

CONFIDENTIAL

ORIGINAL

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

10/28/13

Form ACO-1
June 2009

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

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 4767
Name: Ritchie Exploration, Inc.
Address 1: P.O. Box 783188
Address 2:
City: Wichita State: KS Zip: 67278 + 3188
Contact Person: John Niernerger
Phone: (316) 691-9500
CONTRACTOR: License # 5929
Name: Duke Drilling Co., Inc
Wellsite Geologist: Mike Engelbrecht
Purchaser:

API No. 15 - 057-20736-00-00
Spot Description: 130' S & 55' E
NW SE NW Sec. 30 Twp. 26 S. R. 22 East West
1,780 Feet from North / South Line of Section
1,705 Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:
 NE NW SE SW
County: Ford
Lease Name: Zurbuchen Well #: 1
Field Name:

Producing Formation:
Elevation: Ground: 2397 Kelly Bushing: 2409
Total Depth: 5090 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 348 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.

Designate Type of Completion:
 New Well Re-Entry Workover
 Oil WSW SWD SLOW
 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 #:
7/15/11 7/26/11 7/26/11
Spud Date or Recompletion Date Date Reached TD Completion Date or Recompletion Date

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)
Chloride content: 11000 ppm Fluid volume: 1000 bbls
Dewatering method used: evaporation
Location of fluid disposal if hauled offsite:
Operator Name: CONFIDENTIAL
Lease Name: License #:
Quarter: OCT 28 2013 Sec. Twp. S. R. East West
County: KCC Permit #:
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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: [Signature]
Title: Production Manager Date: 10/27/11

KCC Office Use ONLY
 Letter of Confidentiality Received
Date: 10-28-11 - 10-28-13
 Confidential Release Date:
 Wireline Log Received
 Geologist Report Received
 UIC Distribution
ALT I II III Approved by: [Signature] Date: 11-7-11

Operator Name: Ritchie Exploration, Inc. Lease Name: Zurbuchen Well #: 1
 Sec. 30 Twp. 26 S. R. 22 East West County: Ford

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

| | |
|---|--|
| Drill Stem Tests Taken <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> List All E. Logs Run: Dual Induction Log Compensated Density/Neutron Log | <input type="checkbox"/> Log Formation (Top), Depth and Datum <input checked="" type="checkbox"/> Sample Name Top Datum SEE ATTACHED |
|---|--|

| 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# | 348' | common | 250 | 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 |
|----------------|---|--|-------|
| | | CONFIDENTIAL OCT 28 2011 KCC | |
| | | RECEIVED OCT 28 2011 KCC WICHITA | |

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

| | | |
|---|---|--|
| DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i> | METHOD OF COMPLETION: <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) _____ | PRODUCTION INTERVAL: _____ _____ |
|---|---|--|

ALLIED CEMENTING CO., LLC. 040752

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:
Med Lab

| | | | | | | | |
|--------------------------------|-----------------|--|------------------|------------|--------------------|---------------------------|----------------------------|
| DATE <u>7-26-11</u> | SEC <u>30</u> | TWP. <u>26S</u> | RANGE <u>22W</u> | CALLED OUT | ON LOCATION | JOB START <u>10:30 AM</u> | JOB FINISH <u>11:30 PM</u> |
| LEASE <u>2/bertha</u> | WELL # <u>1</u> | LOCATION <u>Spearsville Bktop N. Lakota Rd</u> | | | COUNTY <u>Ford</u> | STATE <u>KS</u> | |
| OLD OR <u>NEW</u> (Circle one) | | <u>1/2W, SxS</u> | | | | | |

CONTRACTOR Mike RB #1 OWNER Ritchie Exploration

TYPE OF JOB Recompletion Plug
 CEMENT AMOUNT ORDERED 250 sk 60' 40:4% gel + 1/4# Floreal

| | | | | |
|-------------------------|--------------------|---------------------------|----------------|----------------|
| HOLE SIZE <u>7 7/8</u> | T.D. | COMMON <u>150 Class A</u> | @ <u>16.25</u> | <u>2437.50</u> |
| CASING SIZE | DEPTH | POZMIX <u>100</u> | @ <u>8.50</u> | <u>850.00</u> |
| TUBING SIZE | DEPTH | GEL <u>9</u> | @ <u>21.25</u> | <u>191.25</u> |
| DRILL PIPE <u>4 1/2</u> | DEPTH <u>1460'</u> | CHLORIDE | @ | |
| TOOL | DEPTH | ASC | @ | |
| PRES. MAX <u>200psi</u> | MINIMUM | Floreal <u>63#</u> | @ <u>2.70</u> | <u>170.10</u> |
| MEAS. LINE | SHOE JOINT | | @ | |
| CEMENT LEFT IN CSG. | | | @ | |
| PERFS. | | | @ | |
| DISPLACEMENT | | | @ | |

EQUIPMENT

PUMP TRUCK CEMENTER Mike Thompson
 # 360/265 HELPER Jason Thompson
 BULK TRUCK
 # DRIVER Kevin W. (G-B.)
 BULK TRUCK
 # DRIVER

| | | |
|---------------------------|---------------|----------------|
| HANDLING <u>262</u> | @ <u>2.25</u> | <u>589.50</u> |
| MILEAGE <u>50/262/1.1</u> | | <u>1441.-</u> |
| TOTAL | | <u>5679.35</u> |

REMARKS:

Age of 1460' pump 15 bbls H₂O ahead
mix 50% cement disp 10 bbls mud disp 4 bbls H₂O
repeat 850' pump 15 bbls H₂O ahead mix 80% cement
disp 5 1/2 bbls H₂O
repeat 360' mix 50% cement disp 1 1/2 bbls H₂O
repeat 60' mix 20% cement
mix 30% cement for cathode
mix 20% cement for mouse hole

SERVICE

| | | |
|---------------------------|---------------|---------------|
| DEPTH OF JOB <u>1460'</u> | | |
| PUMP TRUCK CHARGE | | <u>1925.-</u> |
| EXTRA FOOTAGE | @ | |
| MILEAGE <u>100</u> | @ <u>7.00</u> | <u>700.-</u> |
| MANIFOLD | @ | |
| <u>High Vehicle 100</u> | @ <u>4.00</u> | <u>400.-</u> |
| TOTAL | | <u>3025.-</u> |

CHARGE TO: Ritchie Exploration
 STREET _____
 CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

| | | |
|--------------|---|--|
| | @ | |
| | @ | |
| | @ | |
| | @ | |
| | @ | |
| TOTAL | | |

To Allied Cementing Co., LLC.
 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 Mike Godfrey
 SIGNATURE Mike Godfrey

SALES TAX (If Any) _____
 TOTAL CHARGES 8704.35
 DISCOUNT 20% IF PAID IN 30 DAYS
Net 6963.48

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 OCT 28 2013
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Handwritten mark

ALLIED CEMENTING CO., LLC. 043449

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:
Oakley

| | | | | | | | |
|------------------------------------|-----------------|-----------------------------------|-----------------|---------------|--------------------|--------------------------|---------------------------|
| DATE <u>7-15-11</u> | SEC. <u>30</u> | TWP. <u>26</u> | RANGE <u>22</u> | CALLED OUT | ON LOCATION | JOB START <u>5:30 AM</u> | JOB FINISH <u>6:00 AM</u> |
| LEASE <u>Zurbuchen</u> | WELL # <u>1</u> | LOCATION <u>Wright 9e 1s 1/2w</u> | | | COUNTY <u>FORD</u> | STATE <u>KS</u> | |
| OLD OR NEW (Circle one) <u>NEW</u> | | | | <u>5 into</u> | | | |

CONTRACTOR Duke Drilling Rig 1
 TYPE OF JOB Surface
 HOLE SIZE 12 1/4 T.D. 350
 CASING SIZE 8 5/8 DEPTH 350
 TUBING SIZE DEPTH
 DRILL PIPE DEPTH
 TOOL DEPTH
 PRES. MAX MINIMUM
 MEAS. LINE SHOE JOINT
 CEMENT LEFT IN CSG. 15'
 PERFS.
 DISPLACEMENT 21.33 BBL
 EQUIPMENT
 PUMP TRUCK CEMENTER Andrew
 # 423-281 HELPER Jerry
 BULK TRUCK
 # 396 DRIVER Darrin
 BULK TRUCK
 # DRIVER

OWNER same
 CEMENT
 AMOUNT ORDERED 250 sbs com
30 cc 20 gel
 COMMON 250 sbs @ 16.25 4062.50
 POZMIX @
 GEL 5 sbs @ 21.25 106.25
 CHLORIDE 9 sbs @ 58.20 523.80
 ASC @
 @
 @
 @
 @
 @
 @
 @
 @
 @
 HANDLING 264 sbs @ 2.25 594.00
 MILEAGE 11.5 sh/mile 1452.00
 TOTAL 6738.55

REMARKS:

Cement did circulate
Thank you

CHARGE TO: Ritchie Exploration
 STREET
 CITY STATE ZIP

SERVICE

DEPTH OF JOB 350'
 PUMP TRUCK CHARGE 1125.00
 EXTRA FOOTAGE 50' @ .95 47.50
 MILEAGE 50 x 2 @ 7.00 700.00
 MANIFOLD head @ 200.00
Light vehicle 50 x 2 @ 4.00 400.00
 @

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TOTAL 2472.50

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PLUG & FLOAT EQUIPMENT
 @
 @
 @
 @
 @
 TOTAL

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To Allied Cementing Co., LLC.
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PRINTED NAME Mike Godfrey
 SIGNATURE Mike Godfrey

SALES TAX (If Any)
 TOTAL CHARGES
 DISCOUNT IF PAID IN 30 DAYS

(Handwritten mark)



#1 Zurbuchen

1780' FNL & 1705' FWL

Section 30-26S-22W

Ford County, Kansas

API# 15-057-20736-00-00

Elevation: 2397' GL: 2409' KB

| Sample Tops | | | Ref. Well |
|----------------|-------|-------|--------------|
| Anhydrite | 1460' | +949 | -8 |
| B/Anhydrite | 1493' | +916 | -6 |
| Heebner | 4110' | -1701 | -12 |
| Lansing | 4206' | -1797 | -6 |
| Muncie Shale | 4408' | -1999 | -14 |
| Stark Shale | 4534' | -2125 | -7 |
| Altamont | 4692' | -2283 | -4 |
| Pawnee | 4742' | -2333 | -6 |
| Cherokee Shale | 4782' | -2373 | -10 |
| Atoka Shale | 4874' | -2465 | -11 |
| Mississippian | 4899' | -2490 | -14 |
| RTD | 5090' | -2681 | |

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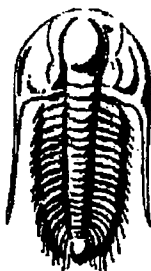
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OCT 28 2011

KCC WICHITA



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc**

PO Box 783188
Wichita KS 67278

ATTN: Justin Clegg/Adam Eda

30-26s-22w Ford,KS

Zurbuchen # 1

Start Date: 2011.07.22 @ 17:54:00

End Date: 2011.07.23 @ 01:07:45

Job Ticket #: 42536 DST #: 1

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OCT 28 2011

KCC

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

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OCT 28 2011
KCC WICHITA**

Ritchie Exploration Inc

Zurbuchen # 1

30-26s-22w Ford,KS

DST # 1

Altmont-Pawnee

2011.07.22



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration Inc

Zurbuchen # 1

PO Box 783188
Wichita KS 67278

30-26s-22w Ford,KS

Job Ticket: 42536

DST#: 1

ATTN: Justin Clegg/Adam Edaa KS 67278

Test Start: 2011.07.22 @ 17:54:00

GENERAL INFORMATION:

Formation: **Altimont-Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:04:15

Time Test Ended: 01:07:45

Test Type: Conventional Bottom Hole

Tester: Chris Staats

Unit No: 34

Interval: **4688.00 ft (KB) To 4761.00 ft (KB) (TVD)**

Reference Elevations: 2409.00 ft (KB)

Total Depth: 4761.00 ft (KB) (TVD)

2397.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

Serial #: 8166

Outside

Press@RunDepth: 28.04 psig @ 4689.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.07.22

End Date:

2011.07.23

Last Calib.: 2011.07.23

Start Time: 17:54:05

End Time:

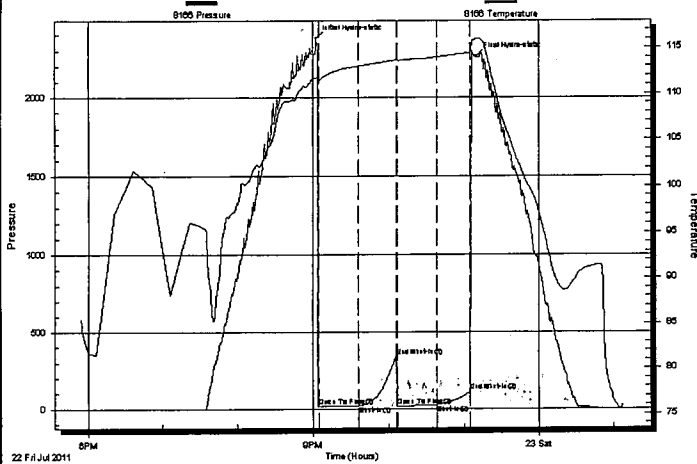
01:07:44

Time On Btmr 2011.07.22 @ 21:02:30

Time Off Btmr 2011.07.22 @ 23:09:45

TEST COMMENT: IF: Weak surface blow
IS: No blow back
FF: No blow Flushed tool
FSI: No blow back

Pressure vs. Time



PRESSURE SUMMARY

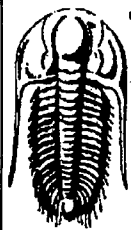
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2378.50 | 111.70 | Initial Hydro-static |
| 2 | 19.59 | 111.33 | Open To Flow (1) |
| 34 | 21.45 | 112.98 | Shut-In(1) |
| 64 | 341.70 | 113.65 | End Shut-In(1) |
| 65 | 22.40 | 113.61 | Open To Flow (2) |
| 96 | 28.04 | 113.96 | Shut-In(2) |
| 123 | 115.54 | 114.43 | End Shut-In(2) |
| 128 | 2262.19 | 115.92 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 15.00 | MUD | 0.21 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc

Zurbuchen # 1

PO Box 783188
Wichita KS 67278

30-26s-22w Ford, KS

Job Ticket: 42536

DST#: 1

ATTN: Justin Clegg/Adam Edaa KS 67278

Test Start: 2011.07.22 @ 17:54:00

Tool Information

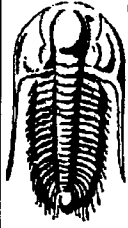
| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 4666.00 ft | Diameter: 3.80 inches | Volume: 65.45 bbl | Tool Weight: 2200.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 0.00 ft | Diameter: 2.25 inches | Volume: 0.00 bbl | Weight to Pull Loose: 62000.00 lb |
| | | | Total Volume: 65.45 bbl | Tool Chased 3.00 ft |
| Drill Pipe Above KB: | 7.00 ft | | | String Weight: Initial 56000.00 lb |
| Depth to Top Packer: | 4688.00 ft | | | Final 56000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 73.00 ft | | | |
| Tool Length: | 102.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.25 inches | | |

Tool Comments:

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

| | | | | | |
|-----------------|-------|------|---------|---------|-------------------------------|
| Change Over Sub | 1.00 | | | 4660.00 | |
| Shut In Tool | 5.00 | | | 4665.00 | |
| Hydraulic tool | 5.00 | | | 4670.00 | |
| Jars | 5.00 | | | 4675.00 | |
| Safety Joint | 3.00 | | | 4678.00 | |
| Packer | 5.00 | | | 4683.00 | 29.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 4688.00 | |
| Stubb | 1.00 | | | 4689.00 | |
| Recorder | 0.00 | 6773 | Outside | 4689.00 | |
| Recorder | 0.00 | 8166 | Outside | 4689.00 | |
| Perforations | 2.00 | | | 4691.00 | |
| Drill Pipe | 62.00 | | | 4753.00 | |
| Perforations | 5.00 | | | 4758.00 | |
| Bullnose | 3.00 | | | 4761.00 | 73.00 Bottom Packers & Anchor |

Total Tool Length: 102.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc

Zurbuchen # 1

PO Box 783188
Wichita KS 67278

30-26s-22w Ford,KS

Job Ticket: 42536

DST#: 1

ATTN: Justin Clegg/Adam Edaa KS 67278

Test Start: 2011.07.22 @ 17:54:00

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: 44.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.17 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4900.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------|---------------|
| 15.00 | MUD | 0.210 |

Total Length: 15.00 ft Total Volume: 0.210 bbl

Num Fluid Samples: 0

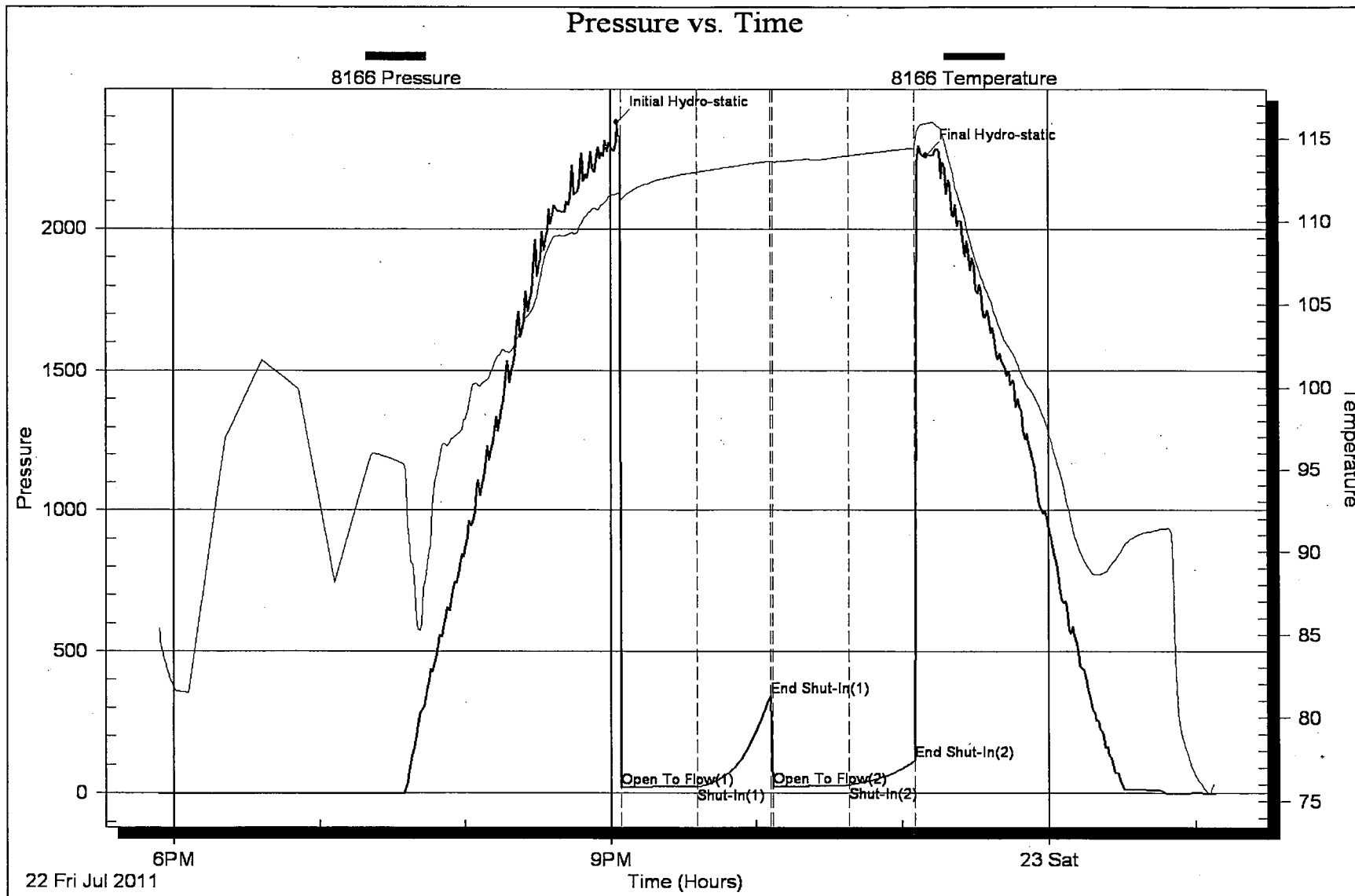
Num Gas Bombs: 0

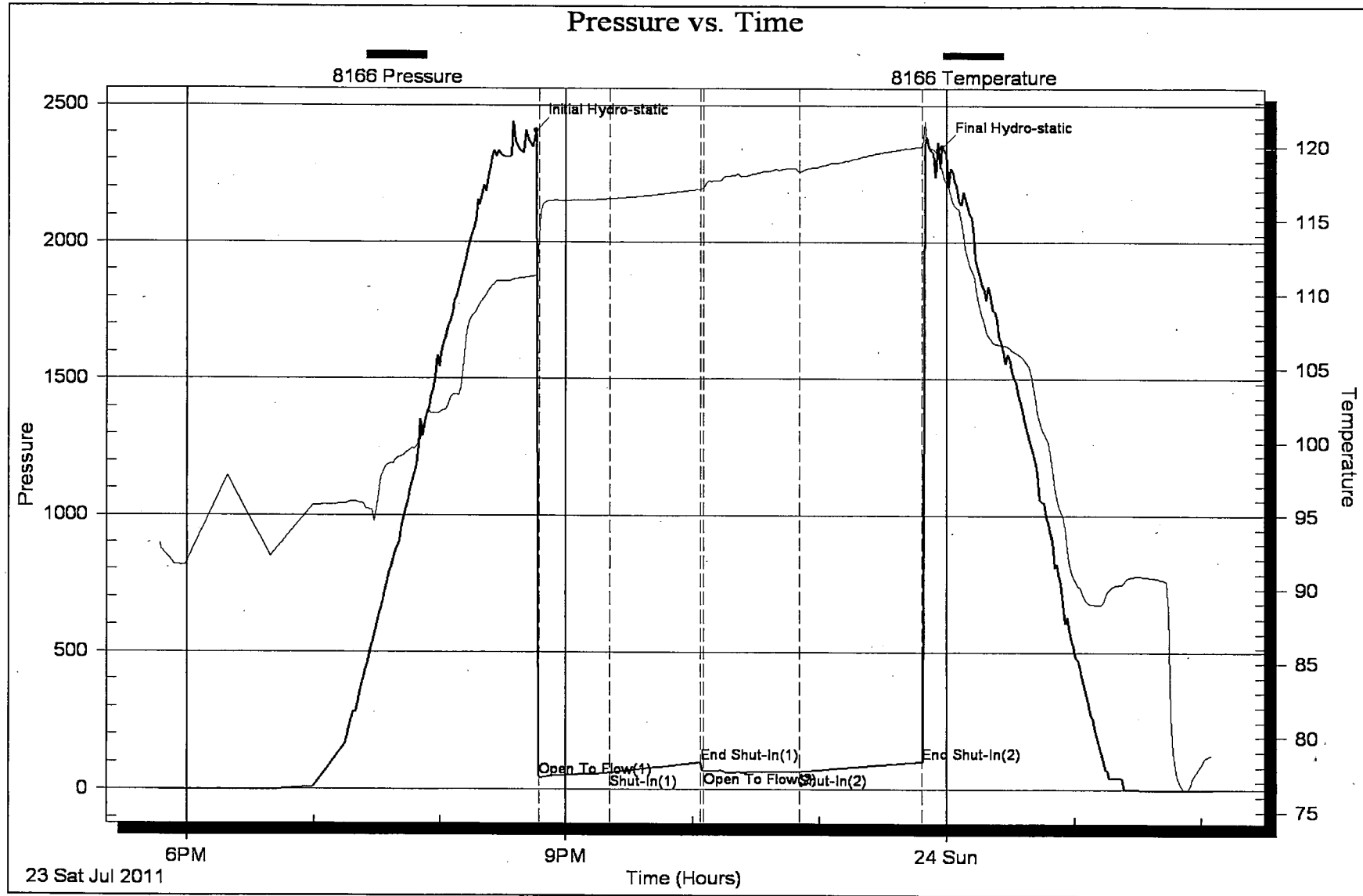
Serial #:

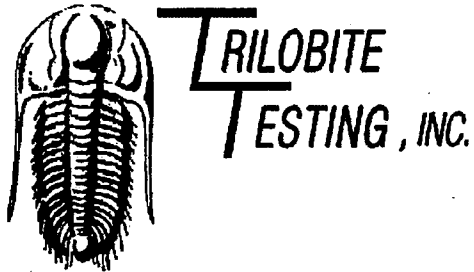
Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc**

PO Box 783188
Wichita KS 67278

ATTN: Justin Clegg/Adam Eda

30-26s-22w Ford,KS

Zurbuchen # 1

Start Date: 2011.07.23 @ 17:47:14

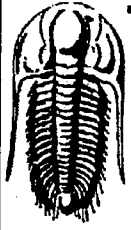
End Date: 2011.07.24 @ 02:04:44

Job Ticket #: 42537 DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Ritchie Exploration Inc

Zurbuchen # 1

PO Box 783188
Wichita KS 67278

30-26s-22w Ford,KS

ATTN: Justin Clegg/Adam Eclaa KS 67278

Job Ticket: 42537 **DST#: 2**

Test Start: 2011.07.23 @ 17:47:14

GENERAL INFORMATION:

Formation: **Cherokee**
 Deviated: **No Whipstock:** ft (KB)
 Time Tool Opened: 20:46:44
 Time Test Ended: 02:04:44

Test Type: **Conventional Bottom Hole**
 Tester: **Chris Staats**
 Unit No: **34**

Interval: **4830.00 ft (KB) To 4880.00 ft (KB) (TVD)**
 Total Depth: **4761.00 ft (KB) (TVD)**
 Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **2409.00 ft (KB)**
2397.00 ft (CF)
 KB to GR/CF: **12.00 ft**

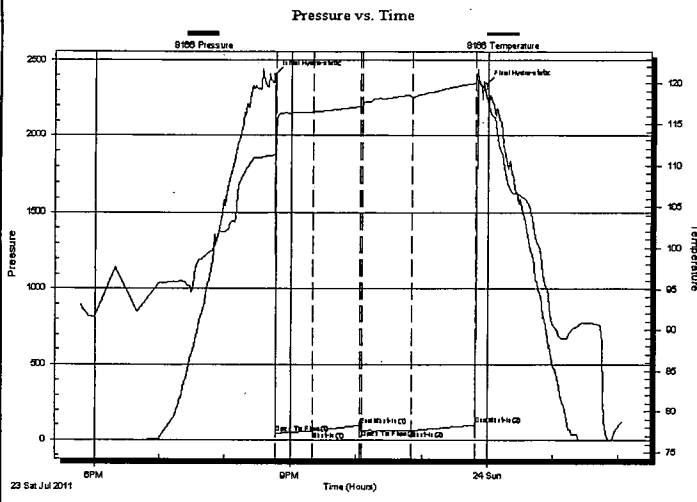
Serial #: 8166

Outside

Press@RunDepth: **64.52 psig @ 4831.00 ft (KB)**
 Start Date: **2011.07.23** End Date: **2011.07.24**
 Start Time: **17:47:19** End Time: **02:04:43**

Capacity: **8000.00 psig**
 Last Calib.: **2011.07.24**
 Time On Btm: **2011.07.23 @ 20:45:14**
 Time Off Btm: **2011.07.23 @ 23:57:29**

TEST COMMENT: IF: Strong blow 11" 30 min
 IS: No blow back
 FF: Strong blow BOB 42 min
 FSI: No blow back



PRESSURE SUMMARY

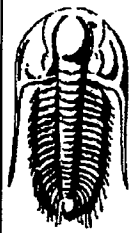
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2407.25 | 111.28 | Initial Hydro-static |
| 2 | 46.69 | 113.85 | Open To Flow (1) |
| 35 | 60.95 | 116.48 | Shut-In(1) |
| 79 | 97.35 | 117.12 | End Shut-In(1) |
| 80 | 68.73 | 117.26 | Open To Flow (2) |
| 126 | 64.52 | 118.28 | Shut-In(2) |
| 183 | 100.02 | 120.03 | End Shut-In(2) |
| 193 | 2345.61 | 118.47 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|---------------------------------------|--------------|
| 115.00 | W,M 25% w ater 75% Mud With oil spots | 1.61 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc

Zurbuchen # 1

PO Box 783188
Wichita KS 67278

30-26s-22w Ford,KS

Job Ticket: 42537

DST#: 2

ATTN: Justin Clegg/Adam Edaa KS 67278

Test Start: 2011.07.23 @ 17:47:14

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 4825.00 ft | Diameter: 3.80 inches | Volume: 67.68 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: 0.00 ft | Diameter: 2.25 inches | Volume: 0.00 bbl | Weight to Pull Loose: 68000.00 lb |
| | | | <u>Total Volume: 67.68 bbl</u> | Tool Chased 3.00 ft |
| Drill Pipe Above KB: | 24.00 ft | | | String Weight: Initial 56000.00 lb |
| Depth to Top Packer: | 4830.00 ft | | | Final 56000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 50.00 ft | | | |
| Tool Length: | 79.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.25 inches | | |

Tool Comments:

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Change Over Sub | 1.00 | | | 4802.00 | |
| Shut In Tool | 5.00 | | | 4807.00 | |
| Hydraulic tool | 5.00 | | | 4812.00 | |
| Jars | 5.00 | | | 4817.00 | |
| Safety Joint | 3.00 | | | 4820.00 | |
| Packer | 5.00 | | | 4825.00 | 29.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 4830.00 | |
| Stubb | 1.00 | | | 4831.00 | |
| Recorder | 0.00 | 6773 | Outside | 4831.00 | |
| Recorder | 0.00 | 8166 | Outside | 4831.00 | |
| Drill Pipe | 31.00 | | | 4862.00 | |
| Perforations | 15.00 | | | 4877.00 | |
| Bullnose | 3.00 | | | 4880.00 | 50.00 Bottom Packers & Anchor |

Total Tool Length: 79.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc

Zurbuchen # 1

PO Box 783188
Wichita KS 67278

30-26s-22w Ford,KS

Job Ticket: 42537

DST#: 2

ATTN: Justin Clegg/Adam Edaa KS 67278

Test Start: 2011.07.23 @ 17:47:14

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.58 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 6300.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|---------------------------------------|---------------|
| 115.00 | W,M 25% w ater 75% Mud With oil spots | 1.613 |

Total Length: 115.00 ft Total Volume: 1.613 bbl

Num Fluid Samples: 0

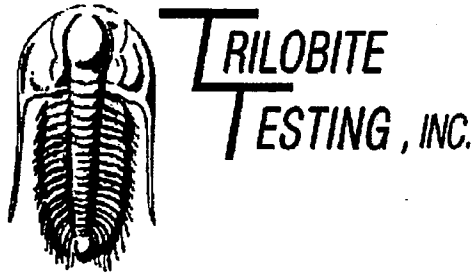
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc**

PO Box 783188
Wichita KS 67278

ATTN: Justin Clegg/Adam Eda

30-26s-22w Ford,KS

Zurbuchen # 1

Start Date: 2011.07.24 @ 15:46:54

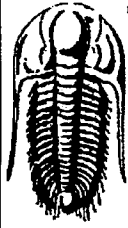
End Date: 2011.07.25 @ 00:14:09

Job Ticket #: 42538 DST #: 3

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration Inc

Zurbuchen # 1

PO Box 783188
Wichita KS 67278

30-26s-22w Ford,KS

Job Ticket: 42538

DST#: 3

ATTN: Justin Clegg/Adam Edaa KS 67278

Test Start: 2011.07.24 @ 15:46:54

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:20:09

Time Test Ended: 00:14:09

Test Type: Conventional Bottom Hole

Tester: Chris Staats

Unit No: 34

Interval: **4868.00 ft (KB) To 4960.00 ft (KB) (TVD)**

Reference Elevations: 2409.00 ft (KB)

Total Depth: 4960.00 ft (KB) (TVD)

2397.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

Serial #: 8166

Outside

Press@RunDepth: 126.53 psig @ 4869.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.07.24 End Date: 2011.07.25

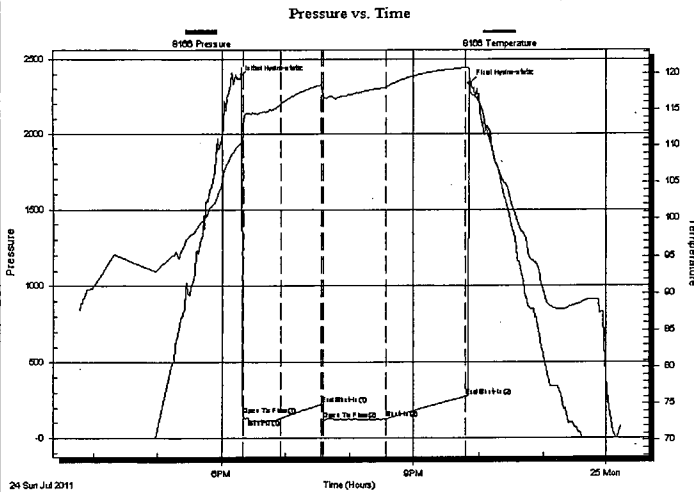
Last Calib.: 2011.07.25

Start Time: 15:46:59 End Time: 00:14:08

Time On Btrr: 2011.07.24 @ 18:15:09

Time Off Btrr: 2011.07.24 @ 21:51:09

TEST COMMENT: IF: Strong blow BOB 2 min
IS: No blow back
FF: Strong blow BOB 1 min GTS 25 min
FSI: No blow back



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2369.22 | 109.97 | Initial Hydro-static |
| 5 | 152.77 | 112.50 | Open To Flow (1) |
| 41 | 130.83 | 115.82 | Shut-In(1) |
| 79 | 223.70 | 118.43 | End Shut-In(1) |
| 81 | 124.26 | 116.85 | Open To Flow (2) |
| 140 | 126.53 | 118.11 | Shut-In(2) |
| 213 | 274.43 | 120.77 | End Shut-In(2) |
| 216 | 2335.95 | 120.62 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|--------------------|--------------|
| 0.00 | 4902' GIP | 0.00 |
| 186.00 | G,M 5% gas 95% mud | 2.61 |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc

Zurbuchen # 1

PO Box 783188
Wichita KS 67278

30-26s-22w Ford,KS

ATTN: Justin Clegg/Adam Edaa KS 67278

Job Ticket: 42538

DST#: 3

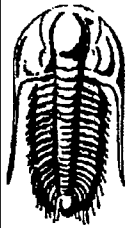
Test Start: 2011.07.24 @ 15:46:54

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 4858.00 ft | Diameter: 3.80 inches | Volume: 68.14 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: 0.00 ft | Diameter: 2.25 inches | Volume: 0.00 bbl | Weight to Pull Loose: 70000.00 lb |
| | | | <u>Total Volume: 68.14 bbl</u> | Tool Chased 3.00 ft |
| Drill Pipe Above KB: | 19.00 ft | | | String Weight: Initial 56000.00 lb |
| Depth to Top Packer: | 4868.00 ft | | | Final 56000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 92.00 ft | | | |
| Tool Length: | 121.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.25 inches | | |
| Tool Comments: | | | | |

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Change Over Sub | 1.00 | | | 4840.00 | |
| Shut In Tool | 5.00 | | | 4845.00 | |
| Hydraulic tool | 5.00 | | | 4850.00 | |
| Jars | 5.00 | | | 4855.00 | |
| Safety Joint | 3.00 | | | 4858.00 | |
| Packer | 5.00 | | | 4863.00 | 29.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 4868.00 | |
| Stubb | 1.00 | | | 4869.00 | |
| Recorder | 0.00 | 6773 | Outside | 4869.00 | |
| Recorder | 0.00 | 8166 | Outside | 4869.00 | |
| Drill Pipe | 62.00 | | | 4931.00 | |
| Perforations | 26.00 | | | 4957.00 | |
| Bullnose | 3.00 | | | 4960.00 | 92.00 Bottom Packers & Anchor |

Total Tool Length: 121.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc

Zurbuchen # 1

PO Box 783188
Wichita KS 67278

30-26s-22w Ford,KS

Job Ticket: 42538

DST#: 3

ATTN: Justin Clegg/Adam Edaa KS 67278

Test Start: 2011.07.24 @ 15:46:54

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: 80.00 sec/qt

Cushion Volume:

bbl

Water Loss: 11.58 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 7700.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|--------------------|---------------|
| 0.00 | 4902' GIP | 0.000 |
| 186.00 | G,M 5% gas 95% mud | 2.609 |

Total Length: 186.00 ft Total Volume: 2.609 bbl

Num Fluid Samples: 1

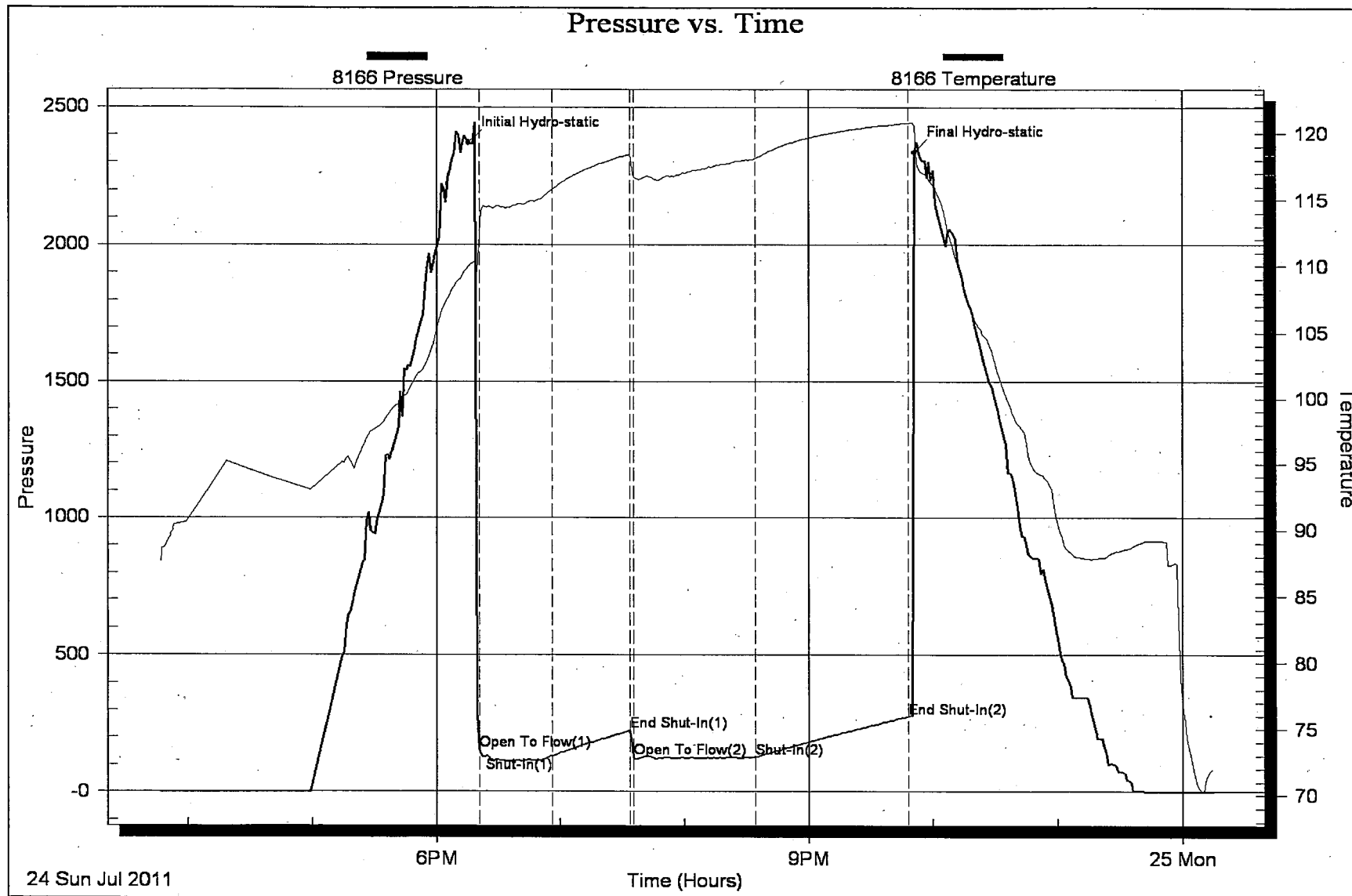
Num Gas Bombs: 1

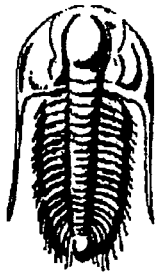
Serial #: 001

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments:





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc**

PO Box 783188
Wichita KS 67278

ATTN: Justin Clegg/Adam Eda

30-26s-22w Ford,KS

Zurbuchen # 1

Start Date: 2011.07.25 @ 09:06:59

End Date: 2011.07.25 @ 16:13:29

Job Ticket #: 42539 DST #: 4

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration Inc

Zurbuchen # 1

PO Box 783188
Wichita KS 67278

30-26s-22w Ford,KS

Job Ticket: 42539

DST#: 4

ATTN: Justin Clegg/Adam Edaa KS 67278

Test Start: 2011.07.25 @ 09:06:59

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:49:59

Time Test Ended: 16:13:29

Test Type: Conventional Bottom Hole

Tester: Chris Staats

Unit No: 34

Interval: **4961.00 ft (KB) To 4990.00 ft (KB) (TVD)**

Reference Elevations: 2409.00 ft (KB)

Total Depth: 4990.00 ft (KB) (TVD)

2397.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

Serial #: 8166

Outside

Press@RunDepth: 724.84 psig @ 4962.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.07.25 End Date: 2011.07.25

Last Calib.: 2011.07.25

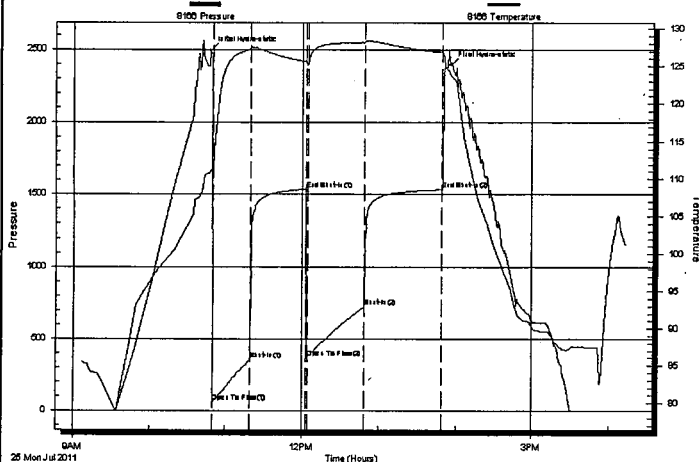
Start Time: 09:07:04 End Time: 16:13:28

Time On Btmr: 2011.07.25 @ 10:47:29

Time Off Btmr: 2011.07.25 @ 13:55:44

TEST COMMENT: IF: Strong blow BOB 5 min
IS: No blow back
FF: Strong blow BOB 5 min
FS: No blow back

Pressure vs. Time



PRESSURE SUMMARY

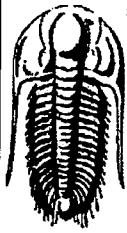
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2492.76 | 111.16 | Initial Hydro-static |
| 3 | 61.20 | 111.47 | Open To Flow (1) |
| 32 | 350.76 | 127.29 | Shut-In(1) |
| 76 | 1536.43 | 125.60 | End Shut-In(1) |
| 77 | 367.21 | 125.18 | Open To Flow (2) |
| 122 | 724.84 | 128.17 | Shut-In(2) |
| 182 | 1534.46 | 126.88 | End Shut-In(2) |
| 189 | 2393.59 | 123.84 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 1550.00 | WATER | 21.74 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc

Zurbuchen # 1

PO Box 783188
Wichita KS 67278

30-26s-22w Ford,KS

Job Ticket: 42539

DST#: 4

ATTN: Justin Clegg/Adam Edaa KS 67278

Test Start: 2011.07.25 @ 09:06:59

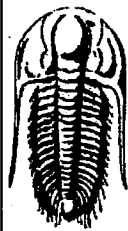
Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 4953.00 ft | Diameter: 3.80 inches | Volume: 69.48 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: 0.00 ft | Diameter: 2.25 inches | Volume: 0.00 bbl | Weight to Pull Loose: 70000.00 lb |
| | | | <u>Total Volume: 69.48 bbl</u> | Tool Chased 2.00 ft |
| Drill Pipe Above KB: | 21.00 ft | | | String Weight: Initial 54000.00 lb |
| Depth to Top Packer: | 4961.00 ft | | | Final 64000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 29.00 ft | | | |
| Tool Length: | 58.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.25 inches | | |
| Tool Comments: | | | | |

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

| | | | | | |
|-----------------|-------|------|---------|---------|-------------------------------|
| Change Over Sub | 1.00 | | | 4933.00 | |
| Shut In Tool | 5.00 | | | 4938.00 | |
| Hydraulic tool | 5.00 | | | 4943.00 | |
| Jars | 5.00 | | | 4948.00 | |
| Safety Joint | 3.00 | | | 4951.00 | |
| Packer | 5.00 | | | 4956.00 | 29.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 4961.00 | |
| Stubb | 1.00 | | | 4962.00 | |
| Recorder | 0.00 | 6773 | Outside | 4962.00 | |
| Recorder | 0.00 | 8166 | Outside | 4962.00 | |
| Perforations | 25.00 | | | 4987.00 | |
| Bullnose | 3.00 | | | 4990.00 | 29.00 Bottom Packers & Anchor |

Total Tool Length: 58.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc

Zurbuchen # 1

PO Box 783188
Wichita KS 67278

30-26s-22w Ford,KS

Job Ticket: 42539

DST#: 4

ATTN: Justin Clegg/Adam Edaa KS 67278

Test Start: 2011.07.25 @ 09:06:59

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbf

Water Loss: 10.38 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 6300.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbf |
|--------------|-------------|---------------|
| 1550.00 | WATER | 21.742 |

Total Length: 1550.00 ft

Total Volume: 21.742 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

