

OPEN - END PERMEABILITY TEST

(Sheet 5 of 5)

PROJECT : G.I. At Upper Liwagu Mini Hydro Project Site HOLE No. LT-2

LOCATION Head Pond DATE OF TEST 14-1-92 TESTED BY Ampahon & Litto

GROUND ELEVATION 1035.53 m SIZE OF CASING NW CHECKED BY M. Liew

GEOLOGICAL CONDITION OF THE BOTTOM OF DRILL HOLE Reddish brown sandy silty CLAY

DEPTH FROM GROUND SURFACE TO THE BOTTOM OF CASING 1000 cm

HEIGHT FROM GROUND SURFACE TO THE TOP OF CASING 66 cm

INTERNAL RADIUS OF CASING : r = 3.9 cm

GROUND TEMPERATURE 25 °C WATER TEMPERATURE 20 °C

DEPTH FROM GROUND SURFACE TO WATER SURFACE IN THE DRILL HOLE BEFORE TEST 271 cm

DEPTH FROM GROUND SURFACE TO WATER SURFACE IN THE DRILL HOLE AFTER TEST 17 cm

Time		Differential Head Of Water H (cm)	Water Volume			Coefficient Of Permeability K (cm/sec)
Clock Hr min	min		Accum. Flow (lt)	Diff. Flow (lt/min)	Constant Rate Of Flow Q (cm <sup>3</sup> /sec)	
13	50		0	0		
13	55		0	0		
14	00		0	0		
14	05		0	0		
14	10		0	0		
14	15		0.1	0.02	0.33	4.57x10 <sup>-5</sup>
14	20	337	0.1	0		
14	25		0.1	0		
14	30		0.1	0		
14	35		0.15	0.01	0.17	2.35x10 <sup>-5</sup>
14	40		0.15	0		
14	45		0.15	0		
14	50		0.15	0		

Constant Rate Of Flow For Steady State Condition : Q = 0.25 cm<sup>3</sup>/sec

Coefficient Of Permeability For Steady State Condition : K = 3.46x10<sup>-5</sup> cm/sec

OPEN - END PERMEABILITY TEST

(Sheet 1 of 5 )

PROJECT : G.I. At Upper Liwagu Mini Hydro Project Site HOLE No. LP-1  
 LOCATION Penstock DATE OF TEST 6-12-91 TESTED BY LU  
 GROUND ELEVATION 975.08 m SIZE OF CASING NW CHECKED BY M. Liew  
 GEOLOGICAL CONDITION OF THE BOTTOM OF DRILL HOLE Yellowish orange sandy silty CLAY

DEPTH FROM GROUND SURFACE TO THE BOTTOM OF CASING 200 cm  
 HEIGHT FROM GROUND SURFACE TO THE TOP OF CASING 100 cm  
 INTERNAL RADIUS OF CASING : r = 3.90 cm  
 GROUND TEMPERATURE 25 °C WATER TEMPERATURE 20 °C  
 DEPTH FROM GROUND SURFACE TO WATER SURFACE IN THE DRILL HOLE BEFORE TEST 30 cm  
 DEPTH FROM GROUND SURFACE TO WATER SURFACE IN THE DRILL HOLE AFTER TEST 100 cm

Time		Differential Head Of Water H (cm)	Water Volume			Coefficient Of Permeability K (cm/sec)
Clock	Hr min min		Accum. Flow (lt)	Diff. Flow (lt/min)	Constant Rate Of Flow Q (cm <sup>3</sup> /sec)	
16	17 90		0.20			
16	22 95		0.20	0		
16	27 100		0.20	0		
16	32 105		0.20	0		
16	37 110		0.20	0		
16	42 115	130	0.30	0.02	0.33	1.18X10 <sup>-4</sup>
16	47 120		0.30	0		
16	52 125		0.30	0		
16	57 130		0.30	0		
17	02 135		0.30	0		
17	07 140		0.30	0		
17	12 145		0.30	0		
17	17 150		0.30	0		

Constant Rate Of Flow For Steady State Condition : Q = 0.33 cm<sup>3</sup>/sec

Coefficient Of Permeability For Steady State Condition : K = 1.18X10<sup>-4</sup> cm/sec

OPEN - END PERMEABILITY TEST

(Sheet 2 of 5 )

PROJECT : G.I. At Upper Liwagu Mini Hydro Project Site HOLE No. LP-1

LOCATION Penstock DATE OF TEST 7-12-91 TESTED BY LU

GROUND ELEVATION 975.08 m SIZE OF CASING NW CHECKED BY M. Liew

GEOLOGICAL CONDITION OF THE BOTTOM OF DRILL HOLE Yellowish orange sandy silty CLAY

DEPTH FROM GROUND SURFACE TO THE BOTTOM OF CASING 400 cm

HEIGHT FROM GROUND SURFACE TO THE TOP OF CASING 60 cm

INTERNAL RADIUS OF CASING :  $r =$  3.90 cm

GROUND TEMPERATURE 25 °C WATER TEMPERATURE 20 °C

DEPTH FROM GROUND SURFACE TO WATER SURFACE IN THE DRILL HOLE BEFORE TEST 96 cm

DEPTH FROM GROUND SURFACE TO WATER SURFACE IN THE DRILL HOLE AFTER TEST 2 cm

Time		Differential Head Of Water H (cm)	Water Volume			Coefficient Of Permeability K (cm/sec)
Clock	min		Accum. Flow (lt)	Diff. Flow (lt/min)	Constant Rate Of Flow Q (cm <sup>3</sup> /sec)	
14	52		0			
14	57		0	0		
15	02		0	0		
15	07		0	0		
15	12		0	0		
15	17		0.2	0.04	0.67	$2.00 \times 10^{-4}$
15	22	156	0.2	0		
15	27		0.2	0		
15	32		0.2	0		
15	37		0.4	0.04	0.67	$2.00 \times 10^{-4}$
15	42		0.4	0		
15	47		0.4	0		
15	52		0.4	0		

Constant Rate Of Flow For Steady State Condition :  $Q =$  0.67 cm<sup>3</sup>/sec

Coefficient Of Permeability For Steady State Condition :  $K =$   $2.00 \times 10^{-4}$  cm/sec

OPEN - END PERMEABILITY TEST

(Sheet 3 of 5)

PROJECT : G.I. At Upper Liwagu Mini Hydro Project Site HOLE No. Lp-1

LOCATION Penstock DATE OF TEST 8-12-91 TESTED BY LU

GROUND ELEVATION 975.08 m SIZE OF CASING NW CHECKED BY M. Liew

GEOLOGICAL CONDITION OF THE BOTTOM OF DRILL HOLE Yellowish grey weathered

SANDSTONE

DEPTH FROM GROUND SURFACE TO THE BOTTOM OF CASING 642 cm

HEIGHT FROM GROUND SURFACE TO THE TOP OF CASING 42 cm

INTERNAL RADIUS OF CASING :  $r =$  3.9 cm

GROUND TEMPERATURE 25 °C WATER TEMPERATURE 20 °C

DEPTH FROM GROUND SURFACE TO WATER SURFACE IN THE DRILL HOLE BEFORE TEST 247 cm

DEPTH FROM GROUND SURFACE TO WATER SURFACE IN THE DRILL HOLE AFTER TEST 15 cm

Time		Differential Head Of Water H (cm)	Water Volume			Coefficient Of Permeability K (cm/sec)
Clock	min		Accum. Flow (lt)	Diff. Flow (lt/min)	Constant Rate Of Flow Q (cm <sup>3</sup> /sec)	
11	55	0	0			
12	00		1.20	0.24	4.00	6.45X10 <sup>-4</sup>
12	05		2.45	0.25	4.17	6.73X10 <sup>-4</sup>
12	10		3.60	0.23	3.83	6.18X10 <sup>-4</sup>
12	15		4.90	0.26	4.33	6.98X10 <sup>-4</sup>
12	20		6.05	0.23	3.83	6.18X10 <sup>-4</sup>
12	25	289	7.55	0.30	5.00	8.07X10 <sup>-4</sup>
12	30		8.80	0.25	4.17	6.73X10 <sup>-4</sup>
12	35		9.95	0.23	3.83	6.18X10 <sup>-4</sup>
12	40		11.25	0.26	4.33	6.98X10 <sup>-4</sup>
12	45		12.25	0.20	3.33	5.37X10 <sup>-4</sup>
12	50		13.45	0.24	4.00	6.45X10 <sup>-4</sup>
12	55		14.80	0.27	4.50	7.26X10 <sup>-4</sup>

Constant Rate Of Flow For Steady State Condition :  $Q =$  4.11 cm<sup>3</sup>/sec

Coefficient Of Permeability For Steady State Condition :  $K =$  6.63X10<sup>-4</sup> cm/sec

OPEN - END PERMEABILITY TEST

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PROJECT : G.I. At Upper Liwagu Mini Hydro Project Site HOLE No. LP-1

LOCATION Penstock DATE OF TEST 9-12-91 TESTED BY LU

GROUND ELEVATION 975.08 m SIZE OF CASING NW CHECKED BY M. Liew

GEOLOGICAL CONDITION OF THE BOTTOM OF DRILL HOLE Light grey fine-grained SANDSTONE

DEPTH FROM GROUND SURFACE TO THE BOTTOM OF CASING 835 cm

HEIGHT FROM GROUND SURFACE TO THE TOP OF CASING 25 cm

INTERNAL RADIUS OF CASING : r = 3.90 cm

GROUND TEMPERATURE 25 °C WATER TEMPERATURE 20 °C

DEPTH FROM GROUND SURFACE TO WATER SURFACE IN THE DRILL HOLE BEFORE TEST 647 cm

DEPTH FROM GROUND SURFACE TO WATER SURFACE IN THE DRILL HOLE AFTER TEST 155 cm

Time		Differential Head Of Water H (cm)	Water Volume			Coefficient Of Permeability K (cm/sec)
Clock Hr min	min		Accum. Flow (lt)	Diff. Flow (lt/min)	Constant Rate Of Flow Q (cm <sup>3</sup> /sec)	
10	08		0			
10	13		3.60	0.72	12.00	8.33X10 <sup>-4</sup>
10	18		7.00	0.68	11.33	7.86X10 <sup>-4</sup>
10	23		10.40	0.68	11.33	7.86X10 <sup>-4</sup>
10	28		14.15	0.75	12.50	8.67X10 <sup>-4</sup>
10	33		17.65	0.70	11.67	8.10X10 <sup>-4</sup>
10	38	672	21.20	0.71	11.83	8.21X10 <sup>-4</sup>
10	43		24.95	0.75	12.5	8.67X10 <sup>-4</sup>
10	48		28.35	0.68	11.33	7.86X10 <sup>-4</sup>
10	53		31.90	0.71	11.83	8.21X10 <sup>-4</sup>
10	58		35.35	0.69	11.50	7.98X10 <sup>-4</sup>
11	03		39.00	0.73	12.17	8.44X10 <sup>-4</sup>
11	08		42.70	0.74	12.33	8.55X10 <sup>-4</sup>

Constant Rate Of Flow For Steady State Condition : Q = 12.83 cm<sup>3</sup>/sec

Coefficient Of Permeability For Steady State Condition : K = 8.90X10<sup>-4</sup> cm/sec

OPEN - END PERMEABILITY TEST

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PROJECT : G.I. At Upper Liwagu Mini Hydro Project Site HOLE No. LP-1

LOCATION Penstock DATE OF TEST 9-12-91 TESTED BY LU

GROUND ELEVATION 975.08 m SIZE OF CASING NW CHECKED BY M. Liew

GEOLOGICAL CONDITION OF THE BOTTOM OF DRILL HOLE Light grey fine-grained SANDSTONE

DEPTH FROM GROUND SURFACE TO THE BOTTOM OF CASING 1000 cm

HEIGHT FROM GROUND SURFACE TO THE TOP OF CASING 56 cm

INTERNAL RADIUS OF CASING :  $r =$  3.9 cm

GROUND TEMPERATURE 25 °C WATER TEMPERATURE 20 °C

DEPTH FROM GROUND SURFACE TO WATER SURFACE IN THE DRILL HOLE BEFORE TEST 160 cm

DEPTH FROM GROUND SURFACE TO WATER SURFACE IN THE DRILL HOLE AFTER TEST 10 cm

Time		Differential Head Of Water H (cm)	Water Volume			Coefficient Of Permeability K (cm/sec)
Clock	Hr min min		Accum. Flow (lt)	Diff. Flow (lt/min)	Constant Rate Of Flow Q (cm <sup>3</sup> /sec)	
13	50	0	0			
13	55		0.2	0.04	0.67	$1.45 \times 10^{-4}$
14	00		0.2	0		
14	05		0.4	0.04	0.67	$1.45 \times 10^{-4}$
14	10		0.4	0		
14	15		0.4	0		
14	20	216	0.6	0.04	0.67	$1.45 \times 10^{-4}$
14	25		0.6	0		
14	30		0.6	0		
14	35		0.8	0.04	0.67	$1.45 \times 10^{-4}$
14	40		0.8	0		
14	45		0.8	0		
14	50		0.8	0		

Constant Rate Of Flow For Steady State Condition :  $Q =$  0.67 cm<sup>3</sup>/sec

Coefficient Of Permeability For Steady State Condition :  $K =$   $1.45 \times 10^{-4}$  cm/sec

OPEN - END PERMEABILITY TEST

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PROJECT : G.I. At Upper Liwagu Mini Hydro Project Site HOLE NO. LP-2

LOCATION Penstock DATE OF TEST 21-1-92 TESTED BY Andy

GROUND ELEVATION 913.65 m SIZE OF CASING NW CHECKED BY M. Liew

GEOLOGICAL CONDITION OF THE BOTTOM OF DRILL HOLE Brown sandy silty CLAY

DEPTH FROM GROUND SURFACE TO THE BOTTOM OF CASING 200 cm

HEIGHT FROM GROUND SURFACE TO THE TOP OF CASING 53 cm

INTERNAL RADIUS OF CASING : r = 3.9 cm

GROUND TEMPERATURE 25 °C WATER TEMPERATURE 20 °C

DEPTH FROM GROUND SURFACE TO WATER SURFACE IN THE DRILL HOLE BEFORE TEST 185 cm

DEPTH FROM GROUND SURFACE TO WATER SURFACE IN THE DRILL HOLE AFTER TEST 7.5 cm

Time		Differential Head Of Water H (cm)	Water Volume			Coefficient Of Permeability K (cm/sec)
Hr	min		Accum. Flow (lt)	Diff. Flow (lt/min)	Constant Rate Of Flow Q (cm <sup>3</sup> /sec)	
09	05		0			
09	10		0.45	0.09	1.50	2.93X10 <sup>-4</sup>
09	15		0.95	0.10	1.67	3.27X10 <sup>-4</sup>
09	20		1.40	0.09	1.50	2.94X10 <sup>-4</sup>
09	25		2.00	0.12	2.00	3.92X10 <sup>-4</sup>
09	30		2.35	0.07	1.17	2.29X10 <sup>-4</sup>
09	35	238	2.80	0.09	1.50	2.94X10 <sup>-4</sup>
09	40		3.20	0.08	1.33	2.61X10 <sup>-4</sup>
09	45		3.65	0.09	1.50	2.94X10 <sup>-4</sup>
09	50		4.10	0.09	1.50	2.94X10 <sup>-4</sup>
09	55		4.50	0.08	1.33	2.61X10 <sup>-4</sup>
10	00		4.90	0.08	1.33	2.61X10 <sup>-4</sup>
10	05		5.35	0.09	1.50	2.94X10 <sup>-4</sup>

Constant Rate Of Flow For Steady State Condition : Q = 1.49 cm<sup>3</sup>/sec

Coefficient Of Permeability For Steady State Condition : K = 2.92X10<sup>-4</sup> cm/sec

OPEN - END PERMEABILITY TEST

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G.I. At Upper Liwagu Mini Hydro Project Site

LP-2

Penstock DATE 21-1-92 TESTED BY Andy

GROUND ELEVATION 913.65 m SIZE OF PASTA NW DISCOVERED BY M. Liew

GENERAL CONDITION OF THE BOTTOM OF DRILL HOLE Yellowish brown sandy silty CLAY

DEPTH FROM GROUND SURFACE TO THE BOTTOM OF CASING 395 cm

HEIGHT FROM GROUND SURFACE TO THE TOP OF CASING 58 cm

INTERNAL RADIUS OF CASING : r = 3.9 cm

GROUND TEMPERATURE 25 °C WATER TEMPERATURE 20 °C

DEPTH FROM GROUND SURFACE TO WATER SURFACE IN THE DRILL HOLE BEFORE TEST 123 cm

DEPTH FROM GROUND SURFACE TO WATER SURFACE IN THE DRILL HOLE AFTER TEST 24 cm

Time		Differential Head Of Water H (cm)	Water Volume			Coefficient Of Permeability K (cm/sec)
Clock	min		Accum. Flow (lt)	Diff. Flow (lt/min)	Constant Rate Of Flow Q (cm <sup>3</sup> /sec)	
13	10		0			
13	15		4.20	0.84	14	3.61x10 <sup>-3</sup>
13	20		8.00	0.76	12.67	3.26x10 <sup>-3</sup>
13	25		11.50	0.70	11.67	3.01x10 <sup>-3</sup>
13	30		15.90	0.88	14.67	3.78x10 <sup>-3</sup>
13	35		19.70	0.76	12.67	3.26x10 <sup>-3</sup>
13	40	59.23	24.20	0.90	15.00	3.86x10 <sup>-3</sup>
13	45		28.20	0.80	13.33	3.43x10 <sup>-3</sup>
13	50		31.70	0.70	11.67	3.01x10 <sup>-3</sup>
13	55		35.70	0.80	13.33	3.43x10 <sup>-3</sup>
14	00		40.30	0.92	15.33	3.95x10 <sup>-3</sup>
14	05		43.80	0.70	11.67	3.01x10 <sup>-3</sup>
14	10		47.80	0.80	13.33	3.43x10 <sup>-3</sup>

Constant Rate Of Flow For Steady State Condition : Q = 13.28 cm<sup>3</sup>/sec

Coefficient Of Permeability For Steady State Condition : K = 3.42x10<sup>-3</sup> cm/sec



OPEN - END PERMEABILITY TEST

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LOCATION : G.I. At Upper Liwagu Mini Hydro Project Site HOLE NO. Lp-2

LOCATION Penstock DATE OF TEST 22-1-92 TESTED BY Andy

GROUND ELEVATION 913.65 m SIZE OF CASING NW CHECKED BY M. Liew

GEOMORPHOLOGICAL CONDITION OF THE BOTTOM OF DRILL HOLE Brown sandy silty CLAY

DEPTH FROM GROUND SURFACE TO THE BOTTOM OF CASING 600 cm

HEIGHT FROM GROUND SURFACE TO THE TOP OF CASING 61 cm

INTERNAL RADIUS OF CASING :  $r =$  3.9 cm

GROUND TEMPERATURE 25 °C WATER TEMPERATURE 20 °C

DEPTH FROM GROUND SURFACE TO WATER SURFACE IN THE DRILL HOLE BEFORE TEST 580 cm

DEPTH FROM GROUND SURFACE TO WATER SURFACE IN THE DRILL HOLE AFTER TEST 6.5 cm

Time		Differential Head Of Water H (cm)	Water Volume			Coefficient Of Permeability K (cm/sec)
Clock Hr min	min		Accum. Flow (lt)	Diff. Flow (lt/min)	Constant Rate Of Flow Q (cm <sup>3</sup> /sec)	
07	20		0			
07	25		0.25	0.05	0.83	6.04X10 <sup>-5</sup>
07	30		0.50	0.05	0.83	6.04X10 <sup>-5</sup>
07	35		0.72	0.044	0.73	5.31X10 <sup>-5</sup>
07	40		1.00	0.056	0.93	6.76X10 <sup>-5</sup>
07	45		1.20	0.04	0.67	4.87X10 <sup>-5</sup>
07	50	641	1.45	0.05	0.83	6.04X10 <sup>-5</sup>
07	55		1.60	0.03	0.50	3.64X10 <sup>-5</sup>
08	00		1.85	0.05	0.83	6.04X10 <sup>-5</sup>
08	05		2.05	0.04	0.67	4.87X10 <sup>-5</sup>
08	10		2.30	0.05	0.83	6.04X10 <sup>-5</sup>
08	15		2.55	0.05	0.83	6.04X10 <sup>-5</sup>
08	20		2.75	0.04	0.67	4.87X10 <sup>-5</sup>

Constant Rate Of Flow For Steady State Condition :  $Q =$  0.76 cm<sup>3</sup>/sec

Coefficient Of Permeability For Steady State Condition :  $K =$  5.53X10<sup>-5</sup> cm/sec

OPEN - END PERMEABILITY TEST

(Sheet 4 of 5)

PROJECT : G.I. At Upper Liwagu Mini Hydro Project Site HOLE No. Lp-2

LOCATION : Penstock DATE OF TEST 23-1-92 TESTED BY Andy

GROUND ELEVATION: 913.65 m SIZE OF CASING: NW CHECKED BY M. Liew

GEOLOGICAL CONDITION OF THE BOTTOM OF DRILL HOLE: Grey weathered fine-grained SANDSTONE

DEPTH FROM GROUND SURFACE TO THE BOTTOM OF CASING: 890 cm

HEIGHT FROM GROUND SURFACE TO THE TOP OF CASING: 66 cm

INTERNAL RADIUS OF CASING : r = 3.9 cm

GROUND TEMPERATURE 25 °C WATER TEMPERATURE 20 °C

DEPTH FROM GROUND SURFACE TO WATER SURFACE IN THE DRILL HOLE BEFORE TEST 405 cm

DEPTH FROM GROUND SURFACE TO WATER SURFACE IN THE DRILL HOLE AFTER TEST 13 cm

Time		Differential Head Of Water H (cm)	Water Volume			Coefficient Of Permeability K (cm/sec)
Clock Hr min	min		Accum. Flow (lt)	Diff. Flow (lt/min)	Constant Rate Of Flow Q (cm <sup>3</sup> /sec)	
10	35		0			
10	40		1.20	0.24	4.00	3.96x10 <sup>-4</sup>
10	45		2.45	0.25	4.17	4.13x10 <sup>-4</sup>
10	50		3.20	0.15	2.50	2.47x10 <sup>-4</sup>
10	55		4.05	0.17	2.83	2.80x10 <sup>-4</sup>
11	00		5.15	0.22	3.67	3.63x10 <sup>-4</sup>
11	05	70.05	6.20	0.21	3.50	3.46x10 <sup>-4</sup>
11	10		7.30	0.22	3.67	3.63x10 <sup>-4</sup>
11	15		8.45	0.23	3.83	3.79x10 <sup>-4</sup>
11	20		9.50	0.21	3.50	3.46x10 <sup>-4</sup>
11	25		10.45	0.19	3.17	3.14x10 <sup>-4</sup>
11	30		11.35	0.18	3.00	2.97x10 <sup>-4</sup>
11	35		12.40	0.21	3.50	2.31x10 <sup>-4</sup>

Constant Rate Of Flow For Steady State Condition : Q = 3.45 cm<sup>3</sup>/sec

Coefficient Of Permeability For Steady State Condition : K = 3.41x10<sup>-4</sup> cm/sec

OPEN - END PERMEABILITY TEST

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PROJECT: G.I. At Upper Liwagu Mini Hydro Project Site HOLE NO.: LP-2  
 LOCATION: Penstock DATE OF TEST: 23-1-92 TESTER: Andy  
 GROUND ELEVATION: 913.65 m SIZE OF CASING: NW CHECKED BY: M. Liew  
 GEOLOGICAL CONDITION OF THE BOTTOM OF DRILL HOLE: Grey fine-grained SANDSTONE

DEPTH FROM GROUND SURFACE TO THE BOTTOM OF CASING: 1000 cm  
 HEIGHT FROM GROUND SURFACE TO THE TOP OF CASING: 74 cm  
 INTERNAL RADIUS OF CASING : r = 3.9 cm  
 GROUND TEMPERATURE: 25 °C WATER TEMPERATURE: 20 °C  
 DEPTH FROM GROUND SURFACE TO WATER SURFACE IN THE DRILL HOLE BEFORE TEST: 237 cm  
 DEPTH FROM GROUND SURFACE TO WATER SURFACE IN THE DRILL HOLE AFTER TEST: 22 cm

Time		Differential Head Of Water H (cm)	Water Volume			Coefficient Of Permeability K (cm/sec)
Clock	min		Accum. Flow (lt)	Diff. Flow (lt/min)	Constant Rate Of Flow Q (cm <sup>3</sup> /sec)	
16	45		0			
16	50		1.70	0.34	5.67	8.50x10 <sup>-4</sup>
16	55		3.20	0.30	5.00	7.50x10 <sup>-4</sup>
17	00		4.75	0.31	5.17	7.75x10 <sup>-4</sup>
17	05		6.15	0.28	4.67	7.00x10 <sup>-4</sup>
17	10		7.63	0.30	5.00	7.50x10 <sup>-4</sup>
17	15	76.37	9.08	0.29	4.83	7.24x10 <sup>-4</sup>
17	20		10.58	0.30	5.00	7.50x10 <sup>-4</sup>
17	25		11.98	0.28	4.67	7.00x10 <sup>-4</sup>
17	30		13.53	0.31	5.17	7.75x10 <sup>-4</sup>
17	35		15.08	0.31	5.17	7.75x10 <sup>-4</sup>
17	40		16.68	0.32	5.33	7.99x10 <sup>-4</sup>
17	45		18.33	0.33	5.50	8.24x10 <sup>-4</sup>

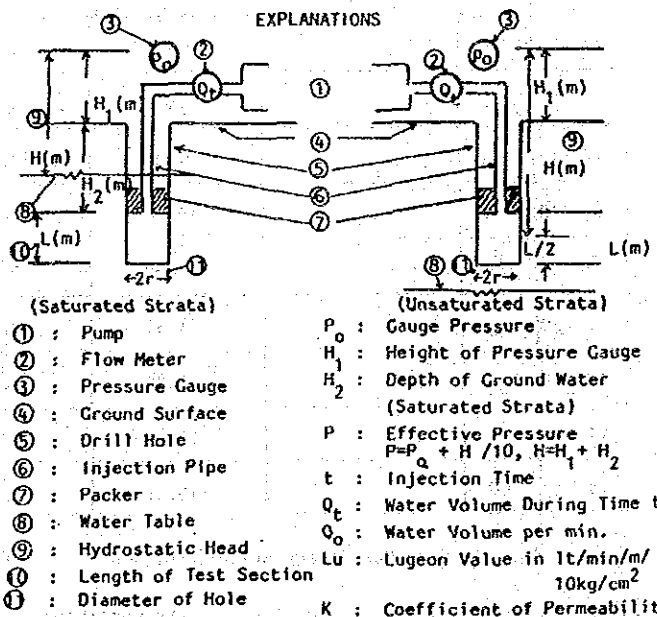
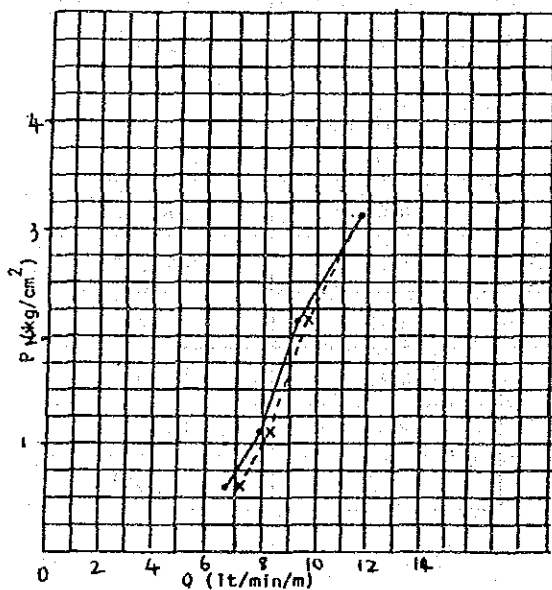
Constant Rate Of Flow For Steady State Condition : Q = 5.53 cm<sup>3</sup>/sec

Coefficient Of Permeability For Steady State Condition : K = 8.29x10<sup>-4</sup> cm/sec

PERMEABILITY TEST IN DRILL HOLE

PROJECT: G.I. At Upper Lowagu Mini Hydro Project Site HOLE No. L1-1 (Sheet      OF     )  
 LOCATION Sg. Liwagu Intake DEPTH OF HOLE 15 m TEST DATE 2-1-92  
 ELEVATION 1049.91 m DIAMETER OF HOLE 8.0 cm TESTED BY Lu  
E76 5742.5  
 COORDINATE N66 2788.5 DRILLED DEPTH 15 m DRILLED BY Wil  
 ANGLE FROM HORIZONTAL 90<sup>o</sup> LEVEL OF WATER TABLE: CHECKED BY M. Liew  
 Before Test: 0.45 m After Test: 0.40 m  
 TEST SECTION : FROM 10 m To 15 m

L (m)	H <sub>1</sub> (m)	H <sub>2</sub> (m)	H (m)	P <sub>0</sub> (kg/cm <sup>2</sup> )	P (kg/cm <sup>2</sup> )	t (min)	Q <sub>t</sub> (lt)	Q <sub>0</sub> (lt/min)	Q (lt/min/m)	Lu (Lugeon)	K (cm/sec)
5	0.84	0.45	1.29	0.50	0.629	10	335	33.50	6.70	106.52	1.36x10 <sup>-3</sup>
				1.00	1.129	10	398	39.80	7.96	70.50	9.03x10 <sup>-4</sup>
				2.00	2.129	10	469	46.90	9.38	44.06	5.64x10 <sup>-4</sup>
				3.00	3.129	10	587	58.7	11.74	37.52	4.81x10 <sup>-4</sup>
				2.00	2.129	10	486	48.60	9.72	45.66	5.85x10 <sup>-4</sup>
				1.00	1.129	10	407	40.70	8.14	72.10	9.23x10 <sup>-4</sup>
				0.50	0.629	10	360	36.0	7.20	114.45	1.47x10 <sup>-3</sup>

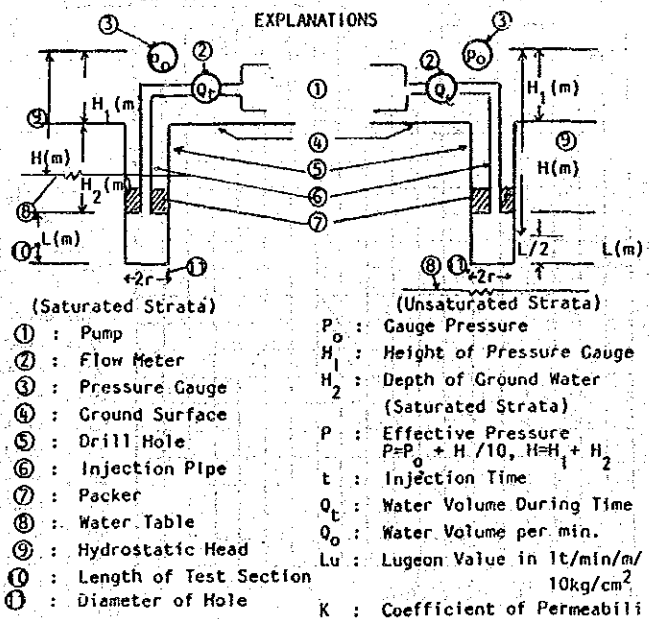
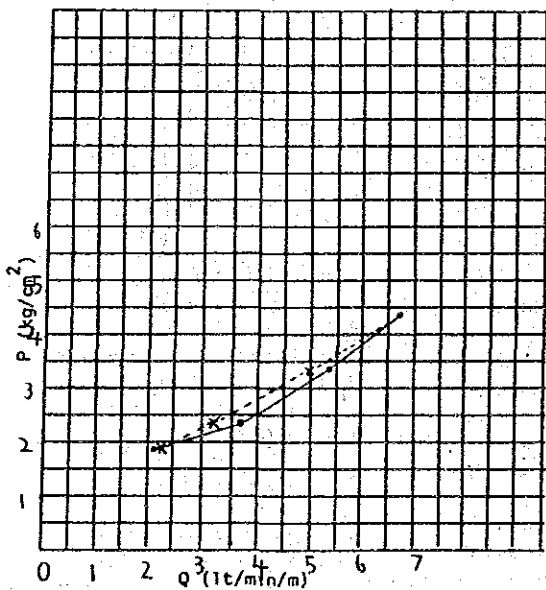




PERMEABILITY TEST IN DRILL HOLE

PROJECT: G.I. At Upper Liwagu Mfni Hydro Project Site HOLE No. LT-1 (Sheet      Of     )  
 LOCATION Head Pond DEPTH OF HOLE 15 m TEST DATE 22-1-92  
 ELEVATION 1031.62 m DIAMETER OF HOLE 8.0 cm TESTED BY Lu  
E76 7818  
 COORDINATE N66 1692.5 DRILLED DEPTH 15 m DRILLED BY Litto  
 ANGLE FROM HORIZONTAL 90° LEVEL OF WATER TABLE: CHECKED BY M. Liew  
 Before Test: 13.45 m After Test: 13.12 m  
 TEST SECTION : FROM 10 m To 15 m

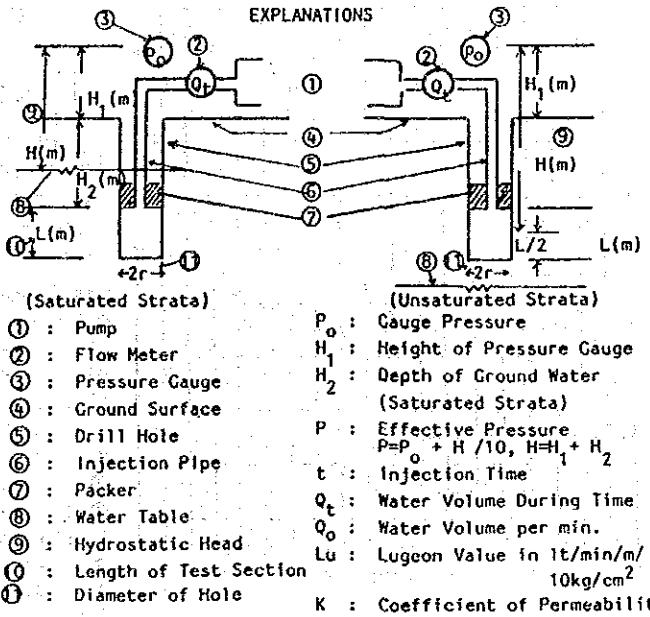
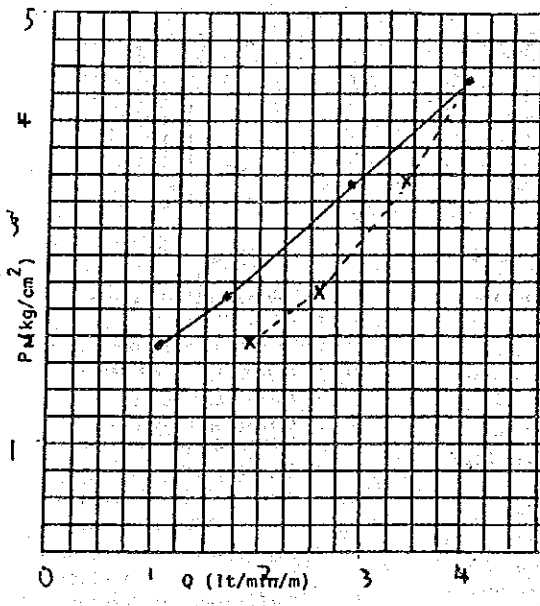
L (m)	H <sub>1</sub> (m)	H <sub>2</sub> (m)	H (m)	P <sub>0</sub> (kg/cm <sup>2</sup> )	P (kg/cm <sup>2</sup> )	t (min)	Q <sub>t</sub> (lt)	Q <sub>0</sub> (lt/min)	Q (lt/min/m)	Lu (Lugeon)	K (cm/sec)
5	0.69	13.45	14.14	0.50	1.819	10	108	10.80	2.16	11.87	1.52x10 <sup>-4</sup>
				1.00	2.319	10	187	18.70	3.74	16.13	2.07x10 <sup>-4</sup>
				2.00	3.319	10	270	27.00	5.40	16.27	2.08x10 <sup>-4</sup>
				3.00	4.319	10	335	33.50	6.70	15.51	1.99x10 <sup>-4</sup>
				2.00	3.319	10	248	24.80	4.96	14.94	1.91x10 <sup>-4</sup>
				1.00	2.319	10	161	16.10	3.22	13.89	1.78x10 <sup>-4</sup>
				0.50	1.819	10	111	11.1	2.22	12.20	1.56x10 <sup>-4</sup>



PERMEABILITY TEST IN DRILL HOLE

PROJECT: G.I. At Upper Liwagu Mini Hydro Project Site HOLE No. LT-1 (Sheet      Of     )  
 LOCATION Head Pond DEPTH OF HOLE 20 m TEST DATE 24-1-92  
 ELEVATION 1031.62 m DIAMETER OF HOLE 8.0 cm TESTED BY Lu  
 COORDINATE E76 7818  
N66 1692.5 DRILLED DEPTH 20 m DRILLED BY Litto  
 ANGLE FROM HORIZONTAL 90° LEVEL OF WATER TABLE: CHECKED BY M. Liew  
 Before Test: 17.03 m After Test: 16.80 m  
 TEST SECTION : FROM 15 m To 20 m

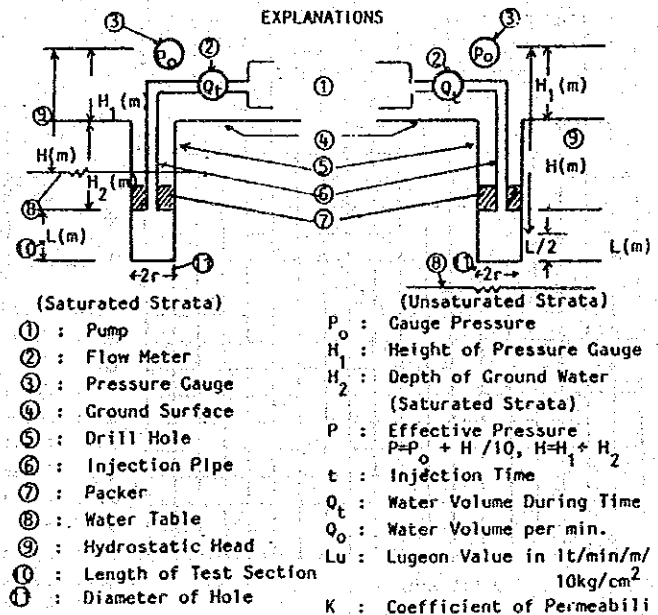
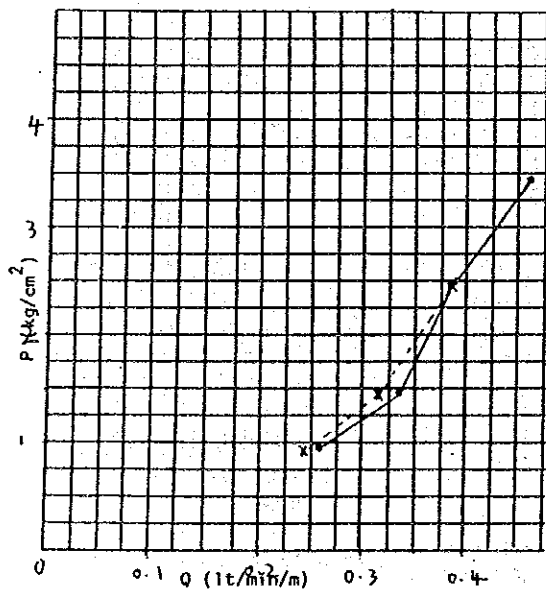
L (m)	H <sub>1</sub> (m)	H <sub>2</sub> (m)	H (m)	P <sub>0</sub> (kg/cm <sup>2</sup> )	P (kg/cm <sup>2</sup> )	t (min)	Q <sub>t</sub> (lt)	Q <sub>0</sub> (lt/min)	Q (lt/min/m)	Lu (Lugeon)	K (cm/sec)
5	0.65	17.03	17.68	0.50	1.815	10	58.0	5.80	1.16	6.39	8.19x10 <sup>-5</sup>
				1.00	2.315	10	85.0	8.50	1.70	7.34	9.41x10 <sup>-5</sup>
				2.00	3.315	10	144.0	14.40	2.88	8.69	1.11x10 <sup>-4</sup>
				3.00	4.315	10	203.0	20.30	4.06	9.41	1.21x10 <sup>-4</sup>
				2.00	3.315	10	160.0	16.0	3.20	9.65	1.24x10 <sup>-4</sup>
				1.00	2.315	10	132.0	13.20	2.64	11.40	1.46x10 <sup>-4</sup>
				0.50	1.815	10	95.00	9.50	1.90	10.46	1.34x10 <sup>-4</sup>



PERMEABILITY TEST IN DRILL HOLE

PROJECT: G.I. At Upper Liwagu Mini Hydro Project Site HOLE No. LT-2 (Sheet OF )  
 LOCATION Head pond DEPTH OF HOLE 15 m TEST DATE 15-1-92  
 ELEVATION 1035.53 m DIAMETER OF HOLE 8.0 cm TESTED BY Lu  
 COORDINATE E76 7725.5 DRILLED DEPTH 15 m DRILLED BY Litto  
N66 1707.5  
 ANGLE FROM HORIZONTAL 90° LEVEL OF WATER TABLE: CHECKED BY H. Liew  
 Before Test: 3.12 m After Test: 3.08 m  
 TEST SECTION : FROM 10 m To 15 m

L (m)	H <sub>1</sub> (m)	H <sub>2</sub> (m)	H (m)	P <sub>0</sub> (kg/cm <sup>2</sup> )	P (kg/cm <sup>2</sup> )	t (min)	Q <sub>t</sub> (lt)	Q <sub>0</sub> (lt/min)	Q (lt/min/m)	Lu (Lugeon)	K (cm/sec)
5	1.08	3.12	4.20	0.50	0.92	10	12.60	1.26	0.252	2.74	3.51x10 <sup>-5</sup>
				1.00	1.42	10	16.70	1.67	0.334	2.35	3.01x10 <sup>-5</sup>
				2.00	2.42	10	19.20	1.92	0.384	1.59	2.03x10 <sup>-5</sup>
				3.00	3.42	10	23.40	2.34	0.468	1.37	1.75x10 <sup>-5</sup>
				2.00	2.42	10	19.20	1.92	0.384	1.59	2.03x10 <sup>-5</sup>
				1.00	1.42	10	15.80	1.58	0.316	2.23	2.85x10 <sup>-5</sup>
				0.50	0.92	10	12.20	1.22	0.244	2.65	3.40x10 <sup>-5</sup>

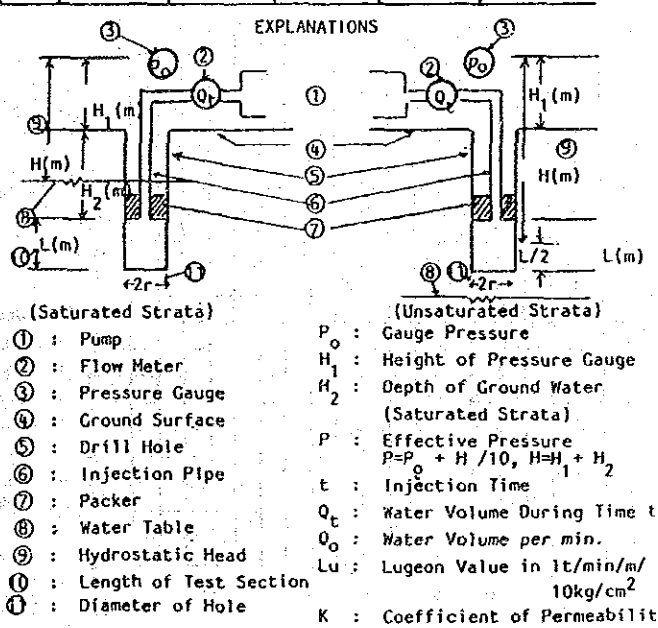
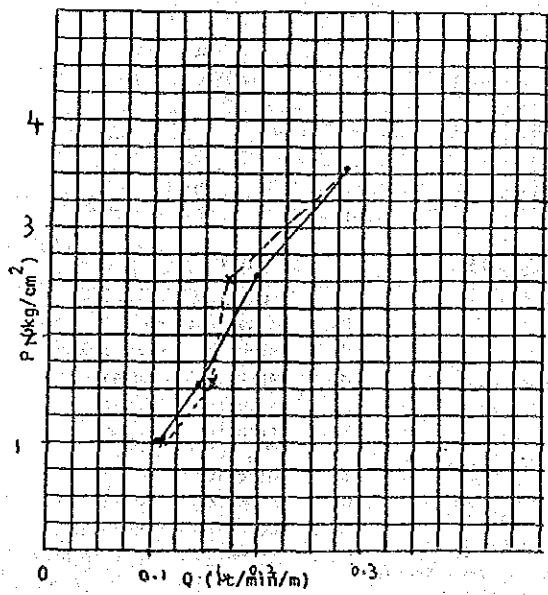




PERMEABILITY TEST IN DRILL HOLE

PROJECT: G.I. At Upper Liwagu Mini Hydro Project Site HOLE No. LT-2 (Sheet      Of     )  
 LOCATION Head Pond DEPTH OF HOLE 20 m TEST DATE 16-1-92  
 ELEVATION 1035.53 m DIAMETER OF HOLE 8.0 cm TESTED BY Lu  
E76 7725.5  
 COORDINATE N66 1707.5 DRILLED DEPTH 20 m DRILLED BY Litto  
 ANGLE FROM HORIZONTAL 90° LEVEL OF WATER TABLE: CHECKED BY M. Liew  
 Before Test: 4.20 m After Test: 4.00 m  
 TEST SECTION : FROM 15 m To 20 m

L (m)	H <sub>1</sub> (m)	H <sub>2</sub> (m)	H (m)	P <sub>0</sub> (kg/cm <sup>2</sup> )	P (kg/cm <sup>2</sup> )	t (min)	Q <sub>t</sub> (lt)	Q <sub>0</sub> (lt/min)	Q (lt/min/m)	Lu (Lugeon)	K (cm/sec)
5	1.52	4.20	5.72	0.50	1.072	10	5.30	0.53	0.106	0.99	1.27x10 <sup>-5</sup>
				1.00	1.572	10	7.00	0.70	0.140	0.89	1.14x10 <sup>-5</sup>
				2.00	2.572	10	9.90	0.99	0.198	0.77	9.86x10 <sup>-6</sup>
				3.00	3.572	10	14.20	1.42	0.284	0.79	1.02x10 <sup>-5</sup>
				2.00	2.572	10	8.40	0.84	0.168	0.65	8.37x10 <sup>-6</sup>
				1.00	1.572	10	8.10	0.81	0.162	1.03	1.32x10 <sup>-5</sup>
				0.50	1.072	10	5.40	0.54	0.108	1.01	1.29x10 <sup>-5</sup>



PERMEABILITY TEST IN DRILL HOLE

PROJECT: C.I. At Upper Liwagu Mini Hydro Project Site HOLE No. LP-1 (Sheet \_\_\_ Of \_\_\_)

LOCATION Kundasang DEPTH OF HOLE 15 m TEST DATE 10-12-91

ELEVATION 975.08 m DIAMETER OF HOLE 8.0 cm TESTED BY Lu  
E76 7727

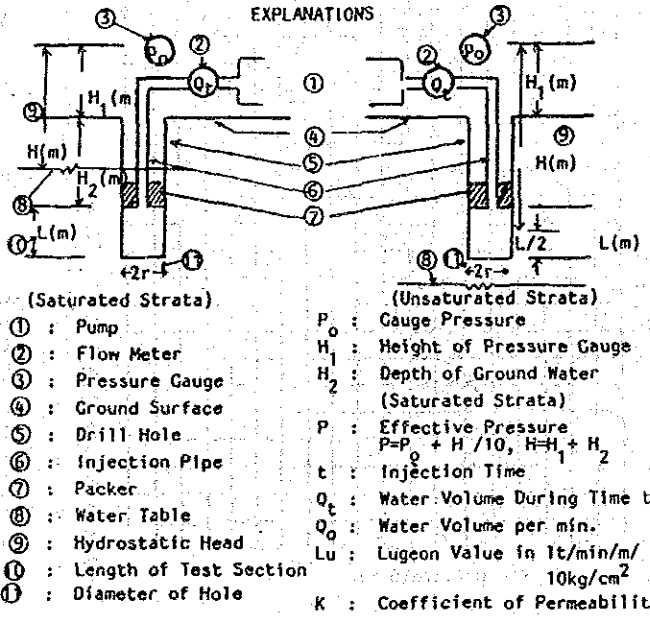
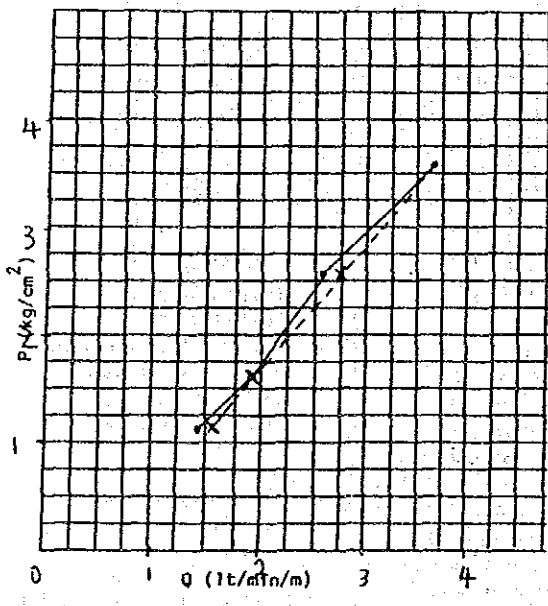
COORDINATE N66 1434 DRILLED DEPTH 15 m DRILLED BY Andy

ANGLE FROM HORIZONTAL 90° LEVEL OF WATER TABLE: 15 CHECKED BY M. Liew

Before Test: 5.63 m After Test: 5.30 m

TEST SECTION : FROM 10 m To 15 m

L (m)	H <sub>1</sub> (m)	H <sub>2</sub> (m)	H (m)	P <sub>0</sub> (kg/cm <sup>2</sup> )	P (kg/cm <sup>2</sup> )	t (min)	Q <sub>t</sub> (lt)	Q <sub>0</sub> (lt/min)	Q (lt/min/m)	Lu (Lugeon)	K (cm/sec)
5	0.77	5.63	6.40	0.50	1.14	10	71	7.10	1.42	12.46	1.60x10 <sup>-4</sup>
				1.00	1.64	10	95	9.50	1.90	1.59	1.48x10 <sup>-4</sup>
				2.00	2.64	10	127	12.70	2.54	9.62	1.23x10 <sup>-4</sup>
				3.00	3.64	10	170	17.0	3.40	9.34	1.20x10 <sup>-4</sup>
				2.00	2.64	10	137	13.7	2.74	10.38	1.33x10 <sup>-4</sup>
				1.00	1.64	10	95	9.50	1.90	11.59	1.48x10 <sup>-4</sup>
				0.50	1.14	10	80	8.00	1.60	14.04	1.80x10 <sup>-4</sup>





PERMEABILITY TEST IN DRILL HOLE

PROJECT: Geological Investigation At Upper Liwagu Mini Hydro HOLE No. LP-2 (Sheet OF )

LOCATION Penstock DEPTH OF HOLE Project Site 15 m TEST DATE 25-1-92

ELEVATION 913.65 m DIAMETER OF HOLE 8.0 cm TESTED BY Lu

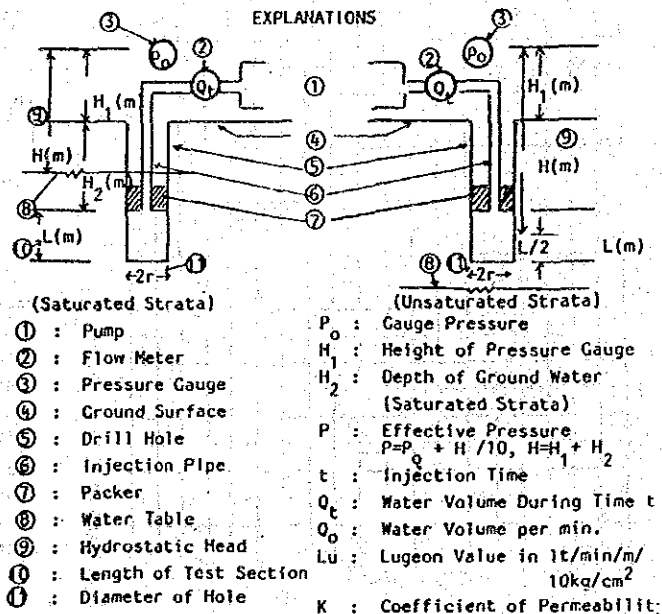
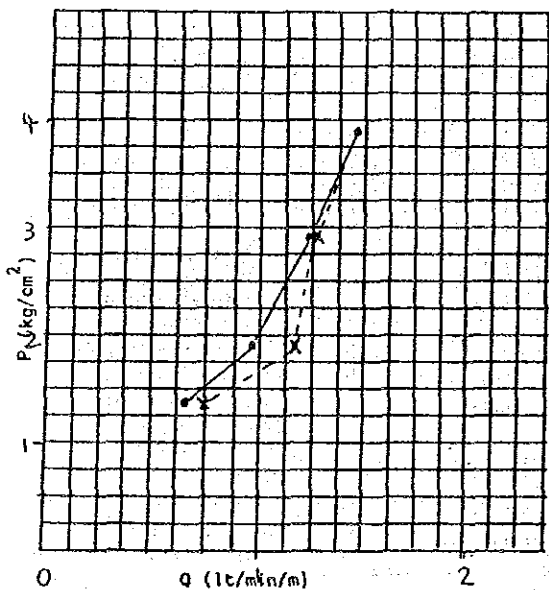
COORDINATE E76 7717.5  
N66 1236 DRILLED DEPTH 15 m DRILLED BY Andy

ANGLE FROM HORIZONTAL 90° LEVEL OF WATER TABLE: CHECKED BY \_\_\_\_\_

Before Test: 7.39 m After Test: 6.80 m

TEST SECTION : FROM 10 m To 15 m

L (m)	H <sub>1</sub> (m)	H <sub>2</sub> (m)	H (m)	P <sub>0</sub> (kg/cm <sup>2</sup> )	P (kg/cm <sup>2</sup> )	t (min)	Q <sub>t</sub> (lt)	Q <sub>0</sub> (lt/min)	Q (lt/min/m)	Lu (Lugeon)	K (cm/sec)
5	0.99	7.39	8.38	0.50	1.34	10	34	3.4	0.68	5.01	6.50x10 <sup>-5</sup>
				1.00	1.84	10	49	4.9	0.98	5.33	6.82x10 <sup>-5</sup>
				2.00	2.84	10	63	6.3	1.26	4.44	5.68x10 <sup>-5</sup>
				3.00	3.84	10	73	7.3	1.46	3.80	4.87x10 <sup>-5</sup>
				2.00	2.84	10	63	6.3	1.26	4.44	5.68x10 <sup>-5</sup>
				1.00	1.84	10	57	5.7	1.14	6.20	7.94x10 <sup>-5</sup>
				0.50	1.34	10	37	3.7	0.74	5.52	7.07x10 <sup>-5</sup>



PERMEABILITY TEST IN DRILL HOLE

PROJECT: Geological Investigation At Upper Liwagu Mini Hydro HOLE No. LP-2 (Sheet \_\_\_ OF \_\_\_)

LOCATION: Penstock DEPTH OF HOLE: Project Site 20 m TEST DATE: 27-1-92

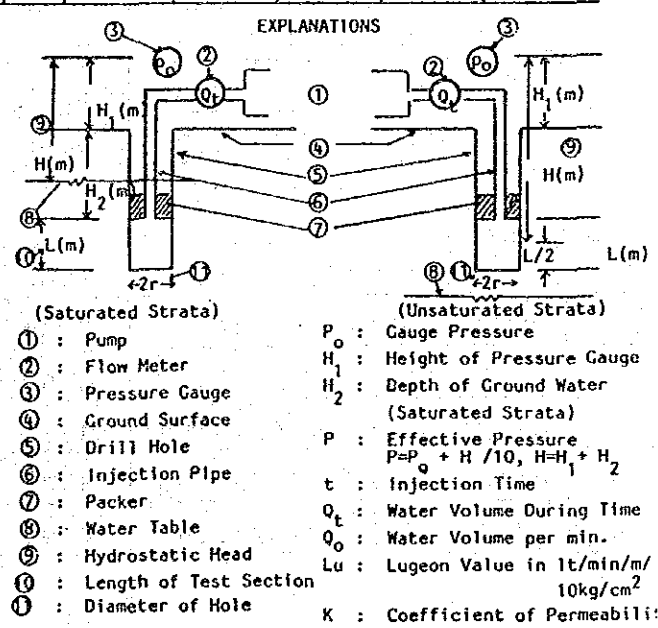
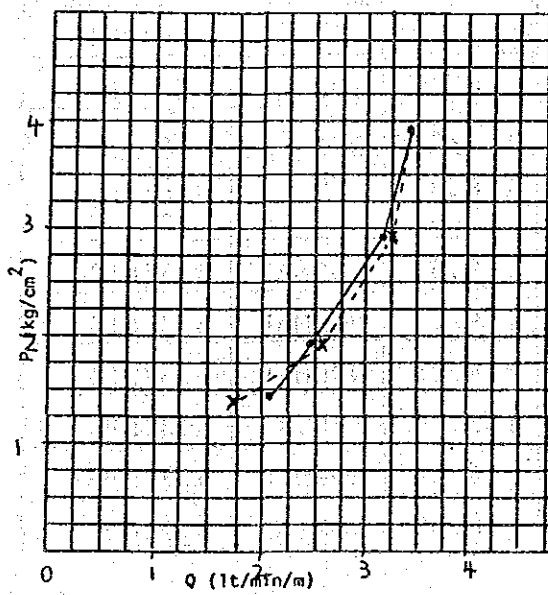
ELEVATION: 913.65 m DIAMETER OF HOLE: 8.0 cm TESTED BY: LU  
E76 7717.5

COORDINATE: N66 1236 DRILLED DEPTH: 20 m DRILLED BY: Andy

ANGLE FROM HORIZONTAL: 90° LEVEL OF WATER TABLE: CHECKED BY: N. Liew

TEST SECTION: FROM 15 m To 20 m  
Before Test: 8.48 m After Test: 8.10 m

L (m)	H <sub>1</sub> (m)	H <sub>2</sub> (m)	H (m)	P <sub>0</sub> (kg/cm <sup>2</sup> )	P (kg/cm <sup>2</sup> )	t (min)	Q <sub>t</sub> (lt)	Q <sub>0</sub> (lt/min)	Q (lt/min/m)	Lu (Lugeon)	K (cm/sec)
5	1.12	8.48	9.60	0.50	1.46	10	104	10.4	2.08	14.25	1.82x10 <sup>-4</sup>
				1.00	1.96	10	123	12.3	2.46	12.55	1.61x10 <sup>-4</sup>
				2.00	2.96	10	144	14.4	2.88	9.73	1.25x10 <sup>-4</sup>
				3.00	3.96	10	165	16.5	3.30	8.33	1.07x10 <sup>-4</sup>
				2.00	2.96	10	150	15.0	3.00	10.14	1.30x10 <sup>-4</sup>
				1.00	1.96	10	131	13.1	2.62	13.37	1.71x10 <sup>-4</sup>
				0.50	1.46	10	86	8.6	1.72	11.78	1.51x10 <sup>-4</sup>



SEISMOLOGICAL DATA OF EARTHQUAKES, SABAH AND OFFSHORE, 1897-1991

Presented by Lim Pen Siong

NO	DATE MM/DD/YR	ORIGIN TIME HH/MIN/SEC (UTC)	LAT. (N)	LONG. (E)	DEPTH KM	MAG.
1.	09/20/97 <sup>(1897)</sup>	19/06/00.0	6.0	122.0	-	8.6
2.	09/21/97 <sup>(1897)</sup>	05/12/00.0	6.0	122.0	-	8.7
3.	04/19/23 <sup>(1923)</sup>	03/09/08.0	2.5	117.5	-	7.0 (PAS)
4.	08/11/23	00/54/25.0	4.5	119.5	-	6.5 (PAS)
5.	07/21/30	14/06/02.0	7.0	114.0	-	6.0 (PAS)
6.	09/15/32	11/13/15.1	6.0	120.75	-	6.25 (PAS)
7.	12/04/32	08/11/12.0	2.5	121.0	-	7.1 (PAS)
8.	04/12/51	11/06/39.0	6.2	117.0	-	-
9.	06/02/51	06/47/51.0	6.9	116.8	-	5.75
10.	07/27/51	00/03/04.0	7.6	120.7	160	-
11.	10/26/58	02/17/32.0	5.5	117.0	-	5.75
12.	05/09/60	02/46/08.0	5.5	122.0	-	-
13.	10/10/60	10/44/56.0	7.0	117.4	100	-
14.	05/18/66	17/25/50.1	5.9	116.7	52	5.3 (MB) ISC
15.	07/27/68	22/10/03.8	6.1	120.89	60	5.3 (MB)
16.	04/28/73	20/39/43.9	6.39	117.7	71	5.1 (MB) ISC
17.	06/18/76	18/40/39.7	6.04	119.77	33N	4.5 (MB)
18.	07/25/76	14/03/17.8	5.09	118.29	NORMAL	5.3 (MB)
19.	07/25/76	14/03/19.7	4.96	118.43	108.1	4.1
20.	07/26/76	02/56/39.4	4.93	118.34	29	5.8 (MB) ISC
21.	07/26/76	03/03/15.1	5.06	118.39	NORMAL	5.3 (MB)
22.	07/26/76	05/35/10.3	4.99	118.59	NORMAL	5.2 (MB)
23.	07/26/76	08/36/12.2	4.90	118.05	NORMAL	5.3 (MB)
24.	07/26/76	08/36/17.98	4.77	118.05	125.4	5.3 (MB)
25.	07/26/76	08/49/34.6	4.89	118.34	NORMAL	5.3 (MB)
26.	07/26/76	09/43/50.6	4.99	118.55	NORMAL	5.1 (MB)

NO	DATE MM/DD/YR	ORIGIN TIME HH/MIN/SEC (UTC)	LAT. (N)	LONG. (E)	DEPTH KM	MAG.
27.	07/26/76	09/43/55.95	4.35	118.51	186	4.1 (MB)
28.	07/26/76	13/12/11.0	4.59	118.16	NORMAL	4.5 (MB)
29.	07/27/76	03/38/39.71	6.0	119.5	-	-
30.	07/27/76	03/42/33.37	5.0	119.0	-	-
31.	08/14/76	11/10/28.0	4.71	118.42	36	5.1 (MB)
32.	08/27/76	09/00/28.59	4.89	118.59	-	4.5
33.	09/18/76	07/54/44.9	4.64	118.03	NORMAL	5.0 (MB)
34.	09/18/76	07/54/47.7	4.64	117.61	-	4.0
35.	09/20/76	20/50/51.35	5.0	119.0	-	4.6
36.	10/23/80	14/00/21.4	6.52	117.96	51	5.1 (MB)
38.	12/09/81	19/24/59.1	3.80	117.32	57	4.8 (MB)
39.	12/25/81	00/28/15.79	4.76	118.48	39.1	5.4 (MB) USGS
40.	12/25/81	00/28/18.4	5.3	118.6	-	5.8
41.	03/22/83	22/44/24.87	3.84	118.86	57.6	5.0 (MB) USGS
42.	07/31/83	02/52/14.6	1.31	117.8	33N	5.1 (MB)
43.	03/14/84	00/39/00.8	5.2	119.6	-	6.0
45.	03/16/84	19/52/56.7	6.0	119.0	-	4.0
46.	04/13/84	00/39/18.5	5.22	118.45	52	5.6 (MB)
47.	05/24/84	14/56/44.0	4.0	118.4	-	3.8
48.	10/28/85	02/56/39.3	4.96	118.31	NORMAL	5.8 (MB) USGS
49.	12/14/88	17/06/22.9	5.7	117.8	33	5.0 (MB) USGS
50.	05/26/91	10/59/49.1	5.84	116.72	33N	5.2 (MB) USGS
51.	05/26/91	11/17/01.3	5.79	116.77	33N	5.1 (MB)

Abbreviations:

PAS: California Institute of Technology, Pasadena.

USGS: National Earthquake Information Centre, United

States Geological Survey.  
MB: Body Wave Magnitude.  
UTC: Universal Co-ordinated Time.

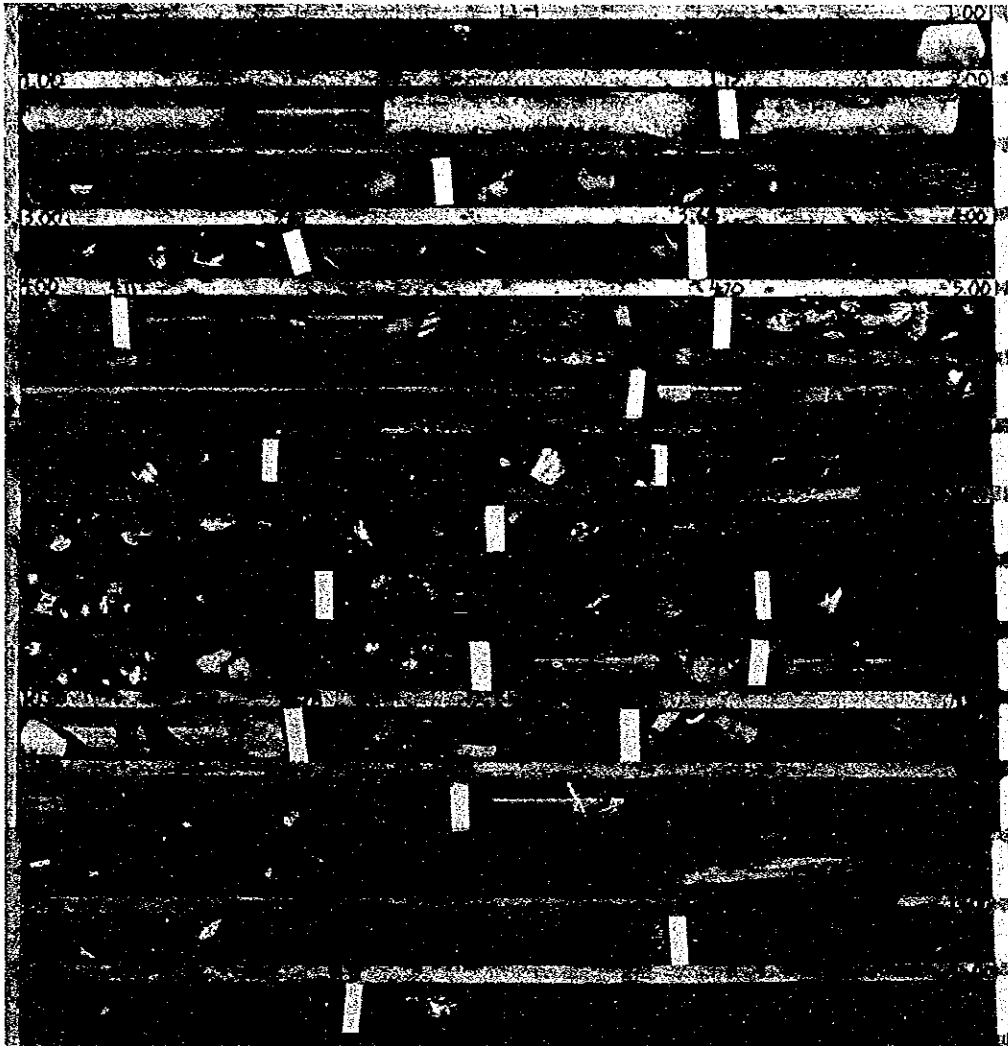
ISC: International Seismological Centre, London.

- Notes:
- a) Data provided by Meteorological services Department, Malaysia unless otherwise stated.
  - b) An 'N' following the depth value indicated the depth was restraint at 33 km for earthquake whose character on seismograms indicated a shallow focus but whose depth was not satisfactorily determined by the data.
  - c) Focal depth < 70 km is said to be 'Normal'.
  - d) Magnitude on Richter Scale unless otherwise stated.



CORE PHOTOGRAPH OF LI-1

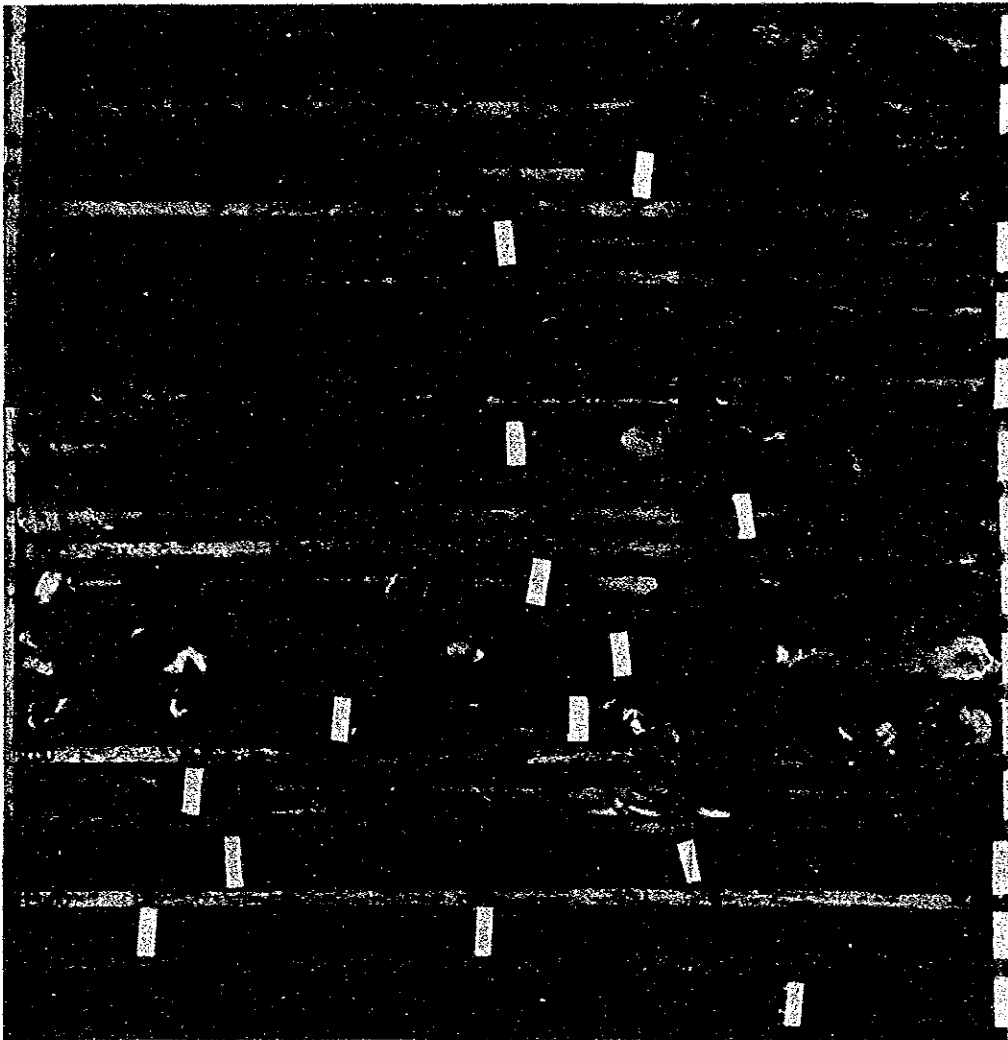
LI-1 Liwagu Intake Dam E765,742.5 N662,788.5 EL.1,049.91m DEPTH 15.00m





CORE PHOTOGRAPH OF LI-2

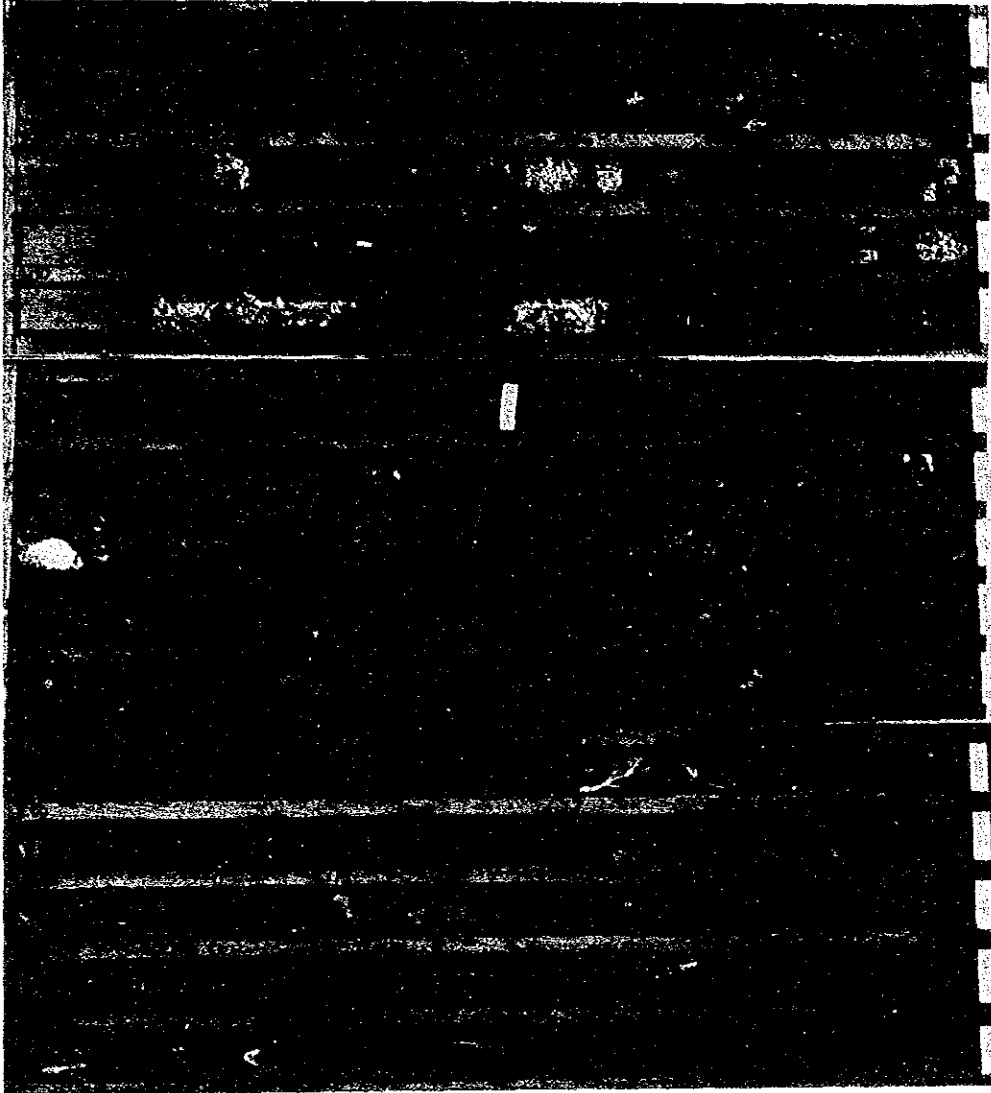
LI-2 Liwagu Intake Dam E765,732.5 N662,777.5 EL.1,049.81m DEPTH 15.00m





CORE PHOTOGRAPH OF LI-3

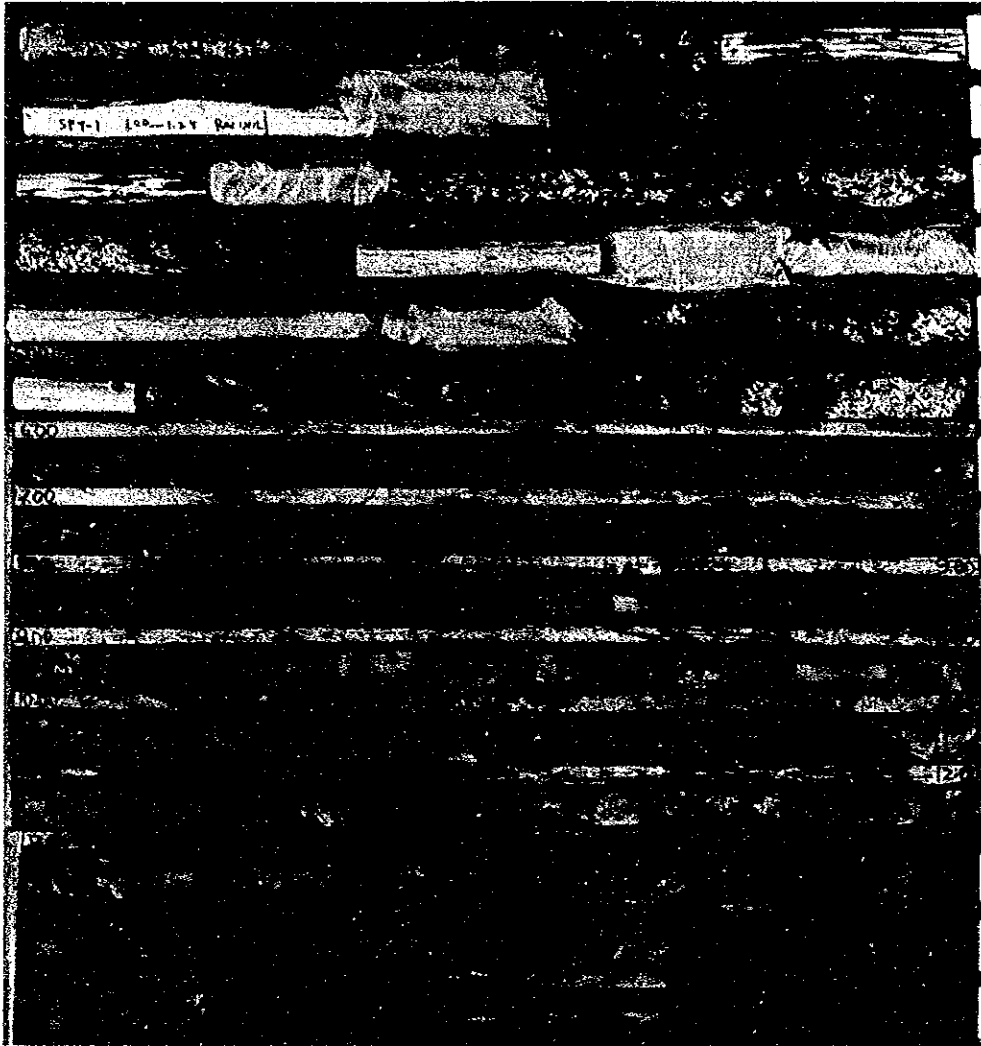
LI-3 Mesilau Intake Dam E767,644.5 N662,603.5 EL.1,035.96m DEPTH 15.00m





CORE PHOTOGRAPH OF LI-4

LI-4 Mesilau Intake Dam E767,623.3 N662,597.5 EL.1,035.34m DEPTH 15.00m

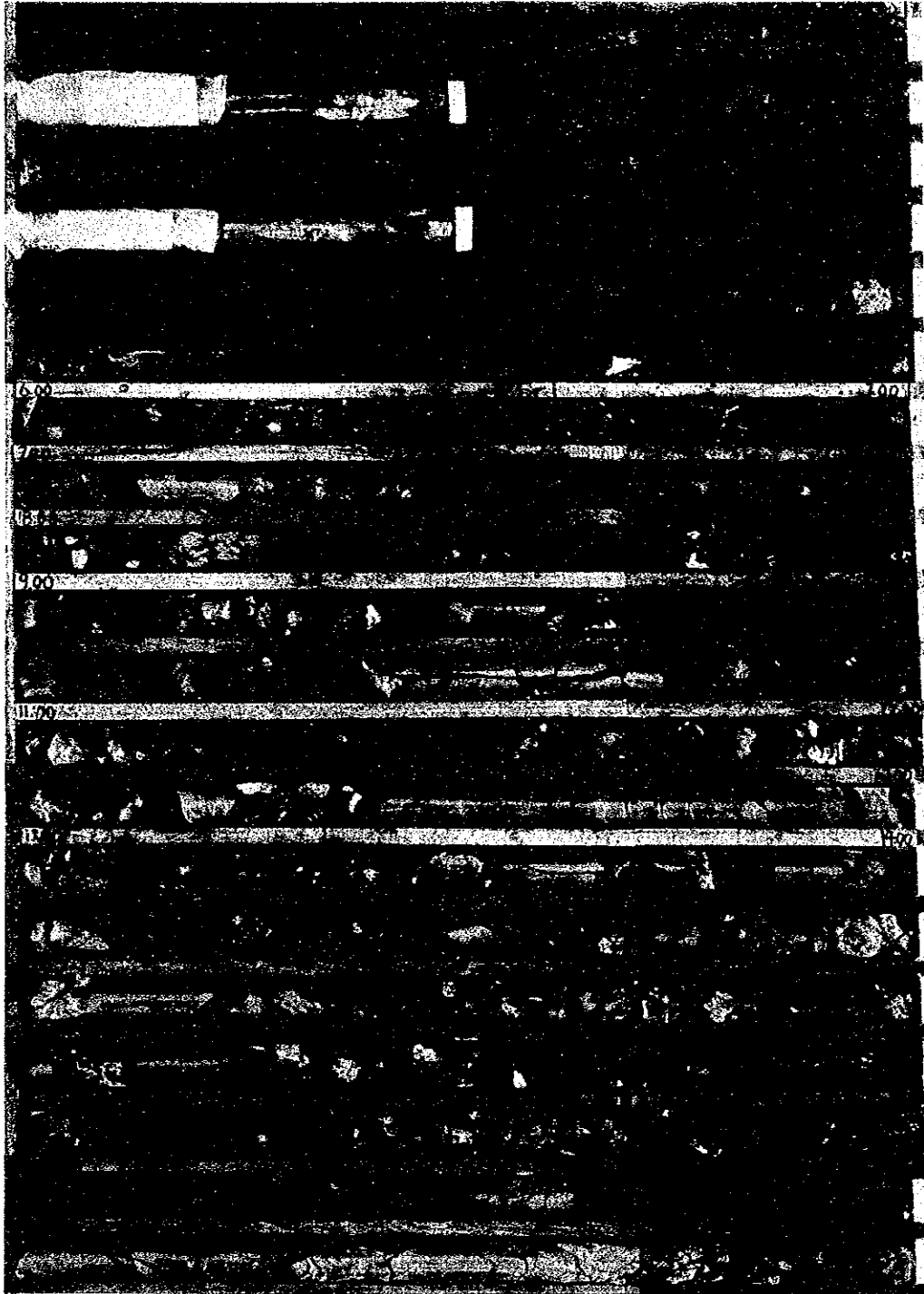






CORE PHOTOGRAPH OF LT-1

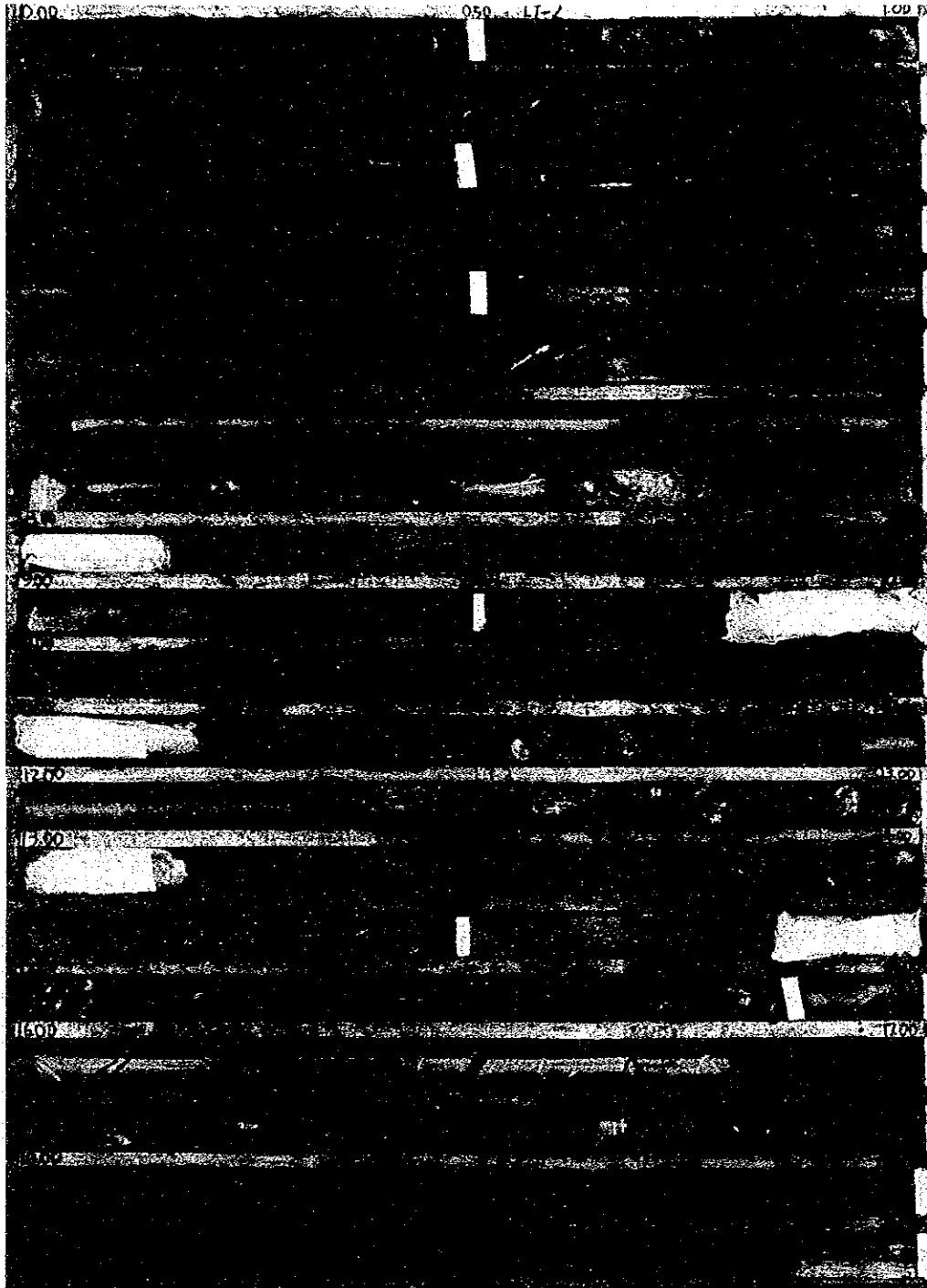
LT-1 Head Pond E767,818.0 N661,692.5 EL.1,031.62m DEPTH 20.00m





CORE PHOTOGRAPH OF LT-2

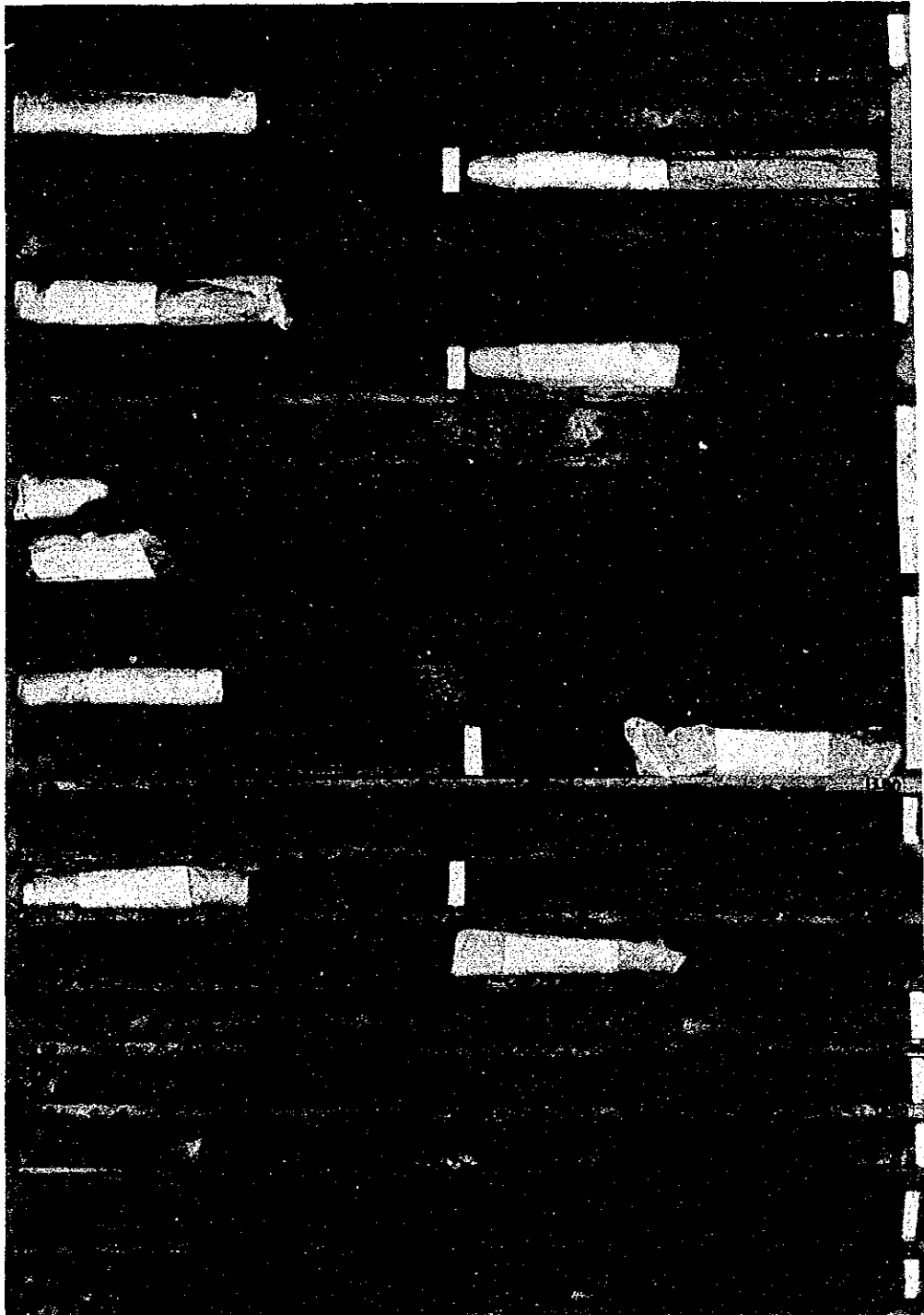
LT-2 Head Pond E767,725.5 N661,707.5 EL.1,035.53m DEPTH 20.00m





CORE PHOTOGRAPH OF LP-1

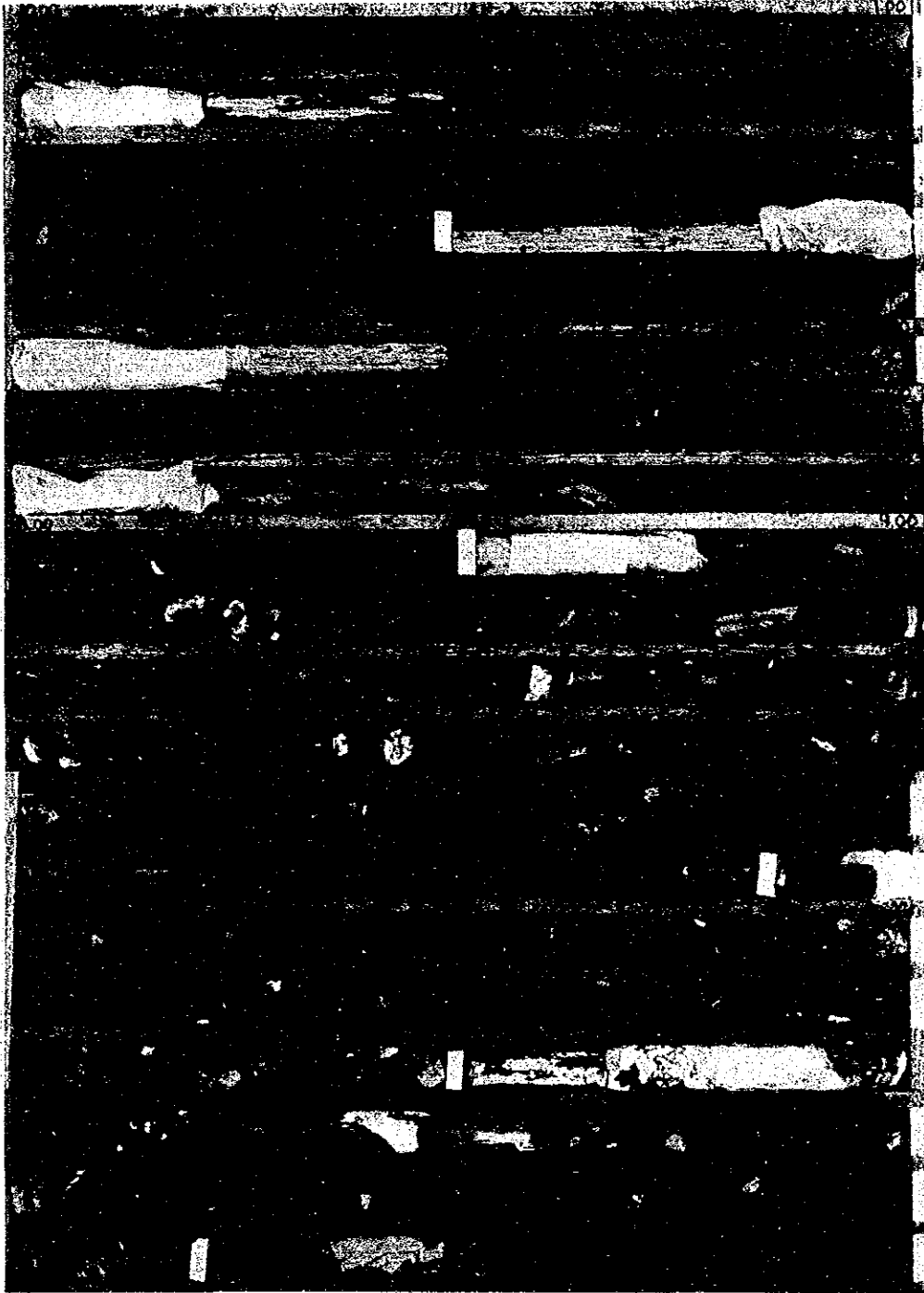
LP-1 Penstock E767,727.0 N661,434.0 EL. 975.08m DEPTH 20.00m





CORE PHOTOGRAPH OF LP-2

LP-2 Penstock E767,717.0 N661,237.0 EL. 913.65m DEPTH 20.00m

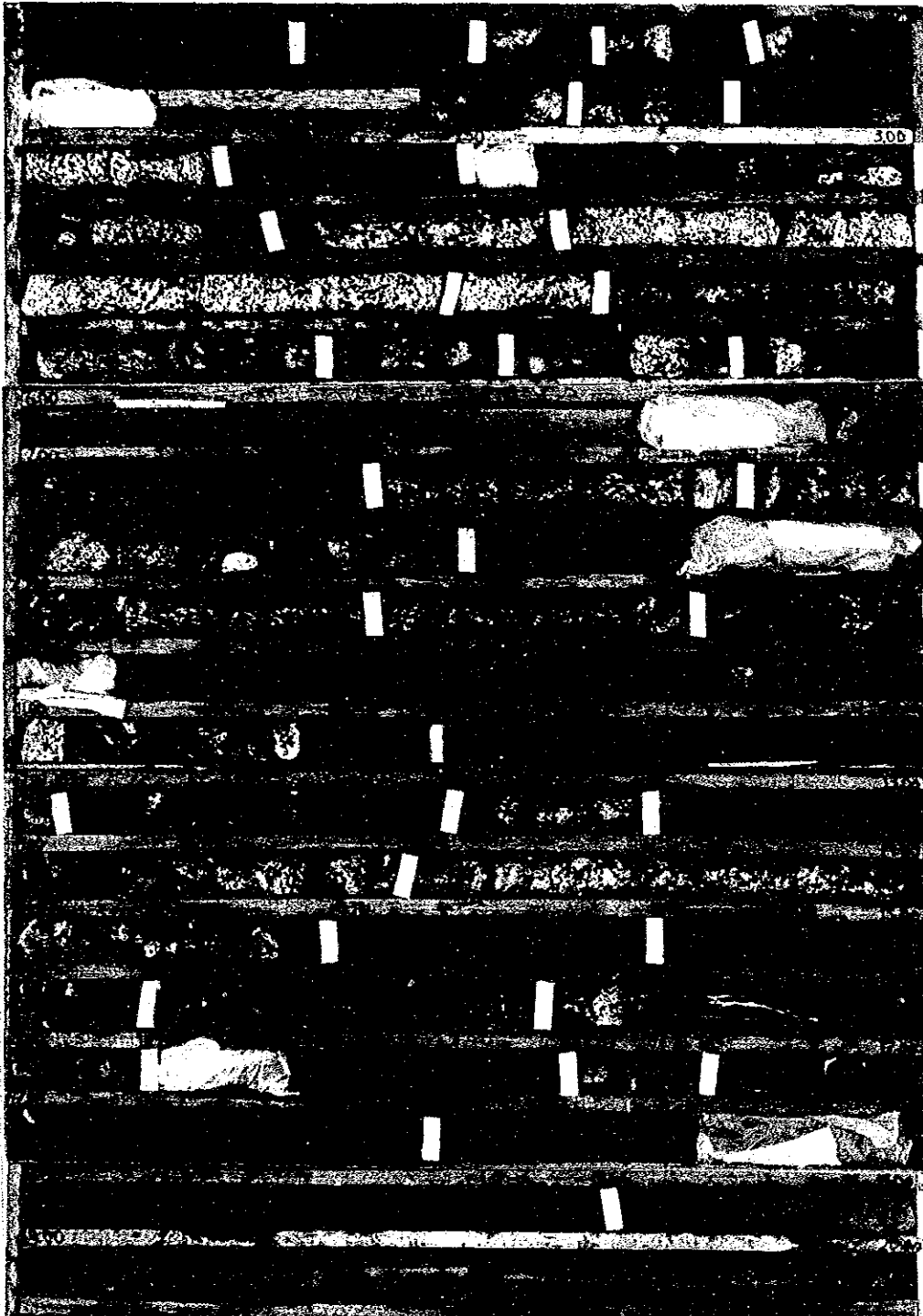






CORE PHOTOGRAPH OF LP-3

LP-3 Power House E767,712.0 N661,075.0 EL. 861.67m DEPTH 20.00m



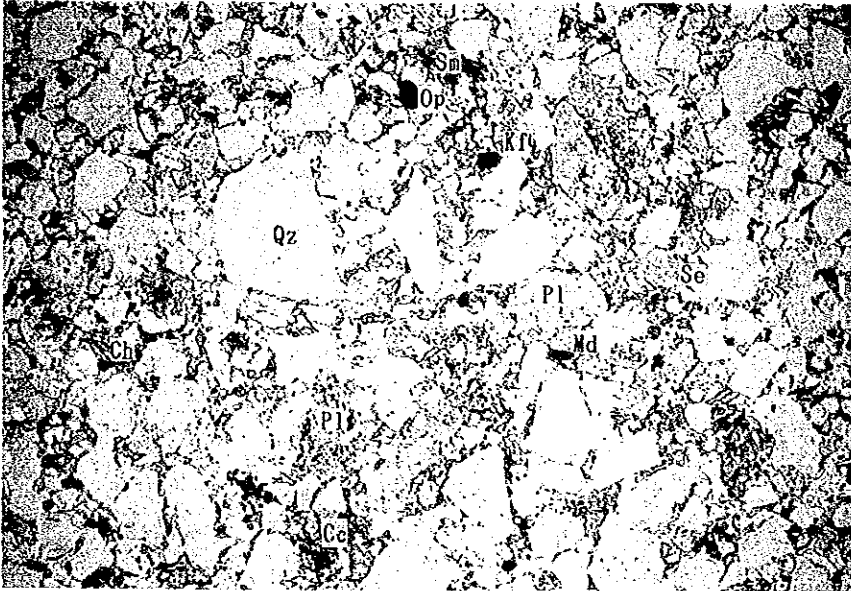


Micrograph and Petrographic Discription of Rock

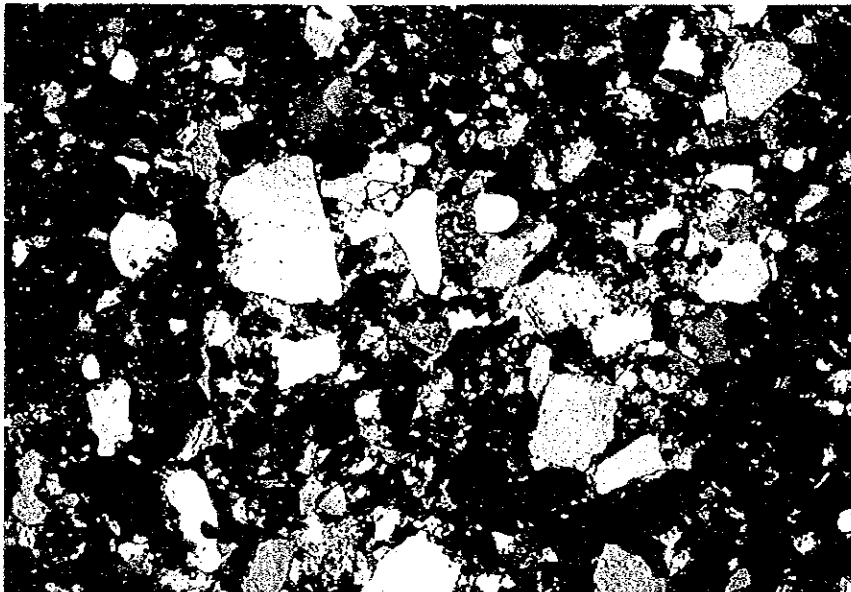
Locality : Drill Hole LT-1 Depth 10.5m

Rock Name : Sandstone

Petrographic Discription : Clastic texture



Open nicol  
0 0.5mm



Crossed nicol  
0 0.5mm

Qz:Quartz Ch:Chlorite Pl:Plagioclase Cc:Carbonate mineral Sm:Smectites

Op:Opaque mineral Se:Sericite Kf:Alkali feldspar Md:Fragment of mudstone

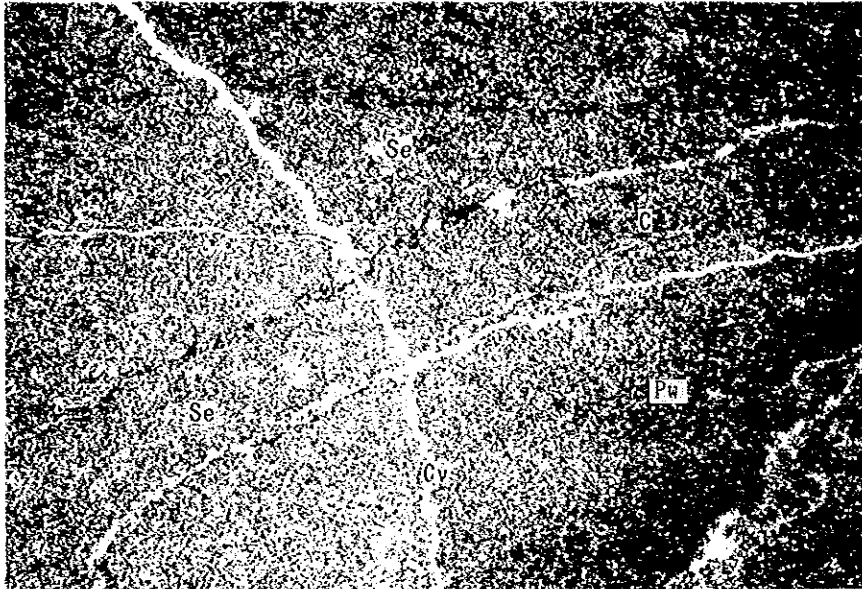


Micrograph and Petrographic Discription of Rock

Locality : Drill Hole LT-1 Depth 8.4m

Rock Name : Red Siltstone (Shale)

Petrographic Discription : Micro clastic texture



Open nicol  
0 0.5mm



Crossed nicol  
0 0.5mm

Se:Sericitc C:Coal Pw:Micro iron mineral Cv:Crack



## **Appendix 3 METEOROLOGICAL AND HYDROLOGICAL DATA**





## Appendix 3

### METEOROLOGICAL AND HYDROLOGICAL DATA

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**1. Daily Rainfall Data**

**Kundasang**

Daily Rainfall at Kundassang Rainfall Gauging Station (1970)

(unit: mm)

DAY*	1	2	3	4	5	6	7	8	9	10	11	12
1	4.10	3.80	0.0	30.50	1.50	0.0	0.0	3.30	16.50	6.10	0.0	0.0
2	5.10	4.80	0.0	27.90	0.0	5.60	0.0	3.00	0.0	12.40	0.0	1.80
3	25.40	10.40	52.80	19.30	10.70	65.30	0.0	0.50	5.10	1.80	0.0	8.40
4	10.70	8.10	0.0	1.00	2.80	44.20	0.0	4.10	3.60	0.80	0.0	38.10
5	13.20	1.80	2.00	2.80	6.50	21.30	4.80	3.60	0.0	0.0	11.20	46.20
6	3.30	0.0	0.0	0.0	0.0	4.80	0.0	7.40	42.90	0.30	24.90	0.0
7	22.10	0.0	0.0	0.0	0.0	0.30	0.0	13.00	0.0	2.50	3.00	6.30
8	3.80	0.0	0.0	0.0	0.0	0.0	4.60	0.0	7.60	3.80	24.90	0.0
9	6.30	0.0	0.0	0.0	0.0	0.0	8.60	57.70	0.30	0.30	26.40	3.00
10	6.30	0.0	0.0	0.0	1.30	20.30	0.0	16.00	0.0	3.80	15.20	0.80
11	0.0	0.0	0.0	0.0	0.0	0.0	0.30	1.50	0.0	33.80	0.0	0.0
12	2.00	6.30	0.0	2.50	19.00	0.0	0.0	6.60	0.0	8.10	0.0	10.40
13	0.0	0.0	0.0	0.0	2.00	0.0	0.0	19.80	0.0	34.50	0.0	0.0
14	0.0	0.0	0.0	0.0	35.10	0.0	0.0	0.0	1.00	46.20	0.0	1.00
15	0.0	0.0	0.0	0.0	0.50	0.0	3.00	0.0	8.10	4.10	0.0	4.10
16	0.0	0.0	0.0	0.0	0.0	4.30	8.10	14.00	0.0	0.0	0.50	1.30
17	11.40	0.0	0.0	0.0	0.0	6.80	0.50	6.10	1.50	14.00	0.0	0.50
18	12.70	0.0	0.0	10.20	27.90	1.50	0.30	4.80	5.60	0.50	0.0	0.0
19	4.60	0.0	12.20	11.90	28.40	0.50	3.30	0.0	35.30	11.20	10.40	0.0
20	3.60	0.0	12.20	5.10	0.0	0.0	9.10	6.60	30.50	2.80	7.60	0.30
21	50.50	0.0	0.0	0.30	0.0	0.0	0.0	0.0	3.60	1.50	5.10	1.80
22	2.80	0.0	0.0	0.0	0.0	0.0	0.0	18.00	0.50	19.00	20.30	10.90
23	3.60	0.0	1.30	0.0	4.10	37.10	16.50	0.30	6.10	0.0	1.30	0.0
24	0.0	0.0	0.0	25.90	9.10	0.50	0.0	0.0	2.30	0.0	0.30	45.70
25	3.80	0.0	1.80	19.60	15.00	11.70	0.0	0.0	3.60	0.50	2.50	0.0
26	0.0	0.0	0.0	1.30	2.80	10.90	23.10	0.0	7.60	0.0	27.20	2.80
27	0.0	0.0	38.60	5.10	0.0	0.0	20.30	0.0	0.80	0.0	10.70	1.30
28	0.0	0.0	30.20	9.10	11.70	3.60	8.60	7.60	5.30	11.20	0.50	10.20
29	4.80	0.0	0.0	15.00	15.30	7.60	0.0	6.10	0.0	0.50	12.20	5.30
30	0.0	1.00	0.0	6.60	0.0	0.0	4.80	4.10	0.0	33.30	0.0	5.60
31	0.0	31.20	0.0	4.30	0.0	0.0	4.10	2.30	0.0	0.0	0.0	0.0
TOTAL	200.10	35.20	183.30	168.20	244.90	275.20	120.50	206.40	187.80	253.00	204.20	205.80
AVERAGE	6.45	1.26	5.91	5.61	7.90	9.17	3.89	6.66	6.26	8.16	6.81	6.66
MAXIMUM	50.50	10.40	52.80	30.50	35.10	65.30	23.10	57.70	48.90	46.20	27.20	46.20
MINIMUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX-NIGHT DATE < 700403 >	65.30											
35-NIGHT DATE < 700610 >	20.30											
95-NIGHT DATE < 700505 >	6.40											
195-NIGHT DATE < 700914 >	1.00											
295-NIGHT DATE < 700416 >	0.0											
355-NIGHT DATE < 701130 >	0.0											
MIN-NIGHT DATE < 701231 >	0.0											
ITEM( 14 )	*****											
TOTAL AVERAGE	2284.60											
MAXIMUM	6.26											
MINIMUM	55.30											
ANNUAL	*****											

(unit: mm)

Daily Rainfall at Kurdassang Rainfall Gauging Station (1971)

*DAY*	1	2	3	4	5	6	7	8	9	10	11	12
1	6.10	1.30	3.40	0.0	0.0	6.30	4.80	5.30	7.10	0.0	0.80	5.10
2	5.10	0.0	0.0	0.0	0.30	7.40	0.30	4.10	2.30	1.30	5.60	1.00
3	6.30	0.0	0.0	0.0	5.60	11.40	0.30	38.60	0.0	37.60	3.60	0.0
4	0.30	0.0	0.0	0.0	0.0	0.0	0.80	6.10	0.0	24.40	0.30	0.0
5	27.20	50.00	0.0	0.0	0.0	3.80	0.0	19.80	0.0	0.0	24.40	0.0
6	7.90	45.80	9.90	0.0	2.30	2.80	0.0	6.90	0.0	0.0	2.80	1.30
7	16.30	34.30	0.50	0.0	0.0	0.0	1.80	10.70	2.00	2.30	36.60	0.80
8	0.80	64.80	0.30	0.0	0.0	14.50	0.50	7.60	0.0	0.0	20.80	2.50
9	9.10	22.90	37.60	0.0	11.70	12.70	0.0	39.90	6.30	0.0	0.80	1.00
10	6.10	38.40	0.30	0.0	0.0	3.00	0.0	19.30	4.10	22.40	0.0	8.10
11	7.40	3.80	0.0	0.0	1.50	13.70	0.0	8.10	0.0	35.60	1.50	10.70
12	8.10	2.30	0.0	0.0	0.0	1.50	4.30	0.0	0.0	8.40	14.70	5.80
13	0.30	13.70	4.80	0.0	0.0	0.30	0.0	0.0	1.80	14.20	55.40	0.0
14	0.0	18.00	8.60	0.0	0.0	3.60	0.80	2.30	2.80	10.40	6.10	1.50
15	0.0	24.10	2.30	0.0	0.0	2.00	2.50	27.40	10.70	0.30	4.30	1.30
16	0.0	5.30	2.30	0.0	0.0	1.80	0.0	2.00	14.00	8.40	16.00	6.30
17	0.0	17.00	8.40	0.0	1.50	0.0	0.0	14.70	17.80	1.30	38.40	3.30
18	0.0	7.60	6.10	23.43	0.0	5.30	0.0	3.80	0.30	0.0	0.50	0.50
19	21.10	0.50	0.0	15.82	0.50	0.0	0.0	5.60	25.90	10.40	1.00	5.30
20	0.30	26.70	0.0	3.47	2.80	0.30	0.0	3.80	10.40	13.50	5.30	0.0
21	0.0	36.30	0.0	0.0	3.00	5.30	0.0	0.0	14.20	14.50	0.50	0.80
22	5.10	0.50	0.0	0.0	0.0	0.30	0.50	19.30	2.30	14.20	0.80	4.60
23	0.0	0.30	0.0	0.0	2.30	0.0	0.0	0.80	20.10	0.80	1.80	39.10
24	6.30	0.50	0.0	0.0	15.80	5.30	0.0	8.60	45.70	0.50	9.90	0.0
25	1.30	20.10	0.0	0.0	0.0	49.00	6.90	33.50	0.0	4.10	4.10	17.80
26	1.50	10.70	1.00	0.0	0.80	2.80	30.20	19.10	0.0	6.90	0.50	0.0
27	4.80	0.50	0.50	0.0	4.80	9.90	5.90	1.30	0.80	16.00	0.0	0.0
28	3.30	5.60	0.0	0.0	0.0	3.30	5.60	0.0	4.10	16.50	0.0	4.80
29	18.00	0.0	0.0	0.0	0.0	4.30	0.50	0.0	0.0	8.10	8.90	7.90
30	1.30	1.30	0.50	0.0	0.30	3.60	2.00	2.00	0.30	0.30	46.20	16.00
31	9.40	0.0	0.0	0.0	16.00	0.0	0.0	19.00	0.0	1.00	0.0	21.10
TOTAL	173.60	459.00	86.70	42.52	69.40	170.10	71.90	339.40	193.00	273.90	311.60	166.60
AVERAGE	5.59	16.25	2.80	1.42	2.24	5.67	2.32	10.63	6.43	8.84	10.39	5.37
MAXIMUM	27.20	64.80	37.60	23.43	16.00	49.00	30.20	39.90	45.70	37.60	55.40	39.10
MINIMUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX-NICHI DATE < 710208 >	64.80											
35-NICHI DATE < 710923 >	20.10											
95-NICHI DATE < 710602 >	7.40											
155-NICHI DATE < 711214 >	1.50											
275-NICHI DATE < 710404 >	0.0											
355-NICHI DATE < 711110 >	0.0											
MIN-NICHI DATE < 711227 >	0.0											
*TEXT( 14 )	***** ANNUAL *****											
	***** TOTAL AVERAGE MAXIMUM MINIMUM *****											
	***** 2343.52 6.42 64.80 0.0 *****											

Daily Rainfall at Kundassang Rainfall Gauging Station (1972)

(unit: mm)

DAY*	1	2	3	4	5	6	7	8	9	10	11	12
1	19.10	4.60	0.0	3.00	0.30	0.0	0.0	0.0	2.80	3.00	0.0	1.00
2	0.30	3.30	0.0	2.30	0.50	0.0	0.0	79.00	0.0	3.80	1.30	10.20
3	3.80	13.70	0.0	1.80	10.40	0.0	13.20	10.40	17.80	6.60	0.0	54.40
4	15.70	1.00	0.0	0.50	36.30	0.0	0.30	0.30	0.50	13.90	0.0	12.70
5	11.40	0.0	6.80	0.0	0.80	0.0	1.00	0.30	22.60	10.90	0.0	0.50
6	3.30	0.0	14.20	0.0	41.10	0.0	1.30	0.0	40.40	19.00	0.0	0.0
7	12.70	0.0	0.30	2.80	17.00	11.20	0.0	21.10	6.30	6.30	10.20	0.0
8	2.50	0.0	0.30	0.0	15.50	6.60	0.0	20.30	0.50	1.50	0.0	12.40
9	2.50	0.0	2.50	17.30	1.80	0.80	0.0	0.50	0.0	25.90	7.60	1.00
10	0.0	0.0	2.80	11.40	0.0	10.40	0.0	1.50	8.10	17.50	1.00	3.30
11	0.0	0.0	9.10	0.0	0.0	0.50	0.0	3.60	19.00	0.0	23.40	0.0
12	0.0	0.0	0.0	0.0	0.0	2.50	0.0	0.0	1.30	0.80	0.0	4.30
13	1.00	0.0	0.0	0.0	1.30	0.0	0.0	0.0	0.0	2.00	0.0	1.50
14	4.30	0.0	0.0	4.10	4.10	0.0	0.0	11.90	0.0	9.70	17.80	0.0
15	14.00	0.0	0.0	0.0	0.0	14.20	0.0	0.0	0.0	15.70	36.10	0.0
16	7.40	16.50	18.00	0.0	3.60	15.20	0.0	0.80	0.0	0.0	4.10	0.0
17	55.10	34.30	31.20	0.0	8.90	0.0	2.00	6.60	7.90	0.0	0.0	1.00
18	5.30	2.50	6.60	1.00	0.0	0.30	0.0	10.90	34.00	0.0	0.0	0.0
19	1.30	1.30	1.30	4.10	22.40	0.50	0.0	3.60	24.90	0.0	0.0	0.0
20	6.30	7.60	15.00	0.0	0.50	0.0	0.0	5.30	25.10	0.0	0.0	61.70
21	1.00	2.00	3.00	0.0	52.80	0.80	0.0	0.0	3.60	5.60	22.40	0.0
22	8.90	6.80	0.0	0.80	0.0	4.80	0.0	0.0	0.0	4.60	13.70	0.0
23	1.00	42.90	41.90	0.0	14.20	0.0	0.0	2.00	5.30	0.0	8.90	0.0
24	0.30	10.80	4.60	0.0	0.0	0.50	0.0	19.00	34.80	0.0	12.40	4.60
25	0.0	7.90	0.0	0.0	0.0	0.0	0.0	8.90	46.00	5.80	0.0	6.40
26	0.0	0.0	0.0	0.0	2.80	0.50	0.0	2.50	11.70	2.30	0.0	0.0
27	1.50	0.0	1.30	0.0	0.50	0.0	0.0	0.30	8.10	0.0	0.0	0.0
28	2.00	0.0	0.0	0.0	28.70	0.0	9.40	0.0	1.00	1.00	5.30	0.0
29	1.30	0.0	53.80	0.0	6.90	0.0	0.0	0.80	1.80	1.50	18.50	0.50
30	10.70	0.0	23.60	1.30	2.00	0.0	0.0	0.0	6.10	51.60	64.50	0.50
31	20.60	19.10	1.30	0.0	1.30	0.0	0.0	2.80	0.30	0.30	0.30	5.30
TOTAL	213.30	149.80	254.90	46.30	279.60	69.60	26.90	212.40	329.60	208.40	247.23	181.30
AVERAGE	6.88	5.17	8.22	1.54	9.02	2.32	0.87	6.65	10.99	6.72	8.21	5.65
MAXIMUM	55.10	42.90	53.80	17.30	52.80	15.20	13.20	79.00	46.00	51.60	64.50	61.70
MINIMUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX-NICHI DATE < 720802 >	79.00											
35-NICHI DATE < 720911 >	19.00											
95-NICHI DATE < 721225 >	6.60											
135-NICHI DATE < 720816 >	0.80											
275-NICHI DATE < 720604 >	0.0											
355-NICHI DATE < 721211 >	0.0											
MIN-NICHI DATE < 721228 >	0.0											
*ITEM: 14	229.30											
	6.06											
	79.00											
	0.0											

### Daily Rainfall at Kundassang Rainfall Gauging Station (1973)

(unit: mm)

*DAY*	1	2	3	4	5	6	7	8	9	10	11	12
1	5.10	0.0	0.0	3.30	14.20	4.10	9.40	0.0	12.70	0.0	7.40	1.30
2	0.0	0.0	0.0	6.10	0.0	0.0	21.60	4.10	68.60	7.60	9.70	0.30
3	5.30	0.0	0.0	11.40	13.50	0.0	13.50	7.60	0.50	68.80	9.90	0.50
4	0.0	0.0	0.0	0.0	3.30	2.80	11.90	10.20	9.90	0.0	5.60	2.80
5	21.30	0.0	0.0	0.0	1.00	8.10	9.10	0.30	30.50	12.40	1.80	11.70
6	0.0	0.0	0.0	0.0	5.60	0.0	9.10	0.0	2.30	0.0	19.80	0.80
7	0.0	0.0	0.0	0.0	0.0	4.60	10.40	23.10	0.0	0.0	12.40	1.50
8	0.0	0.0	0.0	0.0	2.30	0.0	10.40	5.10	0.0	8.40	0.30	0.0
9	1.00	0.0	0.0	0.0	1.30	0.0	1.50	0.0	6.90	16.30	1.30	0.0
10	0.0	0.0	0.0	0.0	11.40	1.30	0.0	9.40	9.40	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.10	17.80	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	3.80	0.0	0.0	7.10	0.30	12.20	5.30	0.0
13	0.0	20.30	0.0	12.20	15.70	0.0	0.0	0.0	7.90	18.50	0.80	0.0
14	0.0	0.50	0.0	2.50	3.00	0.0	0.0	5.30	14.50	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	1.80	3.30	35.80	9.70	57.10	0.0
16	0.0	0.0	0.0	5.80	0.0	0.0	0.0	1.30	25.10	10.70	0.80	0.0
17	0.0	0.0	1.30	14.50	1.00	5.10	0.0	0.0	43.40	0.0	0.0	8.90
18	0.0	0.0	0.0	7.90	0.0	8.40	0.0	4.10	43.40	5.60	18.80	0.0
19	0.0	0.0	0.0	5.10	0.0	24.10	0.0	2.80	1.50	0.0	4.80	0.0
20	0.0	0.0	4.30	0.0	31.70	0.0	13.70	0.0	0.30	4.10	6.30	0.0
21	0.0	0.0	0.0	5.30	29.00	1.50	20.60	0.0	0.0	0.0	18.50	18.30
22	0.0	0.0	4.60	0.30	0.0	1.90	30.70	0.0	24.10	2.80	4.80	6.10
23	0.0	0.0	0.80	7.10	1.50	0.0	5.30	0.0	10.90	1.80	0.0	16.80
24	0.0	0.0	0.0	0.50	2.00	0.0	17.30	13.20	27.20	4.80	0.50	14.20
25	0.0	0.0	0.0	9.40	0.0	0.0	11.90	0.0	34.50	1.30	54.60	19.00
26	0.0	0.0	0.0	5.80	14.70	4.80	0.0	0.0	10.70	35.10	4.80	7.10
27	0.0	0.0	0.0	1.30	0.0	0.0	0.0	7.60	0.0	14.70	0.80	15.00
28	0.0	0.0	0.50	53.10	0.0	0.0	4.80	0.0	11.40	9.90	2.30	0.30
29	0.0	0.0	6.60	9.70	1.80	45.20	21.10	1.80	6.90	1.80	5.80	30.50
30	0.0	0.0	6.30	56.60	7.40	0.0	8.90	1.80	7.10	2.30	0.30	3.00
31	0.0	0.0	2.50	0.0	7.40	0.0	0.30	2.30	0.0	8.10	1.50	1.50
TOTAL	32.70	20.80	26.90	217.90	177.70	111.80	233.30	119.50	463.60	656.90	254.30	159.60
AVERAGE	1.05	0.74	0.87	7.26	5.73	3.73	7.53	3.85	15.45	8.29	8.48	5.15
MAXIMUM	21.30	20.30	6.60	56.60	31.70	45.20	30.70	23.10	68.60	68.80	57.10	30.50
MINIMUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX-NICHI DATE < 731003 >	68.80											
35-NICHI DATE < 730724 >	17.30											
95-NICHI DATE < 730812 >	7.10											
135-NICHI DATE < 730903 >	0.50											
275-NICHI DATE < 730406 >	0.0											
355-NICHI DATE < 731209 >	0.0											
MIN-NICHI DATE < 731220 >	0.0											
ITEM# 14	2075.00											
AVERAGE	5.68											
MAXIMUM	68.80											
MINIMUM	0.0											
***** ANNUAL *****												
***** TOTAL AVERAGE MAXIMUM MINIMUM *****												

Daily Rainfall at Kundassang Rainfall Gauging Station (1974)

(unit: mm)

DAY*	1	2	3	4	5	6	7	8	9	10	11	12
1	33.30	51.60	17.30	0.0	10.60	0.0	0.0	25.90	0.0	0.0	5.30	0.0
2	5.30	0.0	3.00	0.0	40.60	0.0	0.0	39.10	0.0	4.80	5.30	21.33
3	14.50	1.30	36.80	0.0	4.60	0.0	0.0	0.0	2.50	6.90	0.0	22.56
4	3.00	2.00	1.80	0.0	4.10	0.0	0.0	0.50	0.0	6.10	3.80	5.31
5	5.10	4.60	0.0	0.0	0.80	0.0	0.0	44.20	2.00	9.10	18.00	19.90
6	8.90	0.0	0.0	39.40	1.50	0.0	0.0	0.0	31.70	0.50	0.50	41.13
7	6.30	0.80	0.0	2.50	0.0	0.0	0.0	0.0	0.0	8.10	0.0	2.65
8	6.60	15.20	3.80	34.00	14.70	0.0	0.0	0.0	0.0	2.00	5.30	0.0
9	25.90	1.80	0.50	2.50	5.80	30.70	0.0	0.0	0.0	0.0	0.0	15.92
10	8.90	19.60	31.70	1.50	4.10	25.90	1.00	0.0	0.0	0.0	0.0	3.98
11	0.0	6.30	46.30	0.0	0.0	2.50	11.90	10.20	7.60	33.50	2.80	0.0
12	0.0	18.80	6.10	2.00	0.0	10.40	27.20	12.70	0.0	28.20	10.40	0.0
13	0.0	81.30	0.50	5.10	0.0	1.30	7.60	0.0	0.0	7.90	0.80	0.0
14	0.0	6.30	5.10	0.0	36.10	7.40	1.80	0.0	3.00	1.80	0.0	0.0
15	0.0	0.0	0.0	1.30	2.00	2.80	0.50	0.0	2.30	0.0	10.90	0.0
16	0.0	0.0	0.0	10.20	0.0	1.30	1.80	0.0	2.30	0.0	0.0	0.0
17	22.60	0.0	0.0	7.60	57.70	29.50	10.90	0.0	1.30	0.0	0.0	0.0
18	1.80	0.0	0.0	18.00	16.30	0.0	9.70	0.0	4.80	27.40	2.00	13.28
19	0.0	3.00	0.0	5.80	15.50	6.60	5.30	0.0	7.90	1.30	0.0	13.28
20	1.30	0.0	3.60	0.0	1.30	2.80	1.30	4.10	9.70	0.0	0.0	1.33
21	13.20	5.80	3.30	0.0	6.30	0.0	0.0	31.70	21.80	0.0	1.30	1.33
22	0.0	22.10	0.0	0.0	4.80	0.0	0.0	7.10	8.90	0.0	22.40	1.33
23	0.0	21.80	0.0	0.0	5.60	42.20	7.40	1.80	0.0	1.80	0.50	1.33
24	0.0	0.80	0.0	0.0	8.90	0.0	0.0	0.0	5.80	5.80	5.60	1.33
25	6.0	8.10	0.0	0.0	1.30	16.00	12.70	6.60	41.70	5.60	14.00	1.33
26	3.80	0.0	5.60	0.0	0.50	46.00	0.0	6.80	5.80	16.00	1.30	38.48
27	4.30	2.00	4.10	0.0	13.20	0.0	0.0	7.90	0.0	1.50	0.0	62.36
28	0.80	2.80	0.0	0.0	0.80	0.0	0.0	0.0	4.30	0.0	3.30	3.98
29	0.0	0.0	3.80	0.80	0.0	0.0	21.60	0.0	2.80	9.70	0.0	0.0
30	3.00	0.0	0.0	9.90	0.0	26.90	9.40	7.90	11.40	48.80	3.00	1.33
31	10.20	0.0	0.0	0.0	0.0	0.0	4.80	0.0	0.0	8.10	0.0	3.98
TOTAL	178.80	421.00	177.30	140.60	256.90	252.30	136.90	206.50	177.60	236.10	118.30	277.25
AVERAGE	5.77	15.04	5.72	4.69	8.59	8.41	4.35	6.40	5.92	7.62	3.92	8.95
MAXIMUM	33.30	163.80	48.30	39.40	57.70	46.00	27.20	44.20	41.70	49.80	22.40	62.36
MINIMUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX-NI CHI DATE < 740212 >	163.80											
35-NI CHI DATE < 741203 >	22.56											
95-NI CHI DATE < 740882 >	7.10											
195-NI CHI DATE < 741221 >	1.33											
275-NI CHI DATE < 740530 >	0.0											
355-NI CHI DATE < 741129 >	0.0											
MIN-NI CHI DATE < 741229 >	0.0											
ITEM( 14 )	***** ANNUAL *****											
	***** TOTAL AVERAGE MAXIMUM MINIMUM *****											
	***** 2575.65 ***** 7.06 ***** 163.80 ***** 0.0 *****											



Daily Rainfall at Kundassang Rainfall Gauging Station (1975)

(unit: mm)

DATE	1	2	3	4	5	6	7	8	9	10	11	12
1	23.10	2.30	9.70	2.80	0.0	10.60	0.0	0.0	1.50	7.60	56.90	1.30
2	59.20	4.10	10.20	0.0	10.40	0.80	0.0	0.0	0.50	0.0	27.70	0.0
3	1.30	0.50	13.20	0.0	7.60	13.20	0.0	0.0	1.50	0.0	3.80	8.90
4	3.00	0.0	0.50	2.80	21.60	2.00	0.50	0.0	3.60	0.0	3.60	0.0
5	53.80	0.0	0.0	57.70	3.80	1.50	0.0	0.0	0.0	35.60	28.70	16.30
6	6.30	0.0	0.0	0.0	2.30	3.80	0.0	2.80	0.0	30.70	25.70	0.50
7	2.00	0.0	0.0	0.0	17.80	3.60	1.00	0.0	0.0	57.60	13.70	5.30
8	76.70	0.0	0.0	0.0	1.50	1.80	0.0	0.0	7.60	34.80	6.10	0.0
9	4.80	0.0	21.10	0.0	27.90	0.0	2.30	3.00	4.10	6.10	0.0	1.50
10	6.60	0.0	0.50	0.0	14.20	0.0	15.70	27.90	0.80	0.0	0.0	2.00
11	0.0	0.0	0.0	0.0	12.20	5.10	0.0	0.0	21.60	9.70	0.0	0.0
12	0.0	0.0	0.0	0.0	10.70	0.0	0.0	0.0	3.30	0.0	2.80	0.0
13	0.0	0.0	0.0	0.0	32.50	0.0	12.70	0.0	3.60	21.30	32.30	1.00
14	3.60	1.00	0.0	0.0	30.00	2.50	17.00	4.10	0.0	0.50	0.50	0.80
15	19.80	0.0	0.0	1.30	25.40	0.0	19.00	22.60	1.30	1.00	3.60	1.50
16	0.0	2.50	0.0	0.0	6.60	0.0	8.40	27.90	0.50	0.80	0.50	41.40
17	0.0	0.0	22.90	0.0	1.00	4.60	55.10	2.00	1.50	0.0	28.20	37.10
18	1.00	1.30	0.0	0.0	15.70	1.80	11.90	6.10	1.00	0.0	41.70	0.30
19	11.20	30.50	0.80	0.0	2.80	0.80	1.00	3.00	2.00	1.00	1.80	6.10
20	2.80	35.80	0.50	0.0	1.50	0.0	1.30	55.90	0.0	0.0	10.40	8.40
21	2.00	12.70	6.90	10.90	9.10	0.0	2.00	21.80	2.30	0.0	11.90	0.50
22	0.0	45.70	0.0	2.80	1.00	2.50	6.10	0.0	24.90	5.60	11.40	1.00
23	0.0	17.80	0.0	0.0	0.0	0.0	2.80	17.00	7.60	0.50	31.70	7.60
24	0.0	25.90	0.0	0.0	0.0	0.0	8.10	0.0	17.30	0.80	1.50	2.40
25	0.0	0.50	0.0	0.0	0.0	5.60	1.00	1.80	0.50	0.0	7.10	3.60
26	1.30	0.0	0.0	0.0	2.00	0.0	5.90	0.50	5.30	4.10	25.10	56.90
27	0.80	0.0	0.0	0.0	5.30	0.0	13.20	6.90	29.20	17.80	0.50	55.90
28	0.0	9.70	0.0	0.0	59.20	5.10	43.70	0.80	47.00	3.00	0.80	42.70
29	0.0	0.0	0.0	1.50	0.0	10.20	0.0	21.80	8.90	5.80	10.40	41.90
30	2.30	0.0	0.0	0.0	0.0	0.50	2.00	32.30	34.30	0.0	0.0	1.80
31	2.80	0.0	2.80	0.0	9.10	0.0	0.0	0.0	0.0	20.80	0.0	2.50
TOTAL	284.40	190.50	89.10	79.80	331.20	85.00	201.10	250.20	231.70	264.90	389.20	353.20
AVERAGE	9.17	6.80	2.87	2.66	10.68	2.83	6.49	8.39	7.72	9.55	12.97	11.39
MAXIMUM	76.70	45.70	22.90	57.70	59.20	19.60	55.10	55.90	47.00	57.60	56.90	55.90
MINIMUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX-NICHI DATE < 750108 >	76.70											
55-NICHI DATE < 750816 >	27.90											
95-NICHI DATE < 750818 >	8.10											
185-NICHI DATE < 750126 >	1.30											
275-NICHI DATE < 750328 >	0.0											
355-NICHI DATE < 751021 >	0.0											
MIN-NICHI DATE < 751212 >	0.0											
*ITEM( 14 )												
TOTAL	2760.10							7.56			76.70	0.0
***** ANNUAL *****												
***** AVERAGE *****												
***** MAXIMUM *****												
***** MINIMUM *****												

Daily Rainfall at Kundassang Rainfall Gauging Station (1976)

(unit: mm)

*DAY*	1	2	3	4	5	6	7	8	9	10	11	12
1	0.0	20.30	0.0	6.60	11.70	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	9.70	0.0	0.0	18.30	0.0	4.60	15.20	7.90	0.0	15.70	0.0
3	0.80	0.0	0.0	0.0	4.60	2.30	0.0	31.00	0.0	0.30	9.90	0.0
4	0.50	0.0	0.0	0.0	1.80	7.60	4.60	5.30	10.90	5.10	5.10	1.50
5	0.0	0.0	5.30	5.30	3.30	23.10	0.0	0.0	0.0	0.0	0.0	0.0
6	1.50	4.10	0.0	0.0	1.80	1.00	9.40	0.0	0.0	0.0	1.50	20.40
7	2.50	0.0	0.0	6.90	0.0	6.60	0.80	0.0	0.0	34.30	7.90	0.50
8	16.50	0.0	0.0	0.0	14.20	2.30	20.60	0.0	0.0	5.80	0.80	0.0
9	1.00	0.0	20.60	0.0	16.30	0.0	3.80	0.0	0.50	3.50	46.50	0.0
10	3.50	13.50	15.20	0.0	4.80	0.50	4.80	22.60	0.0	9.40	44.90	0.0
11	42.70	15.50	3.50	0.0	7.60	0.0	4.10	5.60	0.0	0.0	0.0	0.0
12	5.80	12.70	0.0	0.0	3.00	0.0	9.40	8.10	1.00	0.50	0.50	3.30
13	0.0	2.80	0.0	0.0	0.0	0.0	13.50	0.0	0.0	12.90	1.50	3.30
14	0.0	0.0	0.0	0.0	0.0	5.30	0.0	20.30	0.0	29.70	2.00	0.30
15	0.80	0.0	0.0	10.40	8.90	0.0	40.60	2.00	0.0	19.30	2.30	0.0
16	10.20	0.0	0.0	3.80	0.0	0.80	0.0	1.50	0.0	0.0	0.30	0.0
17	7.90	0.0	0.30	0.0	0.0	3.00	0.0	0.0	1.30	1.50	19.80	0.0
18	18.00	0.0	0.0	0.0	0.0	10.40	17.80	6.10	0.80	8.90	0.50	16.50
19	21.30	0.0	0.0	0.0	1.30	0.0	0.0	0.0	0.0	17.00	0.0	17.30
20	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.50	2.50	33.50	0.0	22.60
21	2.30	2.80	3.80	0.0	39.60	0.0	0.0	19.50	0.0	0.30	4.30	1.50
22	2.80	0.0	5.10	0.0	71.40	0.30	0.0	7.60	4.90	3.30	16.80	0.30
23	33.00	0.0	0.0	0.0	0.0	0.0	22.90	2.30	52.10	14.20	3.00	10.20
24	26.90	0.0	0.0	2.30	0.0	0.0	0.0	0.50	0.0	4.80	3.90	13.70
25	44.20	7.90	0.0	0.0	0.0	0.0	0.0	8.10	0.0	0.50	0.0	5.10
26	6.60	0.50	0.0	1.80	0.0	0.0	0.0	0.0	0.0	3.80	5.10	4.60
27	11.70	4.30	0.0	5.60	0.0	0.0	7.40	14.20	0.0	0.80	0.0	12.70
28	0.50	2.50	15.70	9.10	0.0	1.50	40.10	10.20	5.10	1.30	4.30	2.00
29	5.10	0.0	3.00	18.50	17.50	3.50	21.80	1.50	8.60	1.30	5.80	2.20
30	4.60	1.00	1.00	1.00	0.0	0.0	0.0	3.00	0.80	16.30	1.50	0.0
31	10.20	0.0	0.0	0.0	2.00	0.0	0.0	0.0	0.0	6.60	0.30	0.30
TOTAL	281.90	96.60	73.50	71.30	228.10	68.20	226.20	185.10	98.40	237.40	208.70	136.60
AVERAGE	9.09	3.33	2.37	2.58	7.36	2.27	7.30	5.97	3.28	7.66	6.56	4.41
MAXIMUM	44.20	20.30	20.60	18.50	71.40	23.10	40.60	31.00	52.10	34.30	46.50	22.60
MINIMUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX-NICHI DATE < 760522 >	71.40											
35-NICHI DATE < 760529 >	17.50											
95-NICHI DATE < 760427 >	5.60											
155-NICHI DATE < 761108 >	0.80											
275-NICHI DATE < 760523 >	0.0											
355-NICHI DATE < 761201 >	0.0											
MIN-NICHI DATE < 761230 >	0.0											
ITEM( 14 )	1912.00   5.22   71.60   0.0											

ANNUAL  
TOTAL AVERAGE MAXIMUM MINIMUM

Daily Rainfall at Kundassang Rainfall Gauging Station (1977)

(unit: mm)

DAY*	1	2	3	4	5	6	7	8	9	10	11	12
1	0.0	0.0	0.0	0.0	0.0	1.50	5.50	0.0	0.0	30.50	41.70	0.0
2	11.70	6.30	0.0	0.0	0.0	0.0	2.50	3.00	0.0	0.0	12.70	0.0
3	0.0	3.50	0.0	0.0	0.0	1.30	0.0	1.30	0.0	2.80	0.50	1.30
4	0.0	85.80	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.00	1.00	0.0
5	0.0	28.20	0.0	0.0	0.0	0.0	0.0	2.50	0.0	21.60	17.50	61.00
6	0.0	13.20	0.50	0.0	0.0	13.50	5.80	13.20	0.0	29.20	1.50	14.20
7	0.0	0.50	11.70	0.0	0.0	4.10	11.20	14.00	0.30	34.30	7.10	37.30
8	2.00	18.00	0.80	0.0	0.0	6.60	15.20	5.80	0.30	13.70	25.90	6.10
9	7.90	15.70	5.30	0.0	9.70	2.30	25.90	5.10	0.0	2.70	2.00	3.80
10	1.00	3.50	0.80	0.0	0.50	1.00	5.10	0.50	0.30	0.50	0.80	11.70
11	16.30	2.00	0.0	0.0	6.90	31.70	5.30	0.50	0.0	7.60	4.10	1.30
12	7.60	0.30	0.0	0.0	9.70	9.10	3.00	0.0	0.0	5.20	1.00	2.00
13	13.20	0.0	0.0	15.70	3.50	39.90	26.20	4.10	0.0	0.50	2.00	0.50
14	126.70	12.80	0.0	43.20	8.40	8.10	3.80	0.0	0.0	41.90	0.0	0.0
15	23.90	39.40	2.30	0.0	17.50	27.90	0.0	0.0	0.0	0.30	2.80	19.10
16	18.90	7.40	6.60	16.00	0.50	5.80	0.0	0.0	13.20	21.30	7.40	5.30
17	0.50	88.10	8.90	3.00	0.0	14.50	5.30	0.0	0.0	2.50	0.30	3.80
18	2.50	46.80	0.0	0.50	0.0	9.10	5.80	0.0	3.80	1.00	0.0	0.80
19	0.50	6.10	4.30	0.0	0.0	3.50	0.0	0.0	0.50	0.80	0.30	6.90
20	0.0	125.70	1.30	0.0	0.0	2.00	0.0	2.30	0.30	20.30	0.0	12.90
21	0.0	16.80	0.0	0.0	5.30	0.0	9.90	6.30	0.0	0.0	0.50	22.60
22	0.0	13.70	0.0	0.0	7.80	4.60	2.50	5.80	59.40	10.70	0.0	0.0
23	23.10	20.80	4.10	0.0	13.70	7.60	0.0	7.80	9.40	10.20	0.0	0.0
24	0.30	8.10	0.0	5.80	0.0	20.80	1.80	10.20	5.30	0.0	17.80	0.0
25	8.60	0.0	0.50	9.40	3.30	0.0	7.60	0.0	0.50	2.50	24.10	0.0
26	6.10	1.00	0.0	0.30	18.80	0.0	0.0	2.50	0.0	0.0	6.60	2.50
27	0.50	4.80	0.0	0.0	6.0	0.0	15.20	7.70	1.80	0.0	21.60	1.50
28	0.0	13.70	0.0	0.0	11.20	9.10	4.10	9.90	1.30	33.00	23.10	0.0
29	0.0	0.0	0.0	9.40	13.20	26.20	2.30	3.80	30.50	1.30	26.90	0.0
30	0.0	0.0	0.0	0.0	0.50	1.00	0.0	0.0	1.30	1.30	0.0	5.20
31	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0	0.0	2.50	0.0	0.0
TOTAL	272.00	541.50	47.10	103.30	139.90	251.20	164.00	184.60	134.20	314.50	249.00	218.90
AVERAGE	8.77	19.34	1.52	3.44	4.51	8.37	5.29	5.96	4.47	10.15	8.30	7.06
MAXIMUM	126.70	125.70	11.70	43.20	18.80	39.90	26.20	7.70	59.40	41.90	41.70	61.00
MINIMUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX-NICHI DATE < 770114 >	126.70											
MIN-NICHI DATE < 770114 >	21.30											
ANNUAL												
95-NICHI DATE < 770109 >	7.90											
185-NICHI DATE < 770930 >	1.30											
275-NICHI DATE < 770411 >	0.0											
355-NICHI DATE < 771201 >	0.0											
MIN-NICHI DATE < 771231 >	0.0											
TOTAL	2620.40											
AVERAGE	7.18											
MAXIMUM	126.70											
MINIMUM	0.0											
ITEM( 14 )												

Daily Rainfall at Kurdassang Rainfall Gauging Station (1978)

(unit: mm)

NO. DATE	1	2	3	4	5	6	7	8	9	10	11	12
1	0.0	0.0	0.0	0.0	0.0	0.50	17.30	2.80	1.30	0.0	3.30	3.80
2	0.0	0.0	0.0	0.0	2.30	13.70	10.50	2.50	0.0	0.0	2.80	3.30
3	0.0	0.0	0.0	0.0	1.00	0.0	6.10	0.0	0.0	0.0	0.0	14.00
4	1.30	0.0	0.0	0.0	0.0	6.30	0.50	22.30	1.80	2.90	12.70	16.50
5	13.50	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0	0.50	26.70	1.50
6	1.30	0.0	0.0	15.20	0.0	4.80	2.00	7.10	7.10	0.0	15.70	0.80
7	1.50	0.0	23.40	0.0	1.50	7.10	5.80	21.30	1.50	7.10	5.30	5.30
8	2.80	0.0	1.00	0.0	10.70	11.40	5.30	0.0	2.00	2.00	1.80	2.50
9	0.0	0.0	63.00	1.50	3.00	14.50	4.30	10.90	20.30	47.00	13.70	0.0
10	1.50	0.0	0.0	0.0	7.60	0.0	0.50	13.50	0.0	19.10	20.50	7.10
11	6.90	0.50	0.0	1.00	8.10	3.80	0.0	21.10	7.60	16.50	5.10	35.10
12	4.10	6.60	0.0	0.0	1.80	8.60	7.90	0.0	0.0	0.0	16.00	21.10
13	13.20	8.10	0.0	10.70	4.30	0.50	12.20	0.0	2.30	0.0	9.70	19.50
14	18.00	9.10	0.0	23.40	7.40	3.50	6.10	0.0	10.70	0.0	0.0	0.0
15	3.30	1.50	0.0	3.80	9.40	1.80	11.40	0.0	1.50	0.0	11.90	3.80
16	0.0	2.80	0.50	0.0	19.10	7.40	1.30	1.50	0.0	86.40	29.70	16.30
17	0.0	19.80	0.20	0.0	7.40	2.30	12.20	0.0	0.0	0.0	5.80	8.10
18	0.0	7.90	0.0	0.0	20.80	37.60	0.0	0.0	0.0	30.70	0.0	0.0
19	0.0	0.30	0.0	0.0	5.80	0.0	0.0	0.0	0.0	3.30	8.90	0.0
20	1.00	0.0	0.0	0.0	12.70	72.40	4.10	1.50	11.90	0.50	14.50	0.80
21	0.0	0.0	0.0	0.50	12.40	15.50	14.50	0.0	6.90	10.20	4.30	7.90
22	7.40	2.30	17.30	18.80	4.10	22.30	2.00	0.0	3.80	5.10	0.80	0.0
23	4.30	20.80	0.0	12.70	2.00	0.0	3.30	0.0	0.0	3.50	14.50	0.0
24	10.90	15.70	0.0	11.20	0.0	13.70	2.30	0.0	80.30	3.80	15.50	0.0
25	5.80	1.00	1.80	20.10	5.30	10.20	0.0	0.0	2.30	1.30	1.50	0.0
26	0.0	0.50	0.0	5.30	0.80	17.50	5.10	2.50	0.0	5.80	0.0	0.0
27	0.0	10.20	0.0	6.10	0.0	21.80	1.80	0.0	0.0	0.0	0.0	0.0
28	0.0	1.00	0.0	16.50	0.0	0.0	1.80	0.0	0.0	3.30	3.80	14.00
29	0.0	0.0	0.0	0.0	0.0	0.50	0.0	4.60	0.0	9.40	3.30	0.0
30	0.0	0.0	0.0	0.0	2.30	0.0	0.0	1.00	0.0	11.40	5.30	5.80
31	0.0	0.0	0.0	10.20	1.80	1.80	12.90	12.90	11.20	11.20	3.80	3.80
TOTAL	131.80	107.90	107.40	146.80	160.00	294.70	149.40	110.00	179.40	280.30	253.70	191.00
AVERAGE	4.25	3.85	3.46	4.89	5.16	9.82	4.82	3.55	5.97	9.04	8.46	6.16
MAXIMUM	41.10	20.60	63.00	23.40	20.80	72.40	18.50	22.30	80.30	86.40	29.70	35.10
MINIMUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX-NIGHT DATE < 781016 >	56.40											
35-NIGHT DATE < 781011 >	16.50											
95-NIGHT DATE < 780514 >	7.40											
185-NIGHT DATE < 780816 >	1.50											
275-NIGHT DATE < 780405 >	0.0											
355-NIGHT DATE < 781209 >	0.0											
MIN-NIGHT DATE < 781229 >	0.0											
4-ITEM( 14 )	2112.10											
AVERAGE	5.79											
MAXIMUM	86.40											
MINIMUM	0.0											
***** ANNUAL *****												
***** TOTAL AVERAGE MAXIMUM MINIMUM *****												
***** 2112.10 5.79 86.40 0.0 *****												

(unit: mm)

Daily Rainfall at Kundassang Rainfall Gauging Station (1979)

*DAY*	1	2	3	4	5	6	7	8	9	10	11	12		
1	0.80	0.0	0.0	0.0	0.0	8.10	16.00	0.0	5.60	0.0	0.30	3.80		
2	3.80	0.50	4.80	14.00	0.0	9.10	2.50	0.0	18.50	7.90	0.0	0.50		
3	0.0	0.0	4.80	6.30	0.0	6.60	0.0	0.0	10.90	5.30	0.0	5.10		
4	1.30	0.0	0.50	0.0	0.0	0.50	7.40	0.0	0.0	6.30	12.40	0.0		
5	2.50	0.0	4.10	0.0	0.0	4.10	6.30	9.10	0.0	30.70	1.00	0.50		
6	2.80	0.0	0.0	0.0	0.0	0.0	4.80	0.50	0.0	41.90	34.30	0.0		
7	0.0	0.0	18.50	0.0	72.40	0.50	5.60	1.00	0.0	49.80	0.0	18.50		
8	0.0	0.0	7.10	0.0	21.30	4.80	9.10	0.0	13.50	42.90	33.30	0.0		
9	0.0	0.0	0.0	0.0	4.80	2.80	3.80	0.0	6.30	41.40	2.80	11.20		
10	0.0	0.0	0.0	0.0	7.10	0.0	0.0	0.0	13.50	6.10	0.0	6.30		
11	0.0	2.30	6.10	0.0	0.0	5.80	10.70	0.0	11.70	21.60	16.30	4.80		
12	0.0	0.50	1.50	18.80	0.0	3.80	1.30	0.0	23.60	19.30	4.10	2.50		
13	0.0	2.30	17.80	4.80	0.0	18.80	22.30	0.0	0.0	10.90	4.60	5.60		
14	0.0	9.90	0.0	3.80	0.0	42.90	0.0	0.0	0.0	8.60	1.50	0.0		
15	0.0	5.80	49.00	0.0	5.80	0.0	16.00	0.0	0.0	10.70	0.0	2.80		
16	0.0	0.50	21.10	0.0	0.0	8.40	10.20	0.0	0.80	0.50	7.90	0.80		
17	0.0	0.0	0.0	0.0	0.0	10.70	0.0	0.0	35.50	0.0	10.70	1.80		
18	0.80	0.0	0.50	0.0	0.0	6.10	5.80	0.0	6.10	41.70	5.30	0.0		
19	0.0	0.0	4.10	0.0	0.0	41.70	18.80	14.50	1.00	16.30	1.00	0.50		
20	10.20	0.0	0.0	0.0	0.0	4.10	12.70	4.10	64.50	13.50	2.50	15.70		
21	3.80	0.0	3.00	0.0	11.70	4.30	0.0	1.80	15.20	4.80	0.0	17.30		
22	0.50	0.0	0.0	14.00	0.0	8.60	6.10	1.50	2.50	5.30	0.0	53.10		
23	1.00	0.0	0.0	0.0	0.0	0.50	43.40	39.90	13.70	3.50	38.10	7.60		
24	0.0	3.80	0.0	0.80	0.0	0.0	0.0	4.10	5.30	4.10	0.0	3.50		
25	0.50	0.0	0.0	2.00	0.0	0.0	0.0	0.0	1.00	4.10	3.50	8.60		
26	0.0	0.0	0.0	2.50	4.10	0.0	0.0	5.10	4.10	0.80	0.0	7.60		
27	0.0	0.0	4.10	0.0	14.20	2.80	23.40	2.30	2.30	13.70	5.80	5.30		
28	0.0	0.0	2.50	0.0	5.10	9.10	0.0	8.40	1.30	3.00	1.00	5.80		
29	0.0	0.0	0.0	0.0	5.30	1.50	0.0	13.50	0.0	42.70	5.10	0.50		
30	0.0	0.0	0.0	0.0	12.70	17.50	0.0	14.50	5.10	4.10	1.80	0.0		
31	0.50	0.0	0.0	0.0	13.50	0.0	6.10	6.30	0.0	5.60	0.0	0.0		
TOTAL	28.50	25.60	149.50	67.00	180.30	223.10	289.10	140.80	260.00	467.10	193.50	189.50		
AVERAGE	0.92	0.91	4.82	2.23	5.82	7.44	7.68	4.54	8.67	15.07	6.44	6.11		
MAXIMUM	10.80	9.90	49.00	18.80	72.40	42.90	43.40	39.90	64.50	49.80	38.10	53.10		
MINIMUM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
MAX-NICHI DATE < 790507	72.40													
MIN-NICHI DATE < 791221	17.30													
95-NICHI DATE < 790311	6.10													
185-NICHI DATE < 790807	1.00													
275-NICHI DATE < 790409	0.0													
355-NICHI DATE < 791121	0.0													
MIN-NICHI DATE < 791231	0.0													
TOTAL	2162.60											5.92	72.40	0.0
AVERAGE	5.92											72.40	0.0	0.0
MAXIMUM	64.50											49.80	38.10	53.10
MINIMUM	0.0													
ANNUAL	72.40													

**2. Daily Mean Discharge Data**

Bedukan

Tomboloi

Tampias

Daily Mean Discharge at Bedukan Gauging Station (1970)

(unit: m<sup>3</sup>/s)

*DAY*	1	2	3	4	5	6	7	8	9	10	11	12
1	3.64	2.03	11.01	7.44	4.30	8.00	6.16	5.67	6.72	11.25	13.35	
2	4.04	2.00	12.23	7.64	3.82	6.85	5.66	10.33	9.74	7.47	10.04	
3	5.03	1.96	7.78	3.72	7.35	5.48	4.92	11.39	5.90	5.77	29.44	
4	10.26	4.66	4.35	4.83	21.88	6.11	4.34	8.56	7.81	6.24	25.39	
5	9.94	2.57	3.69	4.38	28.70	13.58	4.87	7.28	7.70	6.25	27.14	
6	6.24	2.52	3.41	3.88	15.04	9.40	5.22	11.39	4.64	6.18	28.83	
7	4.51	2.26	2.88	2.96	12.83	6.90	6.69	8.84	3.99	10.97	16.07	
8	4.05	2.14	2.88	6.03	8.24	5.21	13.58	5.65	3.97	11.97	12.03	
9	3.84	2.05	2.40	2.40	6.79	5.42	6.59	5.12	3.92	32.24	9.53	
10	3.47	2.02	2.27	4.00	5.60	5.88	17.30	4.18	5.83	14.24	8.33	
11	3.40	1.96	2.25	3.74	5.33	4.33	14.14	3.70	8.50	25.08	7.37	
12	3.49	1.91	2.16	5.25	4.35	4.20	9.01	3.59	19.21	12.40	6.47	
13	3.39	1.82	2.19	6.89	4.03	4.08	7.68	3.29	11.60	9.08	6.71	
14	3.06	1.75	2.12	5.27	3.84	3.70	5.93	3.48	34.31	7.02	6.55	
15	2.90	1.74	1.89	6.50	3.76	4.16	5.03	3.66	47.97	6.46	5.21	
16	2.78	1.76	1.82	3.88	3.82	4.05	6.27	3.22	17.05	6.27	6.26	
17	2.70	1.77	1.81	3.07	5.40	4.22	7.60	3.01	10.61	5.07	5.31	
18	2.50	1.74	1.92	3.55	5.66	3.70	6.24	3.48	11.28	4.73	5.30	
19	2.56	1.91	4.79	11.85	4.64	3.73	5.64	10.31	16.15	5.58	4.89	
20	2.42	2.48	4.46	6.87	4.05	4.01	4.95	8.21	15.04	7.07	4.53	
21	2.42	2.60	6.10	4.39	3.76	4.88	5.74	12.52	10.11	5.91	4.40	
22	2.39	2.05	3.07	3.87	4.15	3.64	9.65	6.95	10.53	4.99	4.99	
23	2.37	1.82	2.57	3.73	6.47	7.63	8.31	8.68	11.28	4.99	4.99	
24	2.30	1.86	2.51	4.12	15.78	8.58	5.88	14.37	8.67	5.29	4.98	
25	2.24	1.83	2.89	2.89	6.54	13.28	4.29	5.15	10.31	7.04	4.98	
26	2.15	2.06	3.97	3.97	8.71	13.04	4.96	6.06	5.59	8.18	4.98	
27	2.02	6.51	3.28	5.23	13.90	10.60	4.17	5.65	4.96	17.31	4.98	
28	2.05	4.70	4.53	3.94	10.66	14.74	4.20	5.91	4.66	13.39	4.98	
29	3.88	4.14	4.40	3.77	13.10	8.50	7.10	5.12	5.39	11.25	4.98	
30	3.88	2.68	5.54	6.10	12.49	5.67	7.13	4.58	8.98	17.73	4.98	
31	3.74	2.94	4.11	6.11	6.64	6.52	6.52	6.52	14.32	4.98	4.98	
TOTAL	102.05	76.24	166.08	166.06	192.94	218.89	207.51	343.47	295.40	295.40	295.40	
AVERAGE	3.44	2.46	5.36	5.36	6.22	6.87	6.92	11.08	9.85	9.85	9.85	
MAXIMUM	10.26	6.51	12.23	11.85	28.70	14.74	17.30	14.37	47.97	32.24	29.44	
MINIMUM	2.02	1.74	1.82	2.40	3.76	3.64	4.17	3.01	3.92	4.73	4.73	
***** ANNUAL *****												
TOTAL AVERAGE MAXIMUM MINIMUM												
***** 47.97 *****												

Daily Mean Discharge at Bedukan Gauging Station (1971)

(unit: m<sup>3</sup>/s)

*DAY*	1	2	3	4	5	6	7	8	9	10	11	12
1	12.10	18.60	4.80	2.30	3.50	6.60	2.70	20.00	4.10	9.60	10.00	
2	8.10	14.10	4.50	2.50	4.90	7.30	3.00	16.00	3.80	8.10	8.10	
3	7.40	10.60	4.40	3.20	6.60	7.80	3.10	10.70	6.20	6.40	6.40	
4	6.60	9.30	4.00	3.80	8.40	3.80	5.30	6.60	11.70	5.10	5.10	
5	19.20	8.60	4.10	2.70	4.10	3.20	7.30	5.50	13.30	7.30	4.30	
6	17.60	209.50	3.70	2.90	4.80	3.10	8.70	4.70	6.80	3.50	4.00	
7	13.70	330.40	8.90	3.50	4.30	2.80	8.10	4.30	5.00	7.30	3.60	
8	13.70	99.50	8.20	2.70	6.90	2.70	12.10	3.80	4.50	14.80	4.00	
9	9.20	330.40	45.50	3.40	7.90	2.40	11.90	3.50	3.90	9.30	4.20	
10	13.40	99.20	20.70	3.60	6.30	2.20	10.60	6.20	3.70	6.80	5.80	
11	12.00	114.60	11.90	3.40	4.10	2.20	10.70	9.00	10.30	6.30	11.10	
12	10.70	29.70	9.10	3.10	2.60	2.10	9.80	5.60	15.30	6.40	13.40	
13	8.60	19.30	8.10	3.00	3.90	2.40	5.40	4.00	9.00	20.00	8.40	
14	7.30	47.20	8.40	3.10	3.30	2.60	4.50	7.30	14.90	20.60	5.10	
15	6.20	35.70	17.80	3.20	3.90	2.30	5.30	8.50	11.20	23.40	4.40	
16	5.40	27.20	21.90	3.10	3.10	2.40	25.80	10.90	7.90	11.30	6.10	
17	5.00	24.40	32.70	3.10	2.20	2.00	10.10	12.40	12.60	16.40	6.50	
18	4.60	29.70	24.60	3.70	2.30	2.80	1.90	18.10	12.40	176.20	5.00	
19	4.50	18.60	22.10	9.10	2.00	3.30	1.80	12.10	6.20	19.70	22.20	5.10
20	9.90	17.80	12.70	3.80	2.10	2.50	1.70	10.20	6.50	14.10	13.90	4.70
21	6.10	20.00	10.70	3.60	5.10	2.90	1.60	14.10	7.70	10.40	17.80	3.50
22	4.70	13.00	9.00	3.40	4.10	3.80	1.60	11.90	12.20	16.50	14.40	3.70
23	6.70	9.90	7.70	3.40	2.70	3.90	1.60	7.40	7.60	12.50	12.90	8.60
24	8.10	8.50	7.00	3.00	2.80	3.60	1.60	8.70	20.40	9.80	11.70	16.10
25	9.00	12.30	6.70	2.70	4.00	3.80	1.50	14.20	18.80	12.70	9.30	9.90
26	8.50	13.50	6.20	2.60	3.10	3.80	2.20	20.60	8.50	14.30	7.80	6.10
27	7.60	11.00	6.20	2.60	6.60	3.20	2.70	19.40	6.50	22.60	6.10	4.40
28	7.40	12.30	5.70	2.50	4.60	3.30	3.10	10.30	6.50	32.30	5.60	4.40
29	15.00	5.40	2.70	2.90	4.00	2.80	7.10	5.40	21.30	7.50	7.10	7.10
30	14.30	5.20	2.40	2.50	3.00	2.20	7.20	4.30	15.10	11.40	13.70	
31	15.90	5.00	5.00	2.50	2.50	2.20	13.60	13.60	11.60	11.60	16.30	
TOTAL	1589.10	396.60	106.70	93.70	127.80	86.40	317.30	258.70	369.30	219.30	219.30	
AVERAGE	51.29	12.79	3.44	3.02	4.26	2.79	10.24	8.62	11.91	7.07	7.07	
MAXIMUM	17.60	330.40	45.50	9.10	6.60	8.40	7.80	25.80	20.40	32.30	176.20	16.30
MINIMUM	6.60	5.00	2.40	2.00	2.50	1.50	1.50	2.70	3.50	3.70	3.50	3.50
ANNUAL												
TOTAL AVERAGE MAXIMUM MINIMUM												
330.40												



(unit: m<sup>3</sup>/s)

Daily Mean Discharge at Bedukan Gauging Station (1972)

#DAY*	1	2	3	4	5	6	7	8	9	10	11	12
1	11.80	18.60	6.50	19.30	2.00	3.20	1.90	0.80	3.40	6.80	6.70	15.50
2	7.80	8.70	4.50	15.80	2.80	3.10	1.80	0.70	5.30	6.70	4.70	10.60
3	23.90	11.20	5.20	11.60	3.00	2.80	1.80	1.20	6.40	13.30	4.20	13.40
4	13.00	10.00	4.60	8.70	7.50	2.90	2.00	1.70	3.90	14.10	3.50	16.20
5	8.60	7.10	4.30	7.10	5.70	2.70	1.90	1.70	5.50	12.40	3.20	12.90
6	7.00	6.00	8.20	5.40	4.50	2.50	1.90	1.50	4.30	14.20	4.90	9.00
7	9.80	4.90	12.60	6.60	21.30	2.70	1.80	3.60	3.90	11.90	7.40	7.40
8	8.70	4.60	7.70	8.60	13.00	3.10	1.60	3.70	3.70	12.80	24.80	24.80
9	6.90	4.10	5.20	16.60	9.50	3.10	1.50	3.20	3.00	15.00	11.50	11.50
10	5.40	3.80	4.70	18.40	8.80	3.50	1.30	4.60	2.30	16.30	7.60	7.60
11	4.50	3.50	4.20	8.10	6.20	5.90	1.20	4.20	3.20	10.30	5.90	5.90
12	4.30	3.30	4.20	6.40	5.00	3.70	1.30	2.40	3.20	7.00	5.10	5.10
13	3.60	3.10	3.90	4.90	4.00	3.10	1.30	2.20	2.40	6.30	4.80	4.80
14	3.40	2.80	3.90	3.90	3.60	2.70	1.20	2.90	1.80	9.70	4.00	4.00
15	4.90	2.50	3.40	4.20	3.20	2.40	1.20	3.10	1.80	8.70	3.70	3.70
16	6.60	2.50	3.20	3.70	2.90	3.10	1.70	1.90	1.70	5.80	15.50	3.50
17	27.90	11.70	6.40	3.20	3.20	5.60	2.00	1.90	1.70	4.60	9.10	3.40
18	11.20	13.60	15.40	2.90	4.90	3.20	2.50	5.70	4.00	3.90	4.90	3.30
19	40.40	6.70	15.00	3.00	3.40	2.70	1.70	4.20	4.00	3.50	4.30	3.30
20	14.10	5.60	12.80	3.20	4.50	2.60	1.50	3.90	9.10	3.20	3.80	2.90
21	14.10	6.40	8.90	2.60	12.30	2.60	1.40	4.40	8.30	3.00	8.30	2.70
22	10.70	6.90	8.50	2.70	8.60	5.80	1.30	3.20	5.50	3.80	13.70	2.80
23	15.70	11.50	13.60	3.30	5.20	5.90	1.20	1.80	5.60	4.20	13.90	2.80
24	9.00	42.90	9.80	2.70	8.40	3.80	1.10	1.90	12.80	3.10	8.30	2.80
25	7.40	28.10	5.70	3.60	5.10	3.70	0.90	5.20	22.40	3.60	6.50	2.90
26	6.40	15.80	5.10	2.70	3.80	2.60	0.80	9.80	20.80	3.30	4.40	3.10
27	5.80	9.60	4.90	2.30	3.20	2.40	0.80	5.10	23.80	3.20	3.90	2.70
28	5.10	7.30	4.20	2.20	3.30	2.10	0.90	3.50	15.70	3.10	3.70	2.40
29	5.30	6.20	4.20	2.10	4.20	2.10	1.00	2.40	10.80	6.00	5.60	2.30
30	5.50	11.60	2.00	2.00	3.80	2.10	0.80	3.30	6.60	18.30	13.00	2.30
31	9.30	17.80	3.50	3.50	3.50	0.70	0.70	3.00	3.00	29.50	3.60	3.60
TOTAL	418.10	266.80	232.40	187.80	180.50	97.70	44.00	99.00	209.50	267.60	196.40	196.40
AVERAGE	13.49	9.27	7.50	6.26	5.82	3.26	1.62	3.19	6.98	8.63	6.40	6.40
MAXIMUM	11.20	42.90	17.80	19.30	21.30	5.90	2.50	9.80	23.80	29.50	15.50	24.80
MINIMUM	3.40	2.50	3.20	2.00	2.00	2.10	0.70	0.70	1.70	3.00	3.00	2.20

ANNUAL  
 TOTAL AVERAGE MAXIMUM MINIMUM  
 11.20

Daily Mean Discharge at Bedukan Gauging Station (1973)

(unit: m<sup>3</sup>/s)

*DAY*	1	2	3	4	5	6	7	8	9	10	11	12
1	5.45	0.96	1.22	2.08	*****	3.73	6.87	3.95	3.56	10.36	12.28	7.31
2	3.63	0.91	1.48	3.81	5.05	4.51	8.72	3.21	4.78	7.80	14.08	7.21
3	2.82	0.86	1.35	3.65	4.79	5.08	11.30	3.35	7.55	7.80	15.10	8.32
4	5.60	0.86	1.41	2.56	8.13	5.81	9.76	3.03	5.59	23.92	14.58	6.49
5	4.32	0.80	1.38	2.19	6.42	3.87	9.10	3.69	7.70	9.73	11.73	9.08
6	6.28	0.77	1.42	1.67	4.65	3.00	7.82	3.01	10.51	8.04	11.18	9.96
7	3.53	0.72	1.46	1.15	8.87	2.59	7.00	2.61	5.89	6.38	17.33	6.15
8	3.11	0.73	1.56	1.00	7.94	3.39	5.15	4.39	4.39	5.66	13.60	5.21
9	2.76	0.65	1.54	0.93	6.76	2.47	4.94	7.93	5.01	6.32	9.22	4.42
10	2.53	0.65	1.60	0.83	5.37	2.20	4.56	5.82	9.58	5.62	7.67	4.01
11	2.33	0.63	1.53	0.71	6.72	4.04	3.57	18.51	10.50	4.68	7.27	3.63
12	2.16	0.59	1.50	0.64	4.85	4.51	3.05	10.17	11.50	4.39	7.13	3.30
13	1.98	0.85	1.54	0.97	4.96	2.61	2.53	6.75	8.31	4.46	6.24	3.16
14	1.69	1.55	1.54	2.61	6.49	2.12	2.21	5.88	11.60	5.81	5.88	3.43
15	1.69	1.61	1.37	1.87	5.09	1.86	1.89	9.32	9.60	4.96	6.91	3.37
16	1.62	1.39	1.18	1.53	3.55	1.80	1.74	8.22	24.33	5.66	7.28	3.90
17	1.49	1.37	1.58	4.72	2.87	1.84	1.73	5.31	18.63	4.96	8.05	4.94
18	1.45	1.39	1.94	5.89	2.81	3.47	1.63	4.11	18.24	3.89	8.93	4.43
19	1.42	1.23	1.62	3.92	2.69	3.76	1.61	4.08	12.55	4.01	8.36	3.77
20	1.32	1.14	1.66	2.90	2.50	7.35	1.95	3.73	9.60	4.84	7.43	3.22
21	1.29	1.11	1.87	3.23	4.76	4.52	3.47	2.84	8.30	4.19	8.53	3.09
22	1.21	1.01	1.94	3.95	3.26	5.26	2.27	2.87	8.47	3.73	7.58	3.93
23	1.15	0.89	1.88	3.50	3.87	6.25	5.80	1.88	7.99	5.28	6.55	3.71
24	1.09	0.67	1.79	2.94	3.95	3.33	5.64	1.67	12.12	3.07	6.78	4.53
25	1.08	0.63	1.74	2.74	2.72	3.91	8.45	5.18	16.88	3.13	12.20	9.75
26	1.07	0.65	1.68	2.88	2.49	4.66	5.65	3.49	22.90	4.36	24.63	10.86
27	1.07	0.73	1.42	2.21	4.85	6.63	4.76	2.68	13.49	8.24	13.80	9.57
28	0.99	0.61	1.60	6.42	3.79	3.79	4.44	8.27	9.97	11.60	9.56	16.22
29	0.99	1.90	1.90	12.92	2.85	4.16	7.05	4.02	12.57	8.50	8.18	10.40
30	0.97	2.32	11.61	2.81	2.81	12.60	8.14	3.24	12.77	6.43	8.33	28.34
31	0.96	2.50	4.09	4.09	4.09	4.88	4.88	2.76	8.01	8.01	11.12	11.12
TOTAL	69.07	25.86	50.52	98.03	*****	130.12	160.08	155.07	356.80	203.83	307.44	217.03
AVERAGE	2.23	0.92	1.63	3.27	*****	4.34	5.16	5.00	11.89	6.58	10.25	7.00
MAXIMUM	6.28	1.61	2.50	12.92	8.87	12.60	11.30	18.51	41.52	23.92	34.63	28.34
MINIMUM	0.96	0.59	1.18	0.64	*****	1.80	1.61	1.67	3.56	3.07	5.88	3.09
***** ANNUAL *****												
TOTAL AVERAGE MAXIMUM MINIMUM												
***** 41.52 *****												

Daily Mean Discharge at Bedukan Gauging Station (1974)

(Unit: m<sup>3</sup>/s)

DAY	1	2	3	4	5	6	7	8	9	10	11	12
1	12.10	18.30	15.90	15.90	2.80	10.90	10.90	9.80	9.80	9.80	2.80	2.80
2	11.40	25.50	19.50	19.50	12.10	12.10	12.10	12.60	12.60	12.60	7.70	7.70
3	24.60	14.80	23.80	23.80	10.40	10.40	10.40	12.10	12.10	12.10	11.00	11.00
4	14.80	12.70	14.40	2.30	7.70	7.70	7.70	8.70	8.70	8.70	8.50	8.50
5	12.20	15.30	10.90	5.30	6.60	6.60	6.60	8.10	8.10	8.10	7.90	7.90
6	11.60	14.10	9.70	7.00	4.50	4.50	4.50	21.90	21.90	21.90	7.40	7.40
7	12.70	11.60	9.30	2.50	3.00	3.00	3.00	10.80	10.80	10.80	6.40	6.40
8	17.20	10.50	7.70	2.60	2.60	2.60	2.60	7.20	7.20	7.20	7.50	7.50
9	22.30	11.00	6.80	5.30	8.20	8.20	8.20	6.00	6.00	6.00	5.20	5.20
10	23.00	12.60	6.60	5.30	6.50	6.50	6.50	5.40	5.40	5.40	3.50	3.50
11	17.30	13.90	5.80	5.80	4.50	4.50	4.50	2.40	2.40	2.40	4.00	4.00
12	14.60	72.70	6.20	3.20	3.20	3.20	3.80	4.30	4.30	4.30	4.30	4.30
13	12.80	326.00	5.90	2.90	2.90	2.90	6.10	6.60	6.60	6.60	3.60	3.60
14	11.30	100.80	5.00	8.50	8.50	8.50	4.70	3.50	3.50	3.50	3.50	3.50
15	10.10	35.80	3.70	7.40	7.40	7.40	3.50	2.90	2.90	2.90	3.10	3.10
16	9.70	23.50	6.70	8.50	8.50	8.50	3.10	2.90	2.90	2.90	4.00	4.00
17	9.20	17.50	7.00	10.20	10.20	10.20	4.10	2.60	2.60	2.60	2.80	2.80
18	17.00	15.70	9.90	20.50	20.50	20.50	5.80	2.10	2.10	2.10	2.70	2.70
19	12.80	14.30	4.60	8.50	10.70	10.70	6.80	2.00	2.00	2.00	3.40	3.40
20	11.00	12.90	4.30	5.70	13.30	13.30	6.70	1.80	1.80	1.80	2.60	2.60
21	11.80	12.20	4.00	3.70	11.10	11.10	5.10	6.00	6.00	6.00	2.10	2.10
22	19.10	13.00	3.70	3.10	11.70	11.70	3.30	4.50	4.50	4.50	5.50	5.50
23	11.50	21.50	3.50	2.90	11.60	11.60	3.00	5.90	5.90	5.90	5.90	5.90
24	9.30	24.20	3.30	2.70	8.50	8.50	3.50	3.00	3.00	3.00	4.00	4.00
25	8.70	13.50	3.30	2.10	7.40	7.40	4.90	5.00	5.00	5.00	3.70	3.70
26	10.00	11.50	2.00	2.00	2.00	2.00	7.30	13.90	13.90	13.90	3.80	3.80
27	13.00	9.10	1.90	1.90	1.90	1.90	3.60	6.20	6.20	6.20	3.40	3.40
28	12.20	8.00	1.80	1.80	1.80	1.80	4.20	3.80	3.80	3.80	2.80	2.80
29	11.10	8.00	1.90	1.90	1.90	1.90	4.90	4.60	4.60	4.60	3.00	3.00
30	9.30	3.10	3.10	3.10	3.10	3.10	8.30	3.50	3.50	3.50	2.60	2.60
31	9.50	11.80	11.80	11.80	11.80	11.80	11.80	11.80	11.80	11.80	11.80	11.80
TOTAL	413.20	892.50	892.50	892.50	892.50	892.50	892.50	892.50	892.50	892.50	892.50	892.50
AVERAGE	13.33	31.88	31.88	31.88	31.88	31.88	31.88	31.88	31.88	31.88	31.88	31.88
MAXIMUM	24.60	326.00	23.80	9.90	20.50	20.50	11.80	21.90	13.90	11.00	5.90	6.90
MINIMUM	8.70	8.00	3.10	2.10	2.10	2.10	2.10	1.80	1.80	1.80	2.60	2.60
ANNUAL												
TOTAL	526.00											
AVERAGE	16.93											
MAXIMUM	24.60											
MINIMUM	2.10											

Daily Mean Discharge at Bedukan Gauging Station (1975)

(unit: m<sup>3</sup>/s)

#DAY#	1	2	3	4	5	6	7	8	9	10	11	12
1	4.07	11.36	16.08	16.58	16.58	16.58	16.58	16.58	16.58	16.58	16.58	16.58
2	3.23	16.08	16.58	16.58	16.58	16.58	16.58	16.58	16.58	16.58	16.58	16.58
3	2.98	16.58	16.58	16.58	16.58	16.58	16.58	16.58	16.58	16.58	16.58	16.58
4	2.49	14.13	14.13	14.13	14.13	14.13	14.13	14.13	14.13	14.13	14.13	14.13
5	2.28	9.59	9.59	9.59	9.59	9.59	9.59	9.59	9.59	9.59	9.59	9.59
6	1.95	7.95	7.95	7.95	7.95	7.95	7.95	7.95	7.95	7.95	7.95	7.95
7	2.06	7.17	7.17	7.17	7.17	7.17	7.17	7.17	7.17	7.17	7.17	7.17
8	1.81	5.86	5.86	5.86	5.86	5.86	5.86	5.86	5.86	5.86	5.86	5.86
9	1.43	4.99	4.99	4.99	4.99	4.99	4.99	4.99	4.99	4.99	4.99	4.99
10	1.75	5.13	5.13	5.13	5.13	5.13	5.13	5.13	5.13	5.13	5.13	5.13
11	1.68	7.93	7.93	7.93	7.93	7.93	7.93	7.93	7.93	7.93	7.93	7.93
12	1.23	5.24	5.24	5.24	5.24	5.24	5.24	5.24	5.24	5.24	5.24	5.24
13	1.06	4.78	4.78	4.78	4.78	4.78	4.78	4.78	4.78	4.78	4.78	4.78
14	2.13	4.03	4.03	4.03	4.03	4.03	4.03	4.03	4.03	4.03	4.03	4.03
15	3.51	4.23	4.23	4.23	4.23	4.23	4.23	4.23	4.23	4.23	4.23	4.23
16	1.38	3.95	3.95	3.95	3.95	3.95	3.95	3.95	3.95	3.95	3.95	3.95
17	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29
18	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
19	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
20	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90	3.90
21	16.03	16.03	16.03	16.03	16.03	16.03	16.03	16.03	16.03	16.03	16.03	16.03
22	59.11	59.11	59.11	59.11	59.11	59.11	59.11	59.11	59.11	59.11	59.11	59.11
23	23.03	23.03	23.03	23.03	23.03	23.03	23.03	23.03	23.03	23.03	23.03	23.03
24	45.84	45.84	45.84	45.84	45.84	45.84	45.84	45.84	45.84	45.84	45.84	45.84
25	21.17	21.17	21.17	21.17	21.17	21.17	21.17	21.17	21.17	21.17	21.17	21.17
26	11.23	11.23	11.23	11.23	11.23	11.23	11.23	11.23	11.23	11.23	11.23	11.23
27	7.84	7.84	7.84	7.84	7.84	7.84	7.84	7.84	7.84	7.84	7.84	7.84
28	7.26	7.26	7.26	7.26	7.26	7.26	7.26	7.26	7.26	7.26	7.26	7.26
29	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72	2.72
30	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10
31	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10	3.10
TOTAL	216.84	216.84	216.84	216.84	216.84	216.84	216.84	216.84	216.84	216.84	216.84	216.84
AVERAGE	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74
MAXIMUM	59.11	59.11	59.11	59.11	59.11	59.11	59.11	59.11	59.11	59.11	59.11	59.11
MINIMUM	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
ANNUAL												
TOTAL	216.84	216.84	216.84	216.84	216.84	216.84	216.84	216.84	216.84	216.84	216.84	216.84
AVERAGE	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74	7.74
MAXIMUM	59.11	59.11	59.11	59.11	59.11	59.11	59.11	59.11	59.11	59.11	59.11	59.11
MINIMUM	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06

(unit: m<sup>3</sup>/s)

Daily Mean Discharge at Bedukan Gauging Station (1976)

*DAY*	1	2	3	4	5	6	7	8	9	10	11	12
1	2.60	2.17	2.42	1.98	2.74	2.41	5.22	1.17	8.91	8.20		
2	2.45	1.99	5.10	1.94	2.36	3.24	4.48	1.00	8.12	5.46		
3	2.31	1.85	6.24	2.30	2.73	6.16	5.59	0.91	11.99	4.53		
4	2.46	1.98	7.26	2.05	1.67	7.05	3.84	0.85	14.81	4.02		
5	3.05	2.18	5.59	2.54	1.53	3.36	3.96	0.77	9.54	4.51		
6	3.89	2.88	3.77	2.92	1.45	2.95	2.78	0.33	8.97	4.88		
7	7.34	2.94	2.09	2.53	4.48	2.25	2.37	0.55	12.20	4.81		
8	6.81	6.81	3.94	4.18	5.18	2.01	2.05	4.40	13.06	3.23		
9	6.29	7.19	3.96	3.57	4.82	1.80	1.84	2.63	16.21	2.82		
10	5.98	10.93	5.93	2.79	5.75	1.59	1.82	4.12	17.66	2.64		
11	7.87	1.93	8.60	2.69	6.45	1.48	1.42	3.63	16.46	2.75		
12	3.93	1.73	6.40	3.38	4.85	1.68	1.56	2.41	11.50	2.85		
13	2.98	2.50	4.71	3.35	4.66	1.90	1.72	2.76	11.44	2.89		
14	5.45	2.52	2.63	2.80	3.56	2.13	1.26	10.77	11.96	2.66		
15	4.41	2.29	2.70	2.58	4.06	2.64	1.03	15.01	10.53	2.40		
16	4.02	2.34	3.91	1.99	7.70	3.08	0.98	12.04	9.61	2.41		
17	3.80	2.43	2.73	1.87	3.51	2.66	1.00	8.69	8.22	2.42		
18	3.59	2.51	1.92	2.11	3.52	1.76	1.08	8.68	7.29	2.52		
19	3.62	2.60	1.67	2.82	5.54	5.13	1.15	10.12	6.43	8.86		
20	3.87	2.69	1.53	1.75	2.89	3.93	1.23	13.82	5.59	11.20		
21	3.12	3.28	1.41	1.51	2.44	2.29	1.30	13.07	5.06	14.92		
22	2.97	4.75	1.43	1.55	2.37	6.86	1.99	10.46	6.01	10.06		
23	2.82	2.53	1.48	2.48	2.94	13.50	9.25	13.26	7.39	6.58		
24	3.59	2.34	1.53	1.56	2.67	10.48	21.05	13.04	11.00	12.77		
25	3.06	2.16	1.59	1.59	2.07	4.91	4.29	10.15	12.90	13.93		
26	3.68	1.98	1.64	1.49	1.82	3.67	2.44	8.93	10.59	10.12		
27	3.90	1.83	1.69	1.39	2.30	3.36	1.81	7.35	8.12	8.30		
28	3.64	2.03	4.94	1.42	2.54	3.28	1.49	6.10	6.26	7.78		
29	2.85	3.85	6.70	2.07	2.84	2.72	3.64	1.51	6.42	7.58		
30	3.24	4.23	1.92	3.33	8.36	8.13	1.29	12.09	7.44	8.17		
31	2.45	2.45	2.08	2.93	2.93	5.38	5.38	11.98	11.98	6.25		
TOTAL	102.53	75.39	71.27	112.21	126.96	92.58	217.51	302.16	192.64			
AVERAGE	3.31	2.51	2.38	3.62	4.10	3.09	7.02	10.07	6.21			
MAXIMUM	7.27	10.93	6.70	4.18	8.36	13.60	21.03	15.01	17.66	14.92		
MINIMUM	1.83	1.41	1.39	1.45	1.48	0.98	0.53	5.06	2.40			
ANNUAL												
TOTAL AVERAGE MAXIMUM MINIMUM												
30.43												

(unit: m<sup>3</sup>/s)

Daily Mean Discharge at Bedukan Gauging Station (1977)

DAY	1	2	3	4	5	6	7	8	9	10	11	12
1	6.43	4.97	13.00	2.31	2.00	5.45	5.18	3.66	6.05	6.41	8.37	10.69
2	9.52	4.99	10.61	2.15	1.73	4.19	5.28	3.05	5.23	18.85	11.36	8.59
3	12.11	4.30	9.49	2.03	1.74	3.38	5.13	2.79	4.58	9.61	10.05	7.80
4	7.87	4.50	8.40	1.95	1.85	3.36	4.15	2.64	4.01	8.15	9.97	7.60
5	5.71	38.83	7.56	2.09	1.92	3.34	3.51	2.87	3.41	7.76	10.76	12.21
6	4.81	57.17	8.28	2.28	2.01	4.53	3.35	3.78	2.94	11.26	10.90	15.20
7	4.03	20.96	8.64	2.57	2.09	8.20	8.07	9.02	2.70	27.71	10.74	13.08
8	4.14	22.23	11.30	2.12	2.18	7.71	7.15	8.03	2.59	17.52	13.71	11.64
9	4.45	33.28	8.60	1.94	2.37	6.73	9.35	5.69	2.48	15.95	16.02	10.75
10	4.93	15.82	8.05	1.76	4.24	5.70	11.11	5.02	2.37	12.25	15.70	9.34
11	9.84	11.82	6.49	1.81	2.58	6.55	8.73	4.99	2.26	9.83	21.71	8.25
12	14.19	10.03	5.77	2.11	3.92	7.20	8.07	3.94	2.15	11.34	16.51	7.79
13	13.81	8.50	5.22	3.95	5.14	24.50	13.33	3.49	2.04	11.04	13.49	7.06
14	54.21	12.60	5.10	6.84	5.00	16.33	13.15	3.71	1.93	9.48	12.83	6.39
15	42.14	14.67	5.46	8.39	11.44	20.03	9.49	3.30	1.83	8.37	12.57	6.07
16	23.66	13.79	5.81	4.65	8.03	18.87	7.42	2.82	1.71	8.75	12.29	5.76
17	22.20	20.99	5.52	6.06	4.94	11.80	6.30	2.42	1.51	9.79	10.35	7.07
18	15.30	81.34	6.18	4.22	3.63	20.21	6.65	2.49	1.29	9.09	9.07	8.23
19	13.08	46.96	5.20	2.59	3.20	13.33	5.57	2.68	1.07	8.49	7.79	7.29
20	10.04	95.79	5.74	2.70	2.49	10.28	5.40	2.86	0.89	8.11	7.54	9.17
21	8.33	101.38	4.93	2.85	3.26	9.15	5.64	3.19	0.84	18.73	7.34	8.71
22	7.16	45.96	4.02	2.08	3.67	9.50	6.03	7.39	0.67	10.61	7.13	7.75
23	8.97	39.47	3.74	1.82	5.47	8.77	8.74	6.43	18.40	12.13	7.05	6.71
24	12.42	33.16	3.45	7.13	5.32	8.02	5.18	15.09	10.11	9.62	6.54	6.13
25	10.46	22.31	3.17	3.99	4.82	8.36	5.73	9.45	5.95	7.49	6.39	5.72
26	11.18	17.22	2.92	4.03	10.49	6.29	5.38	7.16	4.49	7.68	8.79	5.36
27	8.56	14.51	2.73	3.36	10.05	5.22	9.13	13.60	3.58	8.00	13.41	5.02
28	6.68	13.77	2.55	2.94	9.97	5.55	12.03	18.11	3.10	8.31	16.88	4.83
29	5.65		2.38	2.91	10.91	5.77	7.88	14.20	3.69	9.33	20.11	4.70
30	5.05		2.50	2.29	8.66	5.38	5.45	9.50	8.59	8.61	18.40	4.56
31	6.95		2.82		7.59		4.48	6.85		8.25		4.43
TOTAL	371.48	817.32	185.83	97.70	152.69	273.80	216.78	193.22	112.66	338.52	353.77	263.90
AVERAGE	11.98	26.19	5.99	3.26	4.93	9.13	6.93	6.23	3.75	10.92	11.79	7.87
MAXIMUM	54.21	101.38	13.00	8.39	11.44	24.50	15.15	18.11	18.40	27.71	21.71	15.20
MINIMUM	4.03	4.30	2.38	1.76	1.73	3.34	3.51	2.42	0.67	6.41	6.39	4.43

ANNUAL  
 TOTAL AVERAGE MAXIMUM MINIMUM  
 355.27 9.19 101.38 0.67

Daily Mean Discharge at Bedukan Gauging Station (1978)

(unit: m<sup>3</sup>/s)

DAY	1	2	3	4	5	6	7	8	9	10	11	12
1	4.30	2.98	3.81	1.55	4.69	6.62	9.60	4.97	4.97	2.57	8.57	6.85
2	4.07	2.88	3.43	3.10	4.17	5.91	10.49	4.60	4.60	2.70	6.67	5.23
3	3.75	2.81	3.14	5.26	3.98	5.18	9.40	4.80	4.80	2.67	6.06	6.08
4	3.38	2.74	2.85	2.81	4.05	3.97	8.07	2.63	2.63	2.14	7.64	13.00
5	3.73	3.52	2.86	1.85	3.51	3.37	6.81	4.65	4.65	3.04	13.05	13.89
6	21.32	3.06	2.93	2.93	2.87	3.73	7.03	6.46	6.46	2.00	13.85	9.31
7	8.30	2.44	2.93	2.54	2.43	6.92	10.39	7.18	7.18	1.94	18.39	7.65
8	9.27	2.09	3.78	2.22	2.33	5.05	11.04	6.63	6.63	2.63	11.24	8.54
9	8.75	2.02	8.51	1.85	3.01	18.25	7.50	5.21	5.21	13.80	11.02	8.04
10	6.99	1.93	15.00	1.53	4.11	13.11	6.89	8.94	8.94	13.33	10.81	8.33
11	7.63	1.80	5.89	0.93	5.42	11.64	5.94	4.58	4.58	20.64	28.92	9.17
12	10.14	1.83	4.17	0.89	6.37	11.88	5.69	4.36	4.36	15.60	20.97	33.88
13	43.82	1.81	3.41	1.35	5.51	12.79	8.63	5.36	5.36	7.98	17.17	13.80
14	17.94	2.60	2.84	1.95	4.15	8.72	8.76	3.69	3.69	5.32	13.02	13.48
15	10.94	6.10	2.63	11.19	5.09	6.10	9.28	5.42	5.42	4.66	11.82	10.44
16	8.46	6.21	2.50	7.05	8.22	5.67	7.45	4.33	4.33	4.23	12.35	9.94
17	6.08	6.55	2.45	4.70	8.73	7.55	7.88	3.76	3.76	26.50	10.86	14.07
18	6.14	10.16	3.64	3.31	12.91	7.21	7.14	5.19	5.19	3.21	16.72	10.55
19	5.50	4.80	3.32	2.56	9.93	13.42	5.86	5.18	5.18	13.22	9.62	11.15
20	5.09	3.79	2.51	1.78	7.83	15.25	6.99	4.94	4.94	2.54	11.00	7.77
21	4.83	2.97	2.62	1.88	8.09	17.26	7.42	4.50	4.50	3.20	10.32	8.09
22	4.92	2.38	2.64	2.82	14.90	23.52	7.24	4.29	4.29	2.81	13.17	7.84
23	7.12	2.92	4.25	10.09	9.66	13.40	8.48	3.92	3.92	4.48	11.04	6.82
24	11.14	11.11	2.68	10.78	6.56	14.94	8.47	3.33	3.33	4.58	9.29	14.53
25	9.45	13.92	2.45	15.08	5.38	14.01	8.69	2.53	2.53	17.07	7.40	5.63
26	6.52	7.50	2.31	10.70	4.79	10.58	7.56	2.40	2.40	8.58	6.61	7.89
27	5.46	6.56	2.05	12.61	4.26	17.16	6.92	2.58	2.58	5.45	7.05	6.72
28	4.72	4.59	1.81	9.65	3.77	11.15	6.07	2.53	2.53	4.02	5.50	4.47
29	3.94		1.63	10.02	3.40	11.36	5.99	2.22	2.22	3.02	6.97	5.45
30	3.56		1.57	6.20	3.74	8.44	4.98	2.11	2.11	2.64	13.04	5.94
31	3.24		1.52		6.00		5.10	2.89		12.89		10.46
TOTAL	261.12	124.07	107.92	179.76	314.16	236.81	149.59	275.70	327.94	302.32		
AVERAGE	8.42	4.00	3.48	5.80	10.47	7.66	4.99	8.89	10.93	9.75		
MAXIMUM	43.82	13.92	15.00	15.08	14.80	23.52	11.04	10.05	17.07	26.50	28.92	33.88
MINIMUM	3.24	1.80	1.52	1.52	2.33	3.37	4.98	2.54	1.94	1.94	5.45	4.47

ANNUAL  
 TOTAL AVERAGE MAXIMUM MINIMUM  
 43.82

Daily Mean Discharge at Bedukan Gauging Station (1979)

(unit: m<sup>3</sup>/s)

DAYS	1	2	3	4	5	6	7	8	9	10	11	12
1	10.93	2.49	0.67	1.93	1.12	4.53	9.10	6.38	6.90	6.83	10.81	11.26
2	10.07	2.45	1.91	2.05	2.01	8.51	10.65	5.94	6.79	5.37	8.54	10.57
3	9.63	2.45	4.56	4.57	3.44	7.98	6.65	5.02	8.86	5.61	7.33	12.58
4	7.67	3.08	3.18	3.18	2.12	7.72	5.08	4.84	5.91	9.76	8.38	12.63
5	7.38	1.96	2.72	6.35	3.03	5.24	6.89	5.02	3.93	14.46	13.43	9.01
6	6.00	1.87	4.91	3.38	2.34	4.22	4.94	5.70	2.88	20.98	14.96	7.97
7	5.13	1.77	3.30	2.83	2.12	2.96	5.23	5.33	2.78	28.73	12.85	7.58
8	4.81	1.64	6.01	2.13	10.80	3.21	4.66	3.94	2.98	40.67	20.78	7.11
9	4.26	1.49	7.52	1.88	14.47	5.45	7.51	3.36	3.15	36.91	20.03	12.05
10	3.97	1.36	3.85	1.63	8.06	8.84	5.54	3.16	6.61	24.62	13.66	19.87
11	3.72	1.89	2.93	1.69	9.17	5.24	4.79	3.03	7.78	17.38	20.25	15.88
12	3.30	2.14	4.15	1.84	9.72	4.53	8.00	3.16	7.16	19.70	26.11	17.32
13	2.83	2.46	4.72	4.20	4.50	10.63	7.87	3.09	6.51	22.28	19.86	14.72
14	2.71	4.54	7.71	4.84	3.34	19.00	8.51	2.72	6.42	14.78	13.88	10.74
15	2.65	6.77	4.23	3.46	2.62	16.80	7.27	2.49	10.66	12.23	12.01	8.94
16	2.59	3.80	20.27	2.81	2.56	9.00	15.81	2.32	7.88	10.79	10.25	7.96
17	2.50	2.66	14.27	2.08	2.24	13.40	14.30	2.19	8.31	9.15	10.51	7.62
18	2.38	2.30	7.06	1.91	2.86	11.61	8.28	2.16	27.69	7.97	12.55	7.14
19	2.29	2.05	5.67	1.78	3.64	12.24	8.67	2.66	14.09	7.41	12.28	6.46
20	2.59	1.82	4.41	1.66	3.37	15.86	10.03	4.60	17.17	13.53	11.42	7.29
21	3.72	1.64	4.82	2.33	2.96	10.87	11.07	5.84	24.87	13.31	9.89	11.62
22	3.07	1.55	3.54	3.23	3.23	9.56	9.84	5.23	14.15	13.17	7.51	14.85
23	3.62	1.50	3.09	2.27	4.18	11.38	16.06	7.59	14.06	10.22	7.98	15.37
24	3.65	1.43	2.74	2.10	2.83	7.19	15.69	5.81	12.46	8.47	11.62	13.56
25	3.42	1.44	2.48	1.92	2.20	6.21	10.81	4.12	9.82	10.59	10.41	12.70
26	3.43	1.32	2.36	2.53	2.16	6.03	8.40	3.49	11.71	9.33	8.98	12.66
27	2.89	1.09	2.21	1.75	2.74	8.64	8.59	4.93	12.74	8.74	9.02	12.23
28	2.45	0.76	2.45	1.57	3.03	7.91	10.61	4.29	8.94	7.48	13.43	12.79
29	2.25	3.48	3.48	1.42	1.95	7.85	7.88	8.64	7.00	12.12	10.48	11.88
30	2.33	3.63	3.63	1.25	3.40	6.58	6.59	8.00	7.56	22.78	11.56	9.28
31	3.52	2.13	2.13	6.07	6.07	2.96	4.46	2.16	2.78	5.97	7.13	6.46
TOTAL	132.56	60.85	145.88	76.22	120.29	259.19	270.41	141.65	290.77	457.46	350.37	369.59
AVERAGE	4.28	1.96	4.71	2.46	3.88	8.36	8.72	4.57	9.38	14.76	11.30	11.60
MAXIMUM	10.93	6.77	20.27	6.35	14.47	19.00	16.06	8.44	27.69	40.67	26.11	19.87
MINIMUM	2.25	0.76	2.13	1.25	1.12	2.96	4.46	2.16	2.78	5.97	7.13	6.46

ANNUAL  
 TOTAL AVERAGE MAXIMUM MINIMUM  
 2693.74 7.38 40.67 0.67



(unit: m<sup>3</sup>/s)

Daily Mean Discharge at Bedukan Gauging Station (1980)

DAY	1	2	3	4	5	6	7	8	9	10	11	12
1	7.19	7.75	5.12	13.60	10.38	13.78	11.73	8.41	7.00	2.72	9.62	5.37
2	7.09	6.92	5.32	7.36	12.65	9.93	9.70	7.57	6.23	2.77	10.10	17.46
3	7.00	6.54	4.63	5.92	13.02	13.85	7.10	7.40	5.00	2.83	8.66	20.56
4	6.97	5.88	4.44	5.55	10.07	11.41	6.83	6.75	5.00	2.83	6.49	13.27
5	3.19	5.32	4.14	5.58	6.59	15.15	5.40	7.63	4.68	2.68	4.92	14.30
6	7.80	5.20	3.65	9.81	5.54	10.49	5.10	15.28	5.30	5.62	5.62	10.02
7	6.31	5.09	8.07	9.30	6.29	10.51	4.23	12.21	5.48	9.50	8.22	8.72
8	7.60	4.92	13.25	8.46	6.39	12.87	3.98	13.91	4.43	8.57	10.22	8.62
9	15.66	4.59	13.72	8.79	4.82	12.00	4.61	20.04	4.08	10.21	19.01	8.42
10	12.15	5.29	15.33	6.12	5.14	8.02	4.11	18.45	4.57	9.46	14.58	9.27
11	9.68	5.92	11.85	5.00	4.70	6.63	3.56	17.81	3.53	11.41	9.14	12.64
12	8.24	5.04	8.11	4.49	5.36	5.74	3.86	15.10	3.26	15.39	7.38	16.06
13	7.62	4.35	6.38	4.78	5.88	6.32	4.01	11.22	3.13	8.92	6.73	13.17
14	8.04	6.01	5.56	4.10	8.54	7.43	5.44	10.90	*****	6.54	17.05	10.79
15	9.56	15.02	5.09	3.92	8.79	9.70	6.25	10.46	*****	5.81	10.93	9.81
16	7.57	29.82	4.68	3.54	5.97	9.48	4.22	8.36	*****	7.46	9.52	16.61
17	12.98	15.33	4.97	3.07	5.16	16.18	3.92	7.80	*****	5.06	7.41	16.99
18	13.59	24.99	6.64	2.79	4.44	15.37	6.54	7.90	*****	4.09	6.31	27.77
19	11.50	25.02	6.10	5.01	4.22	10.65	7.96	7.31	*****	9.17	5.92	30.56
20	9.42	26.81	5.77	4.97	4.91	9.90	7.07	6.24	*****	7.88	6.48	25.96
21	7.33	18.60	7.73	8.15	4.41	7.54	4.80	10.16	*****	5.24	7.97	17.93
22	24.26	12.82	5.01	7.82	4.76	6.50	6.20	12.67	*****	4.58	5.48	16.21
23	51.79	10.63	4.80	5.39	7.21	6.25	9.71	9.03	*****	5.22	5.10	27.93
24	46.14	8.99	4.13	4.60	4.13	5.51	25.33	6.93	4.72	3.69	4.83	31.08
25	33.76	8.09	7.10	7.56	3.62	6.64	25.46	6.53	5.87	3.13	4.80	44.97
26	23.38	7.07	7.50	8.18	*****	5.84	10.02	19.44	8.00	3.10	7.53	40.59
27	13.78	6.09	12.41	5.42	*****	6.76	7.37	26.33	5.10	3.40	8.57	19.84
28	44.63	5.59	9.65	4.52	2.97	8.57	4.56	10.57	4.41	4.68	5.60	15.22
29	36.51	5.16	9.49	4.14	3.04	5.95	4.70	8.06	3.78	4.96	5.38	13.42
30	24.03	*****	11.32	4.88	3.05	12.06	6.69	8.07	3.10	5.76	6.18	12.25
31	13.54	*****	13.11	*****	6.27	*****	16.80	9.56	*****	6.68	*****	20.37
TOTAL	499.31	300.05	235.87	182.82	*****	287.03	230.68	346.10	*****	189.76	245.95	556.18
AVERAGE	16.11	10.37	7.61	6.09	*****	9.57	7.63	11.16	*****	6.12	8.20	17.94
MAXIMUM	51.79	29.82	15.33	13.60	13.02	16.18	25.46	26.33	8.00	15.39	19.01	44.97
MINIMUM	6.31	4.35	3.65	2.79	*****	5.51	3.56	6.24	*****	2.83	4.80	5.37

ANNUAL  
 TOTAL AVERAGE MAXIMUM MINIMUM  
 \*\*\*\*\*  
 \*\*\*\*\* 51.79 \*\*\*\*\*

Daily Mean Discharge at Tomboloi Gauging Station (1970)

(unit: m<sup>3</sup>/s)

*DAYS	1	2	3	4	5	6	7	8	9	10	11	12
1	133.00	72.00	*****	70.00	*****	*****	215.00	159.00	130.00	97.00	119.00	261.00
2	115.00	73.00	*****	*****	*****	*****	153.00	123.00	139.00	186.00	91.00	167.00
3	130.00	77.00	*****	*****	*****	*****	155.00	116.00	130.00	174.00	137.00	272.00
4	119.00	161.00	*****	*****	*****	*****	164.00	96.00	134.00	217.00	237.00	584.00
5	104.00	323.00	*****	*****	*****	517.00	172.00	78.00	132.00	167.00	118.00	*****
6	108.00	243.00	39.00	*****	*****	348.00	137.00	86.00	105.00	120.00	132.00	852.00
7	101.00	143.00	31.00	*****	*****	284.00	119.00	119.00	91.00	103.00	160.00	543.00
8	184.00	116.00	28.00	*****	*****	203.00	109.00	404.00	79.00	119.00	170.00	346.00
9	147.00	99.00	27.00	*****	*****	192.00	121.00	177.00	81.00	115.00	648.00	258.00
10	211.00	86.00	26.00	*****	*****	149.00	107.00	438.00	77.00	236.00	285.00	218.00
11	489.00	77.00	25.00	*****	*****	142.00	84.00	394.00	76.00	160.00	477.00	171.00
12	302.00	74.00	24.00	*****	*****	112.00	75.00	355.00	71.00	146.00	302.00	144.00
13	249.00	72.00	24.00	*****	*****	93.00	68.00	244.00	58.00	128.00	255.00	161.00
14	169.00	61.00	23.00	*****	*****	81.00	61.00	201.00	53.00	130.00	194.00	129.00
15	132.00	55.00	22.00	*****	*****	77.00	58.00	146.00	52.00	237.00	191.00	109.00
16	113.00	53.00	24.00	*****	*****	86.00	85.00	155.00	52.00	164.00	186.00	98.00
17	108.00	49.00	32.00	*****	*****	113.00	89.00	223.00	49.00	124.00	174.00	92.00
18	134.00	45.00	24.00	*****	*****	105.00	*****	152.00	102.00	114.00	133.00	86.00
19	142.00	42.00	23.00	*****	*****	83.00	57.00	139.00	73.00	97.00	123.00	80.00
20	124.00	40.00	54.00	*****	*****	72.00	55.00	123.00	81.00	141.00	131.00	72.00
21	112.00	40.00	38.00	*****	*****	105.00	59.00	152.00	212.00	126.00	123.00	73.00
22	338.00	38.00	29.00	*****	*****	92.00	67.00	107.00	199.00	263.00	121.00	70.00
23	292.00	38.00	26.00	*****	*****	87.00	65.00	139.00	161.00	260.00	101.00	76.00
24	202.00	36.00	24.00	*****	*****	304.00	137.00	120.00	348.00	165.00	91.00	68.00
25	161.00	34.00	25.00	*****	*****	182.00	90.00	103.00	226.00	133.00	82.00	118.00
26	134.00	32.00	24.00	*****	*****	199.00	74.00	95.00	154.00	113.00	102.00	81.00
27	113.00	32.00	37.00	*****	*****	193.00	80.00	90.00	166.00	88.00	211.00	105.00
28	97.00	*****	50.00	*****	*****	177.00	145.00	83.00	212.00	85.00	271.00	174.00
29	97.00	*****	36.00	*****	*****	282.00	148.00	194.00	145.00	129.00	243.00	124.00
30	87.00	*****	48.00	*****	*****	413.00	116.00	207.00	117.00	121.00	161.00	146.00
31	77.00	*****	49.00	*****	*****	*****	129.00	139.00	*****	134.00	*****	185.00
TOTAL	5024.00	*****	*****	*****	*****	*****	*****	5351.00	3742.00	4592.00	5769.00	*****
AVERAGE	162.06	*****	*****	*****	*****	*****	*****	172.61	126.73	148.13	192.30	*****
MAXIMUM	489.00	323.00	56.00	70.00	*****	517.00	215.00	438.00	348.00	263.00	648.00	852.00
MINIMUM	77.00	*****	*****	*****	*****	*****	*****	78.00	49.00	85.00	82.00	*****
ANNUAL												
TOTAL	*****											
AVERAGE	*****											
MAXIMUM	*****											
MINIMUM	*****											

Daily Mean Discharge at Tomboloi Gauging Station (1971)

(unit: m<sup>3</sup>/s)

DAY*	1	2	3	4	5	6	7	8	9	10	11	12
1	154.00	213.00	214.00	54.00	91.00	95.00	142.00	215.00	215.00	83.00	155.00	186.00
2	180.00	130.00	240.00	51.00	62.00	142.00	142.00	224.00	224.00	75.00	114.00	127.00
3	125.00	124.00	154.00	52.00	87.00	629.00	629.00	147.00	147.00	89.00	99.00	133.00
4	102.00	113.00	132.00	52.00	59.00	330.00	330.00	119.00	119.00	78.00	93.00	111.00
5	97.00	206.00	114.00	50.00	50.00	65.00	65.00	105.00	105.00	73.00	87.00	96.00
6	126.00	1018.00	104.00	48.00	53.00	126.00	126.00	98.00	98.00	77.00	167.00	89.00
7	115.00	1876.00	115.00	45.00	63.00	81.00	81.00	228.00	143.00	55.00	138.00	150.00
8	154.00	1540.00	108.00	44.00	94.00	259.00	259.00	163.00	109.00	50.00	135.00	126.00
9	161.00	2150.00	110.00	44.00	72.00	280.00	280.00	147.00	92.00	47.00	126.00	127.00
10	210.00	1225.00	228.00	46.00	83.00	93.00	93.00	131.00	127.00	42.00	109.00	103.00
11	154.00	1259.00	119.00	42.00	59.00	160.00	160.00	184.00	124.00	43.00	109.00	260.00
12	147.00	668.00	106.00	42.00	57.00	37.00	37.00	208.00	110.00	68.00	109.00	239.00
13	137.00	440.00	93.00	42.00	72.00	53.00	53.00	119.00	92.00	62.00	109.00	234.00
14	129.00	550.00	103.00	52.00	65.00	27.00	27.00	101.00	285.00	86.00	339.00	165.00
15	110.00	555.00	122.00	42.00	63.00	31.00	31.00	87.00	161.00	92.00	334.00	139.00
16	96.00	535.00	221.00	43.00	79.00	26.00	26.00	99.00	179.00	64.00	239.00	136.00
17	87.00	400.00	260.00	44.00	88.00	24.00	24.00	109.00	211.00	76.00	367.00	141.00
18	79.00	367.00	265.00	63.00	82.00	20.00	20.00	173.00	165.00	95.00	109.00	125.00
19	74.00	337.00	220.00	201.00	86.00	18.00	18.00	144.00	161.00	81.00	109.00	115.00
20	107.00	273.00	131.00	74.00	132.00	22.00	22.00	135.00	188.00	174.00	109.00	114.00
21	109.00	245.00	121.00	129.00	132.00	43.00	43.00	106.00	171.00	106.00	109.00	112.00
22	80.00	205.00	111.00	81.00	85.00	54.00	54.00	174.00	138.00	109.00	109.00	107.00
23	171.00	173.00	88.00	96.00	62.00	23.00	23.00	125.00	125.00	157.00	109.00	134.00
24	158.00	153.00	82.00	80.00	56.00	74.00	74.00	101.00	295.00	112.00	109.00	372.00
25	224.00	209.00	84.00	57.00	57.00	51.00	51.00	176.00	362.00	102.00	109.00	241.00
26	278.00	214.00	70.00	47.00	52.00	32.00	32.00	388.00	187.00	151.00	109.00	178.00
27	207.00	274.00	76.00	43.00	84.00	84.00	84.00	370.00	159.00	148.00	110.00	136.00
28	179.00	243.00	71.00	43.00	53.00	43.00	43.00	210.00	126.00	293.00	144.00	143.00
29	148.00	243.00	63.00	46.00	53.00	45.00	45.00	160.00	108.00	322.00	121.00	150.00
30	162.00	209.00	93.00	55.00	59.00	59.00	59.00	145.00	91.00	213.00	135.00	194.00
31	143.00	63.00	63.00	63.00	63.00	63.00	63.00	152.00	152.00	167.00	167.00	227.00
TOTAL	4407.00	15715.00	4081.00	1808.00	1808.00	1808.00	1808.00	4867.00	3350.00	3350.00	4930.00	4930.00
AVERAGE	142.16	507.00	131.65	60.27	60.27	60.27	60.27	162.23	108.66	108.66	159.03	159.03
MAXIMUM	278.00	2150.00	245.00	201.00	132.00	330.00	429.00	388.00	362.00	322.00	367.00	372.00
MINIMUM	74.00	113.00	83.00	42.00	53.00	26.00	26.00	87.00	91.00	42.00	87.00	89.00

ANNUAL  
 TOTAL AVERAGE MAXIMUM MINIMUM  
 4407.00 507.00 2150.00 74.00

Daily Mean Discharge at Tomboloj Gauging Station (1972)

(unit: m<sup>3</sup>/s)

*DAY*	1	2	3	4	5	6	7	8	9	10	11	12
1	386.00	188.50	93.60	343.10	35.10	99.70	38.80	21.60	117.70	158.00	150.40	401.90
2	217.50	146.10	82.30	244.20	58.20	79.30	31.40	23.10	117.40	181.90	127.90	226.40
3	225.70	152.50	72.90	216.30	72.10	76.40	36.30	23.20	117.30	182.50	101.40	201.50
4	248.00	164.60	65.90	192.40	68.10	77.40	30.10	35.50	116.40	207.50	83.40	158.40
5	330.10	143.10	61.70	137.70	79.00	76.50	28.60	45.80	113.20	172.30	73.30	163.80
6	206.80	112.30	79.20	109.70	64.60	91.50	27.80	29.80	180.80	234.00	81.70	116.40
7	161.50	96.50	35.20	94.70	108.40	116.60	27.60	28.00	111.70	255.50	104.90	101.90
8	159.40	86.30	84.80	96.20	120.30	128.90	28.30	43.20	124.20	272.40	78.50	105.70
9	131.30	79.00	73.00	113.60	166.00	84.50	26.80	73.50	96.90	264.50	71.40	161.60
10	111.00	75.70	66.80	143.50	142.60	74.40	25.60	83.40	95.80	313.40	66.20	153.50
11	97.90	79.70	62.90	99.90	105.20	88.40	25.00	82.10	86.70	264.70	102.70	97.80
12	91.00	66.90	66.80	84.30	117.60	99.00	26.00	52.60	74.30	213.00	168.80	83.40
13	83.10	60.30	57.20	73.40	76.40	81.70	23.10	44.00	75.60	194.90	84.30	73.30
14	80.00	56.70	56.10	63.50	84.80	62.70	23.00	44.70	96.60	208.90	70.70	71.10
15	147.90	53.20	49.50	59.40	79.80	54.20	23.80	50.10	71.50	230.30	81.30	65.60
16	146.30	53.60	47.80	54.30	78.80	60.40	26.30	74.90	74.90	169.10	119.50	59.40
17	288.50	193.90	53.90	63.40	80.50	88.70	42.40	52.40	74.20	121.60	124.60	52.90
18	651.40	202.30	182.10	51.50	120.00	65.20	71.30	175.80	145.90	100.60	93.00	50.30
19	569.90	111.60	98.60	57.40	134.40	65.60	36.50	105.90	163.40	89.00	87.80	51.40
20	368.30	95.40	133.00	49.10	221.20	52.70	43.30	73.60	130.70	83.60	70.20	49.30
21	295.60	90.50	110.20	43.50	159.90	53.40	36.70	85.40	183.00	75.30	72.30	44.30
22	260.80	159.70	89.60	40.80	164.50	58.40	30.80	64.60	199.90	79.80	91.90	44.70
23	254.90	135.00	96.80	41.70	153.60	61.60	31.70	51.20	172.50	105.00	274.70	45.00
24	203.70	203.20	229.00	43.50	159.90	51.90	27.00	79.20	263.80	70.80	213.10	40.80
25	158.10	286.00	115.90	71.10	126.70	44.90	27.60	159.60	297.70	67.70	135.90	64.20
26	140.10	219.10	90.80	49.50	125.70	40.50	25.60	216.00	307.10	62.50	103.20	55.20
27	118.10	150.70	77.70	38.60	123.70	41.40	25.30	165.00	288.10	51.50	110.80	46.10
28	106.20	116.50	65.40	35.60	100.30	53.90	27.00	115.10	254.20	74.60	98.10	40.40
29	106.60	99.30	63.40	34.50	143.30	38.50	24.70	219.80	179.80	90.70	83.70	36.20
30	107.30	180.80	180.80	33.70	215.30	39.50	24.00	168.00	159.10	144.40	99.00	35.90
31	129.50	233.40	233.40	192.60	192.60	22.00	22.00	125.90	332.30	332.30	36.30	36.30
TOTAL	6582.50	3680.20	2866.50	2778.10	3678.60	2127.80	936.40	4450.40	5072.30	5224.70	2936.70	2936.70
AVERAGE	212.34	118.90	92.47	92.60	118.66	70.93	30.21	149.35	163.62	167.49	94.73	94.73
MAXIMUM	651.40	286.00	233.40	341.10	251.20	123.90	71.30	219.80	307.10	332.30	274.70	401.90
MINIMUM	80.00	53.20	47.80	33.70	35.10	38.50	22.00	45.80	71.50	51.50	66.20	35.90
ANNUAL												
TOTAL AVERAGE MAXIMUM MINIMUM												
651.40												

Daily Mean Discharge at Tomboloi Gauging Station (1973)

(unit: m<sup>3</sup>/s)

DAY	1	2	3	4	5	6	7	8	9	10	11	12
1	57.50	21.50	14.50	15.70	134.70	46.60	99.30	*****	52.40	285.00	351.70	113.80
2	62.90	21.10	*****	14.00	113.60	49.80	148.30	*****	68.40	212.00	291.70	91.10
3	45.00	21.10	*****	22.50	73.80	44.20	103.20	*****	144.10	171.10	288.00	85.30
4	17.60	20.50	*****	36.30	83.50	59.00	109.30	*****	125.90	261.90	297.40	80.50
5	77.30	20.20	*****	26.60	74.90	*****	92.50	*****	156.70	165.20	237.90	76.60
6	126.00	19.60	*****	18.20	55.20	*****	77.80	*****	254.90	169.50	162.10	84.80
7	33.70	19.10	*****	15.00	101.90	33.70	*****	*****	153.00	132.30	333.60	78.80
8	60.70	18.80	*****	14.10	125.60	31.30	*****	*****	129.40	114.00	332.00	79.10
9	50.40	20.10	*****	13.80	131.30	32.20	*****	*****	123.00	134.50	199.20	64.50
10	45.50	19.20	*****	12.50	166.80	29.70	*****	*****	152.30	126.80	166.30	57.70
11	41.20	18.50	*****	12.00	130.90	39.80	*****	*****	212.50	117.90	140.20	52.30
12	37.70	18.20	*****	14.00	92.40	43.50	*****	159.30	278.20	133.70	183.00	48.20
13	34.70	18.90	*****	13.90	84.40	32.80	*****	120.90	172.00	122.40	123.90	46.70
14	34.30	22.30	13.20	14.90	90.80	27.70	*****	93.80	266.30	139.30	106.60	46.10
15	46.80	25.50	13.80	22.50	82.10	25.40	*****	105.10	417.90	118.40	89.40	78.10
16	37.40	22.40	13.20	22.60	60.80	26.40	*****	94.40	653.80	121.50	91.70	61.00
17	32.80	20.70	13.20	22.00	51.70	24.90	*****	82.80	476.90	109.40	185.10	81.80
18	29.40	19.10	15.40	38.90	48.10	29.00	*****	63.60	399.70	85.30	155.70	103.20
19	27.90	18.20	15.70	63.10	49.50	33.80	*****	53.20	260.60	91.10	187.20	78.70
20	26.60	17.70	14.00	72.00	79.50	48.30	*****	45.40	267.00	85.10	124.40	67.10
21	25.70	19.10	13.30	61.50	117.00	51.30	*****	40.10	180.60	81.60	114.00	64.50
22	26.80	18.40	16.00	41.50	74.80	64.20	*****	33.40	176.50	69.60	108.10	100.20
23	25.40	17.30	23.10	80.50	61.00	85.00	*****	33.30	153.00	79.20	95.30	70.00
24	24.10	15.90	17.10	94.20	84.40	78.30	*****	31.10	287.60	74.50	92.20	60.30
25	23.90	15.40	15.70	61.20	78.40	58.80	*****	36.10	457.00	73.70	101.50	76.00
26	23.40	15.40	13.80	51.60	59.90	53.50	*****	40.00	746.60	61.00	230.10	115.80
27	23.70	14.50	12.60	53.10	58.70	53.50	*****	31.30	530.90	68.20	170.90	93.60
28	23.00	14.30	12.60	86.10	59.30	70.20	*****	42.70	349.90	130.60	122.70	269.50
29	22.20	12.90	184.40	12.90	48.40	50.90	*****	34.60	404.00	142.80	100.40	173.50
30	21.50	12.60	173.30	42.90	132.80	*****	*****	30.30	345.30	118.90	119.90	305.10
31	21.00	13.60	13.60	51.50	51.50	*****	*****	59.80	112.20	112.20	248.20	248.20
TOTAL	1335.70	533.00	*****	1349.70	2566.80	*****	*****	*****	8396.40	3908.70	5306.60	3050.10
AVERAGE	43.09	19.04	*****	44.99	82.80	*****	*****	*****	279.88	126.09	176.82	98.39
MAXIMUM	126.00	25.50	23.10	184.40	166.80	132.80	163.20	159.30	746.60	285.00	351.70	305.10
MINIMUM	21.00	14.30	*****	12.00	42.90	*****	*****	*****	52.40	61.00	89.40	46.10

\*\*\*\*\*  
 ANNUAL  
 \*\*\*\*\*  
 TOTAL AVERAGE MAXIMUM MINIMUM  
 \*\*\*\*\*  
 \*\*\*\*\* 746.60 \*\*\*\*\*  
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(unit: m<sup>3</sup>/s)

Daily Mean Discharge at Tomboloi Gauging Station (1974)

*DAY*	1	2	3	4	5	6	7	8	9	10	11	12
1	201.60	188.70	*****	*****	*****	87.20	324.30	125.10	61.30	84.10	50.30	45.30
2	208.60	352.10	*****	*****	*****	94.50	165.50	131.20	50.10	82.30	44.70	44.20
3	345.70	145.70	*****	*****	*****	85.00	125.70	199.70	50.50	113.60	43.00	827.00
4	237.70	124.90	*****	*****	*****	74.80	109.50	145.80	45.20	129.60	40.10	91.90
5	181.40	303.10	*****	*****	*****	60.90	82.90	152.70	40.20	147.60	37.70	64.50
6	155.90	280.70	*****	*****	*****	56.80	69.40	164.50	45.70	157.30	40.00	87.20
7	170.20	162.00	*****	*****	*****	52.60	62.60	129.50	38.70	123.40	37.30	63.80
8	168.20	133.60	*****	*****	*****	50.20	56.80	95.40	39.10	119.70	35.10	58.60
9	248.80	129.20	*****	*****	*****	45.20	59.70	79.70	36.80	89.30	33.60	186.50
10	477.90	160.10	*****	*****	*****	48.10	49.60	71.80	36.90	72.10	31.70	134.60
11	236.80	157.30	*****	*****	*****	50.20	52.60	62.60	33.70	61.70	37.60	254.50
12	174.90	349.70	*****	*****	80.00	43.20	108.60	56.60	32.00	75.20	39.10	118.30
13	138.40	*****	*****	*****	71.00	45.30	273.30	55.30	29.40	100.90	61.30	98.20
14	117.60	*****	*****	*****	82.10	56.60	133.30	50.50	30.70	77.80	46.50	104.50
15	98.70	*****	*****	*****	119.20	50.50	210.50	45.70	43.50	61.40	41.30	86.40
16	103.80	*****	*****	*****	142.20	51.60	108.10	42.90	49.50	55.00	228.40	86.20
17	86.90	*****	*****	*****	131.70	48.70	136.90	41.30	53.20	51.30	76.30	68.20
18	200.60	*****	*****	*****	526.10	55.10	201.00	39.50	37.40	75.40	57.40	63.50
19	140.40	*****	*****	*****	302.30	52.90	163.10	39.40	35.60	220.80	48.70	193.30
20	115.70	*****	*****	*****	278.60	72.70	172.50	44.20	59.20	89.90	57.00	124.00
21	127.60	*****	*****	*****	233.10	83.90	142.10	76.20	126.00	72.40	44.60	90.70
22	145.90	*****	*****	*****	249.90	83.10	109.80	96.00	97.60	56.70	83.90	64.90
23	116.70	*****	*****	*****	299.00	112.40	99.40	95.60	159.60	51.10	101.30	57.40
24	95.60	*****	*****	*****	268.40	126.30	84.90	93.30	73.50	48.50	77.10	76.10
25	80.80	*****	*****	*****	176.50	328.60	77.40	53.50	123.60	46.00	56.30	74.50
26	83.60	*****	*****	*****	176.10	383.30	87.10	61.80	365.20	48.50	53.50	88.70
27	95.20	*****	*****	*****	203.10	441.70	73.60	134.40	149.70	54.30	48.90	114.60
28	90.90	*****	*****	*****	299.10	190.60	67.50	73.30	101.20	44.60	43.60	158.70
29	73.70	*****	*****	*****	153.30	150.20	64.20	95.60	117.80	40.50	48.90	98.50
30	68.00	*****	*****	*****	107.50	218.00	101.70	71.50	108.20	40.80	42.60	83.70
31	69.10	*****	*****	*****	90.80	109.20	96.00	96.00	96.00	54.40	70.00	70.00
TOTAL	6854.80	*****	*****	*****	*****	3299.30	3663.00	2700.00	2240.90	2345.20	1687.80	3178.50
AVERAGE	156.61	*****	*****	*****	*****	109.99	118.16	87.10	74.70	82.10	56.26	102.53
MAXIMUM	477.90	352.10	*****	*****	526.10	441.70	324.30	199.70	345.20	220.80	228.40	254.50
MINIMUM	68.00	*****	*****	*****	43.20	49.60	39.40	29.40	29.40	40.50	31.70	44.20

\*\*\*\*\* ANNUAL \*\*\*\*\*  
 \*\*\*\*\* TOTAL AVERAGE MAXIMUM MINIMUM \*\*\*\*\*  
 \*\*\*\*\* 526.10 \*\*\*\*\*

Daily Mean Discharge at Tomboloi Gauging Station (1975)

(unit: m<sup>3</sup>/s)

*DAY*	1	2	3	4	5	6	7	8	9	10	11	12
1	73.20	80.70	119.70	71.20	40.70	143.30	85.60	75.80	138.80	380.50	81.10	243.40
2	96.70	73.70	210.10	51.60	37.10	141.70	65.60	46.40	118.20	251.10	103.10	146.60
3	215.00	60.70	222.70	54.10	38.60	142.20	62.30	59.90	96.80	186.10	150.00	130.90
4	127.10	53.80	292.70	61.80	111.50	142.80	55.20	55.00	128.10	166.40	152.90	122.20
5	105.60	50.20	193.60	64.20	68.50	263.80	54.50	53.30	128.60	161.90	181.80	101.50
6	621.10	46.20	163.80	73.80	86.30	183.30	62.80	53.80	126.80	184.30	191.00	130.00
7	401.50	43.60	138.80	57.60	116.20	173.80	58.00	48.40	170.10	269.70	183.70	110.80
8	258.60	42.60	109.80	49.80	117.10	153.00	86.00	45.60	177.70	239.00	208.80	112.20
9	372.40	41.10	93.60	44.80	195.70	108.60	81.50	43.60	125.20	369.30	190.10	92.40
10	258.70	39.20	85.10	41.50	101.60	101.10	83.80	79.60	152.70	*****	148.40	85.20
11	405.90	36.90	90.70	38.30	183.20	131.70	85.80	87.00	260.70	*****	156.80	76.10
12	274.40	36.10	77.00	36.70	186.20	114.60	60.10	50.50	278.00	162.80	106.10	128.90
13	185.60	34.90	66.40	35.40	315.20	81.40	52.40	42.80	212.30	145.40	168.90	237.10
14	143.90	34.90	59.70	37.80	505.00	70.20	109.20	39.70	199.80	154.90	202.40	178.80
15	140.90	64.90	57.20	35.60	431.80	65.40	196.90	45.60	151.50	119.10	166.60	167.00
16	337.20	47.50	57.60	33.30	314.00	63.00	238.40	73.00	156.40	112.80	134.50	149.20
17	159.70	37.00	59.30	31.50	255.70	97.20	149.90	289.60	324.70	106.60	108.50	461.70
18	121.60	35.80	62.90	30.60	*****	139.70	241.20	105.50	324.80	87.80	118.70	287.10
19	102.00	40.90	125.10	33.90	*****	105.50	220.20	123.70	218.30	78.00	110.50	197.50
20	102.70	63.10	87.40	30.20	*****	84.50	149.40	144.90	196.00	75.10	87.60	435.70
21	130.00	568.00	81.10	33.30	392.10	81.30	115.40	255.60	180.30	81.50	82.50	268.40
22	148.70	559.50	133.90	49.90	556.30	75.50	119.40	314.90	181.60	76.90	79.00	195.50
23	106.40	362.40	143.80	50.70	333.20	65.00	114.50	253.70	213.50	103.40	87.10	156.20
24	89.70	511.40	139.10	34.90	219.70	55.40	94.50	288.10	239.40	91.40	150.00	188.40
25	77.80	596.40	100.70	30.00	158.80	52.30	97.20	159.30	290.10	65.20	136.90	216.00
26	69.40	277.20	79.10	27.00	128.30	57.50	96.50	140.00	186.30	60.40	125.10	137.00
27	68.00	179.20	68.10	25.60	106.50	68.70	101.70	108.20	169.00	86.60	167.00	135.10
28	62.80	140.00	60.40	25.50	126.00	80.00	140.00	98.50	385.20	111.60	136.80	119.40
29	66.60	31.70	55.40	31.70	183.90	72.40	199.10	86.10	553.50	90.50	203.00	254.20
30	55.80	54.60	52.20	54.60	121.70	103.60	110.60	100.10	406.10	79.40	347.20	337.90
31	65.20	55.90	55.90	54.60	127.50	127.50	87.90	182.80	*****	69.30	*****	*****
TOTAL	5444.40	4156.90	3338.90	1296.90	*****	3280.50	3475.60	3573.00	6475.70	*****	4465.90	*****
AVERAGE	175.63	148.46	107.71	43.23	*****	109.35	112.12	115.26	215.66	*****	148.86	*****
MAXIMUM	621.10	596.40	292.70	84.20	556.30	263.80	241.20	334.90	553.50	380.50	347.20	461.70
MINIMUM	55.80	34.90	52.20	25.50	*****	52.30	52.40	39.70	96.80	*****	79.10	*****
***** ANNUAL *****												
***** TOTAL AVERAGE MAXIMUM MINIMUM *****												
***** 621.10 *****												

(unit: m<sup>3</sup>/s)

Daily Mean Discharge at Tomboloi Gauging Station (1976)

DAY*	1	2	3	4	5	6	7	8	9	10	11	12
1	254.83	189.67	46.03	40.68	76.18	47.91	49.81	52.66	89.52	31.02	116.62	96.21
2	148.89	192.49	43.58	45.44	54.81	42.66	59.83	53.77	92.27	29.82	107.86	91.80
3	119.14	130.04	40.82	37.75	73.31	38.75	63.49	75.96	79.97	50.53	136.37	98.35
4	100.27	111.46	42.08	36.09	92.87	39.47	59.82	108.54	64.67	61.95	250.11	63.54
5	87.91	96.80	41.96	49.80	114.49	54.91	51.82	77.75	73.05	57.73	163.09	55.80
6	80.33	87.78	53.85	48.15	84.16	98.94	43.67	61.20	56.00	38.44	140.87	51.10
7	72.03	81.34	66.96	53.27	130.93	107.63	94.71	49.38	49.82	39.92	204.07	54.86
8	87.82	73.96	43.59	61.17	101.20	85.41	92.44	43.51	44.79	70.85	283.74	53.97
9	99.60	68.16	64.05	76.89	86.04	104.51	86.77	40.00	42.77	66.49	202.19	46.41
10	78.95	63.16	134.00	72.04	98.17	83.19	114.55	37.70	44.06	56.42	230.88	46.47
11	73.17	68.51	81.40	44.68	149.57	102.30	135.55	38.72	41.89	62.43	401.07	49.39
12	227.15	91.43	57.73	40.38	159.08	81.69	128.41	58.68	37.46	46.47	207.05	43.46
13	115.29	101.96	49.32	79.36	147.71	92.87	129.65	47.70	35.63	44.17	156.78	53.90
14	131.80	93.22	44.29	71.02	101.87	74.30	136.86	41.52	34.51	52.17	160.54	48.06
15	107.00	68.59	41.14	150.95	122.37	59.33	86.86	57.81	32.90	117.37	130.14	42.86
16	110.85	61.56	38.47	142.34	147.20	53.07	95.98	103.08	31.59	119.97	131.24	39.67
17	139.40	56.89	37.03	81.77	139.92	45.80	68.59	100.39	32.26	79.51	102.45	40.04
18	101.77	54.03	38.06	68.41	93.66	42.89	60.91	132.45	33.68	112.20	93.94	41.00
19	143.79	50.78	41.04	58.72	75.80	44.05	61.75	97.36	30.40	135.19	97.16	45.15
20	113.21	48.32	39.53	50.94	84.13	38.62	50.07	95.23	31.49	115.49	79.62	80.16
21	100.02	45.69	41.36	45.25	50.92	37.94	44.71	71.67	40.46	148.59	72.40	202.33
22	94.55	49.30	76.17	41.60	55.32	38.13	43.86	60.20	41.65	134.81	75.64	114.18
23	86.36	60.03	48.63	41.72	114.77	46.23	50.61	108.06	46.33	179.04	77.24	83.20
24	246.45	51.14	38.41	42.26	61.62	43.89	51.40	88.18	154.45	145.43	96.35	91.89
25	560.18	53.00	36.05	43.04	48.48	41.89	55.48	62.33	78.40	215.23	117.31	172.24
26	955.85	50.23	34.84	76.28	43.51	64.38	43.37	53.52	47.41	155.36	94.79	196.05
27	500.73	52.95	35.09	53.87	40.53	37.42	53.89	154.52	38.92	107.41	88.17	115.70
28	420.06	57.59	36.02	48.32	37.84	32.93	79.53	74.63	35.32	129.40	72.47	123.04
29	290.60	49.32	42.31	63.29	41.20	43.36	52.53	117.11	36.44	175.31	84.69	128.33
30	213.57	46.75	46.75	60.31	41.27	59.20	59.35	162.06	33.86	168.94	96.23	123.60
31	175.13	50.34	50.34	40.10	40.10	53.50	53.50	106.32	158.96	158.96	93.69	93.69
TOTAL	6144.30	2249.45	1512.99	1825.79	2731.18	1783.15	2282.77	2431.99	1531.37	3084.10	4271.08	2594.45
AVERAGE	198.20	72.57	48.80	60.86	88.10	59.44	73.64	78.45	51.05	99.49	142.37	83.69
MAXIMUM	955.85	109.67	134.00	150.95	169.57	107.63	136.86	162.06	154.45	215.23	401.07	202.33
MINIMUM	72.03	45.69	36.84	36.09	37.84	32.93	43.37	37.70	30.40	29.42	72.40	39.67

ANNUAL

TOTAL	6144.30
AVERAGE	198.20
MAXIMUM	955.85
MINIMUM	72.03



(unit: m<sup>3</sup>/s)

Daily Mean Discharge at Tomboloi Gauging Station (1977)

DAY*	1	2	3	4	5	6	7	8	9	10	11	12
1	108.36	73.89	*****	50.30	51.35	124.79	150.19	69.87	104.27	48.18	122.91	131.17
2	109.17	66.52	*****	46.05	54.55	112.51	176.35	61.43	88.23	56.11	167.93	104.54
3	147.34	82.89	*****	47.53	44.68	87.99	181.59	63.55	78.07	40.90	160.10	96.98
4	98.76	61.77	*****	68.77	40.69	100.92	99.92	61.76	67.64	47.51	124.61	89.59
5	79.40	457.30	*****	47.39	38.26	82.70	86.12	62.69	*****	79.17	140.25	93.62
6	68.61	1038.37	*****	44.27	35.49	147.48	86.95	113.16	*****	78.21	193.33	261.93
7	61.11	532.44	*****	42.77	48.87	159.95	124.98	212.68	*****	179.18	197.45	237.46
8	50.37	400.90	*****	44.03	38.04	295.22	107.59	172.99	*****	172.99	269.63	170.52
9	52.47	732.69	139.73	46.07	46.42	230.64	111.36	225.05	*****	127.04	233.16	222.98
10	54.49	407.32	149.63	40.49	65.15	172.49	220.39	200.40	*****	144.94	202.02	145.06
11	55.27	265.17	129.43	*****	99.77	170.14	217.13	163.60	*****	105.39	230.66	124.96
12	86.67	219.26	114.79	*****	63.58	167.05	138.16	115.22	*****	170.55	309.52	167.26
13	96.12	162.55	100.72	*****	105.32	271.97	182.39	180.94	*****	170.61	216.71	150.69
14	144.55	150.59	90.51	*****	132.45	242.64	213.30	181.17	*****	126.78	192.91	134.41
15	685.84	244.34	86.57	*****	201.41	195.27	140.62	99.60	*****	133.26	166.20	114.46
16	225.59	162.22	86.43	*****	160.37	318.77	111.06	85.08	*****	112.82	197.46	*****
17	183.73	299.00	87.21	*****	112.12	239.45	94.52	73.47	*****	140.89	145.58	*****
18	141.73	1120.35	76.97	*****	78.61	361.47	87.14	82.87	*****	119.95	116.93	*****
19	152.30	809.92	83.63	*****	65.47	279.90	75.16	87.54	*****	100.19	99.08	*****
20	120.48	788.97	94.25	*****	66.65	220.29	68.75	81.17	*****	96.64	97.26	*****
21	100.84	1633.54	117.52	*****	95.66	322.05	79.00	86.30	*****	352.80	85.82	*****
22	87.70	*****	90.42	*****	116.14	228.45	137.30	94.71	*****	195.93	80.18	*****
23	99.99	*****	74.10	*****	144.82	214.45	105.11	186.46	*****	193.30	74.90	*****
24	247.53	*****	85.95	*****	118.80	181.22	83.07	319.00	*****	169.89	75.87	*****
25	209.00	*****	70.21	*****	*****	144.21	128.15	439.22	74.51	128.03	99.14	*****
26	198.18	*****	66.63	*****	187.72	123.16	108.27	170.34	62.38	107.74	109.45	*****
27	135.27	*****	63.74	53.26	172.99	103.48	109.12	230.90	69.90	94.66	121.44	*****
28	120.34	*****	59.62	46.64	150.71	109.44	207.31	348.87	41.56	95.70	150.32	*****
29	104.00	*****	54.59	135.42	187.63	144.29	183.70	266.66	40.55	160.45	151.38	*****
30	90.60	*****	52.31	60.66	154.41	183.69	151.53	165.95	42.79	114.04	245.55	*****
31	80.31	*****	53.37	*****	125.28	*****	82.86	153.27	*****	134.33	*****	*****
TOTAL	4205.00	*****	*****	*****	5676.08	3949.09	4876.49	*****	3998.18	4777.77	*****	*****
AVERAGE	135.45	*****	*****	*****	189.87	127.59	157.31	*****	128.97	159.26	*****	*****
MAXIMUM	605.84	1633.54	149.63	135.42	201.41	361.47	220.39	439.22	104.27	352.80	309.52	261.93
MINIMUM	50.37	*****	*****	*****	38.04	82.70	68.75	61.43	*****	40.90	74.90	*****
***** ANNUAL *****												
***** TOTAL AVERAGE MAXIMUM MINIMUM *****												
***** 1633.54 *****												

Daily Mean Discharge at Tampias Gauging Station (1977)

(unit: m<sup>3</sup>/s)

#DAY#	1	2	3	4	5	6	7	8	9	10	11	12
1	5.91	119.06	66.84	137.35	127.01							
2	5.83	103.06	73.26	157.69	106.45							
3	5.81	92.48	49.96	152.15	99.48							
4	5.76	82.95	129.46	91.82	131.40							
5	5.76	76.77	90.06	147.63	131.40							
6	6.22	69.44	110.77	175.27	230.32							
7	6.42	64.12	194.73	176.16	209.88							
8	6.04	61.06	168.83	206.76	185.92							
9	6.27	6.64	59.03	140.68	199.31							
10	6.74	58.27	129.95	131.59	147.45							
11	6.68	58.99	109.30	213.20	137.80							
12	6.48	54.37	172.44	242.81	164.43							
13	6.66	50.55	149.69	186.05	144.08							
14	6.73	47.58	135.62	173.65	138.79							
15	6.46	47.25	127.17	160.27	117.60							
16	6.29	45.01	127.85	176.45	105.06							
17	6.17	40.84	143.77	143.65	107.21							
18	6.09	38.87	124.66	123.28	102.51							
19	5.97	47.33	106.86	107.00	100.40							
20	5.91	37.71	102.72	102.55	94.85							
21	5.92	34.00	283.75	91.75	91.70							
22	6.36	32.62	193.59	88.01	88.09							
23	6.21	58.13	193.65	80.41	74.65							
24	6.07	85.38	166.46	82.74	67.56							
25	6.33	254.20	68.04	141.16	100.29							
26	6.20	159.82	74.18	121.51	104.59							
27	6.26	223.11	84.74	106.53	111.92							
28	6.56	290.79	51.38	105.89	150.79							
29	6.46	236.79	53.30	134.40	148.99							
30	6.15	175.73	55.31	124.06	206.17							
31	6.01	143.19	131.58	131.58	66.35							
TOTAL	1051.85	4097.42	4456.94	3473.55								
AVERAGE	61.73	132.17	148.56	112.05								
MAXIMUM	6.74	290.79	283.75	242.81	230.22							
MINIMUM	32.62	49.96	80.41	49.90								

ANNUAL  
 TOTAL AVERAGE MAXIMUM MINIMUM  
 290.79

Daily Mean Discharge at Tampias Gauging Station (1978)

(unit: m<sup>3</sup>/s)

DAY#	1	2	3	4	5	6	7	8	9	10	11	12
1	51.69	56.00	57.44	17.79	87.32	101.55	162.58	166.46	65.95	100.92	117.88	
2	66.48	51.77	51.01	16.49	69.55	109.66	242.11	156.76	66.01	100.92	75.13	80.20
3	44.79	47.92	41.15	18.88	70.77	101.21	181.69	140.48	44.20	100.92	141.35	74.42
4	39.63	44.88	41.15	18.88	86.05	77.93	173.18	118.17	39.99	100.92	207.90	82.52
5	44.66	56.65	37.06	18.88	68.78	79.92	151.46	155.10	55.53	100.92	172.33	154.92
6	108.79	45.91	33.85	18.88	121.60	94.56	146.36	100.85	65.54	100.92	195.79	116.07
7	83.23	38.16	31.68	18.88	76.48	114.32	145.61	84.57	61.04	100.92	240.25	107.17
8	112.05	36.43	46.87	18.88	79.71	130.10	151.22	78.52	96.10	100.92	184.65	149.01
9	104.46	34.34	42.71	18.88	68.19	140.72	141.70	68.48	70.15	100.92	154.37	117.68
10	88.78	33.61	84.66	18.88	71.61	160.59	137.33	66.80	100.92	100.92	169.07	129.39
11	163.83	35.48	43.14	18.88	86.88	127.24	116.91	43.30	100.92	100.92	125.32	
12	192.54	32.94	33.70	20.40	125.10	159.87	107.92	70.77	100.92	100.92	399.06	
13	269.01	30.94	30.10	17.89	121.46	180.24	108.69	57.94	100.92	100.92	224.19	
14	218.47	37.49	27.87	48.73	99.50	127.02	178.49	52.53	100.92	35.23	201.27	
15	183.83	81.10	27.94	126.50	178.02	137.38	143.76	50.43	100.92	38.66	155.87	
16	143.96	68.96	31.23	78.73	258.45	164.14	136.07	47.84	100.92	37.14	175.03	
17	121.43	79.83	31.90	49.57	295.75	138.69	155.02	47.67	100.92	98.13	252.18	
18	101.40	95.38	38.70	40.28	263.18	135.41	163.52	45.84	100.92	89.79	213.77	
19	90.11	62.19	31.87	40.32	263.96	169.43	128.26	42.82	100.92	75.08	161.97	
20	82.25	50.98	26.89	40.10	213.01	249.02	130.65	40.86	100.92	58.57	135.63	
21	72.69	41.74	21.77	34.39	240.14	240.95	123.39	39.24	100.92	61.00	116.97	
22	70.79	38.09	21.41	49.63	267.56	112.28	129.18	30.54	100.92	153.19	104.15	
23	93.41	43.63	28.91	123.72	228.96	267.86	126.48	33.69	100.92	134.86	90.72	
24	109.24	107.26	23.28	99.37	31.32	226.24	152.59	80.12	100.92	88.52	77.41	
25	141.90	147.42	23.67	114.18	160.14	199.84	144.30	31.39	100.92	66.87	92.46	70.61
26	116.69	102.90	21.99	102.93	144.51	166.12	165.56	30.55	100.92	98.05	74.86	66.43
27	96.08	82.57	20.84	164.42	128.80	200.74	186.99	30.10	100.92	84.95	63.85	59.04
28	85.68	67.55	18.19	174.77	116.45	188.53	147.78	29.53	100.92	72.07	62.56	55.86
29	75.35	16.20	16.20	145.80	108.00	164.21	132.87	29.00	100.92	82.85	57.77	54.95
30	67.85	16.69	16.69	101.14	105.43	134.82	112.37	31.11	100.92	101.04	109.95	50.29
31	61.04	17.86	17.86	121.52	121.52	116.13	116.13	30.33	100.92	136.95	62.55	
TOTAL	3342.11	1656.12	1026.29	1026.29	4540.20	4900.59	4540.35	1917.26	100.92	100.92	3985.73	
AVERAGE	107.81	53.42	33.11	33.11	146.66	163.35	146.66	61.85	100.92	100.92	125.51	
MAXIMUM	269.01	147.42	84.66	174.77	297.75	412.28	262.11	155.10	96.10	153.19	240.25	399.06
MINIMUM	39.63	30.94	16.20	16.20	68.19	77.93	107.92	29.00	100.92	100.92	50.29	

ANNUAL  
 TOTAL : AVERAGE : MAXIMUM : MINIMUM  
 3342.11 : 107.81 : 269.01 : 39.63

(unit: m<sup>3</sup>/s)

Daily Mean Discharge at Tampias Gauging Station (1979)

DAY#	1	2	3	4	5	6	7	8	9	10	11	12
1	93.55	114.37	21.98	26.18	17.67	148.14	56.37	55.96	54.12	48.82	203.36	164.29
2	114.37	25.34	25.04	25.04	18.77	131.58	58.97	50.41	74.27	42.44	115.26	165.36
3	91.81	37.69	37.23	29.66	29.66	131.29	52.17	46.26	66.47	39.24	89.38	127.19
4	75.86	36.29	34.15	33.51	30.37	118.63	44.68	43.19	52.49	41.31	89.37	124.89
5	72.94	35.52	35.78	60.57	47.23	111.75	51.20	40.78	43.63	46.69	93.65	91.93
6	66.22	34.53	42.04	37.93	59.94	84.78	43.99	40.89	39.55	63.78	110.21	79.32
7	57.00	30.66	38.17	28.57	35.04	71.88	41.59	37.11	34.38	92.64	120.75	73.04
8	53.92	27.28	41.91	27.64	40.73	67.65	39.22	34.93	32.37	157.61	144.39	71.29
9	53.39	35.26	164.23	25.01	145.08	71.67	35.18	32.15	31.84	122.15	211.77	127.02
10	52.95	29.80	71.01	23.17	91.68	93.96	42.55	30.17	36.51	101.39	158.15	246.92
11	50.80	32.18	103.23	21.86	144.35	68.80	39.72	28.80	51.34	73.39	149.95	159.00
12	49.92	34.48	147.96	36.70	159.31	83.20	30.71	26.47	42.79	74.69	248.63	133.33
13	46.33	28.24	108.42	40.74	89.70	98.94	59.39	25.28	42.61	115.18	283.94	107.87
14	44.99	34.32	111.69	34.83	83.87	132.77	128.83	24.28	60.20	80.03	188.94	91.57
15	41.48	100.01	73.66	35.72	52.38	162.30	72.41	23.39	151.49	65.40	192.27	78.57
16	41.00	62.76	223.34	26.21	48.89	112.86	94.54	22.74	85.95	59.56	158.38	74.27
17	39.14	43.99	165.90	23.41	44.32	109.00	102.40	22.15	63.76	51.97	172.08	78.38
18	39.86	37.82	108.70	21.60	49.70	128.59	86.01	25.89	104.56	52.36	156.82	74.61
19	38.55	35.82	138.90	19.90	45.71	137.29	97.98	29.34	114.13	59.23	158.20	68.25
20	44.05	32.19	81.23	19.23	48.28	216.19	102.47	44.81	91.12	70.11	151.52	66.75
21	50.11	30.34	86.66	22.43	57.21	142.94	89.19	43.92	203.13	131.92	127.29	82.10
22	44.32	28.85	70.52	42.60	269.82	105.41	84.26	41.67	132.49	89.91	107.18	90.31
23	43.61	28.48	56.32	31.63	132.84	109.28	221.97	51.82	91.22	77.07	95.85	112.96
24	49.98	25.74	50.05	15.71	104.62	80.13	156.71	78.77	86.81	61.94	104.49	90.55
25	63.34	28.52	43.90	21.59	107.01	73.75	110.72	49.80	96.34	106.88	95.08	96.84
26	51.77	24.50	39.53	29.06	105.37	68.51	92.82	33.51	85.61	68.93	85.42	110.06
27	22.53	35.64	28.01	28.01	80.44	71.07	117.78	34.46	104.00	70.40	83.51	98.59
28	21.58	35.99	22.10	144.01	144.01	99.11	113.74	51.52	72.66	62.07	100.90	130.95
29	34.22	19.81	121.27	19.81	121.27	64.13	83.37	62.49	61.07	102.44	95.49	127.07
30	29.73	18.52	29.73	18.52	133.64	56.26	70.97	79.83	51.73	196.74	165.21	107.55
31	27.77	145.98	27.77	145.98	145.98	62.06	62.06	50.27	124.39	124.39	85.35	85.35
TOTAL	2285.20	856.65	2683.89	3152.38	2533.97	1250.96	2259.64	2550.68	4317.36	2340.78		
AVERAGE	73.72	28.56	86.58	105.08	81.74	40.55	75.32	82.28	143.91	107.77		
MAXIMUM	114.37	100.01	223.34	60.57	269.82	216.19	221.97	79.83	203.13	196.74	283.94	246.92
MINIMUM	21.98	18.52	17.67	18.52	17.67	56.26	35.18	22.15	31.84	39.24	83.51	68.25

ANNUAL  
 TOTAL AVERAGE MAXIMUM MINIMUM  
 283.94

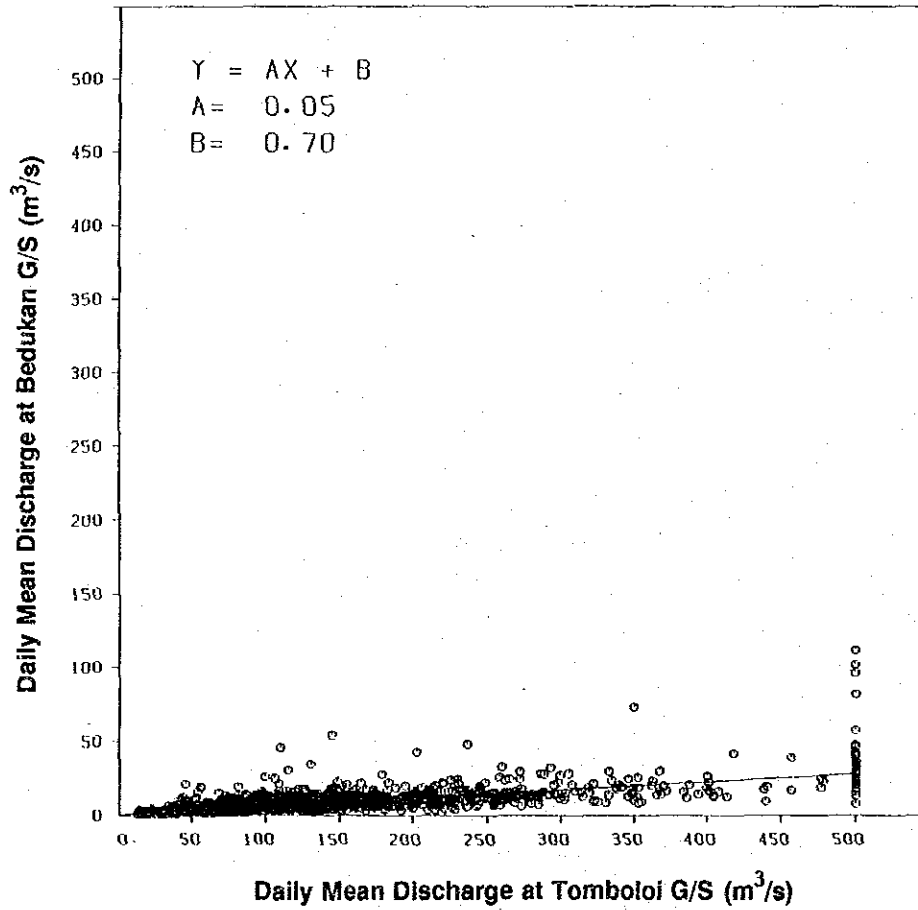
**3. Correlation of Discharge Data**

Bedukan G/S - Tomboloi G/S

Bedukan G/S - Tampias

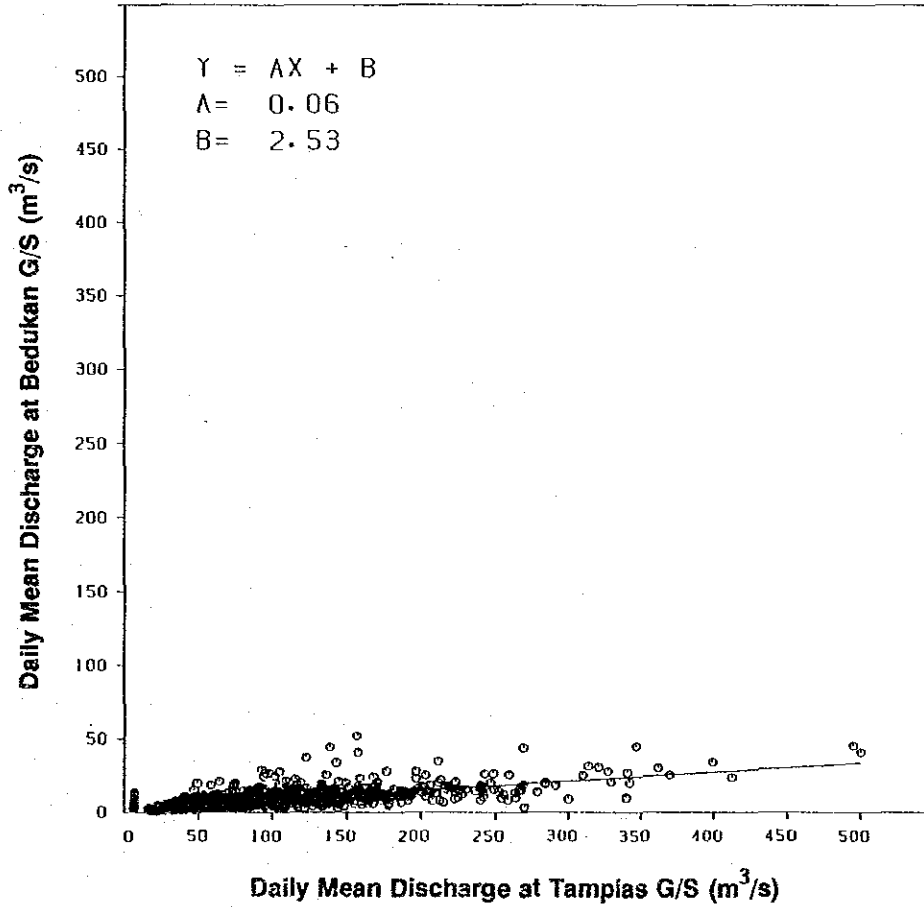
Correlation of Discharge Data between Bedukan G/S and Tomboloi G/S (1970-1977)

R= 0.776    COUNT=2104    700101 - 771231



**Correlation of Discharge Data Between Bedukan G/S and Tampeds G/S (1977-1980)**

R= 0.689      COUNT=1188      770101 - 801231



**4. Supplemented Daily Mean Discharge Data at Bedukan G/S**



Supplemented Daily Mean Discharge at Bedukan River Gauging Station (1970) (unit: m<sup>3</sup>/s/100km<sup>2</sup>)

DAY*	1	2	3	4	5	6	7	8	9	10	11	12
1	3.98	1.82	1.01	5.50	3.72	2.15	4.00	3.08	4.33	3.36	5.03	6.67
2	3.26	2.02	1.00	6.11	3.02	1.91	3.42	2.83	5.16	4.87	3.73	5.92
3	3.86	2.51	0.98	3.89	1.86	3.07	2.74	2.46	5.69	2.95	2.88	14.70
4	3.42	5.33	2.33	2.17	2.81	10.94	3.05	2.17	4.28	3.90	3.12	12.69
5	2.82	4.97	1.28	1.84	2.59	14.35	6.69	2.53	5.04	3.85	3.13	13.57
6	2.98	3.12	1.26	1.70	1.91	7.52	4.70	2.61	5.69	2.32	3.09	14.41
7	2.70	2.25	1.13	3.15	1.48	6.41	3.45	3.34	4.42	1.99	5.48	8.03
8	6.02	2.02	1.07	2.55	3.01	4.12	2.60	6.79	2.82	1.98	5.98	6.01
9	4.54	1.92	1.02	1.20	3.79	3.39	2.71	3.59	2.56	1.96	16.12	4.76
10	7.10	1.73	1.01	1.13	2.00	2.80	2.94	8.85	2.09	2.91	7.12	4.16
11	10.22	1.70	0.98	1.13	1.97	2.66	2.16	7.07	1.85	4.25	12.54	3.68
12	10.74	1.74	0.95	1.08	2.33	2.17	2.10	4.50	1.79	9.60	6.20	3.23
13	8.62	1.69	0.91	1.09	3.44	2.01	2.04	3.84	1.64	5.80	4.54	3.23
14	5.42	1.53	0.88	1.06	2.83	1.92	1.85	2.96	1.74	17.15	3.51	3.32
15	3.94	1.45	0.87	0.94	3.25	1.88	2.08	2.51	1.83	23.98	3.23	2.60
16	3.18	1.39	0.88	0.91	1.94	1.91	2.02	4.13	1.61	8.52	3.13	3.13
17	2.98	1.35	0.86	0.90	1.73	2.70	2.11	3.80	1.50	5.30	2.53	2.85
18	4.02	1.35	0.87	0.96	1.77	2.83	1.85	3.12	1.74	5.64	2.36	2.85
19	4.34	1.23	0.95	2.39	1.89	2.32	1.86	2.73	3.15	3.07	2.79	2.44
20	3.62	1.21	1.24	2.23	3.33	2.02	2.00	2.47	4.10	7.52	3.53	2.31
21	3.14	1.21	1.30	3.05	2.19	1.88	2.44	2.87	6.26	5.05	2.95	2.20
22	12.18	1.19	1.02	1.53	1.93	2.07	1.82	4.82	3.47	5.26	2.49	1.46
23	10.34	1.18	0.91	1.28	1.86	3.23	3.81	4.15	4.34	5.64	2.49	1.70
24	6.74	1.15	0.93	1.15	2.06	7.89	4.29	7.18	7.18	4.33	2.64	1.38
25	5.10	1.12	0.91	1.44	3.27	6.64	2.14	2.57	5.15	3.52	2.49	3.38
26	4.02	1.07	1.03	1.98	4.35	6.52	2.48	2.55	3.02	2.79	4.09	1.90
27	3.18	1.01	3.25	1.64	2.86	6.95	5.30	2.88	2.82	2.48	8.65	2.86
28	2.54	1.02	2.35	2.26	1.97	5.33	7.37	2.10	2.95	2.33	6.69	5.82
29	2.54	1.02	2.07	2.20	1.88	6.55	4.25	3.55	2.56	2.69	5.64	3.62
30	1.94	1.01	1.34	2.77	3.05	6.24	2.83	3.56	2.29	4.49	8.86	4.50
31	1.07	1.47	1.47	2.05	2.05	3.32	3.32	3.26	3.26	7.16	6.06	6.06
TOTAL	159.35	50.90	38.08	61.23	81.97	132.98	96.42	109.08	103.66	171.66	147.63	152.94
AVERAGE	5.14	1.62	1.23	2.04	2.64	4.43	3.11	3.52	3.46	5.54	4.92	4.97
MAXIMUM	10.22	5.43	3.25	6.11	5.42	14.35	7.37	8.85	7.18	23.98	16.12	14.70
MINIMUM	1.07	1.01	0.87	0.90	1.48	1.88	1.82	2.08	1.50	1.96	2.36	1.38
ANNUAL												
TOTAL	1507.00											
AVERAGE	3.50											
MAXIMUM	23.98											
MINIMUM	0.87											

Supplemented Daily Mean Discharge at Bedukan River Gauging Station (1971) (unit: m<sup>3</sup>/s/100km<sup>2</sup>)

Supplemented Daily Mean Discharge at Bedukan River Gauging Station (1971)

DAY*	1	2	3	4	5	6	7	8	9	10	11	12
1	4.90	6.05	9.30	2.40	1.15	1.75	3.30	1.35	10.00	2.05	4.70	5.00
2	5.86	4.05	7.05	2.25	1.25	2.45	3.65	1.50	8.00	1.90	3.30	4.05
3	3.66	3.70	5.30	2.20	1.60	3.30	3.90	1.55	5.35	3.10	2.82	3.30
4	2.74	3.30	4.65	2.00	1.90	4.20	1.90	1.85	3.30	5.85	2.38	2.55
5	2.54	9.60	4.30	2.05	1.35	2.05	1.40	3.65	2.75	6.65	3.65	2.15
6	8.80	104.75	4.00	1.85	1.45	2.40	1.55	4.35	2.35	3.40	4.25	2.00
7	6.85	145.20	4.45	1.75	1.40	2.15	1.40	4.05	2.15	2.50	3.65	1.80
8	6.85	49.75	4.10	1.80	1.35	3.45	1.85	6.05	1.90	2.85	7.40	2.00
9	4.60	165.20	22.75	1.70	1.75	3.95	1.20	5.95	1.75	1.95	4.65	2.10
10	6.70	49.60	10.35	1.80	1.55	3.15	1.10	5.30	3.10	1.85	3.40	2.90
11	6.00	57.30	5.95	1.70	1.35	2.05	1.10	5.35	4.50	5.15	3.15	5.55
12	5.35	14.85	4.55	1.55	1.30	2.55	1.05	4.90	2.80	7.85	3.20	6.70
13	4.30	9.65	4.05	1.80	1.20	1.95	1.20	2.70	2.00	4.50	10.00	4.20
14	3.65	23.60	4.20	1.85	1.25	1.65	1.30	2.25	3.65	7.45	10.30	2.55
15	3.10	17.85	8.90	1.60	1.20	1.95	1.15	2.65	4.25	5.40	11.70	2.20
16	2.70	13.60	10.95	1.55	1.05	1.55	1.20	12.90	5.45	3.95	5.65	3.05
17	2.50	13.20	16.35	1.55	1.10	1.40	1.00	5.05	6.20	6.30	8.30	3.25
18	2.30	14.85	12.30	1.85	1.15	1.40	0.95	8.05	4.55	6.20	88.10	2.50
19	2.25	9.30	11.05	4.55	1.00	1.65	0.90	6.05	3.10	9.85	11.10	2.55
20	4.95	8.90	6.35	1.90	1.05	1.25	0.85	5.10	3.25	7.05	6.95	2.35
21	3.05	10.00	5.35	1.80	2.55	1.45	0.80	7.05	3.85	5.20	8.90	1.75
22	2.35	6.50	4.50	1.70	2.05	1.90	0.80	5.95	6.10	8.25	7.20	1.85
23	3.35	4.95	3.85	1.70	1.35	1.95	0.80	3.70	3.80	6.25	6.45	4.30
24	4.05	4.25	3.50	1.50	1.40	1.80	0.80	4.35	10.20	4.90	5.85	3.05
25	4.50	6.15	3.35	1.35	2.00	1.90	0.75	7.10	9.40	6.35	4.65	4.95
26	4.25	6.75	3.10	1.30	1.55	1.90	1.10	10.30	4.25	7.15	3.90	3.05
27	3.80	5.50	3.10	1.30	3.30	1.60	1.35	9.70	3.25	11.30	3.05	2.20
28	3.70	6.15	2.85	1.25	2.30	1.65	1.55	5.15	3.25	16.15	2.80	2.20
29	7.50	6.15	2.70	1.35	1.45	2.00	1.40	3.55	2.70	10.65	3.75	3.55
30	7.40	7.40	2.60	1.20	1.25	1.50	1.10	3.60	2.15	7.55	5.70	6.85
31	7.95	7.95	2.50	1.20	1.25	1.10	1.10	6.80	2.15	5.70	8.15	8.15
TOTAL	142.50	794.55	198.30	53.35	46.85	65.90	43.20	198.65	129.55	184.65	250.70	109.65
AVERAGE	4.60	28.38	6.40	1.78	1.51	2.13	1.39	5.12	4.31	5.96	8.36	3.54
MINIMUM	2.25	3.30	2.50	1.20	1.00	1.85	0.75	1.35	1.75	1.85	2.38	1.75
MAXIMUM	8.80	145.20	22.75	4.55	3.30	4.40	3.90	12.90	10.20	16.15	88.10	8.15

ANNUAL  
 TOTAL AVERAGE MAXIMUM MINIMUM  
 2175.65 5.96 165.20 0.75

Supplemented Daily Mean Discharge at Bedukan River Gauging Station (1972) (unit: m<sup>3</sup>/s/100km<sup>2</sup>)

DAY#	1	2	3	4	5	6	7	8	9	10	11	12
1	5.90	9.30	3.25	9.65	1.00	1.60	0.95	0.40	1.70	3.40	3.35	7.75
2	3.90	4.35	3.25	7.90	1.40	1.55	0.90	0.35	2.65	3.35	2.35	5.30
3	11.95	5.60	2.60	5.80	1.50	1.40	0.90	0.60	3.20	6.65	2.10	6.80
4	6.50	5.00	2.30	4.35	3.75	1.45	1.00	0.85	1.95	7.05	1.75	8.10
5	4.30	3.55	2.15	3.55	2.85	1.35	0.95	0.85	2.75	6.20	1.60	6.00
6	3.50	3.00	6.10	3.70	2.25	1.25	0.95	0.75	2.15	7.10	2.45	4.50
7	4.90	2.45	6.30	3.30	10.65	1.35	0.90	1.80	1.95	5.95	2.80	3.70
8	4.35	2.20	3.85	4.50	6.50	1.55	0.80	1.85	1.85	6.40	1.80	12.40
9	3.45	2.05	2.60	8.50	4.75	1.55	0.75	1.60	1.50	7.50	1.52	5.75
10	2.70	1.90	2.35	9.20	4.40	1.75	0.65	2.30	1.15	8.15	1.31	3.80
11	2.25	1.75	2.10	4.05	3.10	2.95	0.60	2.10	1.60	5.15	2.77	2.95
12	2.15	1.65	2.10	3.00	2.50	1.85	0.65	1.20	1.65	3.50	5.41	2.55
13	1.80	1.55	1.95	2.45	2.00	1.55	0.65	1.10	1.20	3.15	2.05	2.40
14	1.70	1.40	1.95	2.15	1.80	1.35	0.60	1.45	0.90	4.85	1.49	2.00
15	2.45	1.25	1.70	2.10	1.60	1.20	0.40	1.55	0.90	4.35	7.00	1.85
16	3.30	1.25	1.60	1.85	1.45	1.55	0.85	0.95	0.85	2.90	7.75	1.75
17	13.95	5.85	3.20	1.80	1.60	2.80	1.00	0.95	0.85	2.30	4.55	1.70
18	55.60	6.80	7.70	1.45	2.45	1.60	1.85	2.80	2.00	1.95	2.45	1.65
19	20.20	3.35	7.50	1.50	1.70	1.35	0.75	2.10	2.25	1.75	2.15	1.65
20	7.95	2.80	6.40	1.60	2.25	1.30	0.75	1.95	4.55	1.60	1.90	1.45
21	7.05	3.20	4.45	1.30	6.15	1.30	0.70	2.30	4.15	1.50	4.15	1.35
22	5.35	3.45	4.25	1.35	4.30	2.90	0.65	1.65	2.75	1.90	6.85	1.40
23	7.85	5.75	6.80	1.65	2.65	2.95	0.60	0.90	2.80	2.10	6.95	1.40
24	4.50	21.45	4.90	1.35	4.20	1.90	0.55	0.95	6.40	1.55	4.15	1.40
25	3.70	14.05	2.85	1.90	2.55	1.65	0.45	2.60	11.20	1.80	3.25	1.45
26	3.20	7.90	2.55	1.35	1.90	1.30	0.40	4.90	10.40	1.65	2.20	1.55
27	2.90	4.80	2.45	1.15	1.60	1.20	0.40	2.55	12.90	1.60	1.95	1.55
28	2.55	3.65	2.10	1.10	1.65	1.05	0.45	1.75	7.85	1.55	1.85	1.20
29	2.65	3.10	2.10	1.05	2.10	1.05	0.50	1.20	5.40	3.00	2.80	1.15
30	2.75	5.90	5.90	1.00	1.90	1.05	0.40	1.65	3.30	9.15	6.50	1.10
31	4.65	8.90	8.90	1.75	1.75	1.75	0.55	1.50	16.75	16.75	16.75	1.80
TOTAL	209.05	134.40	116.20	95.90	90.25	48.85	22.00	49.50	106.75	123.80	99.24	99.20
AVERAGE	6.74	4.63	3.75	3.43	2.91	1.63	0.71	1.60	3.49	4.32	3.31	3.20
MAXIMUM	55.60	21.45	8.90	9.85	10.65	2.95	1.85	4.90	12.90	14.75	7.75	12.40
MINIMUM	1.70	1.25	1.60	1.00	1.00	1.05	0.35	0.35	0.85	1.50	1.31	1.10

ANNUAL  
 TOTAL AVERAGE MAXIMUM MINIMUM  
 1201.14 3.28 55.60 0.35

Supplemented Daily Mean Discharge at Bedukan River Gauging Station (1973) (unit: m<sup>3</sup>/s/100km<sup>2</sup>)

*DAY*	1	2	3	4	5	6	7	8	9	10	11	12
1	2.72	0.48	0.61	1.04	4.05	1.86	3.43	1.97	1.78	5.18	6.14	3.65
2	1.81	0.45	0.74	1.90	2.25	2.32	4.36	1.60	2.39	2.39	7.01	3.60
3	1.41	0.53	0.67	1.82	2.39	2.54	5.65	1.67	3.77	3.90	7.55	4.16
4	2.80	0.43	0.70	1.88	4.06	2.90	4.88	1.51	2.79	11.96	7.59	3.34
5	2.16	0.40	0.69	1.89	3.41	1.93	4.55	1.84	3.85	4.86	5.66	4.54
6	3.14	0.39	0.71	0.83	2.32	1.50	3.91	1.50	5.25	4.02	5.59	4.98
7	1.76	0.36	0.73	0.57	4.43	1.29	3.50	1.30	2.94	3.19	8.66	3.07
8	1.55	0.36	0.78	0.50	3.97	1.69	2.57	2.19	2.19	2.83	6.80	2.60
9	1.39	0.32	0.77	0.46	3.38	1.23	2.47	3.76	2.50	3.16	4.61	2.21
10	1.26	0.32	0.80	0.41	2.68	1.10	2.28	2.91	4.79	2.81	3.83	2.00
11	1.16	0.32	0.76	0.35	3.36	2.02	1.78	9.25	5.25	2.34	3.63	1.81
12	1.08	0.29	0.75	0.32	2.32	2.25	1.52	5.08	5.75	2.19	3.54	1.65
13	0.99	0.42	0.64	0.48	2.48	1.30	1.26	3.28	4.15	2.23	3.12	1.58
14	0.84	0.77	0.77	1.30	3.24	1.06	1.10	2.79	5.80	2.90	2.94	1.71
15	0.84	0.80	0.68	0.93	2.54	0.93	0.94	4.46	20.76	2.48	3.45	1.68
16	0.81	0.69	0.59	0.76	1.77	0.90	0.87	4.11	12.16	2.83	3.64	1.95
17	0.74	0.68	0.79	2.36	1.43	0.92	0.86	2.85	9.31	2.48	4.02	2.47
18	0.72	0.64	0.97	2.94	1.43	1.73	0.81	2.95	9.12	1.94	4.96	2.21
19	0.71	0.61	0.81	1.96	1.34	3.38	0.80	2.04	6.27	2.00	4.19	1.88
20	0.66	0.57	0.83	1.45	1.95	3.67	0.97	1.86	4.80	2.42	3.74	1.61
21	0.64	0.55	0.93	1.61	2.38	2.26	1.73	1.42	4.15	2.09	4.26	1.54
22	0.60	0.50	0.97	1.97	1.83	2.63	2.33	1.13	4.23	1.86	3.79	1.96
23	0.57	0.45	0.94	1.75	1.83	3.13	2.90	0.94	3.99	1.64	3.27	1.85
24	0.54	0.33	0.89	1.47	1.47	2.66	2.82	0.83	6.06	1.53	3.39	2.26
25	0.54	0.32	0.87	1.57	1.36	1.95	4.22	2.59	8.44	1.56	6.10	4.88
26	0.53	0.32	0.84	1.44	1.24	2.33	2.82	1.74	11.45	2.18	12.31	5.43
27	0.53	0.36	0.71	1.10	2.41	3.31	2.30	1.34	6.74	4.12	6.90	4.78
28	0.49	0.30	0.80	3.21	1.89	1.89	2.22	4.13	4.98	5.80	4.78	8.11
29	0.47	0.46	0.95	6.46	1.42	2.08	3.52	2.01	6.28	4.25	4.09	5.20
30	0.48	1.16	1.16	5.80	1.40	6.30	4.07	1.62	6.38	3.21	4.16	14.17
31	0.48	1.25	1.25	2.04	2.04	0.90	2.44	1.38	4.00	4.00	5.56	1.54
TOTAL	34.44	12.86	25.23	48.93	73.71	64.99	79.96	77.45	178.32	101.86	153.66	108.44
AVERAGE	1.11	0.46	0.81	1.63	2.38	2.17	2.58	2.50	5.94	3.29	5.12	3.50
MAXIMUM	3.14	0.80	1.25	6.46	4.43	6.30	5.65	9.25	20.76	11.96	12.31	14.17
MINIMUM	0.48	0.29	0.59	0.32	1.24	0.90	0.80	0.83	1.76	1.53	2.94	1.54

\*\*\*\*\* ANNUAL \*\*\*\*\*  
 \*\*\*\*\* TOTAL \*\*\*\*\* AVERAGE \*\*\*\*\* MAXIMUM \*\*\*\*\* MINIMUM \*\*\*\*\*  
 \*\*\*\*\* 95.85 \*\*\*\*\* 2.63 \*\*\*\*\* 20.76 \*\*\*\*\* 0.29 \*\*\*\*\*

Supplemented Daily Mean Discharge at Bedukan River Gauging Station (1974) (unit: m<sup>3</sup>/s/100km<sup>2</sup>)

*DAY*	1	2	3	4	5	6	7	8	9	10	11	12
1	6.05	9.15	7.95	1.72	1.40	2.15	11.63	5.45	1.11	4.90	0.67	1.40
2	5.70	12.75	9.75	1.72	6.05	2.82	5.28	6.30	0.68	3.85	0.45	1.55
3	12.30	7.40	11.90	1.72	5.20	1.98	3.69	3.60	0.68	5.50	0.38	2.55
4	7.40	6.35	7.80	1.15	3.85	1.85	2.68	4.25	0.47	4.25	0.26	1.45
5	6.10	7.65	5.45	2.65	3.30	1.10	1.98	4.05	0.27	3.95	0.17	2.35
6	5.80	7.05	4.85	3.50	2.25	0.32	1.44	10.95	0.49	3.70	0.26	2.85
7	6.35	5.80	4.85	1.25	1.50	0.76	1.16	5.40	0.21	3.20	2.25	1.65
8	8.60	5.25	3.85	1.30	1.30	0.77	0.93	3.60	0.22	3.75	1.90	1.50
9	11.15	5.50	3.40	2.65	4.10	0.47	0.78	3.00	0.13	2.60	1.65	3.25
10	11.50	6.30	3.30	2.65	3.15	0.58	1.10	2.70	0.14	1.75	1.40	3.35
11	8.65	6.95	4.01	2.90	2.25	0.87	1.20	2.15	0.40	1.13	2.00	3.45
12	7.30	36.35	3.84	3.10	1.60	0.39	1.90	2.15	0.60	1.67	2.15	2.15
13	6.40	183.00	3.68	2.95	1.45	0.37	3.05	3.30	0.22	2.70	1.80	1.75
14	5.65	50.40	3.85	2.50	4.25	0.92	2.35	1.75	0.30	1.77	1.65	1.50
15	5.05	17.90	3.70	1.85	3.70	0.88	1.75	1.45	0.65	1.12	1.55	1.50
16	4.85	11.75	3.77	3.35	4.25	0.72	1.55	1.45	0.55	0.86	2.00	1.35
17	4.60	8.75	3.73	3.50	5.10	0.61	2.05	1.30	0.60	0.71	1.40	1.39
18	8.50	7.85	3.71	4.95	10.25	0.86	2.90	1.05	0.60	1.48	1.35	1.20
19	6.40	7.15	2.30	4.25	5.35	0.78	3.40	1.00	0.85	7.49	1.70	6.39
20	5.50	6.45	2.15	2.85	6.65	1.57	3.35	0.90	2.60	2.22	1.30	3.62
21	5.90	6.10	2.00	1.85	5.55	2.02	2.55	3.00	2.45	1.56	1.05	2.29
22	9.55	6.50	1.95	1.55	5.85	1.98	1.45	2.50	2.25	0.93	1.75	1.26
23	5.75	10.75	1.75	1.45	5.80	3.16	1.50	1.66	2.95	0.70	2.95	0.96
24	4.65	12.10	1.65	1.35	4.25	3.71	1.65	2.39	1.25	0.60	2.00	1.70
25	4.35	6.75	1.65	1.05	3.70	11.80	2.45	0.80	2.50	0.50	1.85	1.64
26	5.00	5.75	1.78	1.00	5.70	13.99	3.65	1.13	6.95	0.60	1.90	2.21
27	6.50	4.55	1.74	0.95	6.78	16.33	1.80	4.04	3.10	0.83	1.70	3.24
28	6.10	4.00	1.71	0.90	10.62	6.28	2.10	1.59	1.90	0.64	1.40	5.01
29	5.55		1.71	0.95	4.79	4.87	2.45	2.48	2.50	0.28	1.50	2.60
30	4.65		1.72	1.55	2.96	7.38	4.15	1.52	1.75	0.29	1.30	2.01
31	4.75		1.73		2.29		5.90	2.50		0.84		1.46
TOTAL	206.60	466.25	116.13	65.11	135.24	91.80	86.02	91.96	59.23	66.37	43.69	70.58
AVERAGE	6.66	15.94	3.75	2.17	4.36	3.06	2.71	2.97	1.31	2.14	1.46	2.28
MAXIMUM	12.30	163.00	11.90	4.95	10.62	16.33	11.63	10.95	6.95	7.49	2.95	6.39
MINIMUM	4.35	4.00	1.65	0.90	1.30	0.39	0.78	0.80	0.13	0.28	0.17	0.96
***** ANNUAL *****												
***** TOTAL AVERAGE MAXIMUM MINIMUM *****												
***** 1456.98 3.99 163.00 0.13 *****												

Supplemented Daily Mean Discharge at Bedukan River Gauging Station (1975) (unit: m<sup>3</sup>/s/100km<sup>2</sup>)

Supplemented Daily Mean Discharge at Bedukan River Gauging Station (1975)

DAY#	1	2	3	4	5	6	7	8	9	10	11	12
1	1.59	2.03	5.68	1.51	0.29	4.39	2.08	1.69	6.03	13.88	1.90	0.40
2	2.53	1.66	8.04	0.72	0.14	4.33	1.28	1.14	4.06	3.70	2.78	4.52
3	7.26	1.49	3.29	0.82	0.20	4.35	1.15	0.99	3.42	6.10	4.66	3.90
4	3.74	1.24	7.06	1.13	3.12	6.45	2.93	2.78	2.93	5.24	4.78	3.55
5	2.85	1.14	4.79	2.03	1.59	9.29	0.84	6.00	6.07	5.14	5.93	2.72
6	23.50	0.97	3.97	1.61	2.11	6.19	1.17	7.83	3.63	6.03	6.30	3.86
7	14.72	1.03	3.58	0.96	3.51	5.81	0.98	4.78	2.92	9.45	6.01	3.09
8	9.01	0.90	2.93	0.65	3.34	4.86	2.10	10.44	2.58	8.22	7.01	3.15
9	13.56	0.71	2.49	0.45	3.00	3.00	1.92	6.11	3.61	13.43	6.26	2.26
10	9.01	0.88	2.56	0.32	5.12	2.70	2.01	3.78	3.07	8.45	4.60	2.07
11	14.90	0.84	3.99	0.19	5.99	3.93	2.09	3.35	4.61	9.12	4.93	1.70
12	9.64	0.61	2.62	0.13	6.11	3.84	1.06	3.17	6.58	5.17	2.90	3.82
13	6.08	0.53	2.39	0.08	11.27	1.92	0.76	4.08	4.65	4.48	5.42	10.54
14	4.42	1.06	2.01	0.17	18.86	1.47	3.03	3.63	3.90	6.86	6.76	5.81
15	4.30	1.75	2.11	0.08	16.73	1.20	6.54	0.48	3.20	3.42	5.32	5.34
16	12.15	0.69	1.97	0.13	11.22	1.18	8.20	1.58	3.79	3.17	4.04	4.63
17	5.05	0.64	1.03	0.12	8.89	4.25	4.66	10.24	4.14	2.92	2.99	17.13
18	3.52	0.75	1.18	0.12	13.39	4.35	8.31	2.88	4.51	2.17	3.41	8.54
19	2.74	0.75	3.66	0.02	13.82	2.88	7.47	3.61	3.08	1.82	3.08	6.56
20	2.77	1.95	2.16	0.09	12.81	2.84	4.64	4.46	2.59	1.66	2.16	16.09
21	3.86	9.01	1.90	0.09	14.34	1.91	3.28	8.88	3.40	1.92	1.96	9.40
22	4.61	19.55	4.02	0.66	20.91	1.68	3.44	3.44	5.92	1.74	2.14	6.48
23	2.92	11.51	4.65	0.59	11.59	1.18	3.24	7.32	7.20	2.80	1.82	4.91
24	2.25	22.92	6.22	0.06	7.45	0.88	2.44	8.08	8.24	2.32	4.66	6.20
25	1.77	10.58	2.69	0.32	5.01	0.75	2.55	4.58	10.46	1.27	4.14	7.30
26	1.44	5.61	1.82	0.36	3.79	0.96	2.52	3.83	6.11	1.08	3.66	4.94
27	1.38	3.92	1.38	0.42	2.92	1.41	2.73	3.20	5.42	2.12	5.34	4.06
28	1.17	3.63	1.08	0.37	3.70	1.66	4.26	2.63	14.07	3.12	4.13	3.44
29	1.32	0.80	0.80	0.30	6.02	1.56	6.62	2.57	20.80	2.28	6.78	8.83
30	1.36	0.75	0.84	0.84	3.53	2.80	3.08	3.89	14.82	1.84	12.55	12.18
31	1.55	0.90	0.90	0.90	3.76	2.18	2.18	8.48	1.43	1.43	6.69	6.69
TOTAL	177.00	100.35	96.80	15.44	227.62	91.02	97.50	162.90	175.61	145.35	138.42	192.21
AVERAGE	5.71	3.87	3.12	0.51	7.34	3.03	3.15	4.61	5.85	4.69	4.61	6.20
MAXIMUM	23.50	22.92	8.29	2.03	20.91	9.29	8.31	10.44	20.80	13.88	12.55	17.13
MINIMUM	1.17	0.53	0.75	0.02	0.14	0.75	0.76	0.48	2.58	1.08	1.82	1.70

ANNUAL

TOTAL	1608.22
AVERAGE	4.41
MAXIMUM	23.50
MINIMUM	0.02