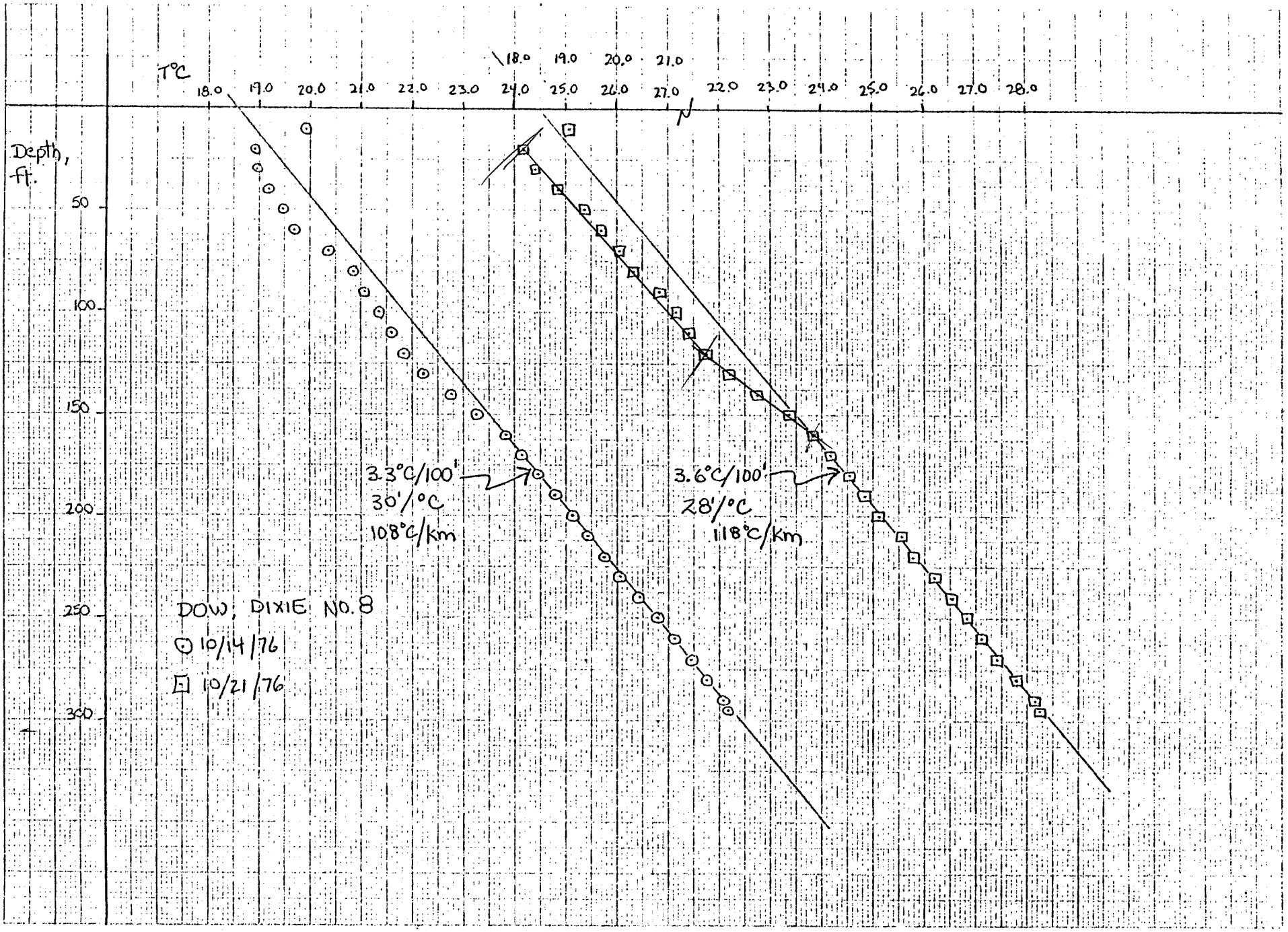
DOW DIXIE NO. 8 = 903-25


T°C
18.0
19.0
20.0
21.0
22.0
23.0
24.0
25.0
26.0
27.0
28.0
Depth, ft.
50
100
150
200
250
300
3.3°C/100'
30'/°C
108°C/km
3.6°C/100'
28'/°C
118°C/km
DOW, DIXIE NO. 8
○ 10/14/76
□ 10/21/76

TEMPERATURE LOG

GeothermEx

Project:

Hole No.: DOW - DIXIE V. No. 8

Loc.:

Date: 12/2/76

Time: 1430

by: CWK

Depth	T°C.(down)	Depth	T°C.	Depth	T°C.
10	19.12	210	25.59		
20	20.21	220	25.90		
30	20.27	230	26.25		
40	20.27	240	26.50		
50	20.32	250	26.87		
60	20.35	260	27.20		
70	20.37	270	27.52		
80	20.56	280	27.87		
90	20.86	290	28.23		
100	21.26	295	28.34		
110	21.43				
120	21.95				
150	22.97				
160	23.82				
170	24.27				
180	24.63				
190	24.89				
200	25.22				

Comments:

Slope 3.3°C/100 ft.

6

~~28~~

37

164°C/Km

49

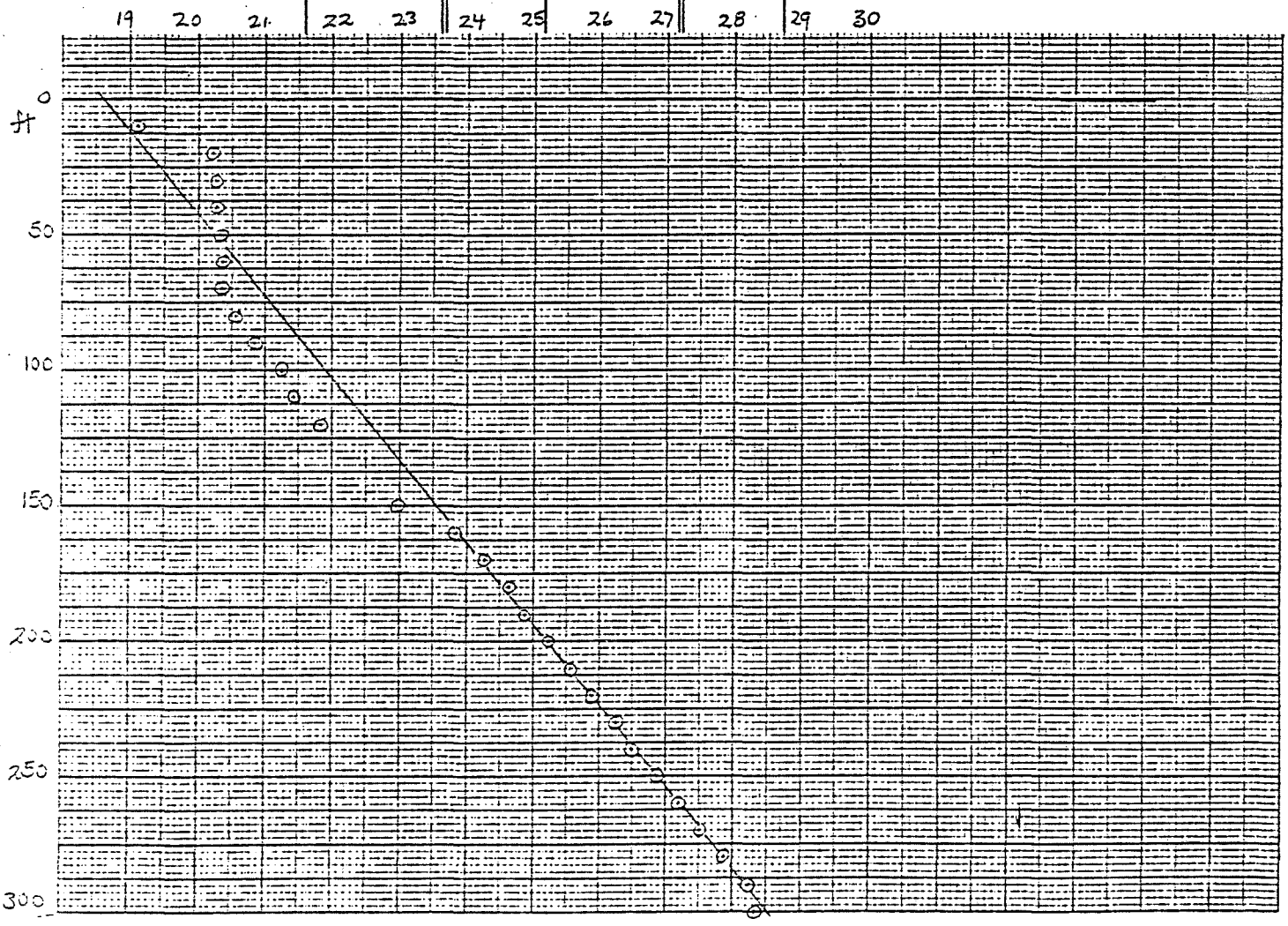
113°C/Km

8

(29.3) / 1.59 (25) 78, 164, 113

~~4.0 @ 3.5~~

3.4 @ 3.0



DOW, DIXIE No. 8 TEMPERATURE LOG C. Klein

Loc:

Date : 10/21/76

Time: 1000

Depth	T°C, down
0	13.7° C
10	19.07
20	18.18
30	18.40
40	18.87
50	19.38
60	19.70
70	20.06
80	20.34
90	20.82
100	21.16
110	21.40
120	21.76
130	22.20
140	22.76
150	23.38
160	23.82
170	24.17
180	24.53
190	24.85
200	25.12
210	25.51
220	25.79
230	26.20
240	26.52
250	26.87
260	27.12
270	27.42
280	27.80
290	28.16
295	28.26

Water found at top of pipe.

Finish : 1100 hrs.

TEMPERATURE LOG

C. Klein

10/14/76

DOW, DIXIE V. No. 8

Well Loc. 8

Date: 10/14/76

Time: 1630 hrs Air temp: 24.9°C

Depth	T°C down	T°C up
10 ft.	19.92	
20	18.92	
30	18.96	
40	19.20	
50	19.48	
60	19.69	
70	20.37	
80	20.84	
90	21.09	
100	21.35	
110	21.58	
120	21.82	
130	22.22	
140	22.79	
150	23.26	
160	23.83	
170	24.13	
180	24.45	
190	24.79	
200	25.11	25.16
210	25.42	
220	25.75	
230	26.07	
240	26.43	
250	26.79	
260	27.12	
270	27.45	
280	27.74	
290	28.08	
c.295	28.18	Bottom

Water in pipe is at c.7 ft – on 10/12 was at .0 ft, ∴ pipe is leaking water.

Gradient from plot of data:

160-290': 3.3°C/100'

30'/°C

Finish: 1750 hrs.

Hole re-filled w/ water to top.

Hole No. 8
Operation Summary

by: C. Klein

loc: road intersec., SW¼ Sec. 23, T23N R35E

Drilling log:

10/11/76 early afternoon - move onto site.
1645 drill to 100ft w/out difficulty, shut down for day.
Driller using trench adj to rig for mud sump.

10/12/76 0730 Arrive at site, set-up portable sump. Norm Parsons, drilling Foreman, at site. Pump clogs.
1115 Begin drilling at 100ft.
1145-1215 Visit by R. Bennet, BLM
1215 c. 145 ft. - circ. loss.
1230 - mud temp 19.5°C
1245 - c. 155-160 - gaining water
1320 - c. 190 - gaining water; mud temp 20.5°C. } total water gain only slight - does not req dumping mud, or thickening.
1350 - 205' - penetration slows.
c210-220 - rapid penetration } bouldery zones?
220 - slow " , much vibration
c. 245 - sl. loss of fluid
1530 at 250' shutdown to dump mud, mix new batch.
1615 resume drilling
1640 at 265' mud temp 22.5°C.
c. 270 - rate of penetration fastest since above 205', gaining sm. amt water?
1715 - Reach TD, 300ft.
1815 - PVC pipe down. Shutdown.

Geologic setting: Near base of fan at transition to basin deposits, ½ mile from mountain scarp. Hole is at south end of c. 40ft.-wide graben in fan, occupied by road; trends north-south. The graben escarpments are 4-10 ft. high maximum

Geologic summary: Interlayered gravelly to sandy alluvial fan and clayey basin deposits. 0-40' w angular to subrounded coarse sand and pebbles

to 2 cm diameter, brown silt and clay, all chaotically intermixed. Clasts are mostly volcanic flow and pyroclastic rocks, red, brown, gray, purple, tan, plus occasional gabbro and tan limestone. From 40'–70' these materials are jointed by lenses or interbeds of medium gray clay, clay-silt, and sandy clay-silt. 70–100' is dominantly or all a fan deposit as above. Pale tan clay is interlayered with the fan debris in 100'–120', but apparently absent in 120–130'. From 130–180' occur the fan deposits plus zones of dark gray and greenish gray clay and clay-silt; the coarsest clasts recovered from the fan deposits are 1 cm across. Clay appears to be $\frac{1}{4}$ to $\frac{1}{2}$ or more of this sequence. In 180–190 the dark clay is replaced by light gray clay. From 190–300' clay zones are absent; recovery is all coarse sand and fine pebbles (to $\frac{1}{2}$ cm) in a matrix of brown, sandy silt and clay. The abundance of pebbles decreases downwards.

Geothermex, Inc.

LITHOLOGIC LOG

Log by: Geologist C. Klein

Date: 10/12/76

DOW
DIXIE V No. 8

INTERVAL	SCHEMATIC STRATIGRAPHY	LITHOLOGIC DESCRIPTION	COMMENTS, INTERPRETATION
0			
0-10'		0-40': angular-subrounded crs sand to gravel, w/ pebbles to 2cm dia., plus to ~15% clots sandy brown clay-silt. Most clasts volcanic, flow, lesser (?) tuff, brown, gray, red, purple, greenish, plus occas gabbro, tan limestone.	Percent sandy brown clay-silt in ground prob. > amt. recovered.
10-20'			
20-30'			
30-40'			
40-50'		sand-gravel as above; clots sandy brown clay-silt; clots med. gray clay, clay-silt, clay-silt w/sand. Brown clay-silt c.5%, gray 10-15% of recovered sample.	Gray clay may rep. lenses w/in deposits of gravel-sand w/ brown clay-silt matrix.
50-60'		same, lesser recovery of silts + clays	
60-70'		Gray clay-silt, sandy clay-silt v abundant, sand-pebbles also rec.; tend to be more subrounded than angular.	
70-80'		As above 40-50', w/ occas. clots gray silt-sand (slough?)	
80-90'		same, note occas clots partly gray, partly brown silt-clay.	

GeothermEx, Inc.
Geologist C. Klein
Date 10/12/76

LITHOLOGIC LOG

DOW
DIXIE V. No. 8

INTERVAL	SCHEMATIC OF STRATIGRAPHY	LITHOLOGIC DESCRIPTION	COMMENTS, INTERPRETATION
90–100'		same, no gray clay-silt	
100–110'		crs. sand-fine pebbles, lith. as above, angular–subrounded; c. 40% clots brown sandy silt-clay (as above) t/or pale tan clay	Tan = lenses w/in gravel ?
110–120'		same	
120–130'		no tan clay, otherwise same	
130–140'		c. ½ sand-gravel (max. 1 cm dia) as above, c. ¼ clots brown sandy silt-clay t ¼ clots dk gray + greenish gray silt-clay + clay.	c. 145 – partial circ. loss. Fine sparkles vis. in some dk gry-grn gry under dx. sc.
140–160'		same	Lack of sand in dk gray – grn-gry clay + clay silt ⇒ lenses (?) interlayered w/ gravel
160–170'		same	155–160 – gaining water ?
170–180		same, but recovery of clays + silts sl. lower (30–40%)	
180–190		most dk gry + grn-gry replaced by lt. gray clay	c. 190 – water ?

GeothermEx, Inc.

Geologist C. Klein

Date 10/12/76

LITHOLOGIC LOG

DOW
DIXIE No. 8

INTERVAL	SCHEMATIC OF STRATIGRAPHY	LITHOLOGIC DESCRIPTION	COMMENTS, INTERPRETATION
190-200'		recovery mostly crs sand, fine pebbles (≤½cm), small amt brn sandy clay-silt. Occas clot dk gray clay (slough?)	
200-210'		same	
210-220'		same	
220-230'		same; brn, gry clays recov. in trace amts only	(2-3%)
230-240'		brn sandy silt-clay 35-40% of recovered sample	
240-250'		same	
250'-260'		brn sandy silt-clay clots 15-20% of sample, most crs. matl recovered is crs. angular sand (≤.5mm)	From 240-250 to 260-270 returns become gen. finer; fewer sm. pebbles; crs-med. sand dominant.
260-270'		same, pebbles uncommon.	
270-280'		same	

DOW
DIXIE No. 8

LITHOLOGIC LOG

Geologist C. Klein
Date 10/12/76

INTERVAL	SCHEMATIC OF STRATIGRAPHY	LITHOLOGIC DESCRIPTION	COMMENTS, INTERPRETATION
280-290		Same	
290-300		30-35% is brn sandy silt-clay; otherwise Same	
	300' TD		