KIM B. SHOEMAKER

CONSULTING GEOLOGIST

316-684-9709 * WICHITA, KS

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY L. D. DRILLING, INC.

LEASE #1-22 LORETTA POLZIN TRUST

FIELD WILDCAT

LOCATION 1460' FSL & 1710' FWL

SEC 22 TWSP 18s RGE 14W

COUNTY BARTON STATE KANSAS

CONTRACTOR PETROMARK DRILLING, RIG 2

SPUD 10-15-13 COMP 10-21-13

RTD 3550 LTD 3549

MUD UP 2793 TYPE MUD CHEMICAL

ELEVATIONS

KB 1916

DF

GL 1911

Measurements Are All From 1916 KB

CASING

SURFACE 8 5/8" @ 897'

PRODUCTION 5½" @

ELECTRICAL SURVEYS

DUAL IND., DENS.-N. MICRO SONIC

SAMPLES SAVED FROM 2800 TO 3550

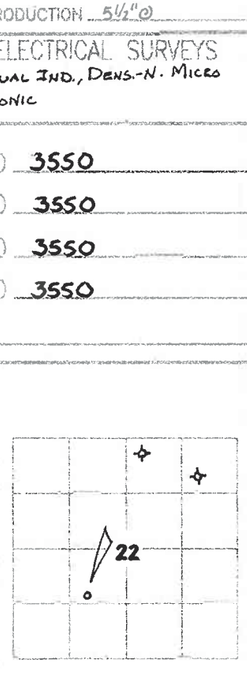
DRILLING TIME KEPT FROM 2800 TO 3550

SAMPLES EXAMINED FROM 2800 TO 3550

GEOLOGICAL SUPERVISION FROM 3100 TO 3550

GEOLOGIST ON WELL KIM B. SHOEMAKER

FORMATION TOPS	LOG	SAMPLES
ANHYDRITE	856 + 1060	858 + 1058
B/ANH.	882 + 1034	884 + 1032
TOPEKA	2856 - 940	2860 - 944
HEEBNER	3092 - 1176	3095 - 1179
BROWN LIME	3167 - 1251	3169 - 1253
LANSING	3176 - 1260	3182 - 1266
B/KC	3390 - 1474	3392 - 1476
ARBUCKLE	3425 - 1509	3429 - 1513



API: 15-009-25894

REMARKS

10-15-13 SPUD
10-16 @ 902'
10-17 @ 1716'
10-18 @ 2623'
10-19 @ 3255'
10-20 @ 3376'
10-21 @ 3550'

LEGEND

Dolomite
Chert
Ool. Lime
Limestone
Carb sh
Shale
Sandstone
Salt
Anhydrite

REMARKS

SAMPLE DESCRIPTIONS

ANHYDRITE 858-1058

B/ANH. 884+1032

DRILLING TIME IN MINUTES PER FOOT

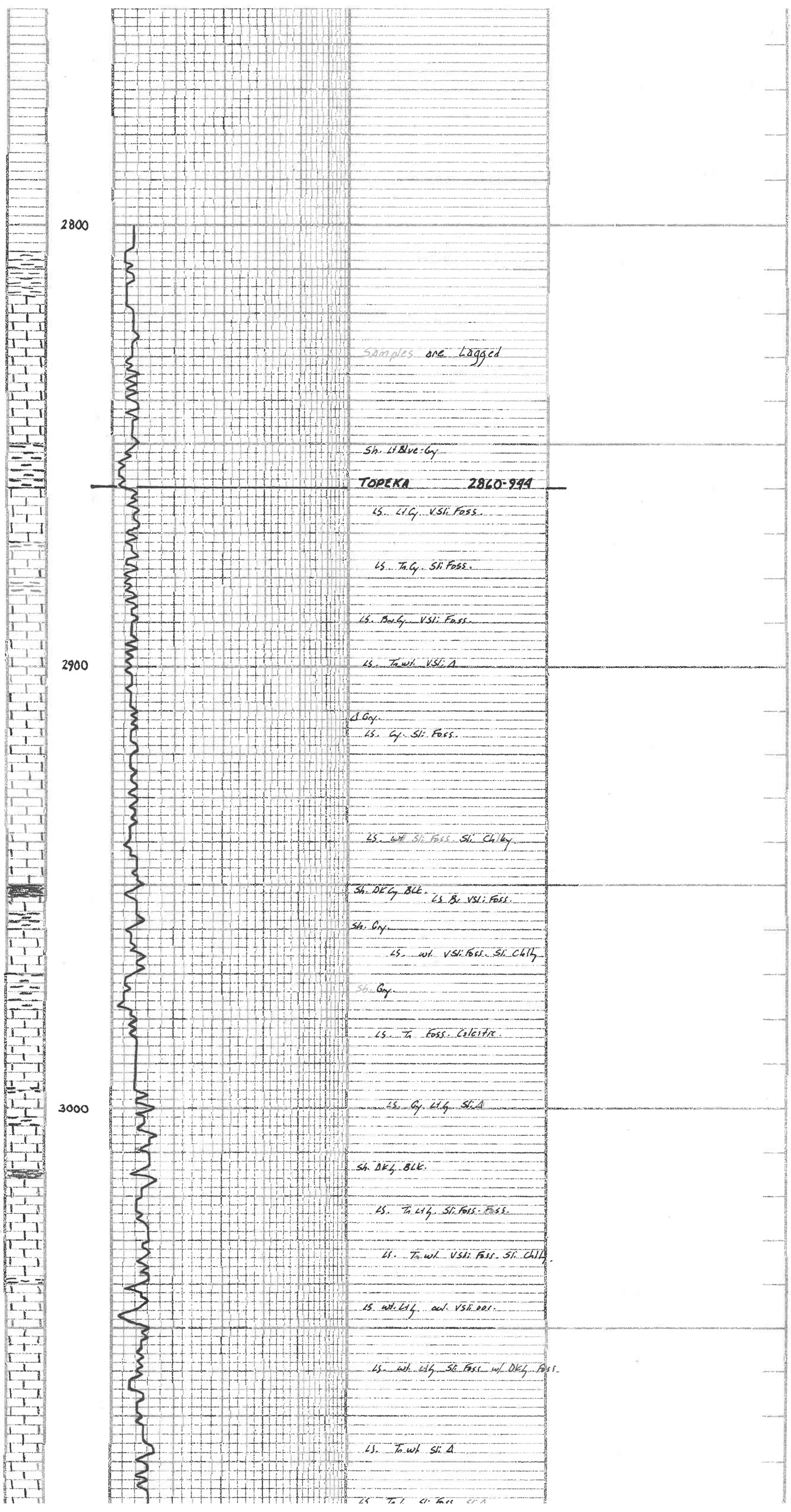
Rate of Penetration increases

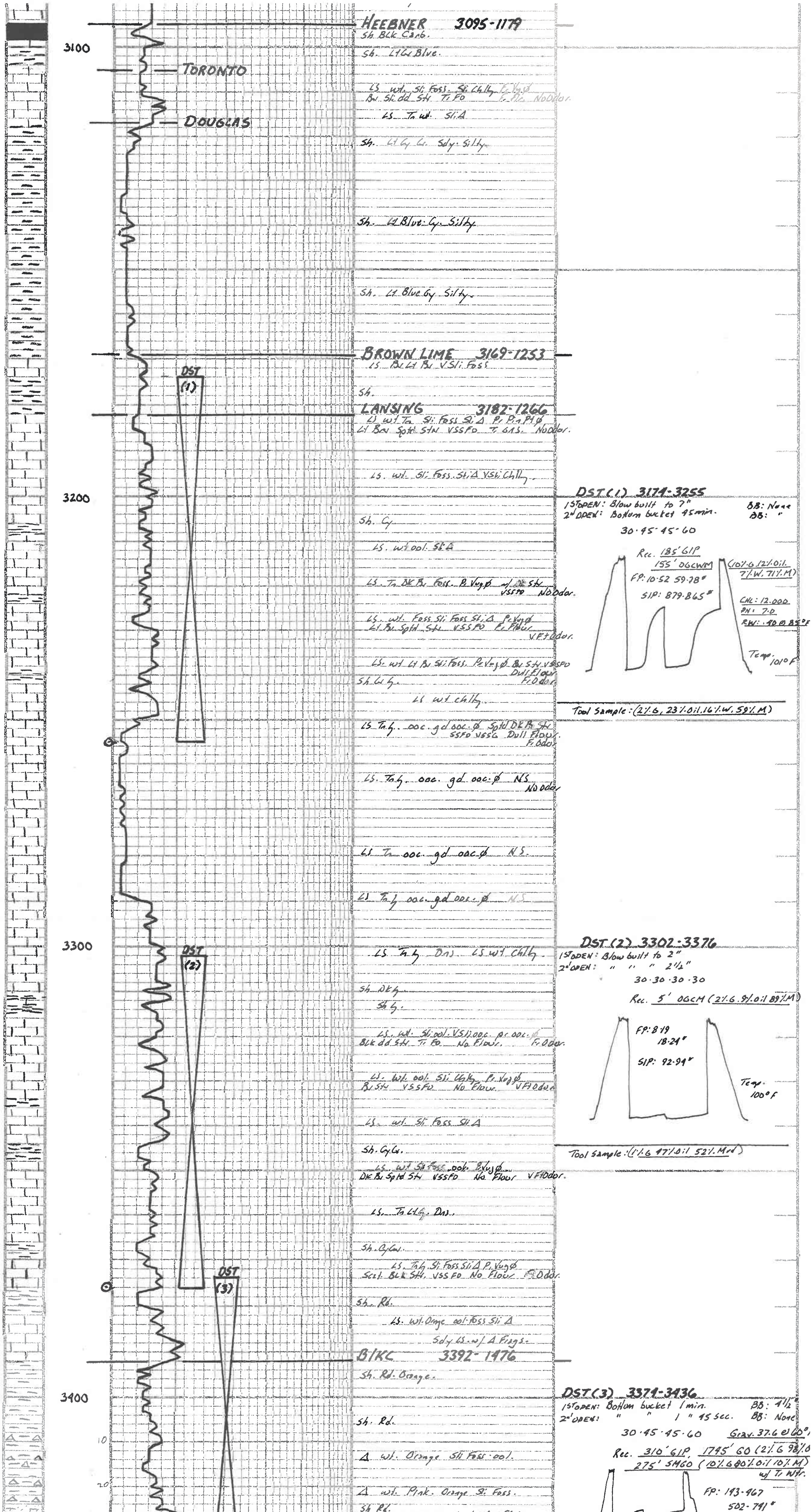
5" 10" 15" 20" 25"

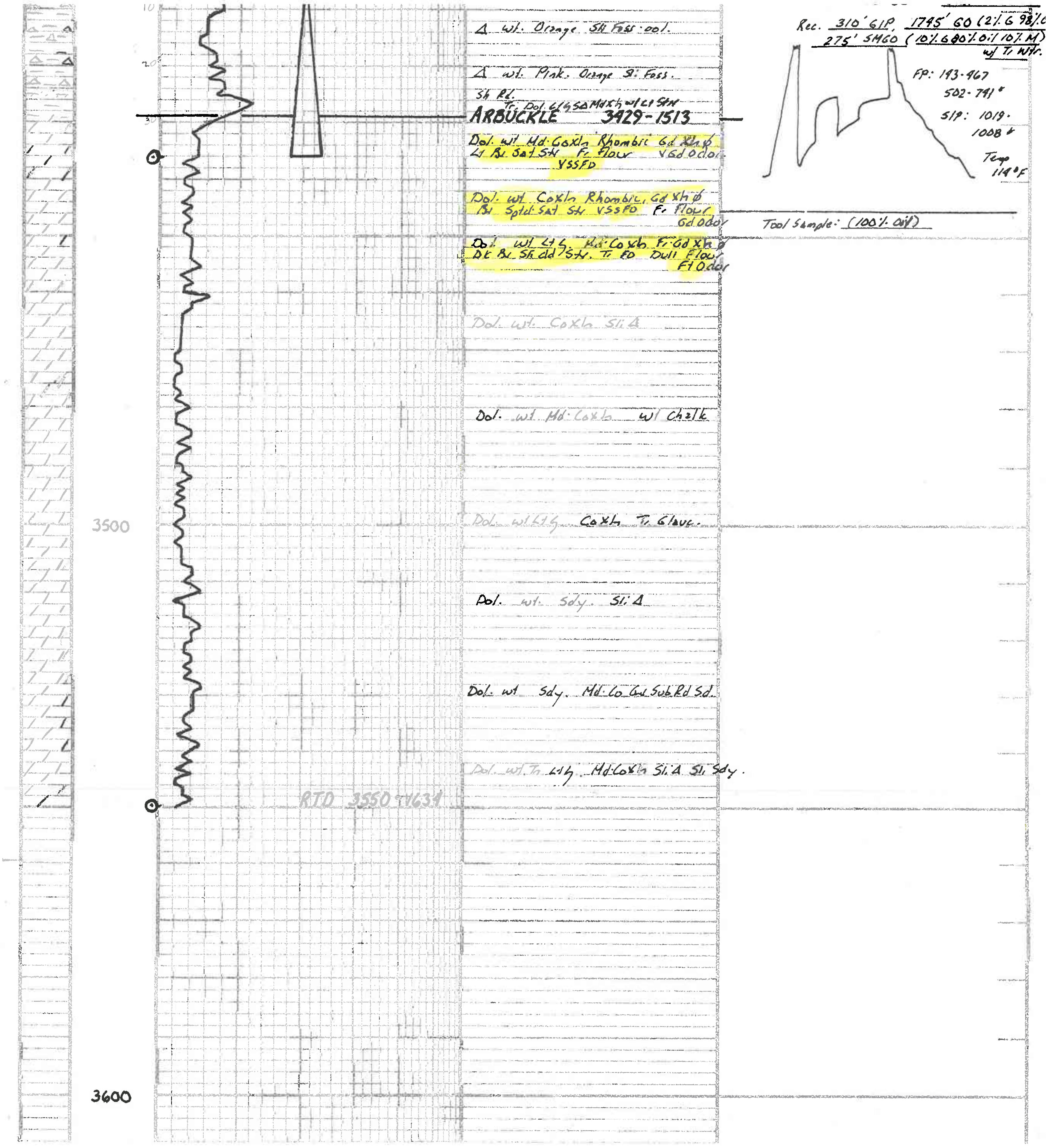
DEPTH 850 900 950

LITHOLOGY

SHOE01-06


2800
Samples are Lagged
Sh. Lt Blue-Gy
TOPEKA 2860-994
LS. Lt Gy. V Sli. Foss.
LS. To Lt Gy. Sli Foss.
LS. Bar Gy. V Sli. Foss.
LS. To wh. V Sli. A
2900
LS. Gy.
LS. Gy. Sli. Foss.
LS. wh Sli. Foss Sli. Chk Gy
Sh. DK Gy. Blk.
LS. Br. V Sli. Foss.
Sh. Gy.
LS. wh. V Sli. Foss. Sli. Chk
Sh. Gy.
LS. To Foss. Calcitic
3000
LS. Gy. Lt Gy. Sli A
Sh. DK Gy. Blk.
LS. To Lt Gy. Sli. Foss. Foss.
LS. To wh. V Sli. Foss. Sli. Chk
LS. wh. Lt Gy. occ. V Sli. oos.
LS. wh. Lt Gy. Sli. Foss. w/ DK Gy. Foss.
LS. To wh Sli A


HEEBNER 3095-1179
Sh. Blk Carb.
Sh. Lt Gr Blue.
TORONTO
DOUGLAS
Sh. Lt Blue Gy Silty.
BROWN LIME 3169-1253
LANSING 3182-1266
3100
3200
3300
3400
DST (1)
DST (2)
DST (3)
DST (1) 3174-3255
1st OPEN: Blow built to 7"
2nd OPEN: Bottom bucket 45 min.
BB: None
30·45·45·60
Rec. 185' GIP
155' OGCWM
FP: 10-52 59-78#
SIP: 879-865#
CHL: 12.000
PH: 7.0
Temp. 101°F
Tool Sample: (2% G, 23% Oil, 16% W, 59% M)
LS. Tn Lt. ooc. gd ooc. ø NS No Odor.
DST (2) 3302-3376
1st OPEN: Blow built to 2"
2nd OPEN: " " " 2½"
30·30·30·30
Rec. 5' OGCM (2% G, 9% Oil, 89% M)
FP: 8-19 18-24#
SIP: 92-94#
Temp. 100°F
Tool Sample: (1% G, 47% Oil, 52% Mud)
B/KC 3392-1476
Sh. Rd. Orange.
Sh. Rd.
DST (3) 3374-3436
1st OPEN: Bottom bucket 1 min.
2nd OPEN: " " 1" 45 sec.
BB: 4½"
BB: None
30·45·45·60
Grav. 37.6
Rec. 310' GIP
1745' GO (2% G, 98% O)
275' SMGO (10% G, 80% Oil, 10% M) w/ Tr. Wtr.
FP: 193-967
502-791#



Δ wt. Orange Sh Foss. ool.
Δ wt. Pink. Orange Sl. Foss.
Sh Rd.
Tr. Dol. Lt Gy Md Xln w/ Lt Stn
ARBUCKLE 3429-1513
Dol. wt. Md. Cxln Rhombic Gd Xln ø
Lt Br. Sat Stn Fr Flour VGd Odor
VSSFD
Dol. wt. Cxln Rhombic, Gd Xln ø
Br. Sptd. Sat Stn VSSFD Fr Flour
Gd Odor
Dol. wt. Lt G. Md. Cxln Fr. Gd Xln ø
Dk Br. Sh. dd Stn. Tr FO Dull Flour
Ft Odor
Dol. wt. Cxln Sl. Δ
Dol. wt. Md. Cxln w/ Chalk
Dol. wt. Lt G. Cxln Tr Glauc.
Dol. wt. Sdy. Sl. Δ
Dol. wt. Sdy. Md. Co Gr SubRd Sd.
Dol. wt. Tr Lt G. Md. Cxln Sl. Δ Sl. Sdy.
3500
RTD 3550 -1634
3600
Rec. 310' GIP, 1745' GO (2% G 98% O)
275' SMGO (10% G 80% Oil 10% M)
w/ Tr Wtr.
FP: 143-467
502-741
SIP: 1019
1008
Temp 114°F
Tool Sample: (100% oil)