



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1220131  
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
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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: \_\_\_\_\_

1220131

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Electric Log Run	<input type="checkbox"/> Yes <input type="checkbox"/> No			
List All E. Logs Run:				

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

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

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

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

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

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type 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)* \_\_\_\_\_

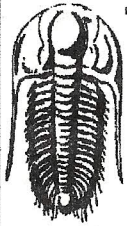
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<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> _____ _____
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Form	ACO1 - Well Completion
Operator	Staab Oil Co., a General Partnership
Well Name	Feedlot Frank 1
Doc ID	1220131

Tops

Name	Top	Datum
Anhydrite	1482	649
Base	1523	608
Topeka	3194	-1063
Heebner	3428	-1297
Toronto	3448	-1317
Lansing	3473	-1342
BKC	3722	-1591
Cong Sand	3773	-1642
T.D.	3865	-1729



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

Staab Oil Co.

**Sec. 2-13s-19w Ellis, KS**

1607 Hopewell Rd  
Hays, KS 67601

**Feedlot Frank #1**

Job Ticket: 58888

**DST#: 1**

ATTN: Randy Killian

Test Start: 2014.05.10 @ 13:25:00

**GENERAL INFORMATION:**

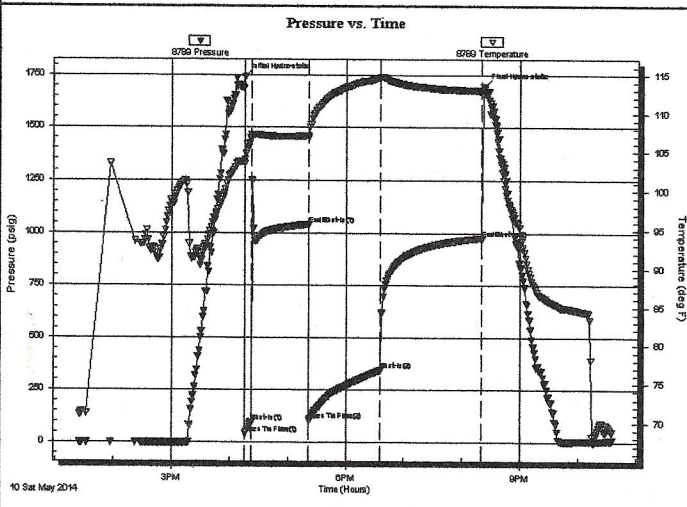
Formation: **LKC "C-F"**  
 Deviated: **No Whipstock** ft (KB)  
 Time Tool Opened: 16:15:45  
 Time Test Ended: 22:35:15  
 Interval: **3495.00 ft (KB) To 3580.00 ft (KB) (TVD)**  
 Total Depth: **3580.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition: Fair  
 Test Type: **Conventional Bottom Hole (Initial)**  
 Tester: **Phillip Gage**  
 Unit No: **76**  
 Reference Elevations: **2130.00 ft (KB)**  
**2125.00 ft (CF)**  
 KB to GR/CF: **5.00 ft**

**Serial #: 8789**

**Inside**

Press@RunDepth: **343.33 psig @ 3513.00 ft (KB)**  
 Start Date: **2014.05.10** End Date: **2014.05.10**  
 Start Time: **13:25:00** End Time: **22:35:15**  
 Capacity: **8000.00 psig**  
 Last Calib.: **2014.05.10**  
 Time On Btm: **2014.05.10 @ 16:15:30**  
 Time Off Btm: **2014.05.10 @ 20:22:30**

**TEST COMMENT:** 5-IF-Built to 8 1/4"  
 60-ISI-Few bubbles at 8 mins, then died.  
 75-FF-BOB in 13 mins.  
 105-FSI-No Return.



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1741.55	104.04	Initial Hydro-static
1	43.11	103.59	Open To Flow (1)
7	97.34	106.80	Shut-In(1)
66	1038.95	107.10	End Shut-In(1)
67	104.21	106.86	Open To Flow (2)
141	343.33	114.64	Shut-In(2)
245	977.70	112.95	End Shut-In(2)
247	1695.78	112.77	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
504.00	MW, 40%w, 60%w	3.92
189.00	WM, 20%w, 80%w	2.65
15.00	WM with oil spots, 20%w, 80%w	0.21

**Gas Rates**

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



# GLOBAL CEMENTING, L.L.C.

1316

REMIT TO 18048 170RD  
RUSSELL, KS 67665

SERVICE POINT: Russell, KS

*Surface*

DATE <u>5-6-14</u>	SEC. <u>2</u>	TWP. <u>13</u>	RANGE <u>19</u>	CALLED OUT	ON LOCATION	JOB START <u>2:00am</u>	JOB FINISH <u>2:30am</u>
LEASE <u>Feedlot Frank</u>	WELL #. <u>1</u>	LOCATION <u>plugging</u>			COUNTY <u>Ellis</u>	STATE <u>KS</u>	
OLD OR NEW (CIRCLE ONE) <u>NEW</u>							

CONTRACTOR Sheilds

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D. 212

CASING SIZE 8 5/8 DEPTH 202.28

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. 20ft

PERFS

DISPLACEMENT

EQUIPMENT

PUMP TRUCK CEMENTER Heath

# P1 HELPER Cody

BULK TRUCK

# B3 DRIVER Brad

BULK TRUCK

# DRIVER

OWNER

CEMENT AMOUNT ORDERED 150sr com 2%CC 2%gel

COMMON @

POZMIX @

GEL @

CHLORIDE @

ASC @

HANDLING @

MILEAGE @

TOTAL

REMARKS:

*Run 5 JTS of 8 5/8 casing and landing jt*

*Est Circulation with mud pump*

*Hook up and mix 150sr and disp 2 1/4 bbl*

*of 1120 - shut in @ 300ps*

*Cement did circulate to surface*

CHARGE TO: Staab Oil

STREET

CITY STATE ZIP

SERVICE

DEPTH OF JOB

PUMP TRUCK CHARGE

EXTRA FOOTAGE @

MILEAGE @

MANIFOLD @

TOTAL

Global Cementing, L.L.C.,  
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. *Thank You!!*

PLUG & FLOAT EQUIPMENT

TOTAL

PRINTED NAME George Begler

SIGNATURE George Begler

SALES TAX (If Any)

TOTAL CHARGES

DISCOUNT IF PAID IN 30 DAYS



# GLOBAL CEMENTING, L.L.C.

1324

*plugging*

REMIT TO 18048 170RD  
RUSSELL, KS 67665

SERVICE POINT: Russell, KS

DATE <u>5-12-14</u> <i>Feedlot</i>	SEC. <u>2</u>	TWP. <u>13</u>	RANGE <u>19</u>	CALLED OUT	ON LOCATION	JOB START <u>2:00pm</u>	JOB FINISH <u>2:30pm</u>
LEASE <u>Frank</u>	WELL #. <u>1</u>	LOCATION			COUNTY <u>Ellis</u>	STATE <u>KS</u>	
OLD OR <u>NEW</u> (CIRCLE ONE)							

CONTRACTOR Sheilds  
 TYPE OF JOB Rotary Plug  
 HOLE SIZE 7 7/8 T.D.  
 CASING SIZE DEPTH  
 TUBING SIZE DEPTH  
 DRILL PIPE DEPTH  
 TOOL DEPTH  
 PRES. MAX MINIMUM  
 MEAS. LINE SHOE JOINT  
 CEMENT LEFT IN CSG.  
 PERFS  
 DISPLACEMENT

OWNER  
 CEMENT AMOUNT ORDERED 225 60/40 4% gel  
1/4" # 510

EQUIPMENT  
 PUMP TRUCK CEMENTER Heath  
 # 81 HELPER Cody  
 BULK TRUCK  
 # B4 DRIVER Eric  
 BULK TRUCK  
 # DRIVER

COMMON @  
 POZMIX @  
 GEL @  
 CHLORIDE @  
 ASC @  
 HANDLING @  
 MILEAGE @  
 TOTAL

REMARKS:  
1st Plug @ 1570 = 255y  
2nd Plug @ 225' = 100sy  
3rd Plug @ 260' 40sy  
came out of hole and push wiper plug  
top 225 with 10sy  
RH = 30sy MH = 20sy

CHARGE TO: Staub Oil  
 STREET  
 CITY STATE ZIP

SERVICE  
 DEPTH OF JOB  
 PUMP TRUCK CHARGE  
 EXTRA FOOTAGE @  
 MILEAGE @  
 MANIFOLD @  
 TOTAL

Global Cementing, L.L.C.,  
 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  
 @  
 @  
2578 wood plug  
 @  
 @  
 TOTAL

PRINTED NAME George Begler  
 SIGNATURE George Begler

SALES TAX (If Any)  
 TOTAL CHARGES  
 DISCOUNT IF PAID IN 30 DAYS



# Randall Kilian Corporation

Geologist



**Certified Petroleum  
Geologist #3351  
License #224**

3951 Eveningglow Way  
Castle Rock, CO 80104

Phone: 720-733-0420

Cell: 785-635-1349

E-mail: rkgeo53@hotmail.com

## GEOLOGIST'S WELL REPORT

COMPANY STAAB OIL CO. (6037)

WELL Feedlot Frank #1

FIELD Wildcat

LOCATION (legal) Ap. NE SE NW SE

(footages) 1780' ESL & 1345' FEL

Section 2 TWP 13S RGE 19W

(Map) 3 mi N & 4½ mi W of I-70 Hays Exit

COUNTY Ellis STATE Kansas

ELEVATION: 2131' K.B., 2126' G.L.

Depths measured from Kelly Bushing

A. P. I. NUMBER 15-051-26695

GEOLOGY BY Randall Kilian

# PERTINENT WELL DATA

CONTRACTOR Shields Oil Producers

RIG #2 HYDRAULICS Beth 225 6x14x58  
(George Begler TP)

DRILL PIPE 4½" X-H COLLARS 6¼" 8 (286')

CASING: SURFACE 8 5/8" @ 209' w/ 150 sx Common

PRODUCTION \_\_\_\_\_

DRILLING FLUID. COMPANY Mud-Co/Service Mud Inc.

TYPE: Chemical

REMARKS: Full service

DRILL STEM TESTS: COMPANY Trilobite Testing Inc.  
(Phillip Gage)

NUMBER OF TESTS One (1)

ELECTIC LOGS: COMPANY Pioneer Energy Service

DETAIL (5") 3000' - RTD

TYPE RAG

DRILLING TIME FROM 3000' TO RTD

SAMPLE TIME FROM 3100' TO RTD

SUPERVISION FROM 3100' TO RTD

VERTICAL DEVIATION 3/4°@ 212', 1¼°@ 3580',

PLUGGING REPORT 25 sx @ 1510', 100 @ 725', 40 @ 260', 10  
40', 30 Rat, 15 Mouse, 220 sx 60/40 Poz. Ed Shoemaker

RESERVE PIT 700 bbls., Chl. 33,000





# DRILL STEM TESTS

NO	INTERVAL	IFP/TIME	ISIP/TIME	FFP/TIME	FSIP/TIME	IHP/FHP	RECOVERY
1	LKe C-F 3495- 3580'	43# 97# 5"	1038#  60"	104# 343# 75"	977#  105"	1741# 1695#	204' W, Mud w/ 504' M, Wtr
2							
3							
4							
5							
6							
7							
8							

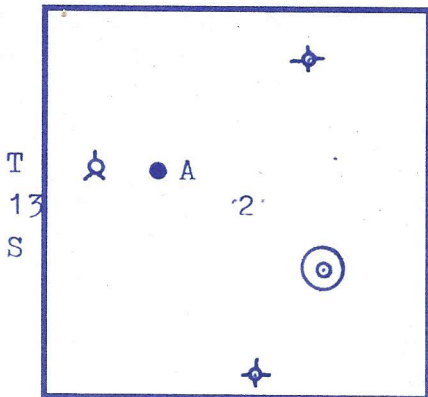
MUD RECORD								BIT RECORD						
CHK	DEPTH	WT	VIS	FIL	CHL	YP	Displaced LOM 2# LOM 2# LOM 2# LOM 1#	NO	SIZE	MAKE	TYPE	DEPTHOUT	FEET	HOURS
1								1	12 1/4"	Reed	RR	212'	212'	4 1/2
2	3090'	8.6	71					2	7 7/8"	Reed	S-52	3865'	3653	90 3/4
3	3277'	8.8	48	8.0	3k	19		3						
4	3350'	8.9	72					4						
5	3460'	9.0	63					5						
6	3580'	9.2	51	7.2	3.1k	22		6						
7	3640'	9.1	54					7						
8	3730'	9.1	54					8						
9	3810'	9.3	59					9						
10								10						
11								11						



# FORMATION TOPS & STRUCTURAL GEO

R 19 W

REFERRED TO:



- A: CLA-MAR OIL CO.  
Wolf #1 SW SE NW 2
- B: \_\_\_\_\_
- C: \_\_\_\_\_
- D: \_\_\_\_\_
- E: \_\_\_\_\_

STRATIGRAPHIC MARKERS	SUBJECT WELL			STRUCTURAL PO		
	SAMPLES	E. LOGS	DATUM	A	B	C

Anhydrite	1438'	1482'	+ 649	+ 656		
Base	1530'	1523'	+ 608	+ 612		
Topeka	3202'	3194'	-1063	-1051		
Heeb. Sh.	3437'	3428'	-1297	-1288		
Toronto	3456'	3448'	-1317	-1306		
Lansing	3481'	3473'	-1342	-1330		
Bfc.	3723'	3722'	-1591	-1570		
Cong Sd.	3799'	3773'	-1642	-1629		
Arbuckle	-	-	-	-1727		
TD	3865'	3860'	1729	-1744		

Pipe strap 3.77' short.

\*Structural position of subject well as compared to refer

6 7 8

LOGY

## SUMMARY

The Feedlot Frank #1 was drilled with Shields #2 beginning 5-5-14 and drilling was complete

The drill site was located via a 3-D seismic

The well ran low structurally. The seismic wa

DST #1 was run over small oil shows in the LR with negative results.

The well thickened with depth. The Conglomer poor, dead oil staining. A RAG log was run to the well.

Based upon all data, the well was P&A'ed.

Respectfully,



Randall Kilian

SITION

D E

red well.



tools rig  
 d 5-12-14.  
 survey.  
 s a bust.  
 c C-F zones  
 ate had  
 o condemn

REMARKS

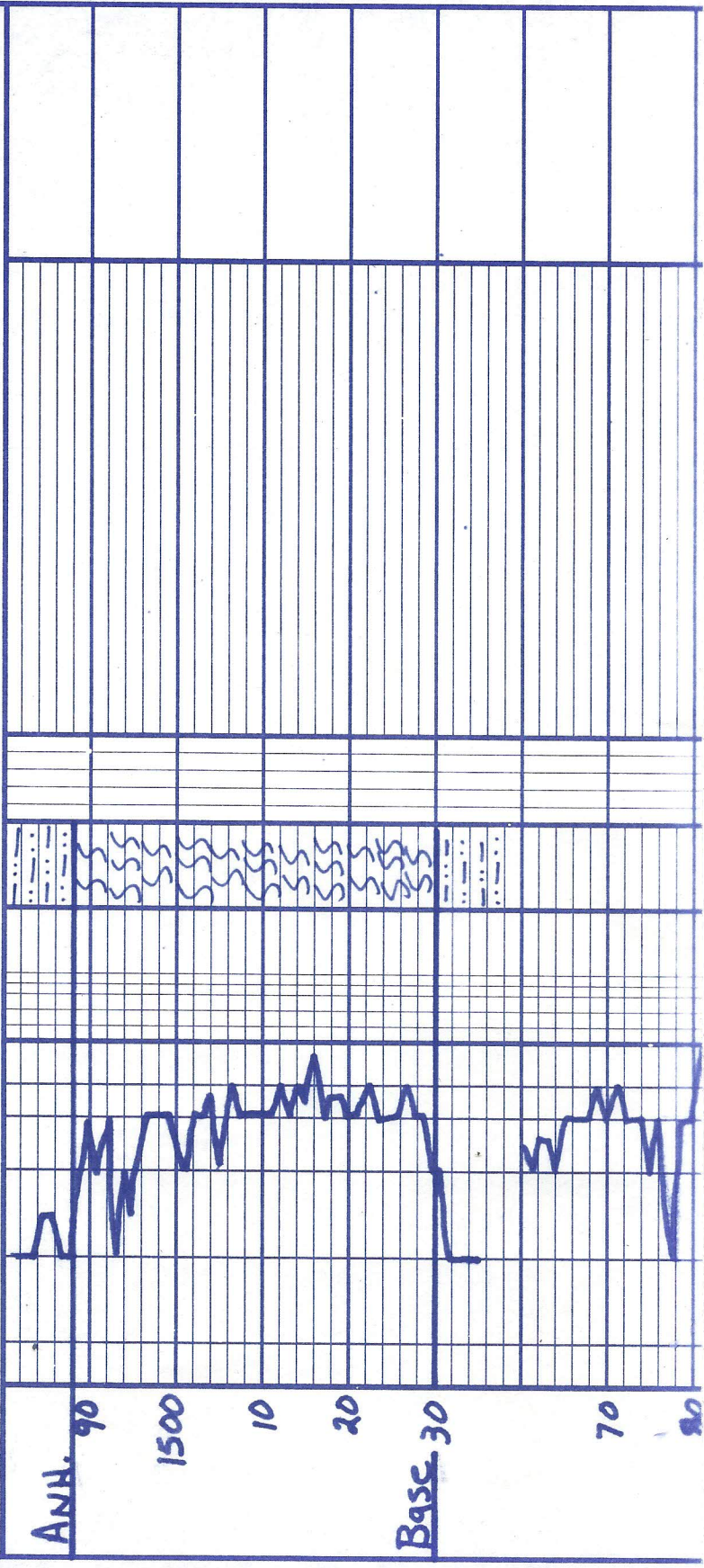
LITHOLOGY (LAGGED)

0 & SHOWS  
 POOR  
 FAIR  
 GOOD

DST

DRILLING TIME (min/ft)

1/2 1 2 3 4 5 6 7 8 9 10



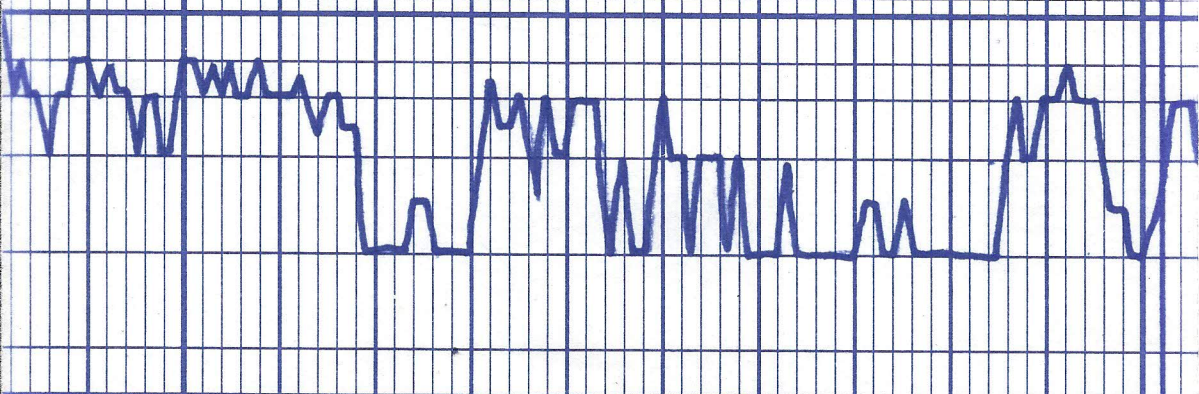


Mud  
Vis. - 71  
WT - 8.6  
LCM - 2.4

sh & siltst - gry - brn.

LS - tan - brn - gry - fm. yln.  
fossil

sh & siltst - gry - brn.



90  
3100  
10  
20  
30  
40  
50  
60  
70  
80  
90  
3200

Top.



geo on location  
10:00 am 5-9-14

LS - tan-brn-gry-fn. xln.  
fossil.

LS gla.

sh-gry

LS - dolo - tan-fn. xln. w/ fr inter.  
xln. Ø. barren.

sh-dark gry.

sh. siltst-gry-brn.

LS - tan-brn-gry-fn. xln.  
fossil, st-chalky

LS gla

sh. siltst-gry-brn.

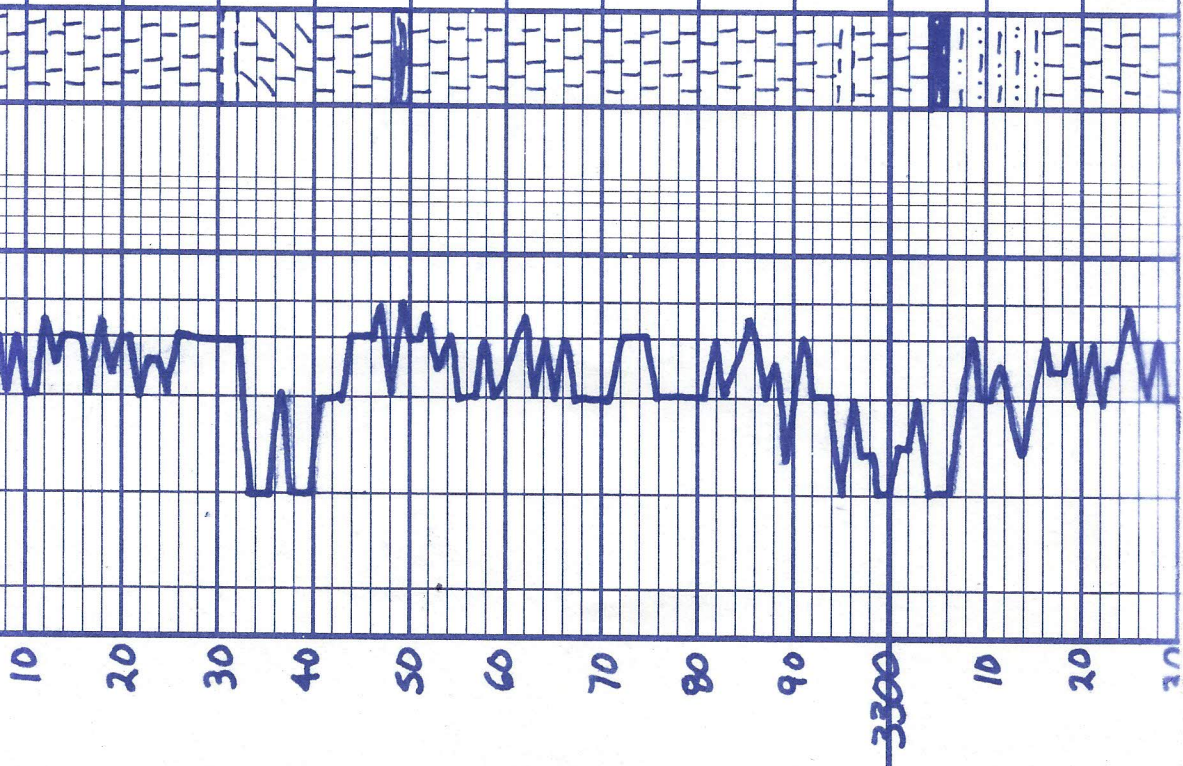
LS - tan-tt gry-fn. xln. ool w/ fr. ool. Ø. st-chalky

sh - dark gry-blk

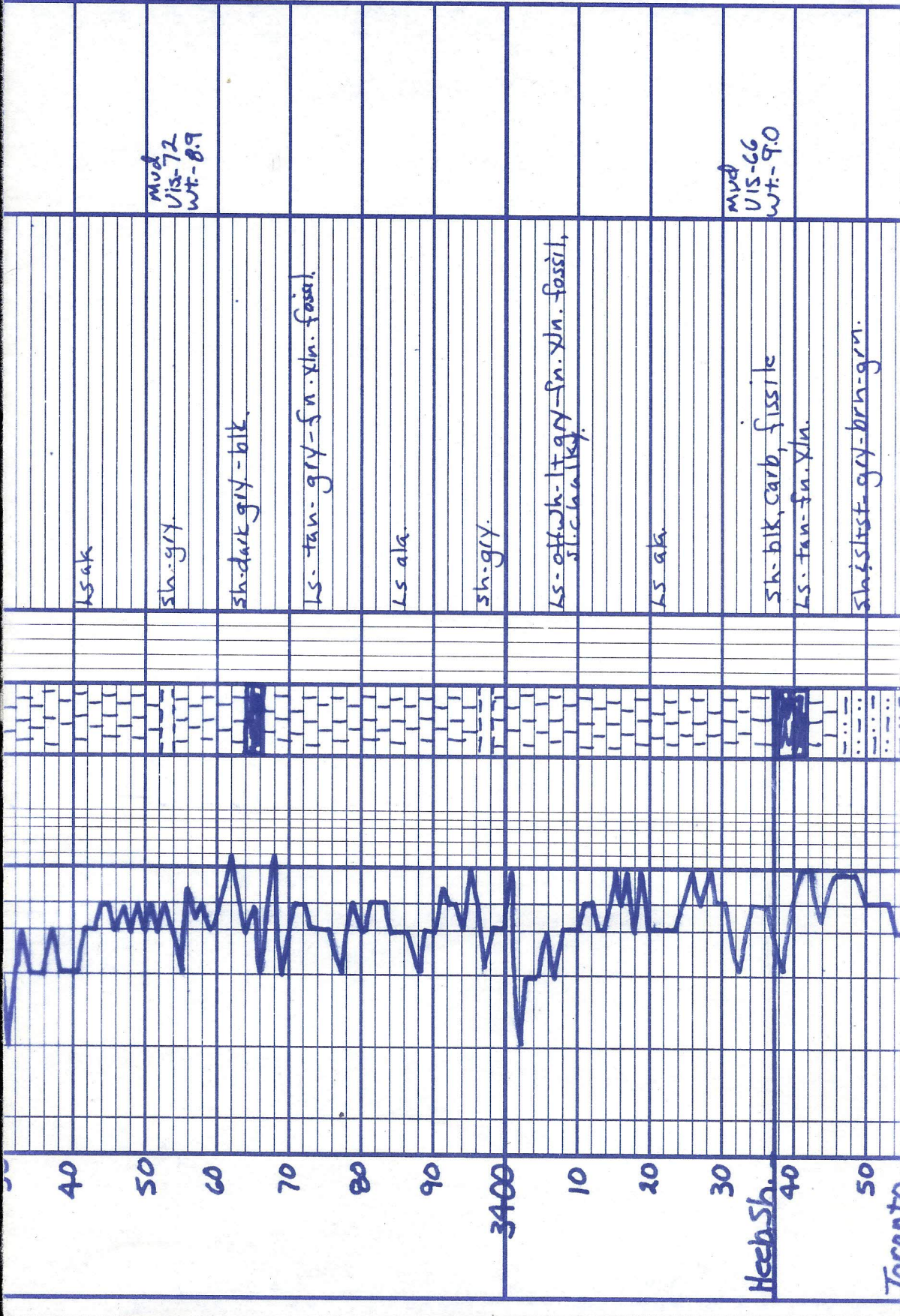
sh. siltst-gry-brn.

LS - tan-tt gry-fn. xln. fossil,  
st-chalky

Mud  
vis. - 48 yd - 19  
wt. - 8.8 chh. - 3K  
wh. - 8.0 LCM - 2 #









Mud  
Vis. - 63  
WT. - 9.0  
CM. - 2.4

LS - sl. ddp - wh - gry - fn. xln.  
fossil, st. Δ, sl. chalky.  
sl. pyrite

sh. sl. st. - gry - brn - gn.

LS - Tan - fn. xln.  
sh. gry.

LS - g. flsh. - tan - lgry - fn. xln.  
fossil, chalky

sh. sl. st. - gry - brn - gn.

LS - g. flsh. - lgry - fn. xln. of-  
fossil, w. poor in temp. part.  
sl. gry. st. in 5% of φ  
sl. odor, sl. chalky.

sh - gry.

LS - sl. ddp - tan - gry - fn. xln.  
fossil, oil, poor for  
interpart. & oil st. - sat.  
sl. odor, fl. odor.

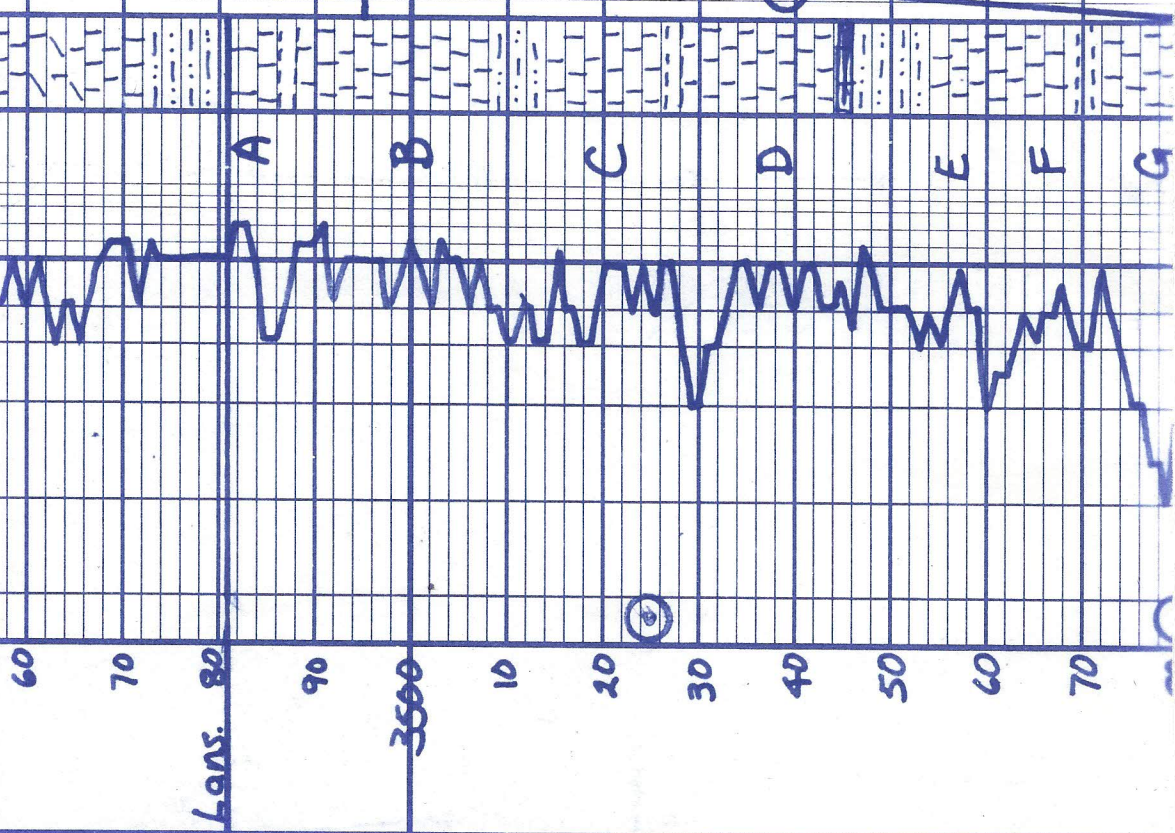
sh - dark gry - blk  
sh. sl. st. - gry - brn.

LS - Tan - gry - fn. xln. fossil.  
interpart. φ sl. py. st. in  
sl. odor, sl. chalky

LS - off wh - lgry - fn. xln. of fossil,  
with a poor part. φ oil st. in φ

OST # 11K C-F  
3495 - 3580  
5' 60" 75" 105"  
204 w. Mud w. 5.0.  
509 M. w. tr.  
F.P. 48.92, 109.345#  
S.I.P. 1038-977#

dev 1/4°  
Strap 3.77' short.  
Mud





U15-51 Y.P. 22  
WT: 9.2 CMI: 3.1K  
W.A.: 7.2 LCM: 1#

Mud  
U15-5A  
WT: 9.1

LS - offwhite - tan. gray - fa. xln. dol.  
sl. chalky

ls. gr.

sh. dark gry.  
sh. siltst. gry-brn-grn. soft

LS - offwh. tan. gray - fa. xln. dol. poor  
interpart.  $\phi$  oil st. in  $\phi$ .  
sl. s. fa. sl. odor. sl. chalky

sh. siltst. gry-grn.

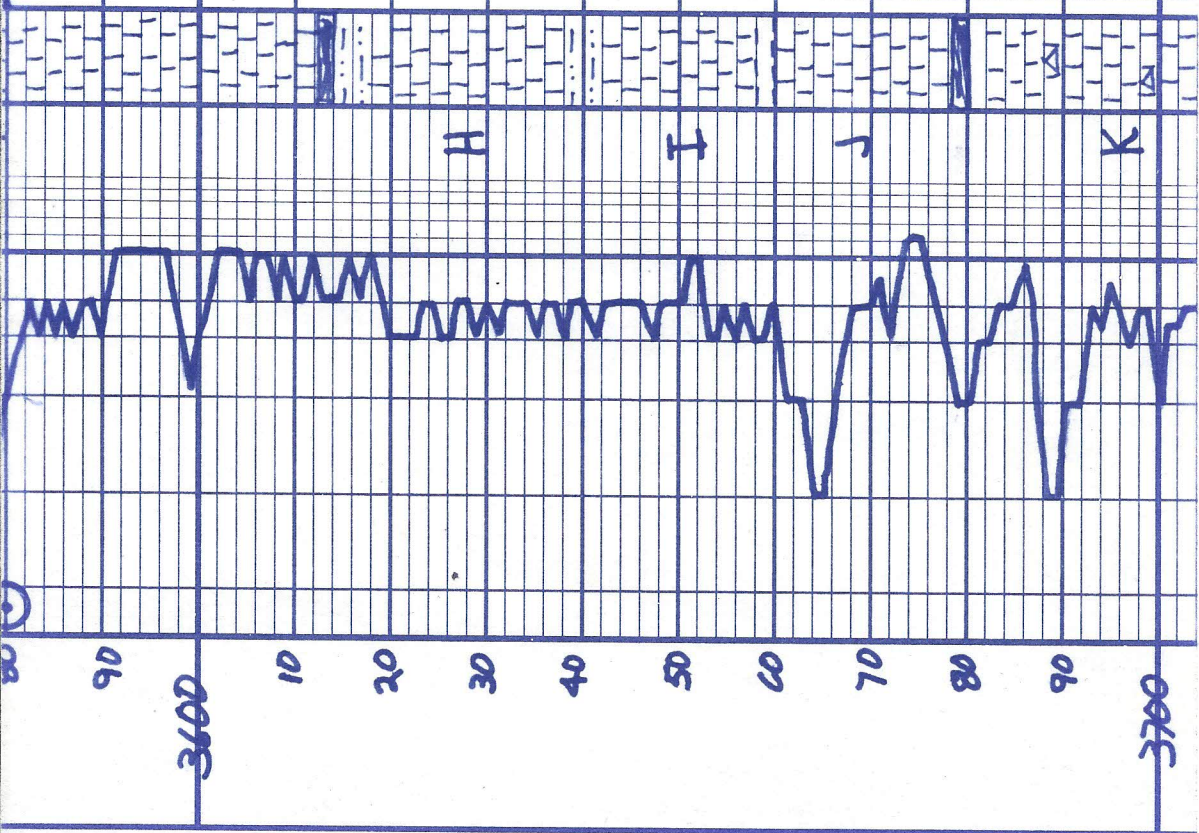
LS - offwh. fa. xln. fossil. w/ poor  
interpart.  $\phi$

sh. dark gry.

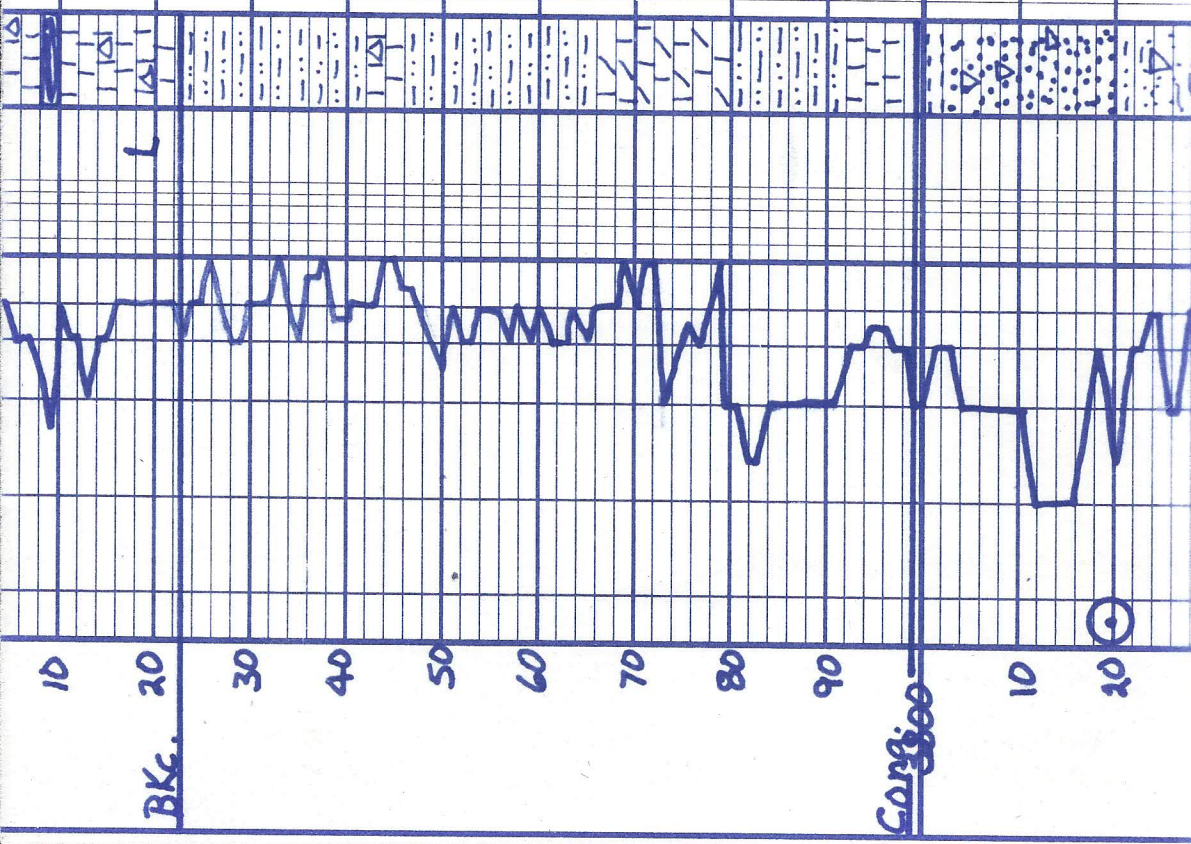
LS - tan. fa. xln. dol. w/ fr. com  
 $\phi$  sl. oil st. in 5%  $\phi$ , sl.  
chalky. sl. odor.

sh. blk. fissile

LS - offwh. tan. fa. xln. dol. w/  
fr. com  $\phi$  barren. sl. chalky  
sl. 2







sh. blk, Carb.

LS - tan - grey fn. xln. fossiliferous  
 poor interbedded sh. cherty, st. Δ

Mud  
 U13-54  
 wt-9.1

sh. siltst - gry-brn-grn.

LS - tan-gry, fn. xln. Δ

sh. siltst - gry-brn-grn.

LS - dol. - offwh - tan-gry, fn. xln. Δ

sh. siltst - brn-gry-grn, red.

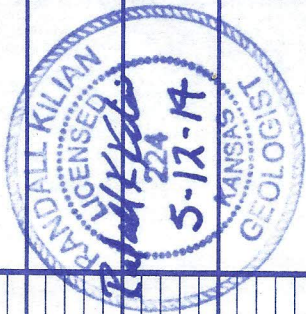
LS - tan-gry-fn. xln. fossil, Δ

sh-brn-gry.

Mud  
 U13-59  
 wt-9.3

ss, gr. z, gry-fn-grn. w/ glauc. & sh. w/ dead etc st.

VA sh. siltst.



a/a.

