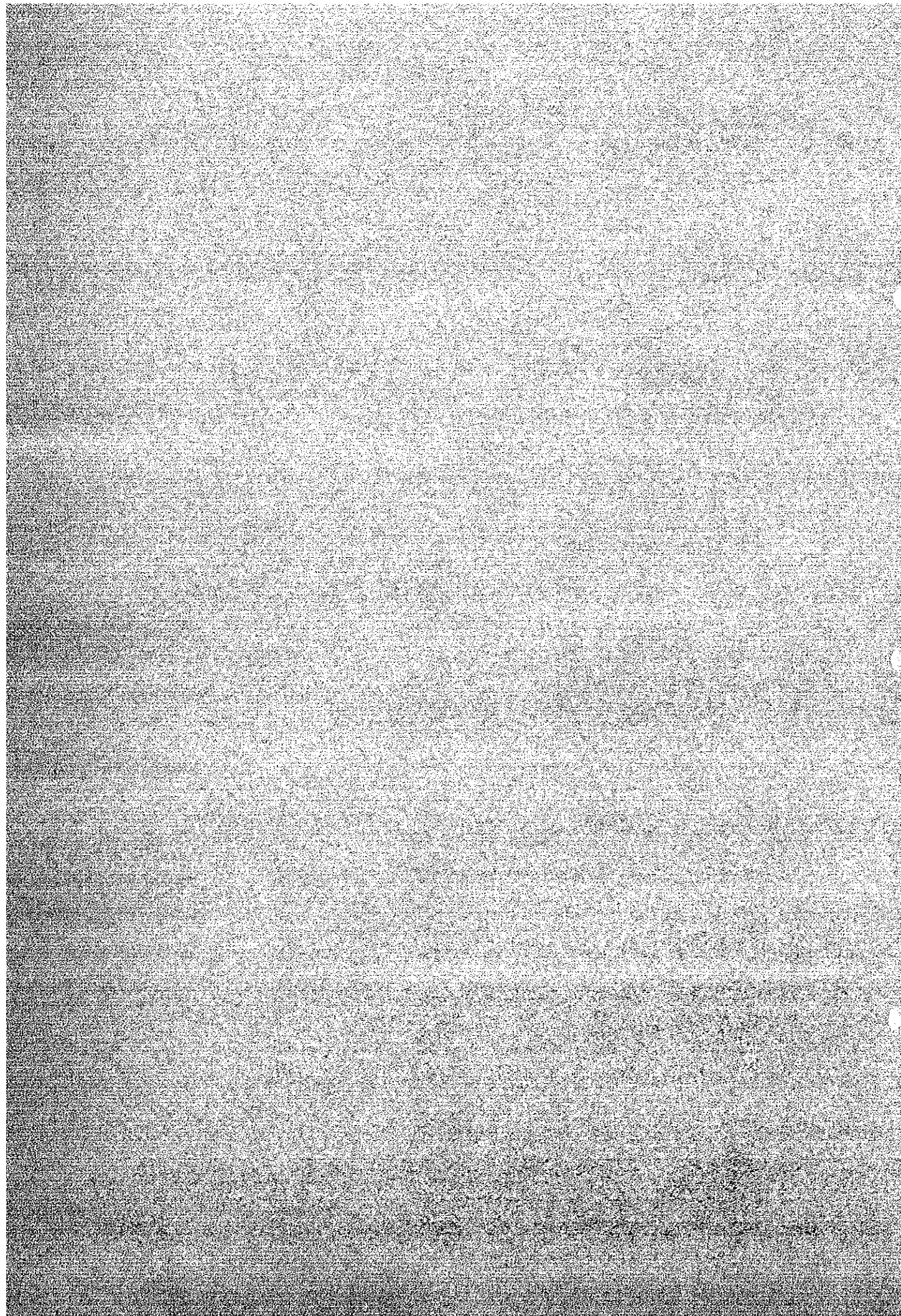


GEOLOGIC LOGS

1. Bamseonggol, upstream damsite, DH1
2. Bamseonggol, downstream damsite, DH1
3. Inje, upstream damsite, DH1
4. Hongcheon damsite, DH1
5. Hongcheon damsite, DH2
6. Gujeol damsite, DH1
7. Dalcheon damsite, DH1
8. Ganhyeon damsite, DH1
9. Bonghwa, upstream damsite, DH1
10. Bonghwa, downstream damsite, DH2
11. Imha damsite, DH1
12. Hamyang damsite, DH1
13. Juam damsite, DH1



GEOLOGIC LOG OF DRILL HOLE

BAMSEONGGOL PROJECT

HOLE No. DH.1 (SHEET 1 OF 2)

LOCATION <u>DAM SITE UPSTR</u>	DEPTH OF HOLE <u>40.1 m</u>	COMMENCED <u>12-OCT-1978</u>
ELEVATION <u>232 m</u>	DEPTH OF OVERBURDEN <u>20.2 m</u>	COMPLETED <u>22-OCT-1978</u>
COORDINATE <u>N=502613</u> <u>E=279680</u>	LENGTH OF ROCK DRILLING <u>19.8 m</u>	DRILLED BY <u>K.Y. JEON</u>
ANGLE FROM HORIZONTAL <u>90°</u>	TOTAL LENGTH OF CORE <u>17.6 m</u>	LOGGED BY <u>H. SUETOMI</u>
BEARING OF ANGLE HOLE	CORE RECOVERY <u>89 %</u>	<u>N. MIYAMOTO</u>

DEPTH	ROCK NAME	LOG	CORE RECOVERY	CEMENTATION KIND OF BIT CASING	OBSERVATION OF CORE					DESCRIPTION	WATER TABLE		DEPTH	ELEVATION
					COLOR	WEATHERING	HARDNESS	CORE CUTTING	WATER PRESSURE TEST		LEAKAGE OF DRILLING WATER			
0m			0 → 100										0	
1	SOIL												1	
2													2	
3													3	
4	DEBRIS	Δ											4	
5		Δ											5	
6		Δ											6	
7		Δ											7	
8		Δ											8	
9		Δ											9	
10		Δ											10	
11		Δ											11	
12	WEATHERED GNEISS												12	
13													13	
14													14	
15													15	
16													16	
17													17	
18													18	
19													19	
20												20		
21												21		
22												22		
23												23		
24												24		
25												25		
26												26		
27												27		
28												28		
29												29		
30												30		
31												31		
32												32		
33												33		
34												34		
35												35		
36												36		
37												37		
38												38		
39												39		
40												40		

driller's note (con'd)

1 (stick) 2 (substick) 3 (piece) 4 (fragment) 5 grain

1 (hard) ~ 5 (soft)

1 (fresh) ~ 5 (decomposed)

core loss

RQD

GEOLOGIC LOG OF DRILL HOLE

BAMSEONGGOL PROJECT

HOLE No. DH.1 (SHEET 2 OF 2)

LOCATION DAMSITE UPSTR DEPTH OF HOLE _____ m COMMENCED _____
 ELEVATION _____ m DEPTH OF OVERBURDEN _____ m COMPLETED _____
 COORDINATE _____ LENGTH OF ROCK DRILLING _____ m DRILLED BY _____
 ANGLE FROM HORIZONTAL _____° TOTAL LENGTH OF CORE _____ m LOGGED BY _____
 BEARING OF ANGLE HOLE _____ CORE RECOVERY _____ %

DEPTH	ROCK NAME	LOG	CORE RECOVERY	CEMENTATION KIND OF BIT CASING	OBSERVATION OF CORE				DESCRIPTION	WATER TABLE			DEPTH	ELEVATION				
					COLOR	WEATHER- ING	HARD- NESS	CORE CUTTING		WATER PRESSURE TEST	LEAKAGE OF DRILLING WATER							
0m			0 → 100										0					
1	GNEISS								and stained fracture									
2									b						I	3	Almost fresh hard rock with stained fracture	1
3									a						I	3	Almost fresh hard rock with joint crack	2
4									a						I	3	Cracky in lower part	3
5									a						I	3	Almost fresh rock with joint crack	4
6									a						I	2		5
7									a						I	2		6
8									a						I	3	29.2 - 29.7 m cracky zone	7
9									a						I	2	Fresh hard rock with joint cracks along which calcite veins are often observed	8
30									a						I	1		9
1					30													
2	DIA. BX																	
3																		1
4																		2
5																		3
6																		4
7																		5
8																		6
9																		7
40																		8
																		9
					40													

driller's note 4
 1 (stick) 2 (substick) 3 (piece) 4 (fragment) 5 grain
 1 (hard) ~ 5 (soft)
 1 (fresh) ~ 5 (decomposed)

GEOLOGIC LOG OF DRILL HOLE

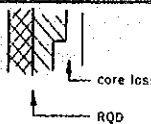
BAMSEONGGOL PROJECT

HOLE No. DH1

(SHEET 1 OF 2)

LOCATION <u>DAMSITE DOWNSTR</u>	DEPTH OF HOLE <u>40</u> m	COMMENCED <u>29-OCT-1978</u>
ELEVATION <u>205</u> m	DEPTH OF OVERBURDEN <u>6.1</u> m	COMPLETED <u>5-NOV-1978</u>
COORDINATE _____	LENGTH OF ROCK DRILLING _____ m	DRILLED BY <u>K.Y. JEON</u>
ANGLE FROM HORIZONTAL <u>90°</u>	TOTAL LENGTH OF CORE _____ m	LOGGED BY <u>N. MIYAMOTO</u>
BEARING OF ANGLE HOLE _____	CORE RECOVERY _____ %	

DEPTH	ROCK NAME	LOG	CORE RECOVERY	CEMENTATION KIND OF BIT CASING	OBSERVATION OF CORE					WATER TABLE			DEPTH	ELEVATION
					COLOR	WEATHERING	HARDNESS	CORE CUTTING	DESCRIPTION	WATER PRESSURE TEST	LEAKAGE OF DRILLING WATER	LUGEON		
0m			0 → 100										0m	
1	DEBRIS	Δ			BROWNISH GREY				Top soil				1	
2		Δ							Silty sand & cobble				2	
3		Δ							Boulder, weathered rock				3	
4		Δ							Clay with fine sand & rock fragments				4	
5		Δ											5	
6		Δ											6	
7	SHEARED BIOTITE GNEISS				PALE BROWNISH GREY				Mafic mineral, very weathered, rock, partly softened with stained fracture				7	
8									Mineral slightly weathered hard rock piece with stained fracture				8	
9									- ditto -				9	
10													10	
11	BIOTITE GNEISS				DARK GREY				Slime, probably fault breccia with grained fragments of gneiss				11	
12													12	
13													13	
14													14	
15													15	
16						d	III	4	Fractured rock of gneiss				16	
17						b	II	4	Biotite rich gneiss, with slightly weathered mineral and partly stained fracture very cracky				17	
18									- ditto -				18	
19						b	II	5	Very cracky, recovering slime & fragments				19	
20													20	


 core loss
 RQD

driller's note 4
 1 (stick) 2 (substick) 3 (piece) 4 (fragment) 5 grain
 1 (hard) ~ 5 (soft)
 1 (fresh) ~ 5 (decomposed)

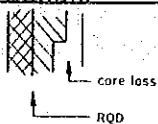
GEOLOGIC LOG OF DRILL HOLE

BAMSEONGGOL PROJECT

HOLE No. DH.1 (SHEET 2 OF 2)

LOCATION DAM SITE DOWNSTR. DEPTH OF HOLE _____ m COMMENCED _____
 ELEVATION _____ m DEPTH OF OVERBURDEN _____ m COMPLETED _____
 COORDINATE _____ LENGTH OF ROCK DRILLING _____ m DRILLED BY _____
 ANGLE FROM HORIZONTAL _____ ° TOTAL LENGTH OF CORE _____ m LOGGED BY _____
 BEARING OF ANGLE HOLE _____ CORE RECOVERY _____ %

DEPTH	ROCK NAME	LOG	CORE RECOVERY	CEMENTATION KIND OF BIT CASING	OBSERVATION OF CORE				WATER TABLE				DEPTH	ELEVATION
					COLOR	WEATHERING	HARDNESS	CORE CUTTING	DESCRIPTION	WATER PRESSURE TEST	LEAKAGE OF DRILLING WATER	LUGEON		
0m			0-100										0m	m
1	BIOTIT GNISS				DARK GREY		II	4	(continued) and partly stick core piece	not tested			1	
2													2	
3									Rock piece: almost fresh, cracky				3	
4									- ditto -				4	
5									- ditto -				5	
6									- ditto -				6	
7									Slime (no core recovery)				7	
8													8	
9									Rock piece: almost fresh, very cracky				9	
30													30	
1					DARK GREY		II	4	- ditto -				1	
2									- ditto -				2	
3									- ditto -				3	
4									- ditto -				4	
5									- ditto -				5	
6									- ditto -				6	
7									- ditto -				7	
8									- ditto -				8	
9									- ditto -				9	
40									38.0 - 38.4 fault? with clay				40	



Driller's note 4
 1 (stick) 2 (substick) 3 (piece) 4 (fragment) 5 grain
 1 (hard) - 5 (soft)
 1 (fresh) - 5 (decomposed)

GEOLOGIC LOG OF DRILL HOLE

I N J E PROJECT HOLE No. DHJ (SHEET 1 OF 2)
 LOCATION DAMSITE UPSTR. DEPTH OF HOLE 40 m COMMENCED 9 -NOV-1978
 ELEVATION 241 m DEPTH OF OVERBURDEN 1.8 m COMPLETED 24 -NOV-1978
 COORDINATE N=501856 E=123467 LENGTH OF ROCK DRILLING 38.2 m DRILLED BY K.Y. JEON
 ANGLE FROM HORIZONTAL 90° TOTAL LENGTH OF CORE 37.6 m LOGGED BY N.MIYAMOTO
 BEARING OF ANGLE HOLE CORE RECOVERY 98.5 %

DEPTH	ROCK NAME	LOG	CORE RECOVERY	CEMENTATION KIND OF BIT CASING	OBSERVATION OF CORE				WATER TABLE	WATER PRESSURE TEST	LEAKAGE OF DRILLING WATER	DEPTH	ELEVATION
0m			0 → 100		COLOR	WEATHERING	HARDNESS	CORE CUTTING	DESCRIPTION			0	40 Om
0	DEBR	+		← CASING					Talus deposits				
1		+							Intensely weathered rock (No core recovery)				
2		+			BROWNISH GREY	c	II	4	Hard weathered rock fragments with weathered mineral & stained fracture, probably filled with clay		not tested		
3		+											
4		+			BROWNISH GREY	b	II	2	Hard weathered stick rock core with weathered minerals & stained fracture				
5		+											
6		+				b	I	1	- ditto -		OVER		
7		+											
8		+				b	I	1	Hard rock with slightly weathered minerals & stained fracture				
9		+											
10		+			LIGHT GREY	b	I	1	Hard rock & minerals fresh, but fracture still stained				
11		+									OVER		
12		+											
13		+				a	I	1	Almost fresh granite with joint crack				
14		+											
15		+				a	I	1			OVER		
16		+											
17		+			DARK GREY	a	I	2	Almost fresh but cracky rock: vertical joint predominant		OVER		
18		+											
19		+			LIGHT GREY	a	I	2	Almost fresh granite with joint crack	W.T.		17.85m	
20		+											

core loss
 RQD
 driller's note 4
 1 (stick) 2 (substick) 3 (piece) 4 (fragment) 5 grain
 1 (hard) ~ 5 (soft)
 1 (fresh) ~ 5 (decomposed)

GEOLOGIC LOG OF DRILL HOLE

I N J E

PROJECT

HOLE No. DH. 1

(SHEET 2 OF 2)

LOCATION DAM SITE UPSTR

DEPTH OF HOLE _____ m

COMMENCED _____

ELEVATION _____ m

DEPTH OF OVERBURDEN _____ m

COMPLETED _____

COORDINATE _____

LENGTH OF ROCK DRILLING _____ m

DRILLED BY _____

ANGLE FROM HORIZONTAL _____ °

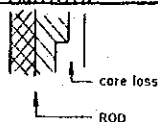
TOTAL LENGTH OF CORE _____ m

LOGGED BY _____

BEARING OF ANGLE HOLE _____

CORE RECOVERY _____ %

DEPTH	ROCK NAME	LOG	CORE RECOVERY	CEMENTATION KIND OF BIT CASING	OBSERVATION OF CORE				DESCRIPTION	WATER TABLE		DEPTH	ELEVATION
					COLOR	WEATHER- ING	HARD- NESS	CORE CUTTING		WATER PRESSURE TEST	LEAKAGE OF DRILLING WATER		
0m			0-100								LUGEON	0m	
1	GRANITE	+		DIA. BX	LIGHT GREY	a	I	2	Almost fresh granite with joint crack			1	
2							- ditto -			2			
3							24.8 m & 25.9 m joint crack along biotite rich zones			3			
4		a				I	1			4			
5										5			
6										6			
7										7			
8										8			
9										9			
30						+			a	I	3	Fresh cracky granite	
1		+			a	I	1	Fresh granite with joint crack			1		
2		+									2		
3		+									3		
4		+									4		
5		+			a	I	2				5		
6		+									6		
7		+									7		
8		+			a	I	1				8		
9		+			a	I	3	Fresh cracky granite			9		
40		+									40		



driller's note

1 (stick) 2 (substick) 3 (piece) 4 (fragment) 5 grain

1 (hard) ~ 5 (soft)

1 (fresh) ~ 5 (decomposed)

GEOLOGIC LOG OF DRILL HOLE

HONGCHEON PROJECT HOLE No. DH 1 (SHEET 1 OF 2)

LOCATION DAMSITE DEPTH OF HOLE 40 m COMMENCED 23 NOV 1978

ELEVATION 54 m DEPTH OF OVERBURDEN 10.0 m COMPLETED 8 DEC 1978

COORDINATE N=466953 E=52321 LENGTH OF ROCK DRILLING 30.0 m DRILLED BY G.B. CHOI

ANGLE FROM HORIZONTAL 90° TOTAL LENGTH OF CORE 14.0 m LOGGED BY N. MIYAMOTO

BEARING OF ANGLE HOLE CORE RECOVERY 47%

DEPTH	ROCK NAME	LOG	CORE RECOVERY	CEMENTATION KIND OF BIT PASSING	OBSERVATION OF CORE				WATER TABLE				DEPTH	ELEVATION
					COLOR	WEATHERING	HARDNESS	CORE CUTTING	DESCRIPTION	WATER PRESSURE TEST	LEAKAGE OF DRILLING WATER	LUGEON		
0m			0-100										0m	54
1	SHEARED CHLORITE SCHIST	O O		CASING MC	GREY				Fine - medium sand				1	
2					GREY				Quartzite boulder				2	
3					GREY				Hard boulder	WT		15m	3	
4					GREY				Highly weathered and intensely fractured rock				4	
5					GREY				Slime, probably of schist				5	
6					GREY								6	
7					GREY								7	
8					GREY								8	
9					GREY					not tested			9	
10					GREY								10	
11	SHEARED CHLORITE SCHIST	O O		METALC. BX	GREENISH	c	III	5	Intensely fractured with stained or not stained slicken side.				11	
12					GREENISH	c	III	5	Grained hard rock piece				12	
13					GREENISH	c	III	5					13	
14					GREENISH	c	III	5					14	
15					GREENISH	c	III	5					15	
16					GREENISH	c	III	5					16	
17					GREENISH	c	III	5					17	
18					GREENISH	c	III	5					18	
19					GREENISH	c	III	5					19	
20					GREENISH	c	III	5					20	

driller's note

1 (stick) 2 (substick) 3 (piece) 4 (fragment) 5 grain

1 (hard) - 5 (soft)

1 (fresh) - 5 (decomposed)

core loss

RQD

GEOLOGIC LOG OF DRILL HOLE

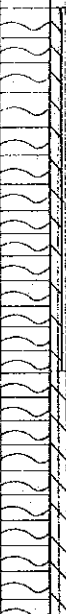
HONGCHEON

PROJECT

HOLE No. DH 1

(SHEET 2 OF 2)

LOCATION _____	DEPTH OF HOLE <u>40</u> m	COMMENCED _____
ELEVATION _____ m	DEPTH OF OVERBURDEN _____ m	COMPLETED _____
COORDINATE _____	LENGTH OF ROCK DRILLING _____ m	DRILLED BY _____
ANGLE FROM HORIZONTAL _____ °	TOTAL LENGTH OF CORE _____ m	LOGGED BY _____
BEARING OF ANGLE HOLE _____	CORE RECOVERY _____ %	

DEPTH	ROCK NAME	LOG	CORE RECOVERY	CEMENTATION KIND OF BIT CASING	OBSERVATION OF CORE				DESCRIPTION	WATER TABLE			DEPTH	ELEVATION	
					COLOR	WEATHERING	HARDNESS	CORE CUTTING		WATER PRESSURE TEST	LEAKAGE OF DRILLING WATER	LUGEON			
0m	SHEARED CHLORITE SCHIST		0 → 100										0m		
1													1		
2														2	
3														3	
4														4	
5														5	
6														6	
7														7	
8												8			
9	QUARTZITE												9		
30													30		
1													1		
2													2		
3													3		
4													4		
5													5		
6													6		
7													7		
8													8		
9													9		
40													40		


 core loss
 RQD

▶ driller's note 4:
 1 (stick), 2 (substick), 3 (piece), 4 (fragment), 5 grain
 1 (hard) ~ 5 (soft)
 1 (fresh) ~ 5 (decomposed)

GEOLOGIC LOG OF DRILL HOLE

HONGCHEON PROJECT HOLE No. DH 2 (SHEET 1 OF 2)

LOCATION DAMSITE DEPTH OF HOLE 40 m COMMENCED 29-NOV-1978

ELEVATION 53 m DEPTH OF OVERBURDEN 5.2 m COMPLETED 8-DEC-1978

COORDINATE N=467066 E=252368 LENGTH OF ROCK DRILLING 34.8 m DRILLED BY K.H. CHOI

ANGLE FROM HORIZONTAL 90° TOTAL LENGTH OF CORE 34.8 m LOGGED BY N. MIYAMOTO

BEARING OF ANGLE HOLE CORE RECOVERY 100 %

DEPTH	ROCK NAME	LOG	CORE RECOVERY	CEMENTATION KIND OF BIT Casing	OBSERVATION OF CORE					WATER TABLE		DEPTH	ELEVATION
					COLOR	WEATHERING	HARDNESS	CORE CUTTING	DESCRIPTION	WATER PRESSURE TEST	LEAKAGE OF DRILLING WATER		
0m			0 → 100									0	
1									Fine - medium sand			1	
2									Sand & gravel			2	
3									Sand & gravel			3	
4									very heavily weathered sandstone schist in lower part			4	
5												5	
6									Hard rock fragments with slightly weathered mineral & stained fracture			6	
7									Almost hard fresh rock with stained fracture & calcite vein			7	
8												8	
9									- ditto -			9	
10									9.5 - 9.8 quartzite vein			10	
11									Hard fresh chlorite sticky core			11	
12									- ditto -			12	
13									13.0 - 13.5 very fractured			13	
14									Hard chlorite schist, gradually changing to sandstone schist downward			14	
15									Hard fresh rock, partly cracky			15	
16									- ditto -			16	
17												17	
18									Hard fresh rock, with 5 - 10 cm joint crack			18	
19									- ditto -			19	
20									Hard fresh rock			20	

driller's note 4

1 (stick) 2 (substick) 3 (piece) 4 (fragment) 5 grain

1 (hard) ~ 5 (soft)

1 (fresh) ~ 5 (decomposed)

core loss

RQD

GEOLOGIC LOG OF DRILL HOLE

HONG CHEON

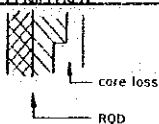
PROJECT

HOLE No. DH 2

(SHEET 2 OF 2)

LOCATION _____ DEPTH OF HOLE _____ m COMMENCED _____
 ELEVATION _____ m DEPTH OF OVERBURDEN _____ m COMPLETED _____
 COORDINATE _____ LENGTH OF ROCK DRILLING _____ m DRILLED BY _____
 ANGLE FROM HORIZONTAL _____ ° TOTAL LENGTH OF CORE _____ m LOGGED BY _____
 BEARING OF ANGLE HOLE _____ CORE RECOVERY _____ %

DEPTH	ROCK NAME	LOG	CORE RECOVERY	CEMENTATION KIND OF BIT CASING	OBSERVATION OF CORE				WATER TABLE				DEPTH	ELEVATION				
					COLOR	WEATHER- ING	HARD- NESS	CORE CUTTING	DESCRIPTION	WATER PRESSURE TEST								
0m			0 → 100							LEAKAGE OF DRILLING WATER				0	43			
										LUGEON				40	0m			
1	SANDSTONE SCHIST				GREY	a	I	3	Hard fresh rock with joint crack						1			
2						a	I	3	- ditto -							2		
3																3		
4						a	I	3								4		
5						a	I	3								5		
6						a	I	4	Sharp edge fractured cracky fresh hard rock								6	
7						a	I	4								7		
8						a	I	3	Hard fresh rock with joint crack								8	
9																	9	
30						a	I	4	Vertical crack pre-dominant, hard fresh rock								30	
1						a	I	3	Hard fresh rock with joint crack								1	
2																	2	
3						a	I	3	Rather cracky along biotite rich schistosity Fresh hard rock								3	
4																	4	
5	a	I	3									5						
6												6						
7	a	I	2	Hard fresh rock with joint crack								7						
8												8						
9												9						
40												40						



driller's note 4
 1 (stick) 2 (substick) 3 (piece) 4 (fragment) 5 grain
 1 (hard) ~ 5 (soft)
 1 (fresh) ~ 5 (decomposed)

GEOLOGIC LOG OF DRILL HOLE

GUJ EOL

PROJECT

HOLE No. DH1

(SHEET 1 OF 2)

LOCATION DAM SITE
 ELEVATION 731 m
 COORDINATE N=199880
E=300113
 ANGLE FROM HORIZONTAL 90°
 BEARING OF ANGLE HOLE _____

DEPTH OF HOLE 30 m
 DEPTH OF OVERBURDEN 6.0 m
 LENGTH OF ROCK DRILLING 24.0 m
 TOTAL LENGTH OF CORE 16.7 m
 CORE RECOVERY 70 %

COMMENCED -
 COMPLETED 6-DEC-1978
 DRILLED BY K.H. JEON
 LOGGED BY N. MIYAMOTO

DEPTH	ROCK NAME	LOG	CORE RECOVERY	CEMENTATION KIND OF BIT CASING	OBSERVATION OF CORE					WATER TABLE 		DEPTH	ELEVATION
					COLOR	WEATHER- ING	HARD- NESS	CORE CUTTING	DESCRIPTION	WATER PRESSURE TEST	LEAKAGE OF DRILLING WATER		
0m			0 → 100									0	
	DEBRIS	Δ											
1		Δ							Debris			1	
2		Δ										2	
3		Δ										3	
4									Very weathered rock (no core recovery)			4	
5												5	
6												6	
7									Weathered & fractured Mafic mineral: wea- thered fracture: stained			7	
8									Rock piece: hard calute vein is observed along joints very cracky			8	
9												9	
10	SANDSTONE											10	
11									Mineral: fresh Fracture: slightly stained			11	
12									Rock piece: hard, fresh			12	
13									Cracky			13	
14												14	
15									Mineral: fresh Fracture: partly stained			15	
16									Rock piece: hard, fresh			16	
17									- ditto -			17	
18									- ditto - cracky			18	
19									- ditto - very cracky			19	
20									very cracky			20	

core loss
 RQD

driller's note 4
 1 (stick) 2 (substick) 3 (piece) 4 (fragment) 5 grain
 1 (hard) - 5 (soft)
 1 (fresh) - 5 (decomposed)

W.T. 8.0m
 not tested

GEOLOGIC LOG OF DRILL HOLE

G U J E O L

PROJECT

HOLE No. DH1

(SHEET 2 OF 2)

LOCATION DAM SITE

DEPTH OF HOLE _____ m COMMENCED _____

ELEVATION _____ m

DEPTH OF OVERBURDEN _____ m COMPLETED _____

COORDINATE _____

LENGTH OF ROCK DRILLING _____ m DRILLED BY _____

ANGLE FROM HORIZONTAL _____ °

TOTAL LENGTH OF CORE _____ m LOGGED BY _____

BEARING OF ANGLE HOLE _____

CORE RECOVERY _____ %

DEPTH	ROCK NAME	LOG	CORE RECOVERY	CEMENTATION KIND OF BIT CASING	OBSERVATION OF CORE				DESCRIPTION	WATER TABLE		DEPTH	ELEVATION	
					COLOR	WEATHER- ING	HARD- NESS	CORE CUTTING		WATER PRESSURE TEST				
0m			0 → 100							LEAKAGE OF DRILLING WATER		0	43	
										LUGEON		40	0m	
1	SANDSTONE			DIA. BX	DARK GREY	b	I	4	Cracky hard rock with slightly stained fracture					1
2						b	I	5	- ditto -					2
3														3
4						b	I	4	- ditto -					4
5									Hard rock generally fresh hard stick rock core					5
6														6
7						A	I	2						7
8														8
9														9
30														
1													1	
2													2	
3													3	
4													4	
5													5	
6													6	
7													7	
8													8	
9													9	
0													0	



core loss

RQD

► driller's note ◀

1 (stick), 2 (substick), 3 (piece), 4 (fragment), 5 grain

1 (hard) ~ 5 (soft)

1 (fresh) ~ 5 (decomposed)

GEOLOGIC LOG OF DRILL HOLE

DALCHEON

PROJECT

HOLE No. DH 1

(SHEET 1 OF 2)

LOCATION DAMSITE

DEPTH OF HOLE

40 m

COMMENCED 22 NOV-1978

ELEVATION 73.478 m

DEPTH OF OVERBURDEN

1.9 m

COMPLETED 17 DEC-1978

COORDINATE N = 379.590
E = 280.700

LENGTH OF ROCK DRILLING

38.1 m

DRILLED BY

ANGLE FROM HORIZONTAL 90°

TOTAL LENGTH OF CORE

32.5 m

LOGGED BY

BEARING OF ANGLE HOLE

CORE RECOVERY

95.2 %

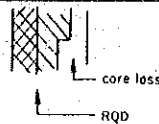
DEPTH	ROCK NAME	LOG	CORE RECOVERY	CEMENTATION KIND OF BIT CASING	OBSERVATION OF CORE				WATER TABLE		DEPTH	ELEVATION
					COLOR	WEATHERING	HARDNESS	CORE CUTTING	DESCRIPTION	WATER PRESSURE TEST		
0m			0 = 100								0	
1									Gravel		1	
2	Aplite				LIGHT GREY	c	II	4	Slightly weathered aplite fragments with stained fracture		2	
3						b	II	3	Slightly weathered substick and fragments of sandstone schist with stained fracture		3	
4						a	I	1	Fresh hard sandstone schist with rare joint crack		4	
5						a	I	1	- ditto -		5	
6						a	I	1	- ditto -		6	
7						a	I	1	- ditto - with calcite vein		7	
8						a	I	2	Fresh hard sandstone schist with joint crack		8	
9						a	I	1	- ditto -		9	
10						a	I	2	- ditto -		10	
11						a	I	1	- ditto -		11	
12						a	I	2	- ditto -		12	
13						a	I	3	- ditto -		13	
14						a	I	2	- ditto -		14	
15						a	I	2	17.5 m - 19.8 m		15	
16						a	I	2	interbedded with biotite schist		16	
17						a	I	2			17	
18						a	I	2			18	
19						a	I	2			19	
20						a	I	2			20	

SANDSTONE SCHIST

DIA. BX

DARK GREY

BIOTITE SCHIST



driller's note 4

1 (stick), 2 (substick), 3 (piece), 4 (fragment), 5 grain

1 (hard) ~ 5 (soft)

1 (fresh) ~ 5 (decomposed)

GEOLOGIC LOG OF DRILL HOLE

DALCHEON

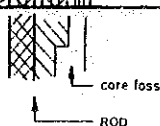
PROJECT

HOLE No. DH 1

(SHEET 2 OF 2)

LOCATION DAM SITE DEPTH OF HOLE _____ m COMMENCED _____
 ELEVATION _____ m DEPTH OF OVERBURDEN _____ m COMPLETED _____
 COORDINATE _____ LENGTH OF ROCK DRILLING _____ m DRILLED BY _____
 ANGLE FROM HORIZONTAL _____ ° TOTAL LENGTH OF CORE _____ m LOGGED BY _____
 BEARING OF ANGLE HOLE _____ CORE RECOVERY _____ %

DEPTH	ROCK NAME	LOG	CORE RECOVERY	CEMENTATION KIND OF BIT CASING	OBSERVATION OF CORE				WATER TABLE				DEPTH	ELEVATION
					COLOR	WEATHERING	HARDNESS	CORE CUTTING	DESCRIPTION	WATER PRESSURE TEST	LEAKAGE OF DRILLING WATER	LUGEON		
0m			0 → 100										0	
1	SANDSTONE								(continued)				1	
2	SCHIST								Fresh hard sandstone schist with joint crack				2	
3									- ditto -				3	
4									Fresh hard biotite schist with joint crack				4	
5									- ditto -				5	
6									Fresh hard sandstone schist with joint crack				6	
7									- ditto -				7	
8									- ditto -				8	
9									- ditto -				9	
30									- ditto -				30	
1									- ditto -				1	
2									- ditto -				2	
3									Fresh hard chlorite schist				3	
4									Aplite vein, cracky with slightly stained fracture: close contact to schist				4	
5									Fresh hard biotite chlorite schist with joint crack				5	
6									Fresh hard biotite schist				6	
7													7	
8													8	
9													9	
40													40	



driller's note 4
 1 (stick) 2 (substick) 3 (piece) 4 (fragment) 5 grain
 1 (hard) ~ 5 (soft)
 1 (fresh) ~ 5 (decomposed)

GEOLOGIC LOG OF DRILL HOLE

GANHYEON

PROJECT

HOLE No. 1

(SHEET 1 OF 1)

LOCATION <u>DAM SITE</u>	DEPTH OF HOLE <u>20</u> m	COMMENCED <u>27 NOV 1978</u>
ELEVATION <u>72</u> m	DEPTH OF OVERBURDEN <u>0.7</u> m	COMPLETED <u>9 DEC 1978</u>
COORDINATE <u>N=200523</u> <u>E=299767</u>	LENGTH OF ROCK DRILLING <u>19.3</u> m	DRILLED BY <u>K.C. LEE</u>
ANGLE FROM HORIZONTAL <u>90°</u>	TOTAL LENGTH OF CORE <u>14.7</u> m	LOGGED BY <u>N. MIYAMOTO</u>
BEARING OF ANGLE HOLE	CORE RECOVERY <u>76.1</u> %	

DEPTH	ROCK NAME	LOG	CORE RECOVERY	CEMENTATION KIND OF BIT CASING	OBSERVATION OF CORE				DESCRIPTION	WATER TABLE			DEPTH	ELEVATION	
					COLOR	WEATHERING	HARDNESS	CORE CUTTING		WATER PRESSURE TEST	LEAKAGE OF DRILLING WATER				
0m			0 → 100										0m	m	
				CASING					Medium-fine sand						
1	QUARTZ PORPHYRY			DIA. BX	SLIGHTLY GREENISH DARK GREY	c	II	5	Very cracky hard rock fragments with weathered mineral & stained fracture					1	
2						b	I	3	Cracky hard rock by angle joints, pyrite spotted					2	
3						a	I	3	Cracky almost fresh hard rock with intense joint crack					3	
4														4	
5														5	
6						a	I	4	- ditto -					6	
7														7	
8														8	
9						a	I	3	- ditto -					9	
10														10	
1													1		
2													2		
3													3		
4													4		
5													5		
6													6		
7													7		
8													8		
9													9		
20													20		

QUARTZ PORPHYRY

DIA. BX

SLIGHTLY GREENISH DARK GREY

driller's note 4

1 (stick) 2 (substick) 3 (piece) 4 (fragment) 5 grain

1 (hard) ~ 5 (soft)

1 (fresh) ~ 5 (decomposed)

core loss

RQD

GEOLOGIC LOG OF DRILL HOLE

PROJECT

HOLE No. DH. 1 (SHEET 1 OF 3)

DEPTH OF HOLE 50 m

COMMENCED 20 - NOV - 1978

DEPTH OF OVERBURDEN 3.8 m

COMPLETED _____

LENGTH OF ROCK DRILLING 44.2 m

DRILLED BY S. I. KIM

TOTAL LENGTH OF CORE 10.5 m

LOGGED BY N. MIYAMOTO

CORE RECOVERY	23 %
---------------	------

[illegible][illegible]

- core loss

- R00

▶ driller's note ◀

1 (stick), 2 (substick), 3 (piece), 4 (fragment), 5 grain

1. (hard) ~ 5 (soft)

1 (fresh) ~ 5 (decomposed)

GEOLOGIC LOG OF DRILL HOLE

BONGHWA

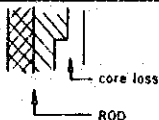
PROJECT

HOLE No. DH 1

(SHEET 2 OF 3)

LOCATION DAM SITE UPSTR DEPTH OF HOLE 50 m COMMENCED ---
 ELEVATION --- m DEPTH OF OVERBURDEN --- m COMPLETED ---
 COORDINATE --- LENGTH OF ROCK DRILLING --- m DRILLED BY ---
 ANGLE FROM HORIZONTAL --- ° TOTAL LENGTH OF CORE --- m LOGGED BY ---
 BEARING OF ANGLE HOLE --- CORE RECOVERY --- %

DEPTH	ROCK NAME	LOG	CORE RECOVERY	CEMENTATION KIND OF BIT CASING	OBSERVATION OF CORE					WATER TABLE		DEPTH	ELEVATION
					COLOR	WEATHERING	HARDNESS	CORE CUTTING	DESCRIPTION	WATER PRESSURE TEST	LEAKAGE OF DRILLING WATER		
0m			0 = 100									0	0m
1	CONGLOMERATE								(continued)			1	
2												2	
3												3	
4												4	
5												5	
6												6	
7	CONGLOMERATE								Slightly weathered hard conglomerate fragments			7	
8					c	II	5					8	
9												9	
30												30	
1												1	
2	CONGLOMERATE								Slightly weathered sticky hard rock			2	
3					b	II	2					3	
4					b	II	3		- ditto -			4	
5	CONGLOMERATE								Fragments of slightly weathered rock			5	
6					b	II	4					6	
7									Fragments of weathered coarse sandstone			7	
8					c	II	5					8	
9												9	
40	CONGLOMERATE								Fragments of slightly weathered conglomerate including greenish grey hard sandstone beds, and dark reddish brown clay locally			40	
									41 - 42 m 10 - 30 cm sticky core				



driller's note 4
 1 (stick) 2 (substick) 3 (piece) 4 (fragment) 5 grain
 1 (hard) ~ 5 (soft)
 1 (fresh) ~ 5 (decomposed)

GEOLOGIC LOG OF DRILL HOLE

BONGHWA

PROJECT

HOLE No. DH 1

(SHEET 3 OF 3)

LOCATION _____	DEPTH OF HOLE 50 m	COMMENCED _____
ELEVATION _____ m	DEPTH OF OVERBURDEN _____ m	COMPLETED _____
COORDINATE _____	LENGTH OF ROCK DRILLING _____ m	DRILLED BY _____
ANGLE FROM HORIZONTAL _____ °	TOTAL LENGTH OF CORE _____ m	LOGGED BY _____
BEARING OF ANGLE HOLE _____	CORE RECOVERY _____ %	

DEPTH	ROCK NAME	LOG	CORE RECOVERY	CEMENTATION KIND OF BIT CASING	OBSERVATION OF CORE				DESCRIPTION	WATER TABLE			DEPTH	ELEVATION
					COLOR	WEATHERING	HARDNESS	CORE CUTTING		WATER TABLE	WATER PRESSURE TEST	LEAKAGE OF DRILLING WATER		
0m			0 → 100										0	0m
1									(continued)				1	
2													2	
3													3	
4													4	
5													5	
6													6	
7													7	
8	Sl				GREY	a	II	3	Hard slate or fine sandstone fresh stick core				8	
9									Jumming (Recovering)				9	
50													50	
1													1	
2													2	
3													3	
4													4	
5													5	
6													6	
7													7	
8													8	
9													9	
0													0	



core loss

RQD

driller's note 4
 1 (stick), 2 (substick), 3 (piece), 4 (fragment), 5 grain
 1 (hard) ~ 5 (soft)
 1 (fresh) ~ 5 (decomposed)

GEOLOGIC LOG OF DRILL HOLE

BONGHWA

PROJECT

HOLE No. DH2

(SHEET 1 OF 2)

LOCATION DAMSITE DOWNSTR

DEPTH OF HOLE 40 m

COMMENCED 17 NOV-1978

ELEVATION 203.655 m

DEPTH OF OVERBURDEN 4.9 m

COMPLETED 26 NOV-1978

COORDINATE N = 38553
E = 6320

LENGTH OF ROCK DRILLING 35.1 m

DRILLED BY K.H. CHOI

ANGLE FROM HORIZONTAL 90°

TOTAL LENGTH OF CORE 32.1 m

LOGGED BY N. MIYAMOTO

BEARING OF ANGLE HOLE

CORE RECOVERY 92%

DEPTH	ROCK NAME	LOG	CORE RECOVERY	CEMENTATION KIND OF BIT CASING	OBSERVATION OF CORE				WATER TABLE				DEPTH	ELEVATION	
					COLOR	WEATHERING	HARDNESS	CORE CUTTING	DESCRIPTION	WATER PRESSURE TEST	LEAKAGE OF DRILLING WATER	LUGEON			
0m			0-100%										0	0m	m
1	DEBRIS	△		C		III	4	Talus deposits of boulder with sandy matrix							
2		△													
3		△													
4		△													
5		△													
6	CONGLOMERATE	○		DIA. BX	DARK REDDISH BROWN	c	III	2	Intensely weathered conglomerate (no core recovery)						
7		○													
8		○													
9		○													
10		○													
11		○													
12		○													
13		○													
14		○													
15		○													
16	○		Very cracky weathered cemented conglomerate minerals: weathered fracture: slightly stained rock: hard but deteriorated												
17	○														
18	○														
19	○														
20	○														
21	○		Weathered cemented conglomerate minerals: weathered fracture: partly stained rock: hard but deteriorated												
22	○														
23	○														
24	○														
25	○														
26	○		Slate (continued)												
27	○														
28	○														
29	○														
30	○														

GEOLOGIC LOG OF DRILL HOLE

BONGHWA

PROJECT

HOLE No. DH 2 (SHEET 2 OF 2)

LOCATION DAM SITE DOWNSTR DEPTH OF HOLE _____ m COMMENCED _____
 ELEVATION _____ m DEPTH OF OVERBURDEN _____ m COMPLETED _____
 COORDINATE _____ LENGTH OF ROCK DRILLING _____ m DRILLED BY _____
 ANGLE FROM HORIZONTAL _____° TOTAL LENGTH OF CORE _____ m LOGGED BY _____
 BEARING OF ANGLE HOLE _____ CORE RECOVERY _____ %

DEPTH	ROCK NAME	LOG	CORE RECOVERY	CEMENTATION KIND OF BIT CASING	OBSERVATION OF CORE				WATER TABLE				DEPTH	ELEVATION
					COLOR	WEATHER- ING	HARD- NESS	CORE CUTTING	DESCRIPTION	WATER PRESSURE TEST	LEAKAGE OF DRILLING WATER	LUGEON		
0m			0-100										0	
1	SANDSTON				PALE REDDISH BROWN	b	II	2	Slate, hard				1	
2						b	II	3	Slightly deteriorat- ed sandstone showing pale reddish brown colour				2	
3						b	II	2					3	
4						b	II	2	Rock piece: very hard with joint crack without stain				4	
5						b	II	2					5	
6						b	II	3					6	
7	SLATE				PALE BROWNISH GREY	b	II	2	Almost fresh sand- stone with joint crack				7	
8						b	II	3	Cracky in lower part				8	
9						b	II	5	Slate, hard, brittle				9	
30						b	II	2	Fresh sandstone with joint crack				30	
1						b	II	2	- ditto -				1	
2						b	II	2	34.0 - 34.5 cracky				2	
3	SANDSTONE				PALE BROWNISH GREY	b	II	2	Fresh sandstone with joint crack				3	
4						b	II	2	- ditto -				4	
5						b	II	2					5	
6						b	II	2					6	
7						b	II	2					7	
8						b	II	2	- ditto -				8	
9						b	II	2					9	
40													40	

driller's note 4
 1 (stick) 2 (substick) 3 (piece) 4 (fragment) 5 grain
 1 (hard) ~ 5 (soft)
 1 (fresh) ~ 5 (decomposed)
 core loss
 RQD

GEOLOGIC LOG OF DRILL HOLE

I M H A

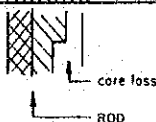
PROJECT

HOLE No. DH.1

(SHEET 1 OF 2)

LOCATION <u>DAM SITE</u>	DEPTH OF HOLE <u>40</u> m	COMMENCED <u>- - -</u>
ELEVATION <u>188.024</u> m	DEPTH OF OVERBURDEN <u>- - -</u> m	COMPLETED <u>- - -</u>
COORDINATE <u>A-Line</u>	LENGTH OF ROCK DRILLING <u>- - -</u> m	DRILLED BY <u>S.M. YOON</u>
ANGLE FROM HORIZONTAL <u>90°</u>	TOTAL LENGTH OF CORE <u>- - -</u> m	LOGGED BY <u>N. MIYAMOTO</u>
BEARING OF ANGLE HOLE <u>- - -</u>	CORE RECOVERY <u>- - -</u> %	

DEPTH	ROCK NAME	LOG	CORE RECOVERY	CEMENTATION KIND OF BIT CASING	OBSERVATION OF CORE				DESCRIPTION	WATER TABLE		LEAKAGE OF DRILLING WATER	DEPTH	ELEVATION	
					COLOR	WEATHER- ING	HARD- NESS	CORE CUTTING		WATER PRESSURE TEST	LUGEON				
0m			0 → 100										0m	43	
1	WEATHERED GRANITE	+		C A S I N G					Arkosic sand (decomposed granite)				1		
2		+											2		
3		+											3		
4		+											4		
5		+											5		
6		+								Slime				6	
7		+												7	
8		+												8	
9		+												9	
10		+												10	
11	GRANITE	+		DIA. BX cementation	LIGHT GREY				Very cracky weather- ed rock (No core recovery)				1		
12		+												2	
13		+												3	
14		+												4	
15		+												5	
16		+												6	
17		+												7	
18		+					b	II	4	Weathered hard cracky rock with weathered mineral, less weath- ered in lower part with stick core		water leakage at 18.0 - 18.3m and at 19.7 - 20.1m		8	
19		+												9	
20		+					b	I	4	(under drilling)				20	



► driller's note 4

1 (stick) 2 (substick) 3 (piece) 4 (fragment) 5 grain

1 (hard) ~ 5 (soft)

1 (fresh) ~ 5 (decomposed)

GEOLOGIC LOG OF DRILL HOLE

I M H A

PROJECT

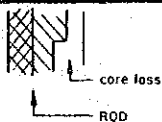
HOLE No. DH 1 (SHEET 2 OF 2)

LOCATION _____ DEPTH OF HOLE 40 m COMMENCED _____
 ELEVATION _____ m DEPTH OF OVERBURDEN _____ m COMPLETED _____
 COORDINATE _____ LENGTH OF ROCK DRILLING _____ m DRILLED BY _____
 ANGLE FROM HORIZONTAL _____ ° TOTAL LENGTH OF CORE _____ m LOGGED BY _____
 BEARING OF ANGLE HOLE _____ CORE RECOVERY _____ %

DEPTH	ROCK NAME	LOG	CORE RECOVERY	CEMENTATION KIND OF BIT CASING	OBSERVATION OF CORE				WATER TABLE				DEPTH	ELEVATION
					COLOR	WEATHER- ING	HARD- NESS	CORE CUTTING	DESCRIPTION	WATER PRESSURE TEST	LEAKAGE OF DRILLING WATER	LUGEON		
0m			0 - 100 %										0	40
1		+		Bit type not described	LIGHTGREY				Almost fresh rock pieces				1	
2		+							Slightly weathered in rock forming mineral				2	
3		+											3	
4		+				b	I	4					4	
5		+											5	
6		+											6	
7		+											7	
8		+											8	
9		+											9	
30		+				b	II	5	Hard slightly weathered rock fragments with weathered mineral and stained fracture				30	
1		+		Bit type not described	YELLOWISH GREY								1	
2		+											2	
3		+				b	I	4	Hard rock, slightly weathered in rock forming mineral				3	
4		+											4	
5		+				b	I	5	Hard slightly weathered rock fragments				5	
6		+											6	
7		+											7	
8		+											8	
9		+											9	
40		+				a	I	3	Hard fresh rock				40	

Water Leakage at 29.0-31.0m

GRANITE



driller's note 4
 1 (stick) 2 (substick) 3 (piece) 4 (fragment) 5 grain
 1 (hard) - 5 (soft)
 1 (fresh) - 5 (decomposed)

GEOLOGIC LOG OF DRILL HOLE

HAMYANG

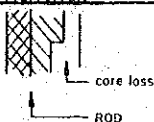
PROJECT

HOLE No. DH1

(SHEET 1 OF 2)

LOCATION <u>DAM SITE</u>	DEPTH OF HOLE <u>40</u> m	COMMENCED <u>6 NOV-1978</u>
ELEVATION <u>361.740</u> m	DEPTH OF OVERBURDEN <u>9.8</u> m	COMPLETED <u>14 NOV-1978</u>
COORDINATE <u>N=212336</u> <u>E=258335</u>	LENGTH OF ROCK DRILLING <u>30.2</u> m	DRILLED BY <u>K.H. CHOI</u>
ANGLE FROM HORIZONTAL <u>90°</u>	TOTAL LENGTH OF CORE <u>29.5</u> m	LOGGED BY <u>N. MIYAMOTO</u>
BEARING OF ANGLE HOLE	CORE RECOVERY <u>97.5</u> %	

DEPTH	ROCK NAME	LOG	CORE RECOVERY	CEMENTATION KIND OF BIT CASING	OBSERVATION OF CORE				WATER TABLE			DEPTH	ELEVATION
					COLOR	WEATHER- ING	HARD- NESS	CORE CUTTING	DESCRIPTION	WATER PRESSURE TEST	LEAKAGE OF DRILLING WATER		
0m			0 → 100									0	43
1	WEATHERED DIORITE	Δ							Top soil with pebble			1	
2		+							Intensely weathered rock zone (No core recovery)			2	
3		+										3	
4		+										4	
5		+										5	
6		+										6	
7		+										7	
8		+										8	
9		+							Intensely weathered and fractured zone (No core recovery)			9	
10		+								W.T. 9.3M		10	
11	DIORITE	+							Hard rock with slightly weathered mineral & stained fracture	not tested		11	
12		+							Almost hard fresh rock piece with stained fracture			12	
13		+							Fresh massive hard rock with calcite vein			13	
14		+										14	
15		+							- ditto -			15	
16		+										16	
17		+							Cracky hard rock with stained fracture, probably with seams			17	
18		+							Cracky less than above hard rock with stained fracture filled with pink clay seams			18	
19		+										19	
20		+							Very cracky hard rock			20	



driller's note 4

1 (stick) 2 (substick) 3 (piece) 4 (fragment) 5 grain

1 (hard) ~ 5 (soft)

1 (fresh) ~ 5 (decomposed)

GEOLOGIC LOG OF DRILL HOLE

HAMYANG

PROJECT

HOLE No. DH1

(SHEET 2 OF 2)

LOCATION _____ DEPTH OF HOLE _____ m COMMENCED _____
 ELEVATION _____ m DEPTH OF OVERBURDEN _____ m COMPLETED _____
 COORDINATE _____ LENGTH OF ROCK DRILLING _____ m DRILLED BY _____
 ANGLE FROM HORIZONTAL _____° TOTAL LENGTH OF CORE _____ m LOGGED BY _____
 BEARING OF ANGLE HOLE _____ CORE RECOVERY _____ %

DEPTH	ROCK NAME	LOG	CORE RECOVERY	CEMENTA- TION KIND OF BIT CASING	OBSERVATION OF CORE				WATER TABLE				DEPTH	ELEVATION
					COLOR	WEATHER- ING	HARD- NESS	CORE CUTTING	DESCRIPTION	WATER PRESSURE TEST				
0m			0 → 100 %										0m	m
1	DIORITE	+			DARK GREENISH GREY	c	I	4	With stained fracture					1
2		+				a	I	1	Fresh hard rock with joint crack					2
3		+				a	I	1	- ditto -					3
4		+								- ditto -				4
5		+				a	I	1	25.1 m calcite vein					5
6		+				a	I	1	- ditto -					6
7		+				a	I	1	- ditto -					7
8		+				a	I	1	- ditto -					8
9		+				a	I	1	- ditto -					9
30		+				a	I	1	- ditto -					30
1	VERY DARK GREENISH GREY	+				a	I	1	Mafic mineral rich fresh hard rock with joint crack					1
2		+				a	I	1	- ditto -					2
3		+				a	I	1	- ditto -					3
4		+				a	I	1	- ditto -					4
5		+				a	I	1	- ditto -					5
6		+				a	I	1	- ditto -					6
7		+				a	I	1	- ditto -					7
8		+				a	I	1	- ditto -					8
9	+			a	I	1	- ditto -					9		
40		+											40	

driller's note
 1 (stick) 2 (substick) 3 (piece) 4 (fragment) 5 grain
 1 (hard) ~ 5 (soft)
 1 (fresh) ~ 5 (decomposed)
 core loss
 RQD

GEOLOGIC LOG OF DRILL HOLE

JUAM

PROJECT

HOLE No. DH1

(SHEET 1 OF 2)

LOCATION DAM SITE DEPTH OF HOLE 30 m COMMENCED 15 OCT-1978
 ELEVATION 82.160 m DEPTH OF OVERBURDEN 4.3 m COMPLETED 4 NOV-1978
 COORDINATE Line A-1 STA.150 LENGTH OF ROCK DRILLING 25.7 m DRILLED BY K.H. CHOI
 ANGLE FROM HORIZONTAL 90° TOTAL LENGTH OF CORE 25.7 m LOGGED BY N. MIYAMOTO
 BEARING OF ANGLE HOLE _____ CORE RECOVERY 100 %

DEPTH	ROCK NAME	LOG	CORE RECOVERY	CEMENTATION KIND OF BIT CASING	OBSERVATION OF CORE					WATER TABLE		DEPTH	ELEVATION
					COLOR	WEATHERING	HARDNESS	CORE CUTTING	DESCRIPTION	WATER PRESSURE TEST	LEAKAGE OF DRILLING WATER		
0m			0 ~ 100									0	82.160
1		Δ							Talus deposits			1	
2		Δ							Sand & gravel (Terrace or debris?)			2	
3		Δ							Intensely weathered gneiss with fracture (no core recovery)	W.T.	3.2M	3	
4												4	
5									Weathered granitic gneiss			5	
6					c	II	3		Hard rock with stained fracture along biotite band			6	
7					b	II	3		Mineral weathered, Hard rock with partly weathered mineral, stained crack	not tested		7	
8					b	II	3		- ditto -			8	
9					b	II	3		- ditto -			9	
10					b	I	3		Almost fresh rock but fracture is stained			10	
11					b	I	3		- ditto -			11	
12					b	I	3		- ditto -			12	
13					b	I	3		12.2 - 12.7 cracky			13	
14					b	I	3		- ditto -			14	
15					b	I	3		cracky in lower part			15	
16					b	I	2		- ditto -			16	
17					b	I	2		- ditto -			17	
18					Pale brownish grey	c	II	4	Cracky hard rock with weathered mineral and vertical stained fracture			18	
19												19	
20					b	I	3		Almost fresh rock with cracks along biotite band			20	

GRANITE GNEISS

DIA. BX

GREY



driller's note 4
 1 (stick) 2 (substick) 3 (piece) 4 (fragment) 5 grain
 1 (hard) - 5 (soft)
 1 (fresh) - 5 (decomposed)

OVER

GEOLOGIC LOG OF DRILL HOLE

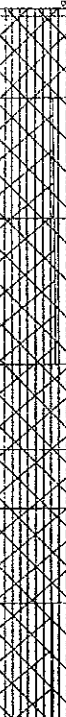
JUAM

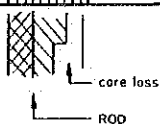
PROJECT

HOLE No. DH1

(SHEET 2 OF 2)

LOCATION DAM SITE DEPTH OF HOLE _____ m COMMENCED _____
 ELEVATION _____ m DEPTH OF OVERBURDEN _____ m COMPLETED _____
 COORDINATE _____ LENGTH OF ROCK DRILLING _____ m DRILLED BY _____
 ANGLE FROM HORIZONTAL _____° TOTAL LENGTH OF CORE _____ m LOGGED BY _____
 BEARING OF ANGLE HOLE _____ CORE RECOVERY _____ %

DEPTH	ROCK NAME	LOG	CORE RECOVERY	CEMENTATION KIND OF BIT CASING	OBSERVATION OF CORE					WATER TABLE				DEPTH	ELEVATION		
					COLOR	WEATHERING	HARDNESS	CORE CUTTING	DESCRIPTION	WATER PRESSURE TEST							
0m			0 → 100								LEAKAGE OF DRILLING WATER				0		
											LUGEON				40	0m	
	GRANITE GNEISS				GREY				(continue)								
1						a	I	2	Fresh granite gneiss with joint crack						1		
2						a	I	2	- ditto -							2	
3																3	
4						a	I	2	- ditto -							4	
5																5	
6						a	I	2	- ditto -							6	
7						a	I	2	- ditto -							7	
8												8					
9													9				
30													30				
1														1			
2														2			
3														3			
4														4			
5														5			
6														6			
7														7			
8														8			
9														9			
0														0			



driller's note 4
 1 (stick), 2 (substick), 3 (piece), 4 (fragment), 5 grain
 1 (hard) ~ 5 (soft)
 1 (fresh) ~ 5 (decomposed)