



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1209435  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

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

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well       Re-Entry       Workover
- Oil       WSW       SWD       SIOW
- Gas       D&A       ENHR       SIGW
- OG       GSW       Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic       Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

- Deepening       Re-perf.       Conv. to ENHR       Conv. to SWD
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

|                                   |                 |   |
|-----------------------------------|-----------------|---|
| Spud Date or<br>Recompletion Date | Date Reached TD | Completion Date or<br>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: \_\_\_\_\_

1209435

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

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

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

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

|   |  |                              |                                  |                                 |
|---|--|------------------------------|----------------------------------|---------------------------------|
| Drill Stem Tests Taken<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:                                       |  |                              |                                  |                                 |

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

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

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

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

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

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

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

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

| Estimated Production Per 24 Hours | Oil Bbls. | Gas Mcf | Water Bbls. | Gas-Oil Ratio | Gravity |
|-----------------------------------|-----------|---------|-------------|---------------|---------|
|                                   |           |         |             |               |         |

|  |   |   |
|--|---|---|
| <b>DISPOSITION OF GAS:</b><br><input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease<br><i>(If vented, Submit ACO-18.)</i> | <b>METHOD OF COMPLETION:</b><br><input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled<br><i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i><br><input type="checkbox"/> Other <i>(Specify)</i> _____ | <b>PRODUCTION INTERVAL:</b><br>_____<br>_____ |
|--|---|---|

|           |   |
|-----------|---|
| Form      | ACO1 - Well Completion                                  |
| Operator  | Carrie Exploration & Development, a General Partnership |
| Well Name | LUNDGREN C-1  |
| Doc ID    | 1209435   |

Tops

| Name       | Top  | Datum |
|------------|------|-------|
| Topeka     | 2617 | -841  |
| Heebner    | 2879 | -1103 |
| Toranto    | 2901 | -1125 |
| Brown Lime | 3002 | -1226 |
| LKC        | 3023 | -1247 |
| BKC        | 3229 | -1503 |
| Arbuckle   | 3292 | -1516 |
| TD         | 3418 | -1642 |



## DRILL STEM TEST REPORT

Prepared For: **Carrie Exploration and Development L.L.C.**

210 West 22nd Street  
Hays ,Kansas 67601

ATTN: Herb Deines

**25-19s-11w**

**Lundgren #C-1**

Start Date: 2010.12.21 @ 10:00:00

End Date: 2010.12.21 @ 00:00:00

Job Ticket #: 15578                      DST #: 5

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2010.12.21 @ 15:24:59

Carrie Exploration and Development L.L.C.  
Lundgren #C-1  
25-19s-11w  
DST # 5  
Arbuckle  
2010.12.21



# DRILL STEM TEST REPORT

Carrie Exploration and Development L.L.C.

**Lundgren #C-1**

210 West 22nd Street  
Hays ,Kansas 67601

**25-19s-11w**

Job Ticket: 15578

**DST#: 5**

ATTN: Herb Deines

Test Start: 2010.12.21 @ 10:00:00

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budiig

Unit No: 3335-18

**Interval: 3300.00 ft (KB) To 3321.00 ft (KB) (TVD)**

Reference Elevations: 1776.00 ft (KB)

Total Depth: 3420.00 ft (KB) (TVD)

1766.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8405 Outside**

Press @ RunDepth: 1083.47 psia @ 3321.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2010.12.21

End Date:

2010.12.21

Last Calib.:

2010.12.21

Start Time: 10:00:00

End Time:

14:52:56

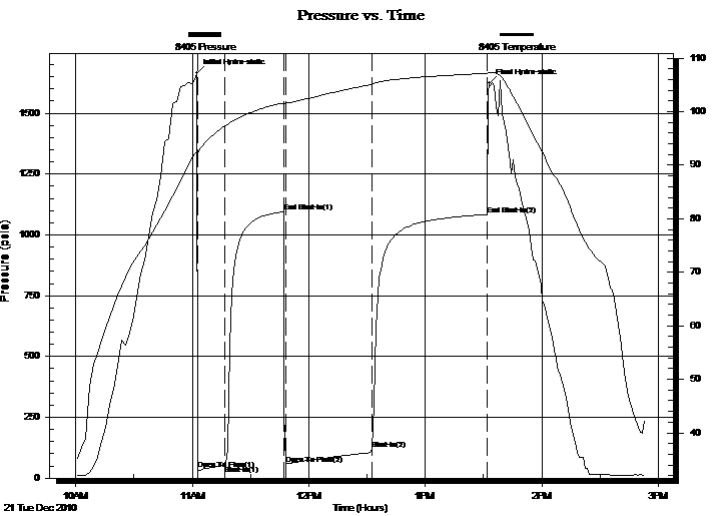
Time On Btm:

2010.12.21 @ 11:02:26

Time Off Btm:

2010.12.21 @ 13:32:56

**TEST COMMENT:** 1st Opening 15 Minutes-Weak building blow built to 6 inches into the water  
 1st Shut-In 30 Minutes-no blow back  
 2nd Opening 45 Minutes Weak building blow built to 3 inches and decreased to a weak surface blow  
 2nd Shut-In 60 Minutes-No blow back



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psia) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1664.51         | 92.53        | Initial Hydro-static |
| 1           | 34.71           | 92.10        | Open To Flow (1)     |
| 15          | 52.77           | 97.28        | Shut-In(1)           |
| 45          | 1094.04         | 101.62       | End Shut-In(1)       |
| 46          | 56.87           | 101.48       | Open To Flow (2)     |
| 90          | 117.62          | 105.11       | Shut-In(2)           |
| 150         | 1083.47         | 107.17       | End Shut-In(2)       |
| 151         | 1622.98         | 107.30       | Final Hydro-static   |

## Recovery

| Length (ft) | Description                      | Volume (bbl) |
|-------------|----------------------------------|--------------|
| 90.00       | Slightly oil cut muddy w ater    | 1.26         |
| 0.00        | 3%Oil 47%Water 50%mud            | 0.00         |
| 60.00       | Slightly oil and mud cut w ater  | 0.84         |
| 0.00        | 3%Oil 10% Mud 87%Water chlorides | 16(0.00)     |
|             |                                  |              |
|             |                                  |              |

## Gas Rates

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



# DRILL STEM TEST REPORT

Carrie Exploration and Development L.L.C.

**Lundgren #C-1**

210 West 22nd Street  
Hays ,Kansas 67601

**25-19s-11w**

Job Ticket: 15578

**DST#: 5**

ATTN: Herb Deines

Test Start: 2010.12.21 @ 10:00:00

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budiig

Unit No: 3335-18

**Interval: 3300.00 ft (KB) To 3321.00 ft (KB) (TVD)**

Reference Elevations: 1776.00 ft (KB)

Total Depth: 3420.00 ft (KB) (TVD)

1766.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8400 Inside**

Press @ Run Depth: 1083.32 psia @ 3320.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2010.12.21

End Date:

2010.12.21

Last Calib.:

2010.12.21

Start Time: 10:00:00

End Time:

14:54:30

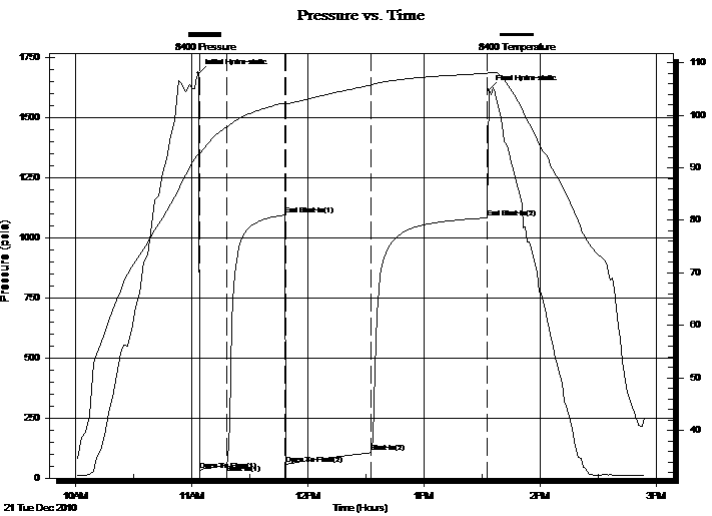
Time On Btm:

2010.12.21 @ 11:03:30

Time Off Btm:

2010.12.21 @ 13:33:30

**TEST COMMENT:** 1st Opening 15 Minutes-Weak building blow built to 6 inches into the water  
 1st Shut-In 30 Minutes-no blow back  
 2nd Opening 45 Minutes Weak building blow built to 3 inches and decreased to a weak surface blow  
 2nd Shut-In 60 Minutes-No blow back



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psia) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1685.45         | 92.75        | Initial Hydro-static |
| 1           | 34.22           | 92.62        | Open To Flow (1)     |
| 15          | 58.44           | 97.73        | Shut-In(1)           |
| 45          | 1094.29         | 102.35       | End Shut-In(1)       |
| 45          | 57.39           | 102.13       | Open To Flow (2)     |
| 89          | 105.86          | 105.71       | Shut-In(2)           |
| 150         | 1083.32         | 107.98       | End Shut-In(2)       |
| 150         | 1616.07         | 108.12       | Final Hydro-static   |

## Recovery

| Length (ft) | Description                      | Volume (bbl) |
|-------------|----------------------------------|--------------|
| 90.00       | Slightly oil cut muddy w ater    | 1.26         |
| 0.00        | 3%Oil 47%Water 50%mud            | 0.00         |
| 60.00       | Slightly oil and mud cut w ater  | 0.84         |
| 0.00        | 3%Oil 10% Mud 87%Water chlorides | 16(0.00)     |
|             |                                  |              |
|             |                                  |              |

## Gas Rates

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





# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Carrie Exploration and Development L.L.C.

**Lundgren #C-1**

210 West 22nd Street  
Hays ,Kansas 67601

**25-19s-11w**

Job Ticket: 15578

**DST#: 5**

ATTN: Herb Deines

Test Start: 2010.12.21 @ 10:00:00

## Tool Information

|                           |                    |                       |                                |                        |             |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe:               | Length: 3300.00 ft | Diameter: 3.80 inches | Volume: 46.29 bbl              | Tool Weight:           | 2000.00 lb  |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 2.76 inches | Volume: 0.00 bbl               | Weight set on Packer:  | 20000.00 lb |
| Drill Collar:             | Length: 0.00 ft    | Diameter: 2.25 inches | Volume: 0.00 bbl               | Weight to Pull Loose:  | 39000.00 lb |
|                           |                    |                       | <u>Total Volume: 46.29 bbl</u> | Tool Chased            | 0.00 ft     |
| Drill Pipe Above KB:      | 15.00 ft           |                       |                                | String Weight: Initial | 32000.00 lb |
| Depth to Top Packer:      | 3300.00 ft         |                       |                                | Final                  | 32000.00 lb |
| Depth to Bottom Packer:   | ft                 |                       |                                |                        |             |
| Interval between Packers: | 124.68 ft          |                       |                                |                        |             |
| Tool Length:              | 139.68 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  |      |         | 3290.00 |                                    |
| Hydraulic Tool  | 5.00  |      |         | 3295.00 |                                    |
| Packer          | 5.00  |      |         | 3300.00 | 15.00 Bottom Of Top Packer         |
| Perforations    | 19.00 |      |         | 3319.00 |                                    |
| Recorder        | 1.00  | 8400 | Inside  | 3320.00 |                                    |
| Recorder        | 1.00  | 8405 | Outside | 3321.00 | 124.68 Tool Interval               |
| Packer          | 5.00  |      |         | 3326.00 |                                    |
| Change Over Sub | 0.75  |      |         | 3326.75 |                                    |
| Drill Pipe      | 93.18 |      |         | 3419.93 |                                    |
| Change Over Sub | 0.75  |      |         | 3420.68 |                                    |
| Recorder        | 1.00  | 8524 | Outside | 3421.68 |                                    |
| Bullnose        | 3.00  |      |         | 3424.68 | 1000138.68 Bottom Packers & Anchor |

**Total Tool Length: 139.68**





# DRILL STEM TEST REPORT

## FLUID SUMMARY

Carrie Exploration and Development L.L.C.

**Lundgren #C-1**

210 West 22nd Street  
Hays ,Kansas 67601

**25-19s-11w**

Job Ticket: 15578

**DST#: 5**

ATTN: Herb Deines

Test Start: 2010.12.21 @ 10:00:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length: ft

Water Salinity: ppm

Viscosity: 47.00 sec/qt

Cushion Volume: bbl

Water Loss: 9.60 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psia

Salinity: 4500.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

| Length<br>ft | Description                            | Volume<br>bbl |
|--------------|--|---------------|
| 90.00        | Slightly oil cut muddy w ater          | 1.262         |
| 0.00         | 3%Oil 47%Water 50%mud                  | 0.000         |
| 60.00        | Slightly oil and mud cut w ater        | 0.842         |
| 0.00         | 3%Oil 10% Mud 87%Water chlorides 16000 | 0.000         |

Total Length: 150.00 ft      Total Volume: 2.104 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

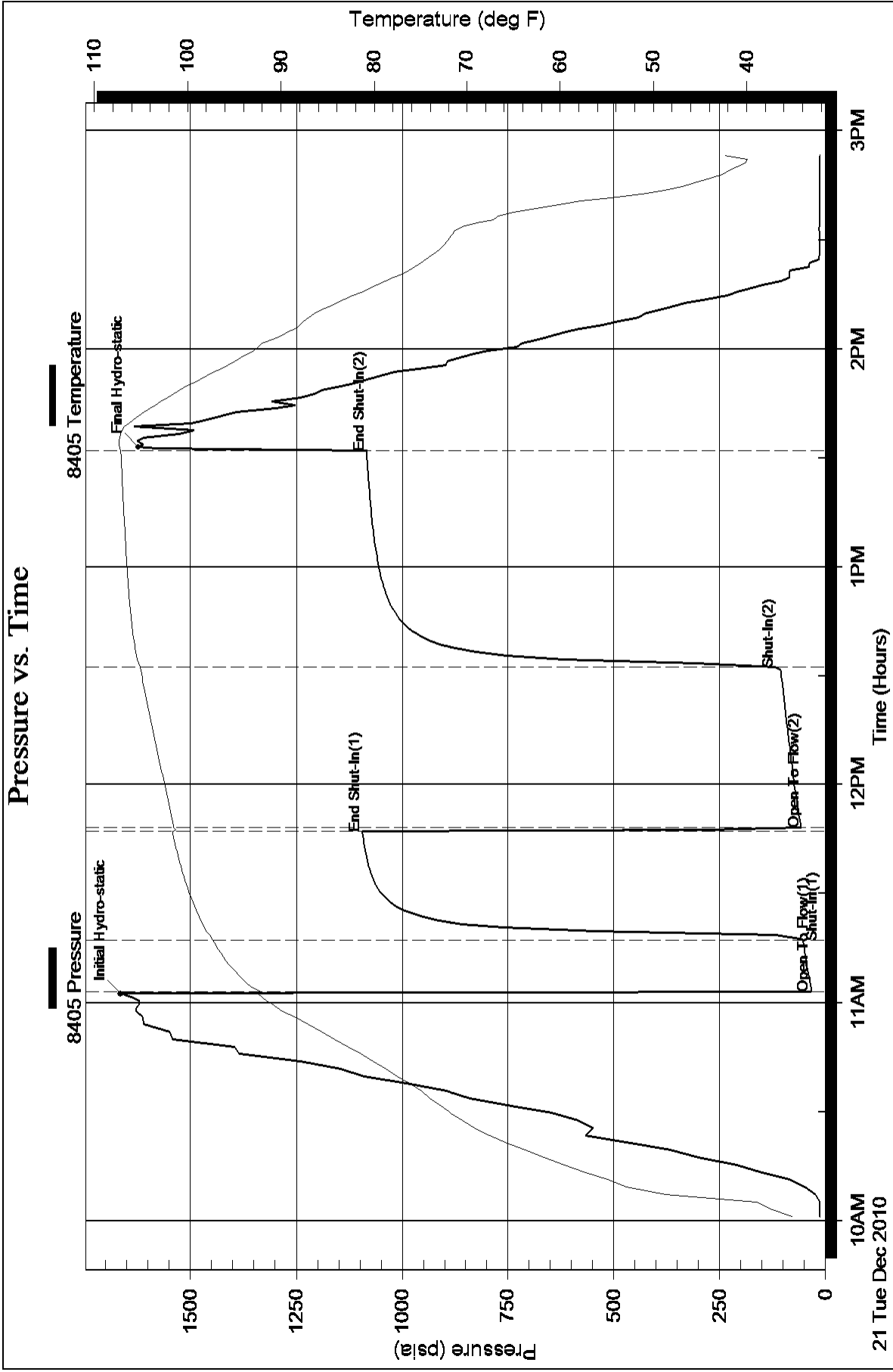
Serial #:

Laboratory Name:

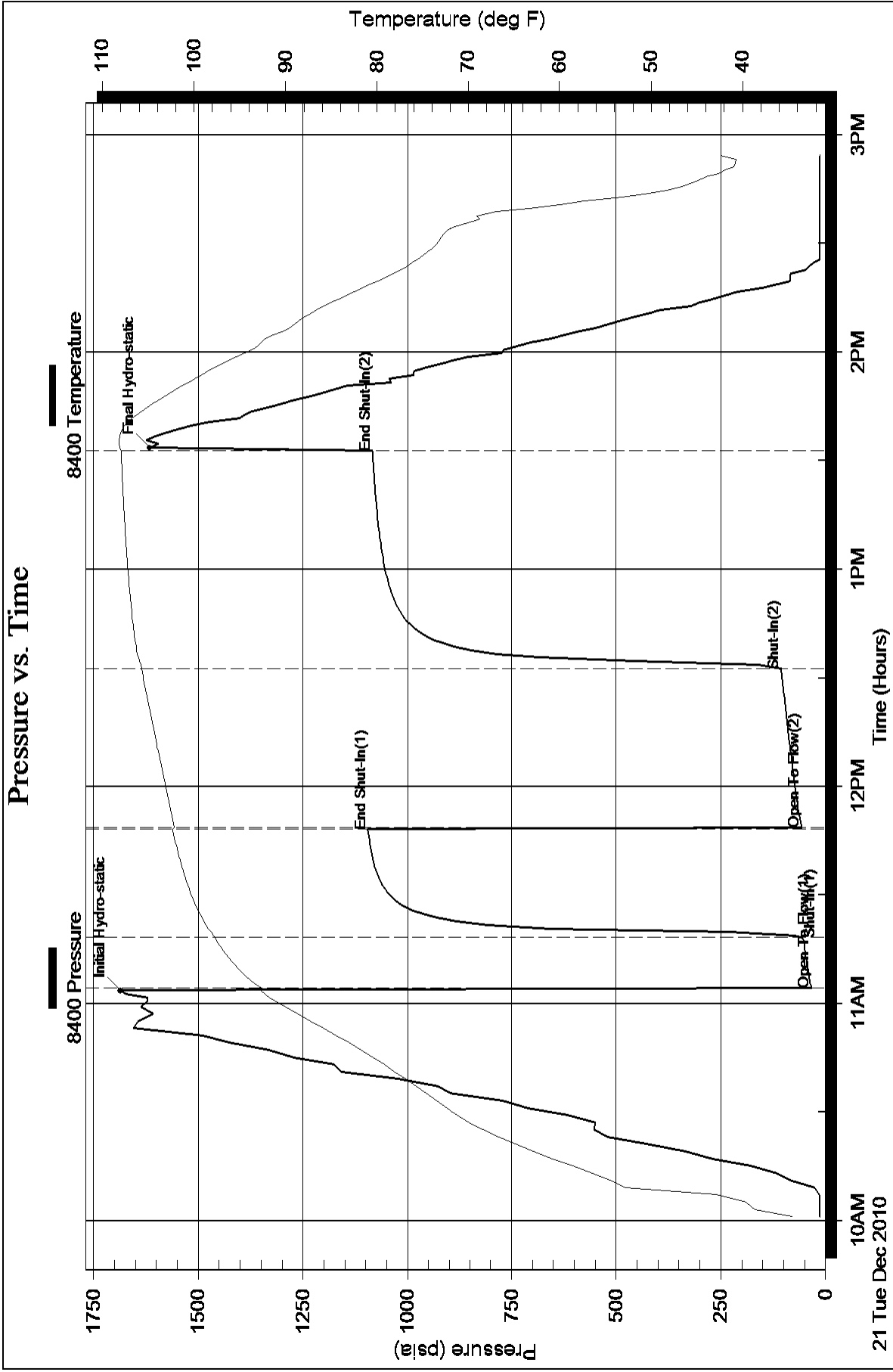
Laboratory Location:

Recovery Comments:

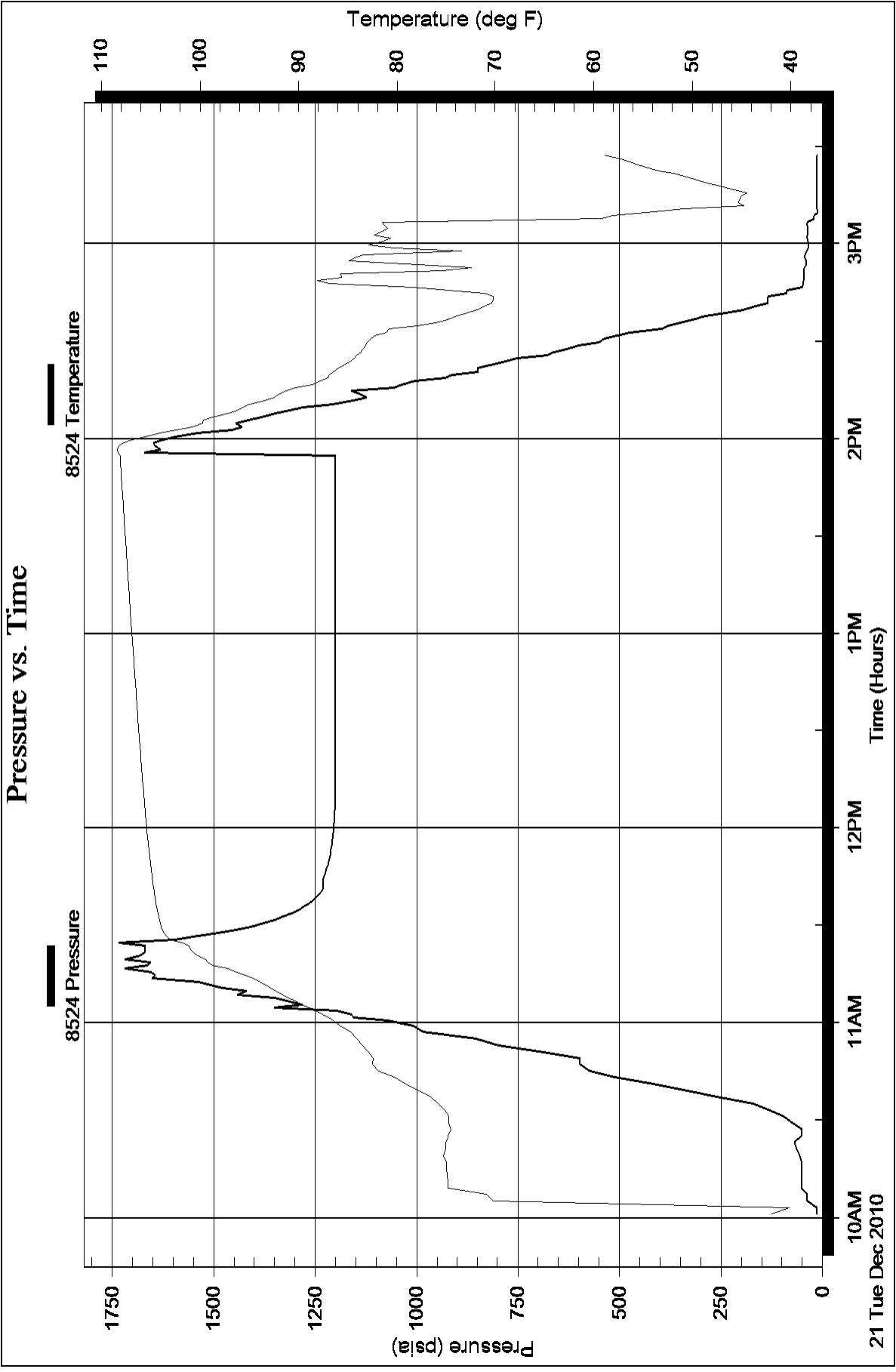
### Pressure vs. Time



### Pressure vs. Time



### Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Carrie Exploration and Development L.L.C.**

210 West 22nd Street  
Hays ,Kansas 67601

ATTN: Herb Deines

**25-19s-11w**

**Lundgren #C-1**

Start Date: 2010.12.20 @ 04:30:00

End Date: 2010.12.20 @ 00:00:00

Job Ticket #: 15757                      DST #: 4

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2010.12.20 @ 20:19:14



# DRILL STEM TEST REPORT

Carrie Exploration and Development L.L.C.

**Lundgren #C-1**

210 West 22nd Street  
Hays ,Kansas 67601

**25-19s-11w**

Job Ticket: 15757

**DST#: 4**

ATTN: Herb Deines

Test Start: 2010.12.20 @ 04:30:00

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 3335-36

**Interval: 3278.00 ft (KB) To 3306.00 ft (KB) (TVD)**

Reference Elevations: 1776.00 ft (KB)

Total Depth: 3306.00 ft (KB) (TVD)

1766.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8524 Inside**

Press @ Run Depth: 444.92 psia @ 3302.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2010.12.20

End Date: 2010.12.20

Last Calib.: 2010.12.20

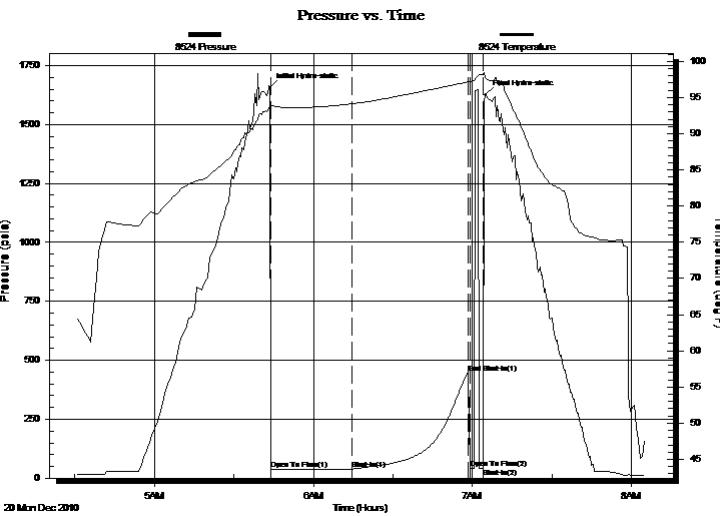
Start Time: 04:30:00

End Time: 08:05:00

Time On Btm: 2010.12.20 @ 05:43:30

Time Off Btm: 2010.12.20 @ 07:05:00

**TEST COMMENT:** 1st Opening 30 Minutes -w eak surface blow for 14 minutes and died  
 1st Shut-In 45 Minutes-No blow back  
 2nd Opening 05 Minutes-No blow -flushed tool-w eak blow for 3 minutes and died  
 2nd SHut-In None taken



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psia) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1657.63         | 93.71        | Initial Hydro-static |
| 1           | 36.17           | 93.86        | Open To Flow (1)     |
| 31          | 38.85           | 94.14        | Shut-In(1)           |
| 75          | 444.92          | 97.18        | End Shut-In(1)       |
| 76          | 39.93           | 97.22        | Open To Flow (2)     |
| 81          | 41.92           | 98.11        | Shut-In(2)           |
| 82          | 1625.30         | 97.75        | Final Hydro-static   |

## Recovery

| Length (ft) | Description                          | Volume (bbl) |
|-------------|--------------------------------------|--------------|
| 15.00       | Oil spotted Mu                       | 0.21         |
| 0.00        | there w as a good show of oil on top | 0.00         |
|             |                                      |              |
|             |                                      |              |
|             |                                      |              |

## Gas Rates

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



# DRILL STEM TEST REPORT

Carrie Exploration and Development L.L.C.

**Lundgren #C-1**

210 West 22nd Street  
Hays ,Kansas 67601

**25-19s-11w**

Job Ticket: 15757

**DST#: 4**

ATTN: Herb Deines

Test Start: 2010.12.20 @ 04:30:00

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 3335-36

**Interval: 3278.00 ft (KB) To 3306.00 ft (KB) (TVD)**

Reference Elevations: 1776.00 ft (KB)

Total Depth: 3306.00 ft (KB) (TVD)

1766.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 6663 Outside**

Press @ Run Depth: 449.01 psia @ 3303.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2010.12.20

End Date: 2010.12.20

Last Calib.: 2010.12.20

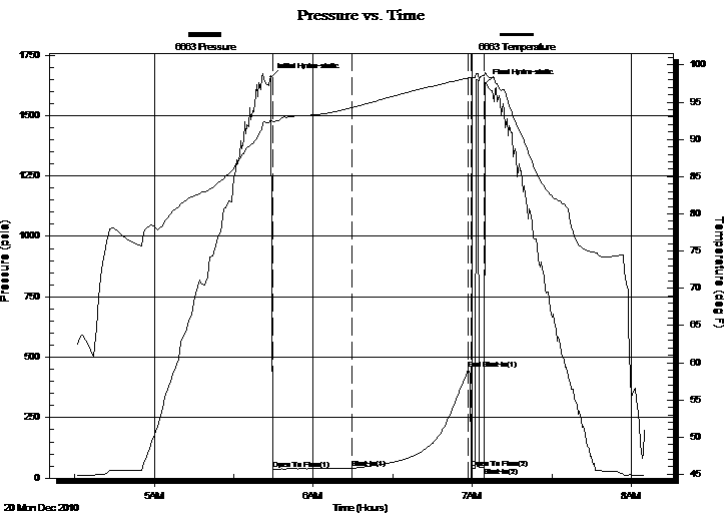
Start Time: 04:30:04

End Time: 08:05:04

Time On Btm: 2010.12.20 @ 05:44:04

Time Off Btm: 2010.12.20 @ 07:05:04

**TEST COMMENT:** 1st Opening 30 Minutes -w eak surface blow for 14 minutes and died  
 1st Shut-In 45 Minutes-No blow back  
 2nd Opening 05 Minutes-No blow -flushed tool-w eak blow for 3 minutes and died  
 2nd SHut-In None taken



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psia) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1658.44         | 92.61        | Initial Hydro-static |
| 1           | 37.70           | 92.32        | Open To Flow (1)     |
| 31          | 40.16           | 94.27        | Shut-In(1)           |
| 75          | 449.01          | 98.27        | End Shut-In(1)       |
| 76          | 41.74           | 98.21        | Open To Flow (2)     |
| 81          | 43.77           | 98.56        | Shut-In(2)           |
| 81          | 1630.49         | 99.00        | Final Hydro-static   |

## Recovery

| Length (ft) | Description                          | Volume (bbl) |
|-------------|--------------------------------------|--------------|
| 15.00       | Oil spotted Mu                       | 0.21         |
| 0.00        | there w as a good show of oil on top | 0.00         |
|             |                                      |              |
|             |                                      |              |
|             |                                      |              |

## Gas Rates

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



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Carrie Exploration and Development L.L.C.

**Lundgren #C-1**

210 West 22nd Street  
Hays ,Kansas 67601

**25-19s-11w**

Job Ticket: 15757

**DST#: 4**

ATTN: Herb Deines

Test Start: 2010.12.20 @ 04:30:00

## Tool Information

|                           |                    |                       |                                |                        |             |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe:               | Length: 3288.00 ft | Diameter: 3.80 inches | Volume: 46.12 bbl              | Tool Weight:           | 2000.00 lb  |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 2.76 inches | Volume: 0.00 bbl               | Weight set on Packer:  | 20000.00 lb |
| Drill Collar:             | Length: 0.00 ft    | Diameter: 2.25 inches | Volume: 0.00 bbl               | Weight to Pull Loose:  | 37000.00 lb |
|                           |                    |                       | <u>Total Volume: 46.12 bbl</u> | Tool Chased            | 0.00 ft     |
| Drill Pipe Above KB:      | 30.00 ft           |                       |                                | String Weight: Initial | 32000.00 lb |
| Depth to Top Packer:      | 3278.00 ft         |                       |                                | Final                  | 32000.00 lb |
| Depth to Bottom Packer:   | ft                 |                       |                                |                        |             |
| Interval between Packers: | 28.00 ft           |                       |                                |                        |             |
| Tool Length:              | 48.00 ft           |                       |                                |                        |             |
| Number of Packers:        | 2                  | Diameter: 6.75 inches |                                |                        |             |
| Tool Comments:            |                    |                       |                                |                        |             |

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

|                |       |      |         |         |                               |
|----------------|-------|------|---------|---------|-------------------------------|
| Shut-In Tool   | 5.00  |      |         | 3263.00 |                               |
| Hydraulic Tool | 5.00  |      |         | 3268.00 |                               |
| Packer         | 5.00  |      |         | 3273.00 | 20.00 Bottom Of Top Packer    |
| Packer         | 5.00  |      |         | 3278.00 |                               |
| Perforations   | 23.00 |      |         | 3301.00 |                               |
| Recorder       | 1.00  | 8524 | Inside  | 3302.00 |                               |
| Recorder       | 1.00  | 6663 | Outside | 3303.00 |                               |
| Bull Plug      | 3.00  |      |         | 3306.00 | 28.00 Bottom Packers & Anchor |

**Total Tool Length: 48.00**





# DRILL STEM TEST REPORT

## FLUID SUMMARY

Carrie Exploration and Development L.L.C.

**Lundgren #C-1**

210 West 22nd Street  
Hays ,Kansas 67601

**25-19s-11w**

Job Ticket: 15757

**DST#: 4**

ATTN: Herb Deines

Test Start: 2010.12.20 @ 04:30:00

### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 52.00 sec/qt

Water Loss: 10.00 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psia

Oil API:

Water Salinity: deg API

ppm

### Recovery Information

Recovery Table

| Length<br>ft | Description                          | Volume<br>bbl |
|--------------|--------------------------------------|---------------|
| 15.00        | Oil spotted Mu                       | 0.210         |
| 0.00         | there w as a good show of oil on top | 0.000         |

Total Length: 15.00 ft      Total Volume: 0.210 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

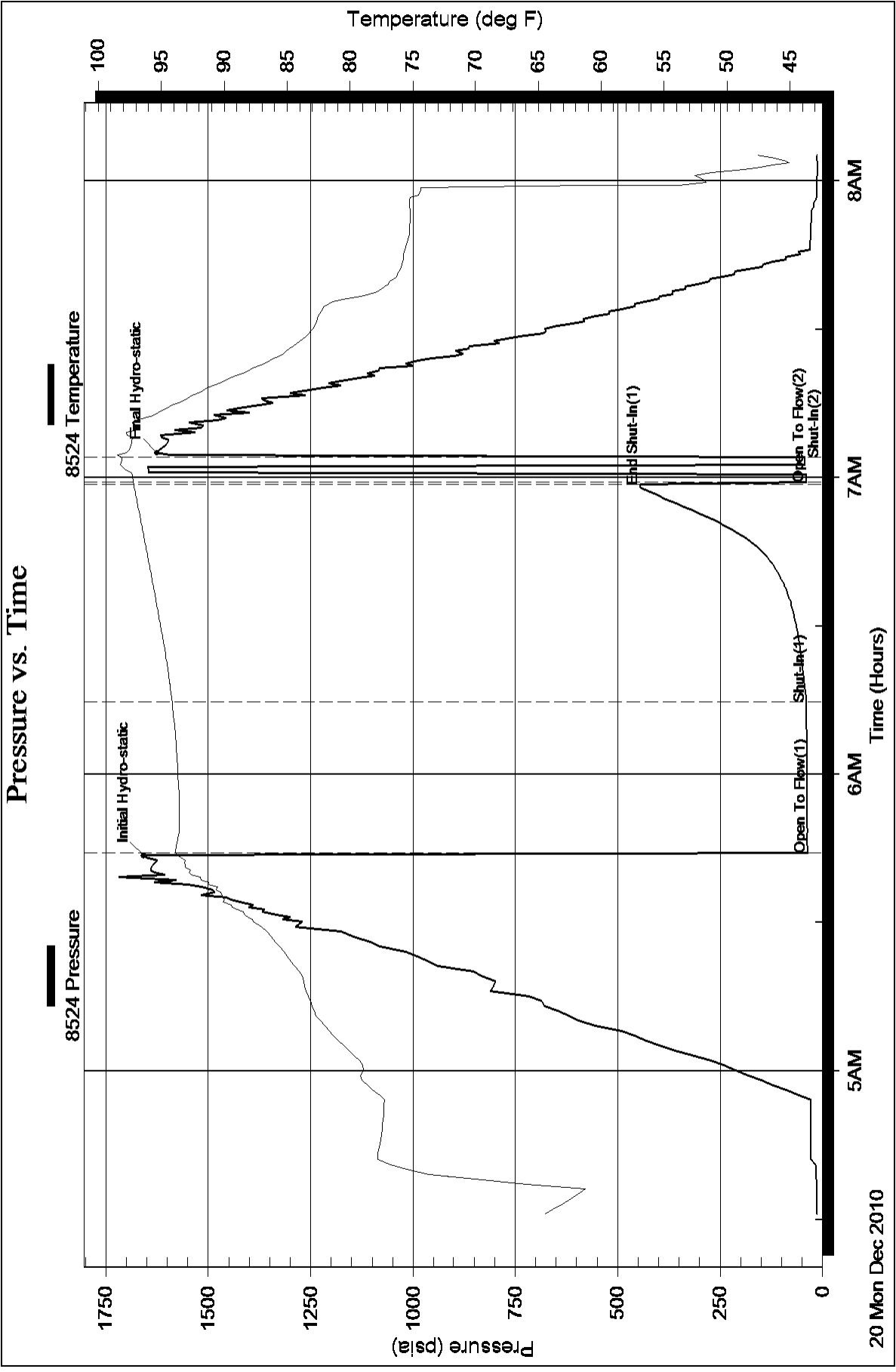
Serial #:

Laboratory Name:

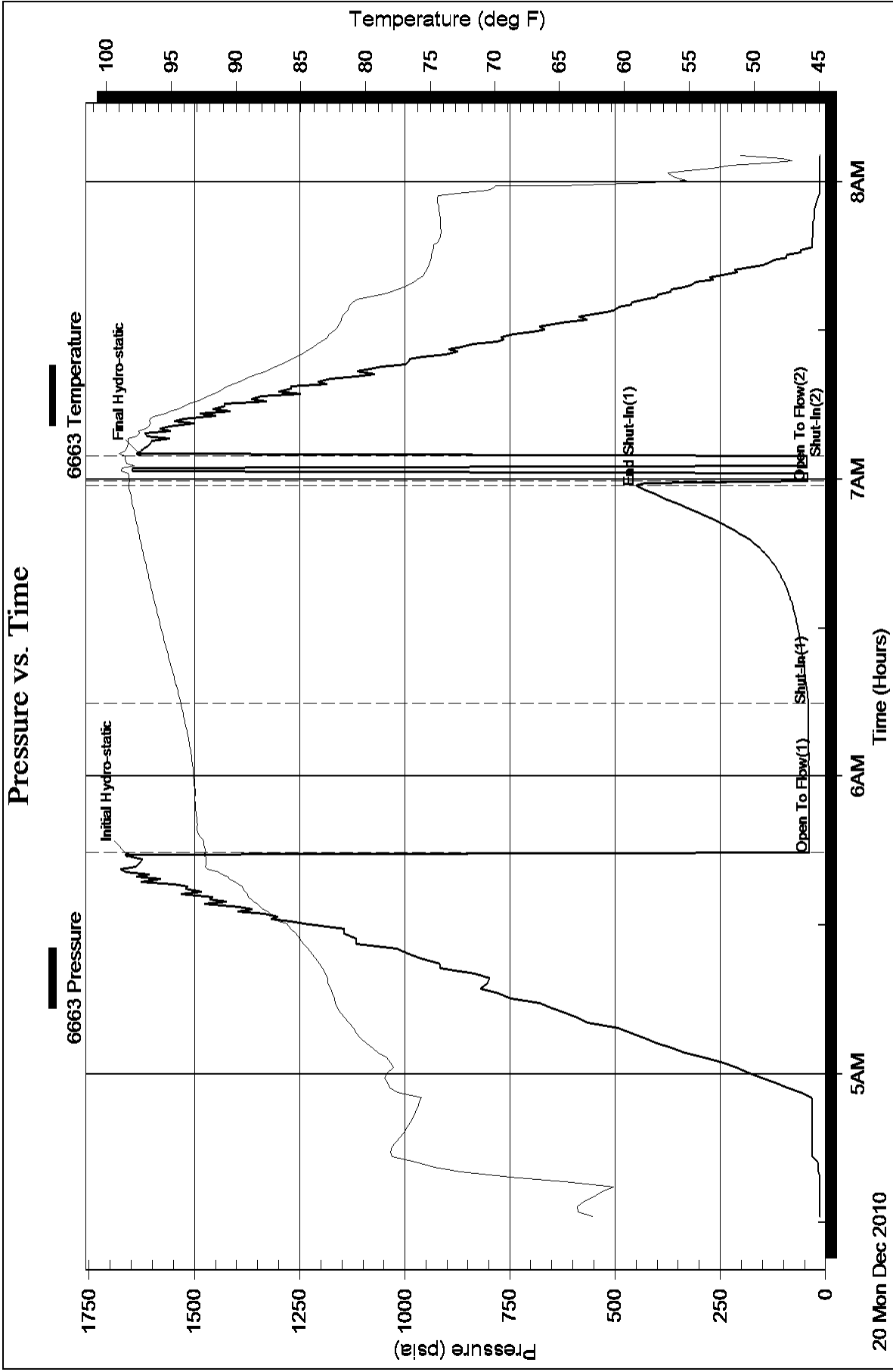
Laboratory Location:

Recovery Comments:

### Pressure vs. Time



### Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Carrie Exploration and Development L.L.C.**

210 West 22nd Street  
Hays ,Kansas 67601

ATTN: Herb Deines

**25-19s-11w**

**Lundgren #C-1**

Start Date: 2010.12.20 @ 09:30:00

End Date: 2010.12.20 @ 00:00:00

Job Ticket #: 15756                      DST #: 3

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2010.12.20 @ 11:46:02



# DRILL STEM TEST REPORT

Carrie Exploration and Development L.L.C.

**Lundgren #C-1**

210 West 22nd Street  
Hays ,Kansas 67601

**25-19s-11w**

Job Ticket: 15756

**DST#: 3**

ATTN: Herb Deines

Test Start: 2010.12.20 @ 09:30:00

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 3335-18

**Interval: 3280.00 ft (KB) To 3303.00 ft (KB) (TVD)**

Reference Elevations: 1776.00 ft (KB)

Total Depth: 3303.00 ft (KB) (TVD)

1766.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8524 Inside**

Press @ Run Depth: 61.07 psia @ 3299.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2010.12.20

End Date: 2010.12.20

Last Calib.: 2010.12.20

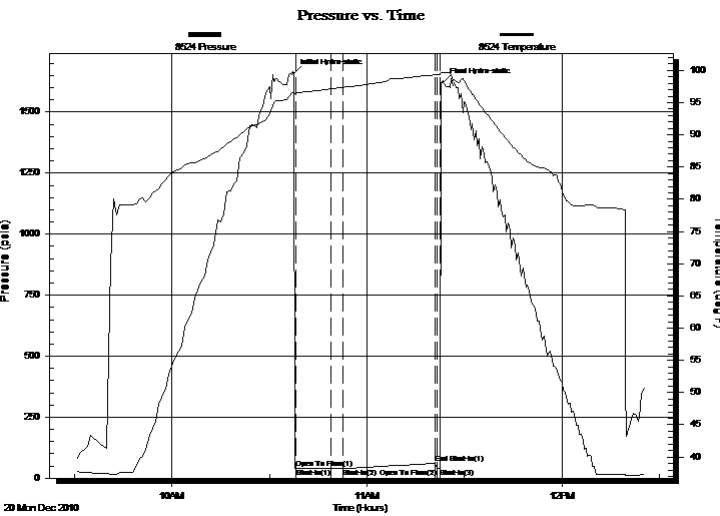
Start Time: 09:30:00

End Time: 12:25:30

Time On Btm: 2010.12.20 @ 10:37:30

Time Off Btm: 2010.12.20 @ 11:23:30

**TEST COMMENT:** 1st Opening 15 Minutes-Very weak surface blow for 5 minutes and died  
1st Shut-In 30 Minutes-No blow  
2nd Opening 03 Minutes-10-12 bubbles and died



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psia) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1659.63         | 96.56        | Initial Hydro-static |
| 1           | 39.00           | 96.45        | Open To Flow (1)     |
| 12          | 38.79           | 97.13        | Shut-In(1)           |
| 15          | 39.53           | 97.34        | Shut-In(2)           |
| 44          | 61.07           | 99.30        | End Shut-In(1)       |
| 44          | 41.57           | 99.33        | Open To Flow (2)     |
| 45          | 40.01           | 99.42        | Shut-In(3)           |
| 46          | 1622.00         | 99.59        | Final Hydro-static   |

## Recovery

| Length (ft) | Description                               | Volume (bbl) |
|-------------|---|--------------|
| 5.00        | Very slightly oil spotted mu0             | 0.07         |
| 0.00        | there w as a good show of free oil on top | 0.00         |
|             |   |              |
|             |   |              |
|             |   |              |

## Gas Rates

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



# DRILL STEM TEST REPORT

Carrie Exploration and Development L.L.C.

**Lundgren #C-1**

210 West 22nd Street  
Hays ,Kansas 67601

**25-19s-11w**

Job Ticket: 15756

**DST#: 3**

ATTN: Herb Deines

Test Start: 2010.12.20 @ 09:30:00

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 3335-18

**Interval: 3280.00 ft (KB) To 3303.00 ft (KB) (TVD)**

Reference Elevations: 1776.00 ft (KB)

Total Depth: 3303.00 ft (KB) (TVD)

1766.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 27799 Outside**

Press @ RunDepth: 65.94 psia @ 3300.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2010.12.20

End Date: 2010.12.20

Last Calib.: 2010.12.20

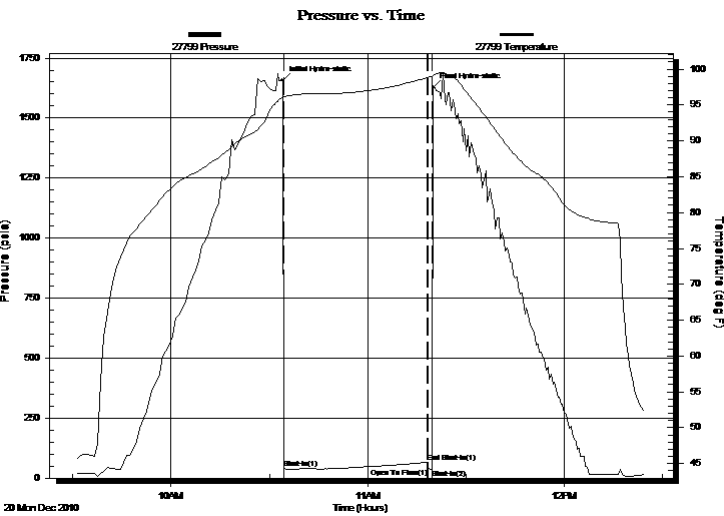
Start Time: 09:30:00

End Time: 12:24:29

Time On Btm: 2010.12.20 @ 10:34:00

Time Off Btm: 2010.12.20 @ 11:20:00

**TEST COMMENT:** 1st Opening 15 Minutes-Very weak surface blow for 5 minutes and died  
1st Shut-In 30 Minutes-No blow  
2nd Opening 03 Minutes-10-12 bubbles and died



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psia) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1656.47         | 96.02        | Initial Hydro-static |
| 1           | 39.72           | 96.14        | Shut-In(1)           |
| 44          | 65.94           | 98.78        | End Shut-In(1)       |
| 45          | 39.11           | 98.84        | Open To Flow (1)     |
| 46          | 38.44           | 98.96        | Shut-In(2)           |
| 46          | 1627.11         | 99.05        | Final Hydro-static   |

## Recovery

| Length (ft) | Description                               | Volume (bbl) |
|-------------|---|--------------|
| 5.00        | Very slightly oil spotted mu0             | 0.07         |
| 0.00        | there w as a good show of free oil on top | 0.00         |
|             |   |              |
|             |   |              |
|             |   |              |

## Gas Rates

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



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Carrie Exploration and Development L.L.C.

**Lundgren #C-1**

210 West 22nd Street  
Hays ,Kansas 67601

**25-19s-11w**

Job Ticket: 15756

**DST#: 3**

ATTN: Herb Deines

Test Start: 2010.12.20 @ 09:30:00

## Tool Information

|                           |                    |                       |                                |                        |             |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe:               | Length: 3290.00 ft | Diameter: 3.89 inches | Volume: 48.36 bbl              | Tool Weight:           | 2000.00 lb  |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 2.76 inches | Volume: 0.00 bbl               | Weight set on Packer:  | 200000.0 lb |
| Drill Collar:             | Length: 0.00 ft    | Diameter: 2.25 inches | Volume: 0.00 bbl               | Weight to Pull Loose:  | 38000.00 lb |
|                           |                    |                       | <u>Total Volume: 48.36 bbl</u> | Tool Chased            | 0.00 ft     |
| Drill Pipe Above KB:      | 30.00 ft           |                       |                                | String Weight: Initial | 32000.00 lb |
| Depth to Top Packer:      | 3280.00 ft         |                       |                                | Final                  | 32000.00 lb |
| Depth to Bottom Packer:   | ft                 |                       |                                |                        |             |
| Interval between Packers: | 23.00 ft           |                       |                                |                        |             |
| Tool Length:              | 43.00 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  |       |         | 3265.00 |                               |
| Hydraulic Tool | 5.00  |       |         | 3270.00 |                               |
| Packer         | 5.00  |       |         | 3275.00 | 20.00 Bottom Of Top Packer    |
| Packer         | 5.00  |       |         | 3280.00 |                               |
| Perforations   | 18.00 |       |         | 3298.00 |                               |
| Recorder       | 1.00  | 8524  | Inside  | 3299.00 |                               |
| Recorder       | 1.00  | 93335 | Outside | 3300.00 |                               |
| Bull Plug      | 3.00  |       |         | 3303.00 | 23.00 Bottom Packers & Anchor |

**Total Tool Length: 43.00**



# DRILL STEM TEST REPORT

## FLUID SUMMARY

Carrie Exploration and Development L.L.C.

**Lundgren #C-1**

210 West 22nd Street  
Hays ,Kansas 67601

**25-19s-11w**

Job Ticket: 15756

**DST#: 3**

ATTN: Herb Deines

Test Start: 2010.12.20 @ 09:30:00

### Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 47.00 sec/qt  
Water Loss: 9.20 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 4500.00 ppm  
Filter Cake: inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psia

Oil API: deg API  
Water Salinity: ppm

### Recovery Information

Recovery Table

| Length<br>ft | Description                               | Volume<br>bbl |
|--------------|---|---------------|
| 5.00         | Very slightly oil spotted mu0             | 0.073         |
| 0.00         | there w as a good show of free oil on top | 0.000         |

Total Length: 5.00 ft      Total Volume: 0.073 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

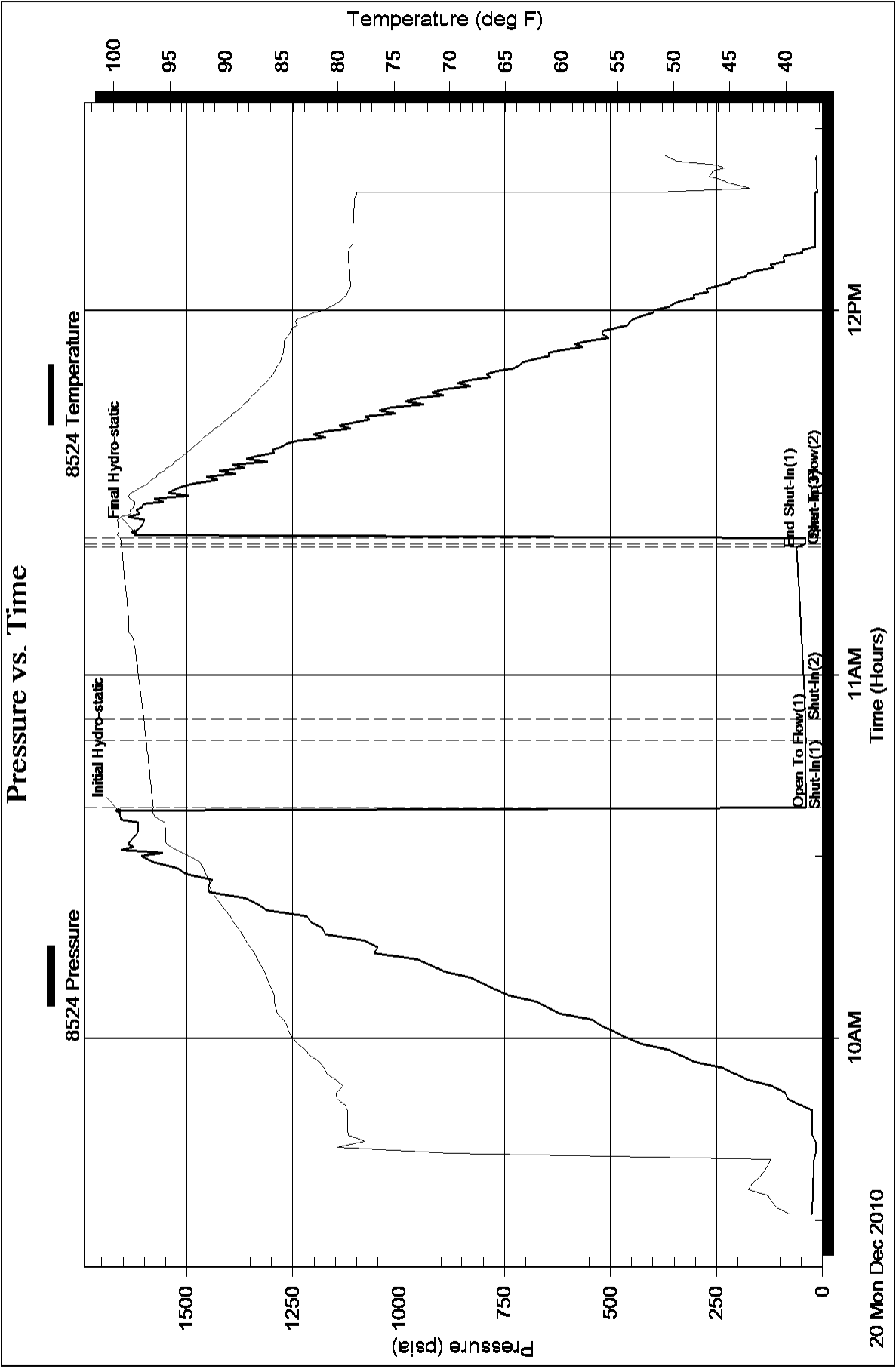
Laboratory Name:

Laboratory Location:

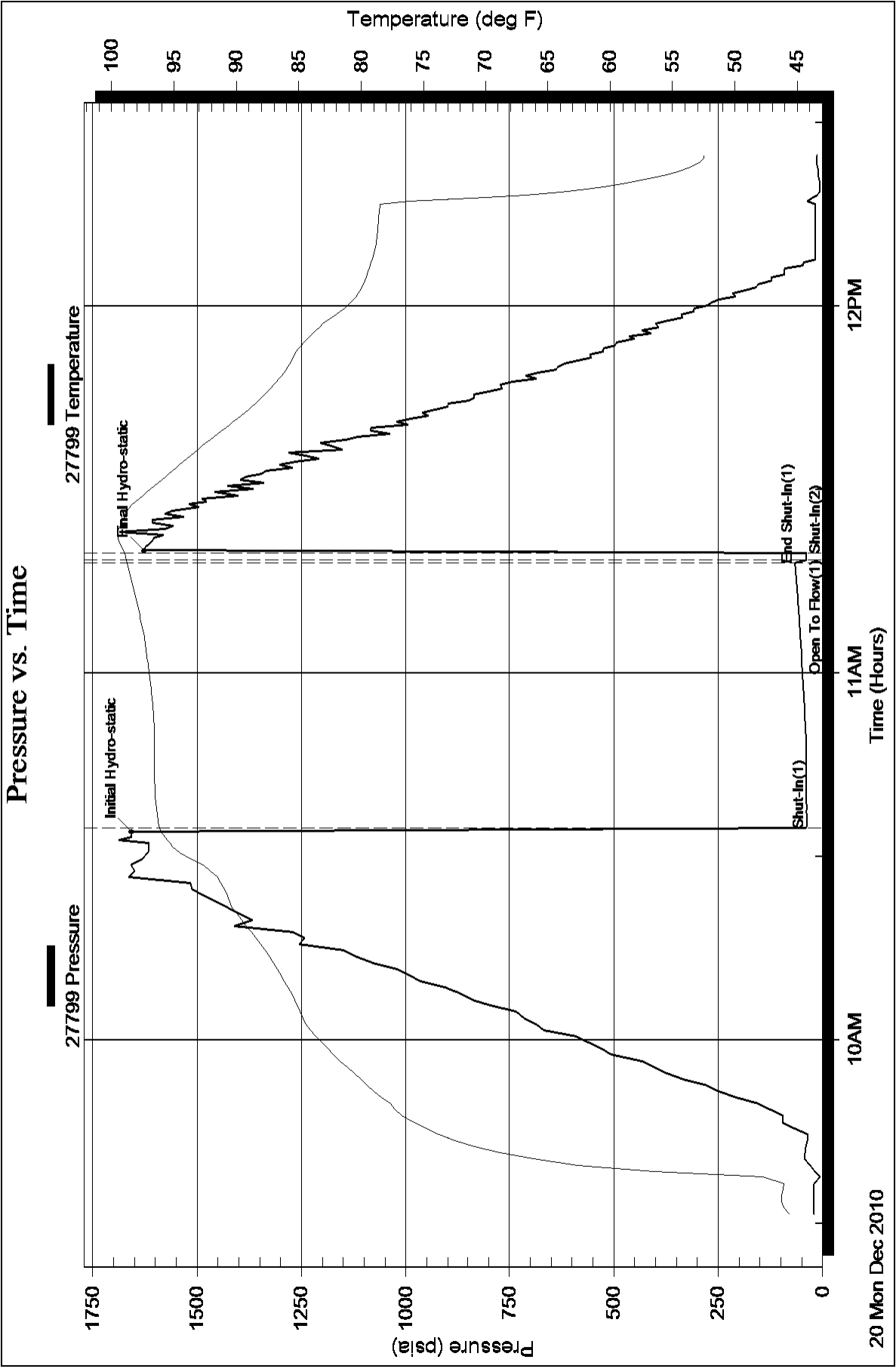
Recovery Comments:



### Pressure vs. Time



### Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Carrie Exploration and Development L.L.C.**

210 West 22nd Street  
Hays ,Kansas 67601

ATTN: Herb Deines

**25-19s-11w**

**Lundgren #C-1**

Start Date: 2010.12.19 @ 12:30:00

End Date: 2010.12.19 @ 00:00:00

Job Ticket #: 15755                      DST #: 2

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2010.12.19 @ 17:12:12



# DRILL STEM TEST REPORT

Carrie Exploration and Development L.L.C.

**Lundgren #C-1**

210 West 22nd Street  
Hays ,Kansas 67601

**25-19s-11w**

Job Ticket: 15755

**DST#: 2**

ATTN: Herb Deines

Test Start: 2010.12.19 @ 12:30:00

## GENERAL INFORMATION:

Formation: **Kansas City "F & G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig`

Unit No: 3335-38

**Interval: 3095.00 ft (KB) To 3125.00 ft (KB) (TVD)**

Reference Elevations: 1776.00 ft (KB)

Total Depth: 3125.00 ft (KB) (TVD)

1766.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8524 Inside**

Press @ Run Depth: 239.07 psia @ 3121.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2010.12.19

End Date:

2010.12.19

Last Calib.:

2010.12.19

Start Time:

12:30:00

End Time:

17:01:30

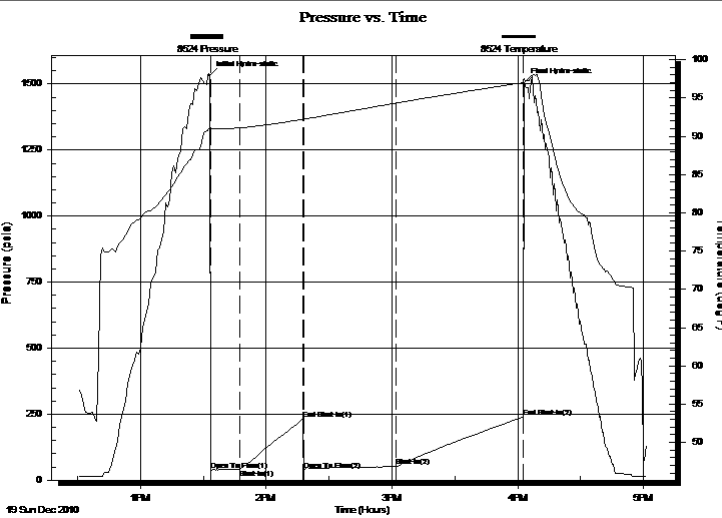
Time On Btm:

2010.12.19 @ 13:33:00

Time Off Btm:

2010.12.19 @ 16:03:00

**TEST COMMENT:** 1st Opening 15 Minutes-Weak blow built to 5 inches into the water  
 1st Shut-In 30 Minutes-No blow back  
 2nd Opening 45 Minutes-Weak blow built to the bottom of a 5 gallon bucket in 45 minutes  
 2nd Shut-In 60 Minutes-No blow back



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psia) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1533.64         | 91.07        | Initial Hydro-static |
| 1           | 37.87           | 90.97        | Open To Flow (1)     |
| 15          | 42.13           | 91.12        | Shut-In(1)           |
| 45          | 232.52          | 92.22        | End Shut-In(1)       |
| 45          | 38.94           | 92.25        | Open To Flow (2)     |
| 89          | 50.83           | 94.34        | Shut-In(2)           |
| 150         | 239.07          | 97.00        | End Shut-In(2)       |
| 150         | 1504.05         | 97.57        | Final Hydro-static   |

## Recovery

| Length (ft) | Description     | Volume (bbl) |
|-------------|-----------------|--------------|
| 60.00       | Gas in the pipe | 0.84         |
| 35.00       | Drilling Mud    | 0.49         |
|             |                 |              |
|             |                 |              |
|             |                 |              |

## Gas Rates

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



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Carrie Exploration and Development L.L.C.

**Lundgren #C-1**

210 West 22nd Street  
Hays ,Kansas 67601

**25-19s-11w**

Job Ticket: 15755

**DST#: 2**

ATTN: Herb Deines

Test Start: 2010.12.19 @ 12:30:00

## Tool Information

|                           |                    |                       |                                |                        |             |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe:               | Length: 3100.00 ft | Diameter: 3.80 inches | Volume: 43.48 bbl              | Tool Weight:           | 2000.00 lb  |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 2.76 inches | Volume: 0.00 bbl               | Weight set on Packer:  | 20000.00 lb |
| Drill Collar:             | Length: 0.00 ft    | Diameter: 2.25 inches | Volume: 0.00 bbl               | Weight to Pull Loose:  | 38000.00 lb |
|                           |                    |                       | <u>Total Volume: 43.48 bbl</u> | Tool Chased            | 0.00 ft     |
| Drill Pipe Above KB:      | 25.00 ft           |                       |                                | String Weight: Initial | 30000.00 lb |
| Depth to Top Packer:      | 3095.00 ft         |                       |                                | Final                  | 30000.00 lb |
| Depth to Bottom Packer:   | ft                 |                       |                                |                        |             |
| Interval between Packers: | 30.00 ft           |                       |                                |                        |             |
| Tool Length:              | 50.00 ft           |                       |                                |                        |             |
| Number of Packers:        | 2                  | Diameter:             | inches                         |                        |             |
| Tool Comments:            |                    |                       |                                |                        |             |

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

|                |       |      |         |         |                               |
|----------------|-------|------|---------|---------|-------------------------------|
| Shut-In Tool   | 5.00  |      |         | 3080.00 |                               |
| Hydraulic Tool | 5.00  |      |         | 3085.00 |                               |
| Packer         | 5.00  |      |         | 3090.00 | 20.00 Bottom Of Top Packer    |
| Packer         | 5.00  |      |         | 3095.00 |                               |
| Perforations   | 25.00 |      |         | 3120.00 |                               |
| Recorder       | 1.00  | 8524 | Inside  | 3121.00 |                               |
| Recorder       | 1.00  | 6663 | Outside | 3122.00 |                               |
| Bull Plug      | 3.00  |      |         | 3125.00 | 30.00 Bottom Packers & Anchor |

**Total Tool Length: 50.00**



# DRILL STEM TEST REPORT

## FLUID SUMMARY

Carrie Exploration and Development L.L.C.

**Lundgren #C-1**

210 West 22nd Street  
Hays ,Kansas 67601

**25-19s-11w**

Job Ticket: 15755

**DST#: 2**

ATTN: Herb Deines

Test Start: 2010.12.19 @ 12:30:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length: ft

Water Salinity: ppm

Viscosity: 52.00 sec/qt

Cushion Volume: bbl

Water Loss: 10.00 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psia

Salinity: 5000.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

| Length<br>ft | Description     | Volume<br>bbl |
|--------------|-----------------|---------------|
| 60.00        | Gas in the pipe | 0.842         |
| 35.00        | Drilling Mud    | 0.491         |

Total Length: 95.00 ft      Total Volume: 1.333 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

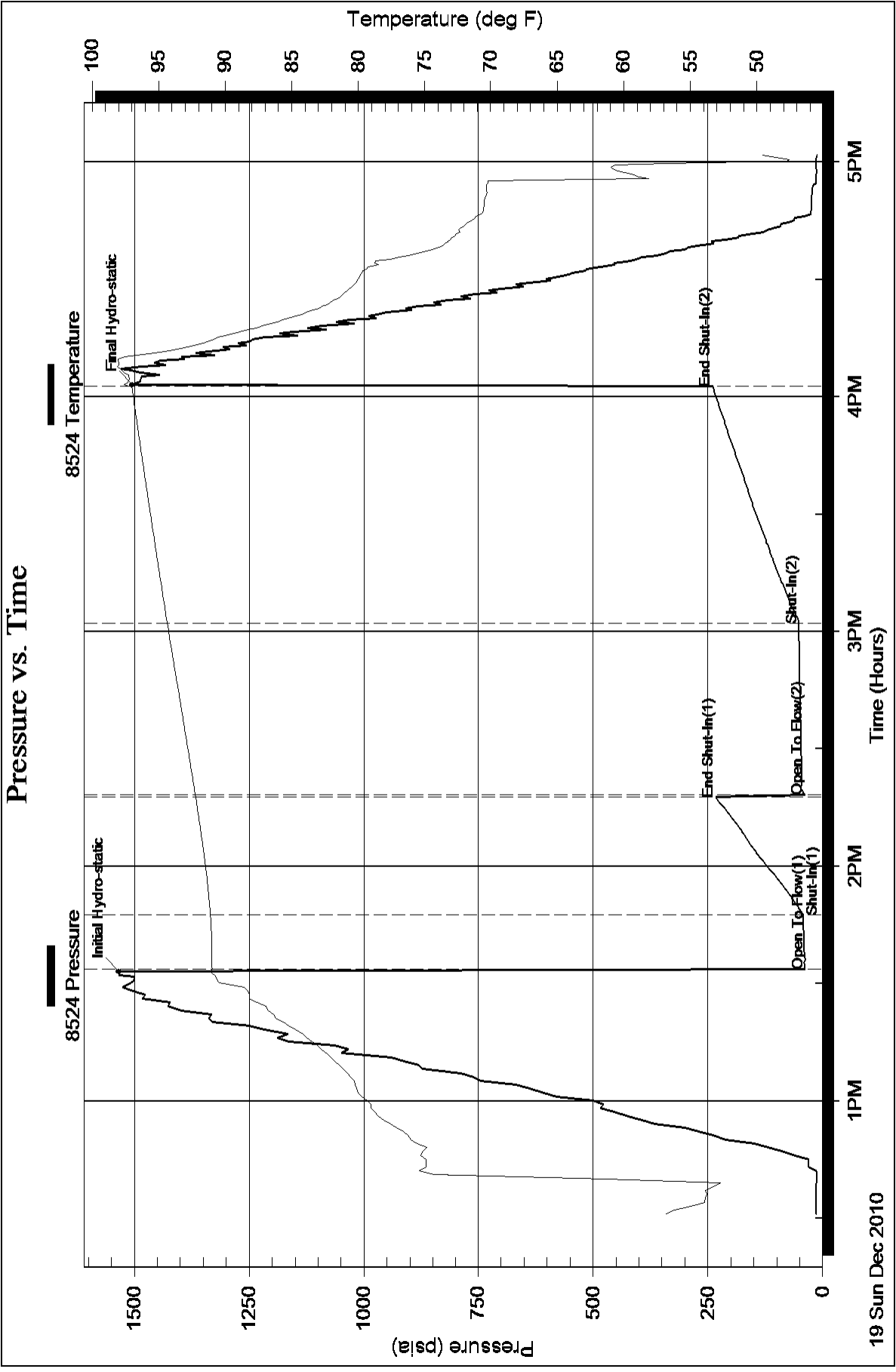
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Carrie Exploration and Development L.L.C.**

210 West 22nd Street  
Hays ,Kansas 67601

ATTN: Herb Deines

**25-19s-11w**

**Lundgren #C-1**

Start Date: 2010.12.19 @ 01:00:00

End Date: 2010.12.19 @ 00:00:00

Job Ticket #: 15754                      DST #: 1

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2010.12.19 @ 05:56:50





# DRILL STEM TEST REPORT

Carrie Exploration and Development L.L.C.

**Lundgren #C-1**

210 West 22nd Street  
Hays ,Kansas 67601

**25-19s-11w**

Job Ticket: 15754

**DST#: 1**

ATTN: Herb Deines

Test Start: 2010.12.19 @ 01:00:00

## GENERAL INFORMATION:

Formation: **Kansas City "A-B-C-D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 3335-38

**Interval: 3032.00 ft (KB) To 3080.00 ft (KB) (TVD)**

Reference Elevations: 1776.00 ft (KB)

Total Depth: 3080.00 ft (KB) (TVD)

1766.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8524 Inside**

Press @ RunDepth: 685.46 psia @ 3075.82 ft (KB)

Capacity: 5000.00 psia

Start Date: 2010.12.19

End Date: 2010.12.19

Last Calib.: 2010.12.19

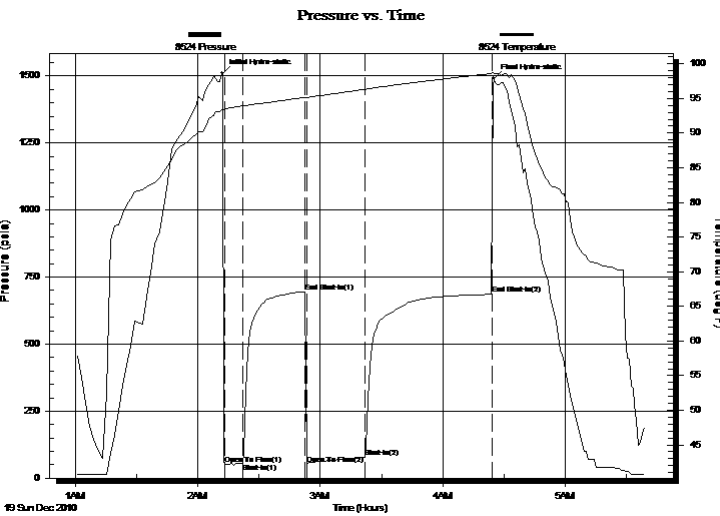
Start Time: 01:00:00

End Time: 05:39:30

Time On Btm: 2010.12.19 @ 02:12:00

Time Off Btm: 2010.12.19 @ 04:25:00

**TEST COMMENT:** 1st Opeing 10 Minutes Strong blow built to the bottom of a 5 gallon bucet in 1 minute  
 1st Shut-In 30 Minutes-No blow back  
 2nd Opening 30 Minutes-Strong blow w with gas to surface in 12 minutes  
 2nd Shut-In 60 Minutes-Fair blow back



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psia) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1510.62         | 93.38        | Initial Hydro-static |
| 1           | 51.03           | 93.42        | Open To Flow (1)     |
| 10          | 55.93           | 93.91        | Shut-In(1)           |
| 41          | 695.08          | 95.16        | End Shut-In(1)       |
| 42          | 53.00           | 95.16        | Open To Flow (2)     |
| 70          | 78.67           | 96.31        | Shut-In(2)           |
| 132         | 685.46          | 98.60        | End Shut-In(2)       |
| 133         | 1491.46         | 98.65        | Final Hydro-static   |

## Recovery

| Length (ft) | Description                     | Volume (bbl) |
|-------------|---------------------------------|--------------|
| 60.00       | Drilling mud                    | 0.84         |
| 50.00       | Muddy Wateer                    | 0.70         |
| 0.00        | 70%Water 30% Mud Chroides 62000 | 0.00         |
| 0.00        | Resisitivity .21 @46 Degrees    | 0.00         |
|             |                                 |              |
|             |                                 |              |

## Gas Rates

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



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Carrie Exploration and Development L.L.C.

**Lundgren #C-1**

210 West 22nd Street  
Hays ,Kansas 67601

**25-19s-11w**

Job Ticket: 15754

**DST#: 1**

ATTN: Herb Deines

Test Start: 2010.12.19 @ 01:00:00

## Tool Information

|                           |                    |                       |                         |                                    |
|---------------------------|--------------------|-----------------------|-------------------------|------------------------------------|
| Drill Pipe:               | Length: 3036.00 ft | Diameter: 3.80 inches | Volume: 42.59 bbl       | Tool Weight: 2000.00 lb            |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 2.76 inches | Volume: 0.00 bbl        | Weight set on Packer: 20000.00 lb  |
| Drill Collar:             | Length: 0.00 ft    | Diameter: 2.25 inches | Volume: 0.00 bbl        | Weight to Pull Loose: 38000.00 lb  |
|                           |                    |                       | Total Volume: 42.59 bbl | Tool Chased 0.00 ft                |
| Drill Pipe Above KB:      | 24.00 ft           |                       |                         | String Weight: Initial 30000.00 lb |
| Depth to Top Packer:      | 3032.00 ft         |                       |                         | Final 32000.00 lb                  |
| Depth to Bottom Packer:   | ft                 |                       |                         |                                    |
| Interval between Packers: | 47.82 ft           |                       |                         |                                    |
| Tool Length:              | 67.82 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  |      |         | 3017.00 |                               |
| Hydraulic Tool  | 5.00  |      |         | 3022.00 |                               |
| Packer          | 5.00  |      |         | 3027.00 | 20.00 Bottom Of Top Packer    |
| Packer          | 5.00  |      |         | 3032.00 |                               |
| Perforations    | 5.00  |      |         | 3037.00 |                               |
| Change Over Sub | 0.75  |      |         | 3037.75 |                               |
| Drill Pipe      | 31.32 |      |         | 3069.07 |                               |
| Change Over Sub | 0.75  |      |         | 3069.82 |                               |
| Perforations    | 5.00  |      |         | 3074.82 |                               |
| Recorder        | 1.00  | 8524 | Inside  | 3075.82 |                               |
| Recorder        | 1.00  | 6663 | Outside | 3076.82 |                               |
| Bull Plug       | 3.00  |      |         | 3079.82 | 47.82 Bottom Packers & Anchor |

**Total Tool Length: 67.82**



# DRILL STEM TEST REPORT

## FLUID SUMMARY

Carrie Exploration and Development L.L.C.

**Lundgren #C-1**

210 West 22nd Street  
Hays ,Kansas 67601

**25-19s-11w**

Job Ticket: 15754

**DST#: 1**

ATTN: Herb Deines

Test Start: 2010.12.19 @ 01:00:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.00 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psia

Salinity: 5000.00 ppm

Filter Cake: inches

### Recovery Information

Recovery Table

| Length<br>ft | Description                      | Volume<br>bbbl |
|--------------|----------------------------------|----------------|
| 60.00        | Drilling mud                     | 0.842          |
| 50.00        | Muddy Water                      | 0.701          |
| 0.00         | 70%Water 30% Mud Chlorides 62000 | 0.000          |
| 0.00         | Resistivity .21 @46 Degrees      | 0.000          |

Total Length: 110.00 ft

Total Volume: 1.543 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

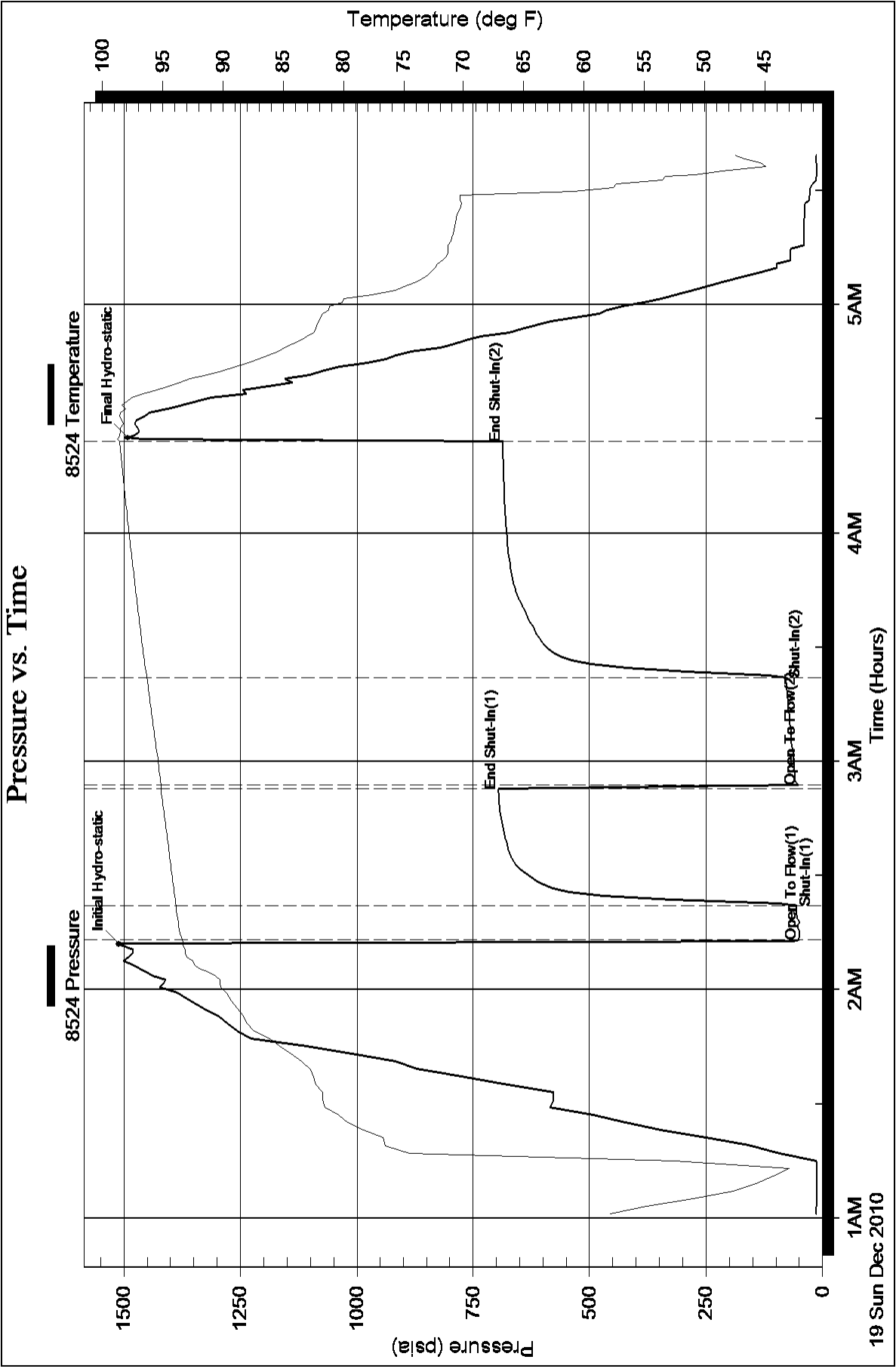
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time



# HERB DEINES

## CONSULTING GEOLOGIST

108 W. 35th ST.

PH. 785-625-3380

HAYS, KS 67601

COMPANY Carrie Exploration & Development LLC  
 WELL Langdon # C-1  
 FIELD Chase-Silver  
 COUNTY Barton STATE Kansas  
 LOCATION: 3190' FSL & 4728' FEL NW1/4  
 SEC 25 TWP 19S RGE 11W  
 Elevations: KB 1726' DF  GL 1766'

Logging by:

Log Tech

1. Dual Induction Log
2. Dual Compensated Porosity Log
3. Gamma Resistivity Log

Contractor Southern Drilling Co Inc. Rig #1  
 Commenced 12-15-2010 Completed   
 RTD 3420' LTD 3418'

Surface Casing 8 5/8" SET TO 253.76' w/ 180 SXS Cement 20% Seal 3% CC  
 Production Casing

Drilling Time 2500' - RTD Samples 2600' - RTD

| Daily Penetration Rate | Depth    | Activity     | Date                  | Depth | Activity |
|------------------------|----------|--------------|-----------------------|-------|----------|
|                        | 12-15-10 | Ry Spd. STSP |                       |       |          |
|                        | 12-16-10 | 461'         | Daily                 |       |          |
|                        | 12-17-10 | 1844'        | Daily                 |       |          |
|                        | 12-18-10 | 2716'        | Daily                 |       |          |
|                        | 12-19-10 | 3080'        | Daily, DST #1, DST #2 |       |          |
|                        | 12-20-10 | 3303'        | Daily, DST #3, DST #4 |       |          |
|                        | 12-21-10 | 3420'        | RTD, Logs, DST #5, #6 |       |          |

FOLD HERE

| REMARKS  | Bit Record  |            |         |          |           |       |
|--|-------------|------------|---------|----------|-----------|-------|
|  | Make & Type | Serial No. | Nozzles | Depth In | Depth Out | Hours |
| Recommendation to plug and abandon well based on negative results of DSTs and lack of Reservoir development. |             |            |         |          |           |       |
| Herb Deines  |             |            |         |          |           |       |

| Formation     | Sample | Log  | Datum  | * | Formation | Sample | Log | Datum | * |
|---------------|--------|------|--------|---|-----------|--------|-----|-------|---|
| Topokd        |        | 2617 | - 841  |   |           |        |     |       |   |
| Heepner Shale |        | 2879 | - 1103 |   |           |        |     |       |   |
| Toronto       |        | 2901 | - 1125 |   |           |        |     |       |   |
| Douglas Shale |        | 2910 | - 1134 |   |           |        |     |       |   |
| Brown Line    |        | 3002 | - 1226 |   |           |        |     |       |   |
| LKC           |        | 3023 | - 1247 |   |           |        |     |       |   |
| BKC           |        | 3229 | - 1503 |   |           |        |     |       |   |
| Flabuckie     |        | 3292 | - 1516 |   |           |        |     |       |   |
| RTD           | 3420   |      |        |   |           |        |     |       |   |
| LTD           |        | 3418 | - 1642 |   |           |        |     |       |   |

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

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

No. 4498

|                     |              |          |            |      |            |       |  |  |        |       |       |             |  |        |         |
|---------------------|--------------|----------|------------|------|------------|-------|--|--|--------|-------|-------|-------------|--|--------|---------|
| Date                | 12/15/10     | Sec.     | 25         | Twp. | 19         | Range | 11   | County   | Barber | State | KS    | On Location |  | Finish | 9:30 AM |
| Lease               | Quadrant     | Well No. | 0-1        |      | Location   |       | Ellinwood, KS - E 15th St Rd, 12th E/S   |  |        |       |       |             |  |        |         |
| Contractor          | Southwind #1 |          |            |      |            |       |  | Owner  |        |       |       |             |  |        |         |
| Type Job            | Surface      |          |            |      |            |       |  | To Quality Oilwell Cementing, Inc.<br>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           | 12 1/4"      |          | T.D.       |      | 261'       |       | Charge To  |  |        |       |       |             |  |        |         |
| Csg.                | 8 3/4"       |          | Depth      |      | 259'       |       | Come Exp.  |  |        |       |       |             |  |        |         |
| Tbg. Size           |              |          | Depth      |      |            |       | Street   |  |        |       |       |             |  |        |         |
| Tool                |              |          | Depth      |      |            |       | City   |  |        |       | State |             |  |        |         |
| Cement Left in Csg. | 15'          |          | Shoe Joint |      | 15'        |       | The above was done to satisfaction and supervision of owner agent or contractor. |  |        |       |       |             |  |        |         |
| Meas Line           |              |          | Displace   |      | 15 1/2 BLS |       | Cement Amount Ordered 180 sq Common 386 2 2/3 bbl                                |  |        |       |       |             |  |        |         |

**EQUIPMENT**

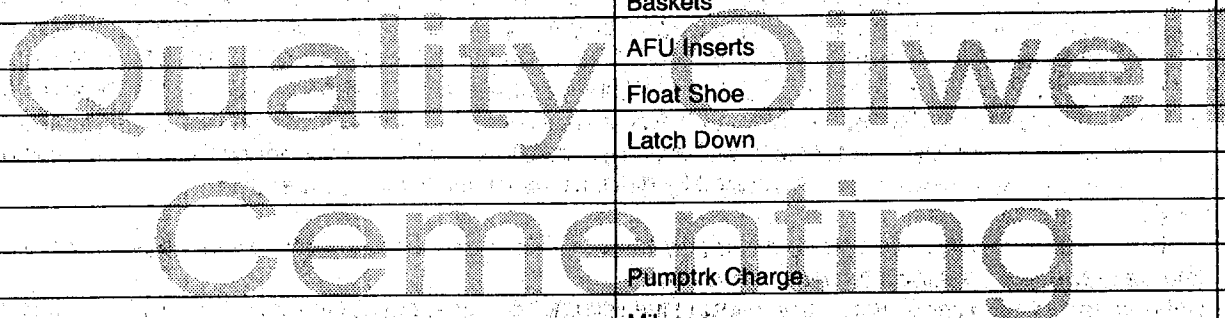
|         |    |     |          |       |          |
|---------|----|-----|----------|-------|----------|
| Pumptrk | 1  | No. | Cementer |       | Common   |
|         |    |     | Helper   | Wente |          |
| Bulktrk | 12 | No. | Driver   | Cooy  | Poz. Mix |
|         |    |     | Driver   |       |          |
| Bulktrk |    | No. | Driver   | Rich  | Gel.     |
|         |    |     | Driver   |       |          |

**JOB SERVICES & REMARKS**

|                    |                       |                         |
|--------------------|-----------------------|-------------------------|
| Remarks:           | Cement did Circulate. | Calcium                 |
| Rat Hole           |                       | Hulls                   |
| Mouse Hole         |                       | Salt                    |
| Centralizers       |                       | Flowseal                |
| Baskets            |                       | Kol-Seal                |
| D/V or Port Collar |                       | Mud CLR 48              |
|                    |                       | CFL-117 or CD110 CAF 38 |
|                    |                       | Sand                    |
|                    |                       | Handling                |
|                    |                       | Mileage                 |

**FLOAT EQUIPMENT**

|  |                |
|--|----------------|
|  | Guide Shoe     |
|  | Centralizer    |
|  | Baskets        |
|  | AFU Inserts    |
|  | Float Shoe     |
|  | Latch Down     |
|  | Pumptrk Charge |
|  | Mileage        |



|                |              |
|----------------|--------------|
| X<br>Signature | Tax          |
|                | Discount     |
|                | Total Charge |

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

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

No. 5077

|      |          |      |    |      |    |       |    |        |        |       |    |             |  |        |         |
|------|----------|------|----|------|----|-------|----|--------|--------|-------|----|-------------|--|--------|---------|
| Date | 12-21-10 | Sec. | 25 | Twp. | 19 | Range | 11 | County | Barton | State | Ks | On Location |  | Finish | 9:30 AM |
|------|----------|------|----|------|----|-------|----|--------|--------|-------|----|-------------|--|--------|---------|

|       |           |          |     |          |                                    |
|-------|-----------|----------|-----|----------|------------------------------------|
| Lease | Landgreen | Well No. | C-1 | Location | Fillmorewood, Ks - 4E, 1 1/2 N E/4 |
|-------|-----------|----------|-----|----------|------------------------------------|

|            |              |       |                                    |
|------------|--------------|-------|------------------------------------|
| Contractor | Southwind #1 | Owner | To Quality Oilwell Cementing, Inc. |
|------------|--------------|-------|------------------------------------|

|          |      |  |  |
|----------|------|--|--|
| Type Job | plug | 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 | 7 7/8" | T.D. | 3420' | Charge To | Carric Exp |
|-----------|--------|------|-------|-----------|------------|

|      |  |       |  |        |  |
|------|--|-------|--|--------|--|
| Csg. |  | Depth |  | Street |  |
|------|--|-------|--|--------|--|

|           |        |       |       |      |  |       |  |
|-----------|--------|-------|-------|------|--|-------|--|
| Tbg. Size | 4 1/2" | Depth | 3375' | 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 | 170 sx 60/40 4% Gel 1/2 E.S. |
|---------------------|--|------------|--|-----------------------|------------------------------|

|           |  |          |         |  |  |
|-----------|--|----------|---------|--|--|
| Meas Line |  | Displace | 470/mud |  |  |
|-----------|--|----------|---------|--|--|

**EQUIPMENT**

|         |   |     |          |       |        |
|---------|---|-----|----------|-------|--------|
| Pumptrk | 1 | No. | Cementer | Neete | Common |
|         |   |     | Helper   |       |        |

|         |    |     |        |       |          |
|---------|----|-----|--------|-------|----------|
| Bulktrk | 12 | No. | Driver | Jason | Poz. Mix |
|         |    |     | Driver |       |          |

|         |    |     |        |      |      |
|---------|----|-----|--------|------|------|
| Bulktrk | pu | No. | Driver | Rick | Gel. |
|         |    |     | Driver |      |      |

**JOB SERVICES & REMARKS**

|          |  |         |  |
|----------|--|---------|--|
| Remarks: |  | Calcium |  |
|----------|--|---------|--|

|          |       |       |  |
|----------|-------|-------|--|
| Rat Hole | 30 sx | Hulls |  |
|----------|-------|-------|--|

|            |       |      |  |
|------------|-------|------|--|
| Mouse Hole | 15 sx | Salt |  |
|------------|-------|------|--|

|              |  |          |  |
|--------------|--|----------|--|
| Centralizers |  | Flowseal |  |
|--------------|--|----------|--|

|         |  |          |  |
|---------|--|----------|--|
| Baskets |  | Kol-Seal |  |
|---------|--|----------|--|

|                    |  |            |  |
|--------------------|--|------------|--|
| D/V or Port Collar |  | Mud CLR 48 |  |
|--------------------|--|------------|--|

|  |  |                         |  |
|--|--|-------------------------|--|
|  |  | CFL-117 or CD110 CAF 38 |  |
|--|--|-------------------------|--|

|  |  |      |  |
|--|--|------|--|
|  |  | Sand |  |
|--|--|------|--|

|               |  |          |  |
|---------------|--|----------|--|
| 3375' - 25 sx |  | Handling |  |
|---------------|--|----------|--|

|  |  |         |  |
|--|--|---------|--|
|  |  | Mileage |  |
|--|--|---------|--|

|              |  |                        |  |
|--------------|--|------------------------|--|
| 520' - 90 sx |  | <b>FLOAT EQUIPMENT</b> |  |
|--------------|--|------------------------|--|

|  |  |            |  |
|--|--|------------|--|
|  |  | Guide Shoe |  |
|--|--|------------|--|

|             |  |             |  |
|-------------|--|-------------|--|
| 40' - 10 sx |  | Centralizer |  |
|-------------|--|-------------|--|

|  |  |         |  |
|--|--|---------|--|
|  |  | Baskets |  |
|--|--|---------|--|

|                  |  |             |  |
|------------------|--|-------------|--|
| Rat hole - 30 sx |  | AFU Inserts |  |
|------------------|--|-------------|--|

|                    |  |            |  |
|--------------------|--|------------|--|
| Mouse hole - 15 sx |  | Float Shoe |  |
|--------------------|--|------------|--|

|  |  |            |  |
|--|--|------------|--|
|  |  | Latch Down |  |
|--|--|------------|--|

|                              |  |  |  |
|------------------------------|--|--|--|
| 170 sx 60/40 4% Gel 1/2 E.S. |  |  |  |
|------------------------------|--|--|--|

|  |  |  |  |
|--|--|--|--|
|  |  |  |  |
|--|--|--|--|

|                     |  |                |  |
|---------------------|--|----------------|--|
| Cement at Circulate |  | Pumptrk Charge |  |
|---------------------|--|----------------|--|

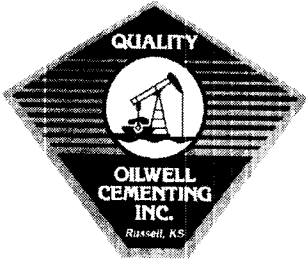
|  |  |         |  |
|--|--|---------|--|
|  |  | Mileage |  |
|--|--|---------|--|

|  |  |  |     |
|--|--|--|-----|
|  |  |  | Tax |
|--|--|--|-----|

|  |  |  |          |
|--|--|--|----------|
|  |  |  | Discount |
|--|--|--|----------|

|  |  |  |              |
|--|--|--|--------------|
|  |  |  | Total Charge |
|--|--|--|--------------|

|             |              |  |  |
|-------------|--------------|--|--|
| X Signature | Frank Powell |  |  |
|-------------|--------------|--|--|



**QUALITY OILWELL CEMENTING, INC.**

PO Box 32 - 740 West Wichita Ave, Russell KS 67665  
 Phone: 785-324-1041 fax: 785-483-1087  
 Email: cementing@ruraltel.net

**Date:** 12/26/2010  
**Invoice #** 5077

**P.O.#:**  
**Due Date:** 1/25/2011  
**Division:** Russell

# Invoice

**Contact:**  
 CARRIE EXPLORATION  
**Address/Job Location:**  
 CARRIE EXPLORATION  
 210 w 22nd st  
 HAYS KANSAS 67601

**Reference:**  
 LUNDGREN C-1

**Description of Work:**  
 PLUG JOB

| Services / Items Included:                   | Quantity | Price       | Taxable | Item | Quantity | Price | Taxable |
|--|----------|-------------|---------|------|----------|-------|---------|
| Labor  |          | \$ 1,184.84 | No      |      |          |       |         |
| Common-Class A                               | 102      | \$ 1,351.06 | Yes     |      |          |       |         |
| Bulk Truck Matl-Material Service Charge      | 176      | \$ 382.17   | No      |      |          |       |         |
| POZ Mix-Standard                             | 68       | \$ 339.61   | Yes     |      |          |       |         |
| Pump Truck Mileage-Job to Nearest Camp       | 16       | \$ 173.37   | No      |      |          |       |         |
| Premium Gel (Bentonite)                      | 6        | \$ 106.05   | Yes     |      |          |       |         |
| Bulk Truck Mileage-Job to Nearest Bulk Plant | 16       | \$ 101.45   | No      |      |          |       |         |
| Flo Seal                                     | 42       | \$ 91.20    | Yes     |      |          |       |         |
| Dry Hole Plug                                | 1        | \$ 60.80    | Yes     |      |          |       |         |

**Invoice Terms:**

Net 30

**SubTotal:** \$ 3,790.55

*Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice:* \$ (568.58)

|                                 |                    |
|---------------------------------|--------------------|
| SubTotal for Taxable Items:     | \$ 1,656.42        |
| SubTotal for Non-Taxable Items: | \$ 558.44          |
| <b>Total:</b>                   | <b>\$ 3,221.97</b> |
| <b>Tax:</b>                     | <b>\$ 120.92</b>   |

7.30% Barton County Sales Tax

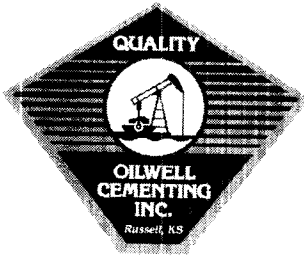
**Thank You For Your Business!**

**Amount Due:** \$ **3,342.89**  
**Applied Payments:**  
**Balance Due:** \$ **3,342.89**

Past Due Invoices are subject to a service charge (annual rate of 24%)  
 This does not include any applicable taxes unless it is listed.  
 ©2008-2013 Straker Investments, LLC. All rights reserved.

pd 1-1-2011  
 #2461





**QUALITY OILWELL CEMENTING, INC.**

PO Box 32 - 740 West Wichita Ave, Russell KS 67665  
 Phone: 785-324-1041 fax: 785-483-1087  
 Email: cementing@ruraltel.net

Date: 12/21/2010  
 Invoice # 4498

P.O.#:  
 Due Date: 1/20/2011  
 Division: Russell

# Invoice

**Contact:**

CARRIE EXPLORATION  
 Address/Job Location:  
 CARRIE EXPLORATION  
 210 w 22nd st  
 HAYS KANSAS 67601

**Reference:**

LUNDGREN G-1

**Description of Work:**

SURFACE JOB

*pd 12-27-10  
 2456*

**Services / Items Included:**

|  | Quantity | Price       | Taxable | Item | Quantity | Price | Taxable |
|--|----------|-------------|---------|------|----------|-------|---------|
| Labor  |          | \$ 722.89   | No      |      |          |       |         |
| Common-Class A                               | 180      | \$ 2,318.00 | Yes     |      |          |       |         |
| Bulk Truck Mat-Material Service Charge       | 189      | \$ 399.00   | No      |      |          |       |         |
| Calcium Chloride                             | 6        | \$ 238.51   | Yes     |      |          |       |         |
| Pump Truck Mileage-Job to Nearest Camp       | 16       | \$ 168.55   | No      |      |          |       |         |
| Bulk Truck Mileage-Job to Nearest Bulk Plant | 16       | \$ 98.63    | No      |      |          |       |         |
| Premium Gel (Bentonite)                      | 3        | \$ 51.55    | Yes     |      |          |       |         |

**Invoice Terms:**

Net 30

|       |  |    |          |
|-------|--|----|----------|
|       | SubTotal:  | \$ | 3,997.14 |
|       | Discount Available <u>ONLY</u> if Invoice is Paid & Received within listed terms of invoice: | \$ | (599.57) |
| <hr/> |  |    |          |
|       | SubTotal for Taxable Items:  | \$ | 2,216.86 |
|       | SubTotal for Non-Taxable Items:  | \$ | 566.25   |
| <hr/> |  |    |          |
|       | Total:   | \$ | 3,397.57 |
|       | Tax:   | \$ | 161.83   |
| <hr/> |  |    |          |
|       | Amount Due:  | \$ | 3,559.40 |
|       | Applied Payments:  |    |          |
|       | Balance Due:   | \$ | 3,559.40 |

7.30% Barton County Sales Tax

**Thank You For Your Business!**

Past Due Invoices are subject to a service charge (annual rate of 24%)  
 This does not include any applicable taxes unless it is listed.  
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**SOUTHWIND DRILLING, INC.  
PLUGGING ORDERS AND REPORTS**

Lease: Lundgren C-1

Plugging received from KCC representative:

Name: Ray Dinkel Date 12-20-10 Time 9:30 AM

1<sup>st</sup> plug @ 3375 ft. 25 sx. Stands: 5-3 1/2

2nd plug @ 520 ft. 90 sx. Stands: 8 1/2

3rd plug @ 40 ft. 10 sx. Stands: \_\_\_\_\_

4th plug @ \_\_\_\_\_ ft. \_\_\_\_\_ sx. Stands: \_\_\_\_\_

5th plug @ \_\_\_\_\_ ft. \_\_\_\_\_ sx. Stands: \_\_\_\_\_

Mousehole 15 sx.

Rahole 30 sx.

Total Cement used: 170 sx.

Type of cement 60/40 PC2, 4 1/2 Gel, 1/4 # F/o Sed Per Sock

Plug down @ 9:30 PM 12:21:10

Call KCC When Completed:

Name: Darrel Dorman Date 12-22-10 Time 11:30 AM