



KANSAS CORPORATION COMMISSION 1065540
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 # 33235

Name: Chieftain Oil Co., Inc.

Address 1: 605 S. 6th; PO Box 124

Address 2: _____

City: KIOWA State: KS Zip: 67070 + 1912

Contact Person: Ron Molz

Phone: (620) 825-4030

CONTRACTOR: License # 33843

Name: Terra Drilling, LLC

Wellsite Geologist: Arden Ratzlaff

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SLOW
- 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 #: _____

<u>7/24/2007</u>	<u>8/3/2007</u>	<u>8/21/2007</u>
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-007-23167-00-00

Spot Description: _____

NW SE SE SE Sec. 13 Twp. 33 S. R. 11 East West

340 Feet from North / South Line of Section

340 Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

County: Barber

Lease Name: Jake A Well #: 1

Field Name: Traffas

Producing Formation: Mississippi

Elevation: Ground: 1546 Kelly Bushing: 1553

Total Depth: 5115 Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: 313 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: 10000 ppm Fluid volume: 1500 bbls

Dewatering method used: Hauled to Disposal

Location of fluid disposal if hauled offsite: _____

Operator Name: Molz Oil Co., Inc.

Lease Name: Gamer SWD License #: 6006

Quarter NE Sec. 11 Twp. 33 S. R. 10 East West

County: Barber Permit #: D-28-060

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 Garcia Date: 10/21/2011



1065540

Operator Name: Chieftain Oil Co., Inc. Lease Name: Jake A Well #: 1
 Sec. 13 Twp. 33 S. R. 11 East West County: Barber

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 type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum Attached Attached Attached
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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	10.75	8.625	24	313	60/40 Poz	275	2% Salt
Production	7.875	5.5	15.5	5114	Common	200	Gas Block 2% Salt

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 (Amount and Kind of Material Used)	Depth
4	4588-4598 4602-4612	1000 Gal 7-1/2% Acid	4588-4612
		1500 Gal 15% Acid	4588-4612
		Frac 105,000# Sand	4588-4612
		8000 BBLS Slick Water	4588-4612

TUBING RECORD: Size: <u>2-3/8</u> Set At: <u>4650</u> Packer At: _____		Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Date of First, Resumed Production, SWD or ENHR. <u>10/01/2007</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>9</u>	Gas Mcf <u>70000</u> Water Bbls. <u>200</u> Gas-Oil Ratio _____ Gravity _____

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input checked="" 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 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: _____ _____
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Form	ACO1 - Well Completion
Operator	Chieftain Oil Co., Inc.
Well Name	Jake A 1
Doc ID	1065540

All Electric Logs Run

Sector Bond / Gamma Ray CCL Log
Dual Compensated Porosity Log
Dual Induction Log
Geologic Log

Form	ACO1 - Well Completion
Operator	Chieftain Oil Co., Inc.
Well Name	Jake A 1
Doc ID	1065540

Tops

Heebner	3703	-2150
Lansing	3900	-2347
Stark	4353	-2800
Base Kansas City	4414	-2861
Pawnee	4524	-2971
Cherokee	4573	-3020
Mississippian	4586	-3033
Viola	4942	-3389
Simpson SDST	5054	-3501
Total Depth	5115	-3562



Pratt

PAGE 1 of 1	JUST NO 1970-CHI017	INVOICE DATE 07/27/2007
INVOICE NUMBER 1970000611		

CHIEFTAIN OIL COMPANY
PO BOX 124
KIOWA KS 67070
ATTN:

LEASE NAME Jake "A"
WELL NO. 1
COUNTY Barber
STATE KS
JOB DESCRIPTION Cement-New Well Casing/Pipe
JOB CONTACT

JOB #	EQUIPMENT #	PURCHASE ORDER NO.		TERMS	DUE DATE
1970-00615	301			Net 30 DAYS	08/26/2007
For Service Dates: 07/24/2007 to 07/24/2007		QTY	U of M	UNIT PRICE	INVOICE AMOUNT
1970-00615					
1970-16240 Cement-New Well Casing 7/24/07					
Pump Charge-Hourly		1.00	Hour	924.000	924.00
<i>Casing Cement Pumper</i>					
Cementing Head w/Manifold		1.00	EA	250.000	250.00
<i>Cement Head Rental</i>					
Cement Float Equipment		1.00	EA	88.900	88.90
<i>Wooden Cement Plug</i>					
Mileage		275.00	DH	1.500	412.50
<i>Cement Service Charge</i>					
Mileage		90.00	DH	5.000	450.00
<i>Heavy Vehicle Mileage</i>					
Mileage		533.00	DH	1.600	852.80
<i>Proppant and Bulk Delivery</i>					
Pickup		45.00	Hour	3.000	135.00
<i>Car, Pickup or Van Mileage</i>					
Additives		69.00	EA	3.700	255.30 T
<i>Cellflake</i>					
Calcium Chloride		711.00	EA	1.000	711.00 T
Cement		275.00	EA	10.710	2,945.25 T
<i>60/40 POZ</i>					
Supervisor		1.00	Hour	150.000	150.00
<i>Service Supervisor</i>					

ENTERED

AUG 7 2007

9121

PLEASE REMIT TO:	SEND OTHER CORRESPONDENCE TO:	BID DISCOUNT	-1,147.62
BASIC ENERGY SERVICES, LP	BASIC ENERGY SERVICES, LP	SUBTOTAL	6,027.13
PO BOX 841903	PO BOX 10460	TAX	207.02
DALLAS, TX 75284-1903	MIDLAND, TX 79702	INVOICE TOTAL	6,234.15



FIELD ORDER 16240

Subject to Correction

Date	7-24-07	Customer ID		Lease	Jake "A"	Well #	1	Legal	13-335-11W
C H A R G E	Chieftain Oil Company, Incorporated		Depth	Barber	County	KS	State	Pratt	Station
			Formation						
			Shoe Joint	15 Feet					
			Casing	8 5/8" 23Lb	Casing Depth	313Ft	TD	315Ft	Job Type
			Customer Representative	Ron Molz	Treasurer	Clarence R. Messick			

AFE Number _____ PO Number _____ Materials Received by **X** Ron Molz by Clarence R. Messick PLS

Station Code	Product Code	QUANTITY	MATERIALS, EQUIPMENT, and SERVICES USED	UNIT PRICE	AMOUNT
P	D203	275sk	60/40 Poz	—	\$2,945.25
P	C194	69Lb	Cellflake	—	\$255.30
P	C310	71Lb	Calcium Chloride	—	\$711.00
P	F163	1ea.	Wooden Cement Plug, 8 5/8"	—	\$88.90
P	E100	90mi	Heavy Vehicle Mileage, 1-Way		\$450.00
P	E101	45mi	Pickup Mileage, 1-Way		\$135.00
P	E104	533tm	Bulk Delivery		\$853.20
P	E107	275sk	Cement Service Charge		\$412.50
P	E891	1ea	Service Supervisor		\$150.00
P	R201	1ea	Cement Pumper: 301Ft. To 500Ft.		\$924.00
P	R701	1ea	Cement Head Rental		\$250.00
			Discounted Price =		\$6,027.13
			Plus taxes		

Taylor Pitman, Inc. 620-672-3656



TREATMENT REPORT

Customer Chieftain Oil Company, Incorporated	Lease No. Well #	Date 7-24-07
Lease Jake "A"	Well #	
Field Order # 10240	Station Pratt	Casing 2 3/8" ID
		Depth 313 FT.
Type Job C.N.W. - Surface	Formation	County Barber
		State KS
		Legal Description 15-335-11W

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size 2 3/8"	Tubing Size 2 1/8"	Shots/Ft		Rate 275 sacks	Rate 60/40 Poz	Press 10	ISIP With 2% Gel	
Depth 313 FT.	Depth	From	To	Rate 38 C.C.	Max 5 Lb./sk. Cell		15 Min Make	
Volume 20 Bbl.	Volume	From	To	Rate 14.72 Lb./	Min Gal., 5.71 Gal./sk		10 Min 25 CU.FT./sk	
Max Press 300 P.S.I.	Max Press	From	To	Rate	Avg		15 Min	
Well Connection 10g Containe	Annulus Vol.	From	To		HHP Used		Annulus Pressure	
Plug Depth 298 Ft	Packer Depth	From	To	Flush 19 Bbl. Fresh Water	Gas Volume		Total Load	

Customer Representative Ron Molz	Station Manager David Scott	Treater Clarence R. Messick
-------------------------------------	--------------------------------	--------------------------------

Service Units 19,870	14,903	19,831							
Driver Names Messick Mattal Shields									

Time P.M.	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
5:00					Trucks on location and hold safety meeting.
7:50					Terra Drilling start to run 7 1/2" new 2 3/8" ID casing.
9:10					Casing in well. Circulate 5 minutes.
9:17	300			5	Start Fresh Water Pre-Flush.
	300		10	5	Start mixing 275 sacks 60/40 Poz cement
	-0-		71		Stop pumping. Shvt in well. Release plug. Open well.
9:33	100			4	Start Fresh Water displacement.
9:40	200		19		Plug down. Shvt in well.
					Circulated 10 sks cement to pit.
					Wash up pump truck.
10:30					Job Complete.
					Thanks,
					Clarence, Mike, Billy



Pratt

B CHIEFTAIN OIL COMPANY
L PO BOX 124
L
T KIOWA KS 67070
O ATTN:

J LEASE NAME Jake
O WELL NO. A-1
B COUNTY Barber
S STATE KS
I JOB DESCRIPTION Cement-New Well Casing/Pipe:
T JOB CONTACT

PAGE 1 of 2	JUST NO 1970-CHI017	INVOICE DATE 08/07/2007
INVOICE NUMBER 1970000659		

JOB #	EQUIPMENT #	PURCHASE ORDER NO.		TERMS	DUE DATE
1970-00662	301			Net 30 DAYS	09/06/2007
For Service Dates: 08/03/2007 to 08/03/2007					
1970-00662					
1970-16344 Cement-New Well Casing 8/3/07					
Pump Charge-Hourly Casing Cement Pumper	1.00	Hour	1943.000	1,943.00	
Cementing Head w/Manifold Cement Head Rental	1.00	EA	250.000	250.00	
Cement Float Equipment Basket	2.00	EA	268.500	537.00	
Cement Float Equipment Flapper Type Insert Float Valve	1.00	EA	175.000	175.00	
Cement Float Equipment Guide Shoe-Regular	1.00	EA	186.650	186.65	
Cement Float Equipment Top Rubber Cement Plug	1.00	EA	75.000	75.00	
Cement Float Equipment Turbolizer	7.00	EA	74.200	519.40	
Mileage Cement Service Charge	225.00	DH	1.500	337.50	
Mileage Heavy Vehicle Mileage	90.00	DH	5.000	450.00	
Mileage Proppant and Bulk Deliver	473.00	DH	1.600	756.80	
Pickup Car, Pickup or Van Mileage	45.00	Hour	3.000	135.00	
Additives Defoamer	47.00	EA	3.450	162.15	T
Additives FLA-322	151.00	EA	8.250	1,245.75	T
Additives Gas Blok	188.00	EA	5.150	968.20	T
Additives Gilsonite	1,000.00	EA	0.670	670.00	T
Additives JSCC-1	5.00	EA	44.000	220.00	T
Additives Mud Flush	500.00	EA	0.860	430.00	T
Additives Salt	1,038.00	EA	0.250	259.50	T

ENTERED
 AUG 10 2007
 9/21/06



Pratt

B CHIEFTAIN OIL COMPANY
I PO BOX 124
L
T KIOWA KS 67070
O ATTN:

J LEASE NAME Jake
O WELL NO. A-1
B COUNTY Barber
S STATE KS
I JOB DESCRIPTION Cement-New Well Casing/Pipe
T JOB CONTACT
E

PAGE 2 of 2	JUST NO 1970-CHI017	INVOICE DATE 08/07/2007
INVOICE NUMBER 1970000659		

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE		
1970-00662	301		Net 30 DAYS	09/06/2007		
			QTY	U of M	UNIT PRICE	INVOICE AMOUNT
Additives <i>Super Flush II</i>			500.00	EA	1.530	765.00 T
Cement 60/40 POZ			25.00	EA	10.710	267.75 T
Cement AA2			200.00	EA	16.530	3,306.00 T
Supervisor <i>Service Supervisor</i>			1.00	Hour	150.000	150.00

ENTERED
 AUG 10 2007
 9121 BC

PLEASE REMIT TO:
 BASIC ENERGY SERVICES, LP
 PO BOX 841903
 DALLAS, TX 75284-1903

SEND OTHER CORRESPONDENCE TO:
 BASIC ENERGY SERVICES, LP
 PO BOX 10460
 MIDLAND, TX 79702

BID DISCOUNT -2,210.22
SUBTOTAL 11,599.48
TAX 438.94
INVOICE TOTAL 12,038.42

Mad. Lodge Station Bldg of - HETOCurve - NW - 1/2 - 7/2 N - E Jct.



Subject to Correction

FIELD ORDER 16344

Date 8-3-07	Customer ID	Lease Jake	Well A-1	Legal 13-33-11
Chickasha Oil Co.		County Barber	State KS	Station Pinta
C H A R G E	Depth 5115'	Formation		Shoe Joint 42
	Casing 570 158'	Casing Depth 2711'	TD 5115'	Job Type CNW-L.S.
	Customer Representative Ron Malz			Treater Steve Olander
	Materials Received by X <i>[Signature]</i> DLS			

AFE Number	PO Number
------------	-----------

Station Code	Product Code	QUANTITY	MATERIALS, EQUIPMENT, and SERVICES USED	UNIT PRICE	AMOUNT
P	D005	200SR	AA2 —		3306.00
P	D003	25SR	60/40 Poz —		967.75
P	C195	151LB	FLA-332 —		1245.75
P	C221	1033LB	Salt —		257.50
P	C243	471LB	Trifluor —		160.15
P	C312	188LB	bar block —		968.00
P	C321	1000LB	Gilsonite —		670.00
P	C141	5 gal	JSCC-1 —		200.00
P	C302	500gal	Mud Wash —		430.00
P	C304	500gal	Super Flush II —		765.00
P	F101	2 ea	Tricholizer 5 1/2" —		419.40
P	F131	2 ea	Bucket 5 1/2" —		537.00
P	F143	1 ea	Top Rubber Cement Plug 5 1/2" —		75.00
P	F191	1 ea	Guide Shoe 5 1/2" —		186.65
P	F231	1 ea	Flapper Type Insert Plug Valve 5 1/2" —		175.00
P	E100	90 mi.	Heavy Vehicle Mileage		450.00
P	E101	45 mi.	Pickup Mileage		135.00
P	E104	473 mi.	Bulk Delivery		750.00
P	E167	235 hr	Cement Service Charge		337.50
P	E871	1 ea	Service Supervisor		150.00
P	R211	1 ea	Cement Pump 500P-5400		1945.00
P	R701	1 ea	Cement Head Rental		250.00
			Discounted Price Plus Taxes		11597.45

Arden Ratzlaff

PETROLEUM GEOLOGIST

107 N. Market 808 Billing Bldg. Wichita, KS 67202

Phone: 262-8938

DRILLING TIME
AND
SAMPLE LOG

COMPANY **CHIEFTAIN OIL CO. INC.**

LEASE **JAKE A No. 1**

FIELD **TRAFAS**

LOCATION **SE SE SE**

SECTION **13** TOWNSHIP **33 S** RANGE **11 W**

COUNTY **BARBER** STATE **KANSAS**

CONTRACTOR **TERRA DRILLING** RIG NO. **1**

COMMENCED DRILLING **7-24-07**

COMPLETED DRILLING **8-03-07**

RID **5110** FEET LTD. **5115** FEET

MUD UP AT **3600** FEET MUD TYPE **CHEMICAL**

ELEVATIONS
KB **1533**
OF **1531**
CA **1546**

Measurements are All
From **K.B.**

CASING
8 5/8" @ 313' w. 275 SX
5 1/2" @ 5114' w. 200 SX

ELECTRICAL SURFETS

LOG-TECH-CAMRA RAY, DUAL
INDUCTION COMPENSATED NEUTRON
& DENSITY, S.P. & CALIPER

FORMATION TOPS

SAMPLE

ELECTRIC LOG

HEBNER 3699 (2146)
LANISING 3895 (2343)
STARK 4349 (2796)
BASE KANSAS CITY 4410 (2857)
PAWULE 4523 (2970)
CHEROKEE 4568 (3015)
MISSISSIPPIAN 4583 (3033)
VIDUA 4935 (3382)
SIMPSON SOST 5049 (3496)
TOTAL DEPTH 5110 (3557)

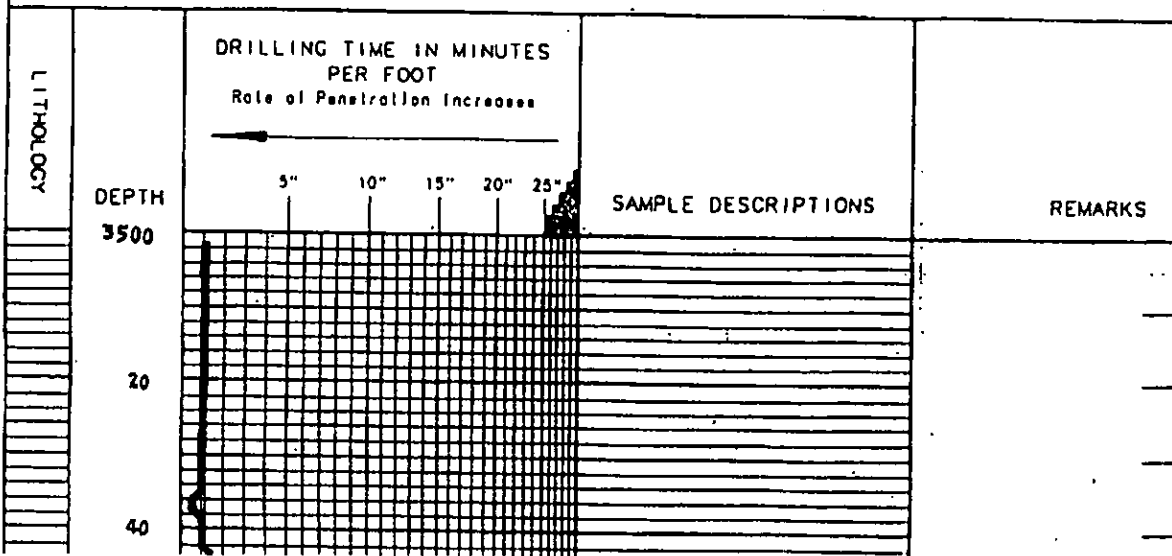
3703 (2150)
3900 (2347)
4353 (2800)
4414 (2861)
4524 (2971)
4573 (3020)
4586 (3033)
4942 (3389)
5054 (3501)
5115 (3562)

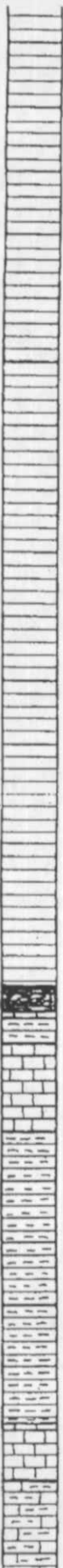
REMARKS AFTER ALL THE DRILLING INFORMATION WAS ANALYZED IT WAS DECIDED THAT PRODUCTION CASING BE RETRIEVED IN EXPECTANCE OF A GOOD PRODUCING WELL

Arden Ratzlaff, Petroleum Geologist

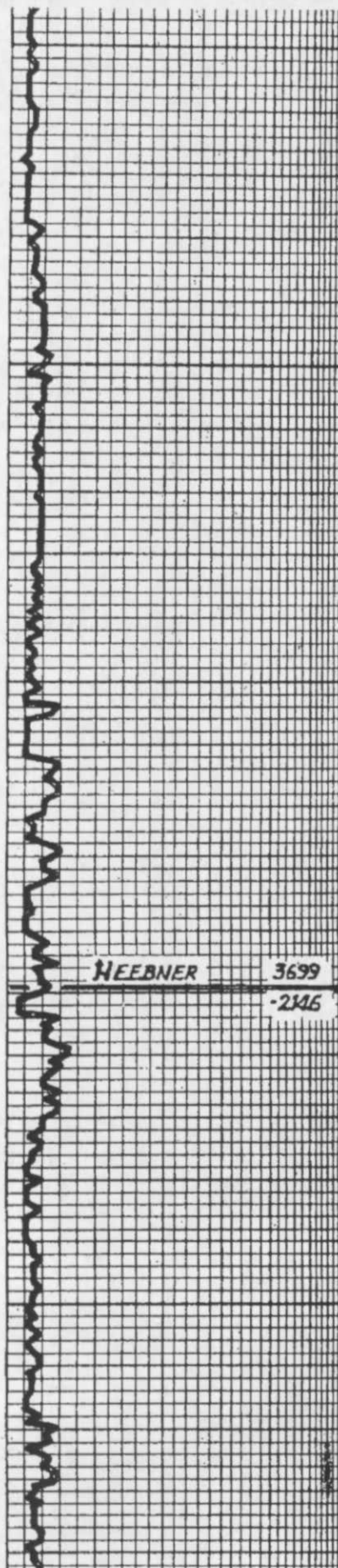
NOTE! MUD CO FURNISHED THE MUD & SAMPLES DEPOSITED AT THE K.G.S. SURVEY

LEGEND





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80
3600
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80



HEEBNER **3699**
-2346

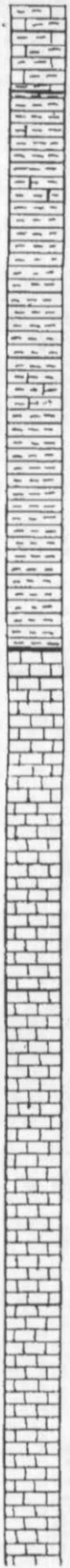
SH. BLK. COBB. MED. GRAY-GRN. S. SILTY
M. COBB. BLK. GRAY-TAN. FINE. SUB.
CHALKY TO DENSE. HARD. LM.

LM. WH. FCM. BUFT. GRAY-TAN. FINE. SUB.
CHALKY TO DENSE. HARD. M. MED. W. DR. GRAY
GRAY-GRN. S. BLK. COBB. SH.

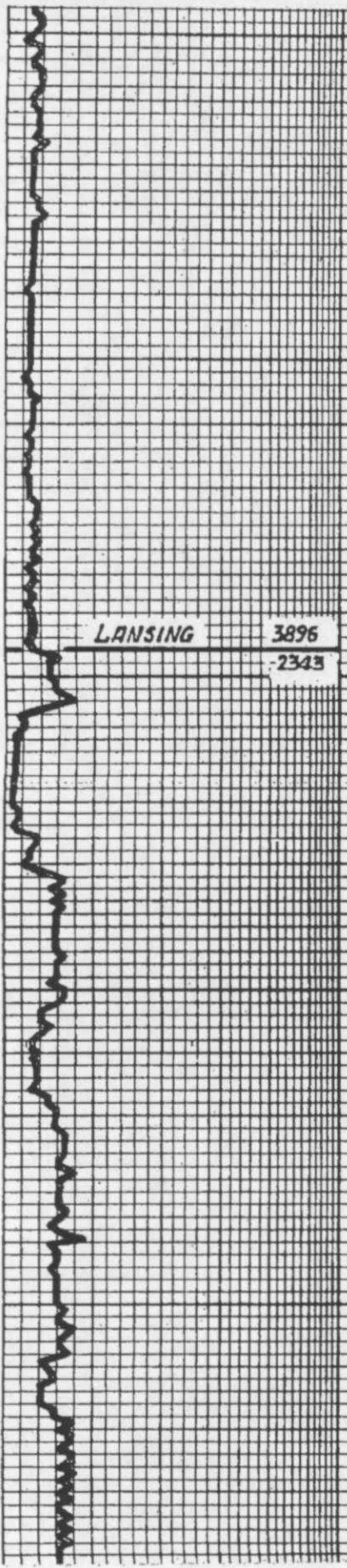
SH. MED. TO DM. GRAY GRAY-GRN. M. V. SOFT
M. COBB. COBB. F. LM. W. ABOVE. TR. FINE
TO LT. GRAY SILT.

SH. BY. A. BONE. M. COBB. BUFT. GRAY-TAN. FINE. SUB.
SUB. CHALKY TO CHALKY TO DENSE. HARD. LM.
F. GRAY. GRAY-GRN. S. SILTY. SW. GRAY.
TO LT. GRAY SILT.

LM. COBB. BUFT. GRAY-TAN. FINE. SUB.
CHALKY TO DENSE. HARD. M. MED. GRAY
GRAY-GRN. BLK. SH.



3800
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3900
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LANSING 3896
-2343

1M. CR. BLUFF GR. TAN & SM. DARK F. IN
SUB. SILTY TO BROWN. BROWN & H. GR. I
GRY. CO. SILTY SH

SILT. TO TH. GR. GR. GR. I. SM. CO. SILTY
IN PART W. SCOT. IN AS ABOVE STR. SILTY

SILT. TO TH. GR. GR. GR. I. GR. I. GR. I.
GR. I. GR. I. GR. I. GR. I. GR. I. GR. I.
PIECE. IN AS ABOVE

SILT. TO TH. GR. GR. GR. I. GR. I. GR. I.
IN PART W. V. SCOT. IN AS ABOVE STR. SILTY
XIN SUB. SILTY TO BROWN. H. GR. I.

SAME AS ABOVE W. SCOT. I. GR. I. GR. I.
"MUSKY" SH

1M. W. CR. F. IN SUB. CHALKY SILTY
W. BLUFF GR. I. TAN. F. IN. TAN. F. IN.
PIECE. IN AS ABOVE

SOIL V. DIRTY & NEARLY ALL SH (LARGE
PIECES)

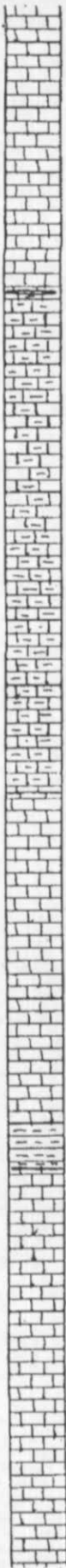
SAME AS ABOVE

SAME AS ABOVE - LAST 3 SP. ROUNDED.
EXCELLENT MUD - V. FINE. SOME SILTY -
SILTY

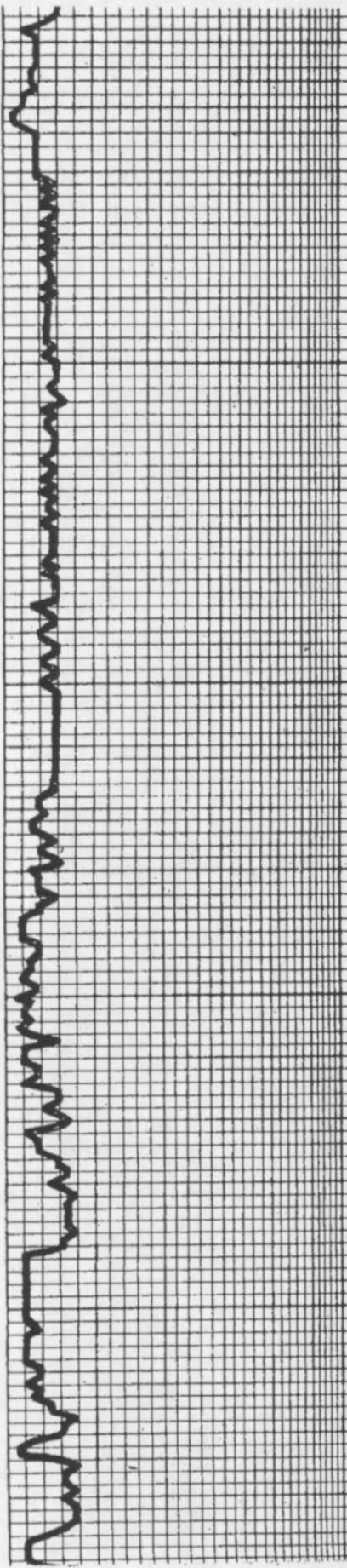
1M. CO. GR. BLUFF GR. I. TAN. F. IN.
PIECE. BROWN. H. GR. I. GR. I. GR. I.
XIN F. IN. GR. I. GR. I. GR. I. GR. I. GR. I.
PIECE. IN AS ABOVE (FROM IN. APPROXIMATELY FROM 3915-3920)

1M. CR. BLUFF GR. I. TAN. F. IN. GR. I. GR. I.
IN PART W. SCOT. IN AS ABOVE STR. SILTY
& H. GR. I.

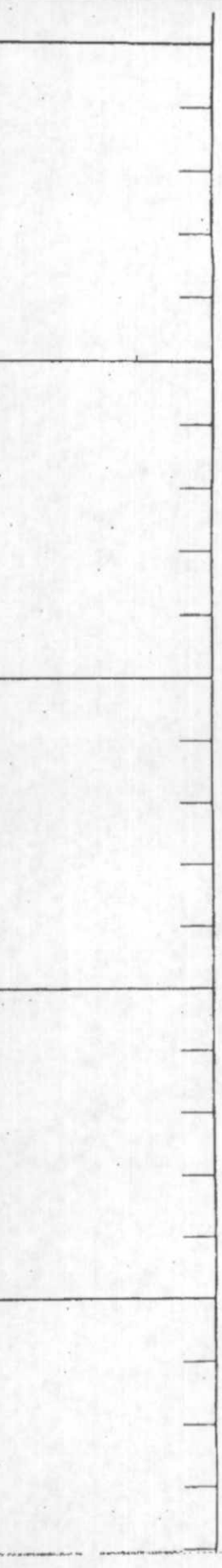
1M. CR. BLUFF GR. I. TAN. F. IN. GR. I. GR. I.
SILTY. GR. I. GR. I. GR. I. GR. I. GR. I.
PIECE. IN AS ABOVE

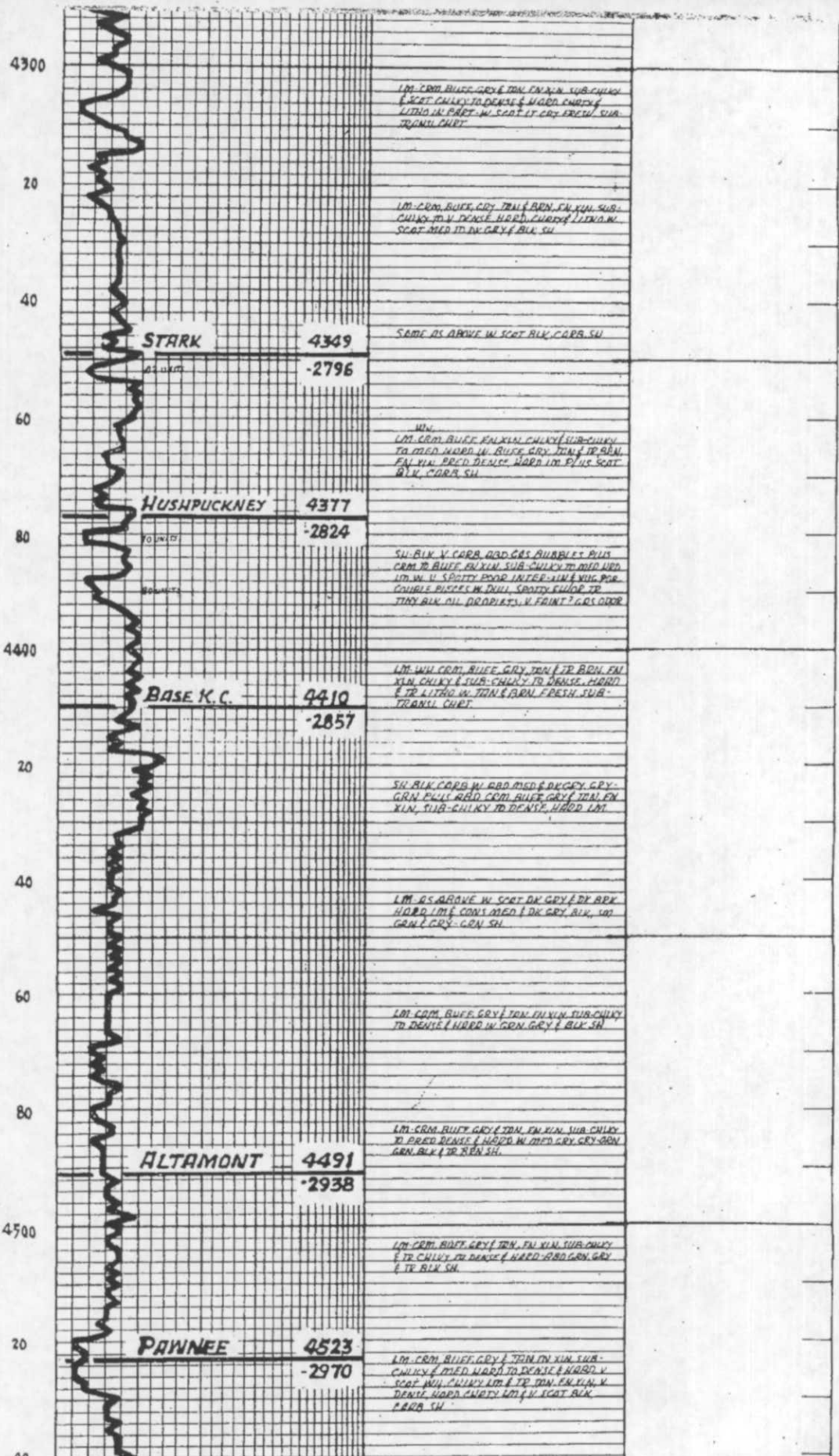


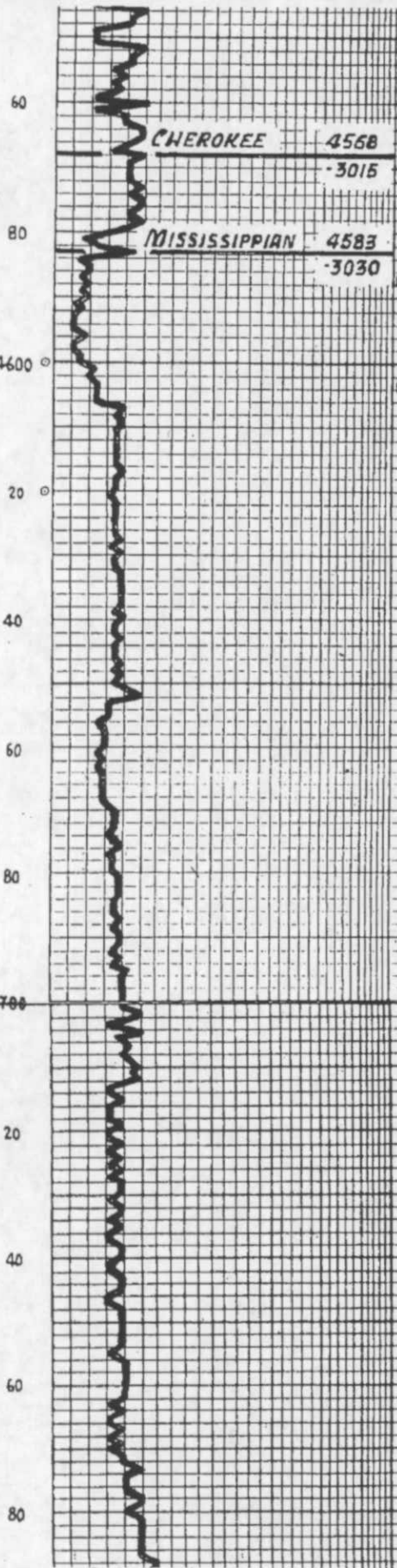
60
80
4100
20
40
60
80
4200
20
40
60
80



SUB-CHALKY TO CHALKY TO DENSE & HARD
1M. WH. CRIM. LT. GR. & TAN. EN. A. SUB-CHALKY TO DENSE & HARD
1M. CRM. BUFF. GR. & TAN. EN. A. IN SUB-CHALKY TO DENSE & HARD
1M. WH. CRIM. LT. GR. & BUFF. EN. TAN. EN. A. SUB-CHALKY TO CHALKY TO DENSE & HARD W. MED. & TH. GR. GR. GEN. BLK. SH.
1M. & CONS. SH. AS ABOVE
1M. CRM. GR. & BUFF. EN. TAN. EN. A. SUB-CHALKY TO DENSE & HARD W. GR. & TAN. EN. A. TO BECH. & DENSE & HARD W. CONG. LT. MED. & TH. GR. & BLK. EN. GR. SH.
1M. CRM. LT. GR. & BUFF. EN. TAN. SUB-CHALKY TO DENSE & HARD W. MED. & TH. GR. & TAN. EN. A. W. MED. & TH. GR. & BLK. EN. GR. SH.
1M. & SH. AS ABOVE
1M. WH. CRIM. LT. GR. & BUFF. EN. TAN. EN. A. SUB-CHALKY TO CHALKY TO DENSE & HARD W. MED. & TH. GR. & TAN. EN. A. W. MED. & TH. GR. & BLK. EN. GR. SH.
1M. WH. CRIM. BUFF. LT. GR. TO TAN. EN. A. CHALKY & SUB-CHALKY TO DENSE & HARD - V. SOFT SH.
1M. WH. CRIM. BUFF. GR. & TAN. EN. A. GR. CHALKY & SUB-CHALKY TO DENSE & HARD W. FEW PIECES GR. & BUFF. EN. A. W. HARD TO BECH. & DENSE & HARD W. CONG. LT. MED. & TH. GR. & BLK. EN. GR. SH.
1M. WH. CRIM. EN. TAN. CHALKY & SUB-CHALKY W. BUFF. GR. EN. TAN. EN. A. TO DENSE & HARD
1M. FULLY CHRT. BY DRINK. MED. GR. & BLK. EN. GR. SH.
1M. BUFF. GR. EN. TAN. EN. A. SUB-CHALKY TO DENSE & HARD W. MED. & TH. GR. & TAN. EN. A. W. MED. & TH. GR. & BLK. EN. GR. SH.
1M. & TR. CHRT. AS ABOVE







V. SCOT. BLK. COBB. SU.

100. COBB. BLUFF GRAY & TAN. FN. XIN. SUB-
FILLY TO V. DENSE & HARD W. BLK. COBB. &
SCOT. GRAY. GRAY-GREN. & TR. GRN. SU.

100. AS ABOVE. STILL CONT. BLK. V. COBB. (GAS
BUBBLES) IN

(4568) CHPT. LT. GRAY. FRESH W. SCOT. BUBBLES. DENT
IN PART IN TAN. & TAN. SU. IN PAR. GAS
BUBBLES. WHEN PRESSED. PLUS W. (CRIM
CHPT. W. FOOT. TO TD. FOLD. WEATH. P. P. (SRY
TO TD. SCOT. FLUID. & CON. GAS. BUBBLES. & TAN.
SU. BUBBLES. - ALSO. SOL. TAN. FOLD. IN
FRESH. CHPT. W. BUBBLES. & TAN. - V. GOOD. ADAR.

(4583) CHPT. LT. GRAY. FRESH. SCOT. BUBBLES. W. RYIT
& BUBBLES. DENT. & TAN. P. P. ADAR. PAR. (TR.
FOLD. TAN. & TAN. SU. IN PAR. FEN. GAS. BUBBLES
& TO TAN. SU. BUBBLES. PLUS. TAN. WEATH. P. P.
W. GOOD. PAR. SMOOT. TO TD. SCOT. SU. SU. SU.
BUBBLES. BLK. BLUFF. & GRAY. FN. XIN. SUB-
FILLY. TO DENSE. HARD. SU. TD. 10. IN. V. GOOD
ADAR.

100. BLUFF. GRAY. TAN. & TR. CRIM. FN. XIN. SUB-
FILLY. TO DENT. DENSE & HARD. W. CHPT.
AS ABOVE. WEAK. ADAR.

100. V. SL. DOLD. CRIM. IN PLACE. LT. GRAY. TAN. FN.
XIN. SU. SUB. ENLGY. TO DENT. & HARD. W. LT. GRAY.
FRESH. SUB. TRANSL. CHPT.

SAME AS ABOVE.

100. DOLD. 100. TAN. GRAY. TAN. FN. XIN. SUB-
FILLY. IN TAN. SU. SU. SU. IN PART. HEAD. WEATH.
& HARD. V. SCOT. CHPT. AS ABOVE.

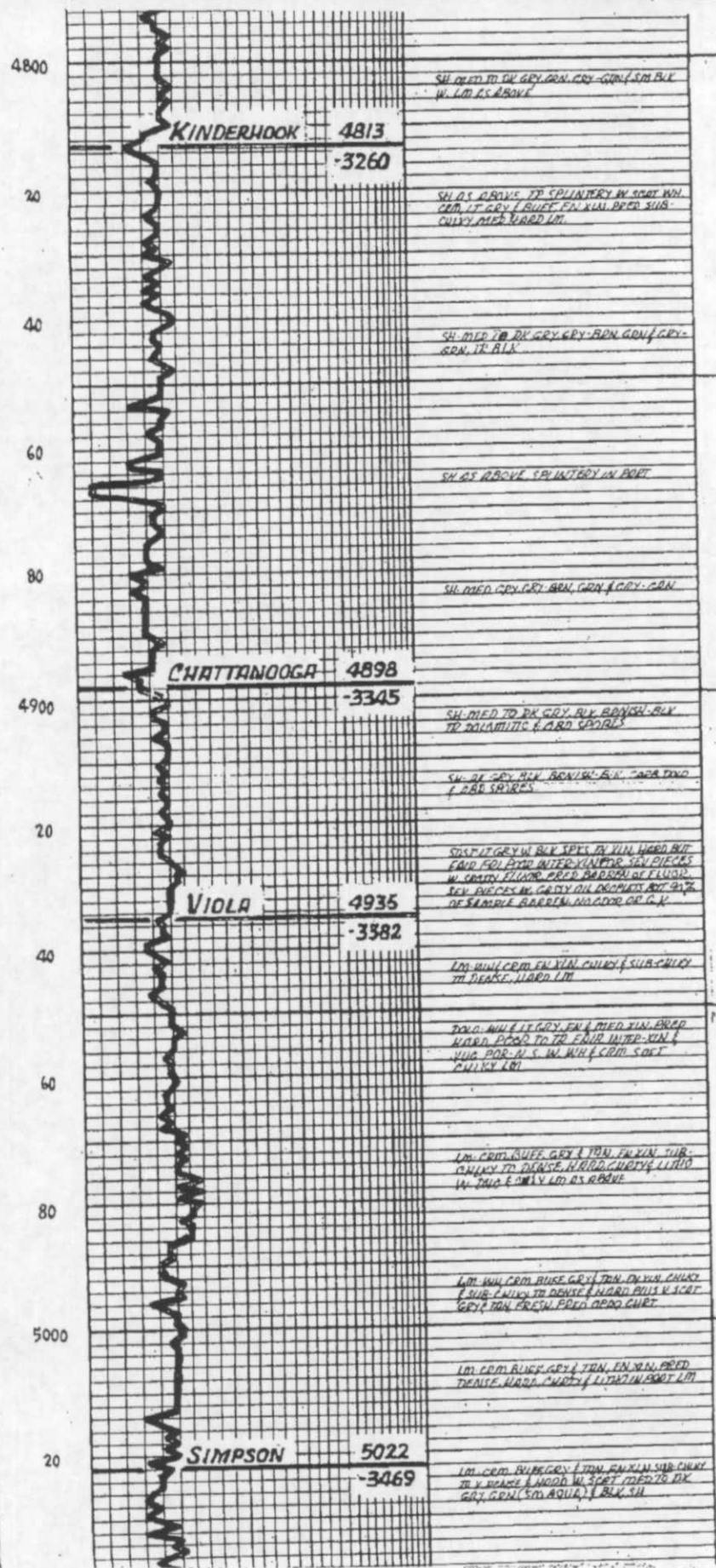
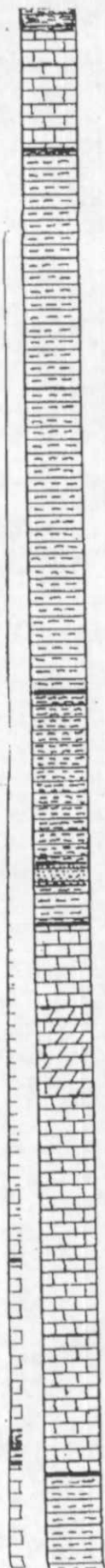
100. DOLD. 100. AS ABOVE. W. GRAY. GRAY. GRN. SU.
(V. SU. DOLD) - ADAR. SU. SU.

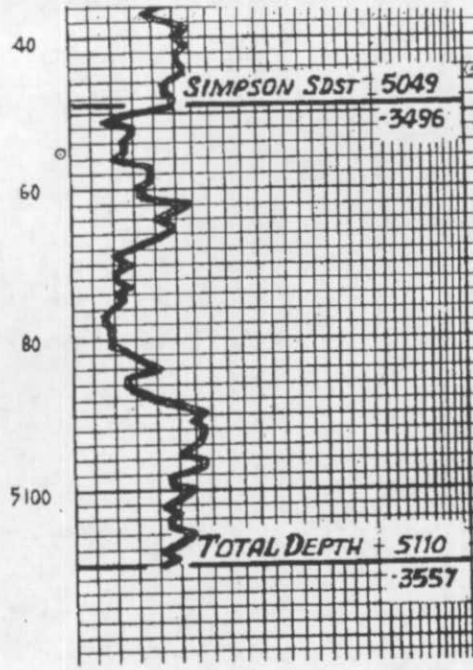
SAME AS ABOVE - BAD. SAMPLE.

100. SL. DOLD. BLUFF. BLUFF. GRAY. BL. TAN. DENT.
DENT. & HARD. W. SCOT. LT. GRAY. FRESH. SUB-
TRANSL. CHPT. & ADAR. GRAY. GRN. BL. SU.

100. CRIM. TO DOLD. BLUFF. & GRAY. TAN. FN. XIN. SUB-
FILLY. TO HARD. HARD. TO DENT. & HARD. TR.
ARCH. II.

100. TAN. DENT. BLUFF. GRAY. GRN. DENT. & SCOT.
TAN. FN. XIN. SUB. ENLGY. TO DENT. & HARD.
W. TAN. GRN. SU. BL. SU.





SIMPSON SDST 5049

-3496

TOTAL DEPTH 5110

-3557

SH. MENTS BY CR. 8000 F. CR.

SDS: SOME AS ABOVE IN SD. CLUSTERS. LT. /
 MED. GR. IN V. IN. IN. SD. SDST
 DRIP TO SCAT. FINE. BLUE. N. S. /
 (60 MIN.) SD. F. CR. CR. BY SD. N. S. /
 F. CR. CR. CR. CR. CR. CR. CR. CR. CR. /
 INTER. N. S. N. S. F. CR. N. S. N. S. /
 GR. CR. CR. CR. CR. CR. CR. CR. CR. /
 N. S.

DRIP. SD. BLUE. CR. CR. CR. CR. CR. CR. /
 CR. N. S. N. S. N. S. N. S. N. S. N. S. /
 SAND. GR. CR. CR. CR. CR. CR. CR. CR. /
 CR. N. S. CR. CR. CR. CR. CR. CR. CR. /
 CR. N. S. CR. CR. CR. CR. CR. CR. CR. /

SDST. F. CR. CR. CR. CR. CR. CR. CR. /
 GR. CR. CR. CR. CR. CR. CR. CR. CR. /
 CR. N. S. CR. CR. CR. CR. CR. CR. CR. /
 LT. CR. CR. CR. CR. CR. CR. CR. CR. /
 CR. N. S. CR. CR. CR. CR. CR. CR. CR. /

SH. BLUE. CR. CR. CR. CR. CR. CR. CR. /
 CR. CR. CR. CR. CR. CR. CR. CR. CR. /

(SD) N. S. AS ABOVE IN SCAT. CR. CR. CR. CR. /
 CR. N. S. CR. CR. CR. CR. CR. CR. CR. /
 CR. CR. CR. CR. CR. CR. CR. CR. CR. /
 CR. CR. CR. CR. CR. CR. CR. CR. CR. /

STRAIGHT MOLE SURVEY 5110'
 DEVIATION = 2°

STRAP PIPE @ 5110'
 STRAP 5083.76'
 BOARD 5081.00'
 STRAP LONG 2.67'