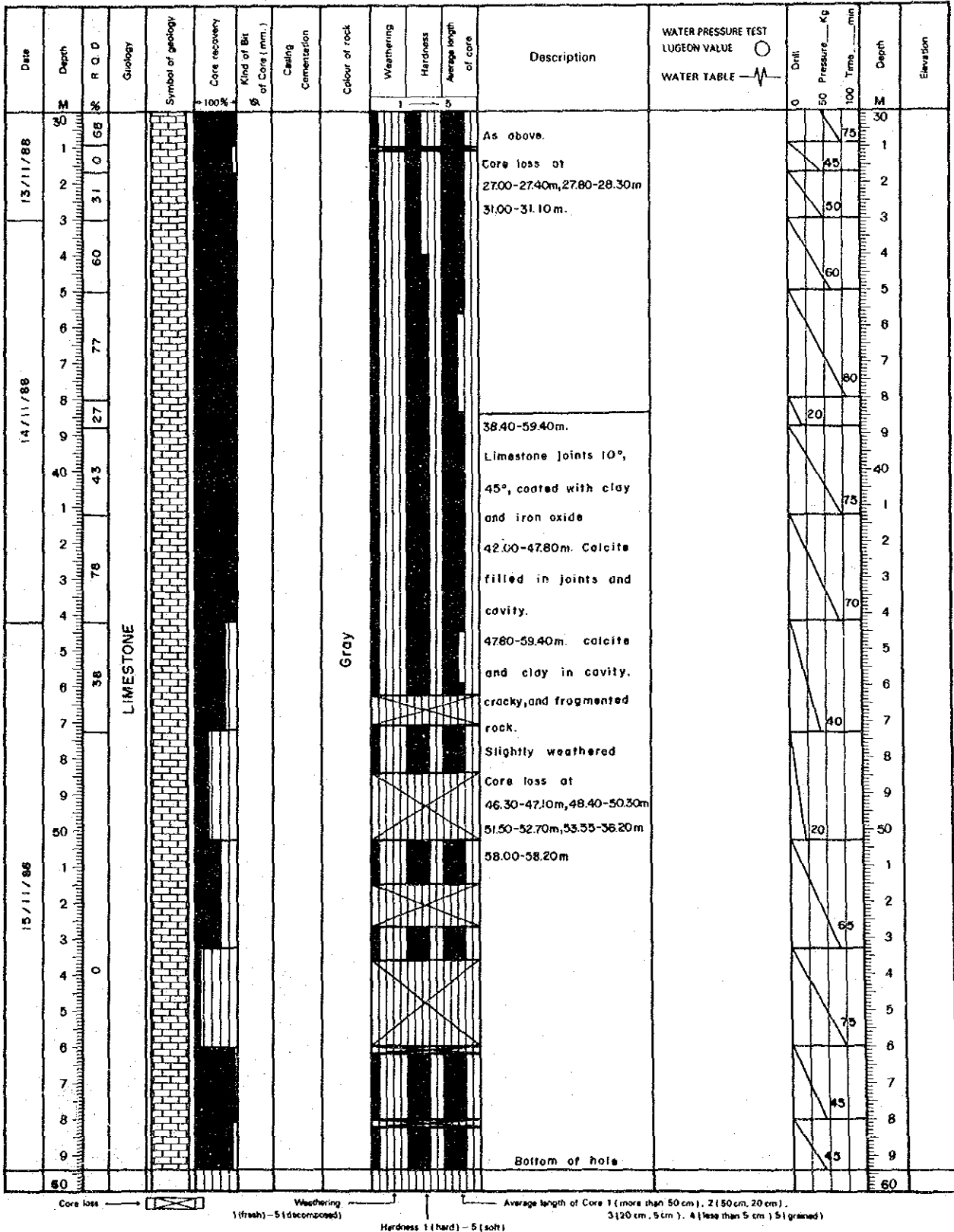


# LOG OF BORING

Project NAM NGAO DITE No. 2 Location QUARRY Boring No. 0 - 1 Log No. 2 of 2  
 Co-ordinates N1,966,848.595 E 394,537.647 Elevation 342.581m MSL Depth of Hole 59.40 m Commenced 9/11/88  
 Angle from Horizontal 90° Core Recovery 74 % Depth of Overburden 10.20 m Completed 15/11/88  
 Bearing of Angle Hole — Company EGAT Total length of core 43.90 m Logged by V. Vicharn K. Takeda



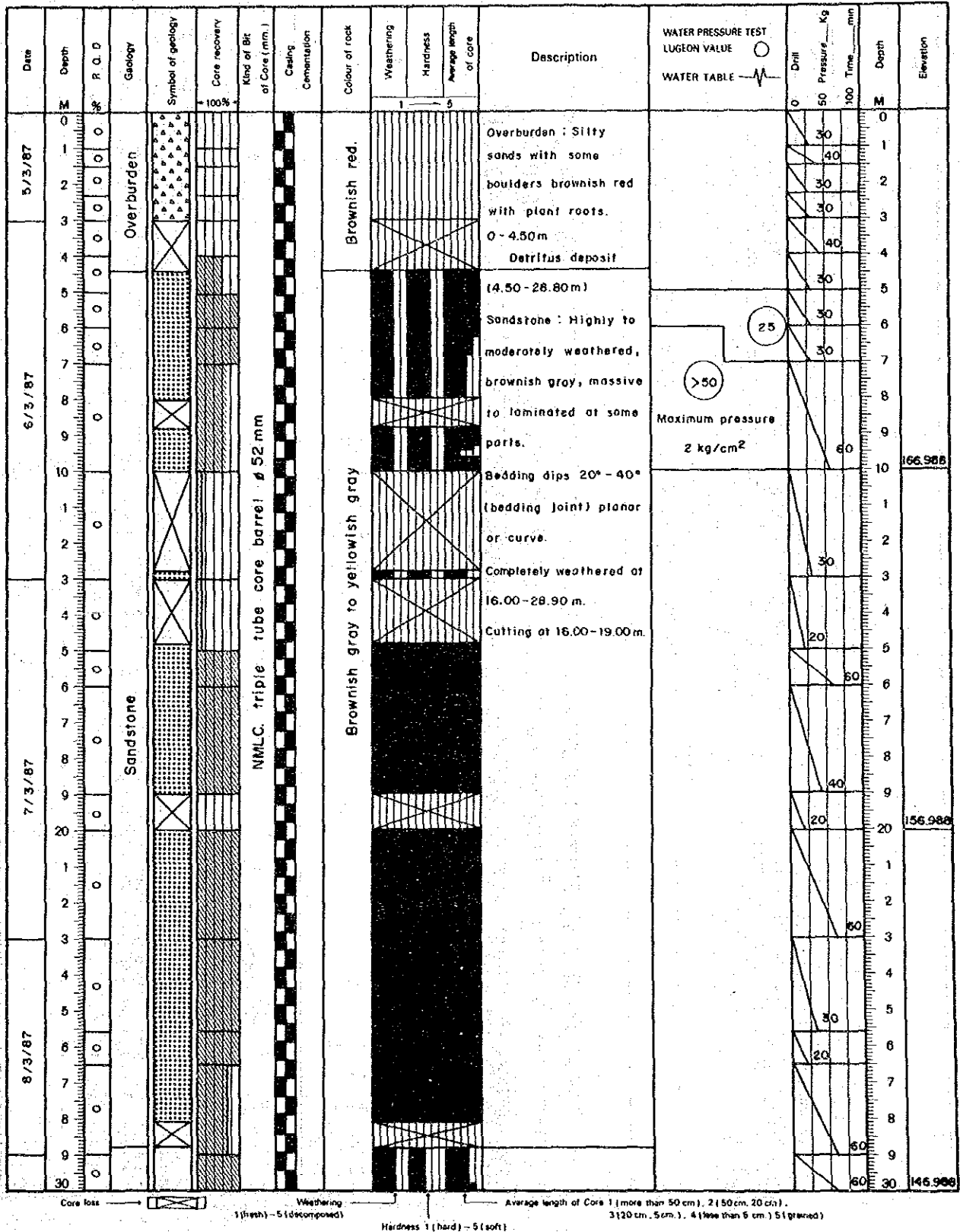


B-3-(2) MAE LAMA LUANG SITE



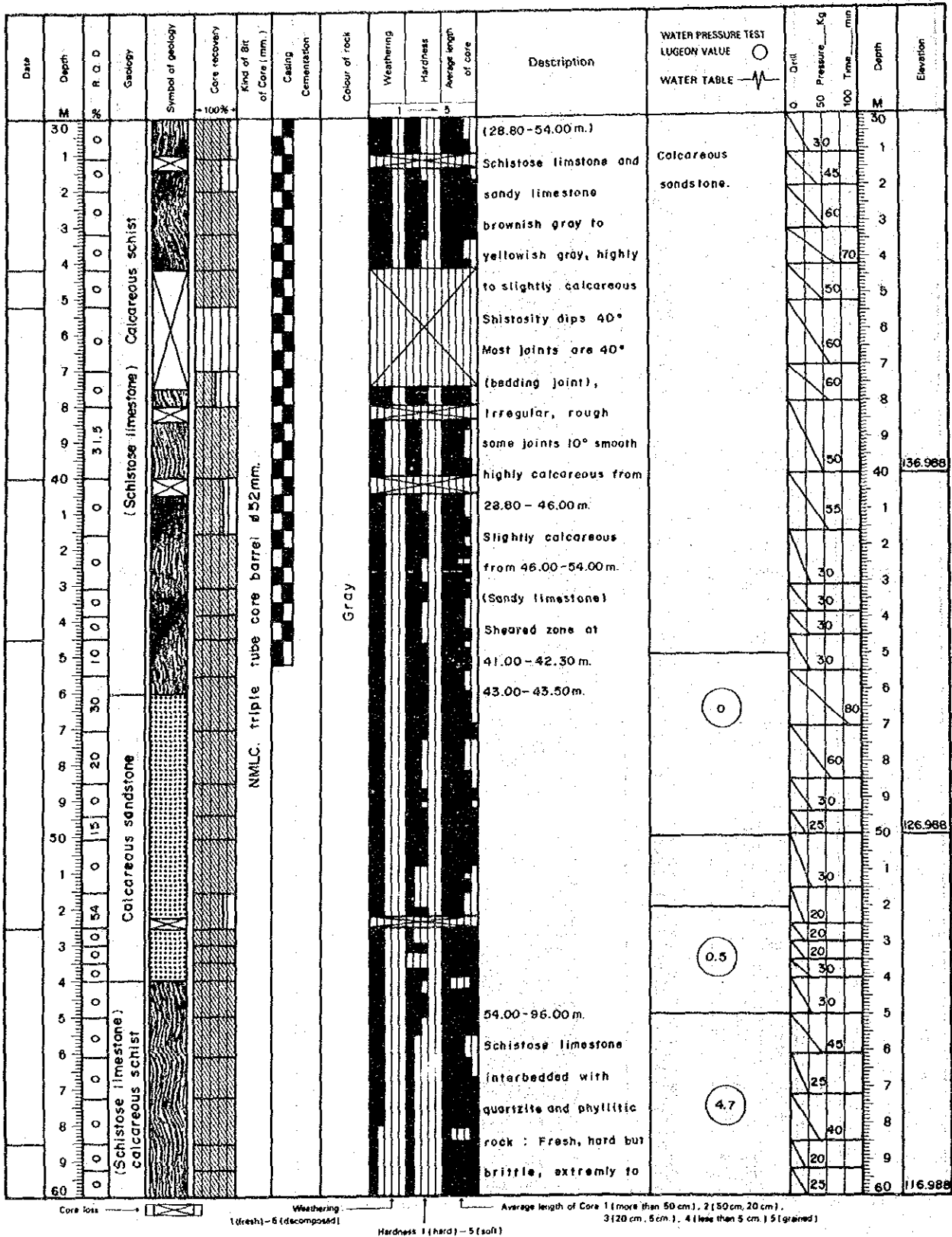
# LOG OF BORING

Project MAE LAMA LUANG DAM Location Right Abutment Boring No. LY/DR-1 Log No. 1 of 4  
 Co-ordinates N1966,275.870 E372,243.416 Elevation 176.988m MSL Depth of Hole 96.00m Commenced 5/3/87  
 Angle from Horizontal 90° Core Recovery 84.69% Depth of Overburden 4.50m Completed 25/3/87  
 Bearing of Angle Hole — Company E G A T Total length of core 81.30m Logged by V. Punpong  
K. Takeda



# LOG OF BORING

Project MAE LAMA LUANG DAM Location Right Abutment Boring No. LY/DR-1 Log No. 2 of 4  
 Co-ordinates N 1966,275.870 E 372,243.416 Elevation 176.988 m MSL Depth of Hole 96.00 m Commenced 5/3/87  
 Angle from Horizontal 90° Core Recovery 84.69 % Depth of Overburden 4.50 m Completed 25/3/87  
 Bearing of Angle Hole --- Company E G A T Total length of core 81.30 m Logged by V. Punpong  
K. Takeda



# LOG OF BORING

Project MAE LAMA LUANG DAM Location Right Abutment Boring No. LY/OR-1 Log No. 3 of 4  
 Co-ordinates N1,966,275.850 E372,243.416 Elevation 176.988m MSL Depth of Hole 96.00m Commenced 5/3/87  
 Angle from Horizontal 90° Core Recovery 84.69% Depth of Overburden 4.50m Completed 25/3/87  
 Bearing of Angle Hole --- Company E G A T Total length of core 81.30m Logged by V. Punpong  
K. Tokedo

Date	Depth	R.O.D.	Geology	Symbol of geology	Core recovery	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGERON VALUE	WATER TABLE	Drill	Pressure Kg	Time min	Depth	Elevation
	M	%			100%				1-5									M	
16/3/87	60	0										highly fractured.				20		60	
	1	0										Schistose limestone :-				20		1	
	2	0										gray, moderately show				20		2	
	3	0										schistosity highly to				20		3	
	4	0										slightly calcareous				60		4	
	5	0										Phyllitic rock :-				25		5	
	6	0										slightly to non				20		6	
	7	0										calcareous schistosity				20		7	
	8	0										dips 40°-50° Most joints				100		8	
	9	0										40° (bedding joint)				40		9	
	10	0										some joints 20° planar				30		10	
	70	0										or curve, sheared zone				30		70	106.988
	1	0										at 54.50-55.00 m.				20		1	
	2	0										83.40-83.70 m.				15		2	
	3	0										89.20-89.40 m.				30		3	
	4	0										86.70-86.90 m.				25		4	
	5	0										95.20-95.80 m.				20		5	
	6	0										Highly to extremely				30		6	
	7	0										fractured at				40		7	
	8	0										57.00-64.50 m.				30		8	
	9	0										65.20-75.00 m				15		9	
	80	0														20		80	96.988
	1	0														30		1	
	2	0														30		2	
	3	0														50		3	
	4	0														30		4	
	5	0														30		5	
	6	0														20		6	
	7	0														20		7	
	8	0														15		8	
	9	0														15		9	
25/3/87	90	0														50		90	96.988

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)  
 Hardness 1 (hard) - 5 (soft)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Right Abutment Boring No. LY/DR-1 Log No. 4 of 4  
 Co-ordinates N1966,275.870 E372,243.416 Elevation 176.988m MSL Depth of Hole 96.00m Commenced 5/3/87  
 Angle from Horizontal 90° Core Recovery 64.69% Depth of Overburden 4.50m Completed 25/3/87  
 Bearing of Angle Hole --- Company E G A T Total length of core 61.30m Logged by V. Punpang  
K. Takeda

Date	Depth M	R %	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE	WATER TABLE	Drill Pressure Kg	Time min	Depth M	Elevation
25/3/87	90	0	Calcareous schist		100%	NMCL triple tube		Gray				(54.00-96.00) (As above)			0	0	90	
	1	0													25	15	1	
	2	0													20	15	2	
	3	0															3	
	4	0															4	
	5	0													35		5	
	6	0													30		6	
	96											Bottom of hole 96.00m. Elevation 80.988m. MSL					96	80.988
	7																7	
	8																8	
	9																9	
	0																0	
	1																1	
	2																2	
	3																3	
	4																4	
	5																5	
	6																6	
	7																7	
	8																8	
	9																9	
	0																0	
	1																1	
	2																2	
	3																3	
	4																4	
	5																5	
	6																6	
	7																7	
	8																8	
	9																9	
	0																0	

Core loss

Weathering  
1 (fresh) - 5 (decomposed)

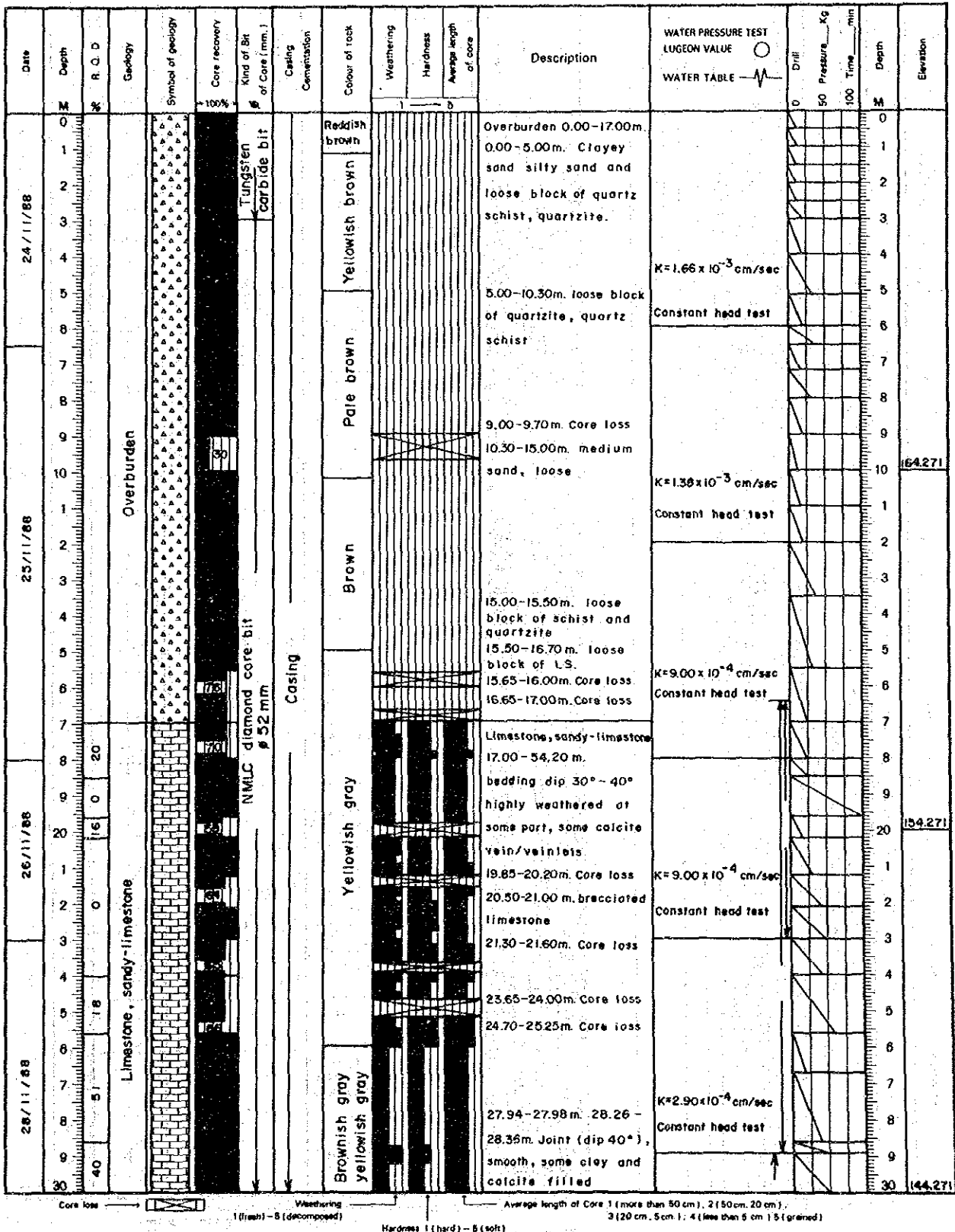
Hardness 1 (hard) - 5 (soft)

Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm),  
3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)



# LOG OF BORING

Project MAE LAMA LUANG DAM Location Dam Site (Right Abutment) Boring No. LY/DR-1A Log No. 1 of 3  
 Co-ordinates N 966,262.421 E 372,279.361 Elevation 174.271m MSL Depth of Hole 70.00 m Commenced 24/11/88  
 Angle from Horizontal 90° Core Recovery 78.4% Depth of Overburden 17.00 m Completed 25/12/88  
 Bearing of Angle Hole --- Company E G A T Total length of core 54.85 m Logged by H. Pattana  
K. Takeda



# LOG OF BORING

Project MAE LAMA LUANG DAM Location Dom Site (Right Abutment) Boring No. LY/DR-1A Log No. 2 of 3  
 Co-ordinates N1,966,262.421 E 372,279.361 Elevation 174.271m Depth of Hole 70.00m Commenced 24/11/88  
 Angle from Horizontal 90° Core Recovery 78.4% Depth of Overburden 17.00m Completed 25/12/88  
 Bearing of Angle Hole --- Company E G A T Total length of core 54.85m Logged by H. Pattana  
K. Tokeda

Date	Depth M	R.Q.D %	Geology	Symbol of geology	Core recovery 100%	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LOGEON VALUE WATER TABLE	Drill Pressure Kg Time min	Depth M	Elevation
29/11/88	30	14	Limestone, sandy-limestone		100	52mm	Casing	Brownish gray, yellowish gray		1-5	30.50-30.70m Brecciated limestone 30.60-30.65m. Joint (dip 40°), smooth, clay seamed and calcite filled. 33.50-34.00m. Core loss 34.66-34.72m, 34.90- 34.95m. Joint (dip 40°) smooth, clay seamed and calcite filled 36.00-36.50m. Brecciated limestone 36.70-37.30m. Core loss 37.65-40.00m. Core loss 40.20-40.75m. and 54.32-45.35m. Joint (dip 40°) smooth, clay seamed and calcite filled 40.75-41.00m. Core loss	26.2-32.2m (28) Pmax = 3 kg/cm <sup>2</sup> 29.0-35.0m (22) Pmax = 2 kg/cm <sup>2</sup>	0 50 100	30	174.271	
10/11/88	1	0											1			
	2	0											2			
	3	0											3			
	4	13											4			
1/12/88	5	66											5			
	6	30											6			
	7	0											7			
	8	0											8			
	9	0											9			
18/12/88	40	0	Calc-schist, sandy-limestone		72	52mm	Casing	Brownish gray, yellowish gray		1-5	43.60-44.00m. Core loss 43.60-44.00m. Core loss 44.55-44.85m. Shear zone. Calc-schist interbedded with sandy-limestone 45.20-50.80m. bedding dip 40°, hard, dense. 45.32-45.35m. Joint (40°) smooth, some calcite filled 47.70-48.65m. Quartz vein. 48.40-48.50m., 50.30- 50.60m. Joint (dip 55°-60°) irregular, some calcite and clay filled Sandy-limestone 50.80- 53.35m. bedding dip 40° 51.33-51.63m. Joint (dip 60°) smooth, some clay, calcite filled. 52.45-52.65m. Shear zone Calc-schist 53.35- 70.00m. slightly calcareous, core high broken, some calcite vein/veinlets. 53.45-53.75m., 54.20- 54.45m. shear zone 55.45-55.75m. Core loss 56.00-57.70m. Core loss 57.70-59.00m. Core loss 59.40-60.25m. Core loss	41.0-45.0m (34) Pmax = 2 kg/cm <sup>2</sup> 43.0-50.0m (0.1) Pmax = 9 kg/cm <sup>2</sup> 49.0-56.0m (0.1) Pmax = 10 kg/cm <sup>2</sup> (1.7)	0 50 100	40	174.271	
	1	0											1			
	2	0											2			
	3	0											3			
	4	0											4			
	5	0											5			
	6	80											6			
	7	34											7			
	8	31											8			
	9	31											9			
19/12/88	90	0	Sandy-limestone		100	52mm	Casing	Brownish gray, yellowish gray		1-5	53.35-53.75m. bedding dip 40° 51.33-51.63m. Joint (dip 60°) smooth, some clay, calcite filled. 52.45-52.65m. Shear zone Calc-schist 53.35- 70.00m. slightly calcareous, core high broken, some calcite vein/veinlets. 53.45-53.75m., 54.20- 54.45m. shear zone 55.45-55.75m. Core loss 56.00-57.70m. Core loss 57.70-59.00m. Core loss 59.40-60.25m. Core loss	43.0-50.0m (0.1) Pmax = 9 kg/cm <sup>2</sup> 49.0-56.0m (0.1) Pmax = 10 kg/cm <sup>2</sup> (1.7)	0 50 100	90	174.271	
	1	75											1			
	2	0											2			
	3	0											3			
	4	0											4			
	5	0											5			
	6	0											6			
	7	0											7			
	8	0											8			
	9	0											9			
20/12/88	60	0	Calc-schist		170	52mm	Casing	Brownish gray, yellowish gray		1-5	53.35-53.75m. bedding dip 40° 51.33-51.63m. Joint (dip 60°) smooth, some clay, calcite filled. 52.45-52.65m. Shear zone Calc-schist 53.35- 70.00m. slightly calcareous, core high broken, some calcite vein/veinlets. 53.45-53.75m., 54.20- 54.45m. shear zone 55.45-55.75m. Core loss 56.00-57.70m. Core loss 57.70-59.00m. Core loss 59.40-60.25m. Core loss	43.0-50.0m (0.1) Pmax = 9 kg/cm <sup>2</sup> 49.0-56.0m (0.1) Pmax = 10 kg/cm <sup>2</sup> (1.7)	0 50 100	60	174.271	
	1	0											1			
	2	0											2			
	3	0											3			
	4	0											4			
	5	0											5			
	6	0											6			
	7	0											7			
	8	0											8			
	9	0											9			

Core loss

Weathering

1 (fresh) - 5 (decomposed)

Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)

Hardness 1 (hard) - 5 (soft)

Core loss



Weathering  
1 (fresh) - 5 (decomposed)

Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm),  
3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)  
Hardness 1 (hard) - 5 (soft)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Dam Sigh (Right Abutment) Boring No. LY/DR-1A Log No. 3 of 3  
 Co-ordinates N1,966,262.421 E 372,279.361 Elevation 174.271m MSL Depth of Hole 70.00m Commenced 24/11/88  
 Angle from Horizontal 90° Core Recovery 78.4 % Depth of Overburden 17.00m Completed 25/12/88  
 Bearing of Angle Hole --- Company E G A T Total length of core 54.85m Logged by H. Pattana  
K. Takeda

Date	Depth M	R. Q. D. %	Geology	Symbol of geology	Core recovery 100%	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE	WATER TABLE	Drill 50 Pressure, Kg 100 Time, min	Depth M	Elevation
21/12/88	60				40							60.75-61.75 m Shear zone	1.7			60	
	1				53							61.10-61.45 m. Core loss				1	
	2				50							61.50-62.00 m. Core loss				2	
	3				50							62.00-62.50 m. Core loss				3	
	4				50							62.80-63.00 m. Shear zone				4	
	5				50							63.00-63.40 m. Core loss				5	
	6				50							64.00-64.45 m. Core loss				6	
	7				50							64.80-65.00 m. Shear zone				7	
	8				50							65.50-65.80 m. Core loss				8	
	9				50							66.00-66.50 m. Core loss				9	
	10				50							67.00-67.45 m. Core loss				10	
	11				50							68.00-68.25 m. Core loss				11	
	12				50							68.50-68.70 m. Shear zone				12	
	13				50							69.00-69.40 m. Core loss				13	
	14				50							69.95-70.00 m. Shear zone				14	
	15				50											15	
	16				50											16	
	17				50											17	
	18				50											18	
	19				50											19	
	20				50											20	
	21				50											21	
	22				50											22	
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	68				50											68	
	69				50											69	
	70				50											70	104.271
	71				50											71	
	72				50											72	
	73				50											73	
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	92				50											92	
	93				50											93	
	94				50											94	
	95				50											95	
	96				50											96	
	97				50											97	
	98				50											98	
	99				50											99	
	100				50											100	

Core loss →  Weathering →  Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)  
 1 (fresh) - 5 (decomposed) Hardness 1 (hard) - 5 (soft)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Right Abutment Boring No. LY/DR-2 Log No. 1 of 2  
 Co-ordinates N1,966,218.272 E372,239.320 Elevation 133.360mMSL Depth of Hole 45.60m Commenced 27/4/87  
 Angle from Horizontal 90° Core Recovery 92.20% Depth of Overburden 2.60m Completed 5/5/87  
 Bearing of Angle Hole --- Company E G AT Total length of core 41.50m Logged by V. Punpono

K. Tokedo

Date	Depth M	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE	Drill Pressure Kg Time min	Depth M	Elevation
27/4/87	0	Overburden		100%			Reddish brown				0 - 2.60m Overburden: Clayey silt with some trace of sand and rock fragments, reddish brown.		0	0	
28/4/87	1										(2.60 - 9.00 m.) Sandstone and quartzite: completely to highly weathered, non calcareous yellowish brown to brown, soft, brittle.	Constant head test	10	1	
	2												20	2	
	3												10	3	
	4												10	4	
	5												15	5	
	6												15	6	
	7												15	7	
	8												10	8	
	9												10	9	
	10												30	10	
29/4/87	1										(9.00 - 40.40 m.) Sandstone interbedded with schistose Calcareous schist Limestone: moderately to slightly weathered brownish gray to gray Sandstone: Gray, medium to coarse grained, calcareous massive to weakly laminated. Calcareous schist: highly to slightly calcareous, brittle, laminated. Bedding dips 40° Most joints 40° (bedding joint) planar, smooth or polished. Some joints 50°-90° Irregular, rough. Few joints 30° Irregular, curve.	No water leaked maximum pressure 3 kg/cm <sup>2</sup>	15	1	
	2												15	2	
	3												30	3	
	4												10	4	
	5												10	5	
	6												45	6	
	7												20	7	
	8												10	8	
	9												10	9	
	20												18.90 m	20	
30/4/87	1												10	1	
	2												20	2	
	3												10	3	
	4												15	4	
	5												10	5	
	6												35	6	
	7												25	7	
	8												20	8	
	9												25	9	
	30												5	30	

Core loss →

Weathering  
1 (fresh) - 5 (decomposed)


Hardness 1 (hard) - 5 (soft)

Average length of Core 1 (more than 50 cm), 2 (150 cm - 10 cm),  
3 (20 cm - 5 cm), 4 (less than 5 cm), 5 (grained)

# LOG OF BORING

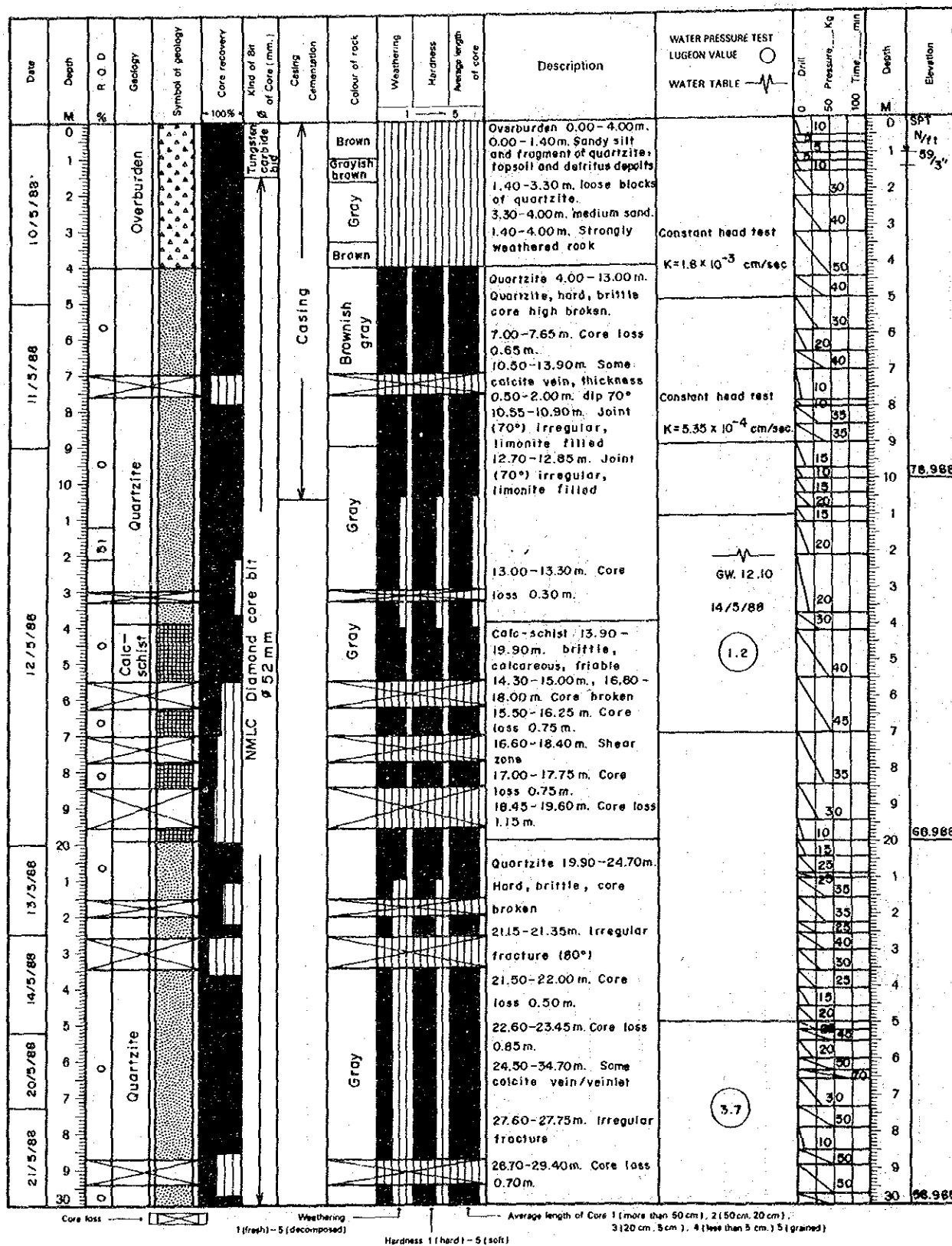
Project MAE LAMA LUANG DAM Location Right Abutment Boring No. LY/DR-2 Log No. 2 of 2  
 Co-ordinates N1,966,210.272 E 372,239.320 Elevation 133360 m MSL Depth of Hole 45.00m Commenced 27/4/87  
 Angle from Horizontal 90° Core Recovery 92.20% Depth of Overburden 2.60m Completed 5/5/87  
 Bearing of Angle Hole --- Company E G AT Total length of core 41.50m Logged by V. Puanpong  
K. Takeda

Data			Depth M	R. Q. D.	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST		Drill Pressure Kg	Time min	Depth M	Elevation																		
LUGEON VALUE		WATER TABLE																																				
2/5/87	4/5/87	5/5/87	30	0	Sandstone + (schistose limestone) calc schist		100%	Ø 52mm		Brownish gray to gray		44.5		(19.00-40.40 m.)	18.30m	0.1	15	10	20	33	35	50																
1	2	3	4	5										6	7	8	9	40	1	2	3	4	5	6	7	8	9	40	1	2	3	4	5	6	7	8	9	40
2	3	4	5	6										7	8	9	40	1	2	3	4	5	6	7	8	9	40	1	2	3	4	5	6	7	8	9	40	
3	4	5	6	7										8	9	40	1	2	3	4	5	6	7	8	9	40	1	2	3	4	5	6	7	8	9	40		
4	5	6	7	8										9	40	1	2	3	4	5	6	7	8	9	40	1	2	3	4	5	6	7	8	9	40			
5	6	7	8	9										40	1	2	3	4	5	6	7	8	9	40	1	2	3	4	5	6	7	8	9	40				
6	7	8	9	40										1	2	3	4	5	6	7	8	9	40	1	2	3	4	5	6	7	8	9	40					
7	8	9	40	1										2	3	4	5	6	7	8	9	40	1	2	3	4	5	6	7	8	9	40						
8	9	40	1	2										3	4	5	6	7	8	9	40	1	2	3	4	5	6	7	8	9	40							
9	40	1	2	3										4	5	6	7	8	9	40	1	2	3	4	5	6	7	8	9	40								
4/5/87	5/5/87		1	0	Calc schist (Schistose limestone)					Yellowish gray to gray		32		40.40-45.00m. Schistose limestone : yellowish gray to gray, slightly weathered, thinly laminated, calcareous, hard brittle. Most core are broken.	Constant head test from 10.00-45.00	0.7	15	10	20	35	50																	
2	3	4	5	6										7			8	9	40	1	2	3	4	5	6	7	8	9	40									
3	4	5	6	7										8			9	40	1	2	3	4	5	6	7	8	9	40										
4	5	6	7	8										9			40	1	2	3	4	5	6	7	8	9	40											
5	6	7	8	9										40			1	2	3	4	5	6	7	8	9	40												
6	7	8	9	40										1			2	3	4	5	6	7	8	9	40													
7	8	9	40	1										2			3	4	5	6	7	8	9	40														
8	9	40	1	2										3			4	5	6	7	8	9	40															
9	40	1	2	3										4			5	6	7	8	9	40																
5/5/87			1	0																					Bedding dips 40° Most joints 40° planar smooth or polished Sheared zone at 41.80-42.00m. 43.00-43.25m. 44.00-44.25m.  Bottom of hole 45.00m.													
2	3	4	5	6	7	8	9	40	1	2	3	4	5	6	7	8	9	40																				
3	4	5	6	7	8	9	40	1	2	3	4	5	6	7	8	9	40																					
4	5	6	7	8	9	40	1	2	3	4	5	6	7	8	9	40																						
5	6	7	8	9	40	1	2	3	4	5	6	7	8	9	40																							
6	7	8	9	40	1	2	3	4	5	6	7	8	9	40																								
7	8	9	40	1	2	3	4	5	6	7	8	9	40																									
8	9	40	1	2	3	4	5	6	7	8	9	40																										
9	40	1	2	3	4	5	6	7	8	9	40																											

Core loss  Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)  
 Hardness 1 (hard) - 5 (soft)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Dam Slight (Right Abutment) Boring No. LY/DR-3 Log No. 1 of 2  
 Co-ordinates N1966,140.117 E 372,258.933 Elevation 88.998m MSL Depth of Hole 40.00m Commenced 10/5/88  
 Angle from Horizontal 90° Core Recovery 79.63% Depth of Overburden 4.00m Completed 24/5/88  
 Bearing of Angle Hole --- Company E G A T Total length of core 31.85m Logged by H. Pottona  
K. Yakeda



# LOG OF BORING

Project MAE LAMA LUANG DAM Location Dom Site (Right Abutment) Boring No. LY/DR-3 Log No. 2 of 2  
 Co-ordinates N 966,140.117 E 372,258.933 Elevation 88.988m MSL Depth of Hole 40.00m Commenced 10/5/88  
 Angle from Horizontal 90° Core Recovery 79.63% Depth of Overburden 4.00m Completed 24/5/88  
 Bearing of Angle Hole — Company E G A T Total length of core 31.85m Logged by H. Pattana  
K. Tokedo

Date	Depth	R Q D	Geology	Symbol of geology	Core recovery	Kind of Bit	Casing	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE	Drill	Pressure	Time	Depth	Elevation
	M	%			100%	of Bit									Kg	min	M	
22/5/88	30	0	Quartzite			NMLC Diamond core bit		Gray				30.00-31.40m. Some pyrite filled			45		1	
	1	0										31.45-32.00m. Core loss 0.55m.	10.5		50		2	
	2	0	Quartzite					Gray				33.60-34.00m. Core loss 0.40m.			30		3	
	3	0										34.45-34.70m. Core loss 0.25m.			40		4	
23/5/88	4	0	Calc-schist									Calc-schist 34.70-40.00m. brittle, core broken			35		5	
	5	0										36.35-37.00m. Core loss 0.65m.			25		6	
	6	0										37.00-39.50m. Calc-schist interbedded with quartzite			45		7	
24/5/88	7	0	Calc-schist					Gray				37.15-37.80m. Core loss 0.65m.	3.2		50		8	
	8	0										Bottom of hole 40.00m.			20		9	
	9	52													35		40	48.988
	40														40			
	1																1	
	2																2	
	3																3	
	4																4	
	5																5	
	6																6	
	7																7	
	8																8	
	9																9	
	0																0	
	1																1	
	2																2	
	3																3	
	4																4	
	5																5	
	6																6	
	7																7	
	8																8	
	9																9	
	0																0	

Core loss

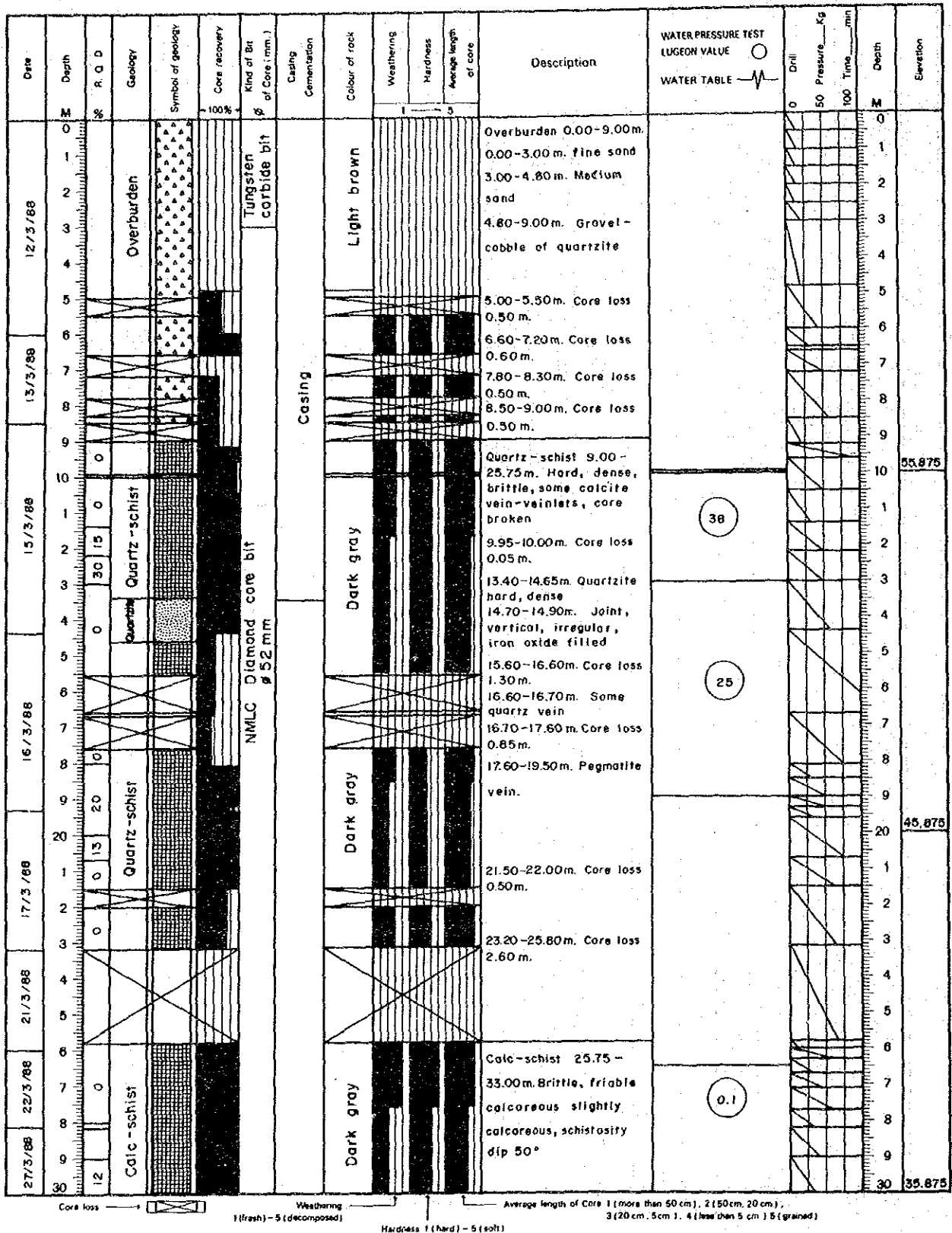
Weathering  
1 (fresh) - 5 (decomposed)

Hardness 1 (hard) - 5 (soft)

Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)

# LOG OF BORING

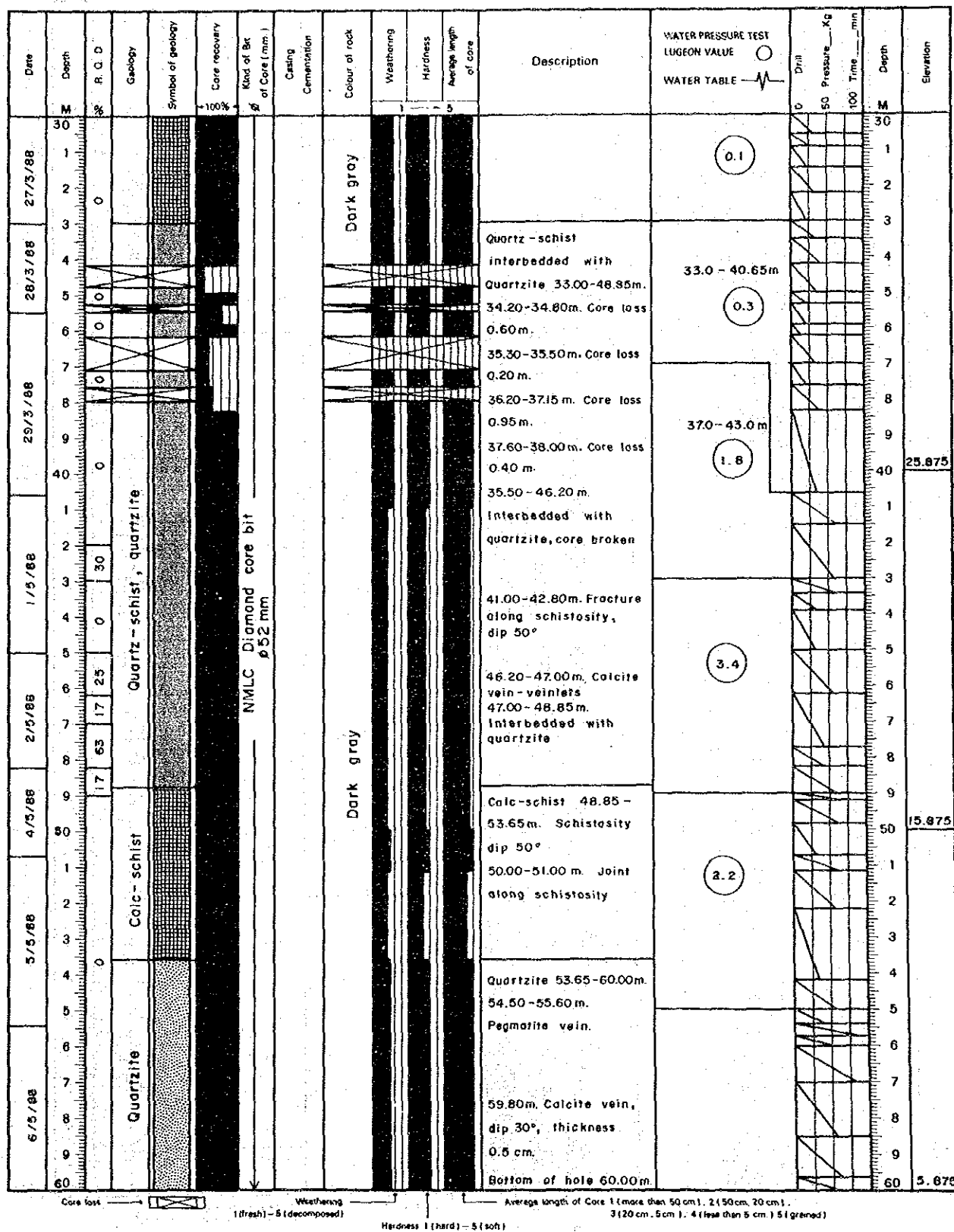
Project **MAE LANA LUANG DAM** Location **Dom Site (Middle of NAM MAE YUAM)** Boring No. **LY/DR-4** Log No. **1** of **2**  
 Co-ordinates **N1,966,142.820 E372,178.792** Elevation **65.875m MSL** Depth of Hole **60.00m** Commenced **12/3/88**  
 Angle from Horizontal **60°** Core Recovery **84%** Depth of Overburden **9.00m** Completed **6/5/88**  
 Bearing of Angle Hole **40°** Company **E G A T** Total length of core **50.45m** Logged by **H. Pattana K. Takeda**





# LOG OF BORING

Project MAE LAMA LUANG DAM Location Dom Site (Middle of NAM MAE YUAM) Boring No. LY/DR-4 Log No. 2 of 2  
 Co-ordinates N 968,142.820 E 372,178.792 Elevation 65.875m MSL Depth of Hole 60.00m Commenced 12/3/88  
 Angle from Horizontal 60° Core Recovery 84% Depth of Overburden 9.00m Completed 6/5/88  
 Bearing of Angle Hole 40° Company E G A T Total length of core 50.45m Logged by H. Pattana  
K. Tokeda



# LOG OF BORING

Project	MAE LAMA LUANG DAM	Location	Dam Site (Right Abutment)	Boring No.	LY/DR-5	Log No.	1 of 2
Co-ordinates	N 966,224.832 E 372,147.309	Elevation	120.734m MSL	Depth of Hole	40.00 m	Commenced	30/5/88
Angle from Horizontal	90°	Core Recovery	83%	Depth of Overburden	5.00 m	Completed	8/6/88
Bearing of Angle Hole	---	Company	E GAT	Total length of core	33.20m	Logged by	H. Pattana K. Takeda

Date	Depth M	R Q D %	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGION VALVE WATER TABLE	Drill Pressure Kg	Time min	Depth M	Elevation
30/5/88	0		Overburden		100%	Tungsten carbide bit		Grayish brown				Overburden 0.00-5.00m.		10		0	SPT N <sub>11</sub>
	1							pale brown				Sandy silt and loose blocks of schist, calc schist.		10		1	
	2											0-2.00m. Topsoil, detritus deposits		10		2	
	3											3.40-3.90m. Core loss 0.50 m.		10		3	56 1/2"
	4												Constant head test	10		4	
	5												K=4.4 x 10 <sup>-3</sup> cm/sec.	20		5	
	6													15		6	
31/5/88	7		Quartzite, schist					Light brown				Quartzite, schist 5.60- 21.75m. Quartzite interbedded with schist, brittle, core broken		10		7	
	8											7.00-7.50m. Shear zone, some clay gouge		10		8	
	9											7.50-8.00m. Core loss 0.50 m.		10		9	
	10											8.00-9.00m., 11.50- 12.00m. Quartz-schist, hard.		10		10	110.734
	11	36											Constant head test	20		11	
	12	57											K=1.6 x 10 <sup>-3</sup> cm/sec.	20		12	
	13											11.25m., 11.45m. Joint (dip 75°), irregular, smooth, clay seamed		10		13	
1/6/88	14											14.25-14.80m. Core loss 0.55 m.		20		14	
	15											16.25m. Joint (dip 70°) irregular, rough		20		15	
	16											17.30-19.00m. Core loss 1.70 m.		20		16	
	17													20		17	
2/6/88	18											20.00-21.50m. Core loss 1.50 m.		20		18	
	19													20		19	
	20													20		20	100.734
3/6/88	21													30		21	
	22													30		22	
	23							Brownish gray				Calc-schist 21.75- 40.00m. Slightly calcareous, core broken, schistosity dip 25°, brittle		20		23	
	24													30		24	
	25													20		25	
4/6/88	26													20		26	
	27													20		27	
	28													20		28	
	29													20		29	
6/6/88	30							Gray						20		30	90.734

Core loss →

Weathering 1 (fresh) - 5 (decomposed)

Average length of

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Dam Site (Right Abutment) Boring No. LY/DR-5 Log No. 2 of 2  
 Co-ordinates N 1,966,224.832 E 372,147.309 Elevation 120.734 m MSL Depth of Hole 40.00m Commenced 30/5/88  
 Angle from Horizontal 90° Core Recovery 83% Depth of Overburden 5.00m Completed 8/6/88  
 Bearing of Angle Hole --- Company E G A T Total length of core 33.20 m Logged by H. Pattana  
K. Tokeda

Date	Depth	R Q D	Geology	Symbol of geology	Core recovery	Kind of Bit of Core (mm.)	Casing	Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE	WATER TABLE	Drill	Pressure Kg	Time min	Depth	Elevation
6/6/88	30	0	Calc-schist		100%	NMDC Diamond core bit 52 mm			Gray				30.30m. Joint (dip 70°)	3.4					30	80.734
	1	0											rough, irregular						1	
	2	0											33.15m. Joint (dip 70°),						2	
	3	0											planar.						3	
	4	0											34.85m. Joint, vertical,						4	
	5	0											irregular, slightly						5	
	6	0											rough						6	
	7	0																	7	
	8	0																	8	
	9	0											39.30-39.60 m. Core loss						9	
	40												0.30 m.						40	
	1												Bottom of hole 40.00m.						1	
	2																		2	
	3																		3	
	4																		4	
	5																		5	
	6																		6	
	7																		7	
	8																		8	
	9																		9	
	0																		0	
	1																		1	
	2																		2	
	3																		3	
	4																		4	
	5																		5	
	6																		6	
	7																		7	
	8																		8	
	9																		9	
	0																		0	

Core loss

Weathering  
1 (fresh) - 5 (decomposed)

Hardness 1 (hard) - 5 (soft)

Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm),  
3 (20 cm, 5 cm), 4 (less than 5 cm) 5 (grained)

# LOG OF BORING

Project	MAE LAMA LUANG DAM	Location	Don Sah (Right Abutment)	Boring No.	LY/DR-6	Log No.	1 of 2
Co-ordinates	N 196.340.371 E 372.328.328	Elevation	256.590m MSL	Depth of Hole	50.00m	Commenced	16/6/88
Angle from Horizontal	90°	Core Recovery	73%	Depth of Overburden	16.70m	Completed	10/7/88
Bearing of Angle Hole		Company	E GAT	Total length of core	36.51m	Logged by	H. Pattana

K. Takeda

Date	Depth	R Q D	Geology	Symbol of geology	Core recovery	Kind of Bit of Core (mm.)	Casing	Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUCEON VALUE	WATER TABLE	Drill	Pressure	Time	Depth	Elevation							
	M	%			%											0	50	100	M								
15/5/88	0		Overburden			Tungsten carbide bit			Yellowish brown				Overburden 0.00-16.70			10			0								
	1																				Lateritic sand with	Constant head test $K=3.3 \times 10^{-3}$ cm/sec.		10		1	SET
	2																				some clay and gravel-			10		2	$N_{1/ft}$
	3																				cobble of quartz			10		3	20
	4																							10			
	5																							10			
17/5/88	6																					Constant head test $K=1.6 \times 10^{-3}$ cm/sec.		30		4	
	7																							10		5	
	8																							10		6	75
	9																							10			
	10														20												
18/6/88	11		Limestone			NMLC Diamond core bit #52 mm			Yellowish brown				12.00-12.60m. Core loss	Constant head test $K=3.1 \times 10^{-3}$ cm/sec.		20		10		226590							
	12																					0.60m.		10		1	
	13																					12.85-13.00m. Core loss		10		2	
	14																					0.15m.		10		3	
	15																					13.85-14.30m. Core loss		10		4	
	16																				0.45m.		10		5		
	17																				14.30-14.80m. Boulder		10		6		
	18																				of limestone		10		7		
	19																				14.80-15.00m. Core loss		10		8		
	20																				0.20m.		10		9		
19/6/88	21		Limestone, sandy						Gray				15.00-15.18m. Boulder	Constant head test $K=4.0 \times 10^{-4}$ cm/sec		20		20		216590							
	22																					of limestone		10		1	
	23																					15.18-15.85m. Core loss		10		2	
	24																					0.67m.		10		3	
	25																					16.00-16.70m. Core loss		10		4	
24/6/88	26																				0.70m.		20		5		
25/6/88	27																				Limestone, sandy		20		6		
	28																				Limestone 16.70-50.00m		20		7		
	29																				Limestone, some sandy,		40		8		
	30																				very fine grained,		35		9		
19/6/88	31		Limestone, sandy						Gray				slightly to highly	Constant head test $K=2.5 \times 10^{-4}$ cm/sec.		60		60		216590							
	32																				calcareous, some calcite			35		1	
	33																				vein-veinlet, bedding			60		2	
	34																				dip 30°			35		3	
	35																				17.55-17.90m., 18.30-			60		4	
24/6/88	36																				18.75m., 23.00-25.25m.			35		5	
25/6/88	37																				Small cavity on surface			60		6	
	38																				17.75m. Joint (70°),			40		7	
	39																				Irregular, dip 70°			80		8	
	40																				22.00-33.00m. bedding			45		9	
30/6/88	41												Joint, dip 30°, some			45		10									
	42												calcite and limonite			30		11									
	43												filled					12									
	44																	13									
	45																	14									
	46																	15									
	47																	16									
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	125																	94									

# LOG OF BORING

Project: MAE LAMA LUANG DAM Location: Dam Site (Right Abutment) Boring No: LY/DR-6 Log No: 2 of 2  
 Co-ordinates: N1966,340.371 E 372,328.328 Elevation: 236.590m MSL Depth of Hole: 50.00m Commenced: 16/6/88  
 Angle from Horizontal: 90° Core Recovery: 73% Depth of Overburden: 16.70m Completed: 10/7/88  
 Bearing of Angle Hole: --- Company: E G A T Total length of core: 36.51m Logged by: H. Pattana  
 K. Tokedo

Date	Depth M	R. Q. D.	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE	WATER TABLE	Drill Pressure, Kg	Time min	Depth M	Elevation
30/6/88	30	17	Cavity		100%							30.31-31.25m. No core (cavity)					30	
	1							Gray								40	1	
	2	22	Limestone, sandy limestone														2	
	3																3	
	4	0	Cavity					Gray				33.55-34.55m. No core (cavity)					4	
	5											34.55-35.00m. Core broken					5	
	6											35.00-39.28m. No core (cavity)					6	
	7		Cavity													20	7	
	8															10	8	
	9																9	
	40							Gray				39.28-40.00m. Interbedded with fine grained sandstone				60	40	196.590
	1											40.00-45.30m. No core (cavity)					1	
	2		Cavity													55	2	
	3															35	3	
	4																4	
	5	0														40	5	
	6	34	Limestone, sandy limestone									44.50-45.30m., 46.00-47.00m. Interbedded with fine grained sandstone				60	6	
	7	0						Gray				45.30m. Joint (70°), planar iron oxide filled				40	7	
	8	71										47.40m. Joint (55°), irregular calcite filled				60	8	
	9	33										48.35m. Joint (45°), planar, calcite filled				30	9	
	50	20										Bottom of hole 50.00m.				60	50	186.590
	1																1	
	2																2	
	3																3	
	4																4	
	5																5	
	6																6	
	7																7	
	8																8	
	9																9	
	0																0	

Core loss

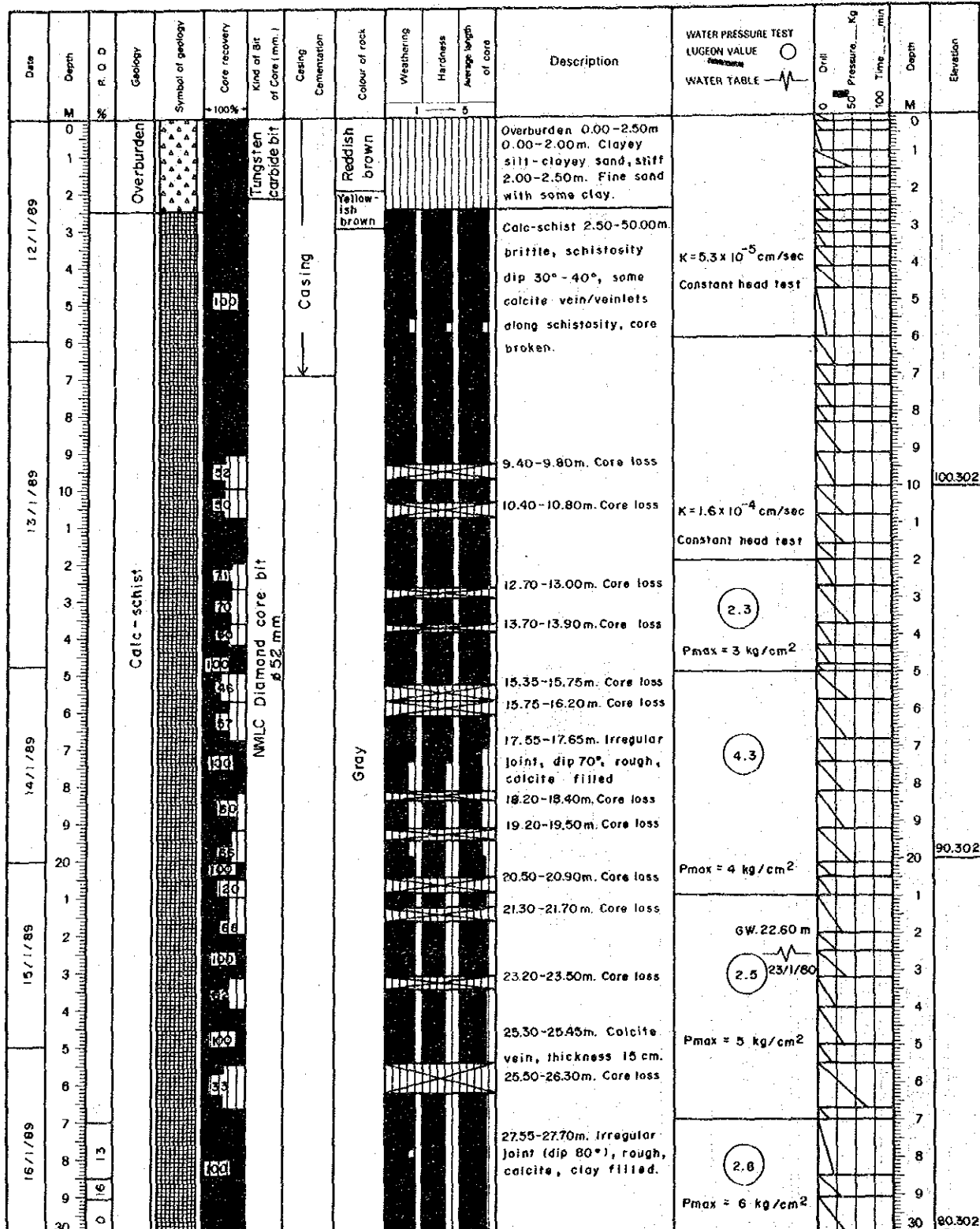
Weathering  
1 (fresh) - 5 (decomposed)

Hardness 1 (hard) - 5 (soft)

Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Don Sit (Right Bank) Boring No. LY/DR-7 Log No. 1 of 2  
 Co-ordinates N1,965,160.895 E 372,299.549 Elevation 110.302m MSL Depth of Hole 50.00 m Commenced 12/1/89  
 Angle from Horizontal 90° Core Recovery 72% Depth of Overburden 2.50m Completed 23/1/89  
 Bearing of Angle Hole --- Company EGAT Total length of core 36.05m Logged by H. Pottanu  
K. Takeda



Core loss → Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm) 5 (grained)  
 Hardness 1 (hard) - 5 (soft)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Dam Site (Right Bank) Boring No. LY/DR-7 Log No. 2 of 2  
 Co-ordinates N1,966,160.885 E 372,299.549 Elevation 110.302m MSL Depth of Hole 50.00m Commenced 12/1/89  
 Angle from Horizontal 90° Core Recovery 72% Depth of Overburden 2.50m Completed 23/1/89  
 Bearing of Angle Hole --- Company E GAT Total length of core 36.05m Logged by H. Pattana  
K. Tokeda

Date	Depth M	R.O.D. %	Geology	Symbol of geology	Core recovery 100%	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE WATER TABLE	Drill Pressure Kg Time min	Depth M	Elevation
17/1/89	30											30.80-31.00 m. Core loss.	2.3		30	
	1											31.60-32.00 m. Core loss	Pmax = 6 kg/cm <sup>2</sup>		1	
	2														2	
	3														3	
	4											34.30-35.20 m. Core loss			4	
	5											35.20-35.50 m. Core loss	1.0		5	
	6											36.00-36.20 m. Core loss	Pmax = 7 kg/cm <sup>2</sup>		6	
	7											36.70-37.20 m. Core loss			7	
	8											37.20-37.70 m. Core loss			8	
	9											39.50-40.00 m. Core loss			9	
18/1/89	40											40.60-41.40 m. Core loss			40	70.302
	1														1	
	2														2	
	3														3	
	4														4	
	5														5	
	6														6	
	7														7	
	8														8	
	9														9	
23/1/89	50												2.4		50	60.302
	1											Bottom of hole 40.00 m			1	
	2														2	
	3														3	
	4														4	
	5														5	
	6														6	
	7														7	
	8														8	
	9														9	
	0														0	

Core loss →

Weathering  
1 (fresh) - 5 (decomposed)

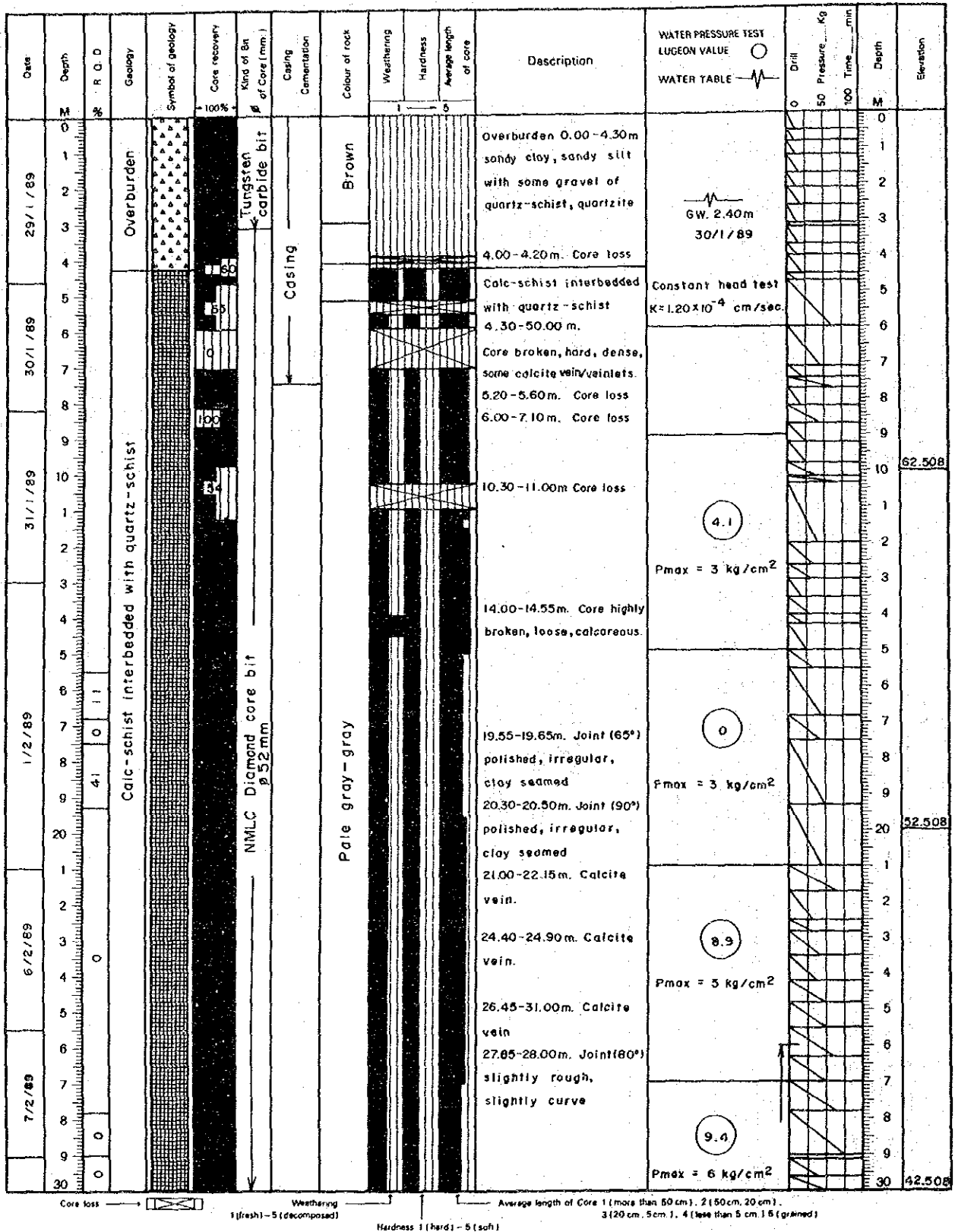
Hardness 1 (hard) - 5 (soft)

Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm),

3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Coffer Dam(Right Bank) Boring No. LY/DR-9 Log No. 1 of 2  
 Co-ordinates N1,966,052.742 E 372,302.661 Elevation 72.508m MSL Depth of Hole 50.00m Commenced 29/1/89  
 Angle from Horizontal 90° Core Recovery 88.6% Depth of Overburden 4.30m Completed 19/2/89  
 Bearing of Angle Hole — Company E GAT Total length of core 44.30m Logged by H. Pattana  
K. Takeda





# LOG OF BORING

Project MAE LAMA LUANG DAM Location Coffer Dam (Right Bank) Boring No. LY/DR-8 Log No. 2 of 2  
 Co-ordinates N 966,032.742 E 372,302.661 Elevation 72.508m MSL Depth of Hole 50.00m Commenced 29/1/89  
 Angle from Horizontal 90° Core Recovery 88.6% Depth of Overburden 4.30m Completed 19/2/89  
 Bearing of Angle Hole — Company EGAT Total length of core 44.30m Logged by H. Pattana  
K. Takeda

Date	Depth M	R.O.D %	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE	WATER TABLE	Drill Pressure, Kg Time, min	Depth M	Elevation
9/2/89	30				100							31.00-42.00m. Quartz vein.	9.4			30	
10/2/89	1				40							32.00-32.30m. Core loss	Pmax = 6 kg/cm <sup>2</sup>			1	
10/2/89	2															2	
10/2/89	3															3	
10/2/89	4															4	
11/2/89	5															5	
11/2/89	6															6	
11/2/89	7															7	
11/2/89	8															8	
11/2/89	9															9	
15/2/89	40											30.00-39.70m. Core loss				40	32.508
15/2/89	1											40.00-40.10m. Core loss				1	
15/2/89	2															2	
15/2/89	3															3	
15/2/89	4															4	
15/2/89	5															5	
15/2/89	6															6	
15/2/89	7															7	
15/2/89	8															8	
15/2/89	9															9	
17/2/89	40											44.50-44.90m. Core loss				40	
17/2/89	1											45.00-45.40m. Core loss				1	
17/2/89	2											45.50-45.70m. Core loss				2	
17/2/89	3											45.70-45.80m. Core loss				3	
17/2/89	4											45.80-45.90m. Core loss				4	
17/2/89	5											46.50-46.80m. Core loss				5	
17/2/89	6											47.00-47.20m. Core loss				6	
17/2/89	7											47.50-48.10m. Core loss				7	
17/2/89	8											48.60-48.70m. Core loss				8	
17/2/89	9											47.00-50.00m. Quartz vein				9	
19/2/89	50											Bottom of hole 50.00m.				50	22.508
19/2/89	1															1	
19/2/89	2															2	
19/2/89	3															3	
19/2/89	4															4	
19/2/89	5															5	
19/2/89	6															6	
19/2/89	7															7	
19/2/89	8															8	
19/2/89	9															9	
19/2/89	0															0	

Core loss

Weathering  
1 (fresh) - 5 (decomposed)

Hardness 1 (hard) - 5 (soft)

Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm),  
3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Pensatock (Right Bank) Boring No. LY/DR-9 Log No. 1 of 2  
 Co-ordinates N1966,272.143 E 372,110.324 Elevation 105.336 m MSL Depth of Hole 55.00 m Commenced 25/2/89  
 Angle from Horizontal 90° Core Recovery 99.7 % Depth of Overburden 1.10 m Completed 18/3/89  
 Bearing of Angle Hole — Company E G A T Total length of core 54.85 m Logged by H. Pattana  
K. Takeda

Date	Depth M	R %	Q %	D %	Geology	Symbol of geology	Core recovery 100%	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGON VALVE	WATER TABLE	Drill Pressure... Kg Time... min	Depth M	Elevation
25/2/89	0	0	0	0	Overburden		100		Casing	Grayish brown				Overburden 0.00-1.10 m. Loose block of quartzite and quartz-schist.				0	
	1	0	0	0														1	
	2	0	0	0														2	
	3	0	0	0														3	
	4	0	0	0														4	
	5	0	0	0														5	
	6	0	0	0														6	
	7	0	0	0														7	
	8	0	0	0														8	
	9	0	0	0														9	
	10	0	0	0														10	95.338
27/2/89	1	0	0	0														1	
	2	0	0	0														2	
	3	0	0	0														3	
	4	0	0	0														4	
	5	0	0	0														5	
	6	0	0	0														6	
	7	0	0	0														7	
	8	0	0	0														8	
	9	0	0	0														9	
	10	0	0	0														10	
	11	0	0	0														11	
	12	0	0	0														12	
	13	0	0	0														13	
	14	0	0	0														14	
	15	0	0	0														15	
	16	0	0	0														16	
	17	0	0	0														17	
	18	0	0	0														18	
	19	0	0	0														19	
	20	0	0	0														20	85.338
28/2/89	21	0	0	0														21	
	22	0	0	0														22	
	23	0	0	0														23	
	24	0	0	0														24	
	25	0	0	0														25	
	26	0	0	0														26	
	27	0	0	0														27	
	28	0	0	0														28	
	29	0	0	0														29	
	30	0	0	0														30	75.338

Core loss



Weathering  
1 (fresh) - 5 (decomposed)


Hardness 1 (hard) - 5 (soft)

Average length of Core 1 (more than 50 cm), 2 (30 cm, 20 cm),  
3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Penstock(Right Bank) Boring No. LY/DR-9 Log No. 2 of 2  
 Co-ordinates N1,966,272.143 E 372,110.324 Elevation 105.338m MSL Depth of Hole 55.00m Commenced 25/2/89  
 Angle from Horizontal 90° Core Recovery 99.7% Depth of Overburden 1.10m Completed 18/3/89  
 Bearing of Angle Hole --- Company EGAT Total length of core 54.85m Logged by H. Pattana  
K. Takeda

Date	Depth M	R. Q. D.	Geology	Symbol of geology	Core recovery 100%	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE  WATER TABLE 	Drill Pressure Kg Time min	Depth M	Elevation
8/3/89	30														30	
	1	0										Calc-schist interbedded with schist, Quartz- schist 31.90-55.00 m. Hard, dense, schistosity dip 30°, some calcite vein/veinlets	(5.7) Pmax = 6 kg/cm <sup>2</sup>		1	
	2														2	
	3	41													3	
	4	0													4	
	5	27													5	
	6	13										32.30-32.50m. Joint (30°) along schistosity, polish, planar, some clay seamed	(10.1) Pmax = 8 kg/cm <sup>2</sup>		6	
	7	0													7	
	8	29													8	
	9	0													9	
	40	0													40	65.338
10/3/89	1														1	
	2	0													2	
	3														3	
	4														4	
	5	58													5	
	6														6	
	7	0										48.75-48.85m. Joint (80°) planar, rough, some calcite filled	(10.4) Pmax = 9 kg/cm <sup>2</sup>		7	
	8	22													8	
	9	10													9	
	50														50	55.338
17/3/89	1														1	
	2	0													2	
	3														3	
	4														4	
	45											Bottom of hole 55.00 m.			45	50.338
18/3/89	5														5	
	6														6	
	7														7	
	8														8	
	9														9	
	0														0	

Core loss  Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm) 5 (grained)  
 Hardness 1 (hard) - 5 (soft)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Dam Axis (River Bed) Boring No. LY/DH-1 Log No. 1 of 2  
 Co-ordinates N1,966,190.000 E 372,163.500 Elevation 61.928m MSL Depth of Hole 50.60m Commenced 9/2/87  
 Angle from Horizontal 90° Core Recovery 97.23% Depth of Overburden 9.50m Completed 22/2/87  
 Bearing of Angle Hole --- Company EGAT Total length of core 49.20m Logged by V. Punpong  
K. Tokedp

Date	Depth M	R.O.D.	Geology	Symbol of geology	Core recovery 100%	Kind of Bt of Core (mm.)	Casing Cementation	Colour of rock	Weathering 1-5	Hardness 1-5	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE WATER TABLE	Drill Pressure, Kg 50 100 Time, min	Depth M	Elevation
9/2/87	0											(0 - 9.50m) Overburden : Loose sand with some boulders of quartzite, size 10 - 30 cm.	No. water pressure test packer could not be set.		0	
	1	o						Yellowish brown grey							1	
	2	o												40	2	
	3	o												20	3	
	4	o												30	4	
	5	o												20	5	
	6	o												40	6	
	7	o												20	7	
	8	o												40	8	
	9	o												75	9	
	10	o												50	10	51.928
10/2/87	1	o	Quartzite									(9.50 - 50.60) Quartzite, schistose limestone and Calcareous schist		120	1	
	2	o	Schistose limestone									Pale gray to greenish gray, fresh, very hard, massive to weakly laminated, highly to extremely fractured.	>50	70	2	
	3	o												40	3	
	4	o												60	4	
	5	o												90	5	
	6	o												30	6	
	7	o												40	7	
	8	o												30	8	
	9	o												55	9	
	20	o										(Slightly calcareous) at 11.30 - 14.50 m., 34.60 - 35.00 m.		30	20	41.928
	1	o												45	1	
	2	o												50	2	
	3	o												45	3	
	4	o												25	4	
	5	o												30	5	
	6	o												240	6	
	7	o												30	7	
	8	o												40	8	
	9	o												30	9	
	30	o												40	30	31.928

Core loss

Weathering  
1 (fresh) - 5 (decomposed)

Hardness 1 (hard) - 5 (soft)

Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm),  
3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)

# LOG OF BORING

Project: MAE LAMA LUANG DAM Location: Dam Axis (River Bed) Boring No. LY/DH-1 Log No. 2 of 2  
 Co-ordinates: N1966,190.000 E372,163.500 Elevation: 61.928 m MSL Depth of Hole: 50.60 m Commenced: 9/2/87  
 Angle from Horizontal: 90° Core Recovery: 97.23% Depth of Overburden: 9.50 m Completed: 22/2/87  
 Bearing of Angle Hole: — Company: EGAT Total length of core: 49.20 m Logged by: V. Pungpong  
 K. Takeda

Date	Depth M	R.O.D. %	Geology	Symbol of geology	Core recovery 100%	Kind of bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE	Drill Pressure Kg	Time min	Depth M	Elevation
17/2/87	30											28.60-28.70 m.				30	
	1											35.40-35.00 m.	1.2			1	
	2											37.70-38.05 m.				2	
	3											38.40-38.70 m.				3	
	4											40.20-40.30 m.				4	
	5											44.10-40.60 m.				5	
	6											45.30-45.40 m.				6	
	7											Quartz vein at	0.9			7	
	8											21.90-21.95 m.				8	
	9											22.90-23.10 m.				9	
	10											31.70-31.80 m.				10	21.928
	11											Core loss at				11	
	12											10.60-11.40 m.	1.5			12	
	13															13	
	14															14	
	15															15	
	16															16	
	17															17	
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	97															97	
	98															98	
	99															99	
	100															100	

Core loss ————  
 Weathering 1 (fresh) — 5 (decomposed)  
 Hardness 1 (hard) — 5 (soft)  
 Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Cetter Dam (Middle of River) Boring No. LY/DH-2 Log No. 1 of 2  
 Co-ordinates N 966,019.44 E 372,283.53 Elevation 62.594 m MSL Depth of Hole 45.00 m Commenced 6/2/89  
 Angle from Horizontal 90° Core Recovery 100% Depth of Overburden 2.65 m Completed 20/2/89  
 Bearing of Angle Hole — Company EGAT Total length of core 45.00 m Logged by H. Pattana  
K. Takeda

Date	Depth M	R.O.D. %	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE	Drill Pressure Kg Time min	Depth M	Elevation
6/2/89	0		Overburden		100%			pale brown				Overburden 0.00-2.65 m 0.00-2.00 m. Coarse sand loose 2.00-2.65 m. Gravel of quartz, quartzite	GW. 0.00 m 10/2/89		0	
8/2/89	1							Brownish gray				Quartzite interbedded with quartz-schist 2.65-45.00 m. Hard, dense, some quartz vein 2.95-3.15 m., 3.40-3.60 m. 4.35-4.95 m. Quartz vein 6.35-6.40 m. Joint (50°) slightly rough 8.00-11.65 m. Core broken	39 Pmax = 3 kg/cm <sup>2</sup>		1	
9/2/89	2														2	
10/2/89	3														3	
11/2/89	4														4	
12/2/89	5														5	
13/2/89	6														6	
14/2/89	7														7	
15/2/89	8														8	
16/2/89	9														9	
17/2/89	10														10	52.594
18/2/89	11														11	
19/2/89	12														12	
20/2/89	13														13	
21/2/89	14														14	
22/2/89	15														15	
23/2/89	16														16	
24/2/89	17														17	
25/2/89	18														18	
26/2/89	19														19	
27/2/89	20														20	42.594
28/2/89	21														21	
29/2/89	22														22	
30/2/89	23														23	
31/2/89	24														24	
1/3/89	25														25	
2/3/89	26														26	
3/3/89	27														27	
4/3/89	28														28	
5/3/89	29														29	
6/3/89	30														30	32.594

Core loss →







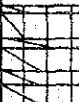

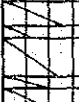
Weathering  
1 (fresh) - 5 (decomposed)

Hardness 1 (hard) - 5 (soft)

Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm),  
3 (20 cm, 5 cm), 4 (less than 5 cm, 15 (grained)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Coffor Dam (Middle of River) Boring No. LY/DH-2 Log No. 2 of 2  
 Co-ordinates 1,966,019.441 E 372,283.551 Elevation 62.594m MSL Depth of Hole 45.00m Commenced 6/2/89  
 Angle from Horizontal 90° Core Recovery 100% Depth of Overburden 2.65m Completed 20/2/89  
 Bearing of Angle Hole --- Company E G A T Total length of core 45.00m Logged by H. Pattana  
K. Takada

Date	Depth M	R %	Q %	D %	Geology	Symbol of geology	Core recovery 100%	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE  WATER TABLE 	Drill Kg 50 Pressure 100 Time	Depth M	Elevation
15/2/89	30				Quartzite interbedded with quartz-schist		100%	NM/C. Diamond core bit ø 52 mm		Gray				32.00-32.30m. Quartz vein	(10.1) Pmax = 6 kg/cm <sup>2</sup>		30	22.594
	1													32.70-32.77m. Joint (65°) slightly rough, planar			1	
	2																2	
	3																3	
	4																4	
	5													35.30-35.40m. Joint (70°) smooth, planar	(4.0) Pmax = 7 kg/cm <sup>2</sup>		5	
	6																6	
	7																7	
	8																8	
	9																9	
16/2/89	40													40.25-40.50m. Joint (70°) rough, slightly curve quartz filled	(4.6) Pmax = 9 kg/cm <sup>2</sup>		40	17.594
17/2/89	1													42.00-42.50m. Quartz vein			1	
	2													43.60-43.70m. Joint (60°) irregular, rough, quartz filled, some cavity on surface			2	
18/2/89	3																3	
	4																4	
20/2/89	45													Bottom of hole 45.00m			45	
	6																6	
	7																7	
	8																8	
	9																9	
	10																10	
	11																11	
	12																12	
	13																13	
	14																14	
	15																15	
	16																16	
	17																17	
	18																18	
	19																19	
	20																20	

Core loss 

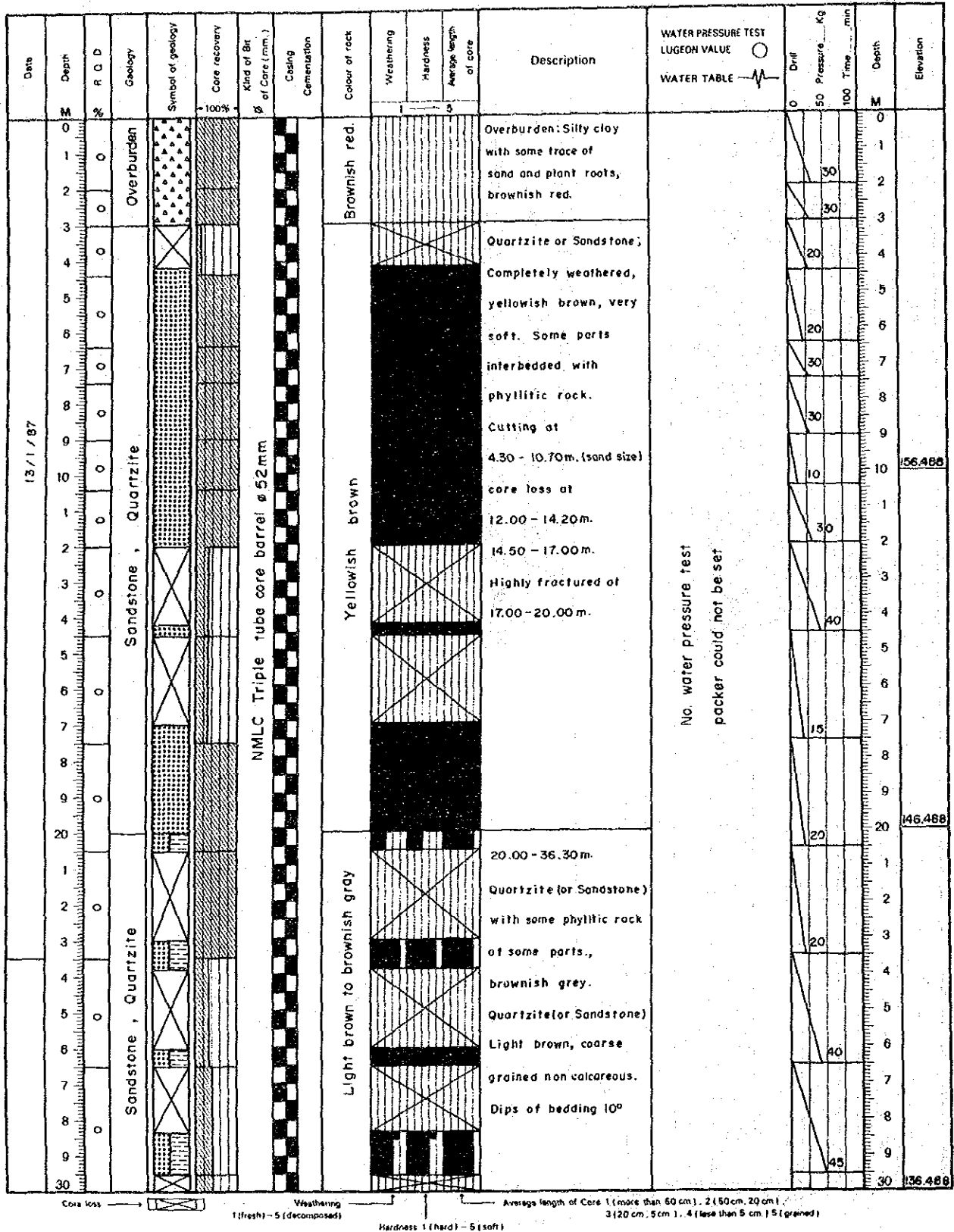
Weathering  
1 (fresh) - 5 (decomposed)

Hardness 1 (hard) - 5 (soft)

Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm),  
3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)

# LOG OF BORING

Project **MAE LAMA LUANG DAM** Location **Left Abutment** Boring No. **LY/DL-1** Log No. **1** of **4**  
 Co-ordinates **N1,965,980.672 E372,060.970** Elevation **166.488m MSL** Depth of Hole **110.00m** Commenced **13/1/87**  
 Angle from Horizontal **90°** Core Recovery **80.50m** Depth of Overburden **3.00m** Completed **1/2/87**  
 Bearing of Angle Hole **---** Company **E GAT** Total length of core **88.60m** Logged by **V. Punpong K. Tokeda**





# LOG OF BORING

Project MAE LAMA LUANG DAM Location Left Abutment Boring No. LY/DL-1 Log No. 2 of 4  
 Co-ordinates N1,965,980.672 E372,060.970 Elevation 166.468 m MSL Depth of Hole 110.00 m Commenced 13/1/87  
 Angle from Horizontal 90° Core Recovery 80.50% Depth of Overburden 3.00 m Completed 1/2/87  
 Bearing of Angle Hole --- Company EGAT Total length of core 86.60 m Logged by V. Pungpong K. Takeda

Date	Depth	R.O.D.	Geology	Symbol of geology	Core recovery	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE	Drill Pressure, Kg	Time, min	Depth	Elevation
	M	%			100%											M	
17/1/87	30		Sandstone & phyllitic rock					Brownish gray				Most joints are bedding.				30	126.488
	1	0										Joint (10°) planar,				1	
	2	0										smooth. Some joints 90°				2	
	3	0										Irregular, rough				3	
	4	0										Phyllitic rock; brownish				4	
	5	0										gray soft, brittle,				5	
	6	0										highly weathered.				6	
	7	0										Bedding dips 40° (vary)				7	
	8	0	Calc schist (Schistose limestone)									Core loss at				8	
	9	0										20.70-23.00m.				9	
	40	0										23.80-26.00m.				40	
	1	90										26.50-28.30m.				1	
	2	90										29.50-31.20m.				2	
	3	62										(36.30-95.00m.)				3	
	4	92.6										Calcareous schist (Schistose Limestone)				4	
	5	99										interbedded with				5	
	6	0										Quartzite (or Sandstone)				6	
	7	0										slightly weathered to				7	
	8	57	Sandstone									fresh, pale gray, very				8	
	9	50										hard.				9	
	50	74										Calcareous schist				50	
	1	84										Sandstone; Highly				1	
	2	50										calcareous at				2	
	3	60										36.00-66.60m.				3	
	4	50										non calcareous of				4	
	5	60										66.00-110.00m.				5	
	6	60														6	
	7	69	Schistose limestone													7	
	8															8	
	9															9	
	60															60	106.488

Core lost Weathering 1 (fresh) - 8 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)  
 Hardness 1 (hard) - 5 (soft)

# LOG OF BORING

Project	MAE LAMA LUANG DAM	Location	Left Abutment	Boring No.	LY/DL-1	Log No.	3 of 4
Co-ordinates	N1,565,380.672 E372,060.970	Elevation	166.488m MSL	Depth of Hole	110.00 m	Commenced	13/1/87
Angle from Horizontal	90°	Core Recovery	80.50%	Depth of Overburden	3.00 m	Completed	1/2/87
Bearing of Angle Hole		Company	EGAT	Total length of core	86.60 m	Logged by	V. Punpoing K. Takeda

Date	Depth	R Q D	Geology	Symbol of geology	Core recovery	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE	WATER TABLE	Drill	Pressure Kg	Time min	Depth	Elevation		
	M	%			100%										0	50	100	M			
27/1/87	60	70	Calc schist (Schistose limestone) and sandstone					Grey				Bedding dips 30°-60°	36.30 m								
1	1	Most joints are bedding										2.3	40								
2	2	joints dip 30°-60°																			
3	3	smooth or rough.																			
4	4	Some joints 0-10°											35								
5	5	Irregular, rough.																			
6	6	Few joints dip 90°										0.2	60								
7	7	Irregular, rough.																			
8	8	Core loss at																			
9	9	88.60-89.20m.											50								
28/1/87	70	83	Calc schist (Schistose limestone) and sandstone					Grey				Highly fractured at	38.90 m								
	1	1										39.00-39.20 m.	1.3								60
	2	2										43.60-43.80 m.									
	3	3										51.80-52.00 m.									
	4	4										56.50-57.10 m.									50
	5	5										59.25-59.40 m.									
	6	6										62.60-63.00 m.									40
	7	7										64.20-64.40 m.	0.2								30
	8	8										77.00-77.80 m.									15
	9	9										83.00-83.60 m.									
29/1/87	80	100	Calc schist (Schistose limestone) and sandstone					Grey				87.60-88.70 m.	38.90 m								
	1	1										94.30-94.40 m.	0.2								40
	2	2										Sheared zone at.									
	3	3										46.60-46.90 m.									15
	4	4										47.00-47.40 m.									
	5	5										58.10-58.15 m.	0.4								40
	6	6										75.60-75.70 m.									
	7	7										86.60-86.80 m.									20
	8	8										88.60-89.40 m.									
	9	9										90.40-90.50 m.									90
29/1/87	90	0	Calc schist (Schistose limestone) and sandstone					Grey				92.70-92.80 m.	40.23 m								
	1	1											1.0								60
	2	2																			
	3	3																			
	4	4																			
	5	5																			
	6	6																			
	7	7																			
	8	8																			
	9	9																			

Core loss



Weathering

1 (fresh) - 5 (decomposed)

Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Left Abutment Boring No. LY/DL-1 Log No. 4 of 4  
 Co-ordinates N1965,980.672 E372,060.970 Elevation 166.488m MSL Depth of Hole 110.00m Commenced 13/1/87  
 Angle from Horizontal 90° Core Recovery 80.50% Depth of Overburden 3.00m Completed 1/2/87  
 Bearing of Angle Hole — Company E G AT Total length of core 86.60m Logged by V. Punpang  
K. Takeda

Date	Depth M	R Q D	Geology	Symbol of geology	Core recovery —100%—	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE  WATER TABLE 	Drill Pressure, Kg Time, min	Depth M	Elevation
29/1/87	90	40										(36.30-95.00m.)	40.23m		90	
	1											as above.	(2.0)	35	1	
	2													100	2	
	3													30	3	
	4														4	
	5														5	
	6														6	
	7														7	
	8														8	
	9														9	
30/1/87	100											(95.00-110.00 m.)	43.10m	15	100	56.488
	1											Schistose Limestone and Quartzite (or Sandstone); Pale gray to milky white, fresh, dense, hard, highly to extremely fractured. Schistose limestone; Slightly calcareous. Quartzite (or sandstone) non calcareous. Bedding dips 20°-40°. Most joints are bedding joint 20°-30° planar, smooth polished. Some joint 80°-90° Irregular, rough. Few joint 60° rough. Sheared zone at 96.80-97.20 m. 95.50-99.20 m. 101.70-101.80 m. 103.10-103.30 m. 103.50-104.00 m. 104.50-105.10 m. 106.70-107.00 m. Core lost at 99.70-100.40 m.	(2.0)	30	1	
	2													60	2	
	3													60	3	
	4													30	4	
	5													10	5	
	6														6	
	7														7	
	8														8	
	9														9	
31/1/87	110											Bottom of Hole 110.00m. Elevation 56.488m. MSL.		25	110	56.488
1/2/87	1														1	
	2														2	
	3														3	
	4														4	
	5														5	
	6														6	
	7														7	
	8														8	
	9														9	
	10														10	

Core loss 

Weathering  
1(fresh) - 5(decomposed)

Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm) 5 (grained)  
 Hardness 1 (hard) - 5 (soft)

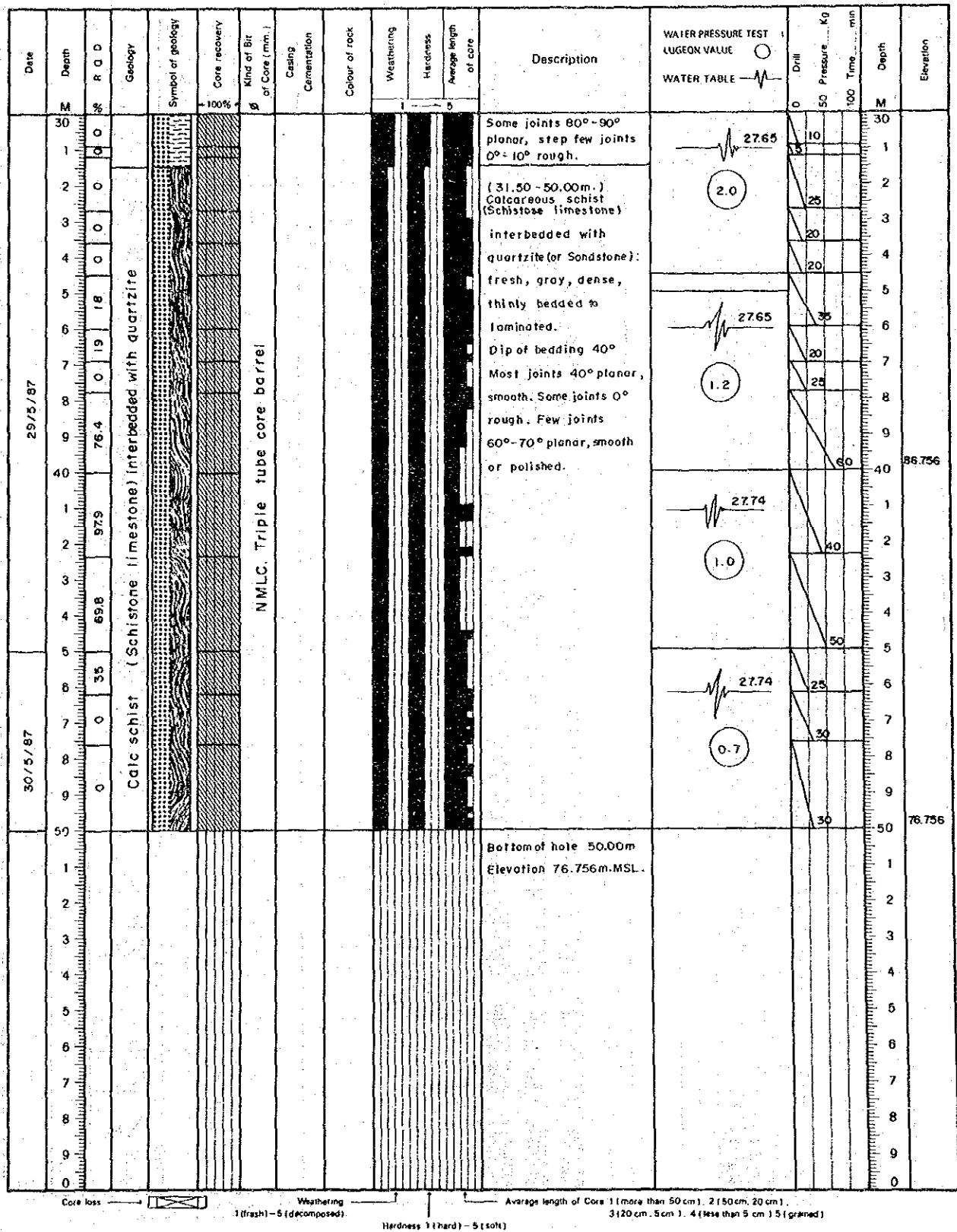
# LOG OF BORING

Project	MAE LAMA LUANG DAM	Location	Left Abutment	Boring No.	LY/DL-2	Log No.	1 of 2
Co-ordinates	N 956 046.939 E 372 103.494	Elevation	126.756m MSL	Depth of Hole	50.00m	Commenced	26/5/87
Angle from Horizontal	90°	Core Recovery	94.60%	Depth of Overburden	3.50 m	Completed	30/5/87
Bearing of Angle Hole		Company	E GAT	Total length of core		Logged by	V. Punpong K. Takeida

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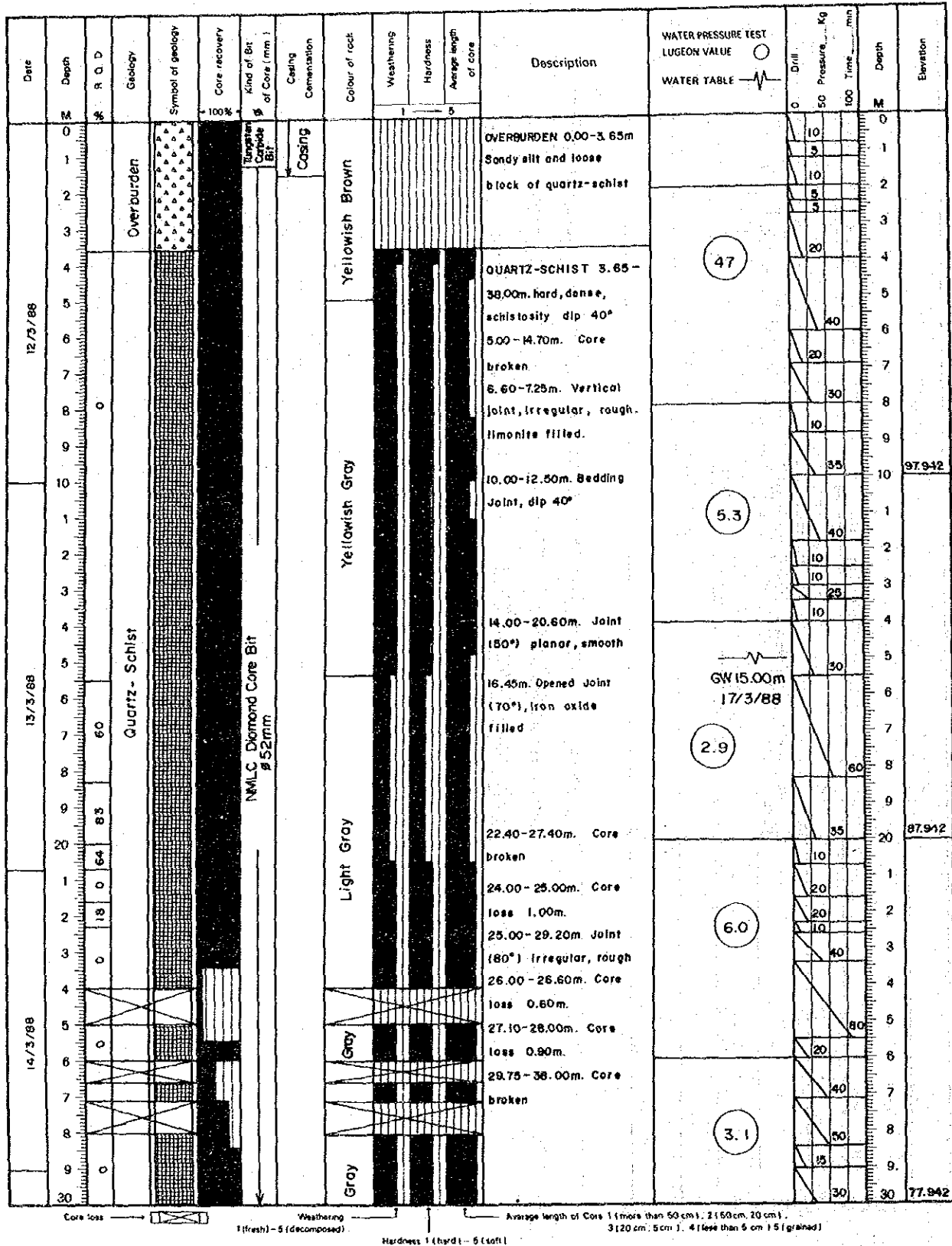
# LOG OF BORING

Project MAE LAMA LUANG DAM Location Left Abutment Boring No. LY/DL-2 Log No. 2 of 2  
 Co-ordinates N 966,046.939 E 372,103.494 Elevation 126.756m MSL Depth of Hole 50.00m Commenced 26/5/87  
 Angle from Horizontal 90° Core Recovery 94.60% Depth of Overburden 3.50m Completed 30/5/87  
 Bearing of Angle Hole — Company EGAT Total length of core — Logged by V. Pungong  
K. Tokeda



# LOG OF BORING


Project MAE LAMA LUANG DAM Location Dom Site (Left Abutment) Boring No. LY/DL-3 Log No. 1 of 2  
 Co-ordinates N 966,006.380 E 372,172.175 Elevation 107.942m MSL Depth of Hole 45.00m Commenced 12/3/88  
 Angle from Horizontal 90° Core Recovery 85% Depth of Overburden 3.65m Completed 17/3/88  
 Bearing of Angle Hole --- Company E G AT Total length of core 38.80m Logged by H. Patton & K. Tokeda



# LOG OF BORING

Project MAE LAMA LUANG DAM Location Dam Site (Left Abutment) Boring No. LY/DL-3 Log No. 2 of 2  
 Co-ordinates N 1956,006.380 E 372,172.175 Elevation 107.342m MSL Depth of Hole 45.00m Commenced 12/3/88  
 Angle from Horizontal 90° Core Recovery 86% Depth of Overburden 3.65m Completed 17/3/88  
 Bearing of Angle Hole — Company E G AT Total length of core 38.80m Logged by H. Pattana  
K. Takeda

Date	Depth M	R.Q.D. %	Geology	Symbol of geology	Core recovery 100%	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE WATER TABLE	Drill Pressure Kg min	Depth M	Elevation
15/3/88	30	0	Quartz- Schist					Gray				32.00-32.45m. Core loss 0.45m.		20	30	
	1	0												10	1	
	2	10						Brownish Gray				33.35-34.60m. Core loss 1.25m.		10	2	
	3													20	3	
	4														4	
	5													40	5	
	6														6	
	7	0	Quartz- Schist					Brownish Gray						45	7	
	8														8	
	9		Calc- Schist					Light Gray				38.00-45.00m. brittle, core broken, some calcite vein-vainet		15	9	
	40													30	40	67.942
	1											38.00-40.00m. shear zone		20	1	
	2											some clay gouge		40	2	
	3	0	Calc- Schist					Light Gray				40.00-41.00m. Core loss 1.00m.		30	3	
	4													50	4	
	45													10	45	62.942
	6											Bottom of hole 45.00m.		35	6	
	7														7	
	8														8	
	9														9	
	10														10	
	11														11	
	12														12	
	13														13	
	14														14	
	15														15	
	16														16	
	17														17	
	18														18	
	19														19	
	20														20	

Core loss →  Weathering: 1 (fresh) - 5 (decomposed) Average length of Core: 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)  
 Hardness: 1 (hard) - 5 (soft)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Don Sitt (Left Bank) Boring No. LY/DL-4 Log No. 1 of 2  
 Co-ordinates N1,966,098.822 E372,058.822 Elevation 99.276m MSL Depth of Hole 60.00m Commenced 17/2/88  
 Angle from Horizontal 90° Core Recovery 93.3% Depth of Overburden 8.70m Completed 26/2/88  
 Bearing of Angle Hole — Company EGAT Total length of core 56.00m Logged by H. Pattana  
K. Tameda

Date	Depth M	R.C.D. %	Geology	Symbol of geology	Core recovery 100%	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE	WATER TABLE	Drill Pressure Kg Time min	Depth M	Elevation
17/2/88	0		Overburden			Tungsten Carbide Bit		Reddish Brown				OVERBURDEN 0.00-8.70m. residual soil, clayey alt and fragments of quartz-schist, schist highly completely- weathered, loose blocks of quartz-schist, schist at 4.65-5.45m, 5.80- 6.00m, 7.00-7.30m	Constant Head Test $K=3.81 \times 10^{-4}$ cm/sec		0	0	
18/2/88	1							Yellowish Brown				QUARTZ-SCHIST, SCHIST 8.70-60.00m. Quartz-schist interbedded with schist, brittle, slatosity dip 40°, slightly non calcareous, 8.70-24.00m. core broken, 14.45-14.55m. Joint (dip 65°) slightly rough, irregular, iron oxide stained	Constant Head Test $K=4.88 \times 10^{-4}$ cm/sec		10	89.276	
19/2/88	2		Quartz-Schist, Schist			NMLC Diamond Core Bit # 52mm		Pale Brown				21.10-22.25m. Core loss 1.15m. 22.70-23.70m. Core loss 1.00m. 24.75-32.00m. some calcite veinlet, slightly calcareous 24.00-24.90m. Iron oxide on surface 25.40-25.47m. Joint (dip 45°) slightly rough, irregular, iron oxide stained 25.80-25.98m. Joint (dip 80°) rough, irregular, iron oxide stained 26.00-26.80m, 26.80-28.00m. Core broken 29.45-29.65m, 29.72- 29.83m Joint (dip 70°) irregular, rough, clay smeared.			20	79.276	
20/2/88	3							Gray, Brown					28		30		
22/2/88	4							Gray					22		40		
	5												GW 21.85 23/2/88		50		
	6												2.5		60		
	7														70		
	8														80		
	9														90		

Core loss

Weathering  
1(fresh)-5(decomposed)

Average length of Core 1 (more than 50 cm), 2(50 cm, 20 cm),  
3(20 cm, 5 cm), 4(less than 5 cm), 5(grounded)

Core loss →

Weathering  
1 (fresh) - 5 (decomposed)

Hardness 1 (hard) - 5 (soft)

Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm),  
3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)



# LOG OF BORING

Project **MAE LAMA LUANG DAM** Location **Dpm Site (Left Bank)** Boring No. **LY/DL-4** Log No. **2** of **2**  
 Co-ordinates **N1,966,096.882 E372,058.822** Elevation **99.276m MSL** Depth of Hole **60.00m** Commenced **17/2/88**  
 Angle from Horizontal **90°** Core Recovery **93.3%** Depth of Overburden **8.70m** Completed **26/2/88**  
 Bearing of Angle Hole **-** Company **EGAT** Total length of core **56.00m** Logged by **H. Pattana K. Takada**

Date	Depth M	R %	Q %	D %	Geology	Symbol of geology	Core recovery %	Kind of Bit of Core (mm)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE	WATER TABLE	Drill Kg Pressure min Time	Depth M	Elevation
22/2/88	30													33.25-33.60m. Joint. (dip 80°) irregular, rough				30	
	1									Gray				36.65-37.00m. Core loss 0.35m.				1	
	2													35.65-36.00m, 37.80- 40.00m. Core broken				2	
	3													39.30-39.80m. Joint (dip 80°), irregular, rough, clay seamed	1.8			3	
	4	58												42.10-42.15m, 42.50- 42.60m. Joint (dip 60°)				4	
	5													irregular, rough, some quartz filled				5	
	6													43.30-43.40m. Joint (dip 70°) slightly rough, smooth, clay seamed				6	
	7													43.40-44.00m. Core broken				7	
	8													43.60-44.00m. Core loss 0.40m.	7.8			8	
	9													46.15-46.25m. Joint (dip 80°), planar, rough, quartz filled				9	
	40									Gray				46.60-46.65m. Joint (dip 40°), rough, irregular, quartz filled				40	59.276
	1	28			Quartz-Schist, Schist									46.90-46.97m. Joint (dip 45°), planar, smooth, clay seamed				1	
	2													47.00-47.20m, 47.30- 47.45m, 52.95-53.00m. Joint (dip 70°), irregular, slightly rough, quartz filled and clay seamed	1.2			2	
	3													53.20-53.28m. Joint (dip 50°), irregular, slightly rough				3	
	4													53.55-57.70m. Core broken				4	
	5	66												55.55-55.70m, 56.75- 57.25m, 57.75-57.90m Joint (dip 70°), irregular, rough, some quartz filled				5	
	6													58.30-59.40m. Core loss 1.10m.				6	
	7	29			Quartz-Schist, Schist					Gray					1.7			7	
	8																	8	
	9	60																9	
	50																	50	49.276
	1																	1	
	2																	2	
	3																	3	
	4																	4	
	5																	5	
	6																	6	
	7																	7	
	8																	8	
	9																	9	
	60													Bottom of hole 60.00m				60	39.276

Core loss

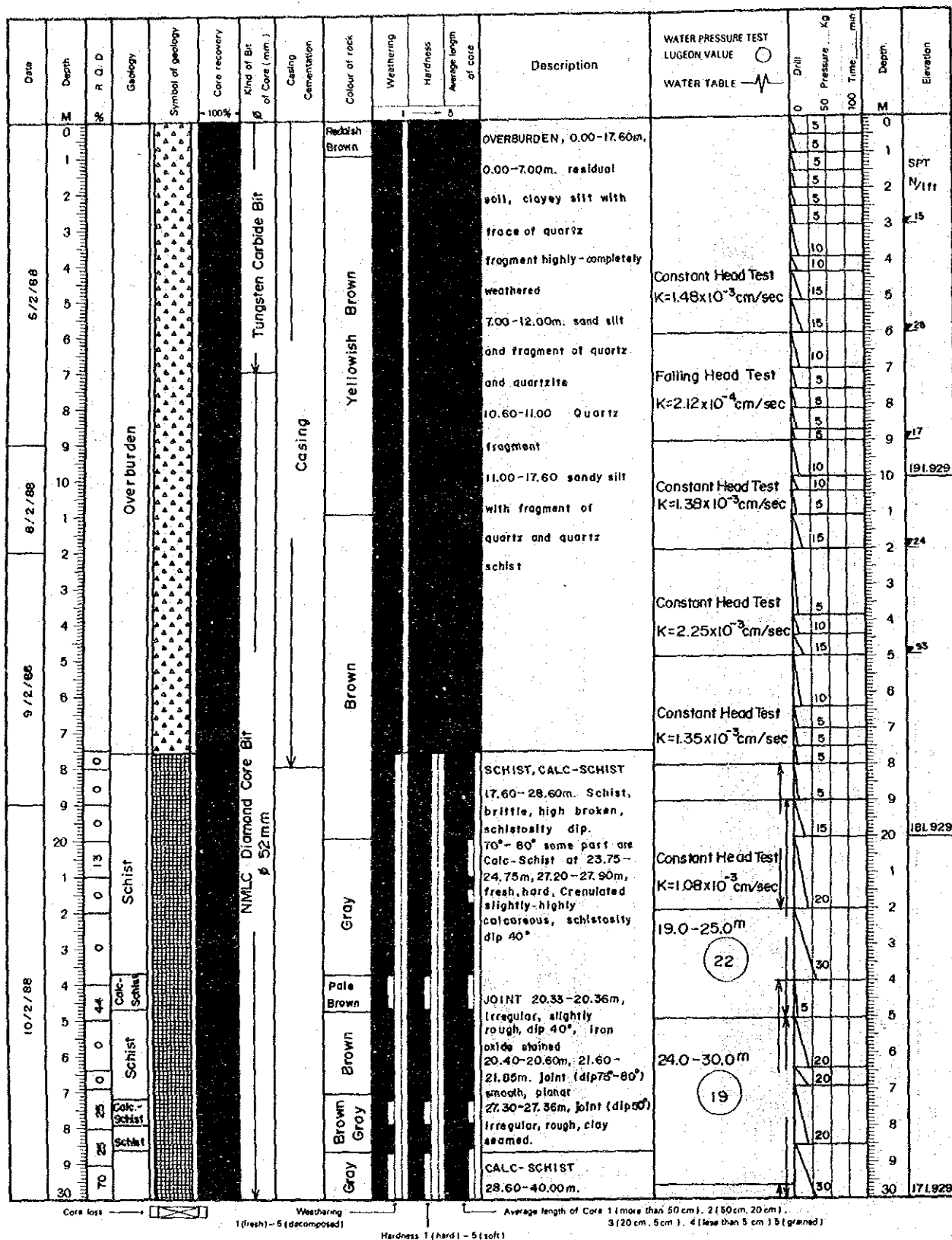
Weathering  
1 (fresh) - 5 (decomposed)

Hardness 1 (hard) - 5 (soft)

Average length of Core 1 (more than 50 cm), 2 (15 cm, 20 cm),  
3 (10 cm, 5 cm), 4 (less than 5 cm), 5 (grained)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Dam Axis (Left Abutment) Boring No. LY/DL-5 Log No. 1 of 2  
 Co-ordinates N 965 936.169 E 371 939.855 Elevation 201.929m MSL Depth of Hole 40.00m Commenced 6/2/88  
 Angle from Horizontal 90° Core Recovery 100% Depth of Overburden 17.60m Completed 12/2/88  
 Bearing of Angle Hole --- Company E G AT Total length of core 40.00m Logged by H. Peltone  
K. Tokeda



# LOG OF BORING

Project MAE LAMA LUANG DAM Location Dom Ais (Left Abutment) Boring No. LY/DL-5 Log No. 2 of 2  
 Co-ordinates N 965,936.169 E 371,959.855 Elevation 201.929m MSL Depth of Hole 40.00m Commenced 6/2/88  
 Angle from Horizontal 90° Core Recovery 100 % Depth of Overburden 17.60m Completed 12/2/88  
 Bearing of Angle Hole — Company E G A T Total length of core 40.00m Logged by H. Pattana K. TAKEDA

Date		Depth	R. Q. D.	Geology	Symbol of geology	Core recovery	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE	WATER TABLE	Drill	Pressure Kg	Time min	Depth	Elevation
		M	%			100%													M	
11/2/88		30	45	Calc. - Schist		100%	NMLC Diamond Core Bit # 52mm		Gray				fresh, hard, interlayering with argillaceous band, schistosity dip 50°, highly - slightly calcareous 29.88 - 29.91m, 30.14 - 30.17m, Joint (dip 40°) slightly rough, clay seamed 30.00 - 32.60m, core broken 32.85 - 33.00m, 34.00 - 34.45m, Joint (dip 80°) irregular, clay seamed 35.00 - 36.00m, core broken 37.00 - 38.50m, 39.50 - 39.90m, Joint (dip 90°), irregular, calcite filled and some clay seamed	29.6-35.6m  1.8 GW.28.77 11/2/88					30	161.929
		1	15																1	
		2	35																2	
		3	60																3	
		4	25																4	
		5	0																5	
		6	19																6	
		7	0																7	
		8	55																8	
		9	0																9	
12/2/88		40	55										Bottom of hole 40.00m					40		
		1																	1	
		2																	2	
		3																	3	
		4																	4	
		5																	5	
		6																	6	
		7																	7	
		8																	8	
		9																	9	
		0																	0	
		1																	1	
		2																	2	
		3																	3	
		4																	4	
		5																	5	
		6																	6	
		7																	7	
		8																	8	
		9																	9	
		0																	0	

Core lost

Weathering  
1 (fresh) - 5 (decomposed)

Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)  
 Hardness 1 (hard) - 5 (soft)

# LOG OF BORING

Project MAE LAMA LUANG OAM Location Oam Site (Left Abutment) Boring No. LY/OL-6 Log No. 1 of 2  
 Co-ordinates N 1,965,992.088 E 372,111.862 Elevation 145.289m MSL Depth of Hole 50.00m Commenced 17/11/88  
 Angle from Horizontal 90° Core Recovery 93.8% Depth of Overburden 8.90m Completed 24/11/88  
 Bearing of Angle Hole --- Company E G A T Total length of core 46.90m Logged by H. Pattana  
K. Takeda

Date	Depth M	R Q D	Geology	Symbol of geology	Core recovery %	Kind of Bit (mm)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE	WATER TABLE	Drill Kg Pressure Time min	Depth M	Elevation
17/11/88	0		Overburden		100%	Tungsten Carbide Bit		Brown				OVERBURDEN 0.00-8.90m				0	
	1											0.00-5.40m Clayey sand	K=3.42x10 <sup>-6</sup> cm/sec Falling head test			1	
	2															2	
	3															3	
	4											5.40-7.50m Clayey silt and loose block of schist, sandstone	K=2.58x10 <sup>-5</sup> cm/sec Constant head test			4	
	5															5	
	6											7.50-8.00m Silty sand 8.00-8.90m loose block of schist	K=1.23x10 <sup>-5</sup> cm/sec Constant head test			6	
	7															7	
	8							Yellowish Brown								8	
	9							Brownish Gray								9	
	10							Brown								10	35.289
18/11/88	1							Brownish Gray				SCHIST, SANDSTONE 8.90- 44.70m schist, brittle, core broken, schistosity dip 40°, interbedded with sandstone, hard, at 9.00-9.25m, 15.35- 15.43m, 17.62-17.90m.	K=1.23x10 <sup>-5</sup> cm/sec Constant head test			1	
	2							Gray								2	
	3							Brown								3	
	4							Gray				9.10-9.15m, 9.30-9.37m Irregular joint, dip 40° rough, some quartz filled.	K=5.83x10 <sup>-5</sup> cm/sec Constant head test			4	
	5							Gray								5	
	6							Brownish Gray								6	
	7							Gray				17.44-17.52m Joint, dip 70°, rough	K=2.89x10 <sup>-5</sup> cm/sec Constant head test			7	
	8							Brown								8	
	9							Gray								9	
	20							Brown								20	125.289
19/11/88	1		Schist interbedded with sandstone					Gray				23.25-23.32m, 24.20-24.70m, 25.00-26.10m, 27.00-28.30m, quartz vein, dip 60° some cavity on surface	K=2.30x10 <sup>-3</sup> cm/sec Constant head test			1	
	2							Gray								2	
	3							Gray								3	
	4							Gray								4	
	5							Gray								5	
	6							Gray								6	
	7							Gray								7	
	8							Gray								8	
	9							Gray								9	
	30							Gray				26.80-26.90m Joint, dip 70°, some clay seamed	0.3 P <sub>max</sub> = 5kg/cm <sup>2</sup>			30	115.289
21/11/88												28.30-28.80m Core loss					

Core lost

Weathering  
(1) fresh - (5) decomposed

Hardness: 1 (hard) - 5 (soft)

Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm),  
3 (20 cm, 5 cm), 4 (less than 5 cm) (grained)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Don Site (Left Abutment) Boring No. LY/DL-6 Log No. 2 of 2  
 Co-ordinates N1,965,992.088 E372,111.862 Elevation 145.289m MSL Depth of Hole 50.00m Commenced 17/11/88  
 Angle from Horizontal 90° Core Recovery 93.8 % Depth of Overburden 8.90m Completed 24/11/88  
 Bearing of Angle Hole — Company E G A T Total length of core 46.90m Logged by H. Pattana  
K. Tokeda

Date	Depth M	R. Q. D. %	Geology	Symbol of geology	Core recovery 100%	Kind of Bit of Core (mm)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE	Drill Pressure Kg	Time min	Depth M	Elevation
22/11/88	30		Schist interbedded with sandstone					Brown				33.35-34.35m Core loss	3.6			30	
	1															1	
	2															2	
	3															3	
	4															4	
	5															5	
	6							Grayish Brown				35.70-46.96m Core high broken, friable				6	
	7											37.40-38.00m Core loss				7	
	8							Brown								8	
	9															9	
	40															40	105.289
23/11/88	1							Brownish Gray				43.10-43.50m Core loss				1	
	2											43.80-44.00m Shear zone, brittle, clay seamed.				2	
	3															3	
	4															4	
	5		Calc-Schist													5	
	6							Gray				CALC-SCHIST 44.70-45.50m Some calcite vein/veinlets				6	
	7											45.50-46.00m Core loss				7	
	8		Schist					Gray				SCHIST 46.00-50.00m brittle.				8	
	9											47.00-49.00m Core broken				9	
	50											Bottom of hole 50.00m.				50	95.289

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)  
 Hardness 1 (hard) - 5 (soft)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Ceffer Dam(Left Bank) Boring No. LY/DL-7 Log No. 1 of 1  
 Co-ordinates N1965,976.430 E572,244.292 Elevation 91.431mMSL Depth of Hole 15.00m Commenced  
 Angle from Horizontal 90° Core Recovery 87.7% Depth of Overburden 3.00m Completed  
 Bearing of Angle Hole --- Company E G A T Total length of core 13.15m Logged by H. Pattaha  
K. Takeda

Date	Depth M	R Q D %	Geology	Symbol of geology	Core recovery 100%	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE	Drill 50 Pressure Kg 100 Time min	Depth M	Elevation
2/11/88	0		Overburden			Tungsten Carbide Bit		Brown				OVERBURDEN 0.00-3.00m. 0.00-1.60m. Sandy clay 1.60-2.00m. fine sand with some clay 2.00-2.35m. Sandy clay 2.35-3.00m. fine sand			0	
	1							Pale Brown							1	
	2														2	
	3														3	
	4	26													4	
	5	20													5	
3/12/88	6														6	
10/12/88	7														7	
	8		Quartz			NMLC Diamond Core Bit / 52mm	Casing	Brownish Gray				QUARTZ 3.00-15.00m. hard, some part show texture of quartzite. Iron oxide coated on surface 3.50-4.00m. Some cavity on surface. 8.00-8.10m. Joint (70°), rough, iron oxide filled 9.30-10.85m. Core loss 11.20-11.50m. Core loss 11.70-11.85m, 12.00- 12.20m. 13.25-13.35m. Joint (70°-90°), rough, iron oxide filled			8	
12/12/88	9	0													9	
	10														10	91.431
16/12/88	11														11	
20/12/88	12														12	
	13														13	
23/12/88	14														14	
	15														15	76.431
	16											Bottom of hole 15.00m.			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	

Core loss →

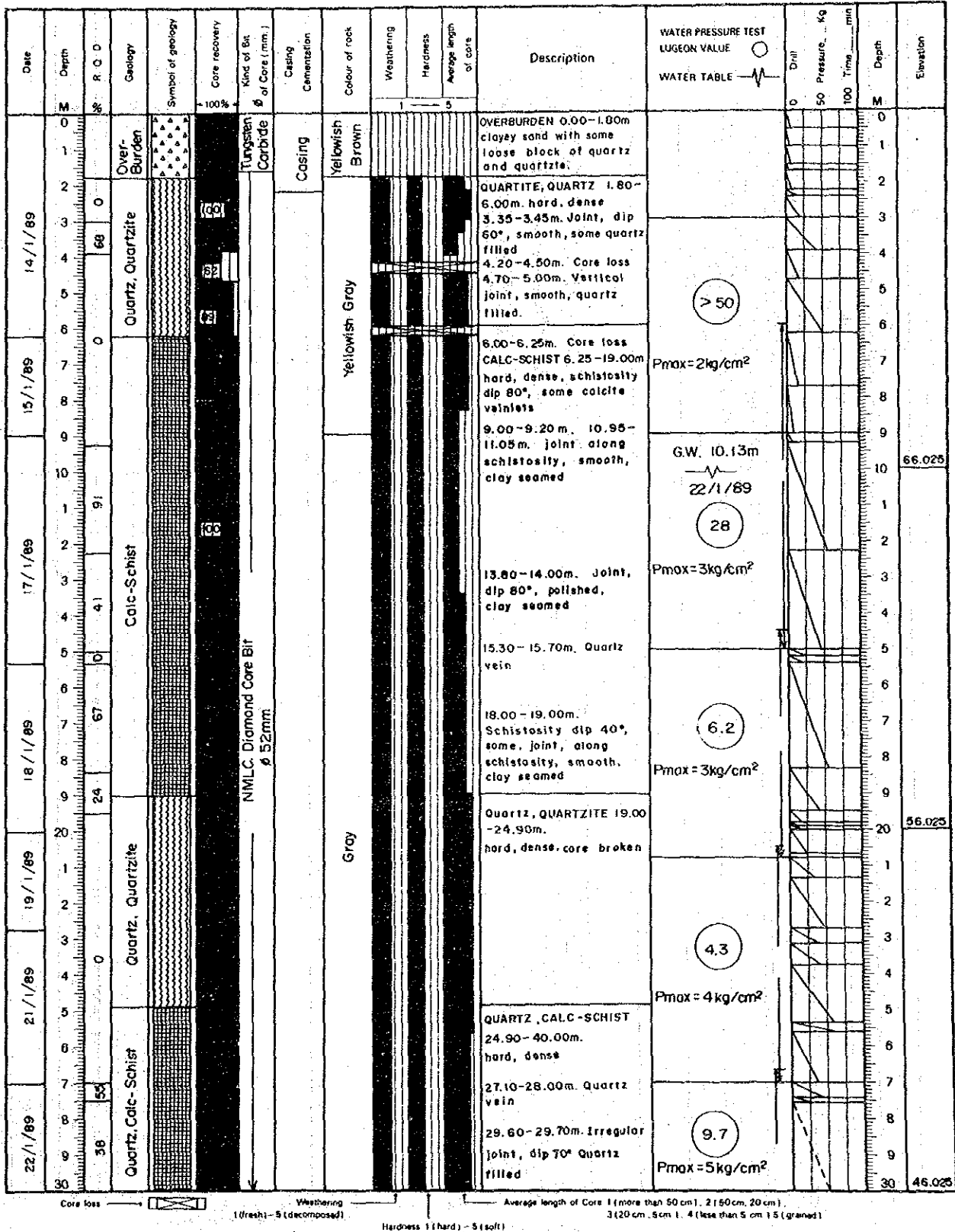
Weathering  
1 (fresh) - 5 (decomposed)

Hardness 1 (hard) - 5 (soft)

Average length of Core 1 (more than 50 cm), 2 (50 cm, 30 cm),  
3 (20 cm, 5 cm), 4 (less than 5 cm) 5 (grained)




# LOG OF BORING

Project: MAE LAMA LUANG DAM Location: Coffe Dam (Left Bank) Boring No. LY/DL-7A Log No. 1 of 2  
 Co-ordinates: N1965,975.032 E 372,260.205 Elevation: 76.025m MSL Depth of Hole: 40.00m Commenced: 14/1/89  
 Angle from Horizontal: 90° Core Recovery: 98% Depth of Overburden: 1.80m Completed: 25/1/89  
 Bearing of Angle Hole: --- Company: EGAT Total length of core: 39.45m Logged by: H. Poltano  
 K. Tokedo



# LOG OF BORING

Project MAE LAMA LUANG DAM Location Cofferd Dam (Left Bank) Boring No. LY/BL-7A Log No. 2 of 2  
 Co-ordinates N1965,975.032 E372,260.205 Elevation 76.025m MSL Depth of Hole 40.00m Commenced 14/1/89  
 Angle from Horizontal 90° Core Recovery 98% Depth of Overburden 1.80m Completed 25/1/89  
 Bearing of Angle Hole --- Company EGAT Total length of core 39.45m Logged by H. Pattana  
K. Tokedo

Date	Depth	R Q D	Geology	Symbol of geology	Core recovery	Kind of bit	Casing	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE  WATER TABLE 	Drill	Pressure	Time	Depth	Elevation
	M	%			%	#									Kg	min	M	
22/1/89	30	100	Quartz Calc. - Schist		100	NMCL Diamond Core Bit # 52 mm		Gray				31.39-31.50m, 36.00-36.60m, Irregular joint, dip 90°, rough, some quartz filled	9.7 Pmax = 5kg/cm <sup>2</sup>				1	
24/1/89	1	0															2	
	2	0															3	
	3	0															4	
	4	21															5	
	5	0										37.00-39.70m. Quartz vein.	25 Pmax = 4kg/cm <sup>2</sup>				6	
	6	0															7	
	7	0															8	
	8	0															9	
	9	0															10	
	40											Bottom of hole 40.00m					40	36.025
	1																1	
	2																2	
	3																3	
	4																4	
	5																5	
	6																6	
	7																7	
	8																8	
	9																9	
	0																0	
	1																1	
	2																2	
	3																3	
	4																4	
	5																5	
	6																6	
	7																7	
	8																8	
	9																9	
	0																0	

Core loss 

Weathering  
1 (fresh) - 5 (decomposed)

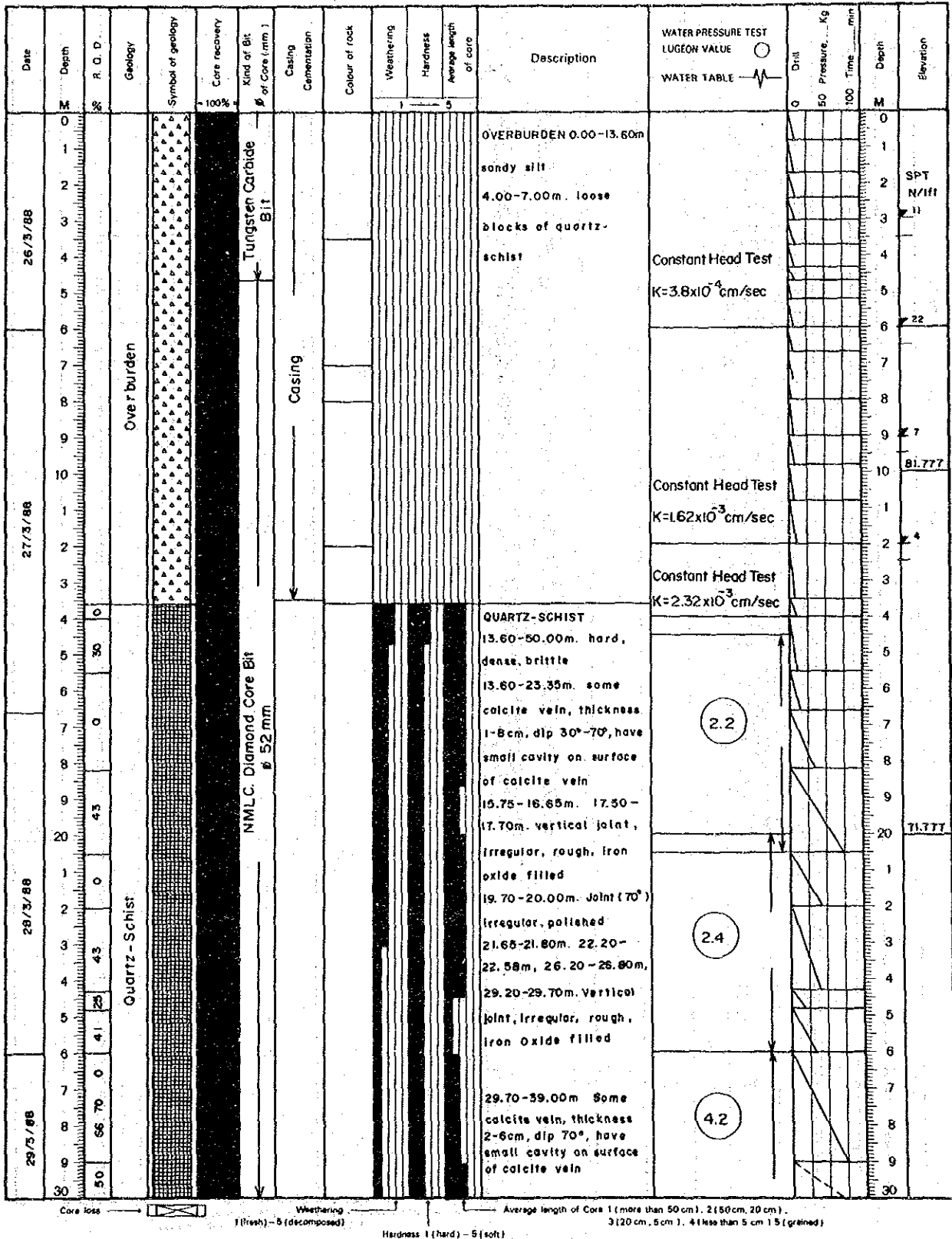
Hardness 1 (hard) - 5 (soft)

Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm),  
3 (20 cm, 5 cm), 4 (less than 5 cm) 5 (grained)



# LOG OF BORING

Project MAE LAMA LUANG DAM Location Spillway (Left Abutment) Boring No. LY/SP-1 Log No. 1 of 2  
 Co-ordinates N 1966, 113.451 E 371, 960.521 Elevation 91.77m MSL Depth of Hole 50.00m Commenced 26/3/88  
 Angle from Horizontal 90° Core Recovery 100% Depth of Overburden 13.60m Completed 31/3/88  
 Bearing of Angle Hole --- Company EGAT Total length of core 50.00m Logged by H. Pattana  
K. Tokedo



# LOG OF BORING

Project MAE LAMA LUANG DAM Location Spillway (Left Abutment) Boring No. LY/SP-1 Log No. 2 of 2  
 Co-ordinates N1,966, 113,451 E 371,960.821 Elevation 91.777m MSL Depth of Hole 50.00m Commenced 26/3/88  
 Angle from Horizontal 90° Core Recovery 100% Depth of Overburden 13.60m Completed 31/3/88  
 Bearing of Angle Hole --- Company E G A Y Total length of core 50.00m Logged by H. Pattana  
K. Takeda

Date	29/3/88				30/3/88				31/3/88												
Depth	M	%	R. Q. D	Geology	Symbol of geology	Core recovery	Kind of Bit	Casing	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST	LUGEON VALUE	WATER TABLE	Drill	Pressure, Kg	Time, min	Depth	Elevation
						100%	Ø of Core (mm.)	Cementation									0	50	100	M	
30	1	50		Quartz - Schist			NMLC. Diamond Core Bit Ø 52mm						31.00-31.55m, 31.75-31.90m. Vertical joint	1.9						30	
2	27		Irregular, rough, iron oxide filled										1								
3	40												2								
4	0												3								
5	35												4								
6	0												5								
7	39												6								
8	37												7								
9	0												8								
40	1												9								
1	0			40		51.777															
2				1																	
3				2																	
4				3																	
5				4																	
6				5																	
7				6																	
8				7																	
9				8																	
50				9			50		41.777												
1													Bottom of Hole 50.00m	1.8					1		
2																				2	
3																				3	
4																				4	
5																				5	
6																				6	
7																				7	
8																				8	
9																				9	

Core loss Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)  
 Hardness 1 (hard) - 5 (soft)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Power House (Right Abutment) Boring No. LY/PH-1 Log No. 1 of 2  
 Co-ordinates N 966,244.181 E 371,997.714 Elevation 74.541m MSL Depth of Hole 50.00m Commenced 4/4/88  
 Angle from Horizontal 90° Core Recovery 97.8% Depth of Overburden 5.00m Completed 8/4/88  
 Bearing of Angle Hole --- Company EGAT Total length of core 48.90m Logged by H. Pattana  
K. Takeda

Date	Depth M	R.O.D %	Geology	Symbol of geology	Core recovery %	Kind of Bit Tungsten Carbide Bit	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGDON VALUE WATER TABLE	Drill Pressure Kg Time min	Depth M	Elevation
4/4/88	0		Overburden		100%			Yellowish Brown				OVERBURDEN 0.00-5.00m. sandy silt and fragment of schist	Constant Head Test $K=6.3 \times 10^{-4}$ cm/sec		0	SPT N/ft
	1														1	
	2														2	
	3														3	50
	4														4	
	5														5	
	6	0													6	
	7	0													7	
	8	0													8	
	9	0													9	
	10	34													10	64.541
	11	0													11	
	12	0													12	
	13	8													13	
	14	0													14	
	15	0													15	
	16	0													16	
	17	0													17	
	18	43													18	
	19	32													19	
	20	27													20	54.541
	21	100													21	
	22	14													22	
	23	0													23	
	24	0													24	
	25	0													25	
	26	20													26	
	27	0													27	
	28	0													28	
	29	0													29	
	30														30	44.541

Core loss

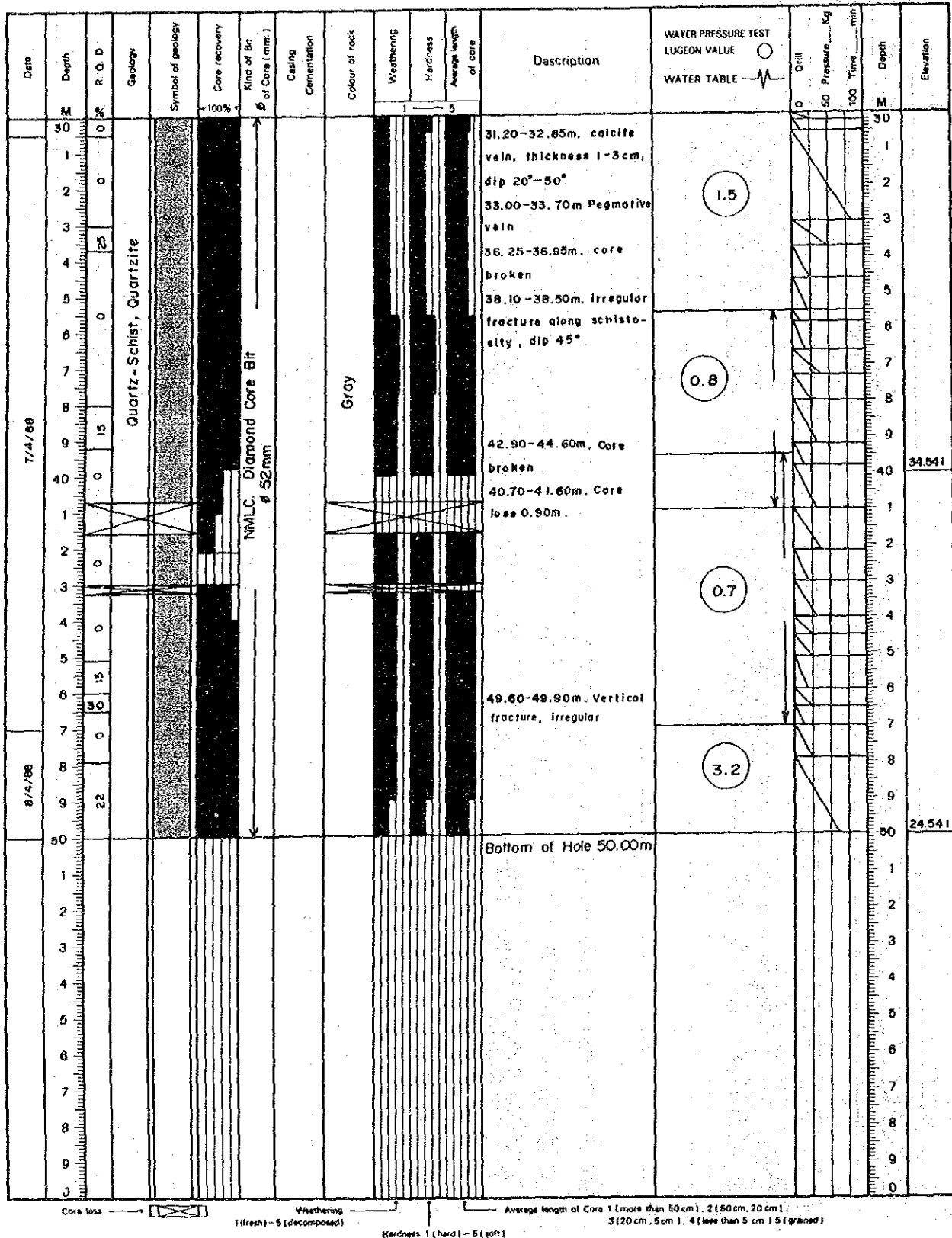
Weathering  
1 (fresh) - 5 (decomposed)

Hardness 1 (hard) - 5 (soft)

Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm),  
3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)

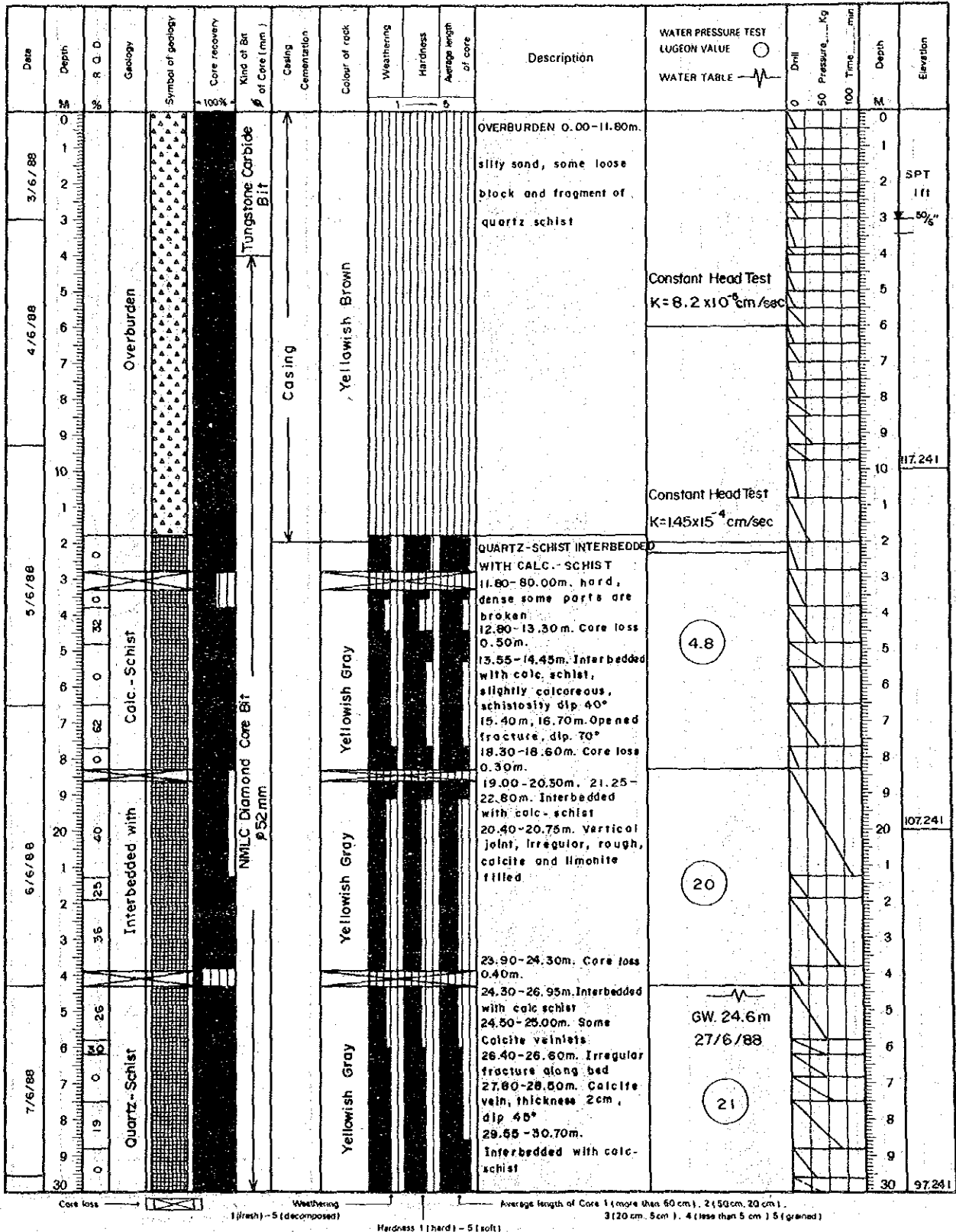
# LOG OF BORING

Project MAE LAMA LUANG DAM Location Power House (Right Abutment) Boring No. LY/PH-1 Log No. 2 of 2  
 Co-ordinates N1866,244.181 E 371,997.714 Elevation 74.541m MSL Depth of Hole 50.00m Commenced 4/4/88  
 Angle from Horizontal 90° Core Recovery 97.8% Depth of Overburden 5.00m Completed 8/4/88  
 Bearing of Angle Hole --- Company E GAT Total length of core 48.90m Logged by H. Pattana  
K. Takeda



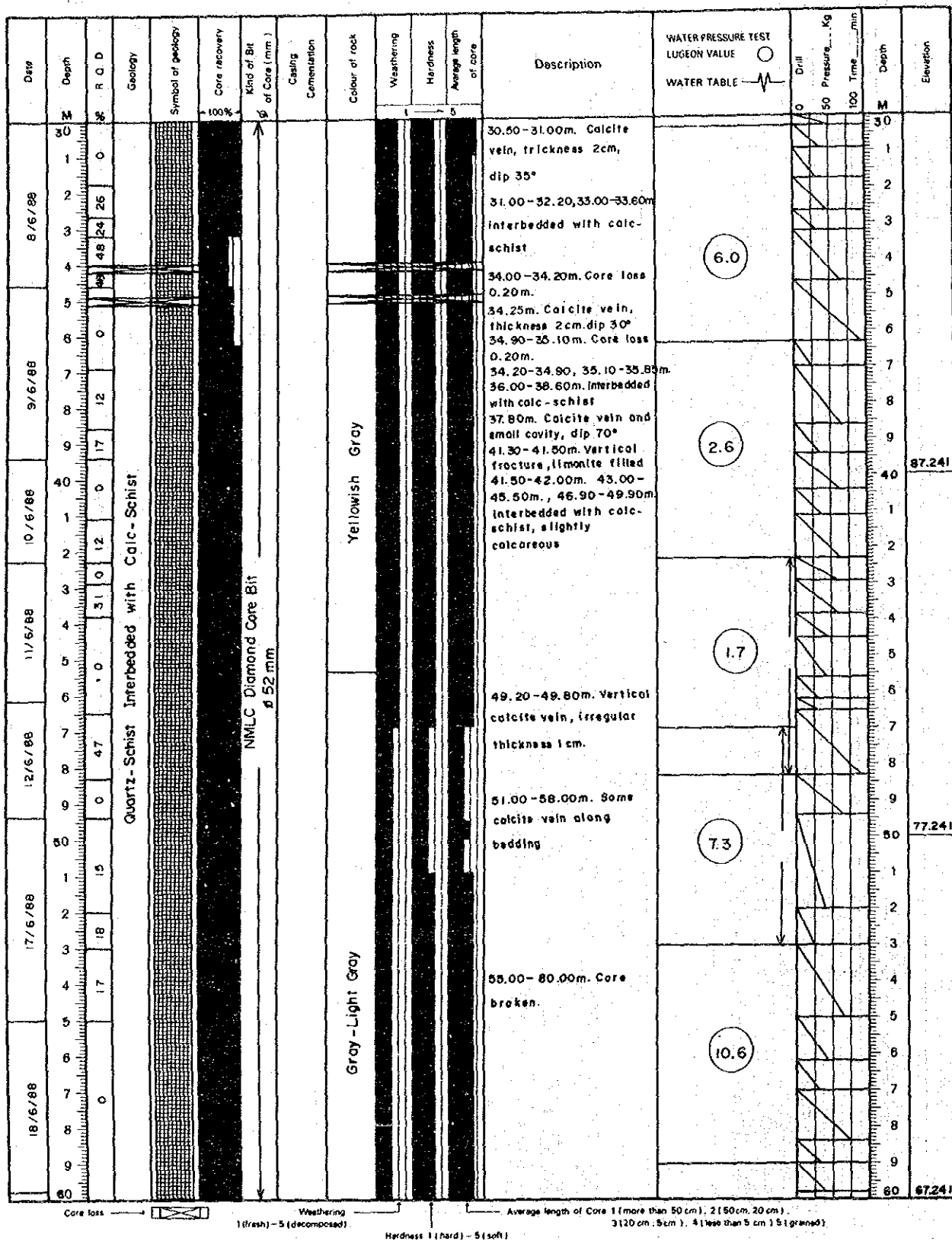
# LOG OF BORING

Project MAE LAMA LUANG DAM Location PowerHouse(Right Abutment) Boring No. LY/PH-2 Log No. 1 of 3  
 Co-ordinates N1966,316.450 E372,100.580 Elevation 127.241m MSL Depth of Hole 80.00m Commenced 3/6/88  
 Angle from Horizontal 90° Core Recovery 98% Depth of Overburden 11.80m Completed 27/6/88  
 Bearing of Angle Hole — Company EGAT Total length of core 78.40m Logged by H. Pattana  
K. Takeda



# LOG OF BORING

Project NAE LAMA LUANG DAM Location Power House (Right Abutment) Boring No. LY/PH-2 Log No. 2 of 3  
 Co-ordinates N 1966, 316,450 E 372, 100,580 Elevation 127.241m MSL Depth of Hole 80.00m Commenced 3/6/88  
 Angle from Horizontal 90° Core Recovery 98% Depth of Overburden 11.80m Completed 27/6/88  
 Bearing of Angle Hole — Company EGAT Total length of core 78.40m Logged by H. Pattana  
K. Takeda



# LOG OF BORING

Project MAE LAMA LUANG DAM Location Power House (Right Abutment) Boring No. LY/PH-2 Log No. 3 of 3  
 Co-ordinates N 1966, 316, 450 E 372, 100, 580 Elevation 127.241 m MSL Depth of Hole 80.00 m Commenced 3/6/88  
 Angle from Horizontal 90° Core Recovery 98% Depth of Overburden 11.80 m Completed 27/6/88  
 Bearing of Angle Hole --- Company E G A T Total length of core 74.40 m Logged by H. Pottong, K. Tokeda

Date	Depth M	R.O.D. %	Geology	Symbol of geology	Core recovery +100%	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering 1 → 5	Hardness 1 → 5	Average length of core	Description	WATER PRESSURE TEST LUGON VALUE WATER TABLE	Drill 0 50 100 Pressure Kg Time min	Depth M	Elevation
19/6/88	60		Quartz - Schist Interbedded with Calc-Schist		100%	NMLC Diamond Core Bit ø 52 mm		Gray-Light Gray				62.60-62.80m. irregular fracture dip 70°, calcite filled	1.5		1	
	1														2	
	2	0													3	
	3														4	
20/6/88	4	24													5	
	5											66.50-75.00m. interbedded with calc- schist	11		6	
	6														7	
	7	0													8	
21/6/88	8														9	
	9														70	
24/6/88	1	25	Quartz - Schist Interbedded with Calc-Schist		100%	NMLC Diamond Core Bit ø 52 mm		Gray-Light Gray				71.40-73.00m. Some calcite vein along bedding	9.9		1	
	2	47													2	
25/6/88	3														3	
	4	0													4	
	5														5	
26/6/88	6														6	
	7	11													7	
	8														8	
27/6/88	9	0													9	
	80											Bottom of Hole 80.00m			80	
	1														1	
	2														2	
	3														3	
	4														4	
	5														5	
	6														6	
	7														7	
	8														8	
	9														9	
	0														0	

Core loss

Weathering  
1 (fresh) - 5 (decomposed)

Hardness 1 (hard) - 5 (soft)

Average length of Core 1 (more than 60 cm), 2 (50 cm, 20 cm),  
3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)

# LOG OF BORING

Project MAE LAMA LUANG DAM Location Intake Structure Boring No. LY/DI-1 Log No. 1 of 2  
 Co-ordinates N1,966,204.002, E 372,341,145 Elevation 150.880m MSL Depth of Hole 56.00m Commenced 13/5/87  
 Angle from Horizontal 90° Core Recovery 77.05% Depth of Overburden 1.80m Completed 20/5/87  
 Bearing of Angle Hole --- Company EG AT Total length of core 43.15m Logged by V. Punpong  
K. Takeda

Date	Depth M	R Q D %	Geology	Symbol of geology	Core recovery 100%	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE	Drill Pressure, Kg 50 100 Time, min	Depth M	Elevation
13/5/87	0		Over-Burden					Reddish Brown				Overburden: Silty sand with some rock fragments, reddish brown.			0	
	1											(1.60 - 25.00m.)			1	
	2											Limestone interbedded with sandy Limestone, slightly weathered to fresh, Limestone: Pale gray, hard, dense, massive, fine grained to cryptocrystalline.			2	
	3	100													3	
	4	100													4	
	5	100													5	
	6	100													6	
	7	0													7	
	8	0													8	
	9	0													9	
	10	0													10	140.880
14/5/87	1	0													1	
	2	0											0.9		2	
	3	100													3	
	4	100													4	
	5	100													5	
	6	61.5													6	
	7	0													7	
	8	0													8	
	9	80													9	
	20	0													20	130.880
15/5/87	1	80													1	
	2	0													2	
	3	0													3	
	4	0													4	
	5	0													5	
	6	0													6	
	7	0													7	
	8	0													8	
	9	0													9	
	20	0													20	
16/5/87	1	0													1	
	2	0													2	
	3	0													3	
	4	0													4	
	5	0													5	
	6	0													6	
	7	0													7	
	8	0													8	
	9	0													9	
	30	0													30	120.880
17/5/87																

Core loss →

Weathering  
1 (fresh) - 5 (decomposed)

Hardness 1 (hard) - 5 (soft)

Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm) 1.5 (grained)



# LOG OF BORING

Project MAE LAMA LUANG DAM Location Intake Structure Boring No. LY/DI - 1 Log No. 2 of 2  
 Co-ordinates N1966,204.002 E372,341.145 Elevation 150.880m MSL Depth of Hole 56.00m Commenced 13/5/87  
 Angle from Horizontal 90° Core Recovery 77.05% Depth of Overburden 1.80m Completed 20/5/87  
 Bearing of Angle Hole — Company EGAT Total length of core 43.15m Logged by V. Punpong  
K. Takeda

Date	Depth	R.O.D.	Geology	Symbol of geology	Core recovery	Kind of Bit Ø of Core (mm.)	Casing Cementation	Colour of rock	Weathering	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE	WATER TABLE	Drill Pressure Kg	Time min	Depth	Elevation
	M	%			100%						1 — 5						M	
17/5/87	30	0	Limestone					Pale Gray to White				Soft, some parts are loose.	4.9				30	30
1	0	1																
2	0	2																
3	0	3																
4	0	4																
5	0	5																
6	0	6																
7	0	7																
8	0	8																
9	0	9																
40	0	40	Limestone with Phyllitic Rock					Greenish Gray				Sheared zone at 26.50-40.00m. (with clay gouge) core lost at.				40	110.880	
1	0	1																
2	0	2																
3	0	3																
4	0	4																
5	0	5																
6	0	6																
7	0	7																
8	0	8																
9	0	9																
18/5/87	40	0										37.60-39.50				40		
1	0	1																
2	0	2																
3	0	3																
4	0	4																
5	0	5																
6	0	6																
7	0	7																
8	0	8																
9	0	9																
50	0	50										Iron Oxide stain down to 32.00m.				50		
1	0	1																
2	0	2																
3	0	3																
4	0	4																
5	0	5																
6	0	6																
7	0	7																
8	0	8																
9	0	9																
19/5/87	50	0										(40.00-56.00m.)				50	100.880	
1	0	1																
2	0	2																
3	0	3																
4	0	4																
5	0	5																
6	0	6																
7	0	7																
8	0	8																
9	0	9																
20/5/87	56	0										Most joints 30° planar, smooth or rough some joints 10° curve				56	94.880	
1	0	1																
2	0	2																
3	0	3																
4	0	4																
5	0	5																
7		7																
8		8																
9		9																
30		30										Bottom of Hole 560m Elevation 94.88mMSL				30		

Core loss

Weathering

1 (fresh) — 5 (decomposed)

Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)

Hardness 1 (hard) — 5 (soft)

Core loss 

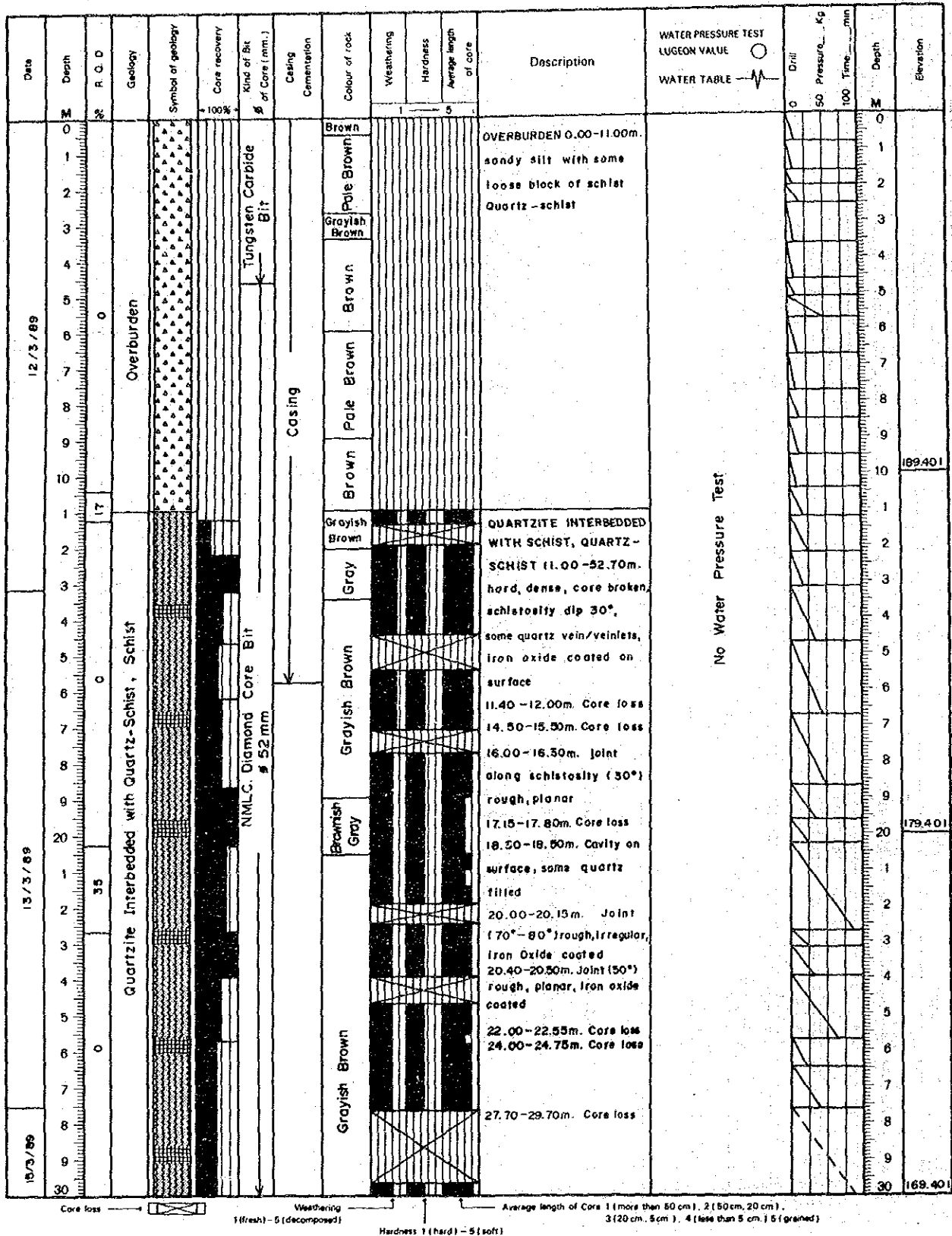
Weathering  
1(fresh) - 5(decomposed)

Hardness 1(hard) - 5(soft)

Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)






















# LOG OF BORING


Project MAE LAMA LUANG DAM Location Quarry Site Boring No. LY/QSB-1 Log No. 1 of 2  
 Co-ordinates N1,965,878.998 E 372,750.778 Elevation 199.40 m MSL Depth of Hole 52.70m Commenced 12/3/89  
 Angle from Horizontal 90° Core Recovery 75% Depth of Overburden 2.65 m Completed 20/3/89  
 Bearing of Angle Hole — Company E G A T Total length of core 39.60 m Logged by H. Pattana  
K. Takeda



# LOG OF BORING

Project MAE LAMA LUANG DAM Location Quarry Site Boring No. LY/QSB-1 Log No. 2 of 2  
 Co-ordinates N1865,878.998 E372,750.778 Elevation 199.40m MSL Depth of Hole 52.70m Commenced 12/3/89  
 Angle from Horizontal 90° Core Recovery 75% Depth of Overburden 11.00m Completed 20/3/89  
 Bearing of Angle Hole --- Company E G A T Total length of core 39.60m Logged by H. Pattana  
K. Takeda

Date	Depth M	R.Q.D. %	Geology	Symbol of geology	Core recovery 100%	Kind of Bit of Core (mm.)	Casing Cementation	Colour of rock	Weathering 1 5	Hardness	Average length of core	Description	WATER PRESSURE TEST LUGEON VALUE  WATER TABLE 	Drill Kg Pressure Time min	Depth M	Elevation
15/3/89	30		Quartzite Interbedded with Quartz - Schist, Schist		100%	NMLC Diamond Core Bit ø 52mm		Brownish Gray				31.40-31.90m. Core loss	No Water Pressure Test		1	
	1											32.70-32.85m. Core loss			2	
	2											33.10-33.30m. Core loss			3	
	3											34.35-34.90m. Core loss			4	
	4											37.00-37.65m. Core loss			5	
	5											38.25-39.00m. Core loss			6	
	6											41.10-42.00m. Core loss			7	
	7											42.55-43.00m. Core loss			8	
	8											43.30-43.50m. Core loss			9	
	9											43.50-44.25m. Core loss			10	
	10											44.80-47.25m. cavity			11	
	11														12	
	12														13	
	13														14	
	14														15	
17/3/88	40														40	159.401
	1														1	
	2														2	
	3														3	
	4														4	
	5														5	
	6														6	
	7														7	
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	46														46	
	47														47	
	48														48	
	49														49	
	50														50	149.401
	51														51	
	52														52	146.701
	53														53	
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	79														79	
	80														80	

Core loss  Weathering 1 (fresh) - 5 (decomposed) Average length of Core 1 (more than 50 cm), 2 (50 cm, 20 cm), 3 (20 cm, 5 cm), 4 (less than 5 cm), 5 (grained)  
 Hardness 1 (hard) - 5 (soft)

