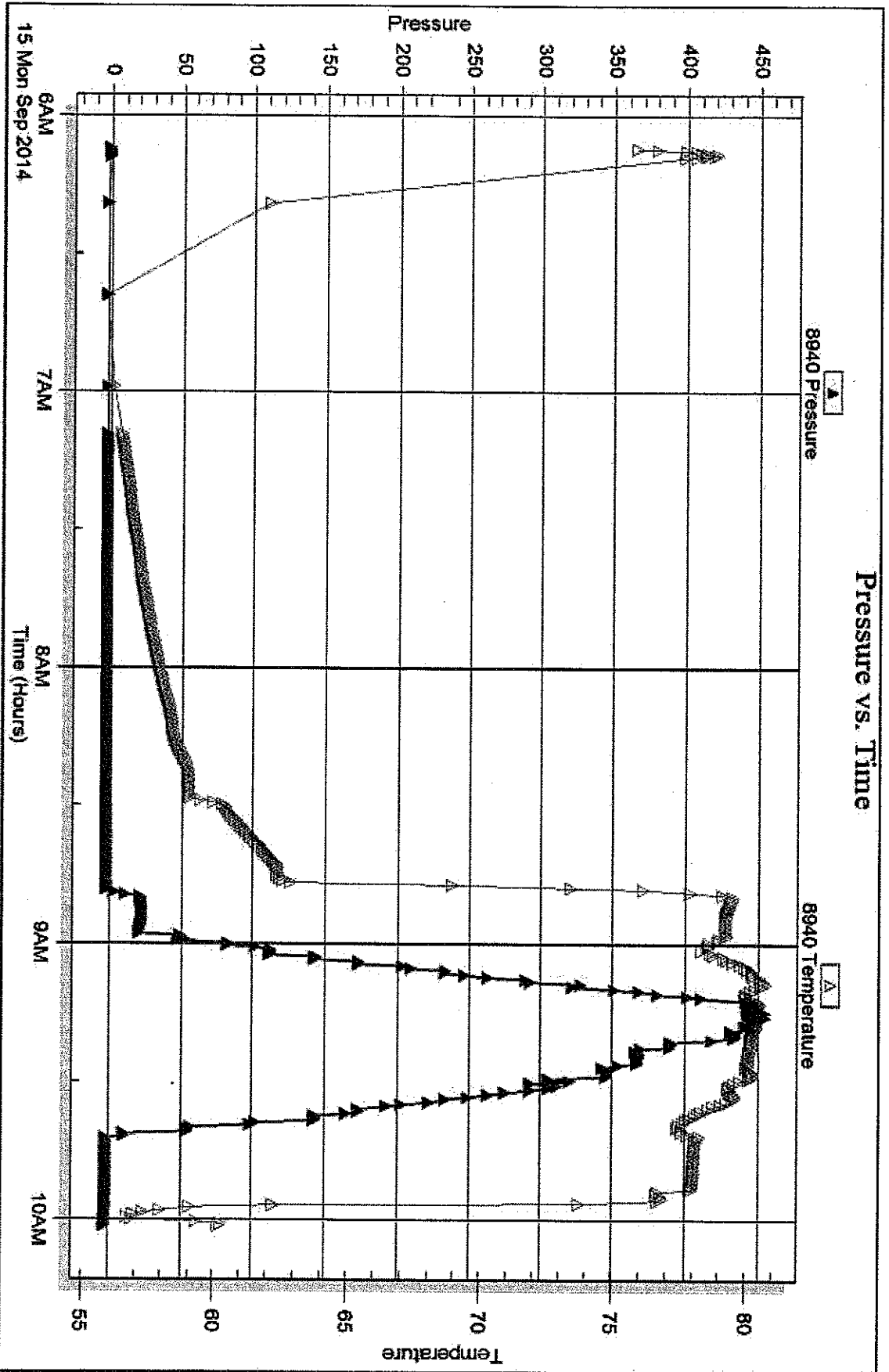
Recovery Comments:

Serial #: 8940

Outside Castle Resources, Inc

Flammstiel #2

CST Test Number: 1

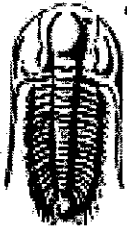


Triobite Testing, Inc

Ref. No: 59351

Printed: 2014.09.17 @ 11:11:46





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Castle Resources, Inc  
PO Box 87  
Schoenchen KS 67667  
ATTN: Gerry Green

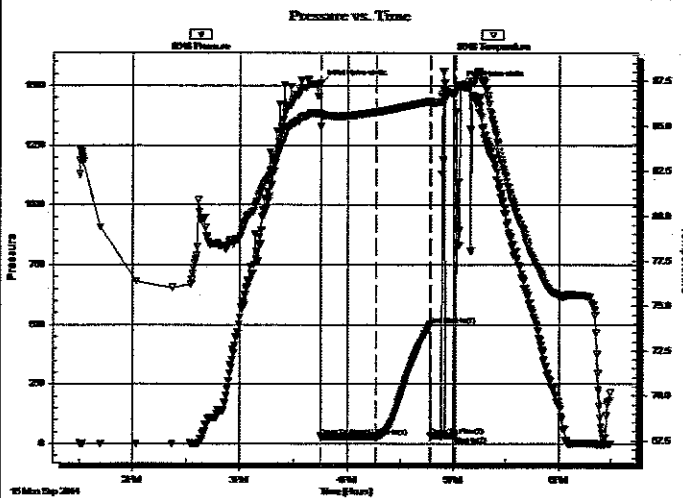
**11-5s-18w Phillips KS**  
**Pfannenstiel #2**  
Job Ticket: 59352      **DST#: 2**  
Test Start: 2014.09.15 @ 13:30:00

## GENERAL INFORMATION:

Formation: **Toronto - LKC A**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 15:45:15  
Time Test Ended: 18:30:00  
Interval: **3090.00 ft (KB) To 3150.00 ft (KB) (TVD)**  
Total Depth: 3150.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Reference Elevations: 1948.00 ft (KB)  
1943.00 ft (CF)  
KB to GR/CF: 5.00 ft

**Serial #: 8648**      **Inside**  
Press@RunDepth: 30.32 psig @ 3127.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2014.09.15      End Date: 2014.09.15      Last Calib.: 2014.09.15  
Start Time: 13:30:05      End Time: 18:29:59      Time On Btm: 2014.09.15 @ 15:45:00  
Time Off Btm: 2014.09.15 @ 17:03:45

**TEST COMMENT:** 30 - IF- 1/4" blow, died @ 14 minutes  
30 - ISI- No return  
15 - FF- No blow for 5 minutes, flushed tool, surged and died. pulled tool



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1509.32	85.66	Initial Hydro-static
1	30.47	85.00	Open To Flow (1)
31	30.32	85.78	Shut-In(1)
62	500.08	86.39	End Shut-In(1)
63	31.57	86.22	Open To Flow (2)
76	32.87	86.82	Shut-In(2)
79	1501.92	87.21	Final Hydro-static

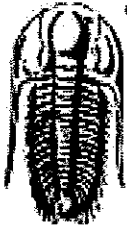
## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud - Oil spots, 100%M	0.07

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Castle Resources, Inc  
 PO Box 87  
 Schoenchen KS 67667  
 ATTN: Gerry Green

**11-5s-18w Phillips KS**  
**Pfannenstiel #2**  
 Job Ticket: 59352      **DST#: 2**  
 Test Start: 2014.09.15 @ 13:30:00

**Tool Information**

Drill Pipe:	Length: 3102.00 ft	Diameter: 3.80 inches	Volume: 43.51 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 43.51 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	3090.00 ft			Final 38000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	60.00 ft			
Tool Length:	81.00 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			3070.00	
Shut In Tool	5.00			3075.00	
Hydraulic tool	5.00			3080.00	
Packer	5.00			3085.00	21.00      Bottom Of Top Packer
Packer	5.00			3090.00	
Stubb	1.00			3091.00	
Perforations	3.00			3094.00	
Change Over Sub	1.00			3095.00	
Drill Pipe	31.00			3126.00	
Change Over Sub	1.00			3127.00	
Recorder	0.00	8648	Inside	3127.00	
Recorder	0.00	8940	Outside	3127.00	
Perforations	20.00			3147.00	
Bullnose	3.00			3150.00	60.00      Bottom Packers & Anchor

**Total Tool Length: 81.00**

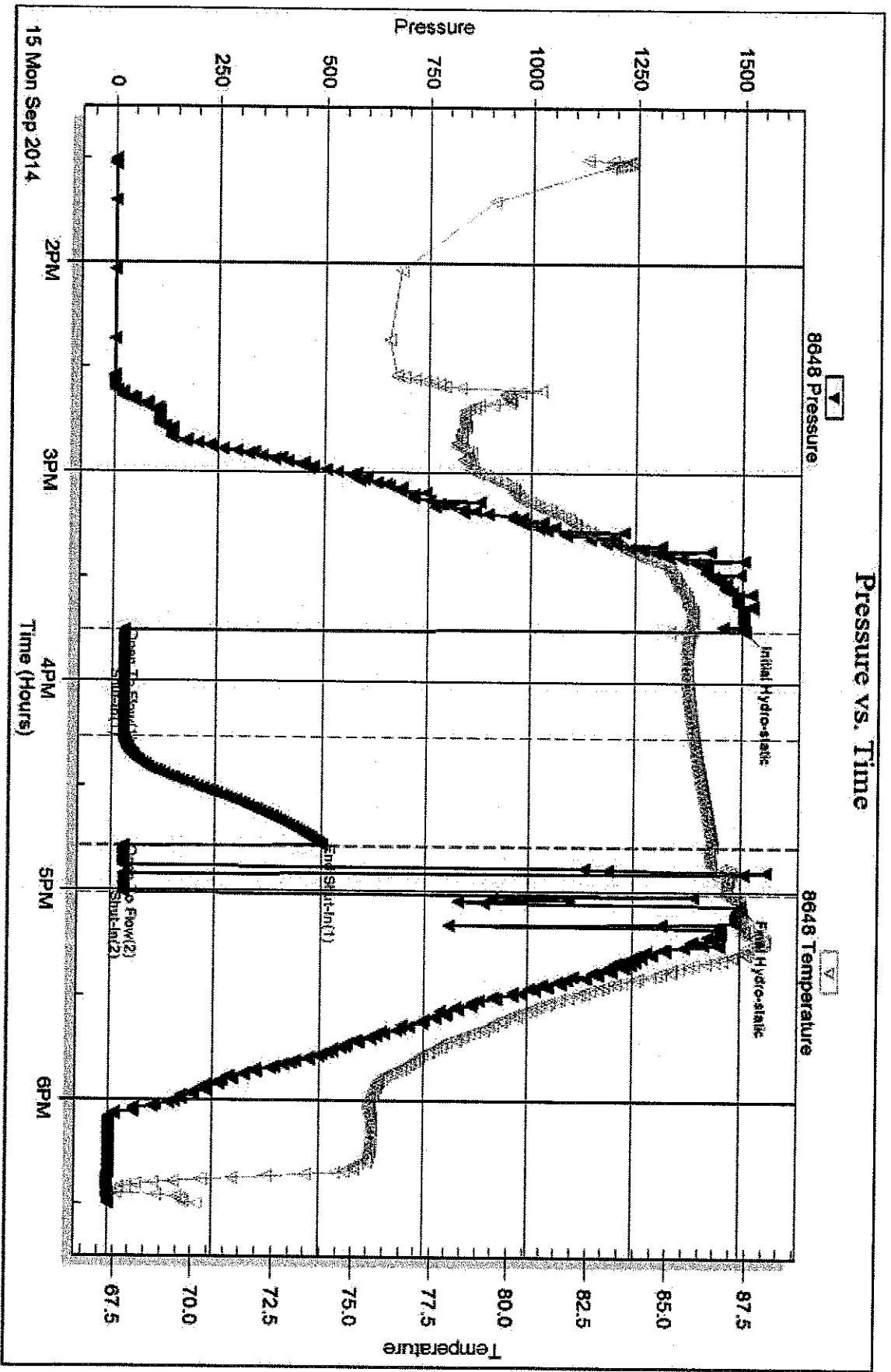
Serial #: 8648

Inside

Castle Resources, Inc

Planner/Well #2

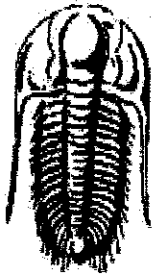
DST Test Number: 2



Tribble Testing, Inc

Ref. No: 59352

Printed: 2014.09.17 @ 11:11:24



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Castle Resources, Inc**

PO Box 87  
Schoenchen KS 67667

ATTN: Gerry Green

### **Pfannenstiel #2**

### **11-5s-18w Phillips KS**

Start Date: 2014.09.16 @ 09:02:00

End Date: 2014.09.16 @ 13:45:00

Job Ticket #: 59353                      DST #: 3

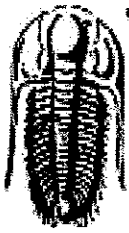
Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

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

Printed: 2014.09.17 @ 11:10:36

Castle Resources, Inc 11-5s-18w Phillips KS Pfannenstiel #2 DST # 3 LKC "1-J" 2014.09.16



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Castle Resources, Inc  
 PO Box 87  
 Schoenchen KS 67667  
 ATTN: Gerry Green

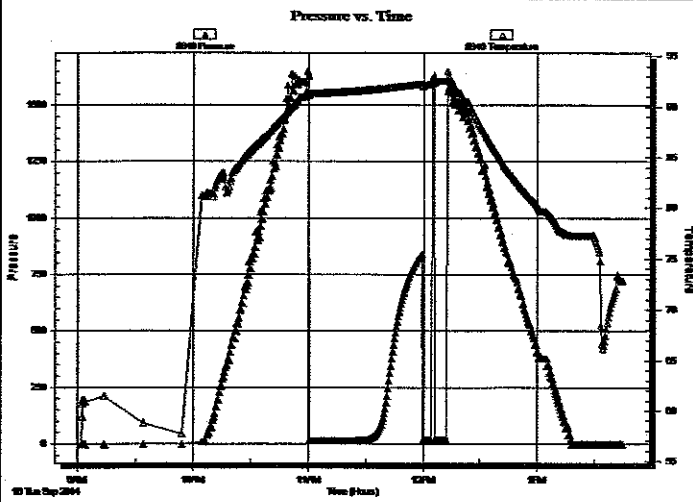
**11-5s-18w Phillips KS**  
**Pfannenstiel #2**  
 Job Ticket: 59353      **DST#: 3**  
 Test Start: 2014.09.16 @ 09:02:00

**GENERAL INFORMATION:**

Formation: **LKC "I-J"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 11:00:15      Test Type: Conventional Bottom Hole (Reset)  
 Time Test Ended: 13:45:00      Tester: Cody Bloedorn  
 Unit No: 73  
**Interval: 3276.00 ft (KB) To 3315.00 ft (KB) (TVD)**      Reference Elevations: 1948.00 ft (KB)  
 Total Depth: 3315.00 ft (KB) (TVD)      1943.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair      KB to GR/CF: 5.00 ft

**Serial #: 8940      Outside**  
 Press@RunDepth: psig @ 3280.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2014.09.16      End Date: 2014.09.16      Last Calib.: 2014.09.16  
 Start Time: 09:02:05      End Time: 13:44:59      Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** 30 - IF- Surface blow, died in 18 minutes  
 30 - IS- No return  
 15 - FF- no blow for 5 min. flushed tool, surged and died, pulled tool



**PRESSURE SUMMARY**

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

**Recovery**

Length (ft)	Description	Volume (bbl)
3.00	SOCM, 5%O, 95%M	0.04
3.00	Free Oil, 100%O	0.04

**Gas Rates**

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

Castle Resources, Inc  
PO Box 87  
Schoenchen KS 67667  
ATTN: Gerry Green

**11-5s-18w Phillips KS**  
**Pfannenstiel #2**  
Job Ticket: 59353      **DST#: 3**  
Test Start: 2014.09.16 @ 09:02:00

### 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: 46.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.99 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 800.00 ppm			
Filter Cake: 1.00 inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
3.00	SOCM, 5%O, 95%M	0.042
3.00	Free Oil, 100%O	0.042

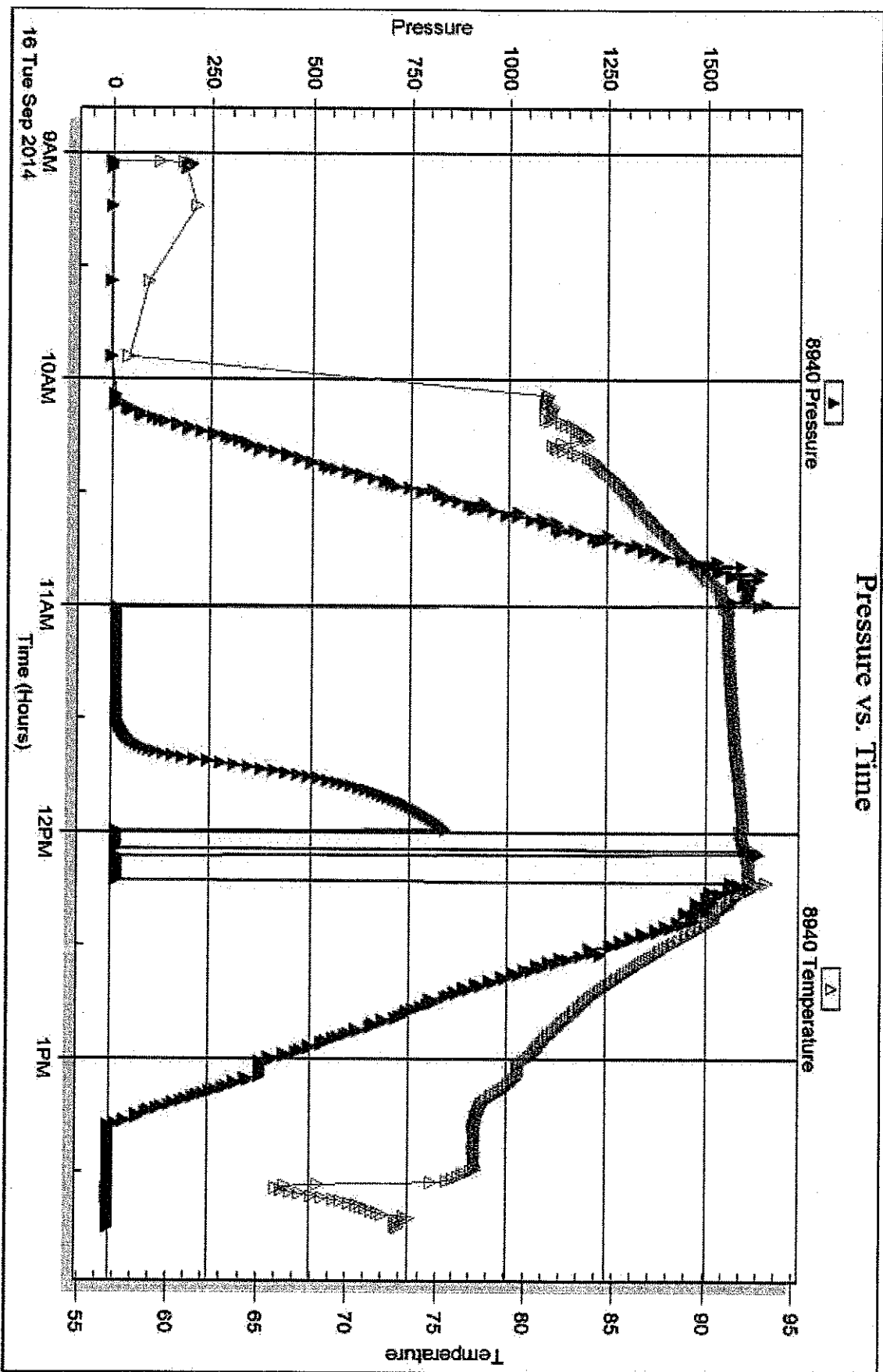
Total Length: 6.00 ft      Total Volume: 0.084 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:

Serial #: 8940

Outside: Castle Resources, Inc

Paramsteel #2

DST Test Number: 3



Trouble Testing, Inc

Ref. No: 59353

Printed: 2014.09.17 @ 11:10:37



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 59352

Well Name & No. Pfannenstiel #2 Test No. 2 Date 9-15-14  
 Company Castle Resources, Inc Elevation 1948 KB 1943 GL  
 Address Po Box 87, Schoenchen KS, 67667  
 Co. Rep / Geo. Jerry Green Rig White Knight  
 Location: Sec. 11 Twp. 55 Rge. 18W Co. Phillips State KS

Interval Tested 3090-3150 Zone Tested Tor - A  
 Anchor Length 60' Drill Pipe Run 3102' Mud Wt. 9.1  
 Top Packer Depth 3085 Drill Collars Run — Vis 48  
 Bottom Packer Depth 3090 Wt. Pipe Run — WL 8.0  
 Total Depth 3150 Chlorides 200 ppm System LCM 1

Blow Description IF - 14" blow, dried @ 14 minutes  
ISI - No return  
FF - No blow for 5 minutes, flushed tool, surged & dried. Pulled tool  
FST -

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Mud - oil spots</u>			<u>100</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 5 BHT 86° Gravity — API RW — @ — ° F Chlorides — ppm

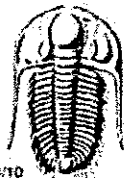
(A) Initial Hydrostatic 1509  Test 1150 T-On Location 1300  
 (B) First Initial Flow 30  Jars — T-Started 1330  
 (C) First Final Flow 30  Safety Joint — T-Open 1546  
 (D) Initial Shut-In 500  Circ Sub — T-Pulled 1708  
 (E) Second Initial Flow 31  Hourly Standby — T-Out 1830  
 (F) Second Final Flow 32  Mileage 118CT 182.90 Comments Hotel  
 (G) Final Shut-In —  Sampler —  
 (H) Final Hydrostatic 1501  Straddle —  
 Ruined Shale Packer

Initial Open 30  Ruined Packer —  
 Initial Shut-In 30  Extra Copies —  
 Final Flow 15 Sub Total 0  
 Final Shut-In — Total 1332.90  
 Sub Total 1332.90 MP/DST Disc't —

Approved By \_\_\_\_\_ Our Representative Cody Blair

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





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 59353

Well Name & No. Pfannenstiel #2 Test No. 3 Date 9-16-14  
 Company Castle Resources, Inc Elevation 1948 KB 1943 GL  
 Address Po Box 87, Schoenchen KS, 67667  
 Co. Rep / Geo. Jerry Green Rig White Knight  
 Location: Sec. 11 Twp. 55 Rge. 18W Co. Phillips State KS

Interval Tested 3276-3315 Zone Tested "I, J"  
 Anchor Length 39' Drill Pipe Run 3260' Mud Wt. 9.4  
 Top Packer Depth 3271 Drill Collars Run — Vis 46  
 Bottom Packer Depth 3276 Wt. Pipe Run — WL 8.0  
 Total Depth 3315 Chlorides 800 ppm System LCM 1 #

Blow Description IF - Surface blow, died in 18 minutes  
ISI - No return  
FF - No blow for 5 min. flushed tool, surged & died - Pulled tool  
FSI -

Rec	Feet of	%gas	%oil	%water	%mud
<u>3</u>	<u>SOC M</u>	<u>5</u>		<u>95</u>	
<u>3</u>	<u>Free Oil</u>	<u>100</u>			

Rec Total 6' BHT 91° Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1632  Test 1150 T-On Location 0844  
 (B) First Initial Flow 14  Jars — T-Started 0902  
 (C) First Final Flow 15  Safety Joint — T-Open 1059  
 (D) Initial Shut-In 8.38  Circ Sub — T-Pulled 1208  
 (E) Second Initial Flow 16  Hourly Standby — T-Out 1345  
 (F) Second Final Flow 13  Mileage 118RTX2 182.90  
 (G) Final Shut-In —  Sampler — 182.90  
 (H) Final Hydrostatic 1616  Straddle —

Comments 9/17/14 @ 5:30 am Loaded tools  
\*Hotel\*

Ruined Shale Packer  
 Ruined Packer  
 Extra Copies  
 Initial Open 30  
 Initial Shut-In 30  
 Final Flow 15  
 Final Shut-In —  
 Accessibility  
 Sub Total 1515.80  
 Sub Total 1515.80

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

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



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 59351

Well Name & No. Pfannenstiel #2 Test No. 1 Date 9-15-14  
 Company Castle Resources, Inc Elevation 1948 KB 1943 GL  
 Address Po Box 87, Schoenchen KS, 67667  
 Co. Rep / Geo. Jerry Green Rig White knight  
 Location: Sec. 11 Twp. 5s Rge. 18w Co. Phillips State KS

Interval Tested 3090-3150 Zone Tested Tor-A  
 Anchor Length 60' Drill Pipe Run 3102' Mud Wt. 9.1  
 Top Packer Depth 3085 Drill Collars Run - Vis 48  
 Bottom Packer Depth 3090 Wt. Pipe Run - WL 8.0  
 Total Depth 3150 Chlorides 200 ppm System LCM 1

Blow Description IF- Hit Bridge 1000' down could NOT  
ISD- get through it. come out of hole  
FF- with Tool to clean up hole.  
FSI- 9:18 Am. Hit Bridge.

Rec	Feet of	%gas	%oil	%water	%mud

Rec Total \_\_\_\_\_ BHT \_\_\_\_\_ Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic \_\_\_\_\_  Test 950 T-On Location 0547  
 (B) First Initial Flow \_\_\_\_\_  Jars \_\_\_\_\_ T-Started 0607  
 (C) First Final Flow \_\_\_\_\_  Safety Joint \_\_\_\_\_ T-Open \_\_\_\_\_  
 (D) Initial Shut-In \_\_\_\_\_  Circ Sub \_\_\_\_\_ T-Pulled \_\_\_\_\_  
 (E) Second Initial Flow \_\_\_\_\_  Hourly Standby \_\_\_\_\_ T-Out 1002  
 (F) Second Final Flow \_\_\_\_\_  Mileage 118PT 182.90 Comments Hit bridge  
 (G) Final Shut-In \_\_\_\_\_  Sampler \_\_\_\_\_ \* Hotel \*  
 (H) Final Hydrostatic \_\_\_\_\_  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open \_\_\_\_\_  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In \_\_\_\_\_  Day Standby \_\_\_\_\_ Total 1132.90  
 Final Flow \_\_\_\_\_  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In \_\_\_\_\_ Sub Total 1132.90

Approved By \_\_\_\_\_

Our Representative Cody [Signature]

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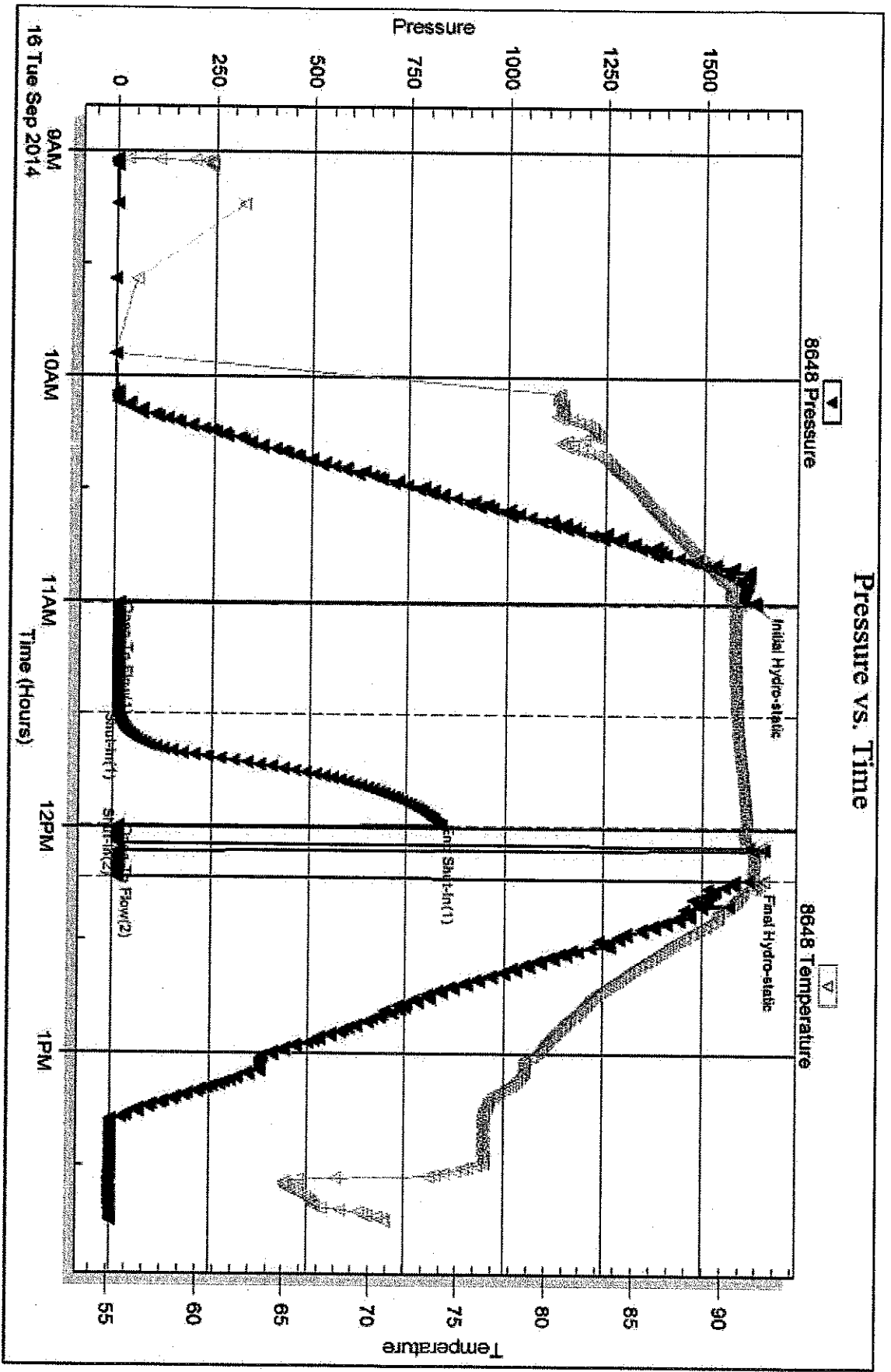
Serial #: 8648

Inside

Castle Resources, Inc

Paramenstel #2

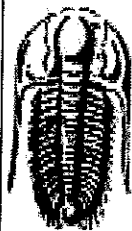
DST Test Number: 3



Tracelle Testing, Inc

Ref. No: 59353

Printed: 2014.09.17 @ 11:10:37



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

TOOL DIAGRAM

Castle Resources, Inc

11-5s-18w Phillips KS

PO Box 87  
Schoenchen KS 67667

Pfannenstiel #2

Job Ticket: 59353

DST#: 3

ATTN: Gerry Green

Test Start: 2014.09.16 @ 09:02:00

## Tool Information

Drill Pipe:	Length: 3260.00 ft	Diameter: 3.80 inches	Volume: 45.73 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 42000.00 lb
		Total Volume:	45.73 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 37000.00 lb
Depth to Top Packer:	3276.00 ft			Final 37000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	39.00 ft			
Tool Length:	60.00 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			3256.00	
Shut In Tool	5.00			3261.00	
Hydraulic tool	5.00			3266.00	
Packer	5.00			3271.00	21.00 Bottom Of Top Packer
Packer	5.00			3276.00	
Stubb	1.00			3277.00	
Perforations	3.00			3280.00	
Recorder	0.00	8648	Inside	3280.00	
Recorder	0.00	8940	Outside	3280.00	
Perforations	32.00			3312.00	
Bullnose	3.00			3315.00	39.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>60.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Castle Resources, Inc

11-5s-18w Phillips KS

PO Box 87  
Schoenchen KS 67667

**Pfannenstiel #2**

Job Ticket: 59353

**DST#: 3**

ATTN: Gerry Green

Test Start: 2014.09.16 @ 09:02:00

## GENERAL INFORMATION:

Formation: **LKC "I-J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:00:15

Time Test Ended: 13:45:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Cody Bloedorn

Unit No: 73

Interval: **3276.00 ft (KB) To 3315.00 ft (KB) (TVD)**

Total Depth: 3315.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1948.00 ft (KB)

1943.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 8648**

Inside

Press@RunDepth: 15.74 psig @ 3280.00 ft (KB)

Start Date: 2014.09.16

End Date: 2014.09.16

Capacity: 8000.00 psig

Last Calib.: 2014.09.16

Start Time: 09:02:05

End Time: 13:44:59

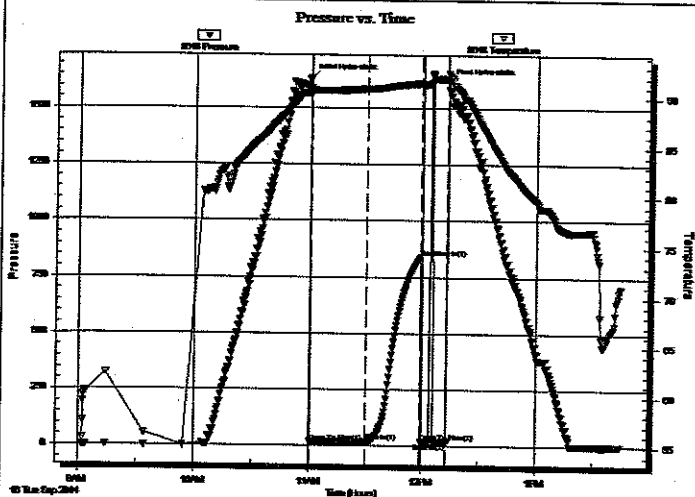
Time On Btm: 2014.09.16 @ 11:00:00

Time Off Btm: 2014.09.16 @ 12:13:30

TEST COMMENT: 30 - IF- Surface blow, died in 18 minutes

30 - IS- No return

15 - FF- no blow for 5 min. flushed tool, surged and died, pulled tool



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1632.74	90.99	Initial Hydro-static
1	14.79	90.46	Open To Flow (1)
30	15.74	90.85	Shut-In(1)
60	838.56	91.46	End Shut-In(1)
60	16.90	91.20	Open To Flow (2)
74	13.48	91.90	Shut-In(2)
74	1616.54	92.46	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
3.00	SOCM, 5%O, 95%M	0.04
3.00	Free Oil, 100%O	0.04

\* Recovery from multiple tests

## Gas Rates

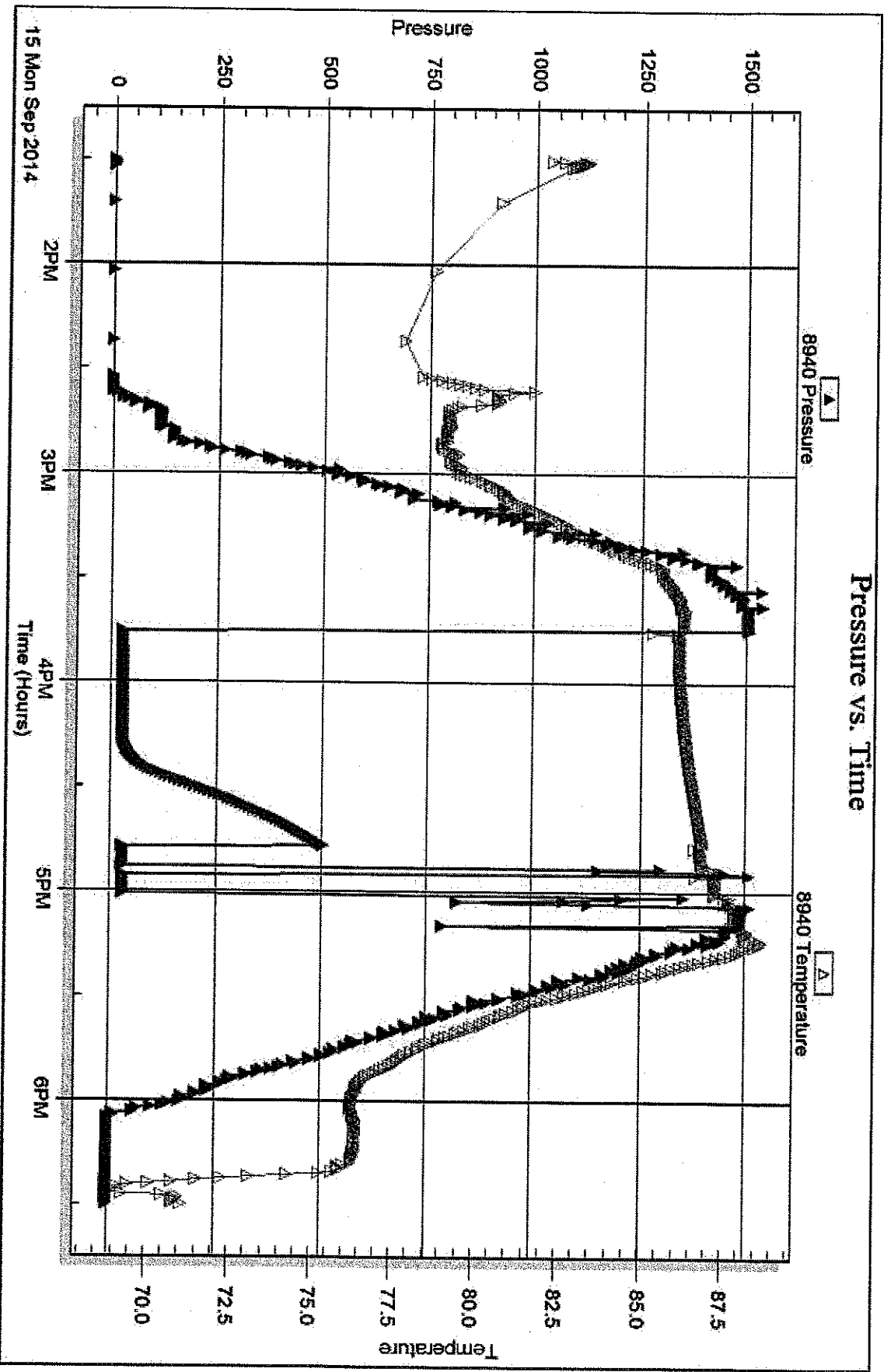
Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

Serial #: 8940

Outside Castle Resources, Inc

Flammestiel #2

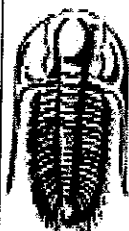
DST Test Number: 2



Triopole Testing, Inc

Ref. No: 59352

Printed: 2014.09.17 @ 11:11:24



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Castle Resources, Inc

**11-5s-18w Phillips KS**

PO Box 87  
Schoenchen KS 67667

**Pfannenstiel #2**

ATTN: Gerry Green

Job Ticket: 59352

**DST#: 2**

Test Start: 2014.09.15 @ 13:30:00

## Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 48.00 sec/qt

Water Loss: 7.99 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 200.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity:

deg API

ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud - Oil spots, 100%M	0.070

Total Length: 5.00 ft      Total Volume: 0.070 bbl

Num Fluid Samples: 0

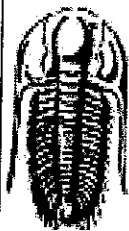
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



**TRILOBITE  
TESTING, INC.**

### DRILL STEM TEST REPORT

Castle Resources, Inc  
PO Box 87  
Schoenchen KS 67667  
ATTN: Gerry Green

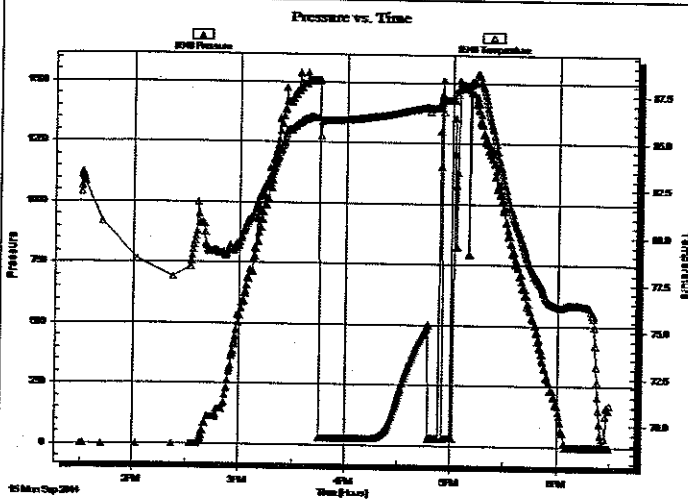
11-5s-18w Phillips KS  
**Pfannenstiel #2**  
Job Ticket: 59352      **DST#: 2**  
Test Start: 2014.09.15 @ 13:30:00

**GENERAL INFORMATION:**

Formation: **Toronto - LKC A**  
Deviated: No      Whipstock:      ft (KB)  
Time Tool Opened: 15:45:15  
Time Test Ended: 18:30:00  
**Interval: 3090.00 ft (KB) To 3150.00 ft (KB) (TVD)**  
Total Depth: 3150.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches      Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Cody Bloedorn  
Unit No: 73  
Reference Elevations: 1948.00 ft (KB)  
1943.00 ft (CF)  
KB to GR/CF: 5.00 ft

**Serial #: 8940      Outside**  
Press@RunDepth:      psig @ 3127.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2014.09.15      End Date: 2014.09.15      Last Calib.: 2014.09.15  
Start Time: 13:30:05      End Time: 18:29:59      Time On Btm:  
Time Off Btm:

**TEST COMMENT:** 30 - IF- 1/4" blow, died @ 14 minutes  
30 - IS- No return  
15 - FF- No blow for 5 minutes, flushed tool, surged and died. pulled tool



**PRESSURE SUMMARY**

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

**Recovery**

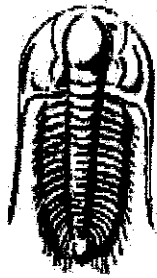
Length (ft)	Description	Volume (bbl)
5.00	Mud - Oil spots, 100%M	0.07

\* Recovery from multiple tests

**Gas Rates**

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





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Castle Resources, Inc**

PO Box 87  
Schoenchen KS 67667

ATTN: Gerry Green

### **Pfannenstiel #2**

### **11-5s-18w Phillips KS**

Start Date: 2014.09.15 @ 13:30:00

End Date: 2014.09.15 @ 18:30:00

Job Ticket #: 59352                      DST #: 2

Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

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

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Castle Resources, Inc

11-5s-18w Phillips KS

Pfannenstiel #2

DST # 2

Toronto - LKC A

2014.09.15

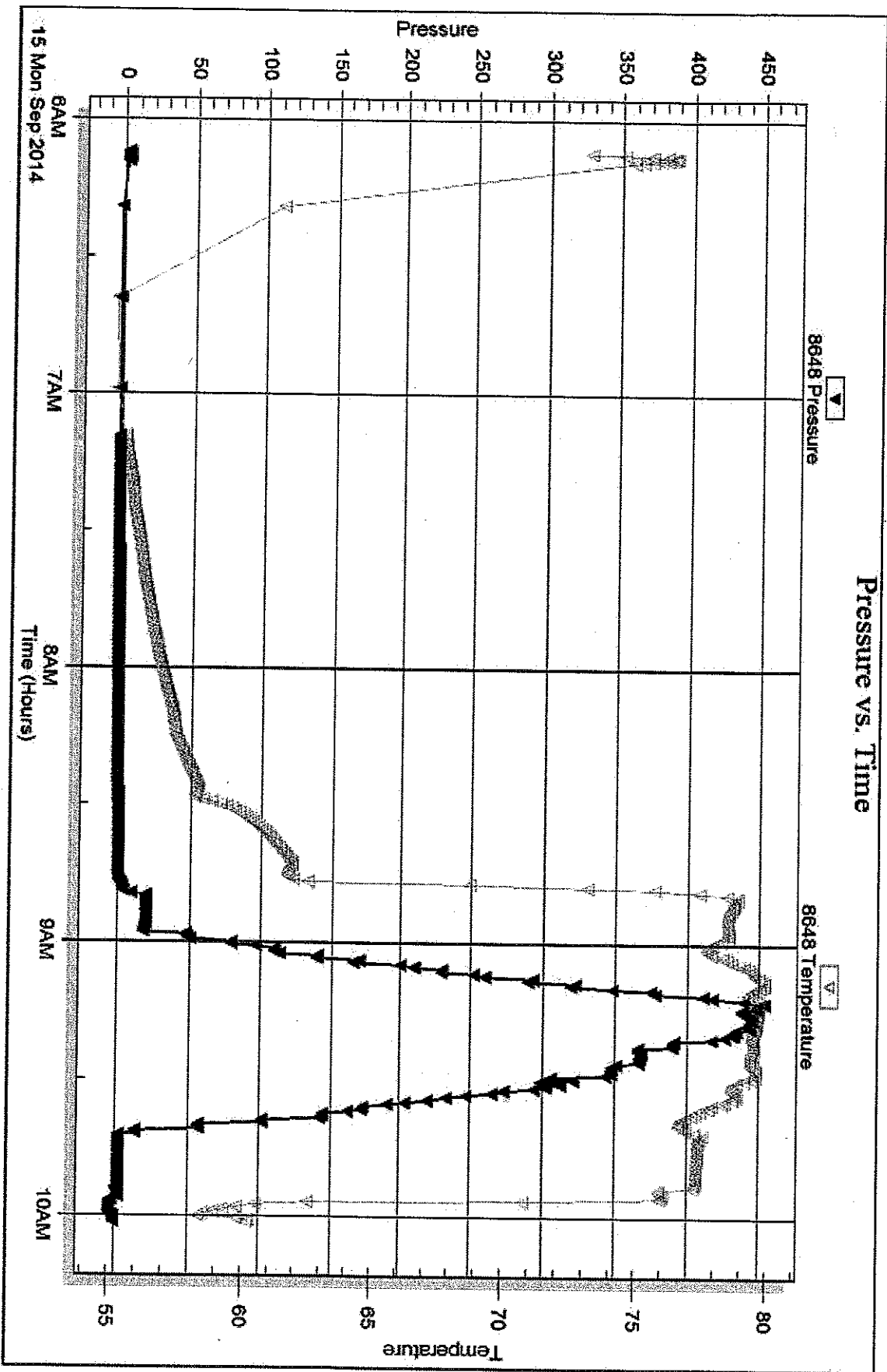
Serial #: 8648

Inside

Castle Resources, Inc

Pfammattel #2

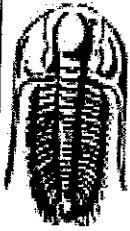
DST Test Number: 1



Trioble Testing, Inc

Ref. No: 59351

Printed: 2014.09.17 @ 11:11:46



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Castle Resources, Inc  
 PO Box 87  
 Schoenchen KS 67667  
 ATTN: Gerry Green

**11-5s-18w Phillips KS**  
**Pfannenstiel #2**  
 Job Ticket: 59351      **DST#: 1**  
 Test Start: 2014.09.15 @ 06:07:05

**Tool Information**

Drill Pipe:	Length: 3102.00 ft	Diameter: 3.80 inches	Volume: 43.51 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 2500.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: lb
		<b>Total Volume:</b>	<b>43.51 bbl</b>	Tool Chased 0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial lb
Depth to Top Packer:	3090.00 ft			Final lb
Depth to Bottom Packer:	ft			
Interval between Packers:	60.00 ft			
Tool Length:	81.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: Hit a bridge roughly a 1000' down, not enough weight to open tool. tried pushing through bridge. Did not work. Came out of hole with tool to clean up the hole.

**Tool Description**

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3070.00	
Shut In Tool	5.00			3075.00	
Hydraulic tool	5.00			3080.00	
Packer	5.00			3085.00	21.00      Bottom Of Top Packer
Packer	5.00			3090.00	
Stubb	1.00			3091.00	
Perforations	3.00			3094.00	
Change Over Sub	1.00			3095.00	
Drill Pipe	31.00			3126.00	
Change Over Sub	1.00			3127.00	
Recorder	0.00	8648	Inside	3127.00	
Recorder	0.00	8940	Outside	3127.00	
Perforations	20.00			3147.00	
Bullnose	3.00			3150.00	60.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>81.00</b>				



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Castle Resources, Inc

PO Box 87  
Schoenchen KS 67667

ATTN: Gerry Green

11-5s-18w Phillips KS

Pfannenstiel #2

Job Ticket: 59351

DST#: 1

Test Start: 2014.09.15 @ 06:07:05

### GENERAL INFORMATION:

Formation: **Toronto - LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened:

Time Test Ended: 10:01:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Cody Bioedorn

Unit No: 73

Interval: **3090.00 ft (KB) To 3150.00 ft (KB) (TVD)**

Total Depth: 3150.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1948.00 ft (KB)

1943.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: **8648**

Inside

Press@RunDepth: psig @ 3127.00 ft (KB)

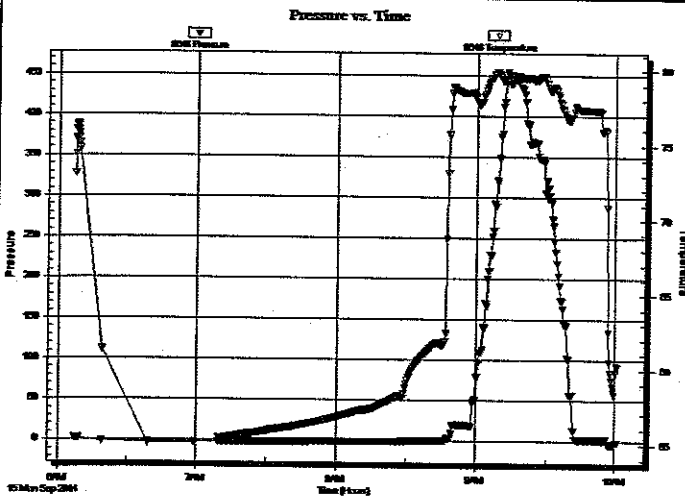
Start Date: 2014.09.15 End Date: 2014.09.15 Capacity: 8000.00 psig

Start Time: 06:07:05 End Time: 10:01:30 Last Calib.: 2014.09.15

Time On Btm:

Time Off Btm:

TEST COMMENT: Hit bridge roughly 1000' up. could not get through it. come out of hole w ith tool to clean up hole.



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)

### Gas Rates

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