



**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
- Conv. to GSW
- Plug Back: \_\_\_\_\_ Plug Back Total Depth \_\_\_\_\_
- 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

County: \_\_\_\_\_

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

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

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total 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**

- Letter of Confidentiality Received  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_



1082634

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

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

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

Drill Stem Tests Taken <input 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 Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i>  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
_____ Perforate _____ Protect Casing _____ Plug Back TD _____ Plug Off Zone				

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

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

PO Box 31  
Russell, KS 67665

Invoice Number: 129889

Invoice Date: Jan 9, 2012

Page: 1

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

*Charged*

*Pd ck# 3004 1-27-12*

**Bill To:**

Carrie Exploration & Development LLC  
210 West 22nd Street  
Hays, KS 67601

Federal Tax I.D.#: 20-5975804

Customer ID	Well Name# or Customer P.O.	Payment Terms	
Carrie	Kay #C-1	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS2-01	Great Bend	Jan 9, 2012	2/8/12

Quantity	Item	Description	Unit Price	Amount
200.00	MAT	Class A Common	16.25	3,250.00
4.00	MAT	Gel	21.25	85.00
7.00	MAT	Chloride	58.20	407.40
211.00	SER	Handling	2.25	474.75
10.00	SER	Mileage	23.21	232.10
1.00	SER	Surface	1,125.00	1,125.00
10.00	SER	Heavy Vehicle Mileage	7.00	70.00
10.00	SER	Light Vehicle Mileage	4.00	40.00
1.00	EQP	8 5/8 Wooden Plug	94.00	94.00
1.00	EQUIP OPER	Bobby Roller		
1.00	OPER ASSIST	Dustin Chambers		
1.00	OPER ASSIST	Vince Pack		
1.00	OPER ASSIST	Kevin Weighous		

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

**\$1258.28**

ONLY IF PAID ON OR BEFORE  
Feb 3, 2012

Subtotal	5,778.25
Sales Tax	280.06
Total Invoice Amount	<del>6,058.31</del>
Payment/Credit Applied	
<b>TOTAL</b>	<del>6,058.31</del>

1258.28

*4500.02*

# ALLIED CEMENTING CO., LLC. 042358

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:  
Great Bend, KS

DATE <u>1-9-12</u>	SEC. <u>36</u>	TWP. <u>19</u>	RANGE <u>11</u>	CALLED OUT	ON LOCATION	JOB START <u>1-9-12 145am</u>	JOB FINISH <u>215am</u>
LEASE <u>Kag</u>	WELL # <u>C-1</u>	LOCATION <u>Ellinwood Jcs Easton 56</u>			COUNTY <u>Butler</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one)		<u>4 miles to Rd 150 3/4 n E into</u>					

CONTRACTOR Carrie Exploration Southwind Rig #6 OWNER Carrie Exploration

TYPE OF JOB Surface

HOLE SIZE <u>12 1/4</u>	T.D. <u>265</u>	CEMENT
CASINO SIZE <u>8 5/8</u>	DEPTH <u>260</u>	AMOUNT ORDERED <u>200 sq COM 3% CO.</u>
TUBING SIZE	DEPTH	<u>2% gel</u>
DRILL PIPE <u>4 1/2</u>	DEPTH <u>265</u>	
TOOL	DEPTH	

PRES. MAX	MINIMUM	COMMON <u>200</u>	@ <u>16.25</u>	<u>3250.00</u>
MEAS. LINE	SHOE JOINT	POZMIX	@	
CEMENT LEFT IN CSG. <u>1564</u>		GEL <u>4</u>	@ <u>21.25</u>	<u>85.00</u>
PERFS.		CHLORIDE <u>7</u>	@ <u>58.20</u>	<u>407.40</u>
DISPLACEMENT <u>Freshwater</u>		ASC	@	

EQUIPMENT				
PUMP TRUCK CEMENTER <u>Bob R.</u>				
# <u>366</u> HELPER <u>Justin C.</u>				
BULK TRUCK				
# <u>344-170</u> DRIVER <u>Ynee P / Kevin W.</u>				
BULK TRUCK				
#	DRIVER			

REMARKS:  
Pipe on bottom break circulation with rig mud,  
Mix 200 sq com 3% CO 2% gel  
shut down release plug and displace with  
freshwater and shut in,  
Cement did circulate

HANDLING <u>211</u>	@ <u>2.25</u>	<u>474.75</u>
MILEAGE <u>211 x 10 x .11</u>	<u>232.10</u>	<u>232.00</u>
TOTAL		<u>4,449.25</u>

CHARGE TO: Carrie Exploration  
 STREET \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

SERVICE

DEPTH OF JOB <u>260</u>		
PUMP TRUCK CHARGE		<u>1125.00</u>
EXTRA FOOTAGE	@	
MILEAGE <u>Hum 10</u>	@ <u>7.00</u>	<u>70.00</u>
MANIFOLD	@	
<u>Lum 10</u>	@ <u>4.00</u>	<u>40.00</u>
TOTAL		<u>1235.00</u>

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.

PLUG & FLOAT EQUIPMENT

<u>release plug</u>	@ <u>94.00</u>	<u>94.00</u>
	@	
	@	
	@	
	@	
TOTAL		<u>94.00</u>

PRINTED NAME Wesley P. Pflf  
 SIGNATURE Wesley P. Pflf

SALES TAX (If Any) \_\_\_\_\_  
 TOTAL CHARGES 5,798.25  
 DISCOUNT 588.28 1,258.98  
 IF PAID IN 30 DAYS  
4,519.97



P. O. Box 466  
 Ness City, KS 67560  
 Off: 785-798-2300



# Invoice

DATE	INVOICE #
1/15/2012	21206

BILL TO
Carrie Exploration & Development 210 West 22nd Street Hays, KS 67601

*Charged*

- Acidizing
- Cement
- Tool Rental

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#1	Kay C-	Barton	SouthWind Drilling	Oil	Development	LongString	Nick
PRICE REF.	DESCRIPTION				QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way				70	Miles	6.00	420.00
578D-L	Pump Charge - Long String - 3400 Feet				1	Job	1,500.00	1,500.00
221	Liquid KCL (Clayfix)				5	Gallon(s)	25.00	125.00T
280	Flocheck 21				330	Gallon(s)	2.50	825.00T
290	D-Air				2	Gallon(s)	35.00	70.00T
402-5	5 1/2" Centralizer				7	Each	70.00	490.00T
403-5	5 1/2" Cement Basket				2	Each	250.00	500.00T
404-5	5 1/2" Port Collar				1	Each	2,400.00	2,400.00T
406-5	5 1/2" Latch Down Plug & Baffle				1	Each	250.00	250.00T
407-5	5 1/2" Insert Float Shoe With Auto Fill				1	Each	350.00	350.00T
419-5	5 1/2" Rotating Head Rental				1	Each	200.00	200.00T
325	Standard Cement				175	Sacks	13.50	2,362.50T
276	Flocele				50	Lb(s)	2.00	100.00T
283	Salt				900	Lb(s)	0.20	180.00T
284	Calseal				8	Sack(s)	35.00	280.00T
286	Halad-1 (Halad 9)				100	Lb(s)	7.50	750.00T
581D	Service Charge Cement				175	Sacks	2.00	350.00
583D	Drayage				640.5	Ton Miles	1.00	640.50
	Subtotal							11,793.00
	Sales Tax Barton County						7.30%	648.42

*pd-1-30-12  
 # 3019*

**Thank You For Your Business In 2011!  
 We Look Forward To Serving You In 2012!**

**Total** \$12,441.42

**JOB LOG**

**SWIFT Services, Inc.**

DATE 1-15-12 PAGE NO. 1

CUSTOMER Carrie Exploration WELL NO. C #1 LEASE Kay JOB TYPE Longstring TICKET NO. 21206

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	2300							0A100 w/FE
								RTD 3400' LTD 3399'
								5 1/2" x 14 # x 3396' x 42'
								Cent 1-6, 52
								Bask 3, 53
								P.C. 53 @ <del>1300'</del> 1668'
	0230							Start FE
	0445							Break Circ.
	0820	2.5	7/5					Plug RT <del>RT</del> 30/20 sks EA-2
	0825	5	0				200	Start KCL flush 10 bbl
		5	10/0				200	Start 330 gal Flocheck 21
		5	8/0				200	Start 10 bbl KCL flush
		6	10/0				250	Start Cement 145 sks EA-2
	0537		35					End Cement wash PHL Drop LD Plug
	0540	6	0				200	Start Displacement
	0551	5	57				250	Catch Cement
	0555		82				600 1200	Load Plug Release Pressure F/Leat Held

Thank you

Nick, Josh F + Lane

# COPELAND

Acid & Cement

POST OFFICE BOX 438  
HAYSVILLE, KS 67060  
(316) 524-1225  
(316) 524-1027 FAX

Invoice

Page: 1

BURRTON, KS    ♦    GREAT BEND, KS  
(620) 463-5161    (620) 793-3366  
FAX (620) 463-2104    FAX (620) 793-3536

INVOICE NUMBER:  
C38819-IN

BILL TO:  
CARRIE EXPLORATION & DEV.  
210 WEST 22ND STREET  
HAYS, KS 67601

*Charged*

LEASE: ~~KAY C-1~~

*pd ck #2930  
1-27-12*

DATE	ORDER	SALESMAN	ORDER DATE	PURCHASE ORDER	SPECIAL INSTRUCTIONS	
01/26/2012	C38819		01/20/2012		NET 30	
QUANTITY	U/M	ITEM NO./DESCRIPTION		D/C	PRICE	EXTENSION
20.00	MI	CEMENT MILEAGE PUMP TRUCK		0.00	4.00	80.00
20.00	MI	CEMENT MILEAGE PU TRUCK		0.00	2.00	40.00
1.00	EA	CEMENT PUMP CHARGE		0.00	950.00	950.00
500.00	SAX	65-35 POZ MIX 2% GEL		0.00	9.25	4,625.00
18.00	SAX	4% ADDITIONAL GEL		0.00	20.00	360.00
518.00	EA	BULK CHARGE		0.00	1.25	647.50
458.00	MI	BULK TRUCK - TON MILES		0.00	1.10	503.80
<b>REMIT TO:</b> P.O. BOX 438 HAYSVILLE, KS 67060		COP		Net Invoice:		7,206.30
RECEIVED BY _____		FUEL SURCHARGE IS NOT TAXABLE AND IS ADDED TO MILEAGE, PUMP AND OR DELIVERY CHARGES ONLY.		BATCO Sales Tax:		69.35
		<b>NET 30 DAYS</b>		<b>Invoice Total:</b>		<b>7,275.65</b>

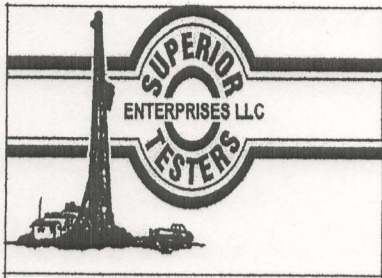
There will be a charge of 1.5% "per month" (18% annual rate) on all accounts over 30 days past due.

Copeland Acid & Cement is a subsidiary of Gressel Oil Field Service

Gressel Oil Field Service reserves a security interest in the goods sold until the same are paid for in full and reserve all the rights of a secured party under the Uniform Commercial Code







# DRILL STEM TEST REPORT

Carrie Exploration+Development  
 210 West 22ND Street Hays,67601  
 ATTN: Herb Deines

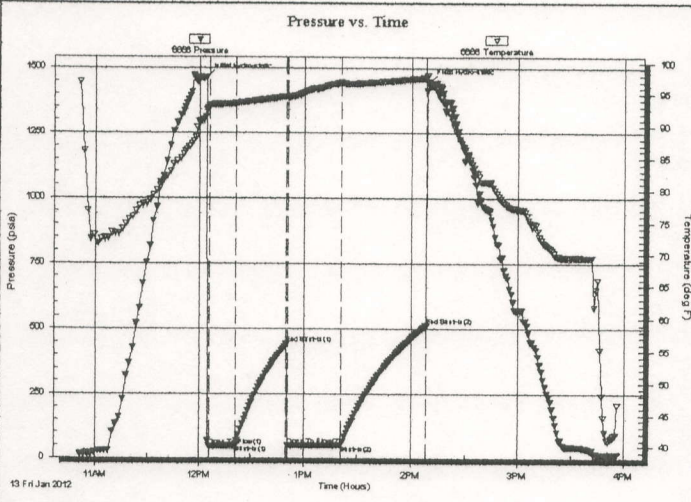
**36/19S/11W Barton Co.**  
**Kay C-1**  
 Job Ticket: 18865      **DST#: 1**  
 Test Start: 2012.01.13 @ 10:51:00

## GENERAL INFORMATION:

Formation: **Lansing "A-B" Zone**  
 Deviated: No      Whipstock:      ft (KB)  
 Time Tool Opened: 12:05:53  
 Time Test Ended: 15:55:53  
 Interval: **3000.00 ft (KB) To 3050.00 ft (KB) (TVD)**  
 Total Depth: 3050.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches      Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Dylan E Ellis  
 Unit No: 3345/Great Bend/38  
 Reference Elevations: 1773.00 ft (KB)  
 1763.00 ft (CF)  
 KB to GR/CF: 10.00 ft

**Serial #: 6666      Outside**  
 Press@RunDepth: 50.56 psia @ 3046.73 ft (KB)      Capacity: 5000.00 psia  
 Start Date: 2012.01.13      End Date: 2012.01.13      Last Calib.: 2012.01.13  
 Start Time: 10:51:00      End Time: 15:55:53      Time On Btm: 2012.01.13 @ 12:04:23  
 Time Off Btm: 2012.01.13 @ 14:09:53

**TEST COMMENT:** 1ST Opening 15 Minutes strong blow/blow blew to bottom of bucket in 2 minutes  
 1ST Shut-In 30 Minutes yes blow back/surface  
 2ND Opening 30 Minutes very strong blow/blow blew to bottom of bucket instantly  
 2ND Shut-In 45 Minutes yes blow back/surface



PRESSURE SUMMARY			
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1465.66	92.55	Initial Hydro-static
2	46.36	93.12	Open To Flow (1)
17	48.65	93.52	Shut-In(1)
46	441.19	94.65	End Shut-In(1)
47	50.29	94.53	Open To Flow (2)
77	50.56	96.89	Shut-In(2)
124	512.78	97.68	End Shut-In(2)
126	1447.88	96.50	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
20.00	Mud 100%	0.28
0.00	630' Gas in the pipe	0.00

Gas Rates			
	Choke (Inches)	Pressure (psia)	Gas Rate (Mcf/d)

DST Test Number: 1

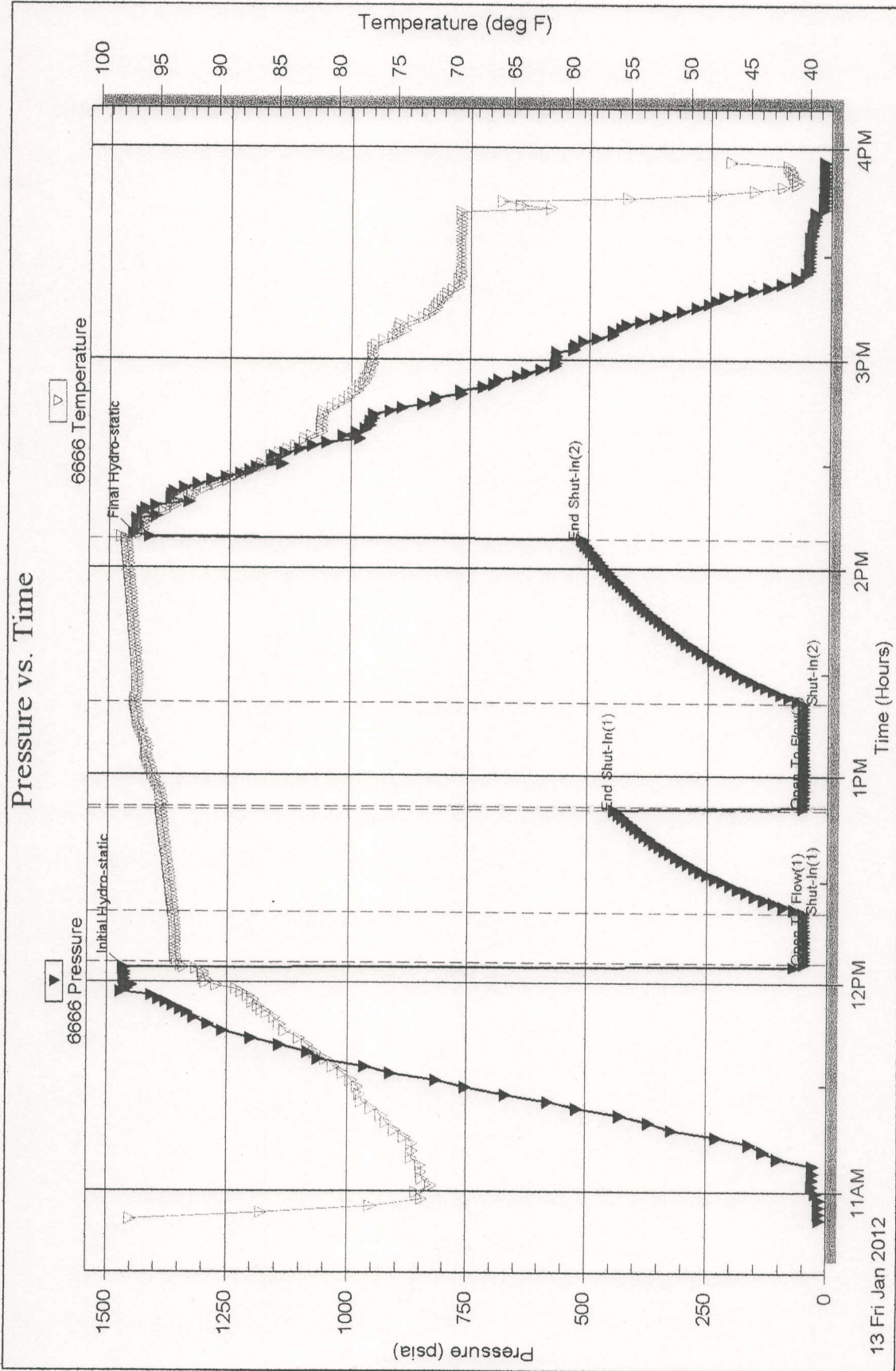
Kay C-1

Carrie Exploration+Development

Outside

Serial #: 6666

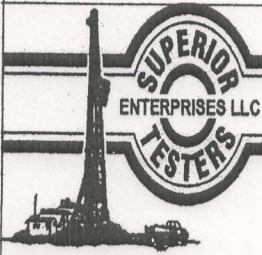
### Pressure vs. Time



Printed: 2012.01.13 @ 14:11:02

Ref. No: 18865

Superior Testers Enterprises LLC



# DRILL STEM TEST REPORT

Carrie Exploration+Development  
 210 West 22ND Street Hays, 67601  
 ATTN: Herb Deines

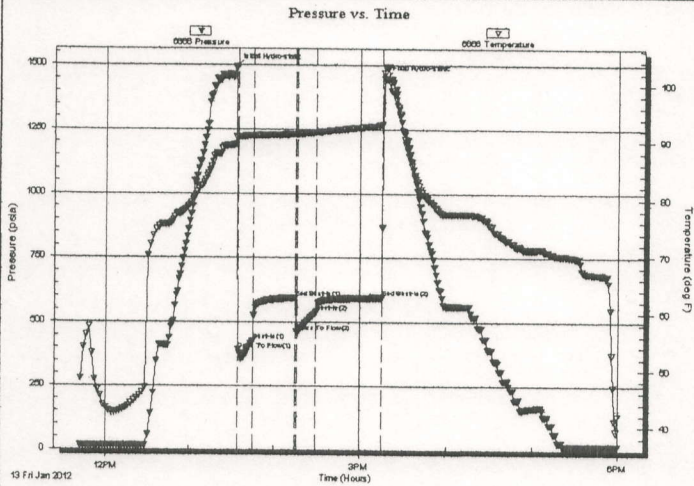
**36/19S/11W Barton Co.**  
**Kay C-1**  
 Job Ticket: 18866      **DST#: 2**  
 Test Start: 2012.01.13 @ 11:41:00

## GENERAL INFORMATION:

Formation: **Lansing "C,D,E,F" Z**  
 Deviated: No      Whipstock:      ft (KB)  
 Time Tool Opened: 13:34:30  
 Time Test Ended: 18:00:00  
 Interval: **3054.00 ft (KB) To 3094.00 ft (KB) (TVD)**  
 Total Depth: 3094.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches      Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Dylan E Ellis  
 Unit No: 3345/Great Bend/38  
 Reference Elevations: 1773.00 ft (KB)  
 1763.00 ft (CF)  
 KB to GR/CF: 10.00 ft

**Serial #: 6666      Outside**  
 Press@RunDepth: 537.03 psia @ 3091.00 ft (KB)      Capacity: 5000.00 psia  
 Start Date: 2012.01.13      End Date: 2012.01.14      Last Calib.: 2012.01.14  
 Start Time: 11:41:00      End Time: 18:00:00      Time On Btm: 2012.01.13 @ 13:32:30  
 Time Off Btm: 2012.01.13 @ 15:16:30

**TEST COMMENT:** 1ST Opening 10 Minutes very very strong blow /blow blew to bottom of bucket in 10 seconds  
 1ST Shut-in 30 Minutes yes building blow back/ 8 inches  
 2ND Opening 10 Minutes very very strong blow /blow blew to bottom of bucket instantly  
 2ND Shut-in 30 Minutes yes building blow back/bottom of bucket



PRESSURE SUMMARY			
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1491.09	89.56	Initial Hydro-static
2	391.45	90.89	Open To Flow (1)
13	426.83	91.02	Shut-In(1)
42	594.25	91.37	End Shut-In(1)
44	460.50	91.37	Open To Flow (2)
57	537.03	91.67	Shut-In(2)
103	595.39	93.01	End Shut-In(2)
104	1447.35	102.04	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
1260.00	Muddy Water/50%Mud 50%Water	17.67
0.00	189' Gas in the pipe	0.00
0.00	Resistivity was .40 @ 58 degrees	0.00
0.00	Chlorides were 56,000.0	0.00

Gas Rates			
	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)

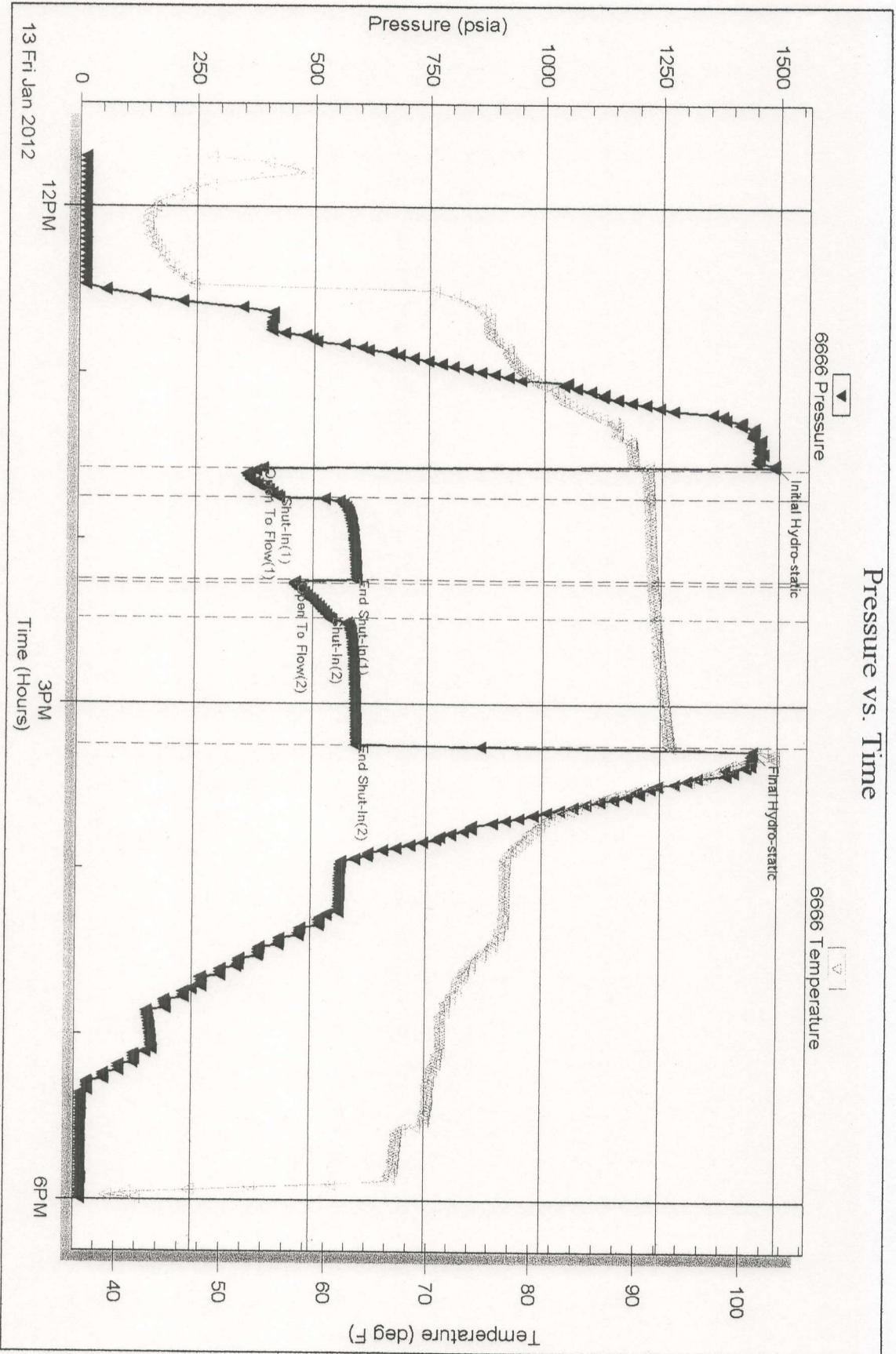
Serial # 6666

Outside Carrie Exploration+Development

Kay C-1

DST Test Number: 2

### Pressure vs. Time



Superior Testers Enterprises LLC

Ref. No: 18866

Printed: 2012.01.14 @ 04:14:28



# DRILL STEM TEST REPORT

Carrie Exploration+Development  
 210 West 22ND Street Hays,67601  
 ATTN: Herb Deines

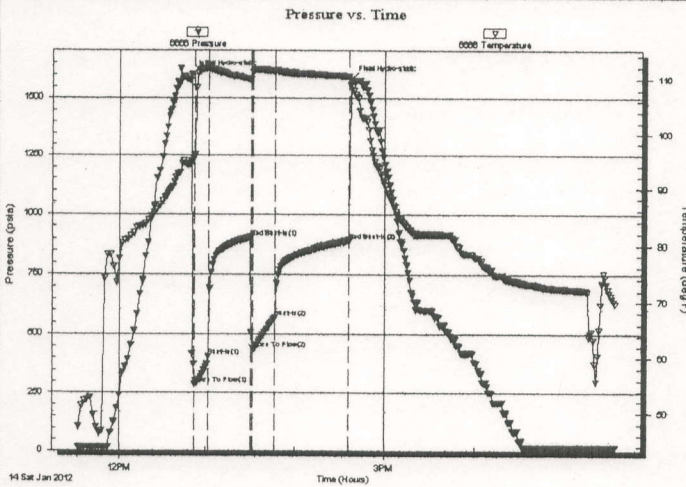
**36/19S/11W Barton Co.**  
**Kay C-1**  
 Job Ticket: 18867      **DST#: 3**  
 Test Start: 2012.01.14 @ 11:31:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No      Whipstock:      ft (KB)  
 Time Tool Opened: 12:52:00  
 Time Test Ended: 17:35:00  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Dylan E Ellis  
 Unit No: 3345/Great Bend/38  
 Interval: **3252.00 ft (KB) To 3291.00 ft (KB) (TVD)**  
 Total Depth: 3291.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Reference Elevations: 1773.00 ft (KB)  
 1763.00 ft (CF)  
 KB to GR/CF: 10.00 ft

**Serial #: 6666      Outside**  
 Press@RunDepth: 567.95 psia @ 3288.00 ft (KB)      Capacity: 5000.00 psia  
 Start Date: 2012.01.14      End Date: 2012.01.15      Last Calib.: 2012.01.15  
 Start Time: 11:31:00      End Time: 17:35:00      Time On Btrr: 2012.01.14 @ 12:50:00  
 Time Off Btrr: 2012.01.14 @ 14:37:30

**TEST COMMENT:** 1ST Opening 10 Minutes very strong blow/blow blew to bottom of bucket in 1 minute  
 1ST Shut-In 30 Minutes yes blow back/building/1 inch  
 2ND Opening 15 Minutes very strong blow/blow blew to bottom of bucket in 1 minute  
 2ND Shut-In 45 Minutes yes blow back/built 5 inches



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1600.70	94.58	Initial Hydro-static
2	287.92	95.74	Open To Flow (1)
12	403.42	111.81	Shut-In(1)
40	904.44	109.85	End Shut-In(1)
42	438.90	111.15	Open To Flow (2)
57	567.95	111.39	Shut-In(2)
107	892.08	110.46	End Shut-In(2)
108	1579.42	108.91	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
441.00	Light Oil cut Muddy Water	6.19
0.00	10%Oil 30%Mud 60%Water	0.00
504.00	Gas and Oil cut Water	7.07
0.00	20%Gas 15%Oil 65%Water	0.00
378.00	Salt Water/Skim Oil on top	5.30
0.00	Skim-Oil 100%Water	0.00

## Gas Rates

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

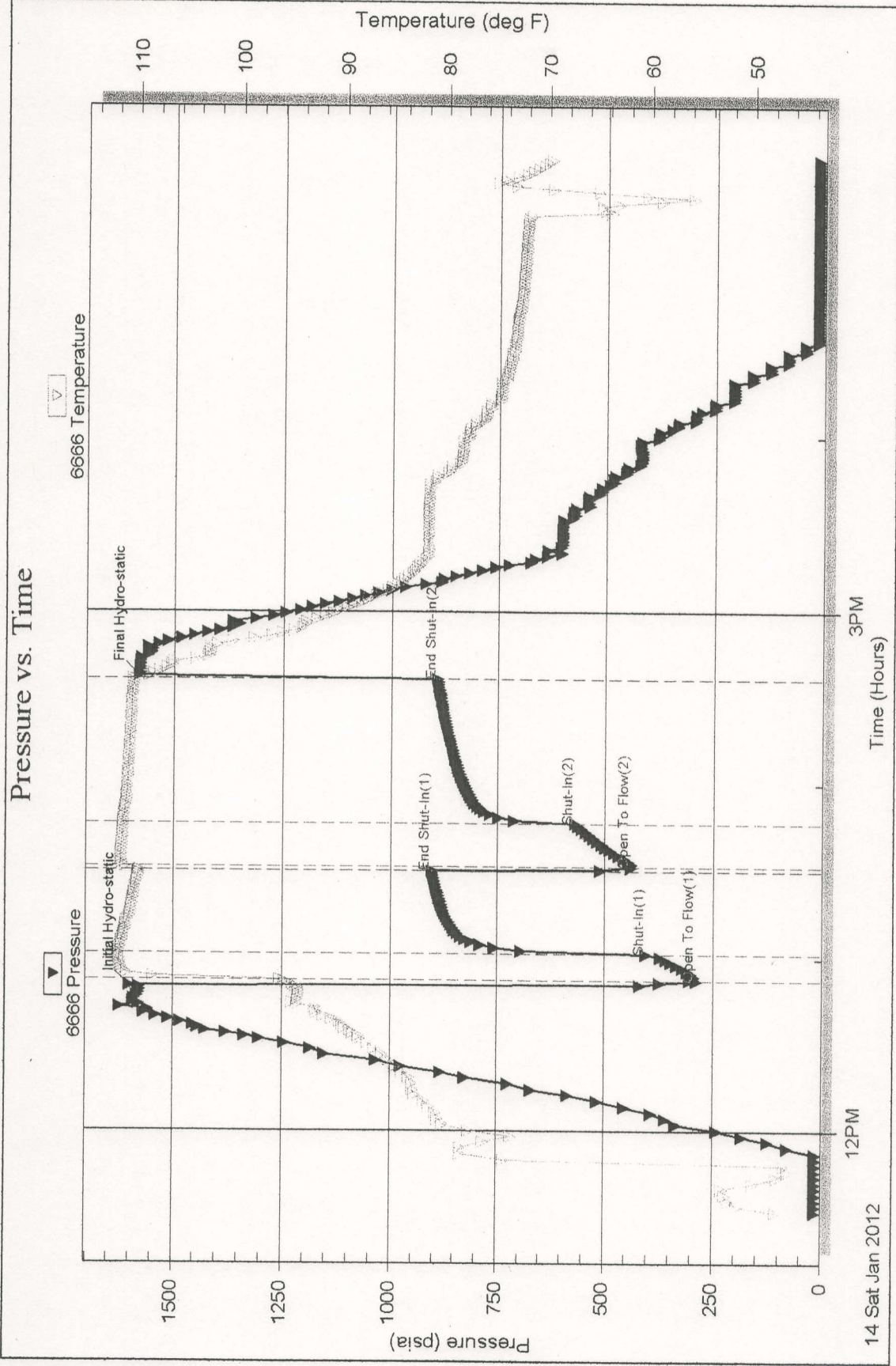
Serial #: 6666

Outside

Carrie Exploration+Development

Kay C-1

DST Test Number: 3



**HERB DENES**  
CONSULTING GEOLOGIST  
PH: 785-825-3380 HAYS, KS 67601

108 W. 35th ST.

COMPANY **Granite Exploration & Development**  
WELL **Hay #1**  
FIELD **Chase-Slick**

COUNTY **Barton** STATE **Kansas**

LOCATION: **N2, N2 S20** KB **1773**  
SEC **36** TWP **19s** RGE **11w** GL **12s**

Logging by: **SEC 36 TWP 19s RGE 11w GL 12s**

Log-Track:  
1. **Dal. Induct. Clay** Log  
2. **Dal. Compactioned** Fossils Log  
3. **Induct. Clay** Log  
4. **Induct. Clay** Log  
5. **Induct. Clay** Log  
6. **Induct. Clay** Log

Geotechnical: **Soil** Log  
RD: **3400** Log  
Surface: **3400** Log  
Production: **3400** Log

Drilling Time **2500' - RTD** Samples **2600' - RTD**

Drilling: **Callum Al. 1008**  
Daily Penetration Rate

Date	Depth	Activity	Date	Depth	Activity
1-09	265'	WOC			
1-10	185'	WOC			
1-11	2340'	WOC			
1-12	2340'	WOC			
1-13	2011'	WOC			
1-14	2011'	WOC			
1-15	2011'	WOC			
1-16	2011'	WOC			
1-17	2011'	WOC			
1-18	2011'	WOC			
1-19	2011'	WOC			
1-20	2011'	WOC			

REMARKS: **Recommendation To Ann casing due to good structure, positive results of DST #3 and information in place to handle produced salt-water.**

*Herb Denes*

Formation	Sample	Log	Datum	%	Formation	Sample	Log	Datum	%
Topoka	2615	2610	-837						
Heesbren Shale	2871	2870	-1097						
Tenorio	2873	2871	-1118						
Douglas Shale	2901	2878	-1125						
Osman Lime	2994	2992	-1219						
LHC	3018	3015	-1245						
BKC	3271	3269	-1436						
ATD	3400								
LTD		3299	-1426						
Arbuckle	3283	3281	-1508						

\* Structural Position to:

**LEGEND**

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SCALE " = 100'

DEPTH	Sample Description	Remarks, drill stem tests, etc.
2500		Mud System - Gel Chemical Audy's Mud & Chemical
10		Slope Survey 361' 1/2"
20		
30		
40		
50		
60		
70	Lm LT-med ban Fx/w-granular Sil Foss	
80	Sh LT-med gray sst	
90		
2600		
10	Topoka 2610-837	
20	Lm LT-med ban Fx/w Foss in part pyritiferous	
30	Lm LT-med ban Fx/w granular in part sil Foss	
40	Lm LT-med ban Fx/w-granular Sil Foss	
50	Lm LT-med ban Fx/w-granular Sil Foss	
60	Lm LT-med ban Fx/w-granular Sil Foss	
70	Lm LT-med ban Fx/w-granular Sil Foss	
80	Lm LT-med ban Fx/w-granular Sil Foss	
90	Lm LT-med ban Fx/w-granular Sil Foss	
2700		
10	Lm LT-med ban Fx/w-granular Sil Foss in part	
20	Lm LT-med ban Fx/w	
30	Lm LT-med ban Fx/w-granular Fossiliferous	
40	Lm LT-med ban Fx/w-granular	
50	Lm LT-med ban Fx/w-granular	
60	Lm LT-med ban Fx/w-granular	
70	Lm LT-med ban Fx/w-granular	
80	Lm LT-med ban Fx/w-granular	
90	Lm LT-med ban Fx/w-granular	
2800		
10	Lm LT-med ban Fx/w-granular	
20	Sh med gray blocky sil silic. impur	
30	Lm LT-med ban Fx/w	
40	Lm LT-med ban Fx/w	
50	Lm LT-med ban Fx/w	
60	Lm LT-med ban Fx/w	
70	Lm LT-med ban Fx/w	
80	Lm LT-med ban Fx/w	
90	Lm LT-med ban Fx/w	
2900		
10	Lm LT-med ban Fx/w-granular Sil Foss	
20	Sh med gray blocky	
30	Sh med gray blocky	
40	Sh med gray blocky	
50	Sh med gray blocky	
60	Sh med gray blocky	
70	Sh med gray blocky	
80	Sh med gray blocky	
90	Sh med gray blocky	
3000		
10	Lm LT-med ban Fx/w	DST #1 3000'-3050' 15-30-30-45 Rec: 620' GIP
20	Sh gray, reddish ban blocky	20' Mud ISIP: 44" FSTP: 512" FP: 46-48, 50-50
30	Lm LT-med ban Fx/w	1st Open: Strong BOB 2 min Blow back: Surface blow
40	Lm LT-med ban Fx/w	2nd Open: Strong BOB instant Blow back: Surface blow
50	Lm LT-med ban Fx/w	BHT: 76°
60	Lm LT-med ban Fx/w	
70	Lm LT-med ban Fx/w	
80	Lm LT-med ban Fx/w	
90	Lm LT-med ban Fx/w	
3100		
10	Lm LT-med ban Fx/w	DST #2 3054'-3094' 10-30-15-30 Rec: 180' GIP
20	Lm LT-med ban Fx/w	120' Muddy Salt Water CL 5600ppm Rw .40 @ 58°
30	Lm LT-med ban Fx/w	ISIP: 594" FSTP: 595" FP: 391-426, 430-537
40	Lm LT-med ban Fx/w	1st Open: Strong BOB 10 sec Blow back: 1/2" to 8"
50	Lm LT-med ban Fx/w	2nd Open: Strong BOB instant Blow back: DOB
60	Lm LT-med ban Fx/w	BHT: 103°
70	Lm LT-med ban Fx/w	
80	Lm LT-med ban Fx/w	
90	Lm LT-med ban Fx/w	
3200		
10	Lm LT-med ban Fx/w	
20	Lm LT-med ban Fx/w	
30	Lm LT-med ban Fx/w	
40	Lm LT-med ban Fx/w	
50	Lm LT-med ban Fx/w	
60	Lm LT-med ban Fx/w	
70	Lm LT-med ban Fx/w	
80	Lm LT-med ban Fx/w	
90	Lm LT-med ban Fx/w	
3300		
10	Lm LT-med ban Fx/w	DST #3 3252'-3291' 10-30-15-45 Rec: 63' GIP
20	Lm LT-med ban Fx/w	441' 50cmw-20%, 30cm, 60cm 504' 60cmw-20%, 15% 65cm 378' 50cmw-15cm-0.2cm, 12.5%
30	Lm LT-med ban Fx/w	CL 19,000ppm Rw .50 @ 69°
40	Lm LT-med ban Fx/w	ISIP: 802" FSTP: 892" FP: 287-403, 430-567
50	Lm LT-med ban Fx/w	1st Open: Strong BOB 1 min Blow back: Surface blow
60	Lm LT-med ban Fx/w	2nd Open: Strong BOB instant Blow back: Surface
70	Lm LT-med ban Fx/w	BHT: 111°
80	Lm LT-med ban Fx/w	
90	Lm LT-med ban Fx/w	
3400		