FORM No. H.E. 443

DRILLING RECORD

SCHEME:- DERWENT- DEE INVESTIGATION

LOCATION:- Cluny Dam Site

POSITION PLOTTED ON DRAWING No.: A6359 A6469

DATES: (a) DRILLED: July '60 (b) WATER TABLE:

METHOD USED: D.D. DIAMETER: NOA – NMLC

SITE REMARKS: On spur adjacent to margin

POSITION: CO-ORDINATES: E: N: HOLE No. 899A

ON LINE: H7/H6 BEARING: 0°00' AT CH:

FROM STN. H7 BEARING: 255°47 DIST.: 73 FILE No.

LEVEL: SURFACE: FORMATION: WATER TABLE:

414

INCL.: HOLE DRILLED: DEPRESSION ANG.: INCL. BEARING: SHEET 1 OF 2 SHEETS

VERT/~~HOR/INC~~ 90°

STANDARD LEVEL	DEPTH	CORE DRAWN	RECOVERY 0.2 0.4 0.6 0.8 1.0	GRAPHIC LOG	JOINTS	WATER	REMARKS
	0'				Numerous weathered and clay filled joints spaced upto 1"-2". Thin joints with limonite, clay.	Yellow	0'0"–10'2" Core shows soil & fragments of sandstone & mudstone. In adjacent excavation shows in situ rock at 3'.
	5'						10'2"–23'9" Yellowish & brownish white medium grained quartz sandstone, L bedding 5° scattered thin joints with limonite.
	10'					Brown	23'9"–24'0" Greyish brown claystone with siltstone phases
	15'						24'0"–25'0" Greyish brown fine sandstone containing numerous irregular thin joints with clay partings, some with slickenside
	20'						25'0"–28'0" Mottled grey & brown claystone with siltstone & fine sandstone phases, slickensides in part.
	25'						
	30'					Water	28'0"–51'3" Soft fragments of brown & grey clay with patches resembling dolerite texture, very fine grained. Numerous joints upto 1" apart in the fragments, containing clay, including montmorillonite. Some of the fragments become hard below 34' & can be recognised as medium grained, fragments are upto 2"-3".
	35'						
	40'						Fragments of Triassic sediments at 34'2" (at top of a run) appear to be caved pieces.
	45'						
	50'					Brown	At 51'3" changed to drilling mud with a marked increase in recovery.
	55'						51'3"–108'3" Core shows weathered dolerite fragments upto 3", mainly soft in their original position, with numerous clay & zeolite filled joints between them. A few of the fragments are hard, many of them were originally replacement breccias as for example at 58'. The rock above 51' is considered to be the same as this but it was only possible to core the harder fragments using water. There are small scattered slickensides, particularly at 61'.
	60'						
	65'						
	70'					Drilling Mud	
	75'						No medium grained dolerite was detected below 64'. Core below 109'3" suggests that the original texture of much of the dolerite here was destroyed by chloritisation prior to weathering which appears to give it a finer appearance.
	80'						
	85'						
	90'						Carbonate filled joints upto ½" thick were detected below 92'. 14" of fresher less chloritised dolerite at 93' shows medium–fine grained rock. This is also shown by lengths of dolerite upto 6" at 98', 100', & 101'. Some of the smaller fragments in the replacement breccia are also fresher & show medium–fine rock.
	95'						
	100'						

Soil & rock fragments

Partly weathered Triassic sediments with thin joints

Note:- The condition of the sediments & dolerite strongly suggests an intrusive contact.

Very jointed and completely weathered dolerite.

FORM No. H.E. 443

DRILLING RECORD

SCHEME:- Derwent - Dee Investigation

LOCATION:- Cluny Dam Site

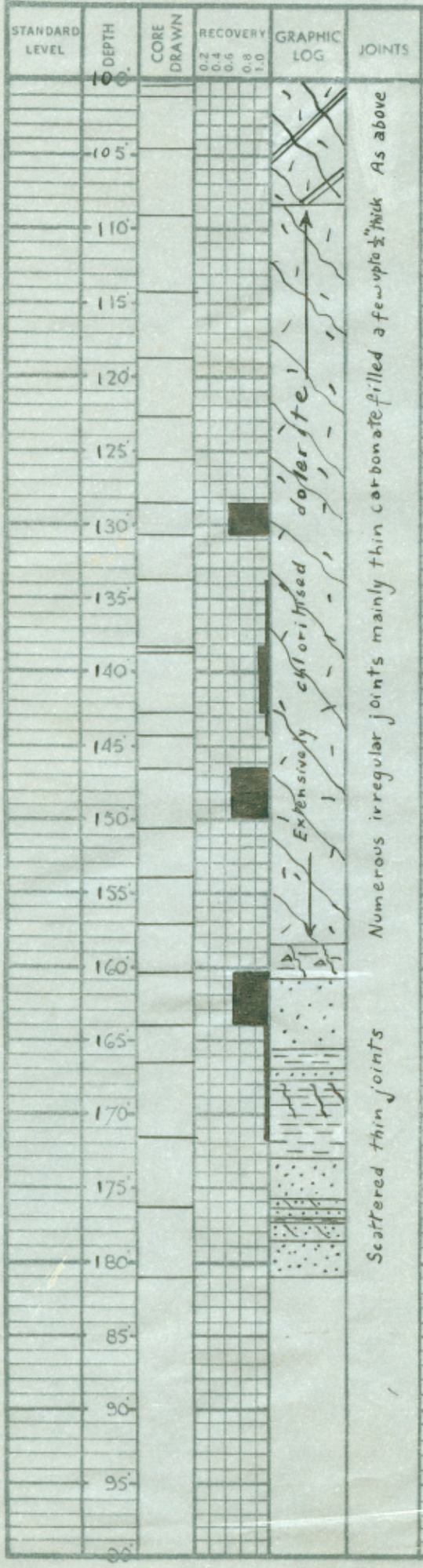
POSITION PLOTTED ON DRAWING No.

DATES: (a) DRILLED: July '60 (b) WATER TABLE:

METHOD USED: D.D. DIAMETER: No4 - NLMC

SITE REMARKS: On spur adjacent to margin

POSITION	CO-ORDINATES:	E:	N:	HOLE No. 8994
	ON LINE:	BEARING:	AT CH:	
	FROM STN.	BEARING:	DIST:	FILE No.
LEVEL	SURFACE:	FORMATION:	WATER TABLE:	
	414			
INCL.	HOLE DRILLED:	DEPRESSION ANG.:	INCL. BEARING:	SHEET 2 OF 2 SHEETS
	VERT/~~HOR/INC~~:	90°		



REMARKS

108'3"–158'7" Extensively chloritised but little weathered dolerite with similar replacement breccia texture to above, rock greenish grey in colour. Many of the numerous irregular joints are filled with Carbonate. In places the complete rock has been altered to clay. There are scattered slicken sides which become more abundant towards the lower contact.

At 147'½" Carbonate filled joint ½" thick It appears that the matrix of the replacement breccia was originally carbonate, this is shown at 140' & 141' In other places the matrix is either clay or has been removed.

158'½"–160'6" Milled up rock. Appears to be fragments of greenish grey altered fine sandstone (tiny mica grains recognisable) & clay. Claystone may be present but on absence to identify definitely. Tiny slickensides present.

160'6"–165'9" Grey medium grained quartz sandstone with thin joints, some parallel to the core. ∠ of bedding 65°

165'9"–167'0" Grey claystone with siltstone phases; appears to be crushed in part at least. No definite slickensides detected.

167'0"–167'8" Grey fine sandstone crushed in part.

167'8"–173'0" Grey claystone with siltstone & some fine sandstone phases in upper portion. Crushed down to about 170'. A few slickensides below At 171' ∠ of bedding 80°

173'0"–175'9" Fine grey quartz sandstone with mica.

175'9"–176'4" Broken grey sandstone fragments ?Broken due to drilling at base of full run.

176'4"–177'0" Grey medium quartz sandstone

177'0"–177'4" Grey claystone ∠ bedding 80°

177'4"–178'7" Broken grey quartz sandstone with mica.

178'7"–181'0" Grey medium & fine quartz sandstone with mica. At 180' ∠ bedding 73°

Hole Completed at 181'.

Logged by R.P. Mather July '60

Very jointed and completely weathered dolerite.

Extensively chloritised but little weathered dolerite with numerous carbonate filled joints.

Triassic Sediments with thin joints.