



KANSAS CORPORATION COMMISSION 1095735
OIL & GAS CONSERVATION DIVISION

Form ACO-1
June 2009

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

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 33401
Name: Ernst, Fred A.
Address 1: 1104 N MAIN ST
Address 2: _____
City: RUSSELL State: KS Zip: 67665 + 1540
Contact Person: Fred Ernst
Phone: (785) 324-0146
CONTRACTOR: License # 33493
Name: American Eagle Drilling LLC
Wellsite Geologist: Robert Hopkins
Purchaser: Coffeeville

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 #: _____
8/20/2012 8/27/2012 9/20/2012
Spud Date or Date Reached TD Completion Date or
Recompletion Date Recompletion Date

API No. 15 - 15-163-24063-00-00
Spot Description: _____
E2 SW SE NW Sec. 3 Twp. 6 S. R. 20 East West
2310 Feet from North / South Line of Section
1755 Feet from East / West Line of Section
Footages Calculated from Nearest Outside Section Corner:
 NE NW SE SW
County: Rooks
Lease Name: WITT Well #: 4
Field Name: Unknown
Producing Formation: Lansing Kansas City
Elevation: Ground: 2163 Kelly Bushing: 2168
Total Depth: 3676 Plug Back Total Depth: _____
Amount of Surface Pipe Set and Cemented at: 250 Feet
Multiple Stage Cementing Collar Used? Yes No
If yes, show depth set: 1790 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: 120 ppm Fluid volume: 20 bbls
Dewatering method used: Evaporated
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: Deanna Garrison Date: 10/30/2012



1095735

Operator Name: Ernst, Fred A. Lease Name: WITT Well #: 4
 Sec. 3 Twp. 6 S. R. 20 East West County: Rooks

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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> List All E. Logs Run: Attached	<input checked="" type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Name</th> <th style="text-align: left;">Top</th> <th style="text-align: left;">Datum</th> </tr> </thead> <tbody> <tr> <td>AnaHydrite</td> <td>1773</td> <td>1801</td> </tr> <tr> <td>Topeka</td> <td>3164</td> <td></td> </tr> <tr> <td>Heebner</td> <td>3364</td> <td></td> </tr> <tr> <td>Lansing Kansas City</td> <td>3402</td> <td>3597</td> </tr> <tr> <td>Reagan Sand</td> <td>3644</td> <td></td> </tr> <tr> <td>PC Granite</td> <td>3675</td> <td></td> </tr> </tbody> </table>	Name	Top	Datum	AnaHydrite	1773	1801	Topeka	3164		Heebner	3364		Lansing Kansas City	3402	3597	Reagan Sand	3644		PC Granite	3675	
Name	Top	Datum																				
AnaHydrite	1773	1801																				
Topeka	3164																					
Heebner	3364																					
Lansing Kansas City	3402	3597																				
Reagan Sand	3644																					
PC Granite	3675																					

CASING RECORD <input checked="" 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
Surface	12.2500	8.6250	20	252	Common	160	3%cc 2% gel
Casing	12.2500	5.5000	15.5000	3674	Common	500	10 salt 5% gilsonite

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
4	3584-3588	250 15% MCA 1500 15% NE	K
4	3559-3565	250 15% MCA 1500 15% NE	J
4	3543-3551	250 15% MCA 1500 15% NE	I
4	3387-3389	250 15% MCA 1500 15% NE	Toronto

TUBING RECORD: Size: <u>2.8750</u> Set At: <u>3620</u> Packer At: <u>N/A</u>		Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Date of First, Resumed Production, SWD or ENHR. <u>10/4/2012</u>		Producing Method: <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain) _____	
Estimated Production Per 24 Hours	Oil Bbls. <u>30</u>	Gas Mcf <u>0</u>	Water Bbls. <u>0</u>
		Gas-Oil Ratio	Gravity <u>24</u>

DISPOSITION OF GAS: <input checked="" type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-1B.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input checked="" type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
--	--	--

Form	ACO1 - Well Completion
Operator	Ernst, Fred A.
Well Name	WITT 4
Doc ID	1095735

All Electric Logs Run

Dual Induction Log
Neutron Log
Radiation Gaurd Log
Sonic Log

QUALITY OILWELL CEMENTING, INC.

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

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

No. 833

Date	8-20-12	Sec.	3	Twp.	6	Range	20	County	ROOKS	State	KANSAS	On Location		Finish	12:45AM
Lease	WITT	Well No.	#4	Location STOCKTON 12N-13W-14S-E/INTO											
Contractor	AMERICAN EAGLE #3							Owner FRED ERNST							
Type Job	SURFACE							To Quality Oilwell Cementing, Inc. 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.	252'		Charge To FRED ERNST								
Csg.	8 5/8			Depth	252'		Street 1104 N MAIN ST.								
Tbg. Size				Depth			City RUSSELL State KS, 67665								
Tool				Depth			The above was done to satisfaction and supervision of owner agent or contractor.								
Cement Left in Csg.				Shoe Joint	15'		Cement Amount Ordered 110 Com - 3cc - 2gel								
Meas Line				Displace	15'										

EQUIPMENT

Pumptrk #15	No.	Cementers	NEEK	Common	160
Bulktrk #13	No.	Driver	LONNIE	Poz. Mix	
Bulktrk PU	No.	Driver	CASSO	Gel.	3

JOB SERVICES & REMARKS

Remarks:	Hulls
Rat Hole	Salt
Mouse Hole	Flowseal
Centralizers	Kol-Seal
Baskets	Mud CLR 48
D/V or Port Collar	CFL-117 or CD110 CAF 38
	Sand
CEMENT DID CIRCULATE!	Handling 169
	Mileage

FLOAT EQUIPMENT

	Guide Shoe
	Centralizer
	Baskets
	AFU Inserts
	Float Shoe
	Latch Down
	Pumptrk Charge Surface
	Mileage 60

THANK YOU!

X Signature

Broadhead Kuhn

Tax
Discount
Total Charge

QUALITY OILWELL CEMENTING, INC.

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

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

No. 5030

Date	8-28-12	Sec.	3	Twp.	6	Range	20	County	Rooks	State	Ks	On Location		Finish	6:00 AM
Lease	Witt		Well No.	4		Location Stockton, Ks - 12N, 13W, 14S, E 1/4 to									
Contractor American eagle #3						Owner									
Type Job Top stage						To Quality Oilwell Cementing, Inc. 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.		3675'		Charge To		Fred Ernst					
Csg.		5 1/2" 15.50'		Depth		1792'		Street							
Tbg. Size				Depth				City							
Tool		DU		Depth		1792'		State							
Cement Left in Csg.				Shoe Joint				The above was done to satisfaction and supervision of owner agent or contractor.							
Meas Line				Displace 42 1/2 BLS				Cement Amount Ordered 350 SX QMDC 1/4 # Flow Seal							

EQUIPMENT

Pumptrk	5	No.	Cementary Helper	Brett	Common	350
Bulktrk	13	No.	Driver	Lompe	Poz. Mix	
Bulktrk	p.u.	No.	Driver	Rick	Gel.	

JOB SERVICES & REMARKS

Remarks:		Hulls
Rat Hole	30 SX QMDC 1/4 # F.S.	Salt
Mouse Hole		Flowseal 8 7/8"
Centralizers		Kol-Seal
Baskets		Mud CLR 48
D/V or Port Collar	#46 - 1792'	CFL-117 or CD110 CAF 38
pipe on bottom, break circulation		Sand
plug Rat hole w/ 30 SX QMDC 1/4 #		Handling 330
Flowseal. Hook to 5 1/2" casing +		Mileage
pump 300 SX QMDC 1/4 # Flow seal		
shut down, wash pump + lines		FLOAT EQUIPMENT
Released plug + Displaced with		Guide Shoe
42 1/2 BLS of water.		Centralizer
		Baskets
		AFU Inserts
Lift pressure 500 #		Float Shoe
Land plug to 1500 #		Latch Down
Cement did Circulate		
		Pumptrk Charge Prod Log String
		Mileage 60
		Tax
		Discount
		Total Charge

X Signature *Bruce Paul Rubin*

Top Stage

QUALITY OILWELL CEMENTING, INC.

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

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

No. 5029

Date	8-28-12	Sec.	3	Twp.	6	Range	20	County	Rooks	State	Ks	On Location	Finish	3:30 AM
Lease	Witt			Well No.	4			Location	Stockton, Ks - 12W, 13W, 14S, E Mato					
Contractor	American Eagle #3						Owner	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.						
Type Job	Bottom Sledge						Charge To	Fred Ernst						
Hole Size	7 7/8"			T.D.	3675'			Street						
Csg.	5 1/2" 15.50 #			Depth	3674'			City	State					
Tbg. Size							Depth							
Tool	DU Tool			Depth	1792'			The above was done to satisfaction and supervision of owner agent or contractor.						
Cement Left in Csg.	20.71'			Shoe Joint	20.71'			Cement Amount Ordered 150 sx Common 10% salt 5%						
Meas Line							Displace	87 BLS						

EQUIPMENT

Pumptrk	5	No.	Cementer	Brett	Gilsonite	500 gal mud	CLEAR	48
			Helper		Common	150		
Bulktrk	8	No.	Driver	Condy	Poz. Mix			
			Driver		Gel.			
Bulktrk p.u.		No.	Driver	Rick	Calcium			
			Driver		Hulls			

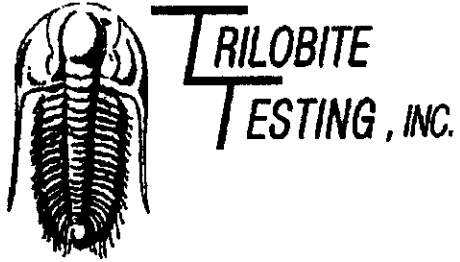
JOB SERVICES & REMARKS

Remarks:	Salt 13
Rat Hole	Flowseal
Mouse Hole	Kol-Seal 750#
Centralizers 1,234 89	Mud CLR 48 500 gal
Baskets #46	CFL-117 or CD110 CAF 38
Driver Port Collar #46 1792'	Sand
pipe on bottom, break Circ.	Handling 170
pump 500 gal mud clear 48	Mileage
pump 5 BLS of water, pump	FLOAT EQUIPMENT
150 sx Common 10% salt 5% Gilsonite	Guide Shoe
shut down, wash pump &	Centralizer 6 bucho's
lines. Released plug & displaced	Baskets 1
with 87 BLS of water.	AFU Inserts
Lift pressure 750#	Float Shoe 1
Land plug to 1200 #	Latch Down
Drop back & open tool	1-DU Tool w/ latch down
with #1400#, Break Circ.	
	Pumptrk Charge
	Mileage 68

X Signature *Brett K...*

Tax _____
Discount _____
Total Charge _____

Bottom Stage



DRILL STEM TEST REPORT

Prepared For: **Ernst, Fred A**
1104 N Main St.
Russell, KS 67665

ATTN: Fred A Ernst

Witt #4

3-6s-20w Rooks, KS

Start Date: 2012.08.25 @ 02:00:00

End Date: 2012.08.25 @ 08:55:15

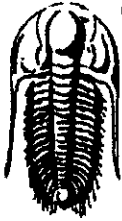
Job Ticket #: 49460 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

RECEIVED
OCT 22 2012
KCC WICHITA

Printed: 2012.08.29 @ 12:03:12

Ernst, Fred A
3-6s-20w Rooks, KS
Witt #4
DST # 1
D,E,F
2012.08.25



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ernst, Fred A
1104 N Main St.
Russell, KS 67665
ATTN: Fred A Ernst

3-6s-20w Rooks, KS
Witt #4
Job Ticket: 49460 DST#: 1
Test Start: 2012.08.25 @ 02:00:00

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: 71.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.98 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 1000.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Mud - Oil scum 100%M	0.140

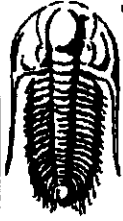
Total Length: 10.00ft Total Volume: bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:

RECEIVED
OCT 22 2012
KCC WICHITA



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Ernst, Fred A
 1104 N Main St.
 Russell, KS 67665
 ATTN: Fred A Ernst

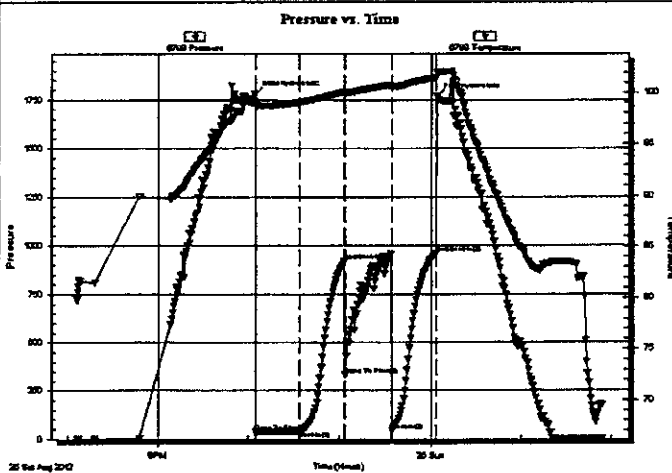
3-6s-20w Rooks, KS
Witt #4
 Job Ticket: 49461 DST#: 2
 Test Start: 2012.08.25 @ 20:06:00

GENERAL INFORMATION:

Formation: H,I,J
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 22:04:45
 Time Test Ended: 01:54:00
 Interval: 3504.00 ft (KB) To 3584.00 ft (KB) (TVD)
 Total Depth: 3584.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Resel)
 Tester: Cody Bloedorn
 Unit No: 43
 Reference Elevations: 2163.00 ft (KB)
 2158.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 6799 Inside
 Press@RunDepth: 43.52 psig @ 3571.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.08.25 End Date: 2012.08.26 Last Calib.: 2012.08.26
 Start Time: 20:06:05 End Time: 01:53:59 Time On Btm: 2012.08.25 @ 22:04:30
 Time Off Btm: 2012.08.26 @ 00:03:45

TEST COMMENT: 30 - IF- 1/4" Blow
 30 - IS- No blow back
 30 - FF- No blow
 30 - FS- No blow



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1782.03	99.22	Initial Hydro-static
1	38.19	98.81	Open To Flow (1)
29	39.81	99.10	Shut-In(1)
59	918.93	100.08	End Shut-In(1)
60	333.68	99.93	Open To Flow (2)
90	43.52	100.63	Shut-In(2)
119	957.64	101.48	End Shut-In(2)
120	1769.82	101.97	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
15.00	HOCM 30% O 70% M	0.21

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

RECEIVED
 OCT 22 2012
 KCC WICHITA

* Recovery from multiple tests

Serial #: 6799

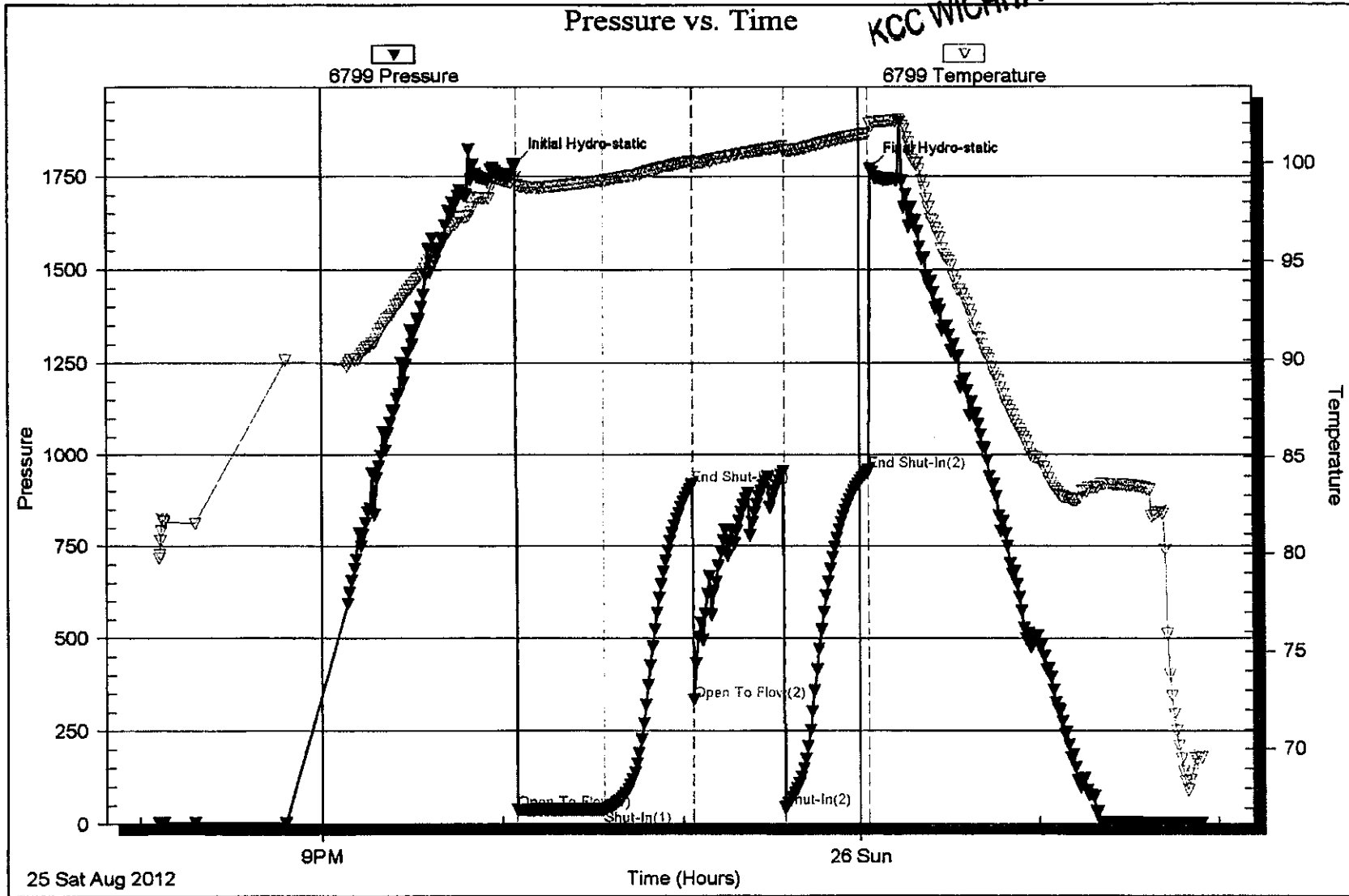
Inside Ernst, Fred A

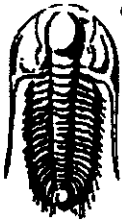
Wkt #4

RECEIVED
OCT 22 2012

DST Test Number: 2

KCC WICHITA





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Ernst, Fred A
 1104 N Main St.
 Russell, KS 67665
 ATTN: Fred A Ernst

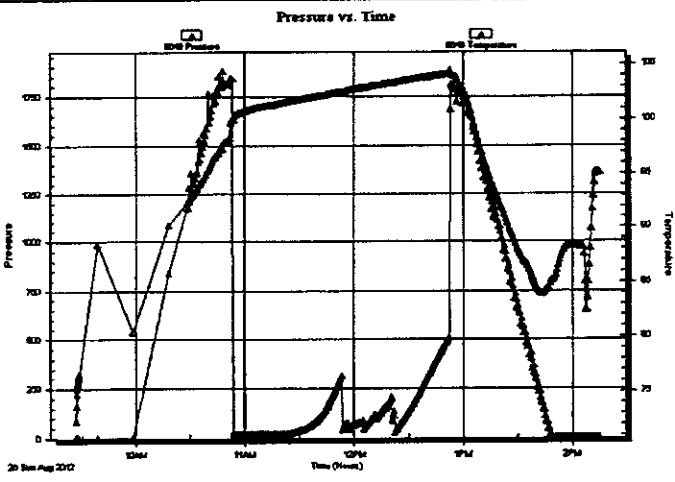
3-6s-20w Rooks, KS
 Witt #4
 Job Ticket: 49462 DST#: 3
 Test Start: 2012.08.26 @ 09:26:00

GENERAL INFORMATION:

Formation: Sand
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 10:54:00 Tester: Cody Bloedorn
 Time Test Ended: 14:15:45 Unit No: 43
 Interval: 3633.00 ft (KB) To 3644.00 ft (KB) (TVD) Reference Elevations: 2163.00 ft (KB)
 Total Depth: 3644.00 ft (KB) (TVD) 2158.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

Serial #: 8648 Inside
 Press@RunDepth: psig @ 3634.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.08.26 End Date: 2012.08.26 Last Calib.: 2012.08.26
 Start Time: 09:26:35 End Time: 14:14:59 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30 - IF- Surface blow, died in 12 Min.
 30 - IS- No blow
 30 - FF- No blow blow
 30 - FS- No blow



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

Recovery		
Length (ft)	Description	Volume (bb)
5.00	OCM, 20%O, 80%M	0.07

Gas Rates			
	Choke (inches)	Pressure (psig)	Gas Rate (Mcfd)

RECEIVED
 OCT 22 2012
 KCC WICHITA

Serial #: 8648

Inside

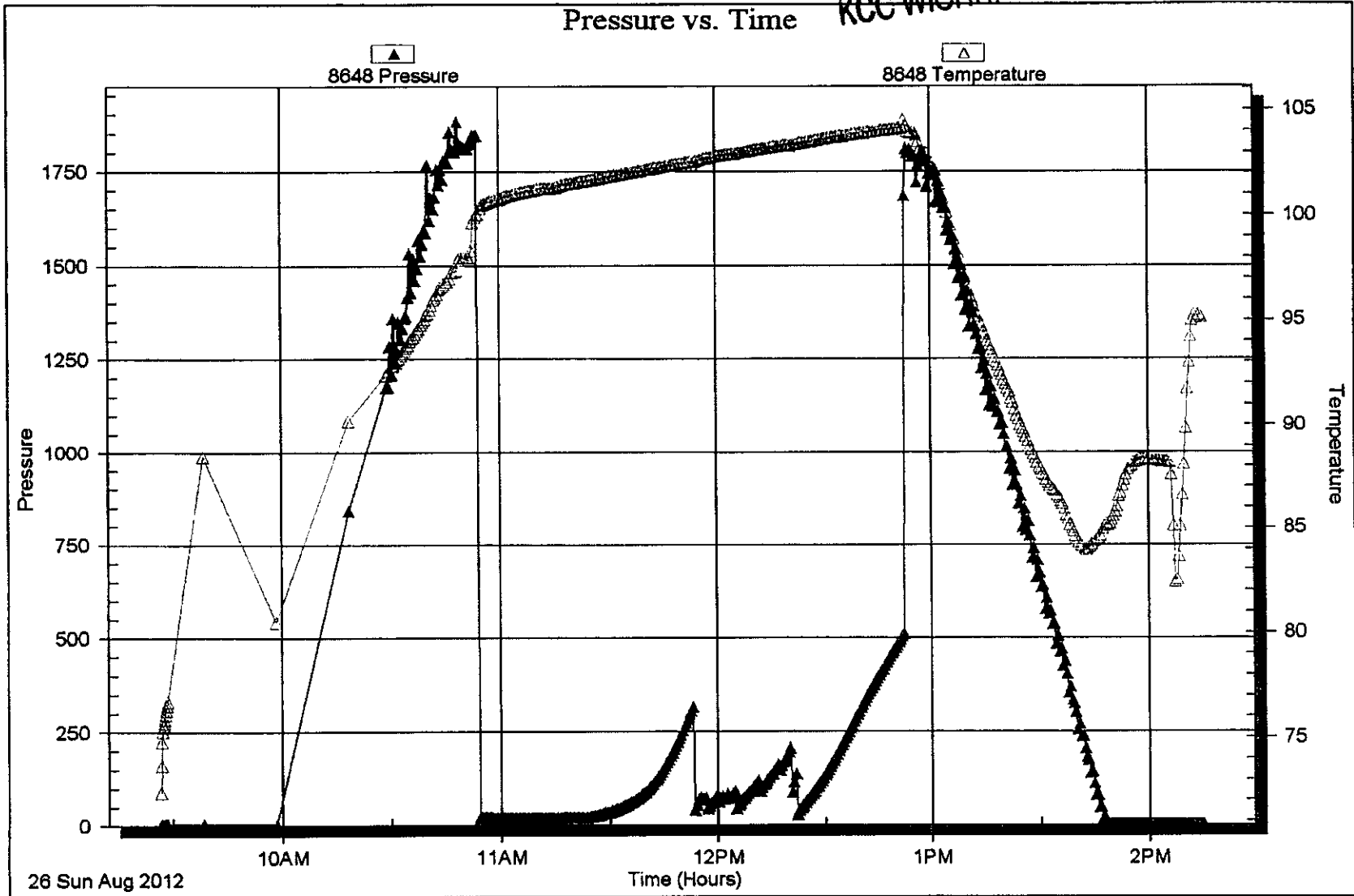
Ernst, Fred A

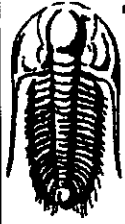
Wkt #4

RECEIVED
OCT 22 2012

DST Test Number: 3

KCC-WICHITA





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ernst, Fred A
1104 N Main St.
Russell, KS 67665
ATTN: Fred A Ernst

3-6s-20w Rooks, KS
Witt #4
Job Ticket: 49463 DST#: 4
Test Start: 2012.08.26 @ 20:02:00

Tool Information

Drill Pipe:	Length: 3616.00 ft	Diameter: 3.80 inches	Volume: 50.72 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: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 49000.00 lb
			<u>Total Volume: 50.72 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 44000.00 lb
Depth to Top Packer:	3633.00 ft			Final 44000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	14.00 ft			
Tool Length:	40.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3608.00	
Shut In Tool	5.00			3613.00	
Hydraulic tool	5.00			3618.00	
Jars	5.00			3623.00	
Packer	5.00			3628.00	26.00 Bottom Of Top Packer
Packer	5.00			3633.00	
Stubb	1.00			3634.00	
Recorder	0.00	8648	Inside	3634.00	
Recorder	0.00	8799	Inside	3634.00	
Perforations	8.00			3642.00	
Bullnose	5.00			3647.00	14.00 Bottom Packers & Anchor

Total Tool Length: 40.00

**RECEIVED
OCT 22 2012
KCC WICHITA**



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED

OCT 22 2012

Test Ticket

NO. 49460

KCC WICHITA

Well Name & No. WITT #4 Test No. 1 Date 8-25-12
 Company Ernst, Fred A Elevation 2163 KB 2158 GL
 Address 1104 N Main St. Russell KS, 67665
 Co. Rep / Geo. _____ Rig Eagle #3
 Location: Sec. 3 Twp. 6S Rge. 20W Co. ROOKS State KS

Interval Tested 3419 - 3484 Zone Tested D, E, F
 Anchor Length 65' Drill Pipe Run 3397 Mud Wt. 9.0
 Top Packer Depth 3414 Drill Collars Run - Vis 71
 Bottom Packer Depth 3419 Wt. Pipe Run - WL 8.0
 Total Depth 3484 Chlorides 1,000 ppm System LCM -

Blow Description IF - 1/2" blow
ISI - No blow back
FF - No blow
FSI - No blow back

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

Rec Total 10' BHT 1010 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>1732</u>	<input checked="" type="checkbox"/> Test 1150	T-On Location <u>1:00am</u>
(B) First Initial Flow <u>36</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>2:00am</u>
(C) First Final Flow <u>41</u>	<input type="checkbox"/> Safety Joint	T-Open <u>4:45am</u>
(D) Initial Shut-In <u>955</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>6:45am</u>
(E) Second Initial Flow <u>43</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>8:55am</u>
(F) Second Final Flow <u>44</u>	<input checked="" type="checkbox"/> Mileage 130rt 201.50	Comments _____
(G) Final Shut-In <u>911</u>	<input type="checkbox"/> Sampler	<input type="checkbox"/> Ruined Shale Packer
(H) Final Hydrostatic <u>1684</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Total <u>1601.50</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	MP/DST Disc'l _____
	<input type="checkbox"/> Accessibility	
	Sub Total <u>1601.50</u>	

Approved By _____ Our Representative Cody Blackborn
 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.

LITHOLOGIC LOG

ROBERT HOPKINS-consulting geologist

Operator Ernst Oil
 Lease / Well Witt #4
 GI 2163 KB 2168* (measure from *)

Location NW 1/4 3-6-20W
 County Rooks State KS scale 1" = 20'
 depth this sheet - from 3100 to 3280 page 1 of 4

DRILLING TIME (min/ft)								DEPTH	tops shows	lith graph	DESCRIPTION (lithology, shows, mud properties)
1	2	3	4	5	6	7	8				
								3100			— MIX CHEMICAL MUD — DN LOC 3-23-12 Tam gry shale wh lst, lite, n.s. gry sh - sdy sh. Topoka ls. 3161' (-993) bf-gry, fm-med xls lst, lite, n.s. gry sh lf-gry, lite lst, med xls, n.s. as above, w/ yellow mineral fluorescence, n.s.
								50			
								3200			wh. chalky lst, sl. f, n.s. gry sh - sdy sh. bf-wh ls-med xls lite lst, n.s, w/ gran. ash -brnt gry - blk sh. lf-brown med xls ls blk, n.s. w/ gry fresh chert
								50			
								80			blk sh. gm-gry sh. to sandy sh ↓

RECEIVED
 OCT 22 2012
 KCC WICHITA

LITHOLOGIC LOG

ROBERT HOPKINS-consulting geologist

Operator Ernst oil
 Lease / Well Witt #4
 GL KB 2168 (measure from *)

Location NW 1/4 3-6-20W
 County ROOKS State KS scale 1" = 20'
 depth this sheet - from 3250 to 3460 page 2 of 4

DRILLING TIME (min/ft)								DEPTH	tops shows	lith graph	DESCRIPTION (lithology, shows, mud properties)
1	2	3	4	5	6	7	8				
								30			sh, as above w/ coal fragments vis 30; wt 3.9
								3300			blk-fine med shale lsd, fossiliferous, fine vis
											wh dolky lsd, sl-fine pimpled ϕ , n.s.
											low ϕ , n.s. vis 75; wt 9.1
											blk fine-med shale lsd, n.s.
											gry. shale
								50			blk fine-med shale lsd, fine to sl. ϕ , n.s.
											Heebner 3362' (-1194)
											blk shale
											blk fine med lsd, lsd, n.s.
								* sl.			Toronto 3383'
											wh fine lsd, sl. pimpled ϕ , free oil sls, free fine oil, no calc. sh. lsd, n.s. no calc.
								3400			gry shale
								"A"			wh fine lsd, fine lsd, n.s. LKC 3400 (-1232)
											gry shale
								"C" sl.*			wh fine lsd, free vuggy ϕ , free fine oil, v. faint sh. lsd, n.s.
								50			gry sh.
								"D"			wh fine lsd, some vuggy ϕ , free fine oil, sl. sh. lsd, v. faint sh. lsd, n.s.
								60			

RECEIVED
 OCT 22 2012
 KCC WICHITA

LITHOLOGIC LOG

ROBERT HOPKINS-consulting geologist

Operator Ernst Oil
 Lease / Well Witt #4
 GL KB 2168 (measure from *)

Location NW 1/4 3-6-20W
 County ROOKS State KS
 depth this sheet - from 3460 to 3640
 scale 1" = 20'
 page 3 of 4

DRILLING TIME (min/ft)								DEPTH	tops shows	lith graph	DESCRIPTION (lithology, shows, mud properties)
1	2	3	4	5	6	7	8				
								60			gry sh. no show DST #1: 3419-3484' 30-30-30-30" Hyd: 1732-1684= FP: 36-41; 43-44" SIP: 955-911 #
								"E"			wh. fuxid. lite lst, n.s. w/p/rocks
								CFS 3484'			red-gry. shale wh-bow fuxid. lite lst, n.s. REC-30' nos w/oil seum SHF 1/2"
								3500			blk. shale vis 58, wt. 9.2 RECEIVED OCT 22 2012 KCC WICHITA
								"H"			DST #2 wh. fuxid. lst, w/bow-gry chert, p/rocks, sl. p, sl. color, sh. stain, free oil blk sh.
								"I"	*		good bf fuxid. lst, fair pinpoint p, stains free oil, fair stain, scattered fluorescence & chert - gry shale - red sh.
								50			
								"J"	*		bf fuxid. lst, pinpoint to sh. varying p, rd color, free oil, scattered stains & fluorescence blk shale
								CFS 3570			
								"K"			wh-bow fuxid. lst, lite, free stains, no free oil, no color cherty
								CFS 3584'			
								"L"			blk sh. -bf lite lst, n.s. BKC 3596 (-1428) DST #2: 3504-3584' 30-30-30-30" Hyd: 1782-1769# FP: 38-39", 333-43" SIP: 918-957 #
								3600			REC: 15' HOCM vis 62; wt. 9.2
											arkosic red sst, lite, n.s. sst. & red-gry sdy. sh. wh-bf fuxid. lite lst, n.s.
											red-gry arg sst, lite, n.s., w/red shale bf-bow-ish fossiliferous lst, lite, n.s.
								40			gry-red siltstone, lite, n.s.

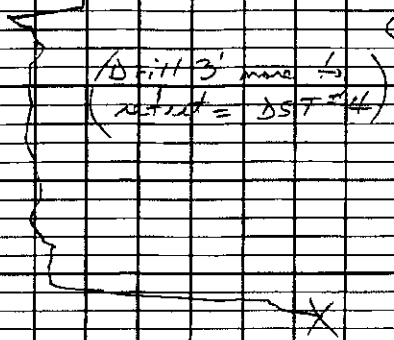
LITHOLOGIC LOG

ROBERT HOPKINS-consulting geologist

Operator Ernst Oil
 Lease / Well Wit #4
 GL KB 2168 (measure from *)

Location NW 1/4 3-65-20W
 County Rooks State KS scale 1" = 20'
 depth this sheet - from 3640 to 3 page 4 of 4

DRILLING TIME (min/ft)								DEPTH	tops shows	lith graph	DESCRIPTION (lithology, shows, mud properties)
1	2	3	4	5	6	7	8				
								40			gray shale - red shale
								50			(Reagan S.D. 3642 (-1474)) wh med-coar sst, gd φ. good free oil, moderate color, excellent solvent cut fair, even fluorescence decreasing show
											white med-coar sst, fair φ, v. pore free oil, s. color, (p. or brown) (granite wash - 3672-74) arkosic sst, red. coarse xls fresh granite (3674-75')
											DST #3: 3633-3644 30-30-30-30 Hyd: 1842-1810# FP: 19-20"; 40-35" SIP: 31-509" REC: 5' OCM
											TD DST #4: 3633-3647 30-45-30-45 Hyd: 1847-1803 FP: 20-22; 94-29 SIP: 1052-1141 REC: 30' MCO SHT 1/2" @ TD
											TD 3675' pre Cambrian granite 3674(-1506)
											@TD, new Penlorator's O-H log; new production casing for surface testing.



RECEIVED
 OCT 22 2012
 KCC WICHITA