



## DRILL STEM TEST REPORT

Prepared For: **SDOCO LLC**

PO Box 369  
Littleton CO. 80160

ATTN: Gary Doke - Kurt Tal

**Carman Trust #16-11**

**11-19s-36w Wichita,KS**

Start Date: 2014.12.29 @ 10:00:15

End Date: 2014.12.29 @ 17:37:15

Job Ticket #: 58562                      DST #: 1

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

Printed: 2014.12.31 @ 08:05:31

SDOCO LLC    11-19s-36w Wichita,KS    Carman Trust #16-11    DST # 1    Marmaton    2014.12.29



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

SDOCO LLC

PO Box 369  
Littleton CO. 80160

ATTN: Gary Doke - Kurt Tal

11-19s-36w Wichita, KS

Carman Trust #16-11

Job Ticket: 58562

DST#: 1

Test Start: 2014.12.29 @ 10:00:15

## GENERAL INFORMATION:

Formation: **Marmaton**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 12:39:00  
Time Test Ended: 17:37:15

Test Type: Conventional Bottom Hole (Initial)  
Tester: Mike Roberts  
Unit No: 65

Interval: **4494.00 ft (KB) To 4548.00 ft (KB) (TVD)**  
Total Depth: 4548.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 3225.00 ft (KB)  
3214.00 ft (CF)  
KB to GR/CF: 11.00 ft

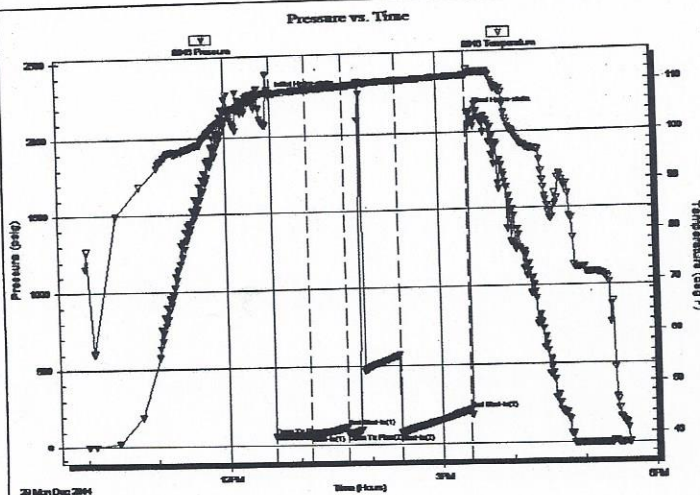
Serial #: 8846

Inside

Press@RunDepth: 74.05 psig @ 4500.00 ft (KB)  
Start Date: 2014.12.29 End Date: 2014.12.29  
Start Time: 10:00:15 End Time: 17:37:15

Capacity: 8000.00 psig  
Last Calib.: 2014.12.29  
Time On Btm: 2014.12.29 @ 12:38:45  
Time Off Btm: 2014.12.29 @ 15:25:45

TEST COMMENT: IF: Built to weak surface blow  
IS: No return blow  
FF: No blow ---- flushed tool --- no blow  
FS: No return blow



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 2270.76         | 108.73       | Initial Hydro-static |
| 1           | 63.34           | 108.02       | Open To Flow (1)     |
| 31          | 68.94           | 109.04       | Shut-In(1)           |
| 61          | 115.55          | 109.57       | End Shut-In(1)       |
| 62          | 75.35           | 109.57       | Open To Flow (2)     |
| 107         | 74.05           | 110.22       | Shut-In(2)           |
| 166         | 217.77          | 111.18       | End Shut-In(2)       |
| 167         | 2128.31         | 112.28       | Final Hydro-static   |

## Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 10.00       | thick mud   | 0.05         |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |

## Gas Rates

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



**TRILOBITE TESTING, INC**

### DRILL STEM TEST REPORT

SDOCO LLC  
 PO Box 369  
 Littleton CO. 80160  
 ATTN: Gary Doke - Kurt Tal

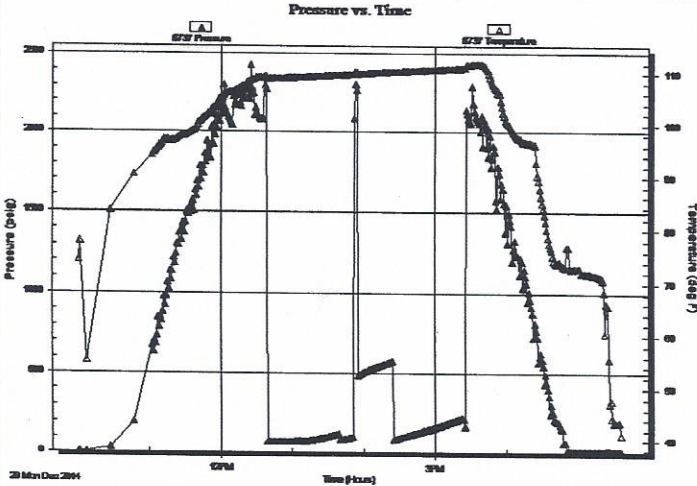
**11-19s-36w Wichita,KS**  
**Carman Trust #16-11**  
 Job Ticket: 58562 **DST#: 1**  
 Test Start: 2014.12.29 @ 10:00:15

**GENERAL INFORMATION:**

|   |   |
|---|---|
| Formation: <b>Marmaton</b>                                | Test Type: Conventional Bottom Hole (Initial) |
| Deviated: No Whipstock: ft (KB)                           | Tester: Mike Roberts                          |
| Time Tool Opened: 12:39:00                                | Unit No: 65                                   |
| Time Test Ended: 17:37:15                                 | Reference Elevations: 3225.00 ft (KB)         |
| Interval: <b>4494.00 ft (KB) To 4548.00 ft (KB) (TVD)</b> | 3214.00 ft (CF)                               |
| Total Depth: 4548.00 ft (KB) (TVD)                        | KB to GR/CF: 11.00 ft                         |
| Hole Diameter: 7.88 inches                                | Hole Condition: Fair                          |

|  |                        |                         |
|--|------------------------|-------------------------|
| <b>Serial #: 8737</b>                  | <b>Outside</b>         | Capacity: 8000.00 psig  |
| Press@RunDepth: psig @ 4500.00 ft (KB) | Start Date: 2014.12.29 | End Date: 2014.12.29    |
| Start Time: 10:00:15                   | End Time: 17:37:00     | Last Calib.: 2014.12.29 |
|  |                        | Time On Btm:            |
|  |                        | Time Off Btm:           |

TEST COMMENT: IF:Built to weak surface blow  
 IS:No return blow  
 FF:No blow ----flushed tool---no blow  
 FS:No return blow



**PRESSURE SUMMARY**

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

**Recovery**

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 10.00       | thick mud   | 0.05         |
|             |             |              |
|             |             |              |
|             |             |              |
|             |             |              |

**Gas Rates**

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





**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

SDOCO LLC

11-19s-36w Wichita,KS

PO Box 369  
Littleton CO. 80160

Carman Trust #16-11

Job Ticket: 58562

DST#: 1

ATTN: Gary Duke - Kurt Tal

Test Start: 2014.12.29 @ 10:00:15

**Tool Information**

|                           |                    |                       |                                |                                    |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe:               | Length: 4127.00 ft | Diameter: 3.80 inches | Volume: 57.89 bbl              | Tool Weight: 1500.00 lb            |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 0.00 inches | Volume: 0.00 bbl               | Weight set on Packer: 25000.00 lb  |
| Drill Collar:             | Length: 366.00 ft  | Diameter: 2.25 inches | Volume: 1.80 bbl               | Weight to Pull Loose: 110000.0 lb  |
|                           |                    |                       | <u>Total Volume: 59.69 bbl</u> | Tool Chased 0.00 ft                |
| Drill Pipe Above KB:      | 18.00 ft           |                       |                                | String Weight: Initial 70000.00 lb |
| Depth to Top Packer:      | 4494.00 ft         |                       |                                | Final 71000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                       |                                |                                    |
| Interval between Packers: | 54.00 ft           |                       |                                |                                    |
| Tool Length:              | 73.00 ft           |                       |                                |                                    |
| Number of Packers:        | 2                  | Diameter: 6.75 inches |                                |                                    |

Tool Comments:

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths             |
|------------------|-------------|------------|----------|------------|----------------------------|
| Change Over Sub  | 1.00        |            |          | 4476.00    |                            |
| Shut In Tool     | 5.00        |            |          | 4481.00    |                            |
| Sampler          | 3.00        |            |          | 4484.00    |                            |
| Hydraulic tool   | 5.00        |            |          | 4489.00    |                            |
| Packer           | 5.00        |            |          | 4494.00    | 19.00 Bottom Of Top Packer |
| Packer - Shale   | 0.00        |            |          | 4494.00    |                            |
| Stubb            | 1.00        |            |          | 4495.00    |                            |
| Perforations     | 5.00        |            |          | 4500.00    |                            |
| Recorder         | 0.00        | 8846       | Inside   | 4500.00    |                            |
| Recorder         | 0.00        | 8737       | Outside  | 4500.00    |                            |
| Change Over Sub  | 1.00        |            |          | 4501.00    |                            |
| Blank Spacing    | 31.00       |            |          | 4532.00    |                            |
| Change Over Sub  | 1.00        |            |          | 4533.00    |                            |
| Perforations     | 10.00       |            |          | 4543.00    |                            |
| Bullnose         | 5.00        |            |          | 4548.00    | 54.00 Anchor Tool          |

**Total Tool Length: 73.00**



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

SDOCO LLC  
PO Box 369  
Littleton CO. 80160

11-19s-36w Wichita,KS  
**Carman Trust #16-11**  
Job Ticket: 58562      **DST#: 1**  
Test Start: 2014.12.29 @ 10:00:15

ATTN: Gary Doke - Kurt Tal

**Mud and Cushion Information**

|                                  |                            |                 |           |
|----------------------------------|----------------------------|-----------------|-----------|
| Mud Type: Gel Chem               | Cushion Type:              | Oil API:        | 0 deg API |
| Mud Weight: 9.00 lb/gal          | Cushion Length: ft         | Water Salinity: | 0 ppm     |
| Viscosity: 52.00 sec/qt          | Cushion Volume: bbl        |                 |           |
| Water Loss: 9.58 in <sup>3</sup> | Gas Cushion Type:          |                 |           |
| Resistivity: 0.00 ohm.m          | Gas Cushion Pressure: psig |                 |           |
| Salinity: 12000.00 ppm           |                            |                 |           |
| Filter Cake: 2.00 inches         |                            |                 |           |

**Recovery Information**

Recovery Table

| Length<br>ft | Description | Volume<br>bbl |
|--------------|-------------|---------------|
| 10.00        | thick mud   | 0.049         |

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

Serial #: 8846

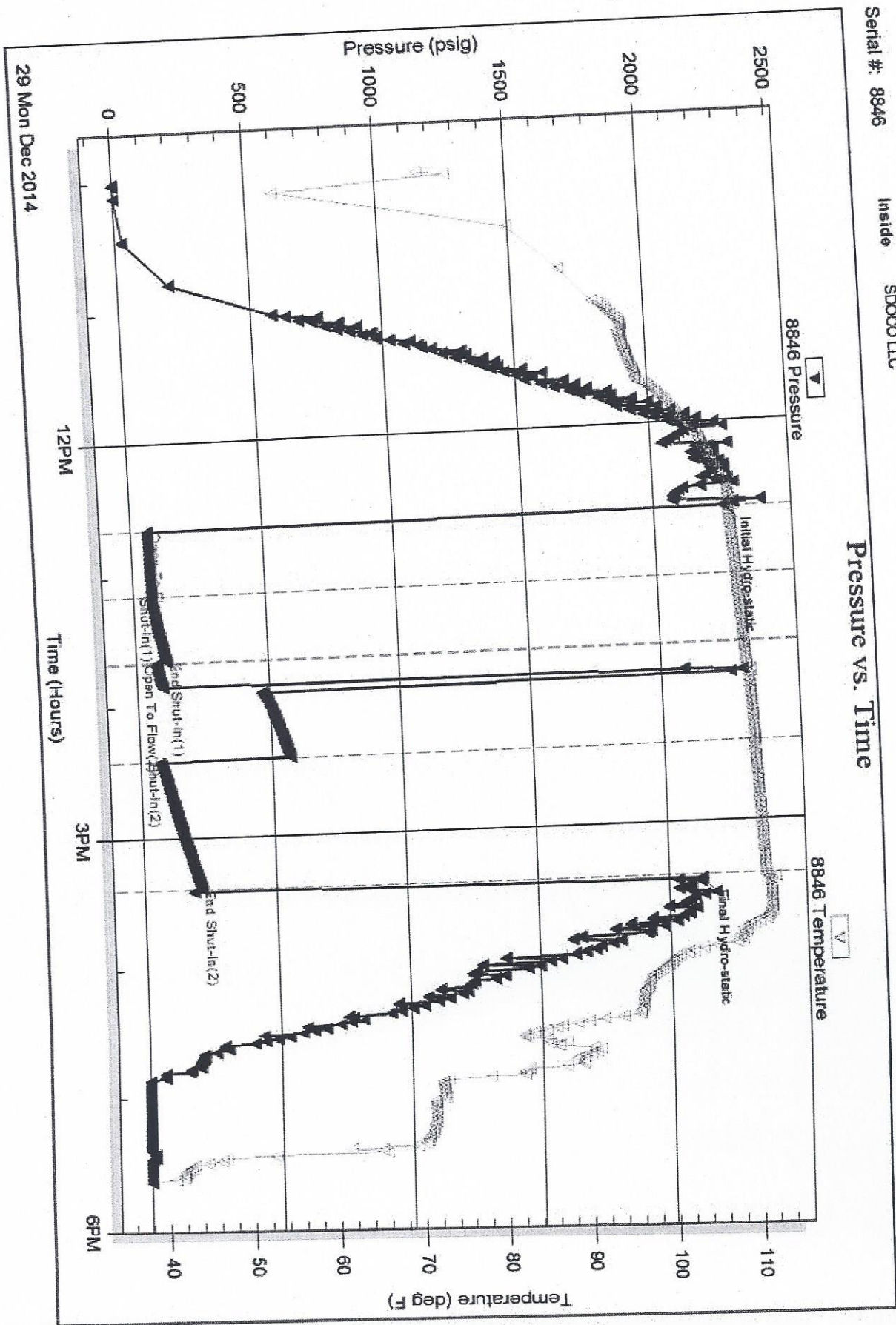
Inside

SDOOO LLC

Cartman Trust #16-11

DST Test Number: 1

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 58562

Printed: 2014.12.31 @ 08:05:32

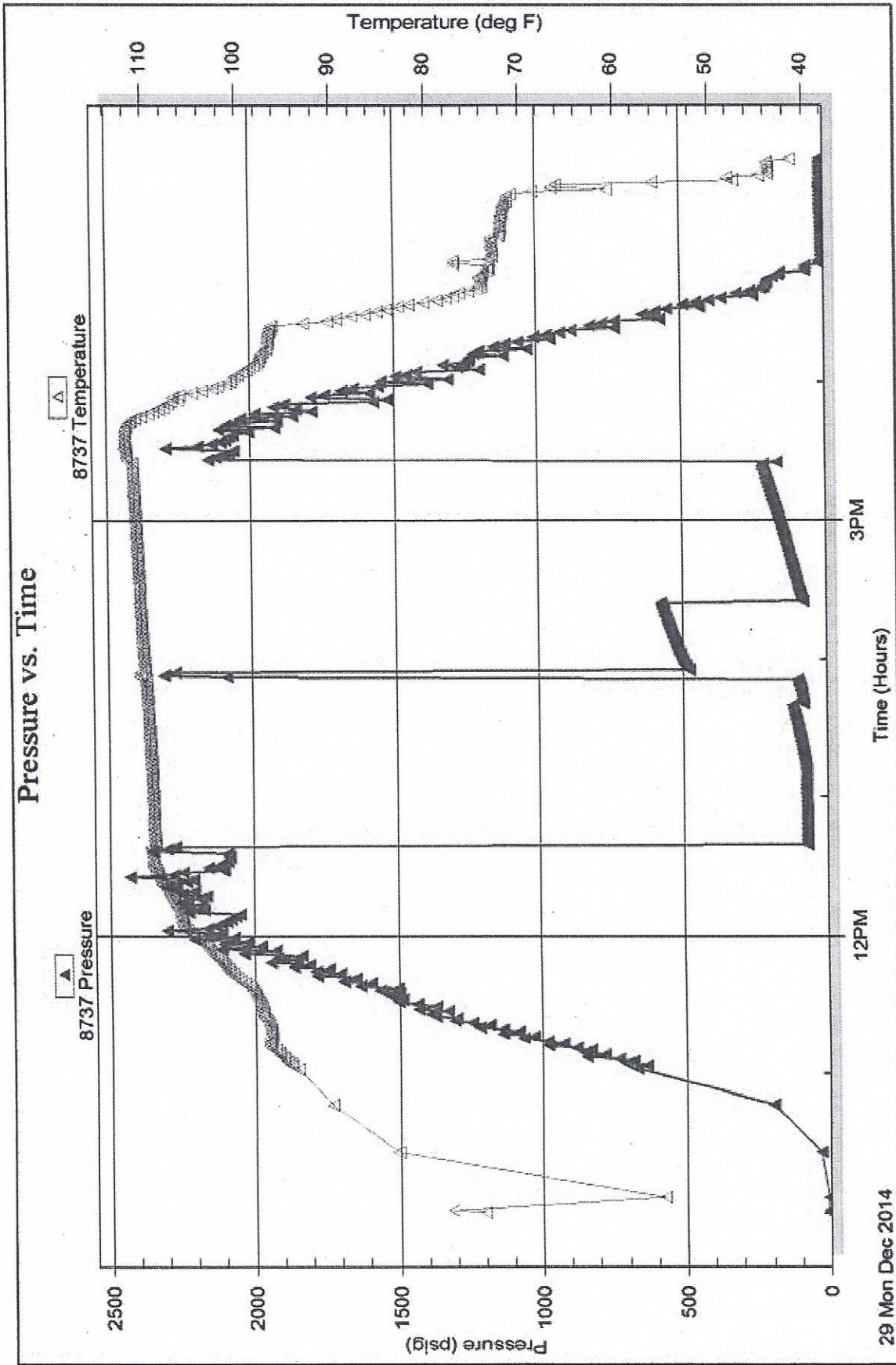


DST Test Number: 1

Carmen Trust #16-11

Serial #: 8737 Outside SDOOO LLC

### Pressure vs. Time



Printed: 2014.12.31 @ 08:05:32

Ref. No: 58562

Tribolite Testing, Inc





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 58562

Well Name & No. Carman Trust # 16-11 Test No. 1 Date 12-29-14  
 Company SDOCO LLC Elevation 3225 KB 3214 GL  
 Address P.O. Box 369 ~~Littleton~~ Littleton Co 80160  
 Co. Rep / Geo. Kurt Talbot + Gary Dowk Rig H2 Rig #1  
 Location: Sec. 11 Twp. 19S Rge. 36W Co. Wichita State KS

Interval Tested 4494-4548 Zone Tested Marmaton  
 Anchor Length 54' Drill Pipe Run 4127 Mud Wt. 9.3  
 Top Packer Depth 4489 Drill Collars Run 366 Vis 52  
 Bottom Packer Depth 4494 Wt. Pipe Run Ø WL 9.4  
 Total Depth 4548 Chlorides 12000 ppm System LCM 2

Blow Description IF: Built to Weak Surface Blow  
IS: No Return Blow  
FF: No Blow - Flusted tool - No Blow  
FS: No Return Blow

| Rec       | Feet of          | %gas | %oil | %water     | %mud |
|-----------|------------------|------|------|------------|------|
| <u>10</u> | <u>Thick Mud</u> |      |      | <u>100</u> |      |
| Rec       | Feet of          | %gas | %oil | %water     | %mud |
| Rec       | Feet of          | %gas | %oil | %water     | %mud |
| Rec       | Feet of          | %gas | %oil | %water     | %mud |
| Rec       | Feet of          | %gas | %oil | %water     | %mud |

Rec Total 10 BHT 113 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2270  Test \$1250.00 T-On Location 07:30  
 (B) First Initial Flow 63  Jars — T-Started 10:00  
 (C) First Final Flow 68  Safety Joint — T-Open 12:38  
 (D) Initial Shut-In 115  Circ Sub NCL T-Pulled 15:23  
 (E) Second Initial Flow 75  Hourly Standby — T-Out 17:37  
 (F) Second Final Flow 74  Mileage Start = 86.80 / 86.80 Comments —  
 (G) Final Shut-In 217  Sampler \$250.00  
 (H) Final Hydrostatic 2128  Straddle —  Ruined Shale Packer —  
 Shale Packer \$250.00  Ruined Packer —

Initial Open 30  Extra Packer —  Extra Copies —  
 Initial Shut-In 30  Extra Recorder — Sub Total 0  
 Final Flow 45  Day Standby — Total 2073.60  
 Final Shut-In 60  Accessibility \$150.00  MP/DST Disc't —  
 Sub Total \$1986.80

Approved By [Signature] Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damages 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.



Lease Carman Trust 16-11 Test No. 1  
County Wichita Co. KS Sec. 11 Twp. 19S Rng. 36W

**SAMPLER RECOVERY**

Gas 0 ML Chlorides \_\_\_\_\_ ppm.  
Oil 0 ML Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
Mud 2000 ML Viscosity 52  
Water 0 ML Mud Weight 9.3  
Other 0 ML Filtrate 0  
Pressure 5 pounds <sup>wt</sup> other 9.6  
Total 2000 ML LCM-2

**PIT MUD ANALYSIS**

**SAMPLER ANALYSIS**

Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
Chlorides \_\_\_\_\_ ppm.  
Gravity \_\_\_\_\_ corrected @ 60F

**PIPE RECOVERY**

TOP Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
Chlorides \_\_\_\_\_ ppm.  
MIDDLE Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
Chlorides \_\_\_\_\_ ppm.  
BOTTOM Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
Chlorides \_\_\_\_\_ ppm.

*W. Long*