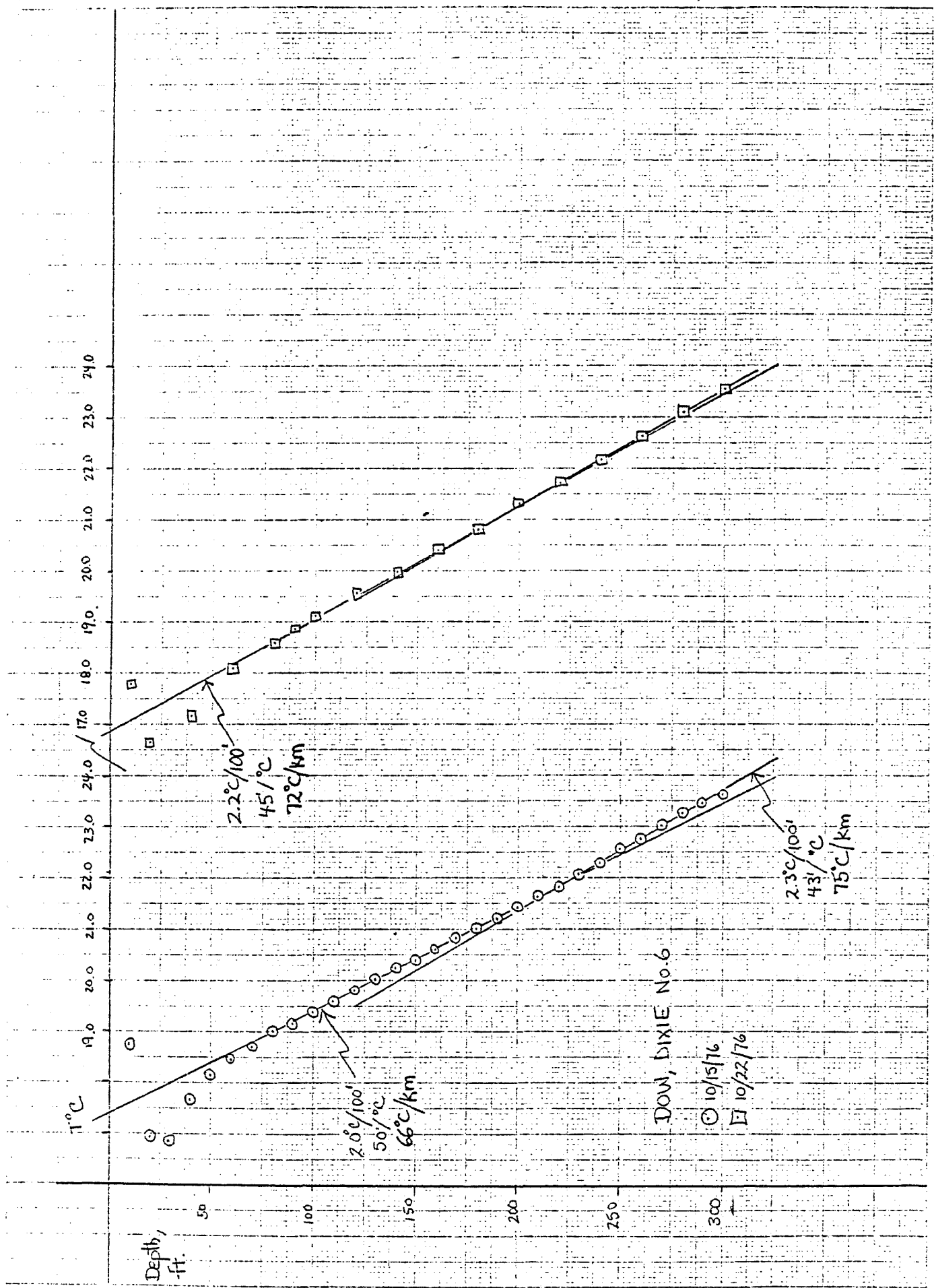


DOW DIXIE NO. 6 = 903-24



DOW, DIXIE No. 6

TEMPERATURE LOG

C. Klein

Loc:

Date: 10/22/76

Time: 1130 hrs

Depth T° C, down

18

10 ft.	17.79
20	16.66
40	17.17
60	18.10
80	18.59
90	18.86
100	19.11
120	19.56
140	19.99
150	20.20
160	20.40
180	20.80
200	21.32
220	21.71
240	22.18
260	22.63
280	23.10
300	23.54

7.4° C / Km

92

(24.1)

2.43

(24)

74

3.0 @ 4.0

TEMPERATURE LOG

by C. Klein

Dow, DIXIE No. 6

Loc: bend in road, SE $\frac{1}{4}$, Sec. 27, T23N, R35E

Date: 10/15/76

Time: 1320

Air temp: 24.1 °C

Depth T_{down}

0	20.50
10	18.76
20	16.93
30	16.87
40	17.68
50	18.16
60	18.45
70	18.70
80	19.00
90	19.15
100	19.37
110	19.59
120	19.79
130	20.02
140	20.23
150	20.39
160	20.59
170	20.81
180	21.00
190	21.21
200	21.42
210	21.60
220	21.82
230	22.06
240	22.29
250	22.55
260	22.75
270	23.02
280	23.26
290	23.47
300	23.61

Finish: 1510 hrs.

Gradient from plot of data:

$$220-300' = \frac{22.4 - 20.1}{250 - 150} = \frac{2.3^\circ\text{C}}{100'}$$

$$70-220' = \frac{21.4 - 19.4}{200 - 100} = \frac{2.0^\circ\text{C}}{100'}$$

Hole No. 6
Operation Summary

by: C. Klein

Loc: bend in road, SE $\frac{1}{4}$, Sec. 27, T23N, R35E.

Drilling Log:

- 10/13/76 0900 move onto site. Hole placed 75 ft SE of flag, for greater convenience in use of portable sump.
- 1200 At 100 ft., all gravel, no pbms.
- 1220 at 130 ft., shutdown; wait for water truck.
- c. 1300 resumes drilling.
- 1350 at 190 ft., smooth drilling, rapid + even. Mud temp 22°C.
- 1400 Stop to dump mud, mix new load, 205 ft
- 1420 drilling at 205 ft.
- 1515 at 265 ft. - mud has thickened w/ brn clay from hole, drain part of tank + refill.
- 1615 reach TD, 300 ft.
- 1820 - PVC pipe in place. Shutdown.

Geological Setting: About 800 ft from range front on gently sloping fanglomerate.

Surface mostly angular pebbles, sand, silt. Occasional boulders, but relative scarcity of material larger than cobble-sized is probably due to lack of major surface drainage on range front here - no large canyon to produce flash floods which would move boulders as far as site.

Fanglomerate c 700 ft upslope + N + S of site has Recent (but probably pre-1954) fault escarpment (=?). Range is altered volcanics, dipping stratae.

Geological Summary: To c 205 ft. drill encountered a homogeneous-appearing section of 'fanglomerate'; pebbles, sand, brown silt + clay, mostly angular, of volcanics, with rare fragments of gabbro. The abundance of coarser, pebble-sized clasts may decrease slightly moving downwards. Below c 205 ft. clasts coarser than sand (max. about 4 mm) are rare, and the abundance of brown clay + silt increases. Most of 205-300 ft is probably sandy brown silt and clay. Whether the sand is mixed with the finer silt or cement is harder to tell, or both, is unclear.

DOW
 DIXIE No. 6

LITHOLOGIC LOG

INTERVAL	SCHEMATIC OF STRATIGRAPHY	LITHOLOGIC DESCRIPTION	COMMENTS, INTERPRETATIO
0-10'		<p>Alluvial gravel: sand + pebbles, angular to subrounded, occas. clots brown sandy clay + silt, rare clots tan clay. Mostly volc. rk, tuff, flow material, pink, gray, purple, red, green; occas frag gabbro</p>	
10-20		<p>same</p>	
20-30'		<p>same</p>	
30-40		<p>same</p>	
40-50		<p>same</p>	
50-60		<p>same</p>	
60-70		<p>same</p>	
70-80		<p>same</p>	

DOW
DIXIE V. No. 6

LITHOLOGIC LOG

GeothermEX, INC.
Site Scientist C. Klein
Date 10/13/76

INTERVAL	SYNTHETIC OF STRATIGRAPHY	LITHOLOGIC DESCRIPTION	COMMENTS, INTERPRETATION
80-90'		same	
90-110'		same	
110-120'		Same	
120-130'		same - note that most clasts are .5cm or smaller - angular pebbles >.5cm are <15% of total.	
130-140'		Same	
140-150'		same	
150-160'		same	
160-170'		same	
170-180'		same	

LITHOLOGICAL LOG

DOW
 DIXIE V. No 6

INTERVAL	SUMMARY OF RECOVERIES	LITHOLOGICAL DESCRIPTION	COMMENTS, INTERPRETATION
180-190		same	
190-205		same - clots brn sandy clay-silt abundant	
205-220		same - 80% of recovery* is 4mm; clots of brn sandy clay-silt not abundant	205 - new mud mixed * Below 205' returns crsr than sieve (c. 1mm) not abundant, to ± scarce; simultaneous thickening of mud implies drilling dominantly brown clay-silt + sandy clay silt. (Sand lenses?) However, presence of pebble-cobble zones, ground to fine cuttings, cannot be discounted.
220-235		same	
235-250		same - clots of brn clay-silt scarce	
250-265		same	
265-280		same - almost all recovery is 1-3 mm angular sand, but amount recovered small - mud thickening + drill behavior implies abundant clay, as generally since ~205.	
280-290		same	
290-300		same	
300	TD		