

Confidentiality Requested:

☐ Yes ☐ No

KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION

1222616

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

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: \_\_\_\_\_

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

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to [kcc-well-logs@kcc.ks.gov](mailto: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<br><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:                                       |                              |                             |                              |                                  |                                 |

| <div style="text-align: center;"> <b>CASING RECORD</b> <input type="checkbox"/> New    <input type="checkbox"/> Used         </div> <div style="text-align: center;">Report all strings set-conductor, surface, intermediate, production, etc.</div> |                   |                           |                   |               |                |              |                            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------|-------------------|---------------|----------------|--------------|----------------------------|
| 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<br>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<br>Specify Footage of Each Interval Perforated | Acid, Fracture, Shot, Cement Squeeze Record<br>(Amount and Kind of Material Used) | Depth |
|----------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|
|                |                                                                                           |                                                                                   |       |
|                |                                                                                           |                                                                                   |       |
|                |                                                                                           |                                                                                   |       |
|                |                                                                                           |                                                                                   |       |
|                |                                                                                           |                                                                                   |       |

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

|                                                                                                                                                                                        |  |                                                                                                                                                                                                                                                                                    |                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| <p>DISPOSITION OF GAS:</p> <p><input type="checkbox"/> Vented    <input type="checkbox"/> Sold    <input type="checkbox"/> Used on Lease</p> <p><i>(If vented, Submit ACO-18.)</i></p> |  | <p>METHOD OF COMPLETION:</p> <p><input type="checkbox"/> Open Hole    <input type="checkbox"/> Perf.    <input type="checkbox"/> Dually Comp.    <input type="checkbox"/> Commingled</p> <p><i>(Submit ACO-5)</i></p> <p><input type="checkbox"/> Other <i>(Specify)</i> _____</p> | <p>PRODUCTION INTERVAL:</p> <p>_____</p> <p>_____</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|

|           |                        |
|-----------|------------------------|
| Form      | ACO1 - Well Completion |
| Operator  | Charter Energy, Inc.   |
| Well Name | Symns 2                |
| Doc ID    | 1222616                |

#### Casing

| Purpose Of String | Size Hole Drilled | Size Casing Set | Weight | Setting Depth | Type Of Cement | Number of Sacks Used | Type and Percent Additives |
|-------------------|-------------------|-----------------|--------|---------------|----------------|----------------------|----------------------------|
| Surface           | 12.25             | 8.625           | 28     | 494           | 60/40          | 350                  | 3%cc 2% gel                |
| Production        | 7.875             | 5.5             | 15.5   | 3993          | EA-2           | 175                  |                            |
|                   |                   |                 |        |               |                |                      |                            |
|                   |                   |                 |        |               |                |                      |                            |

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025

Home Office P.O. Box 32 Russell, KS 67665

No. 615

Cell 785-324-1041

|                     |         |      |    |      |    |       |    |                         |          |                                                                                                                                          |    |             |  |        |         |
|---------------------|---------|------|----|------|----|-------|----|-------------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------|----|-------------|--|--------|---------|
| Date                | 8-20-14 | Sec. | 28 | Twp. | 22 | Range | 14 | County                  | Stafford | State                                                                                                                                    | Ks | On Location |  | Finish | 4:00 PM |
| Lease               |         |      |    |      |    |       |    | Well No.                |          | Location                                                                                                                                 |    |             |  |        |         |
| Symms               |         |      |    |      |    |       |    | 2                       |          | 281 - K-19, SW to Solt Ave, 4 S to 100th Rd, 1W, 1/4 N W into                                                                            |    |             |  |        |         |
| Contractor          |         |      |    |      |    |       |    | 2                       |          | Owner                                                                                                                                    |    |             |  |        |         |
| Royal               |         |      |    |      |    |       |    |                         |          | To Quality Oilwell Cementing, Inc.                                                                                                       |    |             |  |        |         |
| Type Job            |         |      |    |      |    |       |    |                         |          | You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed. |    |             |  |        |         |
| Hole Size           |         |      |    |      |    |       |    | T.D.                    |          | Charge To                                                                                                                                |    |             |  |        |         |
| 12 1/4"             |         |      |    |      |    |       |    | 4941                    |          | Charter Energy                                                                                                                           |    |             |  |        |         |
| Csg.                |         |      |    |      |    |       |    | Depth                   |          | Street                                                                                                                                   |    |             |  |        |         |
| 8 5/8"              |         |      |    |      |    |       |    | 4941                    |          |                                                                                                                                          |    |             |  |        |         |
| Tbg. Size           |         |      |    |      |    |       |    | Depth                   |          | City                                                                                                                                     |    |             |  |        |         |
|                     |         |      |    |      |    |       |    |                         |          | State                                                                                                                                    |    |             |  |        |         |
| Tool                |         |      |    |      |    |       |    | Depth                   |          | The above was done to satisfaction and supervision of owner agent or contractor                                                          |    |             |  |        |         |
| Cement Left in Csg. |         |      |    |      |    |       |    | Shoe Joint              |          | Cement Amount Ordered                                                                                                                    |    |             |  |        |         |
| 20'                 |         |      |    |      |    |       |    | 20'                     |          | 425 60/140 3% CC 2% Gel                                                                                                                  |    |             |  |        |         |
| Meas Line           |         |      |    |      |    |       |    | Displace                |          | 1/2 # Flo-Seal used 350                                                                                                                  |    |             |  |        |         |
| 30 BLS              |         |      |    |      |    |       |    |                         |          |                                                                                                                                          |    |             |  |        |         |
| EQUIPMENT           |         |      |    |      |    |       |    |                         |          |                                                                                                                                          |    |             |  |        |         |
| Pumptrk 17 No.      |         |      |    |      |    |       |    | Cement                  |          |                                                                                                                                          |    |             |  |        |         |
| Bulktrk 19 No.      |         |      |    |      |    |       |    | Helper                  |          |                                                                                                                                          |    |             |  |        |         |
| Bulktrk p.u. No.    |         |      |    |      |    |       |    | Driver                  |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | Brett                   |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | Tylor                   |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | Rick                    |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | Common                  |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | 210                     |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | Poz. Mix                |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | 140                     |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | Gel.                    |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | 7                       |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | Calcium                 |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | 13                      |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | Hulls                   |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | Salt                    |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | Flowseal                |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | 200#                    |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | Kol-Seal                |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | Mud CLR 48              |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | CFL-117 or CD110 CAF 38 |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | Sand                    |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | Handling                |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | 425                     |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | Mileage                 |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    |                         |          |                                                                                                                                          |    |             |  |        |         |
| FLOAT EQUIPMENT     |         |      |    |      |    |       |    |                         |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | Guide Shoe              |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | Centralizer             |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | Baskets                 |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | AFU Inserts             |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | Float Shoe              |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | Latch Down              |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | 1 - Double Cup plug     |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | Pumptrk Charge          |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | Long Surface            |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | Mileage                 |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | 25                      |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | Tax                     |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | Discount                |          |                                                                                                                                          |    |             |  |        |         |
|                     |         |      |    |      |    |       |    | Total Charge            |          |                                                                                                                                          |    |             |  |        |         |
| Signature           |         |      |    |      |    |       |    | Total Charge            |          |                                                                                                                                          |    |             |  |        |         |
| X                   |         |      |    |      |    |       |    |                         |          |                                                                                                                                          |    |             |  |        |         |

Used 350 SX

Tom Blake



CHARGE TO: CHARTER ENERGY  
ADDRESS  
CITY, STATE, ZIP CODE

TICKET 27813  
PAGE 1 OF 2

|                                       |                                                                                   |                              |                              |                 |                                     |           |       |
|---------------------------------------|-----------------------------------------------------------------------------------|------------------------------|------------------------------|-----------------|-------------------------------------|-----------|-------|
| 1. SERVICE LOCATIONS<br>Ness City, KS | WELL/PROJECT NO.                                                                  | LEASE                        | COUNTY/PARISH                | STATE           | CITY                                | DATE      | OWNER |
| 2.                                    | TICKET TYPE<br><input type="checkbox"/> SERVICE<br><input type="checkbox"/> SALES | CONTRACTOR<br>Symnus #2      | RIG NAME/NO.                 | SHIPPED VIA     | DELIVERED TO                        | ORDER NO. |       |
| 3.                                    | WELL TYPE<br>OIL                                                                  | WELL CATEGORY<br>DEVELOPMENT | JOB PURPOSE<br>SALOON STRING | WELL PERMIT NO. | WELL LOCATION<br>35.2E 1/2S W1/4T10 |           |       |
| 4. REFERRAL LOCATION                  | INVOICE INSTRUCTIONS                                                              |                              |                              |                 |                                     |           |       |

| PRICE REFERENCE | SECONDARY REFERENCE/<br>PART NUMBER | ACCOUNTING |      |    | DESCRIPTION               | QUANTITY |     |      |    | UNIT PRICE | AMOUNT |
|-----------------|-------------------------------------|------------|------|----|---------------------------|----------|-----|------|----|------------|--------|
|                 |                                     | LOC        | ACCT | DF |                           | QTY.     | UM  | QTY. | UM |            |        |
| 575             |                                     |            |      |    | MILEAGE #115              | 70       | mi  |      |    | 6          | 420    |
| 578             |                                     |            |      |    | PUMP CHARGE               | 1        | hr  |      |    | 1500       | 1500   |
| 402             |                                     |            |      |    | CENTRALIZERS              | 1        | hr  |      |    | 700        | 700    |
| 403             |                                     |            |      |    | CENTURY BASKETS           | 1        | hr  |      |    | 300        | 300    |
| 406             |                                     |            |      |    | LATCH DOWN PLUG & BATTLE  | 1        | hr  |      |    | 275        | 275    |
| 407             |                                     |            |      |    | INSERT FIDAT SNOE w/ FILL | 1        | hr  |      |    | 375        | 375    |
| 281             |                                     |            |      |    | MUD FLUSH                 | 500      | gal |      |    | 1.25       | 625    |
| 221             |                                     |            |      |    | ALQUID KEL                | 2        | gal |      |    | 25         | 50     |

**LEGAL TERMS:** Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY**, and **LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

X

DATE SIGNED 27 AUG 14 TIME SIGNED 1415 ☐ A.M. ☒ P.M.

REMIT PAYMENT TO:

SWIFT SERVICES, INC.  
P.O. BOX 466  
NESS CITY, KS 67560  
785-798-2300

|                                                                          |                              |                             |                |               |
|--------------------------------------------------------------------------|------------------------------|-----------------------------|----------------|---------------|
| SURVEY                                                                   |                              | AGREE                       | UN-<br>DECIDED | DIS-<br>AGREE |
| OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?                               |                              |                             |                |               |
| WE UNDERSTOOD AND MET YOUR NEEDS?                                        |                              |                             |                |               |
| OUR SERVICE WAS PERFORMED WITHOUT DELAY?                                 |                              |                             |                |               |
| WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY? |                              |                             |                |               |
| ARE YOU SATISFIED WITH OUR SERVICE?                                      | <input type="checkbox"/> YES | <input type="checkbox"/> NO |                |               |

TAX

TOTAL

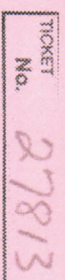
☐ CUSTOMER DID NOT WISH TO RESPOND

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR

APPROVAL

Thank You!



TICKET  
No. 27813

[illegible]

|      |          |          |
|------|----------|----------|
| DATE | 27/01/14 | PAGE NO. |
|------|----------|----------|

|                 |           |
|-----------------|-----------|
| <b>JOB TYPE</b> | Full Time |
|-----------------|-----------|

TICKET NO.

27812

$5\frac{1}{2}$  LONG STRING

[illegible]



## DRILL STEM TEST REPORT

Prepared For: **Charter Energy Incorporated**

PO Box 252  
Great Bend, KS 67530+0252

ATTN: Jim Musgrove

### **Symns #2**

#### **28-22s-14w Stafford,KS**

Start Date: 2014.08.24 @ 13:01:00

End Date: 2014.08.24 @ 18:16:00

Job Ticket #: 60260                      DST #: 1

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

Printed: 2014.08.27 @ 11:44:16



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

Charter Energy Incorporated

**28-22s-14w Stafford,KS**

PO Box 252  
Great Bend, KS 67530+0252

**Symns #2**

Job Ticket: 60260

**DST#: 1**

ATTN: Jim Musgrove

Test Start: 2014.08.24 @ 13:01:00

### GENERAL INFORMATION:

Formation: **LKC D-E**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:12:30

Time Test Ended: 18:16:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: S1 Great Bend/66

**Interval: 3620.00 ft (KB) To 3642.00 ft (KB) (TVD)**

Reference Elevations: 1957.00 ft (KB)

Total Depth: 3642.00 ft (KB) (TVD)

1950.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

**Serial #: 6749 Inside**

Press@RunDepth: 81.73 psig @ 3638.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.08.24

End Date:

2014.08.24

Last Calib.: 2014.08.24

Start Time: 13:02:00

End Time:

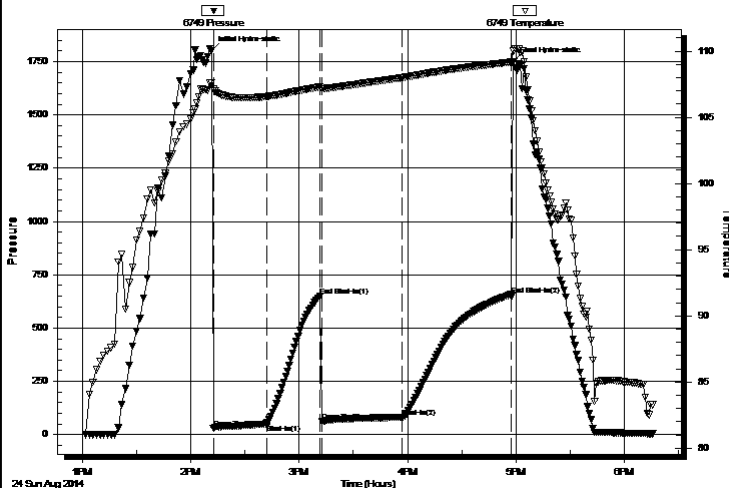
18:16:00

Time On Btm: 2014.08.24 @ 14:11:30

Time Off Btm: 2014.08.24 @ 16:58:30

TEST COMMENT: IFP 30 - Blow built to BOB in 4 min  
ISI 30 - Blow back built to 3/4"  
FFP 45 - Blow built to BOB in 30 seconds then slow ed after 2 minutes  
FSI 60 - Blow back built to 2"

Pressure vs. Time



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1801.08         | 107.60       | Initial Hydro-static |
| 1           | 30.31           | 107.12       | Open To Flow (1)     |
| 31          | 50.78           | 106.57       | Shut-In(1)           |
| 60          | 648.78          | 107.31       | End Shut-In(1)       |
| 61          | 64.09           | 107.18       | Open To Flow (2)     |
| 106         | 81.73           | 108.00       | Shut-In(2)           |
| 166         | 657.42          | 109.17       | End Shut-In(2)       |
| 167         | 1749.19         | 110.02       | Final Hydro-static   |

Recovery

| Length (ft) | Description                    | Volume (bbl) |
|-------------|--------------------------------|--------------|
| 120.00      | GWCO 10%G 15%W 75%O (65% Emuls | 1.68         |
| 40.00       | VGWCO 50%G 15%W 35%O 10% Emuls | 0.56         |
| 0.00        | 2444' GIP                      | 0.00         |
|             |                                |              |
|             |                                |              |
|             |                                |              |

Gas Rates

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



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

Charter Energy Incorporated

**28-22s-14w Stafford,KS**

PO Box 252  
Great Bend, KS 67530+0252

**Symns #2**

Job Ticket: 60260

**DST#: 1**

ATTN: Jim Musgrove

Test Start: 2014.08.24 @ 13:01:00

### GENERAL INFORMATION:

Formation: **LKC D-E**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:12:30

Time Test Ended: 18:16:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: S1 Great Bend/66

**Interval: 3620.00 ft (KB) To 3642.00 ft (KB) (TVD)**

Reference Elevations: 1957.00 ft (KB)

Total Depth: 3642.00 ft (KB) (TVD)

1950.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

**Serial #: 6663 Outside**

Press@RunDepth: 657.23 psig @ 3639.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.08.24

End Date:

2014.08.24

Last Calib.:

2014.08.24

Start Time: 13:02:00

End Time:

18:16:30

Time On Btm:

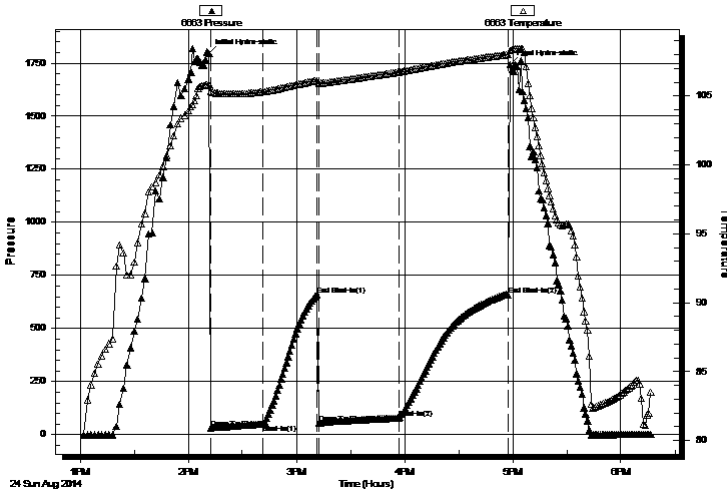
2014.08.24 @ 14:11:30

Time Off Btm:

2014.08.24 @ 16:58:30

TEST COMMENT: IFP 30 - Blow built to BOB in 4 min  
ISI 30 - Blow back built to 3/4"  
FFP 45 - Blow built to BOB in 30 seconds then slow ed after 2 minutes  
FSI 60 - Blow back built to 2"

Pressure vs. Time



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1793.86         | 105.81       | Initial Hydro-static |
| 1           | 31.05           | 105.35       | Open To Flow (1)     |
| 30          | 49.94           | 105.31       | Shut-In(1)           |
| 60          | 659.49          | 106.12       | End Shut-In(1)       |
| 61          | 55.20           | 105.95       | Open To Flow (2)     |
| 106         | 79.06           | 106.74       | Shut-In(2)           |
| 166         | 657.23          | 108.01       | End Shut-In(2)       |
| 167         | 1744.06         | 108.31       | Final Hydro-static   |

Recovery

| Length (ft) | Description                    | Volume (bbl) |
|-------------|--------------------------------|--------------|
| 120.00      | GWCO 10%G 15%W 75%O (65% Emuls | 1.68         |
| 40.00       | VGWCO 50%G 15%W 35%O 10% Emuls | 0.56         |
| 0.00        | 2444' GIP                      | 0.00         |
|             |                                |              |
|             |                                |              |
|             |                                |              |

Gas Rates

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



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

### TOOL DIAGRAM

Charter Energy Incorporated

**28-22s-14w Stafford,KS**

PO Box 252  
Great Bend, KS 67530+0252

**Symns #2**

Job Ticket: 60260

**DST#: 1**

ATTN: Jim Musgrove

Test Start: 2014.08.24 @ 13:01:00

### Tool Information

|                           |            |            |           |             |               |                        |                       |             |
|---------------------------|------------|------------|-----------|-------------|---------------|------------------------|-----------------------|-------------|
| Drill Pipe:               | Length:    | 3625.00 ft | Diameter: | 3.80 inches | Volume:       | 50.85 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: | 20000.00 lb |
| Drill Collar:             | Length:    | 0.00 ft    | Diameter: | 0.00 inches | Volume:       | 0.00 bbl               | Weight to Pull Loose: | 48000.00 lb |
|                           |            |            |           |             | Total Volume: | 50.85 bbl              | Tool Chased           | 0.00 ft     |
| Drill Pipe Above KB:      | 25.00 ft   |            |           |             |               | String Weight: Initial | 44000.00 lb           |             |
| Depth to Top Packer:      | 3620.00 ft |            |           |             |               | Final                  | 44000.00 lb           |             |
| Depth to Bottom Packer:   | ft         |            |           |             |               |                        |                       |             |
| Interval between Packers: | 22.00 ft   |            |           |             |               |                        |                       |             |
| Tool Length:              | 42.00 ft   |            |           |             |               |                        |                       |             |
| Number of Packers:        | 2          |            | Diameter: | 6.75 inches |               |                        |                       |             |
| Tool Comments:            |            |            |           |             |               |                        |                       |             |

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

|                |       |      |         |         |                            |
|----------------|-------|------|---------|---------|----------------------------|
| Shut-In Tool   | 5.00  |      |         | 3605.00 |                            |
| Hydraulic tool | 5.00  |      |         | 3610.00 |                            |
| Top Packer     | 5.00  |      |         | 3615.00 |                            |
| Packer         | 5.00  |      |         | 3620.00 | 20.00 Bottom Of Top Packer |
| Anchor         | 17.00 |      |         | 3637.00 |                            |
| Recorder       | 1.00  | 6749 | Inside  | 3638.00 |                            |
| Recorder       | 1.00  | 6663 | Outside | 3639.00 |                            |
| Bullnose       | 3.00  |      |         | 3642.00 | 22.00 Anchor Tool          |

**Total Tool Length: 42.00**



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

### FLUID SUMMARY

Charter Energy Incorporated

**28-22s-14w Stafford,KS**

PO Box 252  
Great Bend, KS 67530+0252

**Symns #2**

Job Ticket: 60260

**DST#: 1**

ATTN: Jim Musgrove

Test Start: 2014.08.24 @ 13:01:00

### Mud and Cushion Information

Mud Type: Invert

Mud Weight: 9.00 lb/gal

Viscosity: 60.00 sec/qt

Water Loss: 10.18 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 8500.00 ppm

Filter Cake: 2.00 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<br>ft | Description                         | Volume<br>bbl |
|--------------|-------------------------------------|---------------|
| 120.00       | GWCO 10%G 15%W 75%O (65% Emuls Oil) | 1.683         |
| 40.00        | VGWCO 50%G 15%W 35%O 10% Emulsified | 0.561         |
| 0.00         | 2444' GIP                           | 0.000         |

Total Length: 160.00 ft

Total Volume: 2.244 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6749

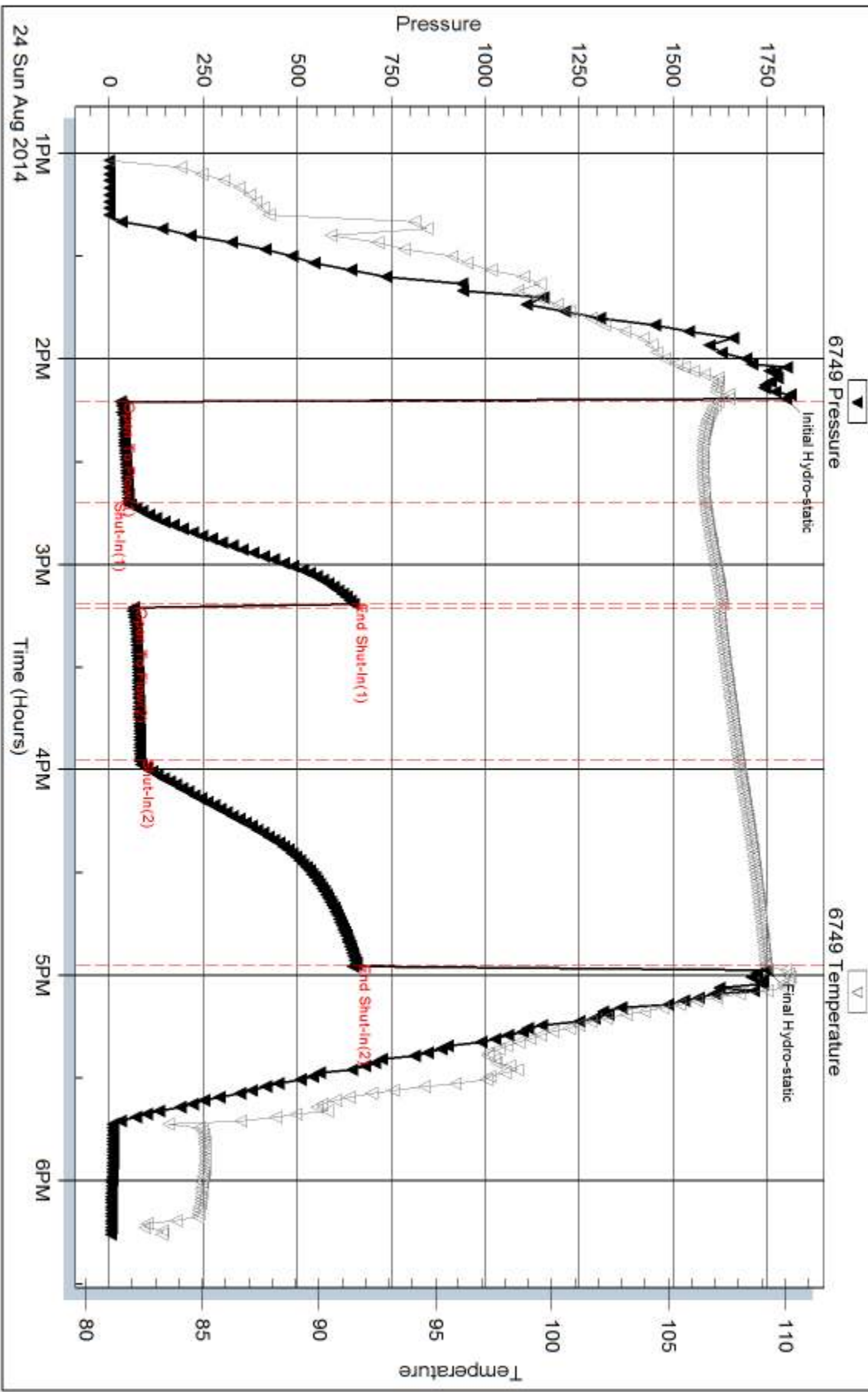
Inside

Charter Energy Incorporated

Syms #2

DST Test Number: 1

# Pressure vs. Time

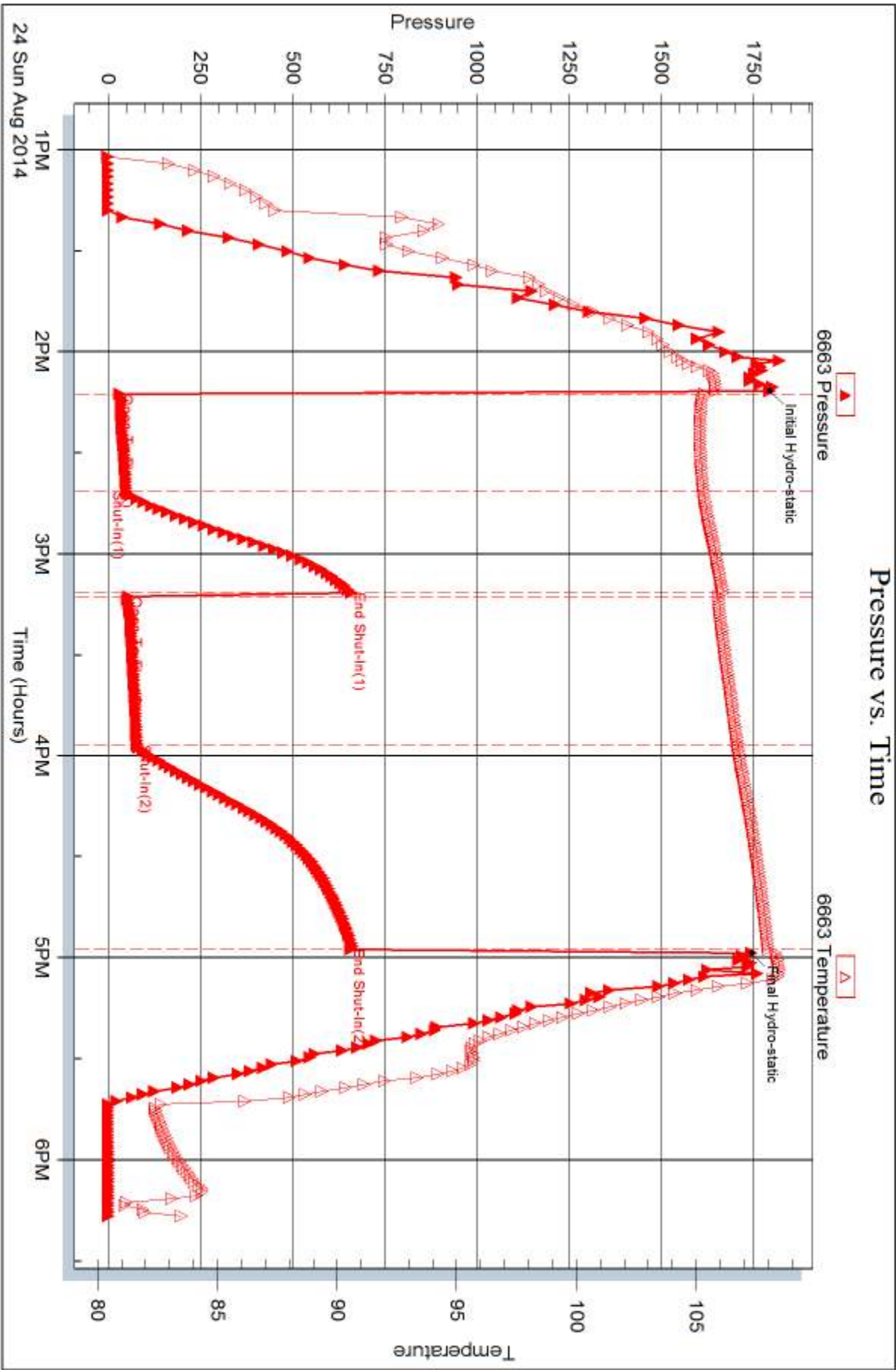


Serial #: 6663

Outside Charter Energy Incorporated

Syms #2

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **Charter Energy Incorporated**

PO Box 252  
Great Bend, KS 67530+0252

ATTN: Jim Musgrove

### **Symns #2**

#### **28-22s-14w Stafford,KS**

Start Date: 2014.08.25 @ 01:18:00

End Date: 2014.08.25 @ 08:19:30

Job Ticket #: 60261                      DST #: 2

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

Printed: 2014.08.27 @ 11:15:22



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

Charter Energy Incorporated

**28-22s-14w Stafford,KS**

PO Box 252  
Great Bend, KS 67530+0252

**Symns #2**

Job Ticket: 60261

**DST#: 2**

ATTN: Jim Musgrove

Test Start: 2014.08.25 @ 01:18:00

### GENERAL INFORMATION:

Formation: **LKC I-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:42:30

Time Test Ended: 08:19:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: S1 Great Bend/66

**Interval: 3642.00 ft (KB) To 3680.00 ft (KB) (TVD)**

Reference Elevations: 1957.00 ft (KB)

Total Depth: 3680.00 ft (KB) (TVD)

1950.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

**Serial #: 6749 Inside**

Press@RunDepth: 571.64 psig @ 3676.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.08.25

End Date:

2014.08.25

Last Calib.: 2014.08.25

Start Time: 01:19:00

End Time:

08:19:30

Time On Btm: 2014.08.25 @ 02:42:00

Time Off Btm: 2014.08.25 @ 05:30:30

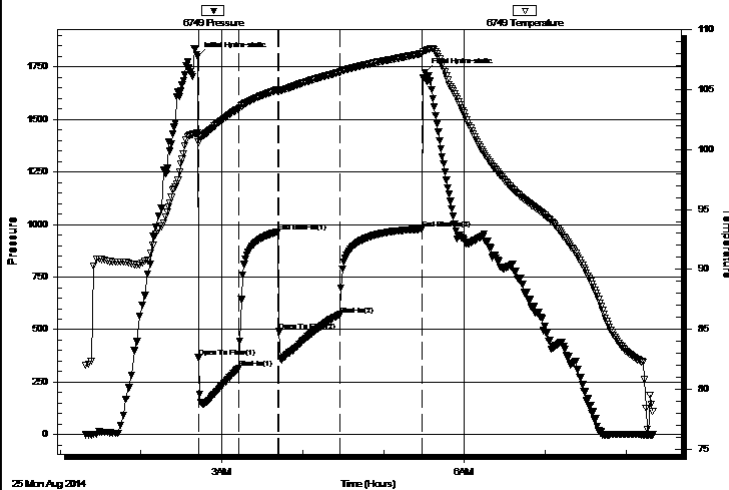
TEST COMMENT: IFP 30 BOB in 15 seconds Gas to surface 5 minutes

ISI 30 Strong blow back

FFP 45 BOB in 10 seconds

FSI 60 Strong blow back

Pressure vs. Time



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1798.29         | 101.38       | Initial Hydro-static |
| 1           | 367.20          | 100.60       | Open To Flow (1)     |
| 31          | 318.07          | 103.40       | Shut-In(1)           |
| 60          | 964.95          | 104.99       | End Shut-In(1)       |
| 61          | 490.93          | 104.90       | Open To Flow (2)     |
| 106         | 571.64          | 106.44       | Shut-In(2)           |
| 167         | 978.85          | 107.98       | End Shut-In(2)       |
| 169         | 1723.71         | 108.22       | Final Hydro-static   |

Recovery

| Length (ft) | Description   | Volume (bbl) |
|-------------|---------------|--------------|
| 2170.00     | CGO 20%G 80%O | 30.44        |
|             |               |              |
|             |               |              |
|             |               |              |
|             |               |              |

Gas Rates

|                | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|----------------|----------------|-----------------|------------------|
| First Gas Rate | 0.25           | 45.00           | 94.23            |
| Last Gas Rate  | 0.25           | 14.86           | 46.42            |
| Max. Gas Rate  | 0.25           | 45.00           | 94.23            |



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

Charter Energy Incorporated

**28-22s-14w Stafford,KS**

PO Box 252  
Great Bend, KS 67530+0252

**Symns #2**

Job Ticket: 60261

**DST#: 2**

ATTN: Jim Musgrove

Test Start: 2014.08.25 @ 01:18:00

### GENERAL INFORMATION:

Formation: **LKC I-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:42:30

Time Test Ended: 08:19:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: S1 Great Bend/66

**Interval: 3642.00 ft (KB) To 3680.00 ft (KB) (TVD)**

Reference Elevations: 1957.00 ft (KB)

Total Depth: 3680.00 ft (KB) (TVD)

1950.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

**Serial #: 6663 Outside**

Press@RunDepth: 979.88 psig @ 3677.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.08.25

End Date:

2014.08.25

Last Calib.:

2014.08.25

Start Time: 01:19:00

End Time:

08:19:30

Time On Btm:

2014.08.25 @ 02:42:30

Time Off Btm:

2014.08.25 @ 05:30:30

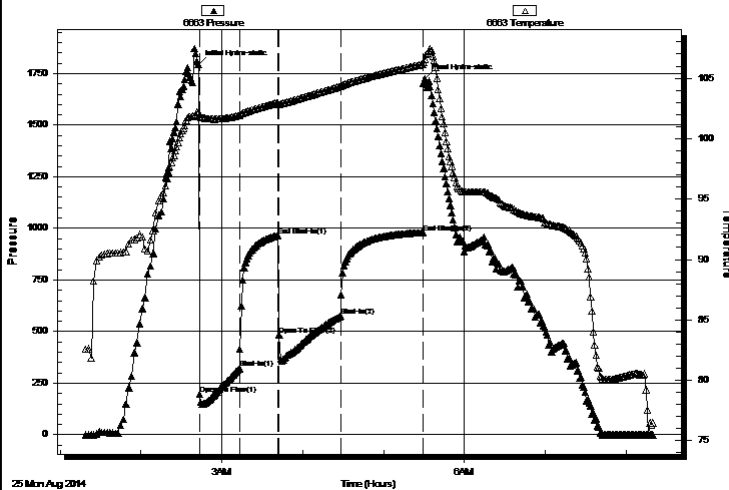
TEST COMMENT: IFP 30 BOB in 15 seconds Gas to surface 5 minutes

ISI 30 Strong blow back

FFP 45 BOB in 10 seconds

FSI 60 Strong blow back

Pressure vs. Time



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1792.18         | 102.24       | Initial Hydro-static |
| 1           | 197.87          | 101.83       | Open To Flow (1)     |
| 31          | 321.04          | 101.91       | Shut-In(1)           |
| 59          | 965.70          | 103.00       | End Shut-In(1)       |
| 60          | 481.06          | 102.80       | Open To Flow (2)     |
| 106         | 574.57          | 104.33       | Shut-In(2)           |
| 167         | 979.88          | 106.16       | End Shut-In(2)       |
| 168         | 1725.63         | 106.58       | Final Hydro-static   |

Recovery

| Length (ft) | Description   | Volume (bbl) |
|-------------|---------------|--------------|
| 2170.00     | CGO 20%G 80%O | 30.44        |
|             |               |              |
|             |               |              |
|             |               |              |
|             |               |              |

Gas Rates

|                | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|----------------|----------------|-----------------|------------------|
| First Gas Rate | 0.25           | 45.00           | 94.23            |
| Last Gas Rate  | 0.25           | 14.86           | 46.42            |
| Max. Gas Rate  | 0.25           | 45.00           | 94.23            |



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

### TOOL DIAGRAM

Charter Energy Incorporated

**28-22s-14w Stafford,KS**

PO Box 252  
Great Bend, KS 67530+0252

**Symns #2**

Job Ticket: 60261

**DST#: 2**

ATTN: Jim Musgrove

Test Start: 2014.08.25 @ 01:18:00

### Tool Information

|                           |         |            |           |             |               |           |                        |             |
|---------------------------|---------|------------|-----------|-------------|---------------|-----------|------------------------|-------------|
| Drill Pipe:               | Length: | 3625.00 ft | Diameter: | 3.80 inches | Volume:       | 50.85 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:  | 20000.00 lb |
| Drill Collar:             | Length: | 0.00 ft    | Diameter: | 0.00 inches | Volume:       | 0.00 bbl  | Weight to Pull Loose:  | 60000.00 lb |
|                           |         |            |           |             | Total Volume: | 50.85 bbl | Tool Chased            | 0.00 ft     |
| Drill Pipe Above KB:      |         | 3.00 ft    |           |             |               |           | String Weight: Initial | 46000.00 lb |
| Depth to Top Packer:      |         | 3642.00 ft |           |             |               |           | Final                  | 51000.00 lb |
| Depth to Bottom Packer:   |         | ft         |           |             |               |           |                        |             |
| Interval between Packers: |         | 38.00 ft   |           |             |               |           |                        |             |
| Tool Length:              |         | 58.00 ft   |           |             |               |           |                        |             |
| Number of Packers:        |         | 2          | Diameter: | 6.75 inches |               |           |                        |             |
| Tool Comments:            |         |            |           |             |               |           |                        |             |

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

|                |       |      |         |         |                            |
|----------------|-------|------|---------|---------|----------------------------|
| Shut-In Tool   | 5.00  |      |         | 3627.00 |                            |
| Hydraulic tool | 5.00  |      |         | 3632.00 |                            |
| Top Packer     | 5.00  |      |         | 3637.00 |                            |
| Packer         | 5.00  |      |         | 3642.00 | 20.00 Bottom Of Top Packer |
| Anchor         | 33.00 |      |         | 3675.00 |                            |
| Recorder       | 1.00  | 6749 | Inside  | 3676.00 |                            |
| Recorder       | 1.00  | 6663 | Outside | 3677.00 |                            |
| Bullnose       | 3.00  |      |         | 3680.00 | 38.00 Anchor Tool          |

**Total Tool Length: 58.00**



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

### FLUID SUMMARY

Charter Energy Incorporated

**28-22s-14w Stafford,KS**

PO Box 252  
Great Bend, KS 67530+0252

**Symns #2**

Job Ticket: 60261

**DST#: 2**

ATTN: Jim Musgrove

Test Start: 2014.08.25 @ 01:18:00

### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 60.00 sec/qt

Water Loss: 10.19 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 8500.00 ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

28 deg API

ppm

### Recovery Information

Recovery Table

| Length<br>ft | Description   | Volume<br>bbl |
|--------------|---------------|---------------|
| 2170.00      | CGO 20%G 80%O | 30.439        |

Total Length: 2170.00 ft

Total Volume: 30.439 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

**GAS RATES**

Charter Energy Incorporated

**28-22s-14w Stafford,KS**

PO Box 252  
Great Bend, KS 67530+0252

**Symns #2**

Job Ticket: 60261

**DST#: 2**

ATTN: Jim Musgrove

Test Start: 2014.08.25 @ 01:18:00

### Gas Rates Information

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

Gas Rates Table

| Flow Period | Elapsed Time | Choke<br>(inches) | Pressure<br>(psig) | Gas Rate<br>(Mcf/d) |
|-------------|--------------|-------------------|--------------------|---------------------|
| 1           | 10           | 0.25              | 45.00              | 94.23               |
| 1           | 10           | 0.25              | 45.00              | 94.23               |
| 1           | 20           | 0.25              | 35.60              | 79.32               |
| 1           | 30           | 0.25              | 35.60              | 79.32               |
| 2           | 10           | 0.25              | 6.75               | 33.55               |
| 2           | 20           | 0.25              | 16.40              | 48.86               |
| 2           | 30           | 0.25              | 14.86              | 46.42               |

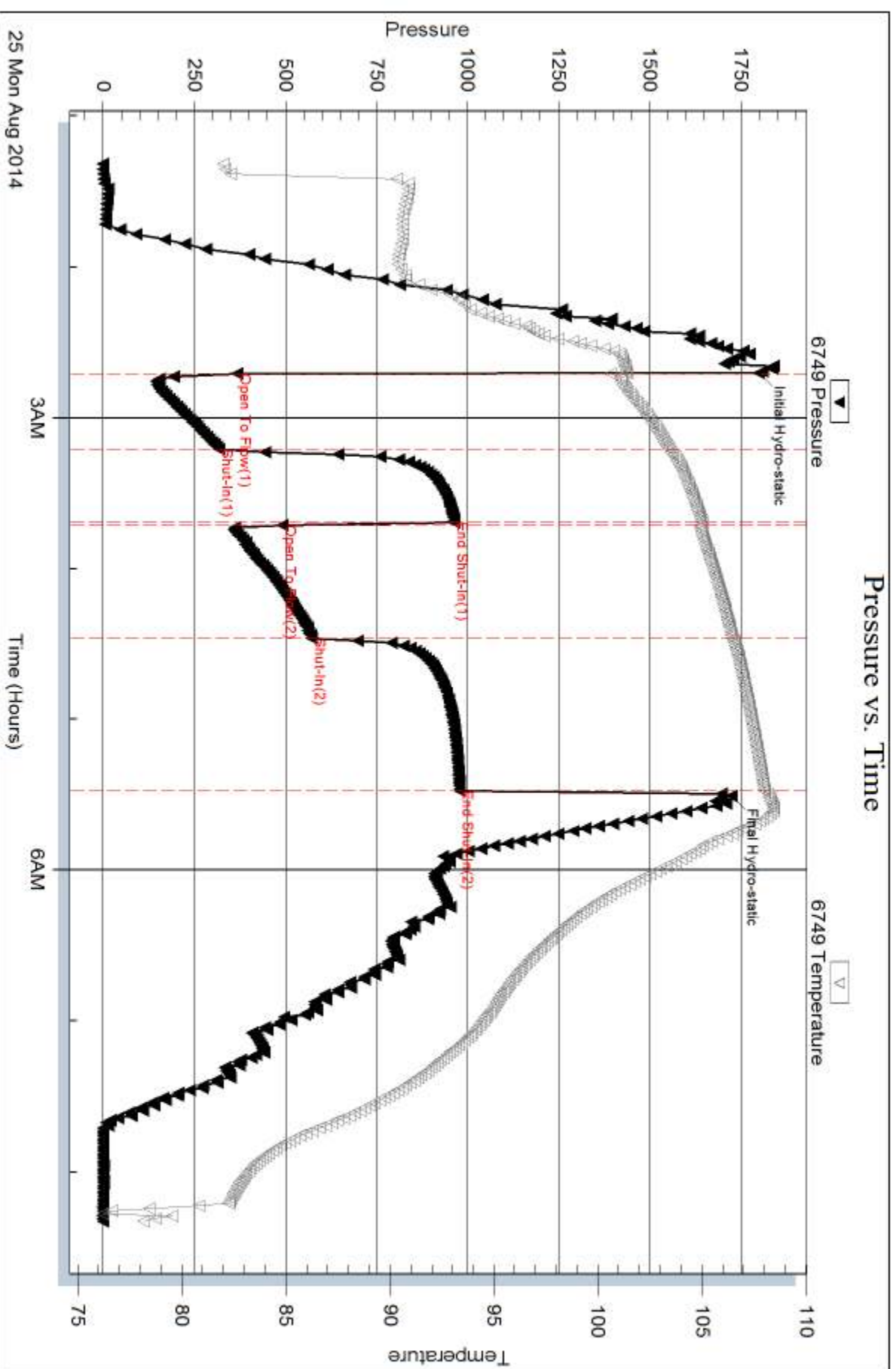
Serial #: 6749

Inside

Charter Energy Incorporated

Syms #2

DST Test Number: 2

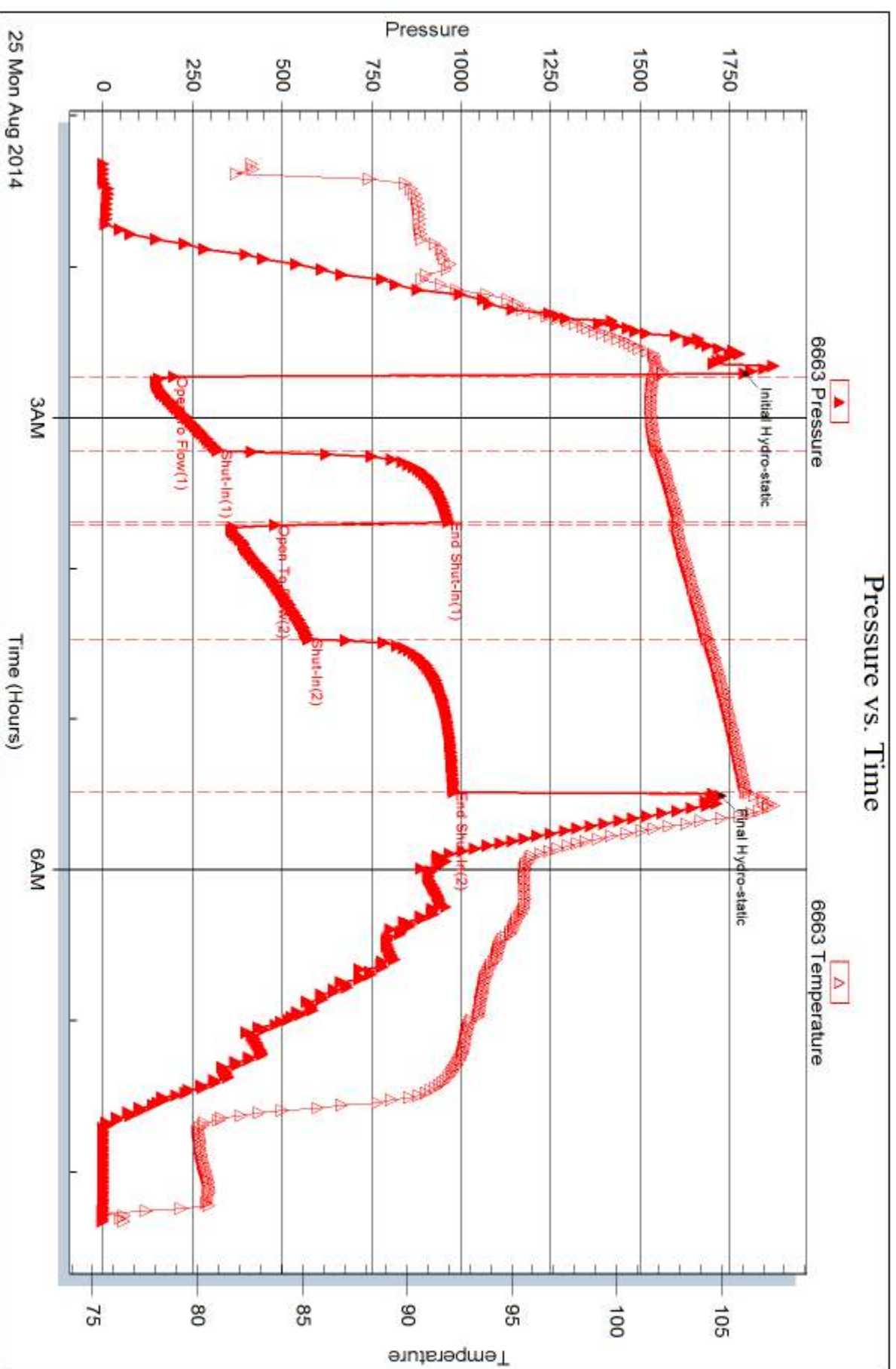


Serial #: 6663

Outside Charter Energy Incorporated

Syms #2

DST Test Number: 2





## DRILL STEM TEST REPORT

Prepared For: **Charter Energy Incorporated**

PO Box 252  
Great Bend, KS 67530+0252

ATTN: Jim Musgrove

### **Symns #2**

#### **28-22s-14w Stafford,KS**

Start Date: 2014.08.25 @ 15:22:00

End Date: 2014.08.25 @ 21:08:00

Job Ticket #: 60262                      DST #: 3

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

Printed: 2014.08.27 @ 11:43:07



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

Charter Energy Incorporated

**28-22s-14w Stafford,KS**

PO Box 252  
Great Bend, KS 67530+0252

**Symns #2**

Job Ticket: 60262

**DST#: 3**

ATTN: Jim Musgrove

Test Start: 2014.08.25 @ 15:22:00

### GENERAL INFORMATION:

Formation: **LKC K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:28:00

Time Test Ended: 21:08:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: S1

**Interval: 3686.00 ft (KB) To 3710.00 ft (KB) (TVD)**

Total Depth: 3710.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1957.00 ft (KB)

1950.00 ft (CF)

KB to GR/CF: 7.00 ft

**Serial #: 6749 Inside**

Press@RunDepth: 246.56 psig @ 3706.00 ft (KB)

Start Date: 2014.08.25

End Date:

2014.08.25

Start Time: 15:23:00

End Time:

21:08:00

Capacity: 8000.00 psig

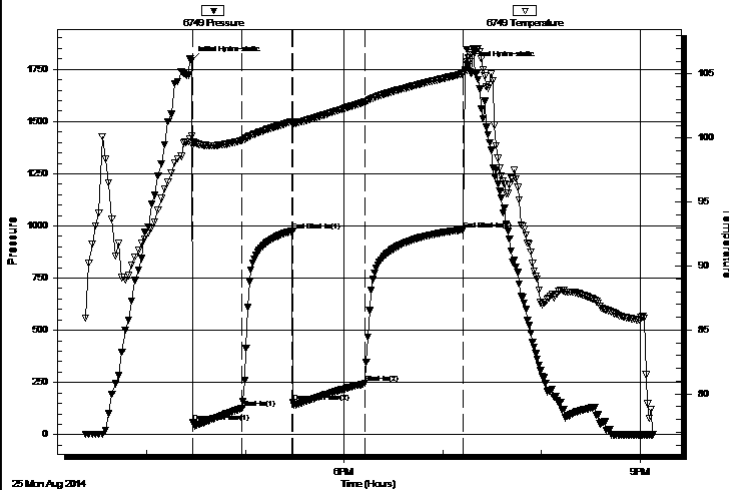
Last Calib.: 2014.08.25

Time On Btm: 2014.08.25 @ 16:27:30

Time Off Btm: 2014.08.25 @ 19:15:00

TEST COMMENT: IFP 30 BOB in 1 min 15 sec  
ISI 30 Blow back built to 9"  
FFP 45 BOB in 2 min 15 sec Gas to surface 17 min too weak to guage  
FSI 60 Blow back built to BOB

Pressure vs. Time



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1790.75         | 100.14       | Initial Hydro-static |
| 1           | 57.56           | 99.39        | Open To Flow (1)     |
| 31          | 127.58          | 99.82        | Shut-In(1)           |
| 61          | 975.05          | 101.29       | End Shut-In(1)       |
| 62          | 154.31          | 101.14       | Open To Flow (2)     |
| 105         | 246.56          | 102.79       | Shut-In(2)           |
| 165         | 982.52          | 105.03       | End Shut-In(2)       |
| 168         | 1770.27         | 105.98       | Final Hydro-static   |

Recovery

| Length (ft) | Description   | Volume (bbl) |
|-------------|---------------|--------------|
| 93.00       | SOCW 1%O 99%W | 1.30         |
| 589.00      | GO 15%G 85%O  | 8.26         |
| 62.00       | GEO 20%G 80%O | 0.87         |
|             |               |              |
|             |               |              |
|             |               |              |

Gas Rates

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



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

Charter Energy Incorporated

**28-22s-14w Stafford,KS**

PO Box 252  
Great Bend, KS 67530+0252

**Symns #2**

Job Ticket: 60262

**DST#: 3**

ATTN: Jim Musgrove

Test Start: 2014.08.25 @ 15:22:00

### GENERAL INFORMATION:

Formation: **LKC K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:28:00

Time Test Ended: 21:08:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: S1

**Interval: 3686.00 ft (KB) To 3710.00 ft (KB) (TVD)**

Reference Elevations: 1957.00 ft (KB)

Total Depth: 3710.00 ft (KB) (TVD)

1950.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

**Serial #: 6663 Outside**

Press@RunDepth: 983.79 psig @ 3707.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.08.25

End Date:

2014.08.25

Last Calib.:

2014.08.25

Start Time: 15:23:00

End Time:

21:08:00

Time On Btm:

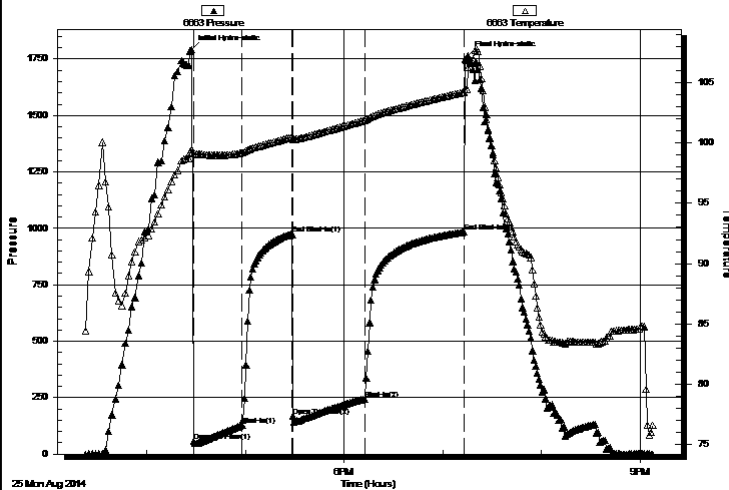
2014.08.25 @ 16:27:30

Time Off Btm:

2014.08.25 @ 19:15:30

TEST COMMENT: IFP 30 BOB in 1 min 15 sec  
ISI 30 Blow back built to 9"  
FFP 45 BOB in 2 min 15 sec Gas to surface 17 min too weak to guage  
FSI 60 Blow back built to BOB

Pressure vs. Time



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1793.22         | 99.40        | Initial Hydro-static |
| 1           | 57.37           | 99.10        | Open To Flow (1)     |
| 31          | 127.79          | 99.16        | Shut-In(1)           |
| 61          | 975.56          | 100.46       | End Shut-In(1)       |
| 62          | 169.56          | 100.29       | Open To Flow (2)     |
| 105         | 244.47          | 101.86       | Shut-In(2)           |
| 166         | 983.79          | 104.20       | End Shut-In(2)       |
| 168         | 1766.15         | 106.25       | Final Hydro-static   |

Recovery

| Length (ft) | Description   | Volume (bbl) |
|-------------|---------------|--------------|
| 93.00       | SOCW 1%O 99%W | 1.30         |
| 589.00      | GO 15%G 85%O  | 8.26         |
| 62.00       | GEO 20%G 80%O | 0.87         |
|             |               |              |
|             |               |              |
|             |               |              |

Gas Rates

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



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

### TOOL DIAGRAM

Charter Energy Incorporated

**28-22s-14w Stafford,KS**

PO Box 252  
Great Bend, KS 67530+0252

**Symns #2**

Job Ticket: 60262

**DST#: 3**

ATTN: Jim Musgrove

Test Start: 2014.08.25 @ 15:22:00

### Tool Information

|                           |         |            |           |             |               |           |                        |             |
|---------------------------|---------|------------|-----------|-------------|---------------|-----------|------------------------|-------------|
| Drill Pipe:               | Length: | 3688.00 ft | Diameter: | 3.80 inches | Volume:       | 51.73 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:  | 20000.00 lb |
| Drill Collar:             | Length: | 0.00 ft    | Diameter: | 0.00 inches | Volume:       | 0.00 bbl  | Weight to Pull Loose:  | 90000.00 lb |
|                           |         |            |           |             | Total Volume: | 51.73 bbl | Tool Chased            | 0.00 ft     |
| Drill Pipe Above KB:      |         | 22.00 ft   |           |             |               |           | String Weight: Initial | 46000.00 lb |
| Depth to Top Packer:      |         | 3686.00 ft |           |             |               |           | Final                  | 48000.00 lb |
| Depth to Bottom Packer:   |         | ft         |           |             |               |           |                        |             |
| Interval between Packers: |         | 24.00 ft   |           |             |               |           |                        |             |
| Tool Length:              |         | 44.00 ft   |           |             |               |           |                        |             |
| Number of Packers:        |         | 2          | Diameter: | 6.75 inches |               |           |                        |             |
| Tool Comments:            |         |            |           |             |               |           |                        |             |

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

|                |       |      |         |         |                            |
|----------------|-------|------|---------|---------|----------------------------|
| Shut-In Tool   | 5.00  |      |         | 3671.00 |                            |
| Hydraulic tool | 5.00  |      |         | 3676.00 |                            |
| Top Packer     | 5.00  |      |         | 3681.00 |                            |
| Packer         | 5.00  |      |         | 3686.00 | 20.00 Bottom Of Top Packer |
| Anchor         | 19.00 |      |         | 3705.00 |                            |
| Recorder       | 1.00  | 6749 | Inside  | 3706.00 |                            |
| Recorder       | 1.00  | 6663 | Outside | 3707.00 |                            |
| Bullnose       | 3.00  |      |         | 3710.00 | 24.00 Anchor Tool          |

**Total Tool Length: 44.00**



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

### FLUID SUMMARY

Charter Energy Incorporated

**28-22s-14w Stafford,KS**

PO Box 252  
Great Bend, KS 67530+0252

**Symns #2**

Job Ticket: 60262

**DST#: 3**

ATTN: Jim Musgrove

Test Start: 2014.08.25 @ 15:22:00

### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 66.00 sec/qt

Water Loss: 14.59 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 12800.00 ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

27 deg API

Water Salinity:

32000 ppm

### Recovery Information

Recovery Table

| Length<br>ft | Description   | Volume<br>bbl |
|--------------|---------------|---------------|
| 93.00        | SOCW 1%O 99%W | 1.305         |
| 589.00       | GO 15%G 85%O  | 8.262         |
| 62.00        | GEO 20%G 80%O | 0.870         |

Total Length: 744.00 ft

Total Volume: 10.437 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6749

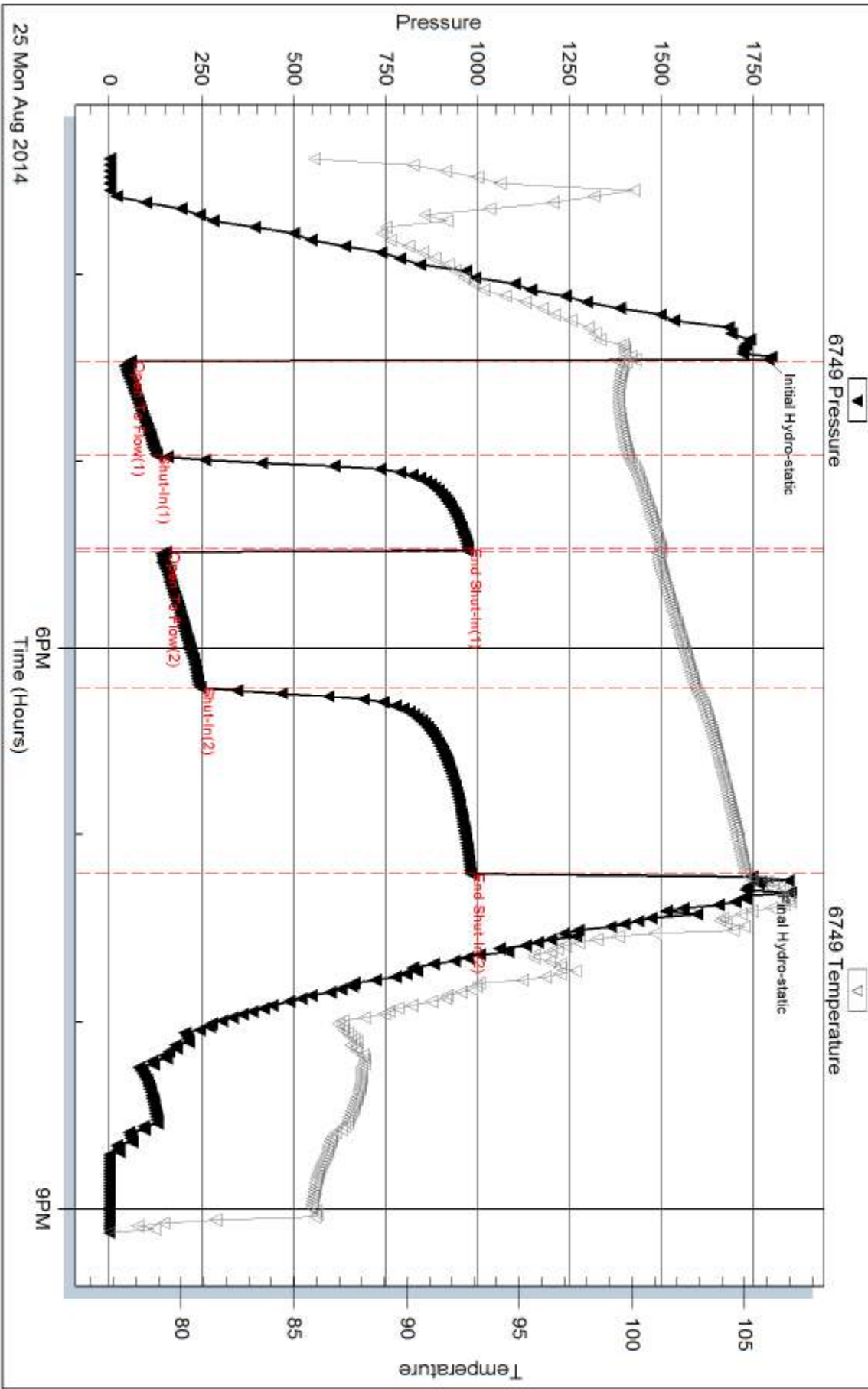
Inside

Charter Energy Incorporated

Syms #2

DST Test Number: 3

# Pressure vs. Time



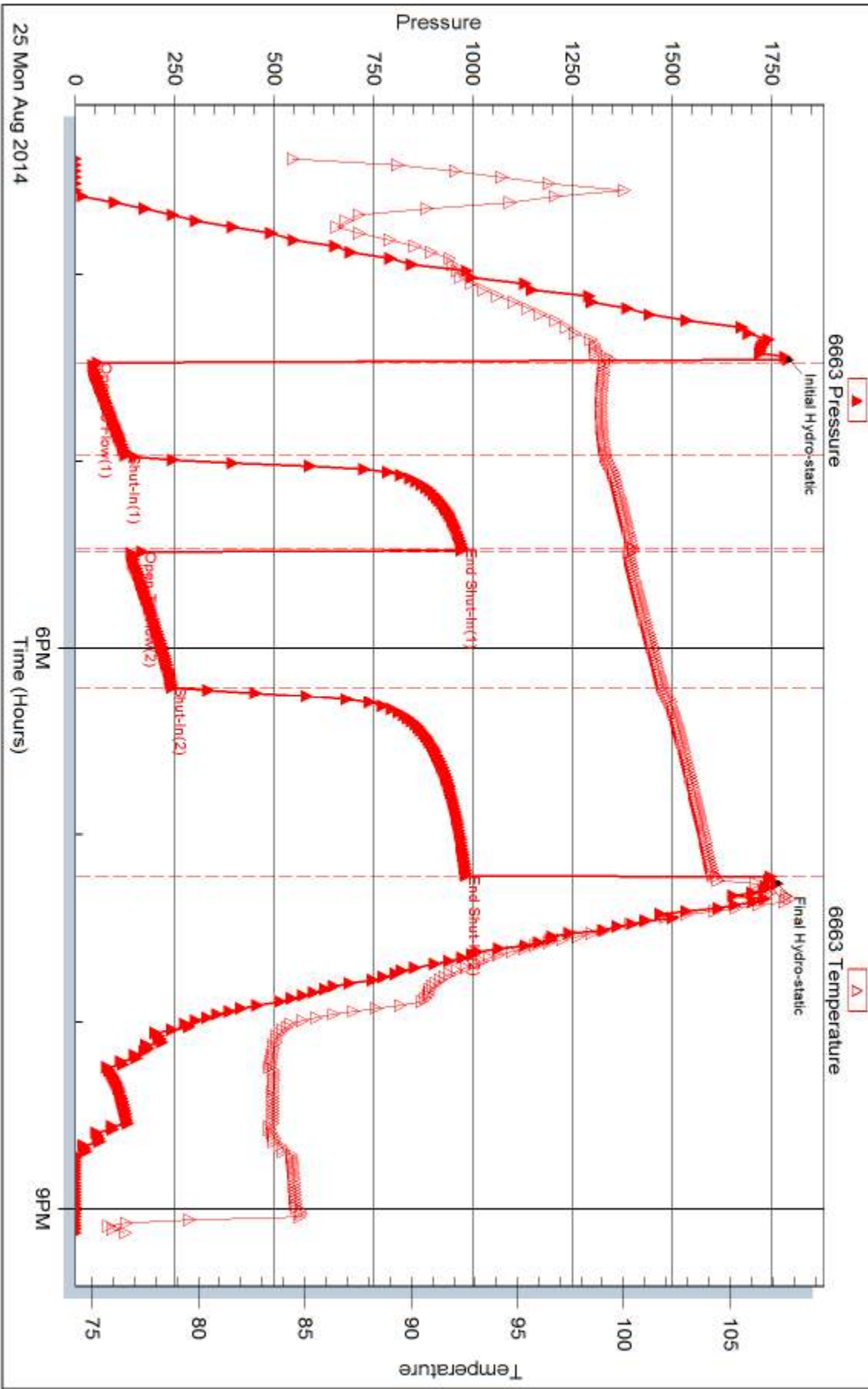
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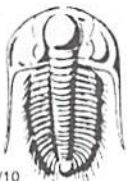
Outside Charter Energy Incorporated

Syms #2

DST Test Number: 3

# Pressure vs. Time





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **60260**

Well Name & No. Synns #2 Test No. 1 Date 24 Aug 14  
 Company Charter Energy Incorporated Elevation 1957 KB 1950 GL  
 Address PO Box 252 Great Bend Kansas 67530 Q52  
 Co. Rep / Geo. Jim Musgrove Rig Royal Rig 2  
 Location: Sec. 28 Twp. 22S Rge. 14W Co. Stafford State KS

Interval Tested 3620-3642 Zone Tested \_\_\_\_\_  
 Anchor Length 22 Drill Pipe Run 3625 Mud Wt. 9.3  
 Top Packer Depth 3615 Drill Collars Run 0 Vis 60  
 Bottom Packer Depth 3620 Wt. Pipe Run 0 WL 10.2  
 Total Depth 3642 Chlorides 8500 ppm System LCM -

Blow Description Good blow/Blow built to bottom of bucket in 4 minutes  
blow back built to 3/4 inch

Strong blow/Built to bottom of bucket in 30 seconds but then  
slowed considerably after 2 minutes/Blow back built to 2 inch

| Rec         | Feet of                    | %gas       | %oil      | %water    | %mud |
|-------------|----------------------------|------------|-----------|-----------|------|
| <u>2444</u> | <u>Gas in pipe</u>         | <u>100</u> |           |           |      |
| <u>410</u>  | <u>Water cut oily gas</u>  | <u>50</u>  | <u>35</u> | <u>15</u> |      |
| <u>120</u>  | <u>Water cut gassy oil</u> | <u>10</u>  | <u>75</u> | <u>15</u> |      |
|             |                            |            |           |           |      |
|             |                            |            |           |           |      |

Rec Total 160 BHT 110 Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic 1801  
 (B) First Initial Flow 30  
 (C) First Final Flow 50  
 (D) Initial Shut-In 648  
 (E) Second Initial Flow 64  
 (F) Second Final Flow 81  
 (G) Final Shut-In 657  
 (H) Final Hydrostatic 1749

☐ Test 1150  
☐ Jars \_\_\_\_\_  
☐ Safety Joint \_\_\_\_\_  
☐ Circ Sub \_\_\_\_\_  
☐ Hourly Standby \_\_\_\_\_  
☐ Mileage 66 102.30  
☐ Sampler \_\_\_\_\_  
☐ Straddle \_\_\_\_\_  
☐ Shale Packer \_\_\_\_\_  
☐ Extra Packer \_\_\_\_\_  
☐ Extra Recorder \_\_\_\_\_  
☐ Day Standby \_\_\_\_\_  
☐ Accessibility \_\_\_\_\_  
 Sub Total \_\_\_\_\_

T-On Location 12:45  
 T-Started #1:09  
 T-Open 2:12  
 T-Pulled 4:57  
 T-Out 4:57  
 Comments \_\_\_\_\_  
☐ Ruined Shale Packer \_\_\_\_\_  
☐ Ruined Packer \_\_\_\_\_  
☐ Extra Copies \_\_\_\_\_  
 Sub Total \_\_\_\_\_  
 Total \_\_\_\_\_  
 MP/DST Disc't \_\_\_\_\_

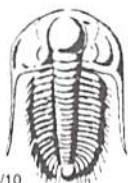
Initial Open 30  
 Initial Shut-In 30  
 Final Flow 45  
 Final Shut-In 60

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

Our Representative \_\_\_\_\_

Ken

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. **60261**

Well Name & No. Symms #2 Test No. 2 Date 25 Aug 14  
 Company Chatter Energy Incorporated Elevation 1957 KB 1950 GL  
 Address PO Box 252 Great Bend, Kansas 67530-0252  
 Co. Rep / Geo. Jim Musgrove Rig Royal Rig #2  
 Location: Sec. 28 Twp. 22S Rge. 14W Co. Stafford State KS

Interval Tested 3642-3680 Zone Tested Kansas City zones I+J  
 Anchor Length 38 Drill Pipe Run 3625 Mud Wt. 9.3  
 Top Packer Depth 3637 Drill Collars Run 0 Vis 60  
 Bottom Packer Depth 3642 Wt. Pipe Run 0 WL 10.2  
 Total Depth 3680 Chlorides 8500 ppm System LCM —

Blow Description Strong blow/Blow built to bottom of bucket in 15 seconds, Gas  
to surface in 5 minutes/Strong blow back  
Strong blow/Blow built to bottom of bucket in 10 seconds  
Strong blow back

| Rec         | Feet of                | %gas       | %oil       | %water | %mud |
|-------------|------------------------|------------|------------|--------|------|
| <u>2170</u> | <u>Clean Gassy (.)</u> | <u>20%</u> | <u>80%</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 108 BHT 108 Gravity 28 API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1798  
 (B) First Initial Flow 367  
 (C) First Final Flow 318  
 (D) Initial Shut-In 964  
 (E) Second Initial Flow 1190  
 (F) Second Final Flow 571  
 (G) Final Shut-In ~~773~~ 978  
 (H) Final Hydrostatic 1723

☐ Test 1150  
☐ Jars —  
☐ Safety Joint —  
☐ Circ Sub —  
☐ Hourly Standby —  
☐ Mileage 66 102.30  
☐ Sampler —  
☐ Straddle —  
☐ Shale Packer —  
☐ Extra Packer —  
☐ Extra Recorder —  
☐ Day Standby —  
☐ Accessibility —  
 Sub Total —

T-On Location 1:10 am  
 T-Started 1:18 am  
 T-Open 2:42 am  
 T-Pulled 5:27 am  
 T-Out 8:15 am  
 Comments —  
☐ Ruined Shale Packer —  
☐ Ruined Packer —  
☐ Extra Copies —  
 Sub Total —  
 Total —  
 MP/DST Disc't —

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

Approved By —

Our Representative —

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**TRILOBITE  
TESTING INC.**

1515 Commerce Parkway • Hays, Kansas 67601

# Test Ticket

NO. **60262**

Well Name & No. Symms #2 Test No. 3 Date 25 Aug 14  
 Company Charter Energy Incorporated Elevation 1957 KB 1950 GL  
 Address PO Box 252 Great Bend Kansas 67530-0252  
 Co. Rep / Geo. Jim Musgrove Rig Royal Rig 2  
 Location: Sec. 28 Twp. 22S Rge. 14W Co. Stafford State KS

Interval Tested 3686 - 3710 Zone Tested Kansas City K zone  
 Anchor Length 24 Drill Pipe Run 3688 Mud Wt. 9.2  
 Top Packer Depth 3681 Drill Collars Run 0 Vis 66  
 Bottom Packer Depth 3686 Wt. Pipe Run 0 WL 141.0  
 Total Depth 3710 Chlorides 12,800 ppm System LCM -

Blow Description Strong blow/ Blow built to bottom of bucket in  
1 minute 15 seconds/ Blow back built to 9 inches/  
Good blow/ Blow built to bottom of bucket in  
2 minutes 15 seconds/ Gas to surface 17 minutes 2nd open/ Blow back  
built to bottom of bucket

| Rec | Feet of                | %gas | %oil | %water | %mud |
|-----|------------------------|------|------|--------|------|
| 589 | Gassy Oil              | 15%  | 85%  |        |      |
| 93  | Slightly Oil Cut Water |      | 1%   | 99%    |      |
| 62  | Gassy Emulsified Oil   | 20%  | 80%  |        |      |
|     |                        | %gas | %oil | %water | %mud |
|     |                        | %gas | %oil | %water | %mud |

Rec Total 744 BHT 106 Gravity 27 API RW .18 @ 82° F Chlorides 32000 ppm

|                                     |                                                          |                                              |
|-------------------------------------|----------------------------------------------------------|----------------------------------------------|
| (A) Initial Hydrostatic <u>1790</u> | <input type="checkbox"/> Test <u>1150</u>                | T-On Location <u>3:15 pm</u>                 |
| (B) First Initial Flow <u>57</u>    | <input type="checkbox"/> Jars                            | T-Started <u>3:22 pm</u>                     |
| (C) First Final Flow <u>127</u>     | <input type="checkbox"/> Safety Joint                    | T-Open <u>4:28 pm</u>                        |
| (D) Initial Shut-In <u>975</u>      | <input type="checkbox"/> Circ Sub                        | T-Pulled <u>7:13 pm</u>                      |
| (E) Second Initial Flow <u>154</u>  | <input type="checkbox"/> Hourly Standby                  | T-Out <u>9:06 pm</u>                         |
| (F) Second Final Flow <u>246</u>    | <input type="checkbox"/> Mileage <u>66</u> <u>102.30</u> | Comments                                     |
| (G) Final Shut-In <u>982</u>        | <input type="checkbox"/> Sampler                         |                                              |
| (H) Final Hydrostatic <u>1770</u>   | <input type="checkbox"/> Straddle                        | <input type="checkbox"/> Ruined Shale Packer |
|                                     | <input type="checkbox"/> Shale Packer                    | <input type="checkbox"/> Ruined Packer       |
|                                     | <input type="checkbox"/> Extra Packer                    | <input type="checkbox"/> Extra Copies        |
|                                     | <input type="checkbox"/> Extra Recorder                  | Sub Total                                    |
|                                     | <input type="checkbox"/> Day Standby                     | Total                                        |
|                                     | <input type="checkbox"/> Accessibility                   | MP/DST Disc't                                |
|                                     | Sub Total                                                |                                              |

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

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

Our Representative Keith D. Harris

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