

Figure 1.11 (1/4) GEOLOGIC LOG OF DRILL HOLE

PROJECT _____ HOLE No. BS-1 (SHEET 1 OF 4)

LOCATION Sabacuanito (left) DEPTH OF HOLE 80 m COMMENCED 26-IV-

ELEVATION 4096.21 m DEPTH OF OVERBURDEN _____ m COMPLETED 01-V-2000

COORDINATE _____ LENGTH OF ROCK DRILLING _____ m DRILLED BY _____

ANGLE FROM HORIZONTAL -90° TOTAL LENGTH OF CORE _____ m LOGGED BY _____

BEARING OF ANGLE HOLE _____ CORE RECOVERY _____ % W.L. - 46.2 m

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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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driller's note

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

1 (hard) ~ 5 (soft)

1 (fresh) ~ 5 (decomposed)

core loss

RQD

Figure 1.11 (2/4) GEOLOGIC LOG OF DRILL HOLE

PROJECT										HOLE No. <u>BS-1</u> (SHEET 2 OF 4)									
LOCATION <u>Sabacnanto</u>					DEPTH OF HOLE <u>80</u> m					COMMENCED <u>-</u>									
ELEVATION <u>-</u> m					DEPTH OF OVERBURDEN <u>-</u> m					COMPLETED <u>-</u>									
COORDINATE <u>-</u>					LENGTH OF ROCK DRILLING <u>-</u> m					DRILLED BY <u>-</u>									
ANGLE FROM HORIZONTAL <u>-</u> °					TOTAL LENGTH OF CORE <u>-</u> m					LOGGED BY <u>-</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					WATER TABLE					DEPTH	ELEVATION			
					COLOR	WEATHERING	HARDNESS	CORE CUTTING	DESCRIPTION	WATER PRESSURE TEST LEAKAGE OF DRILLING WATER									
0m			0 → 100 %											0	40	20m			
1	Coarse Sandy Tuff				gray	2	3	2	20.3m	20.3m - 25.8m : basal coarse sandy tuff $k_0 = 60 \text{ t/m}^2$									
2																			
3																			
4																			
5																			
6					gray	2	3	2	25.8	weathered zone of ex-ground surface (CLD)									
7																			
8																			
9																			
10																			
11	Sandy Tuff				gray	1	3	1	29.3	25.8m - 68.9m : gray sandy tuff with pumice. Fresh, but breakable $k_0 = 70 \text{ t/m}^2$									
12																			
13																			
14																			
15																			
16					gray	1	3	1	29.7	(CLM)									
17																			
18																			
19																			
20																			
21					gray	1	3	1	30.1										
22																			
23																			
24																			
25																			
26					gray	1	3	1	32.0										
27																			
28																			
29																			
30																			
31					gray	1	3	1	37.6										
32																			
33																			
34																			
35																			
36					gray	1	3	1	38.1										
37																			
38																			
39																			
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

Figure 1.11 (3/4) GEOLOGIC LOG OF DRILL HOLE

PROJECT										HOLE No. <u>BS-1</u> (SHEET <u>3</u> OF <u>4</u>)									
LOCATION <u>Sabacuanite</u>					DEPTH OF HOLE <u>80</u> m					COMMENCED <u>-</u> <u>-</u>									
ELEVATION <u>-</u> m					DEPTH OF OVERBURDEN <u>-</u> m					COMPLETED <u>-</u> <u>-</u>									
COORDINATE <u>-</u>					LENGTH OF ROCK DRILLING <u>-</u> m					DRILLED BY <u>-</u>									
ANGLE FROM HORIZONTAL <u>-</u> °					TOTAL LENGTH OF CORE <u>-</u> m					LOGGED BY <u>-</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					WATER TABLE			DEPTH	ELEVATION					
					COLOR	WEATHER- ING	HARD- NESS	CORE CUTTING	DESCRIPTION	WATER PRESSURE TEST	LEAKAGE OF DRILLING WATER								
0m			0 → 100 %										0	40	0m				
1							3 (1)	46.6		CLM				1					
2														2					
3							3							3					
4							2							4					
5								75.4						5					
6							1	46.3						6	W.L.				
7							3 2	47.2	soft					7	46.3				
8														8					
9														9					
50							1 3							50					
1							2							1					
2								51.5						2					
3							3	52.0						3					
4							1							4					
5								58.1						5					
6							3 5 4	58.1 ~ 57.4 m: soft		CLD				6					
7								60.0						7					
8								57.4		CLM (60.0 m)				8					
9							3 1							9					
80														80					

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

Figure 1.11 (4/4) GEOLOGIC LOG OF DRILL HOLE

PROJECT _____ HOLE No. BS-1 (SHEET 4 OF 4)

LOCATION Sabacuate DEPTH OF HOLE 80 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	WATER PRESSURE TEST	LEAKAGE OF DRILLING WATER	DEPTH	ELEVATION
					COLOR	WEATHERING	HARDNESS	CORE CUTTING	DESCRIPTION					
0m			0 → 100 %										0	60m
1	Sandy tuff								58.5 ~ 68.9 m : Taking in gravel of red tuff rarely (CLM) ($\alpha_0 = 90 \text{ t/m}^2$)				1	
2													2	
3													3	
4									1 3 1				4	
5													5	
6													6	
7									68.9 ~ : Valle de Angeles Group				7	
8													8	
9	Tuff breccia							4 3	68.5 68.9				9	
10		reddish brown #2	3 4 2	(CLD) 70.0	Contact : stick breakable rock			10						
1			3 2	70.6			1							
2			4 4	71.8			2							
3			2 3	72.5	Conglomerate		3							
4		gray	3 3 3	(CLD)				4						
5			3 2	78.2 75.1	(CL)		5							
6			3 4 4	(D) weathered & soft		6								
7			3 3	76.8 77.65	Conglomerate		7							
8			2 3 2	(CLM) ($\alpha_0 = 90 \text{ t/m}^2$)			8							
9				77.5			9							
10			3 4 2	80.0 coarse S.S. bottom			10							

Figure 1.12 (1/4) GEOLOGIC LOG OF DRILL HOLE

PROJECT										HOLE No. BS-2 (SHEET 1 OF 4)									
LOCATION <u>Sabacuan</u>					DEPTH OF HOLE <u>80</u> m					COMMENCED <u>12-17-</u>									
ELEVATION <u>1081.26</u> m					DEPTH OF OVERBURDEN _____ m					COMPLETED <u>25-17-2000</u>									
COORDINATE _____					LENGTH OF ROCK DRILLING _____ m					DRILLED BY _____									
ANGLE FROM HORIZONTAL <u>-90°</u>					TOTAL LENGTH OF CORE _____ m					LOGGED BY _____									
BEARING OF ANGLE HOLE _____					CORE RECOVERY _____ %					W.L. - <u>30.1</u> m									
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	40	0m			
1	coarse sand				color	2	3	4	0.5m Talus deposit										
(CL)																			
coarse sand large																			
tuffaceous sand with miscellaneous gravel																			
2					misallaneous color	2	3	2	4.50										
3	(CL)																		
4	loozened sandy tuff																		
5	6.70																		
6	Sandy Tuff				gray	2	4	4	slightly weathered										
7									soft sandy tuff										
8									(D)										
9									9.80										
10						2	5	2	(CL)										
1	a little breakable																		
2	11.50																		
3	(CLM)																		
4						2	3	1	medium hard without joint.										
5	14.3 ~ 16.9m = test																		
6	16.00																		
7	(CLM) ($\sigma_c \approx 60 \text{ t/m}^2$)																		
8						1	3	1	fresh & sound rock										
9	18.90																		
10	(CL)																		
11	17.80																		

core loss

RQD

driller's note

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

1 (hard) ~ 5 (soft)

1 (fresh) ~ 5 (decomposed)

Laboratory test ① ~ ③

Figure 1.12 (2/4) GEOLOGIC LOG OF DRILL HOLE

PROJECT										HOLE No. <u>BS-2</u> (SHEET <u>2</u> OF <u>4</u>)									
LOCATION _____					DEPTH OF HOLE <u>80</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					WATER TABLE					DEPTH	ELEVATION			
					COLOR	WEATHER- ING	HARD- NESS	CORE CUTTING	DESCRIPTION	WATER PRESSURE TEST	LEAKAGE OF DRILLING WATER								
0m			0 → 100%											0	40	0m			
1	Sandy Tuff						1	3	1	17.8 ~ 23.2 : (CLM)									
2										sound rock									
3										a few joint									
4										23.20									
5										(CL)									
6										24.80									
7										(CLM)									
8										25.3 ~ 26.5 m test									
9										sound rock									
30										gley									
1	(CLM)																		
2	sound rock without joint																		
3																			
4																			
5																			
6																			
7																			
8																			
9																			
40							1	3	1	38.45									
1										(3)									
2										39.25 (CL) chackly									
3																			
4																			
5																			
6																			
7																			
8																			
9																			

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

W.L. 30.1 m

Laboratory Test ④ ~ ⑤

Figure 1.12 (3/4) GEOLOGIC LOG OF DRILL HOLE

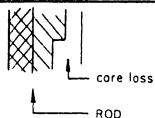
PROJECT

HOLE No. BS-2 (SHEET 3 OF 4)

LOCATION _____ DEPTH OF HOLE 80 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		
40m			0 → 100%								LUGEON	40	40m
1	Sandy Tuff								(CLM)			1	
2									39.25 ~ 48.60m			2	
3									Sound rock			3	
4									a few crack and			4	
5									joint			5	
6												6	
7												7	
8												8	
9												9	
50												50	
1											1		
2											2		
3											3		
4											4		
5											5		
6											6		
7											7		
8											8		
9											9		
60											60		

Sandy Tuff



driller's note

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


1 (hard) ~ 5 (soft)

1 (fresh) ~ 5 (decomposed)

HOLE No. BS-2 (SHEET 4 OF 4)

1 - 32

Figure 1.13 (1/4) GEOLOGIC LOG OF DRILL HOLE

PROJECT										HOLE No. BS-3 (SHEET 1 OF 4)									
LOCATION <u>Sabacuan</u>					DEPTH OF HOLE <u>80</u> m					COMMENCED <u>08-IV-</u>									
ELEVATION <u>1,050.92m</u>					DEPTH OF OVERBURDEN <u>1.75</u> m					COMPLETED <u>10-IV-2000</u>									
COORDINATE _____					LENGTH OF ROCK DRILLING _____ m					DRILLED BY _____									
ANGLE FROM HORIZONTAL <u>-90°</u>					TOTAL LENGTH OF CORE _____ m					LOGGED BY _____									
BEARING OF ANGLE HOLE _____					CORE RECOVERY _____ %					W. L. <u>-0.5m</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					
1					gray					Recent river deposit Sand & gravel				1		0.5m			
2					gray	2	3	4		1.75 Sandy tuff (CL) non-water drilling				2					
3						b								3					
4										4.00 Sandy tuff: (CLM) with pebble to granule of pumice and basalt				4					
5										a few joints				5					
6										This rock is easy to be broken by hammer blow, but joints are few and				6					
7														7					
8														8					
9														9					
10														10					
11										adhesive. That is why, the shear strength is estimated about 60~80 t/m ² .				11					
12														12					
13														13					
14														14					
15														15					
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78														78					
79														79					
80														80					

core loss

RQD

driller's note

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

1 (hard) ~ 5 (soft)

1 (fresh) ~ 5 (decomposed)

1 - 33

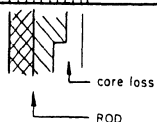
Figure 1.13 (2/4) GEOLOGIC LOG OF DRILL HOLE

PROJECT

HOLE No. BS-3 (SHEET 2 OF 4)

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				DESCRIPTION	WATER TABLE			DEPTH	ELEVATION
					COLOR	WEATHER- ING	HARD- NESS	CORE CUTTING		WATER TABLE	WATER PRESSURE TEST	LEAKAGE OF DRILLING WATER		
2.0m			0 → 100%							0	LUGEON	40	2.0m	
1	Sandy tuff				1	2	1		21.0°	(CHL)				
2					2	3	4	21.0°~23.0° boulder						
3					3	5	(reddish conglomerate)							
4					4	6	Valle de Angeles Group							
5					5	22.0°								
6					6		Sandy tuff with reddish patch							
7					1	3	1							
8														
9														
10														
11	Tuff breccia				2	3	2		31.85					
12					3	4	5	32.30 weathered zone						
13								• Conglomerate of Valle de Angeles Group						
14								• tuff breccia is better name						
15								• characteristics						
16								Matrix: Sandy tuff ~ Tuffaceous sand						
17								Gravel: basalt, andesite angular ~ sub-angular						
18								32.3 ~ 45.50						
19								Slightly weathered (CL)						
20														



driller's note

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

1 (hard) ~ 5 (soft)

1 (fresh) ~ 5 (decomposed)

Figure 1.13 (3/4) GEOLOGIC LOG OF DRILL HOLE

PROJECT

HOLE No. BS-3 (SHEET 3 OF 4)

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	WATER PRESSURE TEST	LEAKAGE OF DRILLING WATER	DEPTH	ELEVATION
					COLOR	WEATHERING	HARDNESS	CORE CUTTING					
40m			0 → 100%									0	40.00m
1												1	
2						2	3	2				2	
3							3	(3)				3	
4							4					4	
5												5	
6						6						6	
7												7	
8						1	3	1				8	
9							2					9	
50						2						50	
1												1	
2												2	
3												3	
4												4	
5												5	
6												6	
7												7	
8												8	
9												9	
60												60	

40m

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Figure 1.13 (4/4) GEOLOGIC LOG OF DRILL HOLE

PROJECT _____		HOLE No. <u>BS-3</u> (SHEET <u>4</u> OF <u>4</u>)	
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	WATER PRESSURE TEST	LEAKAGE OF DRILLING WATER	DEPTH	ELEVATION
					COLOR	WEATHER- ING	HARD- NESS	CORE CUTTING					
60m			0 → 100%									40 60m	60m
1	Tuff breccia												
2													
3													
4													
5													
6													
7													
8													
9													
0													
1	reddish purple												
2													
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driller's note

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

1 (hard) ~ 5 (soft)

1 (fresh) ~ 5 (decomposed)

1 - 36

core loss

RQD

GEOLOGIC LOG OF DRILL HOLE

HOLE No. BS-4 (SHEET 1 OF 4)

[illegible]

core loss

ROD

1 (hard) ~ 5 (soft)

1 (fresh) ~ 5 (decomposed)

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

driller's note

Figure 1.14 (2/4) GEOLOGIC LOG OF DRILL HOLE

PROJECT										HOLE No. <u>BS-4</u> (SHEET <u>2</u> OF <u>4</u>)									
LOCATION <u>Sabacuanito</u>					DEPTH OF HOLE <u>80</u> m					COMMENCED <u>-</u> <u>-</u>									
ELEVATION <u>-</u> m					DEPTH OF OVERBURDEN <u>-</u> m					COMPLETED <u>-</u> <u>-</u>									
COORDINATE <u>-</u>					LENGTH OF ROCK DRILLING <u>-</u> m					DRILLED BY <u>-</u>									
ANGLE FROM HORIZONTAL <u>-</u> °					TOTAL LENGTH OF CORE <u>-</u> m					LOGGED BY <u>-</u>									
BEARING OF ANGLE HOLE <u>-</u>					CORE RECOVERY <u>-</u> %														
DEPTH	ROCK NAME	LOG	CORE RECOVERY	CEMENTATION KIND OF BIT CASING	COLOR	OBSERVATION OF CORE				WATER TABLE	WATER PRESSURE TEST	LEAKAGE OF DRILLING WATER	DEPTH	ELEVATION					
						WEATHERING	HARDNESS	CORE CUTTING	DESCRIPTION										
0m			0 → 100 %										0	40 → 0m					
1	<u>Sandy Tuff</u>				<u>gray</u>	2	3	2	loosened layer				1						
2						3	4 (4)	Joints bear secondary clay.	2										
3						6	(c)	23.4	3										
4								⊙ (K ₀ = 60 t/m ²)	4										
5								slightly loosened layer.	5										
6						2	3	1	Some joints bear secondary clay.				6						
7						(4)			7										
8						6	(c)	27.0	8										
9									9										
10									fresh & sound sandy pumiceous tuff.				30						
1												1	W.L. 30.7m						
2												2							
3												3							
4												4							
5												5							
6												6							
7												7							
8												8							
9												9							
10												10							

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)


Figure 1.14 (3/4) GEOLOGIC LOG OF DRILL HOLE



PROJECT										HOLE No. <u>BS-4</u> (SHEET <u>3</u> OF <u>4</u>)									
LOCATION <u>Sabacuan</u>					DEPTH OF HOLE <u>80</u> m					COMMENCED <u>-</u> <u>-</u>									
ELEVATION <u>-</u> m					DEPTH OF OVERBURDEN <u>-</u> m					COMPLETED <u>-</u> <u>-</u>									
COORDINATE <u>-</u>					LENGTH OF ROCK DRILLING <u>-</u> m					DRILLED BY <u>-</u>									
ANGLE FROM HORIZONTAL <u>-</u> °					TOTAL LENGTH OF CORE <u>-</u> m					LOGGED BY <u>-</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					WATER TABLE 					DEPTH	ELEVATION			
					COLOR	WEATHER- ING	HARD- NESS	CORE CUTTING	DESCRIPTION	WATER PRESSURE TEST	LEAKAGE OF DRILLING WATER								
0m			0 → 100 %										0	40m					
1	Sandy Tuff				gray	1	3	1	(CHL)										
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9	Cg.				reddish	3	4	4	48.2	weathered zone (CL)									
50																			
1	Ss.				2	2	3	50.3	(CH)	18.3~50.3: Conglomerate									
1																			
2	Sandy Tuff				gray with red patch	2	3	2	(CH)	light reddish gray									
3																			
4																			
5																			
6																			
7																			
8																			
9																			
60																			

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

Figure 1.14 (4/4) GEOLOGIC LOG OF DRILL HOLE

PROJECT										HOLE No. <u>BS-8</u> (SHEET <u>4</u> OF <u>4</u>)									
LOCATION <u>Sabacunto</u>					DEPTH OF HOLE <u>80</u> m					COMMENCED <u>-</u> <u>-</u>									
ELEVATION <u>-</u> m					DEPTH OF OVERBURDEN <u>-</u> m					COMPLETED <u>-</u> <u>-</u>									
COORDINATE <u>-</u>					LENGTH OF ROCK DRILLING <u>-</u> m					DRILLED BY <u>-</u>									
ANGLE FROM HORIZONTAL <u>-</u> °					TOTAL LENGTH OF CORE <u>-</u> m					LOGGED BY <u>-</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					WATER TABLE 			DEPTH	ELEVATION					
					COLOR	WEATHER- ING	HARD- NESS	CORE CUTTING	DESCRIPTION	WATER PRESSURE TEST	LEAKAGE OF DRILLING WATER								
0m			0 → 100 %										0	60m					
1	<u>Tuff breccia</u>				<u>reddish brown</u>	<u>1</u>	<u>3</u>	<u>2</u>	<u>(3)</u>	<p>Drilling cores are substick, but this conglomerate has a few joint in the field.</p> <p>Drilling is difficult for like rock composed of soft matrix and hard gravel.</p> <p>Consequently, rock soundness classification will be classified into</p> <p><u>CML</u> ~ <u>CM</u> $R_0 = 60 \sim 80 \text{ t/m}^2$</p>									
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7													7						
8													8						
9													9						
80													80						

 core loss
 RQD

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

▶ driller's note ▶

Figure 1.15 (1/2) GEOLOGIC LOG OF DRILL HOLE

PROJECT _____ HOLE No. BS-5 (SHEET 1 OF 2)

LOCATION Sabacuanito DEPTH OF HOLE 40.00 m COMMENCED 06-IV-

ELEVATION 1,050.45 m DEPTH OF OVERBURDEN _____ m COMPLETED 10-IV-2000

COORDINATE _____ LENGTH OF ROCK DRILLING _____ m DRILLED BY _____

ANGLE FROM HORIZONTAL -90° TOTAL LENGTH OF CORE _____ m LOGGED BY _____

BEARING OF ANGLE HOLE _____ CORE RECOVERY _____ % W.L. - 0.5 m

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%								LUGEON				0	0m		
1	Sandy tuff		0 → 100%		grey	grey				Recent river deposit. sand & gravel						0.5m		
2										1.75							(CL-D)	} weathered
3										2.70							(CL)	
4																	(CML)	fresh & sound without joint.
5										4.60							(CL-D)	bad consolidated rocks
6										6.55							(CML)	partly including reddish gravel (8.8m)
7										9.05							(CL)	sandy tuff with pumice (6.33 ~ 13.5)
8										12.30							(CL)	slightly soft rock
9										13.5							(CLM)	finer medium sandy tuff
10										16.70								16.9 ~ 20.70 boulder (reddish conglomerate)
11																		It may be old gravel surface.
12																		
13																		
14																		
15																		



core loss
RQD

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

Figure 1.15 (2/2) GEOLOGIC LOG OF DRILL HOLE

PROJECT										HOLE No. <u>BS-5</u> (SHEET <u>2</u> OF <u>2</u>)									
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				WATER TABLE				DEPTH	ELEVATION					
					COLOR	WEATHER- ING	HARD- NESS	CORE CUTTING	DESCRIPTION	WATER PRESSURE TEST	LEAKAGE OF DRILLING WATER								
0m			0-100%										0	40m					
1	Sandy tuff				reddish gray	1	3 3 4	2 3 4	20.90	boulder									
2									(CL)										
3									20.9 ~ 22.0 m										
4									bedded tuff.										
5									matrix is supplied										
6	T.b.				gray	3	3 3 4	4	26.05	(CL) weathered zone									
7									27.30										
8									28.00										
9									(CLM) reddish buffaceous										
10									sandstone										
11	sandstone				reddish brown	1	3 3 3	3 3 4	30.50	(CL) b									
12									30.50 ~ 36.20										
13									Sandy tuff with										
14									gravel.										
15																			
16	Tuff breccia					1	3	4	36.20	(CL) tuff breccia									
17																			
18																			
19																			
20																			
21									40	bottom									

driller's note

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

1 (hard) ~ 5 (soft)

1 (fresh) ~ 5 (decomposed)

core loss

RQD