



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1071565  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

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

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

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

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

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

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

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

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

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

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

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

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

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

Designate Type of Completion:

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

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

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

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

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

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

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
-----------------------------------	-----------------	-----------------------------------------

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: \_\_\_\_\_

1071565

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 <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  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: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------

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

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

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

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

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

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

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
----------------	-------	---------	------------	---------------------------------------------------------------------

Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
-------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

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

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

Form	ACO1 - Well Completion
Operator	Carmen Schmitt, Inc.
Well Name	Gerstner 'A' 1-4
Doc ID	1071565

All Electric Logs Run

Dual Induction
Dual Compensated Porosity
Micro Resistivity
Sonic

Form	ACO1 - Well Completion
Operator	Carmen Schmitt, Inc.
Well Name	Gerstner 'A' 1-4
Doc ID	1071565

Tops

Name	Top	Datum
Heebner	4002	-1144
Lansing	4045	-1183
Muncie Creek	4236	-1374
Stark Shale	4335	-1473
Hushpuckney	4378	-1516
Pawnee	4537	-1675
L. Cher Sh	4608	-1746
Miss	4670	-1808
Spergen	4711	-1849

Conservation Division  
Finney State Office Building  
130 S. Market, Rm. 2078  
Wichita, KS 67202-3802



Phone: 316-337-6200  
Fax: 316-337-6211  
<http://kcc.ks.gov/>

Mark Sievers, Chairman  
Ward Loyd, Commissioner  
Thomas E. Wright, Commissioner

Sam Brownback, Governor

January 10, 2012

Francis Hitschmann  
Carmen Schmitt, Inc.  
PO BOX 47  
GREAT BEND, KS 67530-0047

Re: ACO1  
API 15-101-22339-00-00  
Gerstner 'A' 1-4  
SE/4 Sec.04-20S-29W  
Lane County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,  
Francis Hitschmann



# INVOICE

24 S. Lincoln Street  
P.O. Box 31  
Russell, KS 67665-2906

Invoice Number: 129574  
Invoice Date: Dec 7, 2011  
Page: 1

Voice: (817) 546-7282  
Fax: (817) 246-3361

<b>Bill To:</b>
Carmen Schmitt, Inc. P. O. Box 47 Great Bend, KS 67530

Federal Tax I.D.#: 20-5975804

Customer ID	Well Name/# or Customer P.O.	Payment Terms	
Schm	Gerstner A' #1-4	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Great Bend	Dec 7, 2011	1/6/12

Quantity	Item	Description	Unit Price	Amount
160.00	MAT	Class A Common	16.25	2,600.00
3.00	MAT	Gel	21.25	63.75
6.00	MAT	Chloride	58.20	349.20
169.00	SER	Handling	2.25	380.25
40.00	SER	Mileage	18.59	743.60
1.00	SER	Surface	1,125.00	1,125.00
80.00	SER	Heavy Vehicle Mileage	7.00	560.00
80.00	SER	Light Vehicle Mileage	4.00	320.00
1.00	EQUIP OPER	Bobby Roller		
1.00	OPER ASSIST	Shane Konzem		
1.00	OPER ASSIST	Jonathon Ploutz		

Subtotal	6,141.80
Sales Tax	189.82
Total Invoice Amount	6,331.62
Payment/Credit Applied	
<b>TOTAL</b>	<b>6,331.62</b>

ALL PRICES ARE NET, PAYABLE  
30 DAYS FOLLOWING DATE OF  
INVOICE. 1 1/2% CHARGED  
THEREAFTER. IF ACCOUNT IS  
CURRENT, TAKE DISCOUNT OF

**\$2040.16**

ONLY IF PAID ON OR BEFORE  
**Jan 1, 2012**

# ALLIED CEMENTING CO., LLC. 042312

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:  
*Great Bend, KS*

DATE <i>12-7-11</i>	SEC. <i>4</i>	TWP. <i>28S</i>	RANGE <i>29W</i>	CALLED OUT	ON LOCATION	JOB START <i>4:00 pm</i>	JOB FINISH <i>4:30 pm</i>
LEASE <i>Geother 'A'</i> WELL # <i>1-4</i>			LOCATION <i>Dighton 263 9 South 3rd St</i>		COUNTY <i>Lane</i>	STATE <i>KS</i>	
OLD OR NEW (Circle one)			<i>1/2 South West into</i>				

CONTRACTOR *Mallard Rig #2* OWNER *Carmen Schmitt, Inc*  
 TYPE OF JOB *Surface*  
 HOLE SIZE *12 1/4* T.D. *219*  
 CASING SIZE *8 5/8 23'* DEPTH *219*  
 TUBING SIZE DEPTH  
 DRILL PIPE *4 1/2* DEPTH  
 TOOL DEPTH  
 PRES. MAX MINIMUM  
 MEAS. LINE SHOE JOINT  
 CEMENT LEFT IN CSG. *1584*  
 PERFS.  
 DISPLACEMENT *Freshwater*

CEMENT  
AMOUNT ORDERED *160 sz Com 3% cc*  
*2% gel*

COMMON <i>160</i>	@ <i>16.25</i>	<i>2600.00</i>
POZMIX	@	
GEL <i>3</i>	@ <i>21.25</i>	<i>63.75</i>
CHLORIDE <i>6</i>	@ <i>58.20</i>	<i>349.20</i>
ASC	@	
	@	
	@	
	@	
	@	
	@	
	@	
	@	
HANDLING <i>169</i>	@ <i>2.25</i>	<i>380.25</i>
MILEAGE <i>169 x 106.99 x .11</i>		<i>743.50</i>
TOTAL		<i>4136.80</i>

EQUIPMENT

PUMP TRUCK CEMENTER *Bob R*  
# *398* HELPER *Shane K.*  
 BULK TRUCK  
# *482-188* DRIVER *Jon P.*  
 BULK TRUCK  
# DRIVER

REMARKS:  
*Pipe on bottom break circulation with rig mud  
 mix 160 sz Com 3% cc 2% gel.  
 Displace with 661 Freshwater and shut in.  
 Cement did circulate*

CHARGE TO: *Carmen Schmitt, Inc*  
 STREET \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

SERVICE

DEPTH OF JOB <i>219</i>	
PUMP TRUCK CHARGE	<i>1125.00</i>
EXTRA FOOTAGE	@
MILEAGE <i>NVM 80</i>	@ <i>7.00</i> <i>560.00</i>
MANIFOLD	@
<i>h.v.m 80</i>	@ <i>4.00</i> <i>320.00</i>
	@
TOTAL <i>2005.00</i>	

PLUG & FLOAT EQUIPMENT

	@	
	@	
	@	
	@	
	@	
TOTAL		

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

PRINTED NAME *Darin Brewer*  
 SIGNATURE *[Signature]*

SALES TAX (If Any) \_\_\_\_\_  
 TOTAL CHARGES *614.80*  
*70% 20%* *2040.16*  
 DISCOUNT \_\_\_\_\_ IF PAID IN 30 DAYS  
*4101.69*

*Thank you*



24 S. Lincoln Street  
P.O. Box 31  
Russell, KS 67665-2906

Voice: (817) 546-7282  
Fax: (817) 246-3361

# INVOICE

Invoice Number: 129680

Invoice Date: Dec 16, 2011

Page: 1

<b>Bill To:</b>
Carmen Schmitt, Inc. P. O. Box 47 Great Bend, KS 67530

Federal Tax I.D.#: 20-5975804

Customer ID	Well Name# or Customer P.O.	Payment Terms	
Schm	Gerestner A#1-4	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-03	Great Bend	Dec 16, 2011	1/15/12

Quantity	Item	Description	Unit Price	Amount
174.00	MAT	Class A Common	16.25	2,827.50
116.00	MAT	Pozmix	8.50	986.00
10.00	MAT	Gel	21.25	212.50
73.00	MAT	FloSeal	2.70	197.10
303.00	SER	Handling	2.25	681.75
44.00	SER	Mileage	33.33	1,466.52
1.00	SER	Rotary Plug	1,250.00	1,250.00
88.00	SER	Heavy Vehicle Mileage	7.00	616.00
88.00	SER	Light Vehicle Mileage	4.00	352.00
1.00	EQUIP OPER	Bobby Roller		
1.00	OPER ASSIST	Dustin Chambers		
1.00	OPER ASSIST	Kevin Weighous		
1.00	OPER ASSIST	Vince Pack		

ALL PRICES ARE NET, PAYABLE  
30 DAYS FOLLOWING DATE OF  
INVOICE. 1 1/2% CHARGED  
THEREAFTER. IF ACCOUNT IS  
CURRENT, TAKE DISCOUNT OF

**\$2935.13**

ONLY IF PAID ON OR BEFORE  
Jan 10, 2012

Subtotal	<del>8,589.37</del>
Sales Tax	<del>641.13</del>
Total Invoice Amount	<del>9,230.50</del>
Payment/Credit Applied	
<b>TOTAL</b>	<b>9,130.50</b>

pay 5654.24



# ALLIED CEMENTING CO., LLC. 042319

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:  
*Great Bend, KS*

DATE <i>12-16-11</i>	SEC. <i>4</i>	TWP. <i>20S</i>	RANGE <i>29W</i>	CALLED OUT	ON LOCATION	JOB START <i>8:30am</i>	JOB FINISH <i>9:30am</i>
LEASE <i>Geostone</i>		WELL # <i>1-4</i>	LOCATION <i>Drydenks 9S 3W 1/2 S 4W 1/2</i>		COUNTY <i>Lane</i>	STATE <i>KS</i>	
OLD OR NEW (Circle one)							

CONTRACTOR *Mallard Rig Co.*  
 TYPE OF JOB *bleeding plug*  
 HOLE SIZE *7 7/8* T.D. *4731*  
 CASING SIZE *8 5/8* DEPTH *219*  
 TUBING SIZE DEPTH  
 DRILL PIPE *4 1/2* DEPTH *2220*  
 TOOL DEPTH  
 PRES. MAX MINIMUM  
 MBAS LINE SHOE JOINT  
 CEMENT LEFT IN CSG: *all*  
 PERFS.  
 DISPLACEMENT *Freshwater / Reg. mud*  
 EQUIPMENT  
 PUMP TRUCK CEMENTER *Bob C.*  
 # *398* HELPER *Dustin C.*  
 BULK TRUCK  
 # *344-170* DRIVER *Kevin W.*  
 BULK TRUCK  
 # DRIVER *Vince P.*

OWNER *Carmen Schmitt, Inc.*  
 CEMENT AMOUNT ORDERED *290.62 60/40 4% seal*  
*1/4 Flt Seal*

COMMON	<i>174</i>	@	<i>16.25</i>	<i>2827.50</i>
POZMIX	<i>116</i>	@	<i>8.50</i>	<i>986.00</i>
GEL	<i>10</i>	@	<i>21.25</i>	<i>212.50</i>
CHLORIDE		@		
ASC		@		
<i>73# Hoses</i>		@	<i>2.70</i>	<i>197.10</i>
HANDLING	<i>303</i>	@	<i>2.25</i>	<i>681.75</i>
MILEAGE	<i>2032.44</i>	@		<i>1466.93</i>
TOTAL				<i>6,371.37</i>

REMARKS:  
*1st plug at 2220' mid 30 sec*  
*2nd plug at 1500' mid 30 sec*  
*3rd plug at 720' mid 30 sec*  
*4th plug at 240' mid 40 sec*  
*5th plug at 60' mid 20 sec*  
*RT mid 30 sec*  
*MT mid 20 sec*

CHARGE TO: *Carmen Schmitt, Inc.*  
 STREET \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

SERVICE

DEPTH OF JOB	<i>2220'</i>		
PUMP TRUCK CHARGE	<i>2001-3000'</i>	@	<i>1250.00</i>
EXTRA FOOTAGE		@	
MILEAGE	<i>1100-88 RT</i>	@	<i>7.00 616.00</i>
MANIFOLD		@	
<i>1000-88 RT</i>		@	<i>4.00 352.00</i>
TOTAL <i>3218.00</i>			

PLUG & FLOAT EQUIPMENT

	@		
	@		
	@		
	@		
	@		
TOTAL _____			

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

PRINTED NAME *Mark D. Olson*  
 SIGNATURE *Mark D. Olson*

SALES TAX (If Any) \_\_\_\_\_  
 TOTAL CHARGES *8,589.37*  
 DISCOUNT *70% 20%* *2,935.13*  
 IF PAID IN 30 DAYS  
*5654.24*



## DRILL STEM TEST REPORT

Prepared For: **Carmen Schmit, Inc.**

PO Box  
Great Bend, KS 67530

ATTN: Vern Schrag

**Gerstner "A" # 1-4**

**4-20s-29w Lane,KS**

Start Date: 2011.12.14 @ 08:49:00

End Date: 2011.12.14 @ 13:07:39

Job Ticket #: 45495                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2011.12.19 @ 13:21:12



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Carmen Schmit, Inc.  
PO Box  
Great Bend, KS 67530  
ATTN: Vern Schrag

**4-20s-29w Lane, KS**  
**Gerstner "A" # 1-4**  
Job Ticket: 45495      **DST#: 1**  
Test Start: 2011.12.14 @ 08:49:00

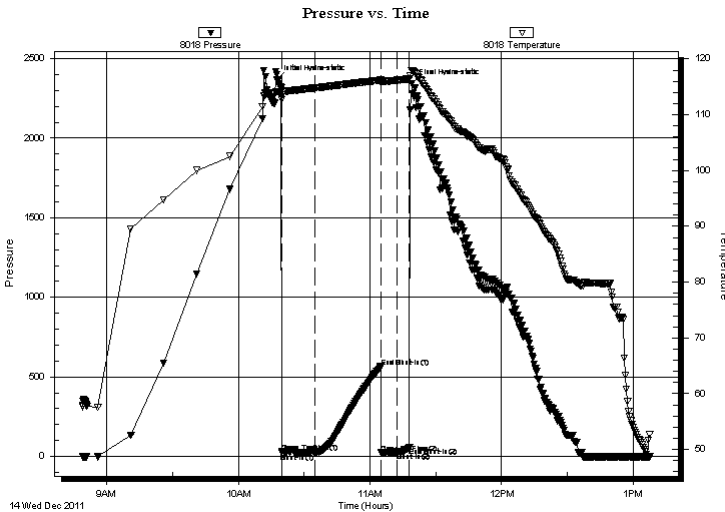
## GENERAL INFORMATION:

Formation: **Pawnee**  
Deviated: No Whipstock: ft (KB)      Test Type: Conventional Bottom Hole (Initial)  
Time Tool Opened: 10:19:50      Tester: Chuck Smith  
Time Test Ended: 13:07:39      Unit No: 37  
**Interval: 4534.00 ft (KB) To 4615.00 ft (KB) (TVD)**      Reference Elevations: 2862.00 ft (KB)  
Total Depth: 4615.00 ft (KB) (TVD)      2857.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: Good      KB to GR/CF: 5.00 ft

**Serial #: 8018      Inside**  
Press @ Run Depth: 25.77 psig @ 4538.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2011.12.14      End Date: 2011.12.14      Last Calib.: 2011.12.14  
Start Time: 08:49:02      End Time: 13:07:40      Time On Btm: 2011.12.14 @ 10:17:40  
Time Off Btm: 2011.12.14 @ 11:19:00

**TEST COMMENT:** 1/2" Blow receded to surface blow.  
No return.  
No blow.  
No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2368.81	114.15	Initial Hydro-static
3	27.32	112.72	Open To Flow (1)
18	22.33	114.80	Shut-In(1)
48	564.75	116.19	End Shut-In(1)
48	23.52	115.77	Open To Flow (2)
55	25.77	116.19	Shut-In(2)
61	54.92	116.43	End Shut-In(2)
62	2341.90	117.95	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	M100m	0.05

## Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Carmen Schmit, Inc.  
 PO Box  
 Great Bend, KS 67530  
 ATTN: Vern Schrag

**4-20s-29w Lane, KS**  
**Gerstner "A" # 1-4**  
 Job Ticket: 45495 **DST#: 1**  
 Test Start: 2011.12.14 @ 08:49:00

## GENERAL INFORMATION:

Formation: **Pawnee**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 10:19:50 Tester: Chuck Smith  
 Time Test Ended: 13:07:39 Unit No: 37  
 Interval: **4534.00 ft (KB) To 4615.00 ft (KB) (TVD)** Reference Elevations: 2862.00 ft (KB)  
 Total Depth: 4615.00 ft (KB) (TVD) 2857.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

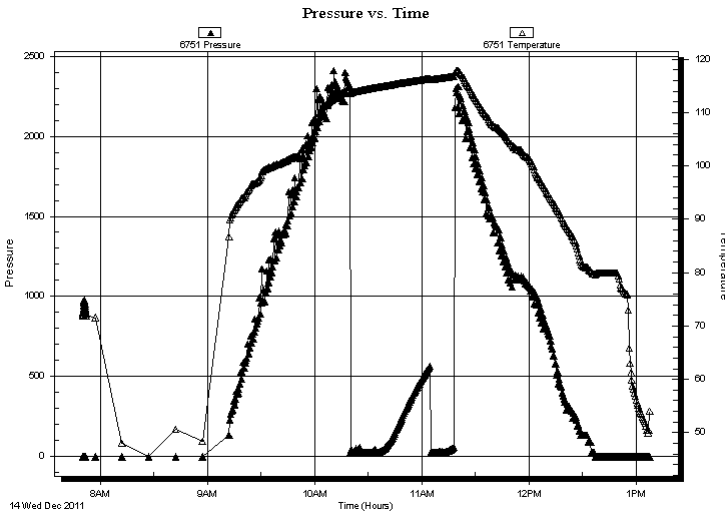
## Serial #: 6751

**Outside**

Press @ Run Depth: psig @ 4538.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2011.12.14 End Date: 2011.12.14 Last Calib.: 2011.12.14  
 Start Time: 07:50:12 End Time: 13:07:50 Time On Btm:  
 Time Off Btm:

TEST COMMENT: 1/2" Blow receded to surface blow.  
 No return.  
 No blow.  
 No return.

## PRESSURE SUMMARY



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

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	M100m	0.05

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Carmen Schmit, Inc.  
PO Box  
Great Bend, KS 67530  
ATTN: Vern Schrag

**4-20s-29w Lane, KS**  
**Gerstner "A" # 1-4**  
Job Ticket: 45495 **DST#: 1**  
Test Start: 2011.12.14 @ 08:49:00

## Tool Information

Drill Pipe:	Length: 4268.00 ft	Diameter: 3.80 inches	Volume: 59.87 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 242.00 ft	Diameter: 2.25 inches	Volume: 1.19 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 61.06 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	3.50 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	4534.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	81.00 ft			
Tool Length:	108.50 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4507.50	
Shut In Tool	5.00			4512.50	
Hydraulic tool	5.00			4517.50	
Jars	5.00			4522.50	
Safety Joint	2.50			4525.00	
Packer	5.00			4530.00	27.50 Bottom Of Top Packer
Packer	4.00			4534.00	
Stubb	1.00			4535.00	
Perforations	3.00			4538.00	
Recorder	0.00	8018	Inside	4538.00	
Recorder	0.00	6751	Outside	4538.00	
Perforations	9.00			4547.00	
Change Over Sub	1.00			4548.00	
Drill Pipe	63.00			4611.00	
Change Over Sub	1.00			4612.00	
Bullnose	3.00			4615.00	81.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>108.50</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Carmen Schmit, Inc.  
PO Box  
Great Bend, KS 67530  
ATTN: Vern Schrag

**4-20s-29w Lane,KS**  
**Gerstner "A" # 1-4**  
Job Ticket: 45495      **DST#: 1**  
Test Start: 2011.12.14 @ 08:49:00

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 10.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 10.34 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2200.00 ppm			
Filter Cake: 1.00 inches			

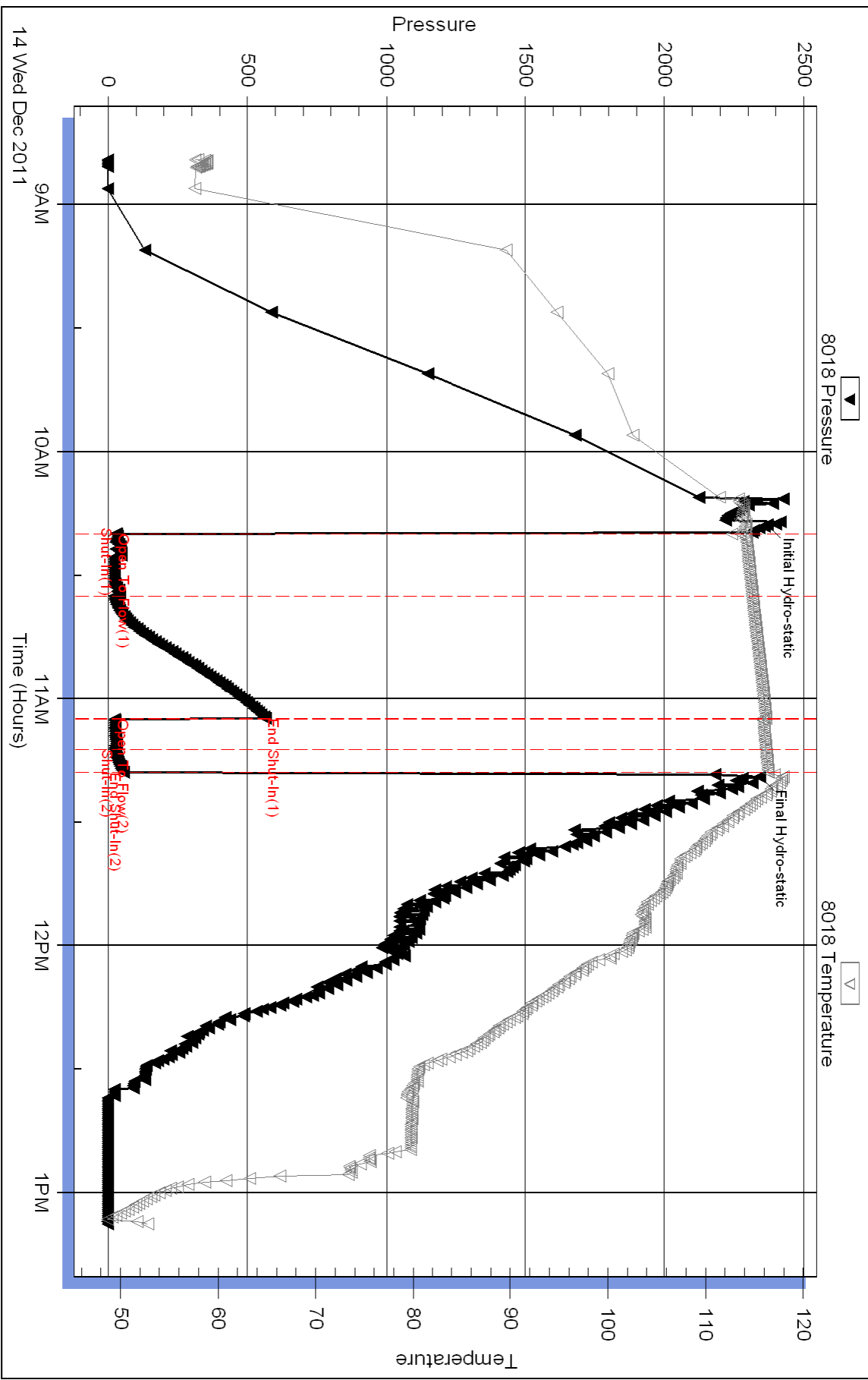
## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	M100m	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:

### Pressure vs. Time

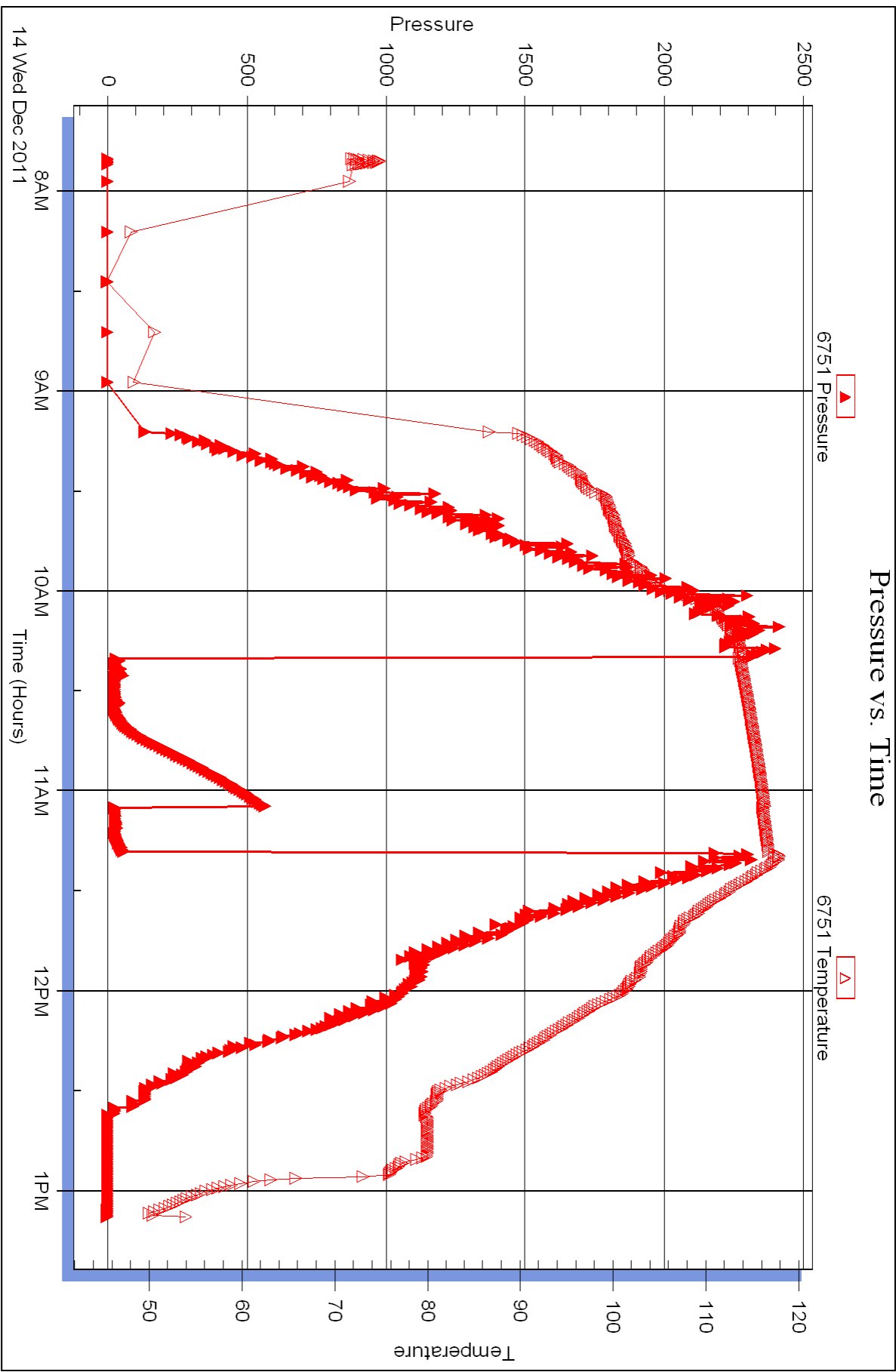


Serial #: 6751

Outside Carmen Schritt, Inc.

Gerstner "A" # 1-4

DST Test Number: 1







## DRILL STEM TEST REPORT

Prepared For: **Carmen Schmit, Inc.**

PO Box  
Great Bend, KS 67530

ATTN: Vern Schrag

**Gerstner "A" # 1-4**

**4-20s-29w Lane,KS**

Start Date: 2011.12.15 @ 12:35:00

End Date: 2011.12.15 @ 19:43:58

Job Ticket #: 44981                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2011.12.19 @ 13:18:54

Carmen Schmit, Inc.  
4-20s-29w Lane,KS  
Gerstner "A" # 1-4  
DST # 2  
Marmaton  
2011.12.15



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Carmen Schmit, Inc.  
PO Box  
Great Bend, KS 67530  
ATTN: Vern Schrag

**4-20s-29w Lane, KS**  
**Gerstner "A" # 1-4**  
Job Ticket: 44981      **DST#: 2**  
Test Start: 2011.12.15 @ 12:35:00

### GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:57:17

Time Test Ended: 19:43:58

Test Type: Conventional Straddle (Reset)

Tester: Will MacLean

Unit No: 37

**Interval: 4438.00 ft (KB) To 4504.00 ft (KB) (TVD)**

Reference Elevations: 2862.00 ft (KB)

Total Depth: 4731.00 ft (KB) (TVD)

2857.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

**Serial #: 8018      Inside**

Press @ Run Depth: 131.12 psig @ 4439.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.12.15      End Date: 2011.12.15

Last Calib.: 2011.12.15

Start Time: 12:35:00      End Time: 19:43:58

Time On Btm: 2011.12.15 @ 14:56:58

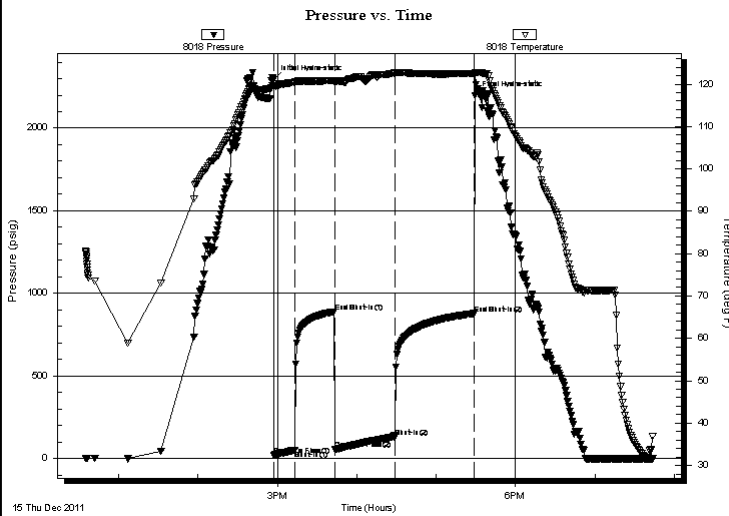
Time Off Btm: 2011.12.15 @ 17:29:18

**TEST COMMENT:** IF- Weak Surface Blow Built to 2"

IS- No Blow

FF- Weak Surface Blow Built to 1"

FS- No Blow



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2296.13	120.06	Initial Hydro-static
1	19.11	119.34	Open To Flow (1)
16	50.42	120.32	Shut-In(1)
47	889.14	120.80	End Shut-In(1)
47	52.88	120.23	Open To Flow (2)
92	131.12	122.56	Shut-In(2)
152	877.67	122.49	End Shut-In(2)
153	2197.02	122.69	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
190.00	WCM 4%w 96%m	0.93

### Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE**  
TESTING, INC.

# DRILL STEM TEST REPORT

Carmen Schmit, Inc.  
PO Box  
Great Bend, KS 67530  
ATTN: Vern Schrag

4-20s-29w Lane, KS  
Gerstner "A" # 1-4  
Job Ticket: 44981      **DST#: 2**  
Test Start: 2011.12.15 @ 12:35:00

## GENERAL INFORMATION:

Formation: **Marmaton**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 14:57:17  
Time Test Ended: 19:43:58  
**Interval: 4438.00 ft (KB) To 4504.00 ft (KB) (TVD)**  
Total Depth: 4731.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Straddle (Reset)  
Tester: Will MacLean  
Unit No: 37  
Reference Elevations: 2862.00 ft (KB)  
2857.00 ft (CF)  
KB to GR/CF: 5.00 ft

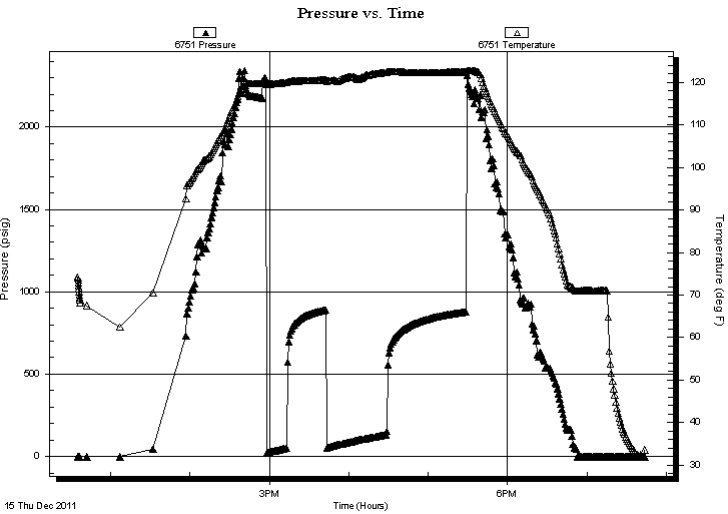
## Serial #: 6751

Outside

Press @RunDepth: psig @ 4439.00 ft (KB)  
Start Date: 2011.12.15 End Date: 2011.12.15  
Start Time: 12:35:02 End Time: 19:44:00

Capacity: 8000.00 psig  
Last Calib.: 2011.12.15  
Time On Btm:  
Time Off Btm:

TEST COMMENT: IF- Weak Surface Blow Built to 2"  
IS- No Blow  
FF- Weak Surface Blow Built to 1"  
FS- No Blow



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
190.00	WCM 4%w 96%m	0.93

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

Carmen Schmit, Inc.  
PO Box  
Great Bend, KS 67530  
ATTN: Vern Schrag

**4-20s-29w Lane, KS**  
**Gerstner "A" # 1-4**  
Job Ticket: 44981 **DST#: 2**  
Test Start: 2011.12.15 @ 12:35:00

**GENERAL INFORMATION:**

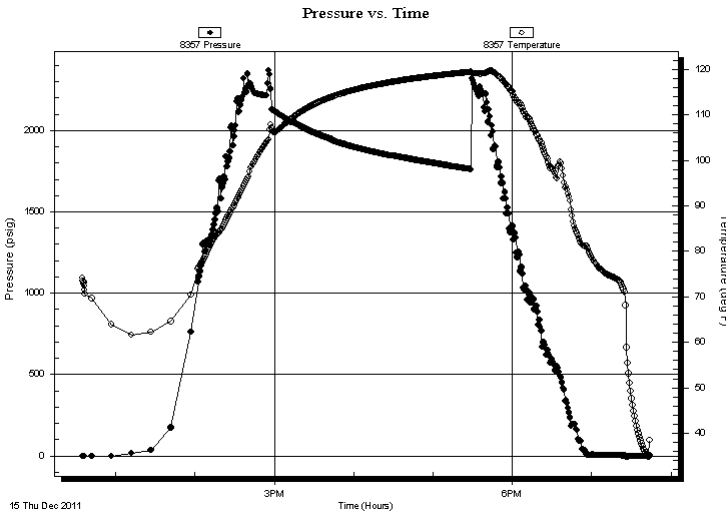
Formation: **Marmaton**  
Deviated: No Whipstock: ft (KB) Test Type: Conventional Straddle (Reset)  
Time Tool Opened: 14:57:17 Tester: Will MacLean  
Time Test Ended: 19:43:58 Unit No: 37  
Interval: **4438.00 ft (KB) To 4504.00 ft (KB) (TVD)** Reference Elevations: 2862.00 ft (KB)  
Total Depth: 4731.00 ft (KB) (TVD) 2857.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 5.00 ft

**Serial #: 8357 Below (Straddle)**

Press @ Run Depth: psig @ 4506.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2011.12.15 End Date: 2011.12.15 Last Calib.: 2011.12.15  
Start Time: 12:35:05 End Time: 19:43:59 Time On Btm:  
Time Off Btm:

**TEST COMMENT:** IF- Weak Surface Blow Built to 2"  
IS- No Blow  
FF- Weak Surface Blow Built to 1"  
FS- No Blow

**PRESSURE SUMMARY**



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

**Recovery**

Length (ft)	Description	Volume (bbl)
190.00	WCM 4%w 96% m	0.93

**Gas Rates**

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Carmen Schmit, Inc.  
PO Box  
Great Bend, KS 67530  
ATTN: Vern Schrag

**4-20s-29w Lane, KS**  
**Gerstner "A" # 1-4**  
Job Ticket: 44981      **DST#: 2**  
Test Start: 2011.12.15 @ 12:35:00

### Tool Information

Drill Pipe:	Length: 4140.00 ft	Diameter: 3.80 inches	Volume: 58.07 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 26000.00 lb
Drill Collar:	Length: 302.00 ft	Diameter: 2.25 inches	Volume: 1.49 bbl	Weight to Pull Loose: 10000.00 lb
			<u>Total Volume: 59.56 bbl</u>	Tool Chased: ft
Drill Pipe Above KB:	31.50 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4438.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	4504.00 ft			
Interval between Packers:	66.00 ft			
Tool Length:	318.50 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

### Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4411.50		
Shut In Tool	5.00			4416.50		
Hydraulic tool	5.00			4421.50		
Jars	5.00			4426.50		
Safety Joint	2.50			4429.00		
Packer	5.00			4434.00	27.50	Bottom Of Top Packer
Packer	4.00			4438.00		
Stubb	1.00			4439.00		
Recorder	0.00	8018	Inside	4439.00		
Recorder	0.00	6751	Outside	4439.00		
Perforations	24.00			4463.00		
Change Over Sub	1.00			4464.00		
Drill Pipe	31.00			4495.00		
Change Over Sub	1.00			4496.00		
Perforations	4.00			4500.00		
Blank Off Sub	1.00			4501.00		
top of s pack	3.00			4504.00	66.00	Tool Interval
Packer	0.00			4504.00		
Stubb	1.00			4505.00		
Change Over Sub	1.00			4506.00		
Recorder	0.00	8357	Below	4506.00		
Drill Pipe	219.00			4725.00		
Change Over Sub	1.00			4726.00		
Bullnose	3.00			4729.00	225.00	Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>318.50</b>					



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Carmen Schmit, Inc.  
PO Box  
Great Bend, KS 67530  
ATTN: Vern Schrag

**4-20s-29w Lane, KS**  
**Gerstner "A" # 1-4**  
Job Ticket: 44981      **DST#: 2**  
Test Start: 2011.12.15 @ 12:35:00

## Mud and Cushion Information

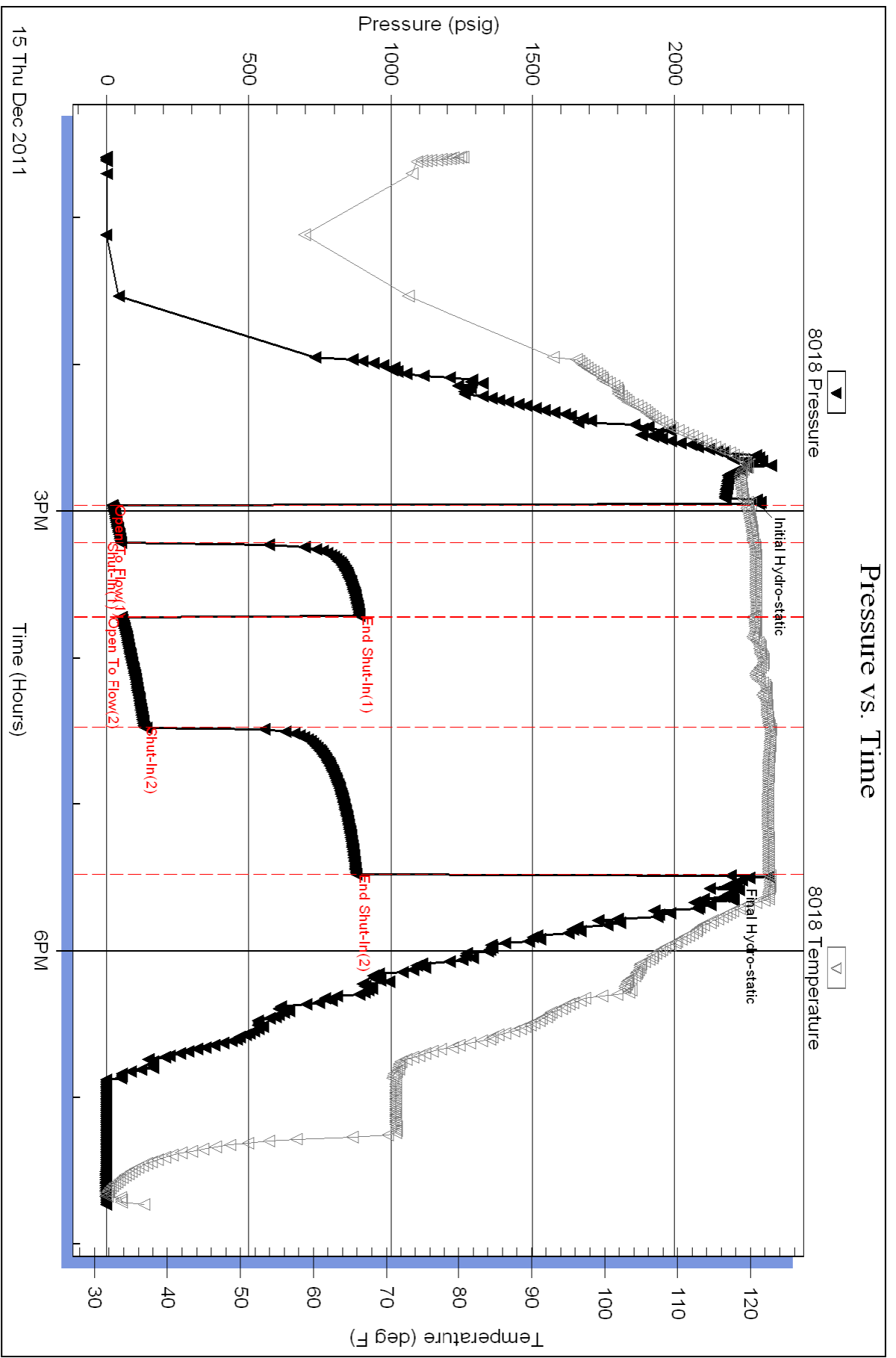
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 52.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.96 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2900.00 ppm			
Filter Cake: 1.00 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
190.00	WCM 4%w 96%m	0.934

Total Length: 190.00 ft      Total Volume: 0.934 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:



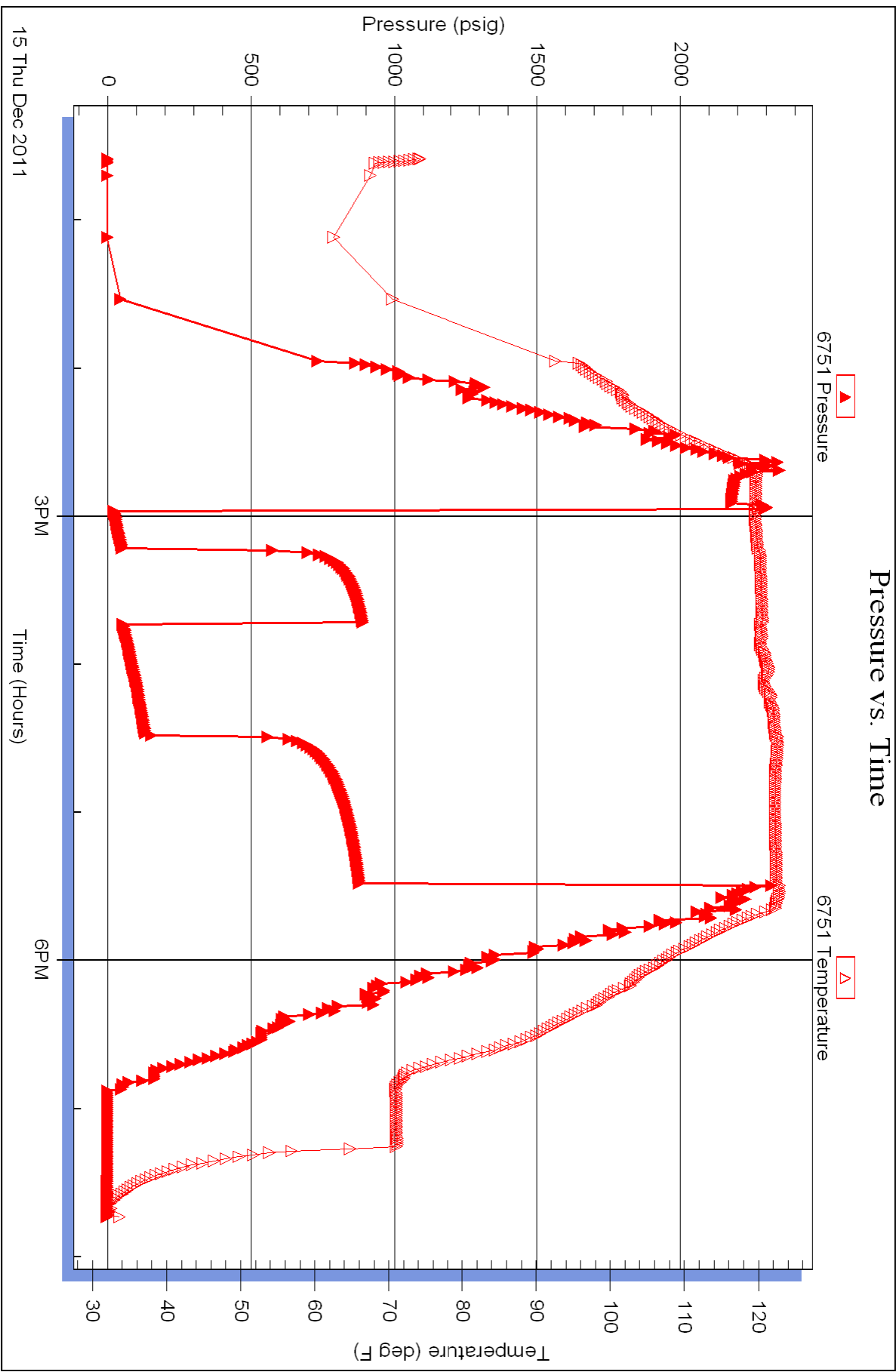
Serial #: 6751

Outside

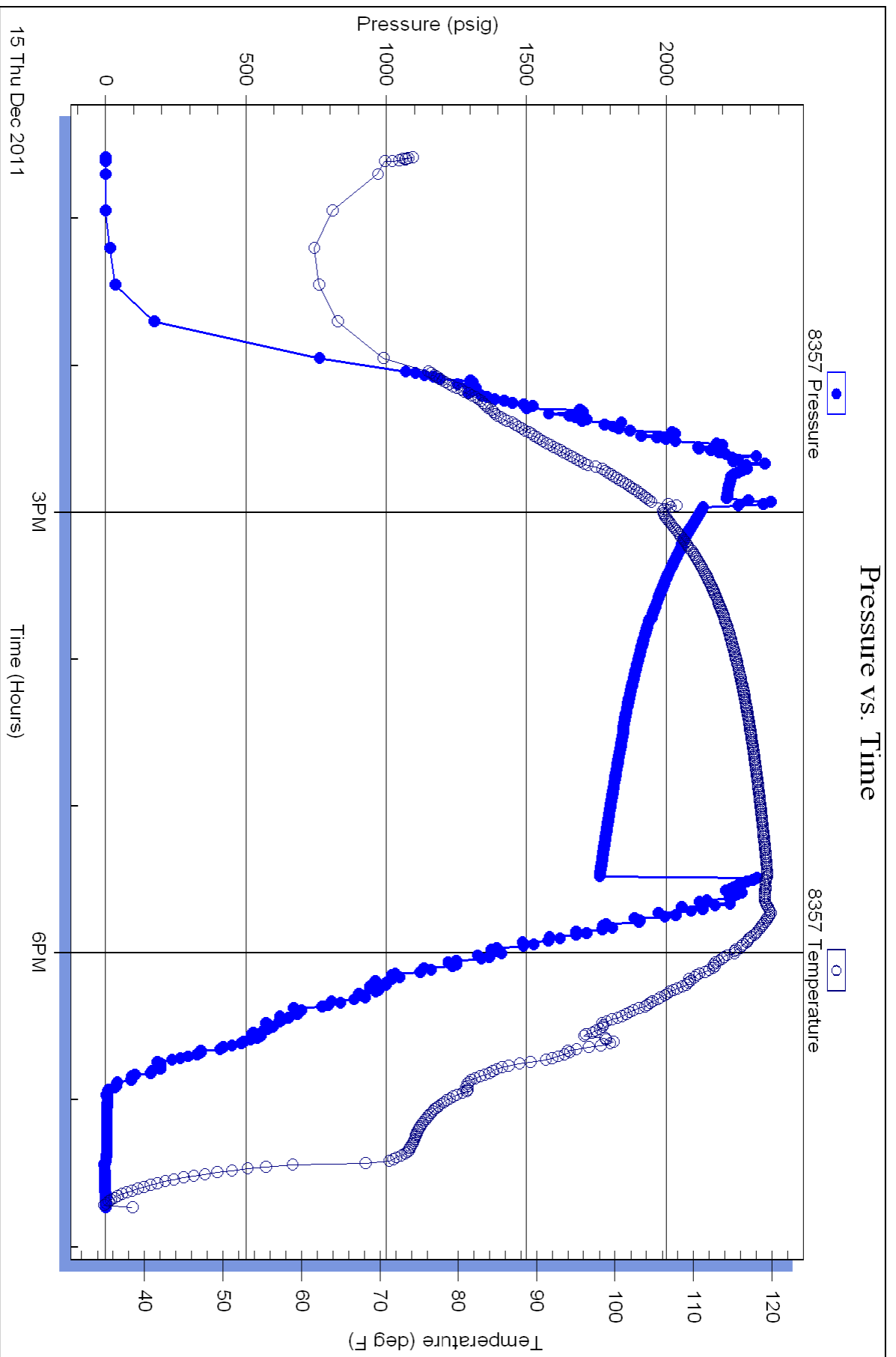
Carmen Schmitt, Inc.

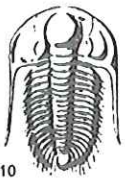
Gerstner "A" # 1-4

DST Test Number: 2









# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED  
DEC 16 2011

## Test Ticket

NO. 45495

4/10

BY: \_\_\_\_\_

Well Name & No. Geerstner A #1 Test No. 1 Date 12-14-11  
 Company Carmen Schmit, Inc. Elevation 2862 KB 2857 GL  
 Address POB 47 Great Bend, KS 67530  
 Co. Rep / Geo. Vern Schrag Rig Mallard JV  
 Location: Sec. 4 Twp. 20s Rge. 29w Co. Lane State Ks

Interval Tested 4534 - 4615 Zone Tested Pawnee  
 Anchor Length 81 Drill Pipe Run 4268 Mud Wt. 9.5  
 Top Packer Depth 4530 Drill Collars Run 242 Vis 50  
 Bottom Packer Depth 4534 Wt. Pipe Run 0 WL 10.4  
 Total Depth 4615 Chlorides 2200 ppm System LCM 1  
 Blow Description 1/2" Blow receded to surface blow,  
No return.  
No blow.  
No return.

Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>10</u>	Feet of <u>M</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 Total 10 BHT 116 Gravity - API RW @ - °F Chlorides - ppm

(A) Initial Hydrostatic 2369  Test 1225' T-On Location 7:30  
 (B) First Initial Flow 27  Jars 250' T-Started 7:50  
 (C) First Final Flow 22  Safety Joint 75' T-Open 10:20  
 (D) Initial Shut-In 565  Circ Sub N/C T-Pulled 11:18  
 (E) Second Initial Flow 24  Hourly Standby \_\_\_\_\_ T-Out 13:08  
 (F) Second Final Flow 26  Mileage 72 RT 100.80 Comments \_\_\_\_\_  
 (G) Final Shut-In 55  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2342  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 15  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In 30  Day Standby \_\_\_\_\_ Total 1650.80  
 Final Flow 7  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 6 Sub Total 1650.80

Approved By Vern Schrag Our Representative Chuck Smith

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



# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED  
DEC 19 2011

## Test Ticket

NO. 44981

4/10

Well Name & No. Gerstner A # 1-4 Test No. DST # 2 Date 12-15-11  
 Company Carmen Schmit, Inc Elevation 2862 KB 2857 GL  
 Address P.O. Box 47 Great Bend KS 67530  
 Co. Rep / Geo. Vern Schrag Rig Mallard JV  
 Location: Sec. 4 Twp. 20s Rge. 29w Co. Lane State KS

Interval Tested 4438-4504 Zone Tested Marmaton  
 Anchor Length 66 Drill Pipe Run 4140 Mud Wt. 9.4  
 Top Packer Depth 4438 Drill Collars Run 302 Vis 52  
 Bottom Packer Depth 4504 Wt. Pipe Run 0 WL 8.0  
 Total Depth 4731 Chlorides 2900 ppm System LCM 1/216

Blow Description IF - Weak Surface Blow Built to 2"  
ISI - No Blow  
FF - Weak Surface Blow Built to 1"  
FSI - No Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>190</u>	<u>WCM</u>			<u>4</u>	<u>96</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

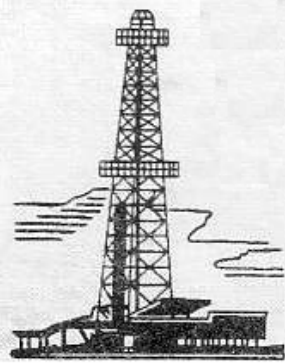
Rec Total 190 BHT 117 Gravity 1225 API RW 72 @ 100.80 °F Chlorides 2900 ppm

(A) Initial Hydrostatic 2296  Test 1225 T-On Location 11:08 AM  
 (B) First Initial Flow 19  Jars 250 T-Started 12:35  
 (C) First Final Flow 50  Safety Joint 75 T-Open 14:57  
 (D) Initial Shut-In 889  Circ Sub 50 T-Pulled 17:32  
 (E) Second Initial Flow 52  Hourly Standby \_\_\_\_\_ T-Out 19:43  
 (F) Second Final Flow 131  Mileage 72 R/T 100.80 Comments \_\_\_\_\_  
 (G) Final Shut-In 877  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2197  Straddle 600  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder 200 Sub Total 0  
 Day Standby \_\_\_\_\_ Total 2500.80  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 2500.80

Initial Open 15  
 Initial Shut-In 30  
 Final Flow 45  
 Final Shut-In 60

Approved By Vernon C Schrag Our Representative Kim Mal

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



# WELLSITE GEOLOGIST'S REPORT

VERNON C. SCHRAG  
CONSULTANT GEOLOGIST



Scale 1:240 (5"=100') Imperial

Well Name: GERSTNER 'A' #1-4  
Location: SE NE SE Sec. 04-20s-29w  
Licence Number: API: 15-101-22339  
Spud Date: December 05, 2011  
Surface Coordinates: 1650' FSL, 330'FEL

Region: Lane Co., KS  
Drilling Completed: December 15, 2011

Bottom Hole Coordinates:	Vertical Hole
Ground Elevation (ft): 2857'	K.B. Elevation (ft): 2862'
Logged Interval (ft): 3500'	To: RTD Total Depth (ft): 4731'
Formation: Mississippi	
Type of Drilling Fluid: Chemical Premix (Displaced)	

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 [www.WellSight.com](http://www.WellSight.com)

## OPERATOR:

Company: CARMEN SCHMITT, INC.  
Address: P.O. Box 47  
Great Bend, KS 67530

## DRILLING CONTRACTOR:

MALLARD, J.V., INC., RIG #2

DP 4.5" XH (16.6#); DC 6.25" x 2.25" x 485.12', Kelly + Bit 41.00', Tool Joint 5.5" ; Bit: F27, 7-7/8", jets 14-14-14; Kelly Bushing 5' above ground level; Lavon Urban (Tool Pusher).

## SURFACE CASING:

Set 8-5/8" (23#) casing at 219'

## CIRCULATION SYSTEM:

Pump: Continental EMSCO D-375, duplex, 6 x 14, 56 spm, Chemical, premix, displaced about 3521'; earth pits, Mud- Co/Service Mud, Inc., Tyler Lang.

## GAS DETECTION SYSTEM:

USB-1208LS-213 portable hot-wire, Delphian 3.0 volt catalytic bead combustible gas detector.

**DRILL STEM TEST #1:**

Zone: Pawnee thru Ft. Scott: Test Interval: 4534-44615' (81' anchor); Blow: weak 1/2" decreasing IFP, no blow FFP; Time Periods: 15-30-5-TOH; Recovery: 10' mud, no show; Pressures: HP: 2369-2342; SIP: 565-no FSIP; FP: 27-22, 24-26; BHT: 116 deg F; dual packers, jars, joints, 242' collars; Trilobite Testing, Inc., Chuck Smith.

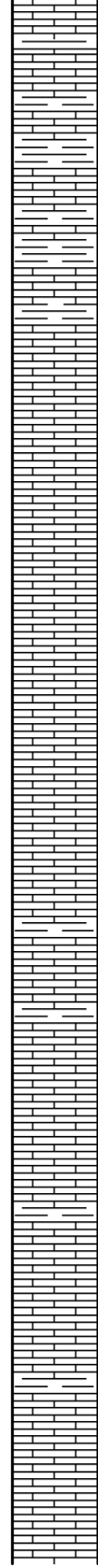
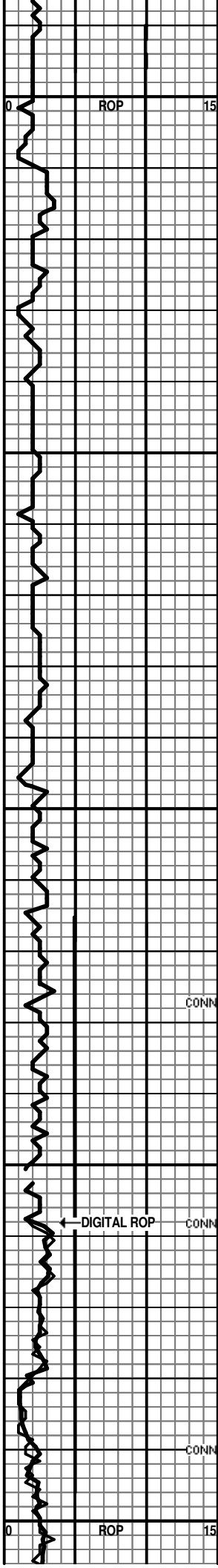
**DAILY ACTIVITY (7am):**

12/06: MIRT  
 12/07: SPUD  
 12/08: Drilling 374'  
 12/09: Drilling 2280'  
 12/10: Drilling 3010'  
 12/11: Drilling 3513', Call 3530' 7:30 am  
 12/12: CFS 4090  
 12/13: Drilling 4385'  
 12/14: DST #1 4615'  
 12/15: RTD 4731' (2:37 am)

**WELLSITE GEOLOGIST:**

Vern Schrag

ROP		DST	Lithology	Porosity and Show	Depth	Geological Descriptions	Total Gas	
ROP (min/ft)	dROP						TG (units)	
0	15				3500	ANHYDRITE 2189 (+673) B/ ANHY 2213 (+649)	0	100
START 20' SAMPLES						Siltst: green; micaceous; calcitic; tight; 3560.		
					3550	Shale: green, gray;		
						LS: lt-med brown; vf-xtal; granular; poor visible porosity; no shows.		
REFERENCE WELLS: THUNDERBIRD DRILLING, INC., HALLBICK #1, NE SE NW 3-20S-29W & ABERCROMBIE DRILLING CO., JEWETT #1, SE NW NE 9-20S-29W								



3600  
3650  
3700  
3750  
3800

LS: as above; trc crinoids; no shows;

LS: lt-med brown; vf-xtal; mostly dense; chalky in part; sli fos-frag; poor visible porosity; no shows;

LS: lt-brown; vf-xtal; sli granular; sli fos; no visible porosity; no shows.

LS: lt-brown, sli mottled dk gray; vf-xtal; scattered fine vugular & pin-point porosity; no shows.

LS: lt-brown w/scattered dk gray shale inclusions; trc shell-frags; scattered fine vug & pin point porosity; no shows.

LS: even lt brown; vf-xtal; mostly dense to chalky in part; poor apparent porosity; no shows.

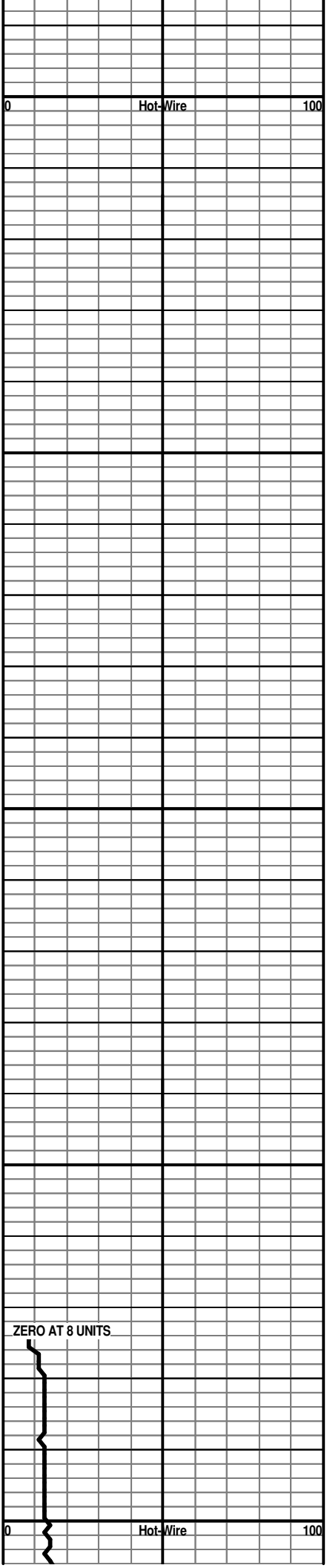
LS: lt brown w/ scattered dk brown & dk gray grains; vf-xtal; poor apparent porosity; no shows.

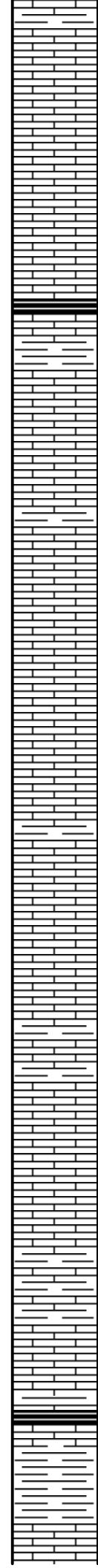
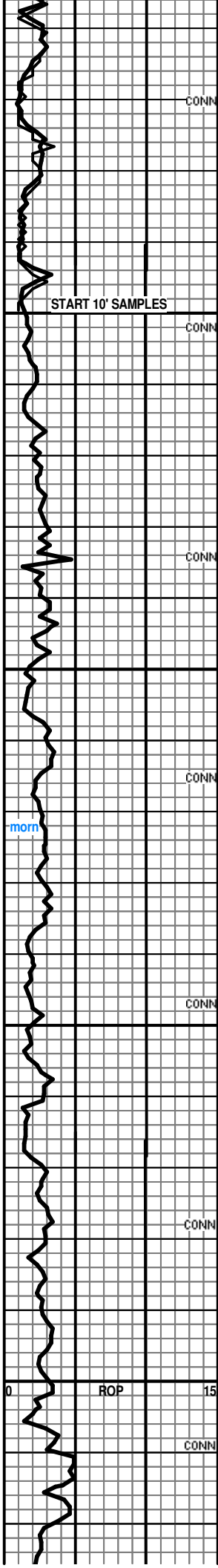
LS: lt-brown; vf-xtal; sli fos; scattered fine vug porosity; no shows;

LS: lt-brown, med-dk gray mottled; vf-xtal; sli fos; poor apparent porosity; no shows.

LS: lt-med brown; vf-xtal w/trc med imbedded calcites; poor apparent porosity; no shows.

LS: lt-brown w/ scattered dk gray fos-frag & grains; vf-xtal; poor apparent porosity; no shows.





LS: even lt brown; vf-xtal; rough textured; tight int xtal porosity; no shows;

LS: as above;

LS: even lt brown; vf-xtal; dense to chalky in part; poor apparent porosity; no shows.

3850

LS: even lt brown; vf-xtal; dense to chalky in part; sli granular; poor apparent porosity; no shows;

LS: lt-brown w/ scattered med-dk gray grains; vf xtal; sli fos; poor apparent porosity; no shows.

LS: as above

LS: lt-med brown; vf-xtal; finely granular in part; poor apparent porosity; no shows;

3900

LS: even lt brown; vf-xtal; rough textured; tight int xtal porosity; no shows.

LS: even lt brown; vf-xtal; dense; trc opa chert; no visible porosity; no shows.

LS: as above; w/shales

LS: lt-med brown; vf-xtal; dense; no visible porosity; no shows;

LS: med brown; vf-xtal; dense to chalky in part; no apparent porosity; no shows;

3950

LS: lt-med brown; vf-xtal; sli fos; sli granular; poor apparent porosity; no shows;

LS: lt-med brown; vf-xtal; chalky in part; poor apparent porosity; no shows;

Shale & shaley lime: dk brown; fos; no apparent porosity; no shows; 4000;

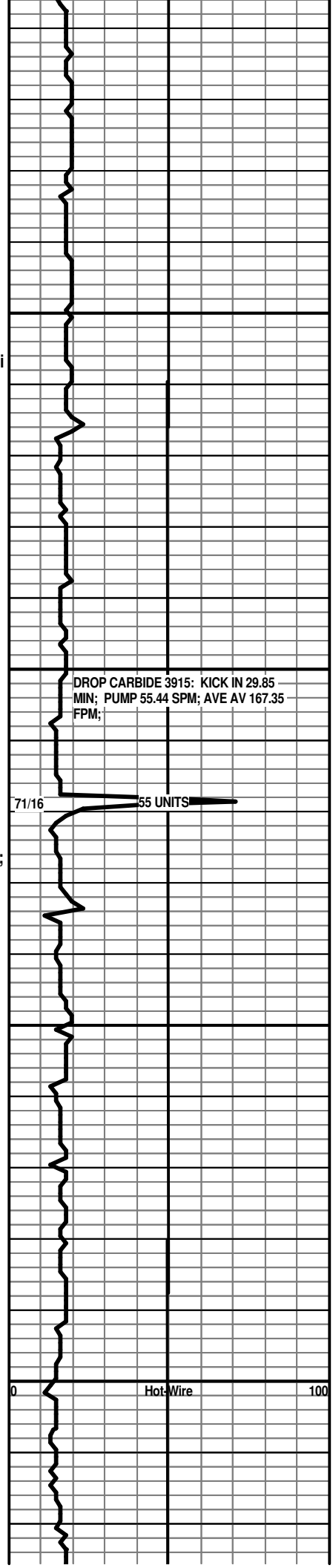
LS: even lt brown; vf-xtal; v-tight int xtal por; no shows;

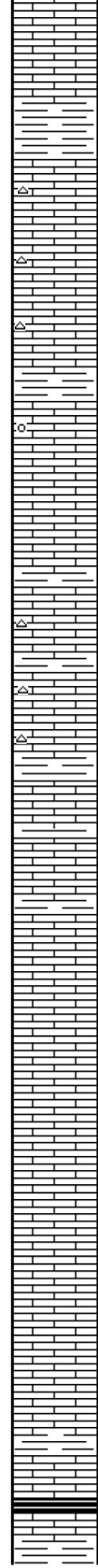
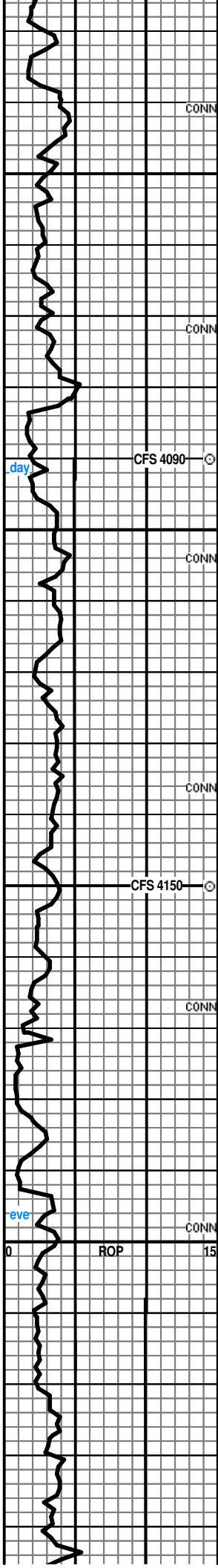
4000

**HEEBNER 4004 (-1142)**  
 Shale: black; carbonaceous; 4020.

Shale: green, greenish gray;

LS: lt-brown; vf-xtal; dense to chalky in part; distinctive dull yel fluor; poor apparent por; no shows; 4030.





4050  
LS: white, lt brown; mic-vf xtal; very chalky; poor porosity; dull yel fluor; no shows; 4040.

LS: lt-brown; vf-xtal; much lt brown to lt gray, opaq chert; trace fine vug porosity; no shows;

LS: as above;

4100  
LS: med brown; vf-xtal; med-crs grain suptd oolite; tight int ool porosity; no shows;

LS: lt-brown; vf-xtal; chalky to dense; scattered pin-point porosity; no shows;

LS: lt-brown; vf-xtal; dense to chalky in part; includes much lt brown, semi-trans chert; poor apparent porosity; no shows;

LS: lt-brown; vf-xtal; mostly dense, chalky in part; sli fos; cherty as above; no visible porosity; no shows;

4150  
LS: lt-med brown; vf-xtal; med-crs oolite; tight int ool porosity; no shows.

LS: lt brown; mic-vf xtal; chalky; poor apparent porosity; no shows;

LS: lt-brown; mic-vf xtal; chalky; scattered pin point porosity; no shows;

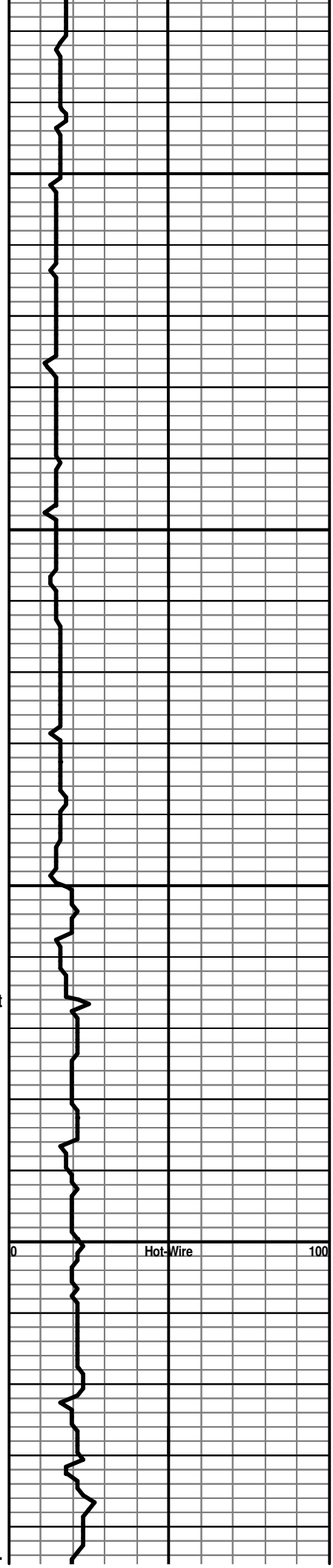
LS: lt-brown; vf-f xtal; tight int xtal & trace fine oomoldic porosity; no shows;

LS: lt-brown; vf-xtal; chalky; trc oomoldic porosity; no shows;

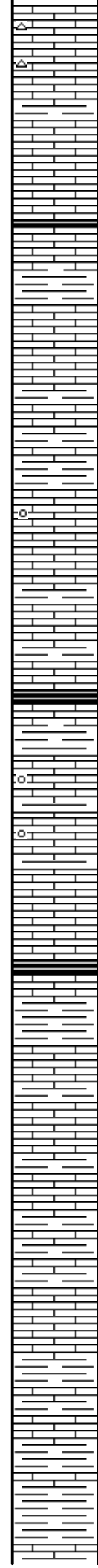
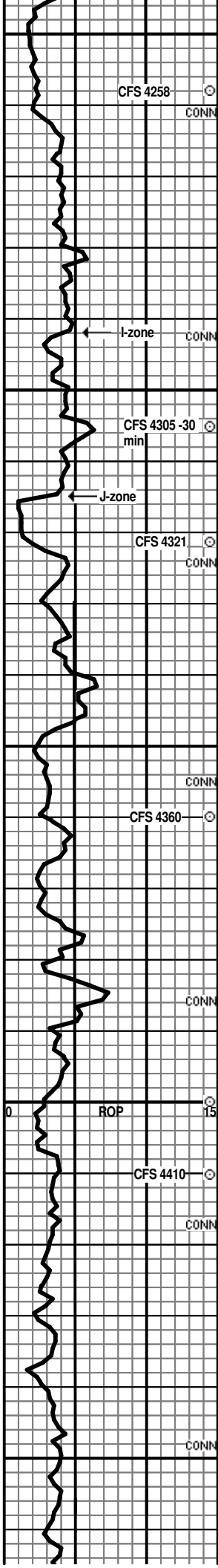
4200  
LS: white, lt brown; mic-vf xtal; chalky; no visible porosity; no shows;

LS: as above;

LS: lt brown, lt gray; vf-xtal; dense; no visble porosity; no shows;  
**MUNCIE CREEK 4236 (-1374)**  
Shale: black; carbon; 4250  
LS: med-dk brown; vf-xtal; sli fos; dense; smokey, semi-trans chert; no visible porosity; no shows; 4250.







4250  
4300  
4350  
4400  
4450

LS: lt brown; vf-xtal; finely oolitic in part; chalky in part; includes much white - lt gray, semi-opaq chert; scattered fine vug porosity; no shows; show.

LS: lt brown; vf-xtal; dense to chalky; cherty as above; poor apparent porosity; no shows;

LS: med- dark brown; vf-xtal; dense; blocky; sli fos; no visible porosity; no shows; 4290.

Shale: gray, green

LS: lt-med brown; vf-xtal; dense to chalky in part; sli oolitic; poor apparent porosity; no shows;

LS: v-lt brown; vf-xtal; fine-med oolitic-oom; fair oomoldic porosity; no shows; 60 min.

LS: lt-brown; vf-xtal; dense; poor apparent porosity; no shows;

LS: lt-brown; vf-xtal; tight int xtal porosity; no shows;

**STARK SH 4342 (-1480)**  
Shale: black; carbon; 4350.

Marl: white; soft;

LS: lt brown; vf-xtal; oolitic in part; chalky; tight inter oolite porosity; no shows;

LS: lt-brown; vf-xtal; dense oolite; no visible porosity; no shows;

LS: lt grayish brown; vf-xtal; dense to chalky in part; scattered dk gray fos frags & pellets; poor apparent porosity; no shows;

**HUSHPUCKNEY 4380 (-1518)**  
Shale: black; carbon; 4390.

LS: lt-med brown; vf-xtal; dense; blocky; no visible porosity; no shows.

LS: lt-grayish brown; vf-xtal; oolitic; trc gray, opa chert; dense to chalky; scattered pin-point porosity; no shows;

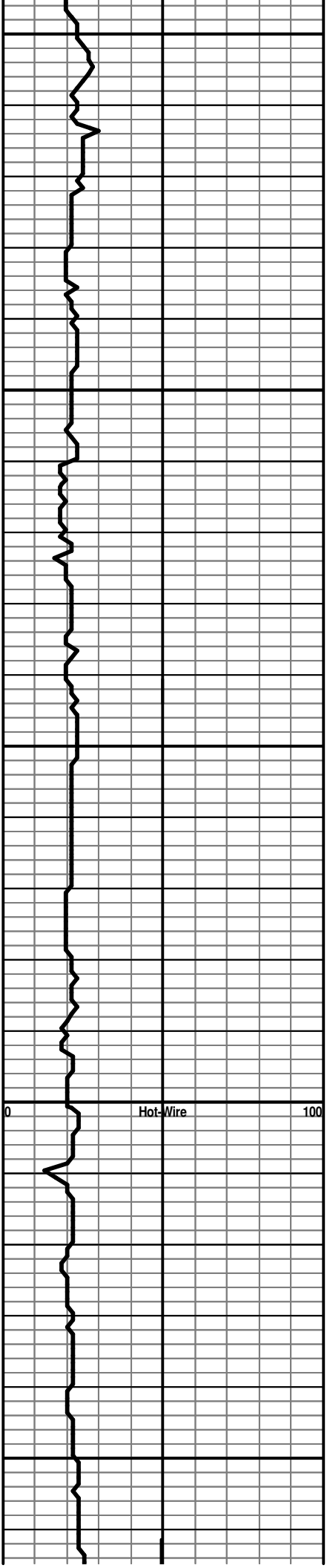
LS: lt grayish brown; vf-xtal; chalky; scattered fine vug & trace oom porosity; no shows;

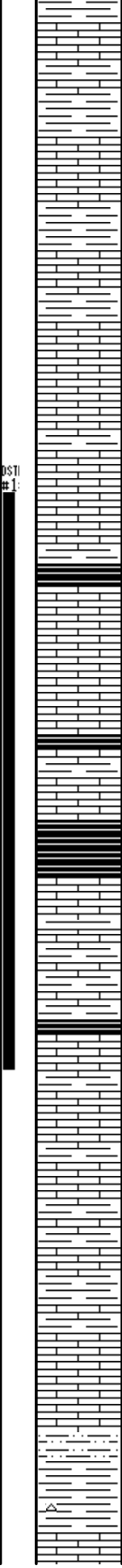
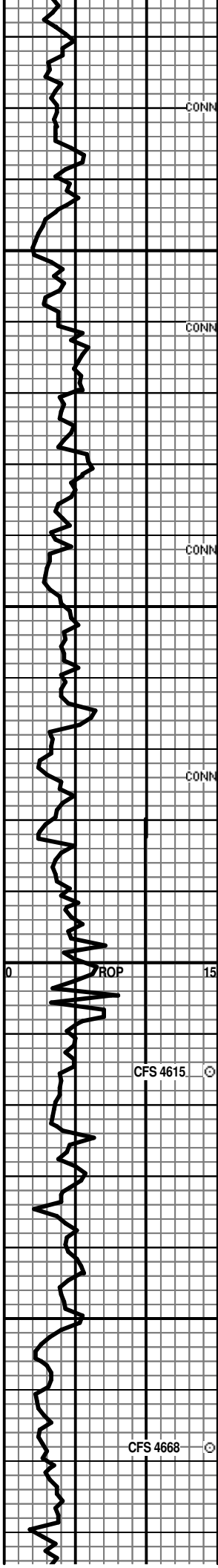
LS: white, lt gray; mic-vf xtal; chalky; no visible porosity; no shows;

LS: white, lt grayish brown; mic-vf xtal; dense to chalky in part; poor apparent porosity; no shows;

LS: lt-med grayish brown; vf-xtal; mostly dense; with much shale; no shows;

LS: lt gray; vf-xtal; chalky to argill; no visible porosity; no shows;





LS: gray; vf-xtal; chalky; trc white opa q chert; no visible porosity; no shows;

LS: grayish brown; vf-xtal; dense; no visible porosity; no shows;

4500  
LS: grayish brown; vf-xtal; finely granular in part; no visible porosity; no shows;

LS: lt gray; vf-xtal; sli chalky; no visible porosity; no shows;

LS: lt-med gray; vf-xtal; dense; trc orange- red chert; dense; no visible porosity; no shows; 4540.

4550  
Shale: very dk gray, black; trace 4560.  
**PAWNEE 4548 (-1686)**  
LS: very lt-brown; mic-vf xtal; dense; smooth; trc milky, opa q chert; dull yel mineral fluor; no visible por; no shows; 4560.

Shale: black; carbon;

LS: lt-med grayish brown; vf-xtal; mostly dense; trace black stain; questionable trace micro-drops black oil; no odor or fluor;

LS: lt-med grayish brown; vf-xtal; sli oolitic; mostly dense; no visible porosity; no shows.

4600  
LS: mostly lt brown; vf-xtal; chalky; sli granular; shaley in part; no shows.

LS: dark browns; vf-xtal; sli cherty; brittle; dense; dk sh contact; no visible porosity; no shows; trc spotted fluor;

LS: lt-med gray; vf-xtal; finely granular; dense; no visible porosity; no shows;

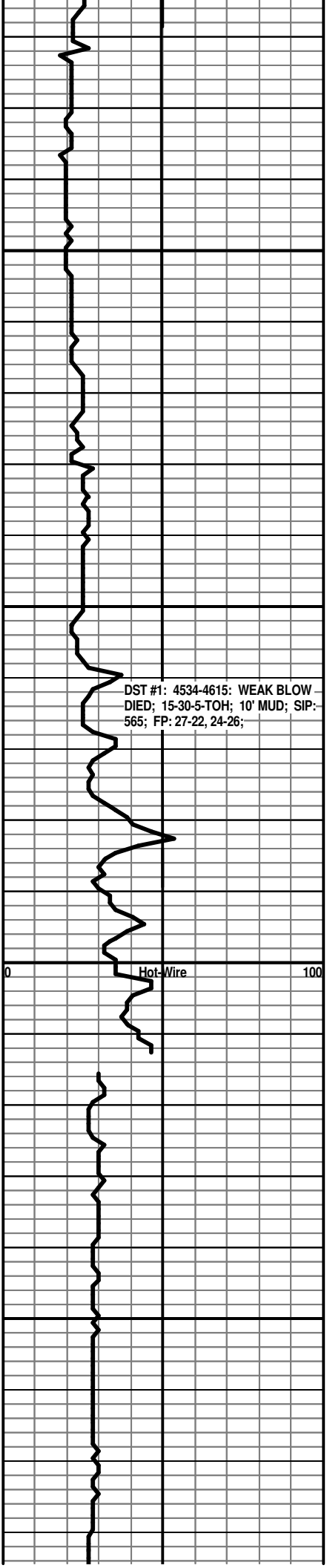
LS: grayish brown; mic-vf xtal; dense; platey; no visible porosity; no shows;

LS: lt-med gray; vf-xtal; dense; sli fos; sli granular in part; no visible porosity; no shows;

4650  
LS: grayish brown; vf-xtal; dense; sli fos; trc possible lt brown spotted stain & vf-vug porosity (dry), no wet show;

Siltst: white; vf-grain; tight; no shows; 30 min.

Shale: gray, green; trc oxidized chert;  
**MISS 4679 (-1817)**  
LS: lt-med brown; trc dark brown; vf-xtal; dense; sli



DST #1: 4534-4615: WEAK BLOW  
DIED; 15-30-5-TOH; 10' MUD; SIP:  
565; FP: 27-22, 24-26;

Hot-Wire

LS: lt-med brown, trc dark brown; vf-xtal; dense; sli oolitic; no visible porosity; no shows;

4700

LS: lt-med brown; vf-xtal; dense grain packed oolite; v-poor int ool porosity at best; no shows. 4720.

**SPERGEN 4711 (-1849)**

Dol: lt-med brown same as above; sli gray mottle in part; vf-xtal; v-finely sucrosic; inconspicuous; tight int xtal porosity; no visible vug porosity; no shows; 30 min, incr after;

CFS 4721

CFS 4731

RTD 4731  
12/15-2:37am

LOG-TECH LTD 4729'