

DISCHARGE MEASUREMENT				HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 20 May 2002 TIME STARTED : 1:10 PM TIME FINISHED: 1:31 PM		GAUGE HT. : 0.18 m GAUGE HT. : 0.18 m		
NAME OF STATION: SGE2		OBSERVATION POINT / LOCATION: INFANTA				COMPUTED BY: DVG				CHECKED: RLB		
HYDROGRAPHIC TEAM: ENTENG, JERRY, DVG						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D		NR. 4 D		NR. 6 D		MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				VEL (mps)	UR	VEL (mps)	UR	VEL (mps)	UR			
0	0		W/E(R/B)									
1	3	3	0.65	0.13	UR	0.39	UR	0.52	UR	0.0000	1.95	0.0000
2	6	3	1.30	0.26		0.78	UR	1.04	UR	0.0550	3.90	0.2145
3	9	3	2.80	0.56	0.230	1.68	0.250	2.24	0.042	0.1930	8.40	1.6212
4	12	3	1.70	0.34	0.510	1.02	0.491	1.36	0.544	0.5040	5.10	2.5704
5	15	3	2.60	0.52	0.490	1.56	0.310	2.08	0.135	0.3115	7.80	2.4267
6	18	3	3.40	0.88	0.350	2.04	0.373	2.72	0.284	0.3450	10.20	3.5190
7	21	3	2.70	0.54	0.280	1.62	0.374	2.16	0.260	0.3270	8.10	2.6487
8	24	3	2.50	0.50	0.310	1.50	0.376	2.00	0.309	0.3375	7.50	2.5313
9	27	3	1.69	0.34	0.200	1.01	0.210	1.35	0.247	0.2188	5.07	1.0289
10	30	3	1.20	0.24	0.035	0.72	0.14	0.96	0.120	0.1088	3.60	0.3915
11	33	3	0.60	0.12	UR	0.36	0.05	0.48	UR	0.0500	1.80	0.0900
12	36	3	0.38	0.08	UR	0.23	0.061	0.30	UR	0.0610	1.14	0.0695
13	39	3	0.15	0.03	UR	0.09	UR	0.12	UR	0.0000	0.30	0.0000
14	40		W/E(L/B)									
TOTAL											54.96	17.1847

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT				HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 21 May 2002 TIME STARTED : 9:10 PM TIME FINISHED: 9:35 PM		GAUGE HT. : 0.13 m GAUGE HT. : 0.13 m		
NAME OF STATION: SGE2		OBSERVATION POINT / LOCATION: INFANTA				COMPUTED BY: DVG				CHECKED: RLB		
HYDROGRAPHIC TEAM: ENTENG, JERRY, DVG						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D		NR. 4 D		NR. 6 D		MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				VEL (mps)	UR	VEL (mps)	UR	VEL (mps)	UR			
0	0		W/E(R/B)									
1	3	3	0.60	0.12	UR	0.36	UR	0.48	UR	0.0090	1.80	0.0090
2	6	3	1.15	0.23	0.057	0.69	UR	0.92	UR	0.0570	3.45	0.1967
3	9	3	2.70	0.54	0.250	1.62	0.251	2.16	0.040	0.1980	8.10	1.6038
4	12	3	1.50	0.30	0.480	0.90	0.485	1.20	0.542	0.4980	4.50	2.2410
5	15	3	2.70	0.54	0.480	1.62	0.310	2.16	0.132	0.3080	8.10	2.4948
6	18	3	3.60	0.72	0.351	2.16	0.375	2.88	0.284	0.3463	10.80	3.7395
7	21	3	3.00	0.60	0.290	1.80	0.374	2.40	0.289	0.3293	9.00	2.9633
8	24	3	2.40	0.48	0.310	1.44	0.360	1.92	0.310	0.3350	7.20	2.4120
9	27	3	1.70	0.34	0.215	1.02	0.210	1.36	0.210	0.2113	5.10	1.0774
10	30	3	1.00	0.20	0.035	0.60	0.140	0.80	0.120	0.1088	3.00	0.3263
11	33	3	0.60	0.12	UR	0.36	0.050	0.48	UR	0.0500	1.80	0.0900
12	36	3	0.25	0.05	UR	0.15	0.061	0.30	UR	0.0610	1.00	0.0610
13	41		W/E(L/B)									
TOTAL											63.85	17.2056

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 23 May 2002 TIME STARTED : 11:43 PM TIME FINISHED: 12:03 AM		GAUGE HT. : 0.05 m GAUGE HT. : 0.07 m		
NAME OF STATION: SGS2		OBSERVATION POINT / LOCATION: INFANTA				COMPUTED BY: DVG		CHECKED: RLB			
HYDROGRAPHIC TEAM: ENTENG, JERKY, DVC					REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)					MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE	
				NR. 2 D	VEL (mps)	NR. 6 D	VEL (mps)				NR. 8 D
0	0		0	WE(R/B)							
1	3	3	0.60	0.12	UR	0.36	UR				
2	6	3	1.70	0.34	0.046	1.02	0.032	1.36	UR	0.0000	
3	9	3	1.50	0.30	0.162	0.90	0.222	1.20	0.258	0.0390	
4	12	3	1.90	0.38	0.336	1.14	0.451	1.52	0.319	0.2160	
5	15	3	3.10	0.62	0.347	1.86	0.299	2.48	0.047	0.3890	
6	18	3	3.50	0.70	0.313	2.10	0.247	2.80	0.213	0.2480	
7	21	3	2.70	0.54	0.339	1.62	0.326	2.16	0.280	0.2550	
8	24	3	2.10	0.42	0.244	1.26	0.267	1.68	0.118	0.1760	
9	27	3	1.80	0.36	0.198	1.08	0.204	1.44	0.098	0.3173	
10	30	3	1.20	0.24	UR	0.72	0.119	0.96	0.077	0.2240	
11	33	3	0.80	0.16	UR	0.48	0.040	0.64	UR	0.0980	
12	36	3	0.26	0.05	UR	0.16	UR	0.21	UR	0.0400	
13	39.2	3.2	WE(R/B)							0.0000	
TOTAL										63.81	13.7522

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 29 May 2002 TIME STARTED : 11:20 AM TIME FINISHED: 11:42 AM		GAUGE HT. : 0.0 m GAUGE HT. : 0.0 m		
NAME OF STATION: SGS2		OBSERVATION POINT / LOCATION: INFANTA				COMPUTED BY: DVG		CHECKED: RLB			
HYDROGRAPHIC TEAM: ENTENG, JERRY, DVC					REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)					MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE	
				NR. 2 D	VEL (mps)	NR. 6 D	VEL (mps)				NR. 8 D
0	0		0	WE(R/B)							
1	3	3	0.50	0.10	0.083	0.30	UR	0.40	0.042	0.0525	
2	6	3	1.40	0.28	0.048	0.84	UR	1.12	0.064	0.0510	
3	9	3	1.40	0.28	0.258	0.84	0.141	1.12	0.222	0.1908	
4	12	3	1.70	0.34	0.336	1.02	0.345	1.36	0.282	0.3295	
5	15	3	3.80	0.76	0.237	2.28	0.277	3.04	0.289	0.2700	
6	18	3	3.10	0.62	0.260	1.86	0.237	2.48	0.209	0.2358	
7	21	3	2.40	0.48	0.294	1.44	0.314	1.92	0.220	0.2855	
8	24	3	1.90	0.38	0.232	1.14	0.229	1.52	0.268	0.2395	
9	27	3	1.50	0.30	0.094	0.90	0.144	1.20	0.090	0.1180	
10	30	3	1.00	0.20	0.097	0.60	0.067	0.80	UR	0.0820	
11	33	3	0.50	0.10	0.040	0.30	0.035	0.40	0.057	0.0418	
12	36	3	0.12	0.02	UR	0.07	UR	0.10	UR	0.0000	
13	39.2	3.2	WE(R/B)							0.0000	
TOTAL										57.97	12.3044

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 07 June 2002 TIME STARTED : 12:35 NN TIME FINISHED: 1:05 PM		GAUGE HT. : 0.95 m GAUGE HT. : 0.94 m			
NAME OF STATION: SGS2		OBSERVATION POINT / LOCATION: INFANTA				COMPUTED BY: DVG			CHECKED: RLB			
HYDROGRAPHIC TEAM: ENTENG, JERRY, DVG						REMARKS: NEW STAFF GAUGE						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)					MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE		
				NR. 2 D	VEL (mps)	NR. 5 D	VEL (mps)				NR. 8 D	VEL (mps)
0	0	0	WE(R/B)									
1	2.9	2.9	0.40	0.08	UR	0.24	UR	0.32	UR	0.0000	1.18	0.0000
2	5.9	3	1.10	0.22	0.045	0.66	UR	0.88	UR	0.0450	3.30	0.1485
3	8.9	3	2.50	0.50	0.044	1.50	0.049	2.00	UR	0.0465	7.50	0.3488
4	11.9	3	1.40	0.28	0.130	0.84	0.154	1.12	0.234	0.1680	4.20	0.7056
5	14.9	3	2.40	0.48	0.267	1.44	0.180	1.92	0.221	0.2120	7.20	1.5264
6	17.9	3	3.15	0.63	0.239	1.89	0.158	2.52	0.074	0.1573	9.45	1.4860
7	20.9	3	2.50	0.50	0.280	1.50	0.179	2.00	0.182	0.2050	7.50	1.5375
8	23.9	3	2.80	0.56	0.156	1.68	0.175	2.24	0.234	0.1850	8.40	1.5540
9	26.9	3	1.50	0.30	0.122	0.90	0.138	1.20	0.098	0.1240	4.50	0.5580
10	29.9	3	1.00	0.20	0.067	0.60	0.083	0.80	0.072	0.0650	3.00	0.1950
11	32.9	3	0.60	0.12	UR	0.36	UR	0.48	UR	0.0000	1.80	0.0000
12	35.9	3	0.20	0.04	UR	0.12	UR	0.16	UR	0.0000	0.43	0.0000
13	37.2	1.3	WE(L/B)									
									TOTAL	58.45	8.0598	

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 21 February 2002 TIME STARTED : 9:25 AM TIME FINISHED: 10:15 AM		GAUGE HT. : 0.42 m GAUGE HT. : 0.42 m			
NAME OF STATION: SGS3		OBSERVATION POINT / LOCATION: DARAETAN				COMPUTED BY: DVG			CHECKED: RLB			
HYDROGRAPHIC TEAM: GAG, ELM						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)					MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE		
				NR. 2 D	VEL (mps)	NR. 5 D	VEL (mps)				NR. 8 D	VEL (mps)
0	0	0	WE(R/B)									
1	1.2	1.2	0.67	0.13	0.066	0.40		0.54	0.093	0.0795	1.07	0.0852
2	3.2	2	0.38	0.08	0.084	0.23		0.30	0.122	0.1030	0.75	0.0763
3	5.2	2	0.25	0.05		0.15	0.109	0.20		0.1090	0.50	0.0545
4	7.2	2	0.24	0.05		0.14	0.128	0.19		0.1280	0.48	0.0614
5	9.2	2	0.31	0.06		0.19	0.153	0.25		0.1530	0.62	0.0949
6	11.2	2	0.36	0.07		0.22	0.159	0.29		0.1590	0.72	0.1145
7	13.2	2	0.44	0.09	0.105	0.26		0.35	0.244	0.2045	0.88	0.1800
8	15.2	2	0.57	0.11	0.181	0.34		0.46	0.311	0.2480	1.14	0.2804
9	17.2	2	0.68	0.14	0.295	0.41		0.54	0.360	0.3275	1.36	0.4454
10	19.2	2	0.74	0.15	0.319	0.44	0.423	0.59	0.438	0.4008	1.48	0.5931
11	21.2	2	0.85	0.17	0.346	0.51	0.458	0.68	0.458	0.4285	1.70	0.7302
12	23.2	2	0.98	0.20	0.347	0.59	0.447	0.78	0.459	0.4275	1.96	0.8379
13	25.2	2	1.15	0.23	0.444	0.69	0.461	0.92	0.464	0.4550	2.30	1.0485
14	27.2	2	1.2	0.24	0.397	0.72	0.533	0.96	0.475	0.4845	2.40	1.1628
15	29.2	2	1.15	0.23	0.339	0.69	0.378	0.92	0.135	0.3075	1.73	0.5304
16	30.2	1	WE(L/B)									
17												
									TOTAL	19.10	6.2955	

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT				HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 21 February 2002 TIME STARTED : 10:30 PM TIME FINISHED: 11:15 PM		GAUGE HT. : 0.42 m GAUGE HT. : 0.42 m		
NAME OF STATION:SGJ3		OBSERVATION POINT / LOCATION: DARAETAN				COMPUTED BY: DVG				CHECKED: RLB		
HYDROGRAPHIC TEAM: GAO, ELM						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D		NR. 6 D		NR. 8 D		MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)			
0	0	0	WE(R/B)									
1	2	2	0.58	0.12	0.860	0.35		0.46	0.120	0.4900	1.16	0.5684
2	4	2	0.28	0.08	0.760	0.17		0.22	0.108	0.4340	0.66	0.2430
3	6	2	0.22	0.04		0.13	0.084	0.18		0.0840	0.44	0.0370
4	8	2	0.28	0.05		0.15	0.108	0.20		0.1080	0.60	0.0540
5	10	2	0.3	0.08	0.115	0.18		0.24	0.141	0.1280	0.60	0.0768
6	12	2	0.38	0.08	0.095	0.23		0.30	0.219	0.1670	0.78	0.1193
7	14	2	0.4	0.08	0.178	0.24		0.32	0.228	0.1975	0.80	0.1580
8	16	2	0.62	0.12	0.276	0.37		0.50	0.278	0.2770	1.24	0.3435
9	18	2	0.69		0.273	0.41		0.58	0.399	0.3370	1.38	0.4651
10	20	2	0.75		0.35	0.45	0.359	0.60	0.449	0.3798	1.50	0.5696
11	22	2	0.8		0.30	0.63	0.438	0.70	0.480	0.4130	1.76	0.7269
12	24	2		0.20	0.43	0.60	0.474		0.497	0.4788	2.00	0.9418
13	26	2	1.1	0.22	0.418	0.66	0.600		0.420	0.4698	2.20	1.0118
14	28	2	1.2	0.24	0.247	0.72	0.64		0.408	0.4330	2.40	1.0392
15	29	1	1.15	0.23	0.34	0.69	0.327		0.418	0.3638	1.16	0.4068
16	30	1	WE(L/B)									
17										TOTAL	18.48	6.7605

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT				HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 22 February 2002 TIME STARTED : 10:05 AM TIME FINISHED: 10:45 AM		GAUGE HT. : 0.40 m GAUGE HT. : 0.40 m			
NAME OF STATION:SGS3		OBSERVATION POINT / LOCATION: DARAETAN				COMPUTED BY: DVG				CHECKED: RLB			
HYDROGRAPHIC TEAM: GAG, ELM						REMARKS:							
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D		NR. 6 D		NR. 8 D		MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE	
				VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)				
0	0	0	WE(R/B)										
1	2	2	0.56	0.11	0.098	0.34		0.48	0.117	0.1075	1.12	0.1204	
2	4	2	0.26	0.05	0.053	0.16		0.21	0.066	0.0695	0.52	0.0309	
3	6	2	0.22	0.04		0.13	0.078	0.18		0.0780	0.44	0.0343	
4	8	2	0.23	0.05		0.14	0.107	0.18		0.1070	0.46	0.0492	
5	10	2	0.28	0.06	0.090	0.17		0.22	0.097	0.0900	0.66	0.0600	
6	12	2	0.26	0.05	0.114	0.16		0.21	0.170	0.0600	0.52	0.0600	
7	14	2	0.49	0.10	0.138	0.29		0.39	0.195	0.1665	0.98	0.1632	
8	16	2	0.89	0.12	0.198	0.35	0.41		0.47	0.285	0.2416	1.18	0.2860
9	18	2	0.68	0.14	0.265	0.41		0.54	0.343	0.3040	1.36	0.4134	
10	20	2	0.74	0.15	0.305	0.44	0.416	0.59	0.424	0.3903	1.48	0.5776	
11	22	2	0.88	0.18	0.401	0.53	0.388	0.70	0.419	0.3975	1.76	0.6996	
12	24	2	1.00	0.20	0.314	0.60	0.438	0.80	0.443	0.4083	2.00	0.8166	
13	26	2	1.10	0.22	0.394	0.66	0.403	0.88	0.419	0.4048	2.20	0.8905	
14	28	2	1.10	0.22	0.329	0.66	0.388	0.88	0.366	0.3863	2.20	0.8088	
15	29	1	1.10	0.22	0.388	0.66	0.412	0.88	0.332	0.3860	1.10	0.4246	
16	30	1	WE(L/B)										
17										TOTAL	17.88	6.3109	

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT		HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 22 February 2002 TIME STARTED : 16:10 PM TIME FINISHED: 17:10 PM		GAUGE HT. : 0.40 m GAUGE HT. : 0.40 m				
NAME OF STATION: SGS3		OBSERVATION POINT / LOCATION: DARAETAN				COMPUTED BY: DVG		CHECKED: RLB				
HYDROGRAPHIC TEAM: GAG, ELM						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D		NR. 6 D		NR. 8 D		MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)			
0	0		0 W/E(R/B)									
1	2	2	0.54	0.11	0.085	0.52		0.43	0.091	0.0880	1.08	0.0950
2	4	2	0.24	0.05		0.14	0.091	0.19	0.0810	0.48	0.0437	
3	6	2	0.2	0.04		0.12	0.056	0.18	0.0560	0.40	0.0224	
4	8	2	0.23	0.05		0.14	0.110	0.18	0.1100	0.46	0.0506	
5	10	2	0.28	0.06	0.126	0.17		0.22	0.150	0.1380	0.56	0.0773
6	12	2	0.25	0.05		0.15	0.144	0.20	0.1440	0.50	0.0720	
7	14	2	0.35	0.07	0.178	0.21	0.119	0.28	0.132	0.1365	0.70	0.0956
8	16	2	0.46	0.09	0.228	0.28	0.186	0.37	0.115	0.1788	0.92	0.1645
9	18	2	0.58	0.12	0.263	0.35	0.252	0.46	0.209	0.2440	1.16	0.2830
10	20	2	0.68	0.13	0.359	0.40	0.343	0.53	0.317	0.3405	1.32	0.4495
11	22	2	0.78	0.16	0.431	0.47	0.410	0.62	0.273	0.3810	1.56	0.5844
12	24	2	0.87	0.17	0.451	0.52	0.352	0.70	0.386	0.3853	1.74	0.6703
13	26	2	0.9	0.18	0.454	0.54	0.410	0.72	0.395	0.4148	1.80	0.7466
14	28	2	1.05	0.21	0.499	0.63	0.430	0.84	0.364	0.4308	2.10	0.9046
15	30	2	1.15	0.23	0.183	0.69	0.546	0.92	0.434	0.4273	2.30	0.9827
16	31.8	1.8	1.1	0.22	0.480	0.66	0.421	0.88	0.271	0.3983	1.10	0.4381
17	32	0.2	W/E(L/B)									
TOTAL											19.18	5.6901

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT		HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 28 February 2002 TIME STARTED : 16:10 PM TIME FINISHED: 16:37 PM		GAUGE HT. : 0.34 m GAUGE HT. : 0.34 m				
NAME OF STATION: SGS3		OBSERVATION POINT / LOCATION: DARAETAN				COMPUTED BY: DVG		CHECKED: RLB				
HYDROGRAPHIC TEAM: GAG, DVG, ELM						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D		NR. 6 D		NR. 8 D		MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)			
0	0		0 W/E(R/B)									
1	1.5	1.5	0.57	0.11	UR	0.34	UR	0.46	UR	0.0000	1.28	0.0000
2	4.5	3	0.21	0.04	UR	0.13	UR	0.17	UR	0.0000	0.63	0.0000
3	7.5	3	0.15	0.03	UR	0.09	UR	0.12	UR	0.0000	0.45	0.0000
4	10.5	3	0.24	0.05		0.14	0.072	0.19	0.068	0.0763	0.72	0.0571
5	13.5	3	0.36	0.07		0.22	0.114	0.29	0.095	0.1220	1.08	0.1318
6	16.5	3	0.53	0.11		0.32	0.200	0.42	0.159	0.1925	1.59	0.3061
7	19.5	3	0.65	0.13		0.320	0.39	0.322	0.52	0.225	1.95	0.5840
8	22.5	3	0.83			0.380	0.50	0.330	0.66	0.264	2.49	0.8117
9	25.5	3		0.20		0.347	0.60	0.316	0.80	0.315	3.00	0.9735
10	28.5	3	1.01	0.26		0.422	0.71	0.408	0.81	0.384	3.03	1.2408
11	30.5	2	0.66	0.21		0.26	0.4	0.352	0.85	0.139	1.38	0.3824
12	31.1	0.8	W/E(L/B)									
13												
TOTAL											17.80	4.4873

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 01 March 2002 TIME STARTED : 10:00 PM TIME FINISHED : 10:12 PM		GAUGE HT. : 0.94 m GAUGE HT. : 0.94 m			
NAME OF STATION: SCS3		OBSERVATION POINT / LOCATION: DARAETAN				COMPUTED BY: DVG		CHECKED: RLB				
HYDROGRAPHIC TEAM: GAG, ELM						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)					MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE		
				NR. 2 D	VEL (mps)	NR. 6 D	VEL (mps)				NR. 8 D	VEL (mps)
0	0		0 W/E (R/B)									
1	3.2	3.2	0.30	0.08		0.18		0.24	0.0000	0.93	0.0000	
2	6.2	3	0.18	0.03		0.09		0.12	0.0000	0.48	0.0000	
3	9.2	3	0.20	0.04		0.12		0.16	0.0000	0.60	0.0000	
4	12.2	3	0.30	0.06		0.18	0.123	0.24	0.1230	0.90	0.1107	
5	15.2	3	0.42	0.08	0.180	0.28		0.34	0.154	1.26	0.2104	
6	18.2	3	0.61	0.12	0.258	0.37		0.49	0.168	0.2105	1.83	0.3852
7	21.2	3	0.77	0.18	0.328	0.46	0.334	0.62	0.327	0.3300	2.31	0.7623
8	24.2	3	0.96	0.19	0.368	0.57	0.342	0.76	0.287	0.3290	2.88	0.9377
9	27.2	3	1.10	0.22	0.388	0.66	0.367	0.88	0.367	0.3640	3.30	1.2012
10	29.2	2	1.05	0.21	0.288	0.63	0.363	0.84	0.262	0.2888	1.47	0.4201
11	30	0.8	W/E (L/B)									
TOTAL										15.90	4.0275	

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 12 March 2002 TIME STARTED : 10:45 PM TIME FINISHED : 10:48 PM		GAUGE HT. : 0.31 m GAUGE HT. : 0.31 m			
NAME OF STATION: SCS3		OBSERVATION POINT / LOCATION: DARAETAN				COMPUTED BY: DVG		CHECKED: KLB				
HYDROGRAPHIC TEAM: GAG, ELM, DVG						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)					MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE		
				NR. 2 D	VEL (mps)	NR. 6 D	VEL (mps)				NR. 8 D	VEL (mps)
0	0		0 W/E (R/B)									
1	1.1	1.1	0.54	0.11 UR		0.32 UR		0.43 UR	0.0000	0.57	0.0000	
2	2.1	1	0.45	0.09 UR		0.27 UR		0.38 UR	0.0000	0.45	0.0000	
3	3.1	1	0.24	0.05 UR		0.14 UR		0.19 UR	0.0000	0.24	0.0000	
4	4.1	1	0.17	0.03 UR		0.10 UR		0.14 UR	0.0000	0.17	0.0000	
5	5.1	1	0.15	0.03 UR		0.08 UR		0.12 UR	0.0000	0.15	0.0000	
6	6.1	1	0.12	0.02 UR		0.07 UR		0.10 UR	0.0000	0.12	0.0000	
7	7.1	1	0.13	0.03 UR		0.08 UR		0.10 UR	0.0000	0.13	0.0000	
8	8.1	1	0.15	0.03 UR		0.08 UR		0.12 UR	0.0000	0.15	0.0000	
9	9.1	1	0.17	0.03 UR		0.10 UR		0.14 UR	0.0000	0.17	0.0000	
10	10.1	1	0.20	0.04	0.058	0.17 UR		0.18 UR	0.0550	0.20	0.0112	
11	11.1	1	0.24	0.05	0.083	0.14	0.058	0.19 UR	0.0895	0.24	0.0167	
	12.1	1	0.27	0.05	0.092	0.16	0.090	0.22 UR	0.0910	0.27	0.0246	
	13.1	1	0.30	0.06	0.118	0.18	0.111	0.24 UR	0.1148	0.30	0.0344	
	14.1	1	0.39	0.08	0.129	0.23	0.121	0.31	0.056	0.1068	0.39	0.0416
	15.1	1	0.45	0.09	0.153	0.27	0.153	0.36	0.098	0.1393	0.45	0.0627
	16.1	1	0.50	0.10	0.176	0.30	0.148	0.40	0.112	0.1480	0.50	0.0730
	17.1	1	0.55	0.11	0.197	0.33	0.199	0.44	0.154	0.1873	0.55	0.1030
	18.1	1	0.58	0.12	0.230	0.35	0.214	0.48	0.183	0.2103	0.58	0.1219
	19.1	1	0.62	0.12	0.243	0.37	0.191	0.50	0.118	0.1858	0.62	0.1152
	20.1	1	0.65	0.13	0.265	0.39	0.252	0.52	0.184	0.2358	0.65	0.1532
	21.1	1	0.73	0.15	0.320	0.44	0.267	0.58	0.225	0.2588	0.73	0.1728
	22.1	1	0.78	0.16	0.338	0.47	0.241	0.62	0.230	0.2825	0.78	0.2048
	23.1	1	0.95	0.19	0.328	0.57	0.298	0.76	0.218	0.2855	0.95	0.2712
	24.1	1	0.98	0.19	0.348	0.58	0.316	0.77	0.293	0.3178	0.98	0.3050
	25.1	1	0.97	0.19	0.299	0.58	0.233	0.78	0.134	0.2248	0.97	0.2180
SUB-TOTAL										11.29	1.9293	

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT				HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>						DATE: 12 March 2002 TIME STARTED: 15:45 PM TIME FINISHED: 16:45 PM		GAUGE HT.: 0.31 m GAUGE HT.: 0.31 m	
NAME OF STATION: SCS3		OBSERVATION POINT / LOCATION: DARAETAN				COMPUTED BY: DVG				CHECKED: RLB			
HYDROGRAPHIC TEAM: GAG, ELM, DVG						REMARKS:							
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)							MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE	
				NR. 2 D	VEL (mps)	NR. 5 D	VEL (mps)	NR. 8 D	VEL (mps)				
26	1	1	1.00	0.20	0.351	0.60	0.349	0.80	0.283	0.3330	1.00	0.3330	
27	2	1	1.06	0.21	0.370	0.63	0.387	0.84	0.329	0.3733	1.05	0.3919	
28	3	1	1.06	0.21	0.339	0.64	0.391	0.85	0.173	0.3235	1.05	0.3429	
29	4	1	1.00	0.20	0.333	0.60	0.333	0.80	0.297	0.3240	1.00	0.3240	
30	5	1	0.63	0.13	0.152	0.38	0.173	0.60	0.739	0.1993	0.47	0.0752	
31	5.5	0.5 W/E(L/B)											
										SUB-TOTAL	4.58	1.4671	
										TOTAL	15.87	3.3964	

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT				HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>						DATE: 13 March 2002 TIME STARTED: 9:38 AM TIME FINISHED: 10:04 AM		GAUGE HT.: 0.41 m GAUGE HT.: 0.42 m	
NAME OF STATION: SCS3		OBSERVATION POINT / LOCATION: DARAETAN				COMPUTED BY: DVG				CHECKED: RLB			
HYDROGRAPHIC TEAM: GAG, ELM, DVG						REMARKS:							
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)							MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE	
				NR. 2 D	VEL (mps)	NR. 5 D	VEL (mps)	NR. 8 D	VEL (mps)				
0	0	0 W/E(R/B)											
1	1.4	1.4	0.63	0.13	UR	0.38	UR	0.50	UR	0.0000	1.07	0.0000	
2	3.4	2	0.36	0.07	UR	0.22	UR	0.28	UR	0.0000	0.72	0.0000	
3	5.4	2	0.23	0.05	UR	0.14	UR	0.18	UR	0.0000	0.46	0.0000	
4	7.4	2	0.20	0.04	0.099	0.12	0.079	0.16	UR	0.0690	0.40	0.0356	
5	9.4	2	0.28	0.06	0.140	0.17	0.105	0.22	0.083	0.1083	0.56	0.0606	
6	11.4	2	0.32	0.06	0.198	0.19	0.144	0.26	0.122	0.1820	0.64	0.0973	
7	13.4	2	0.45	0.09	0.221	0.27	0.226	0.36	0.145	0.2045	0.90	0.1847	
8	15.4	2	0.55	0.11	0.255	0.33	0.208	0.44	0.169	0.2150	1.10	0.2365	
9	17.4	2	0.65	0.13	0.319	0.39	0.293	0.52	0.318	0.3053	1.30	0.3968	
10	19.4	2	0.70	0.14	0.391	0.42	0.393	0.66	0.269	0.3618	1.40	0.5061	
11	21.4	2	0.85	0.17	0.401	0.51	0.375	0.68	0.294	0.3613	1.70	0.6141	
12	23.4	2	0.96	0.19	0.423	0.58	0.390	0.77	0.311	0.3765	1.92	0.7267	
13	25.4	2	1.08	0.22	0.385	0.68	0.420	0.86	0.434	0.4148	2.16	0.8989	
14	27.4	2	1.20	0.24	0.637	0.72	0.628	0.96	0.463	0.5125	2.40	1.2300	
15	29.4	2	1.15	0.23	0.391	0.69	0.348	0.92	0.422	0.3773	1.73	0.6508	
16	30.4	1 W/E(L/B)											
										TOTAL	18.46	5.6344	

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>						DATE: 13 March 2002 TIME STARTED: 14:00 PM TIME FINISHED: 14:38 PM		GAUGE HT.: 0.62 m GAUGE HT.: 0.61 m	
NAME OF STATION:SGs3			OBSERVATION POINT / LOCATION: DARAETAN						COMPUTED BY: DVG		CHECKED: RLB	
HYDROGRAPHIC TEAM: GAG, ELM, DVG						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D		NR. 3 D		NR. 4 D		MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)				
0	0	0	W/E(R/B)									
1	2.1	2.1	0.75	0.15	0.365	0.45	0.357	0.60	0.207	0.3215	1.54	0.4943
2	4.1	2	0.45	0.09	0.303	0.27	0.254	0.36	0.146	0.2393	0.80	0.2153
3	6.1	2	0.40	0.08	0.394	0.24	0.330	0.32	0.223	0.3193	0.80	0.2554
4	8.1	2	0.43	0.09	0.405	0.28	0.31	0.34	0.320	0.3363	0.88	0.2892
5	10.1	2	0.50	0.10	0.466	0.30	0.327	0.40	0.249	0.3423	1.00	0.3423
6	12.1	2	0.56	0.11	0.434	0.34	0.464	0.45	0.425	0.4468	1.12	0.5004
7	14.1	2	0.70	0.14	0.485	0.42	0.406	0.58	0.481	0.4410	1.40	0.6174
8	16.1	2	0.80	0.16	0.525	0.48	0.512	0.64	0.346	0.4738	1.60	0.7580
9	18.1	2	0.90	0.18	0.582	0.54	0.583	0.72	0.652	0.6000	1.80	1.0800
10	20.1	2	0.95	0.19	0.683	0.57	0.691	0.76	0.590	0.6660	1.80	1.2654
11	22.1	2	1.10	0.22	0.695	0.66	0.774	0.88	0.554	0.6993	2.20	1.5384
12	24.1	2	1.22	0.24	0.821	0.73	0.77	0.98	0.647	0.7520	2.44	1.8349
13	26.1	2	1.30	0.26	0.778	0.78	0.862	1.04	0.728	0.7170	2.60	1.8642
14	28.1	2	1.35	0.27	0.722	0.81	0.758	1.08	0.711	0.7383	2.70	1.9879
15	30.1	2	1.35	0.27	0.719	0.81	0.788	1.08	0.548	0.7110	2.70	1.9197
16	31.1	1	0.50	0.10	0.387	0.30	0.242	0.40	0.421	0.3230	0.40	0.1300
17	31.71	0.61	W/E(L/B)									
TOTAL											25.98	15.0928

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>						DATE: 14 March 2002 TIME STARTED: 9:06 AM TIME FINISHED: 9:33 AM		GAUGE HT.: 0.44 m GAUGE HT.: 0.44 m	
NAME OF STATION:SGS3			OBSERVATION POINT / LOCATION: DARAETAN						COMPUTED BY: DVG		CHECKED: RLB	
HYDROGRAPHIC TEAM: GAG, ELM, DVG						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D		NR. 3 D		NR. 4 D		MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)				
0	0	0	W/E(R/B)									
1	1.4	1.4	0.83	0.13	0.075	0.38	0.121	0.50	0.083	0.1000	1.07	0.1071
2	3.4	2	0.40	0.08	0.149	0.24	0.104	0.32	0.077	0.1085	0.80	0.0868
3	5.4	2	0.27	0.05	0.089	0.16	0.098	0.22	0.052	0.0788	0.54	0.0431
4	7.4	2	0.25	0.05	0.125	0.15	0.11	0.20	0.093	0.1095	0.50	0.0548
5	9.4	2	0.30	0.06	0.163	0.18	0.145	0.24	0.090	0.1358	0.60	0.0815
6	11.4	2	0.37	0.07	0.240	0.22	0.152	0.30	0.118	0.1655	0.74	0.1225
7	13.4	2	0.48	0.10	0.209	0.29	0.161	0.38	0.133	0.1660	0.96	0.1594
8	15.4	2	0.58	0.12	0.291	0.35	0.246	0.46	0.213	0.2490	1.16	0.2898
9	17.4	2	0.69	0.14	0.370	0.41	0.340	0.55	0.268	0.3290	1.38	0.4540
10	19.4	2	0.75	0.15	0.417	0.45	0.369	0.60	0.262	0.3543	1.50	0.5314
11	21.4	2	0.86	0.17	0.445	0.52	0.448	0.69	0.373	0.4285	1.72	0.7370
12	23.4	2	1.00	0.20	0.490	0.60	0.510	0.80	0.388	0.4740	2.00	0.9480
13	25.4	2	1.10	0.22	0.511	0.66	0.452	0.88	0.334	0.4373	2.20	0.9820
14	27.4	2	1.22	0.24	0.472	0.73	0.533	0.98	0.492	0.5075	2.44	1.2383
15	29.4	2	1.15	0.23	0.461	0.69	0.341	0.92	0.361	0.3760	1.73	0.6486
16	30.4	1	W/E(L/B)									
TOTAL											19.34	6.4631

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 19 March 2002 TIME STARTED: 10:20 AM TIME FINISHED: 10:55 PM		GAUGE HT.: 0.29 m GAUGE HT.: 0.29 m			
NAME OF STATION: S63		OBSERVATION POINT / LOCATION: DARAETAN				COMPUTED BY: DVG		CHECKED: RLB				
HYDROGRAPHIC TEAM: GAG, ELM					REMARKS:							
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. .8 D						MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				NR. 2 D	VEL (mps)	NR. .6 D	VEL (mps)	NR. .8 D	VEL (mps)			
0	0		WE(R/B)									
1	1.3	1.3	0.46	0.09	UR	0.28	UR	0.37	UR	0.0000	0.76	0.0000
2	3.3	2	0.18	0.04	UR	0.11	UR	0.14	UR	0.0000	0.36	0.0000
3	5.3	2	0.10	0.02	UR	0.06	UR	0.08	UR	0.0000	0.20	0.0000
4	7.3	2	0.10	0.02	UR	0.06	UR	0.08	UR	0.0000	0.20	0.0000
5	9.3	2	0.17	0.03	UR	0.10	UR	0.14	UR	0.0000	0.34	0.0000
6	11.3	2	0.22	0.04	0.096	0.13	0.084	0.18	UR	0.0900	0.44	0.0396
7	13.3	2	0.34	0.07	0.118	0.20	0.105	0.27	0.073	0.1603	0.68	0.0682
8	15.3	2	0.46	0.09	0.145	0.28	0.141	0.37	0.098	0.1313	0.92	0.1208
9	17.3	2	0.55	0.11	0.185	0.33	0.155	0.44	0.164	0.1698	1.10	0.1867
10	19.3	2	0.61	0.12	0.231	0.37	0.204	0.49	0.167	0.2015	1.22	0.2458
11	21.3	2	0.74	0.16	0.288	0.44	0.295	0.59	0.215	0.2733	1.48	0.4044
12	23.3	2	0.86	0.17	0.328	0.52	0.255	0.69	0.304	0.2868	1.72	0.4915
13	25.3	2	0.94	0.19	0.312	0.58	0.288	0.75	0.264	0.2880	1.88	0.5414
14	27.3	2	1.05	0.21	0.320	0.63	0.351	0.84	0.277	0.3248	2.10	0.6820
15	29.3	2	0.98	0.20	0.236	0.59	0.121	0.78	0.271	0.1873	2.11	0.3945
16	31.8	2.3	WE(L/B)									
TOTAL											18.51	3.1749

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 20 March 2002 TIME STARTED: 9:50 AM TIME FINISHED: 10:30 AM		GAUGE HT.: 0.28 m GAUGE HT.: 0.28 m			
NAME OF STATION: S63		OBSERVATION POINT / LOCATION: DARAETAN				COMPUTED BY: DVG		CHECKED: RLB				
HYDROGRAPHIC TEAM: GAG, ELM					REMARKS:							
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. .8 D						MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				NR. 2 D	VEL (mps)	NR. .6 D	VEL (mps)	NR. .8 D	VEL (mps)			
0	0		WE(R/B)									
1	1.3	1.3	0.46	0.09	UR	0.28	UR	0.37	UR	0.0000	0.76	0.0000
2	3.3	2	0.18	0.04	UR	0.11	UR	0.14	UR	0.0000	0.36	0.0000
3	5.3	2	0.10	0.02	UR	0.06	UR	0.08	UR	0.0000	0.20	0.0000
4	7.3	2	0.09	0.02	UR	0.05	UR	0.07	UR	0.0000	0.18	0.0000
5	9.3	2	0.15	0.03	UR	0.09	UR	0.12	UR	0.0000	0.30	0.0000
6	11.3	2	0.20	0.04	0.080	0.12	0.055	0.16	UR	0.0875	0.40	0.0270
7	13.3	2	0.33	0.07	0.113	0.20	0.069	0.28	0.089	0.0800	0.66	0.0528
8	15.3	2	0.48	0.09	0.139	0.28	0.109	0.37	0.079	0.1085	0.82	0.0980
9	17.3	2	0.54	0.11	0.171	0.32	0.170	0.43	0.109	0.1550	1.08	0.1674
10	19.3	2	0.60	0.12	0.233	0.36	0.241	0.48	0.162	0.2193	1.20	0.2831
11	21.3	2	0.73	0.15	0.254	0.44	0.228	0.58	0.251	0.2428	1.46	0.3544
12	23.3	2	0.86	0.17	0.289	0.52	0.301	0.69	0.273	0.2910	1.72	0.5005
13	25.3	2	0.94	0.19	0.274	0.58	0.279	0.75	0.279	0.2778	1.88	0.5222
14	27.3	2	1.05	0.21	0.299	0.63	0.318	0.84	0.247	0.2945	2.10	0.6185
15	29.3	2	0.88	0.18	0.145	0.53	0.158	0.70	0.122	0.1450	1.85	0.2880
16	31.5	2.2	WE(L/B)									
TOTAL											15.07	2.8718

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 20 March 2012 TIME STARTED : 16:16 PM TIME FINISHED: 16:48 PM		GAUGE HT. : 0.27 m GAUGE HT. : 0.27 m			
NAME OF STATION: SG23		OBSERVATION POINT / LOCATION: DARAJETAN				COMPUTED BY: DVG			CHECKED: RLB			
HYDROGRAPHIC TEAM: GAG, ELM						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D		NR. 4 D		NR. 8 D		MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				VEL (mps)	DIR	VEL (mps)	DIR	VEL (mps)	DIR			
0	0		0	W/E(R/B)								
1	1.3	1.3	0.45	0.09	UR	0.27	UR	0.36	UR	0.0000	0.74	0.0000
2	3.3	2	0.17	0.03	UR	0.10	UR	0.14	UR	0.0000	0.34	0.0000
3	5.3	2	0.11	0.02	UR	0.07	UR	0.09	UR	0.0000	0.22	0.0000
4	7.3	2	0.09	0.02	UR	0.05	UR	0.07	UR	0.0000	0.18	0.0000
5	9.3	2	0.15	0.03	UR	0.09	UR	0.12	UR	0.0000	0.30	0.0000
6	11.3	2	0.21	0.04		0.057		0.13	UR	0.0570	0.42	0.0239
7	13.3	2	0.36	0.07		0.084		0.22		0.0875	0.72	0.0630
8	15.3	2	0.45	0.09		0.122		0.27		0.1338	0.99	0.1204
9	17.3	2	0.55	0.11		0.171		0.33		0.1560	1.10	0.1716
10	19.3	2	0.60	0.12		0.232		0.35		0.2293	1.20	0.2751
11	21.3	2	0.74	0.15		0.276		0.44		0.2615	1.48	0.3670
12	23.3	2	0.81	0.16		0.278		0.49		0.2665	1.62	0.4317
13	25.3	2	0.94	0.19		0.283		0.56		0.2620	1.88	0.4926
14	27.3	2	1.05	0.21		0.317		0.63		0.3170	2.10	0.6657
15	29.3	2	0.88	0.18		0.172		0.53		0.1820	1.89	0.3443
16	31.6	2.3	W/E(L/B)									
TOTAL											15.09	2.9754

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 21 March 2012 TIME STARTED : 9:55 AM TIME FINISHED: 10:38 AM		GAUGE HT. : 0.27 m GAUGE HT. : 0.27 m			
NAME OF STATION: SG23		OBSERVATION POINT / LOCATION: DARAJETAN				COMPUTED BY: DVG			CHECKED: RLB			
HYDROGRAPHIC TEAM: GAG, ELM						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D		NR. 4 D		NR. 8 D		MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				VEL (mps)	DIR	VEL (mps)	DIR	VEL (mps)	DIR			
0	0		0	W/E(R/B)								
1	1.3	1.3	0.45	0.05	UR	0.27	UR	0.36	UR	0.0000	0.74	0.0000
2	3.3	2	0.16	0.03	UR	0.10	UR	0.13	UR	0.0000	0.32	0.0000
3	5.3	2	0.09	0.02	UR	0.05	UR	0.07	UR	0.0000	0.18	0.0000
4	7.3	2	0.10	0.02	UR	0.06	UR	0.09	UR	0.0000	0.20	0.0000
5	9.3	2	0.15	0.03	UR	0.09	UR	0.12	UR	0.0000	0.30	0.0000
6	11.3	2	0.19	0.04		0.063		0.15	UR	0.0575	0.38	0.0219
7	13.3	2	0.34	0.07		0.101		0.20		0.0918	0.68	0.0624
8	15.3	2	0.45	0.08		0.139		0.27		0.1130	0.90	0.1017
9	17.3	2	0.54	0.11		0.172		0.32		0.1265	1.08	0.1801
10	19.3	2	0.60	0.12		0.231		0.36		0.2035	1.48	0.3012
11	21.3	2	0.74	0.15		0.262		0.44		0.2705	1.70	0.4589
12	23.3	2	0.85	0.17		0.289		0.51		0.2665	1.88	0.5010
13	25.3	2	0.94	0.19		0.281		0.56		0.3065	2.10	0.6416
14	27.3	2	1.05	0.21		0.281		0.63		0.2500	1.89	0.4926
15	29.3	2	0.87	0.17		0.190		0.52		0.1589	1.89	0.3023
16	31.65	2.35	W/E(L/B)									
TOTAL											15.03	2.8537

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 10 April 2002 TIME STARTED: 8:20 AM TIME FINISHED: 9:45 AM		GAUGE HT.: 0.21 m GAUGE HT.: 0.21 m			
NAME OF STATION: SGS3		OBSERVATION POINT / LOCATION: DARAETAN				COMPUTED BY: DVG			CHECKED: RLB			
HYDROGRAPHIC TEAM: GAG, ELM						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D		NR. 5 D		NR. 8 D		MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				VEL (mps)	DIR	VEL (mps)	DIR	VEL (mps)	DIR			
0	0	0	W/E(R/B)									
1	1	1	0.35	0.07	UR	0.21	UR	0.28	UR	0.0000	0.53	0.0000
2	3	2	0.24	0.05	UR	0.14	UR	0.19	UR	0.0000	0.48	0.0000
3	5	2	0.05	0.01	UR	0.03	UR	0.04	UR	0.0000	0.10	0.0000
4	7	2	0.02	0.00	UR	0.01	UR	0.02	UR	0.0000	0.04	0.0000
5	9	2	0.05	0.01	UR	0.03	UR	0.04	UR	0.0000	0.10	0.0000
6	11	2	0.10	0.02	UR	0.06	UR	0.08	UR	0.0000	0.20	0.0000
7	13	2	0.20	0.04	UR	0.12	UR	0.16	UR	0.0000	0.40	0.0000
8	15	2	0.30	0.06	UR	0.18	UR	0.24	UR	0.0000	0.80	0.0000
9	17	2	0.40	0.08	UR	0.24	UR	0.32	UR	0.081	0.80	0.0600
10	19	2	0.45	0.09	UR	0.27	UR	0.36	UR	0.105	0.90	0.1042
11	21	2	0.50	0.10	UR	0.30	UR	0.40	UR	0.141	1.00	0.1235
12	23	2	0.55	0.11	UR	0.33	UR	0.44	UR	0.169	1.10	0.1683
13	25	2	0.60	0.12	UR	0.36	UR	0.48	UR	0.125	1.20	0.1764
14	27	2	0.70	0.14	UR	0.42	UR	0.56	UR	0.181	1.40	0.2800
15	29	2	0.80	0.16	UR	0.48	UR	0.64	UR	0.180	1.80	0.2880
16	30	1	0.30	0.06	UR	0.18	UR	0.24	UR	0.131	0.15	0.0159
17	30	0	W/E(L/B)									
TOTAL											10.80	1.2163

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 11 April 2002 TIME STARTED: 14:00 PM TIME FINISHED: 14:30 PM		GAUGE HT.: 0.21 m GAUGE HT.: 0.21 m			
NAME OF STATION: SGS3		OBSERVATION POINT / LOCATION: DARAETAN				COMPUTED BY: DVG			CHECKED: RLB			
HYDROGRAPHIC TEAM: GAG, ELM						REMARKS: VALLEPORT ROD						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D		NR. 5 D		NR. 8 D		MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				VEL (mps)	DIR	VEL (mps)	DIR	VEL (mps)	DIR			
0	0	0	W/E(R/B)									
1	1	1	0.45	0.09	UR	0.27	UR	0.36	UR	0.0000	0.86	0.0000
2	3	2	0.24	0.05	UR	0.14	UR	0.19	UR	0.0000	0.48	0.0000
3	5	2	0.05	0.01	UR	0.03	UR	0.04	UR	0.0000	0.10	0.0000
4	7	2	0.02	0.00	UR	0.01	UR	0.02	UR	0.0000	0.04	0.0000
5	9	2	0.05	0.01	UR	0.03	UR	0.04	UR	0.0000	0.10	0.0000
6	11	2	0.10	0.02	UR	0.06	UR	0.08	UR	0.0000	0.20	0.0000
7	13	2	0.20	0.04	UR	0.12	UR	0.16	UR	0.0000	0.40	0.0000
8	15	2	0.34	0.07	UR	0.20	UR	0.27	UR	0.0000	0.88	0.0000
9	17	2	0.44	0.09	UR	0.26	UR	0.35	UR	0.062	0.88	0.3759
10	19	2	0.50	0.10	UR	0.30	UR	0.40	UR	0.116	1.00	0.1340
11	21	2	0.58	0.12	UR	0.35	UR	0.47	UR	0.147	1.18	0.1858
12	23	2	0.74	0.15	UR	0.44	UR	0.58	UR	0.158	1.48	0.2742
13	25	2	0.84	0.17	UR	0.50	UR	0.67	UR	0.159	1.68	0.3024
14	27	2	0.95	0.19	UR	0.57	UR	0.76	UR	0.253	1.90	0.4541
15	29	2	0.91	0.18	UR	0.55	UR	0.73	UR	0.126	1.37	0.2222
16	30	1	W/E(L/B)									
TOTAL											12.18	1.6486

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 30 April 2002 TIME STARTED: 10:10 AM TIME FINISHED: 10:50 AM		GAUGE HT.: 0.21 m GAUGE HT.: 0.21 m			
NAME OF STATION: SGS3		OBSERVATION POINT / LOCATION: DARAEATAN				COMPUTED BY: DVG			CHECKED: RLB			
HYDROGRAPHIC TEAM: GAG, ELM						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	VERTICAL						MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				NR. 2 D	VEL (mps)	NR. 5 D	VEL (mps)	NR. 8 D	VEL (mps)			
0	0	0	W/E(R/B)									
1	1	1	0.30	0.06	UR	0.18	UR	0.24	UR	0.0000	0.45	0.0000
2	3	2	0.18	0.04	UR	0.11	UR	0.14	UR	0.0000	0.36	0.0000
3	5	2	0.00	0.00	UR	0.00	UR	0.00	UR	0.0000	0.00	0.0000
4	7	2	0.00	0.00	UR	0.00	UR	0.00	UR	0.0000	0.00	0.0000
5	9	2	0.10	0.02	UR	0.06	UR	0.08	UR	0.0000	0.20	0.0000
6	11	2	0.15	0.03	UR	0.09	UR	0.12	UR	0.0000	0.30	0.0000
7	13	2	0.20	0.04	UR	0.12	UR	0.16	UR	0.0000	0.40	0.0000
8	15	2	0.25	0.05	0.058	0.15	UR	0.20	0.057	0.0575	0.50	0.0286
9	17	2	0.30	0.06	0.126	0.18	0.316	0.24	0.108	0.2165	0.60	0.1299
10	19	2	0.40	0.08	0.182	0.24	0.130	0.32	0.167	0.1523	0.80	0.1218
11	21	2	0.50	0.10	0.209	0.30	0.08	0.40	0.052	0.0953	1.00	0.0953
12	23	2	0.55	0.11	0.168	0.33	0.244	0.44	0.108	0.1910	1.10	0.2101
13	25	2	0.65	0.13	0.333	0.39	0.344	0.52	0.319	0.3350	1.30	0.4355
14	27	2	0.70	0.14	0.179	0.42	0.171	0.56	0.235	0.1890	1.40	0.2645
15	29	2	0.85	0.13	0.183	0.39	0.264	0.52	0.254	0.2413	0.98	0.2352
16	30	1	W/E(L/B)									
TOTAL											9.39	1.5211

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 03 May 2002 TIME STARTED: 9:50 AM TIME FINISHED: 10:15 AM		GAUGE HT.: 0.17 m GAUGE HT.: 0.17 m			
NAME OF STATION: SGS #3		OBSERVATION POINT / LOCATION: Kallwa River, Deraitan, Sampaloc, Tanay				COMPUTED BY: DVG			CHECKED: RLB			
HYDROGRAPHIC TEAM: GAG, ELM & TOTO						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	VERTICAL						MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				NR. 2 D	VEL (mps)	NR. 5 D	VEL (mps)	NR. 8 D	VEL (mps)			
0	0	0	W/E(R/B)									
1	1	1	0.30	0.06	0.000	0.18	0.000	0.24	0.000	0.0000	0.45	0.0000
2	3	2	0.10	0.02	0.000	0.06	0.000	0.08	0.000	0.0000	0.20	0.0000
3	5	2				Island/delta						
4	7	2				Island/delta						
5	9	2				Island/delta						
6	11	2	0.10	0.02	0.000	0.06	0.000	0.08	0.000	0.0000	0.20	0.0000
7	13	2	0.20	0.04	0.000	0.12	0.000	0.16	0.044	0.0440	0.40	0.0176
8	15	2	0.25	0.05	0.049	0.15	0.000	0.20	0.056	0.0286	0.50	0.0144
9	17	2	0.30	0.06	0.106	0.18	0.000	0.24	0.094	0.0560	0.60	0.0300
10	19	2	0.40	0.08	0.110	0.24	0.000	0.32	0.109	0.0548	0.80	0.0438
11	21	2	0.50	0.10	0.124	0.30	0.127	0.40	0.094	0.1180	1.00	0.1180
12	23	2	0.60	0.12	0.142	0.36	0.141	0.48	0.126	0.1376	1.20	0.1650
13	25	2	0.70	0.14	0.166	0.42	0.166	0.56	0.149	0.1543	1.40	0.2130
14	27	2	0.75	0.15	0.172	0.45	0.159	0.60	0.160	0.1600	1.50	0.2400
15	29	2	0.70	0.14	0.116	0.42	0.116	0.56	0.089	0.1088	1.47	0.1598
16	31.2	2.2	W/E(L/B)									
17												
TOTAL											9.72	1.0042

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>						DATE: 06 May 2002 TIME STARTED : 9:50 AM TIME FINISHED: 10:15 AM		GAUGE HT. : 0.16 m GAUGE HT. : 0.16 m		
NAME OF STATION: 8GS # 3		OBSERVATION POINT / LOCATION: Kalwa River, Daraitan, Sempaloc, Tanay						COMPUTED BY: DVG		CHECKED: RLB			
HYDROGRAPHIC TEAM: GAG, ELM & TOTO						REMARKS:							
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	VERTICAL						MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE	
				NR. 2 D	VEL (mps)	NR. 3 D	VEL (mps)	NR. 3 D	VEL (mps)				
0	0		0	W/E(R/B)									
1	1	1	0.30	0.06	0.000	0.18	0.000	0.24	0.000	0.0000	0.45	0.0000	
2	3	2	0.05	0.01	0.000	0.03	0.000	0.04	0.000	0.0000	0.15	0.0000	
3	5	2				Island/delta							
4	7	2				Island/delta							
5	9	2				Island/delta							
6	11	2	0.10	0.02	0.000	0.06	0.000	0.08	0.000	0.0000	0.20	0.0000	
7	13	2	0.15	0.03	0.000	0.09	0.000	0.12	0.040	0.0400	0.30	0.0120	
8	15	2	0.25	0.05	0.000	0.15	0.000	0.20	0.047	0.0470	0.50	0.0235	
9	17	2	0.30	0.06	0.064	0.18	0.000	0.24	0.077	0.0428	0.60	0.0257	
10	19	2	0.40	0.08	0.119	0.24	0.115	0.32	0.095	0.1110	0.80	0.0888	
11	21	2	0.45	0.09	0.116	0.27	0.103	0.36	0.098	0.1050	0.90	0.0945	
12	23	2	0.55	0.11	0.125	0.33	0.128	0.44	0.102	0.1208	1.10	0.1328	
13	25	2	0.60	0.12	0.141	0.35	0.151	0.48	0.136	0.1448	1.20	0.1737	
14	27	2	0.70	0.14	0.172	0.42	0.141	0.56	0.098	0.1380	1.40	0.1932	
15	29	2	0.60	0.12	0.136	0.36	0.108	0.48	0.067	0.1088	1.28	0.1370	
16	31.2	2.2	W/E(L/B)										
										TOTAL	9.81	0.8812	

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>						DATE: 12 May 2002 TIME STARTED : 9:15 AM TIME FINISHED: 9:40 AM		GAUGE HT. : 0.15 m GAUGE HT. : 0.15 m	
NAME OF STATION: 8GS # 3		OBSERVATION POINT / LOCATION: Kalwa River, Daraitan, Sempaloc, Tanay						COMPUTED BY: DVG		CHECKED: RLB		
HYDROGRAPHIC TEAM: GAG, ELM & TOTO						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	VERTICAL						MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				NR. 2 D	VEL (mps)	NR. 3 D	VEL (mps)	NR. 3 D	VEL (mps)			
0	0		0	W/E(R/B)								
1	1.4	1.4	0.25	0.05	0.000	0.15	0.000	0.20	0.000	0.0000	0.43	0.0000
2	3.4	2				Island/delta						
3	5.4	2				Island/delta						
4	7.4	2				Island/delta						
5	9.4	2				Island/delta						
6	11.4	2				Island/delta						
7	13.4	2	0.20	0.04	0.000	0.12	0.000	0.16	0.036	0.0360	0.40	0.0144
8	15.4	2	0.25	0.05	0.000	0.15	0.000	0.20	0.080	0.0800	0.50	0.0300
9	17.4	2	0.30	0.06	0.000	0.18	0.000	0.24	0.060	0.0800	0.60	0.0480
10	19.4	2	0.40	0.08	0.094	0.24	0.000	0.32	0.094	0.0940	0.80	0.0752
11	21.4	2	0.50	0.10	0.130	0.30	0.093	0.40	0.097	0.1033	1.00	0.1033
12	23.4	2	0.60	0.12	0.134	0.36	0.123	0.48	0.141	0.1303	1.20	0.1563
13	25.4	2	0.70	0.14	0.137	0.42	0.139	0.56	0.125	0.1345	1.40	0.1883
14	27.4	2	0.80	0.16	0.148	0.48	0.151	0.64	0.120	0.1420	1.60	0.2272
15	29.4	2	0.70	0.14	0.092	0.42	0.076	0.56	0.072	0.0790	1.40	0.1106
16	31.4	2	W/E(L/B)									
										TOTAL	9.33	0.9533

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 13 May 2002 TIME STARTED : 4:02 PM TIME FINISHED: 4:15 PM		GAUGE HT. : 0.13 m GAUGE HT. : 0.13 m			
NAME OF STATION: SGS # 3		OBSERVATION POINT / LOCATION: Kaliwa River, Daraitan, Bampaloc, Tasey				COMPUTED BY: DVG			CHECKED: RLB			
HYDROGRAPHIC TEAM: GAG, ELM & TOTO						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	VERTICAL						MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				NR. 2 D	VEL (mps)	NR. 5 D	VEL (mps)	NR. 8 D	VEL (mps)			
0	0	0	WE(R/B)									
1	1	1	0.30	0.06	0.000	0.18	0.000	0.24	0.000	0.0000	0.45	0.0000
2	3	2	0.10	0.02	0.000	0.06	0.000	0.08	0.000	0.0000	0.20	0.0000
3	5	2				Island/delta						
4	7	2				Island/delta						
5	9	2				Island/delta						
6	11	2				Island/delta						
7	13	2	0.20	0.04	0.000	0.12	0.000	0.18	0.000	0.0000	0.40	0.0000
8	15	2	0.20	0.04	0.000	0.12	0.000	0.18	0.049	0.0123	0.40	0.0049
9	17	2	0.30	0.06	0.000	0.18	0.000	0.24	0.064	0.0160	0.60	0.0096
10	19	2	0.35	0.07	0.000	0.21	0.000	0.28	0.109	0.0273	0.70	0.0191
11	21	2	0.55	0.11	0.129	0.33	0.102	0.44	0.087	0.1050	1.10	0.1155
12	23	2	0.65	0.13	0.119	0.38	0.115	0.52	0.110	0.1148	1.30	0.1492
13	25	2	0.80	0.18	0.185	0.48	0.153	0.64	0.107	0.1445	1.60	0.2312
14	27	2	1.00	0.20	0.130	0.60	0.125	0.80	0.108	0.1223	2.00	0.2445
15	29	2	0.80	0.16	0.088	0.48	0.073	0.64	0.099	0.0833	1.80	0.1332
16	30	1	WE(L/R)									
17												
TOTAL											10.35	0.9072

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 18 May 2002 TIME STARTED : 2:40 PM TIME FINISHED: 3:15 PM		GAUGE HT. : 0.16 m GAUGE HT. : 0.16 m			
NAME OF STATION: SGS # 3		OBSERVATION POINT / LOCATION: Kaliwa River, Daraitan, Bampaloc, Tasey				COMPUTED BY: DVG			CHECKED: RLB			
HYDROGRAPHIC TEAM: GAG, ELM & TOTO						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	VERTICAL						MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				NR. 2 D	VEL (mps)	NR. 5 D	VEL (mps)	NR. 8 D	VEL (mps)			
0	0	0	WE(R/B)									
1	1.4	1.4	0.28	0.06	0.000	0.17	0.000	0.23	0.000	0.0000	0.49	0.0000
2	3.4	2	0.05	0.01	0.000	0.03	0.000	0.04	0.000	0.0000	0.10	0.0000
3	5.4	2				Island/delta						
4	7.4	2				Island/delta						
5	9.4	2				Island/delta						
6	11.4	2				Island/delta						
7	13.4	2	0.15	0.03	0.000	0.09	0.000	0.12	0.000	0.0000	0.30	0.0000
8	15.4	2	0.25	0.05	0.052	0.15	0.051	0.20	0.000	0.0385	0.50	0.0183
9	17.4	2	0.35	0.07	0.107	0.21	0.093	0.28	0.069	0.0905	0.70	0.0624
10	19.4	2	0.40	0.08	0.117	0.24	0.103	0.32	0.081	0.1035	0.80	0.0828
11	21.4	2	0.54	0.11	0.132	0.32	0.143	0.43	0.120	0.1345	1.08	0.1453
12	23.4	2	0.65	0.13	0.185	0.38	0.131	0.52	0.141	0.1420	1.30	0.1846
13	25.4	2	0.74	0.15	0.182	0.44	0.178	0.59	0.128	0.1658	1.48	0.2453
14	27.4	2	0.95	0.19	0.182	0.67	0.192	0.76	0.138	0.1780	1.90	0.3344
15	29.4	2	0.90	0.18	0.078	0.54	0.085	0.72	0.081	0.0873	1.80	0.1571
16	29.7	0.3	WE(L/R)									
17												
TOTAL											10.45	1.2320

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT				HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 10 June 2002 TIME STARTED : 1:25 PM TIME FINISHED: 1:50 PM		GAUGE HT. : 0.22m GAUGE HT. : 0.22 m		
NAME OF STATION: SGS #3		OBSERVATION POINT / LOCATION: Kallwa River, Davao, Sempalec, Tansy				COMPUTED BY: DVG				CHECKED: RLB		
HYDROGRAPHIC TEAM: GAG, ELM & TOTO						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	VERTICAL						MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				NR. 2 D	VEL (mps)	NR. 5 D	VEL (mps)	NR. 8 D	VEL (mps)			
0	0	0	WE(R/B)									
1	2	2	0.03	0.01	0.000	0.02	0.000	0.02	0.000	0.0000	0.06	0.0000
2	4	2	0.05	0.01		0.03	Island/Delta	0.04			0.10	0.0000
3	6	2	0.08	0.01		0.03	Island/Delta	0.04			0.10	0.0000
4	8	2	0.05	0.01		0.03	Island/Delta	0.04			0.10	0.0000
5	10	2	0.10	0.02		0.06	0.000	0.08			0.20	0.0000
6	12	2	0.15	0.03		0.09	0.081	0.12		0.0810	0.30	0.0183
7	14	2	0.25	0.05		0.15	0.086	0.20		0.0860	0.50	0.0430
8	16	2	0.35	0.07		0.21	0.091	0.28		0.0910	0.70	0.0637
9	18	2	0.42	0.08		0.25	0.131	0.34		0.1310	0.84	0.1100
10	20	2	0.60	0.10	0.172	0.30	0.170	0.40	0.127	0.1598	1.00	0.1598
11	22	2	0.64	0.13	0.194	0.38	0.174	0.51	0.175	0.1793	1.28	0.2294
12	24	2	0.75	0.15	0.213	0.45	0.165	0.60	0.196	0.1745	1.50	0.2618
13	26	2	0.85	0.17	0.199	0.51	0.182	0.68	0.172	0.1838	1.70	0.3124
14	28	2	0.90	0.18	0.213	0.54	0.176	0.72	0.196	0.1903	1.80	0.3425
15	30	2	0.80	0.16	0.103	0.48	0.118	0.64	0.035	0.0836	1.12	0.1047
16	30.8	0.8	WE(L/B)									
										TOTAL	11.30	1.6426

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT				HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 23 February 2002 TIME STARTED : 16:35 PM TIME FINISHED: 17:30 PM		GAUGE HT. : 0.25 m GAUGE HT. : 0.24 m		
NAME OF STATION:SGS4		OBSERVATION POINT / LOCATION: GEN. NAKAR				COMPUTED BY: DVG				CHECKED: RLB		
HYDROGRAPHIC TEAM: ROMA, RLB, MUTO						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	VERTICAL						MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				NR. 2 D	VEL (mps)	NR. 5 D	VEL (mps)	NR. 8 D	VEL (mps)			
0	0	0	WE(L/B)									
1	2	2	0.78	0.16	0.082	0.47	0.058	0.82	UR	0.0890	1.95	0.1346
2	5	3	0.74	0.15	0.183	0.44	0.185	0.59	0.145	0.1643	2.22	0.3646
3	8	3	0.73	0.15	0.207	0.44	0.208	0.58	0.143	0.1905	2.19	0.4172
4	11	3	0.67	0.13	0.245	0.40	0.218	0.54	0.217	0.2235	2.01	0.4492
5	14	3	0.65	0.13	0.282	0.39	0.249	0.52	0.190	0.2420	1.95	0.4719
6	17	3	0.63	0.13	0.318	0.38	0.287	0.50	0.249	0.2853	1.89	0.5391
7	20	3	0.85	0.17	0.299	0.51	0.255	0.68	0.201	0.2575	2.55	0.6566
8	23	3	1	0.20	0.339	0.65	0.317	0.80	0.259	0.3080	3.00	0.9240
9	26	3	1.24	0.25	0.235	0.74	0.311	0.89	0.313	0.2925	3.72	1.0881
10	29	3	1.45	0.29	0.322	0.87	0.284	1.16	0.275	0.2913	4.35	1.2669
11	32	3	1.43	0.29	0.287	0.88	0.292	1.14	0.318	0.2958	4.29	1.2698
12	35	3	1.4	0.28	0.319	0.84	0.33	1.12	0.284	0.3183	4.20	1.3367
13	38	3	1.58	0.32	0.276	0.85	0.285	1.28	0.270	0.2890	4.74	1.2751
14	41	3	1.88	0.34	0.284	1.01	0.225	1.34	0.197	0.2278	5.04	1.1479
15	44	3	1.51	0.30	0.215	0.91	0.219	1.21	0.153	0.2015	4.53	0.9128
16	47	3	1.05	0.21	0.187	0.83	0.186	0.84	0.118	0.1588	3.15	0.5001
17	49	2	0.73	0.15	0.147	0.44	0.115	0.58	0.062	0.1098	1.53	0.1682
18	51.2	2.2	WE(R/B)									
										TOTAL	53.31	12.9217

Submitted by: KEIYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 02 March 2002 TIME STARTED : 11:35 AM TIME FINISHED: 11:40 AM		GAUGE HT. : 0.20 m GAUGE HT. : 0.20 m				
NAME OF STATION:SGS4		OBSERVATION POINT / LOCATION: GEN. NAKAR				COMPUTED BY: DVG			CHECKED: RLB				
HYDROGRAPHIC TEAM: ENTENG, JERRY						REMARKS:							
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)							MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE	
				NR. 2 D	VEL (mps)	NR. 3 D	VEL (mps)	NR. 3 D	VEL (mps)				
0	0	0	W/E(L/B)										
1	3	3	0.60	0.12	0.082	0.36	0.091	0.48	0.077	0.0853	1.80	0.1535	
2	6	3	0.63	0.13	0.166	0.38	0.184	0.50	0.197	0.1826	1.89	0.3454	
3	9	3	0.60	0.12	0.195	0.36	0.193	0.48	0.200	0.1953	1.80	0.3515	
4	12	3	0.60	0.12	0.191	0.36	0.216	0.48	0.193	0.2040	1.80	0.3673	
5	15	3	0.55	0.11	0.211	0.33	0.221	0.44	0.263	0.2290	1.05	0.3779	
6	18	3	0.60	0.12	0.237	0.38	0.238	0.48	0.265	0.2398	1.80	0.4316	
7	21	3	0.75	0.15	0.246	0.45	0.294	0.60	0.267	0.2803	2.25	0.6306	
8	24	3	1.00	0.20	0.195	0.60	0.253	0.80	0.263	0.2410	3.00	0.7230	
9	27	3	1.20	0.24	0.167	0.72	0.218	0.96	0.350	0.2123	3.60	0.7841	
10	30	3	1.10	0.22	0.232	0.66	0.297	0.88	0.314	0.2850	3.30	0.9405	
11	33	3	1.20	0.24	0.216	0.72	0.251	0.96	0.285	0.2508	3.60	0.9027	
12	36	3	1.40	0.28	0.225	0.84	0.24	1.12	0.250	0.2388	4.20	1.0928	
13	39	3	1.55	0.31	0.188	0.93	0.216	1.24	0.251	0.2178	4.65	1.0126	
14	42	3	1.50	0.30	0.148	0.90	0.197	1.20	0.218	0.1900	4.50	0.8550	
15	45	3	1.30	0.26	0.090	0.78	0.170	1.04	0.227	0.1688	3.90	0.6581	
16	48	3	0.80	0.12	0.088	0.36	0.103	0.48	0.145	0.1093	1.65	0.1803	
17	50.5	2.5	W/E(L/B)										
TOTAL											45.39	9.6664	

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 05 March 2002 TIME STARTED : 10:36 PM TIME FINISHED: 11:10 PM		GAUGE HT. : 0.07 m GAUGE HT. : 0.07 m				
NAME OF STATION:SGS4		OBSERVATION POINT / LOCATION: GEN. NAKAR				COMPUTED BY: DVG			CHECKED: RLB				
HYDROGRAPHIC TEAM: ENTENG, JERRY, MUTO						REMARKS:							
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)							MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE	
				NR. 2 D	VEL (mps)	NR. 3 D	VEL (mps)	NR. 3 D	VEL (mps)				
0	0	0	W/E(L/B)										
1	3	3	0.60	0.12	0.091	0.36	0.059	0.48	0.068	0.0658	1.80	0.1236	
2	6	3	0.81	0.12	0.141	0.37	0.144	0.49	0.091	0.1300	1.63	0.2379	
3	9	3	0.80	0.12	0.188	0.38	0.162	0.48	0.171	0.1708	1.80	0.3074	
4	12	3	0.57	0.11	0.178	0.34	0.168	0.48	0.165	0.1848	1.71	0.3159	
5	15	3	0.55	0.11	0.248	0.33	0.250	0.44	0.201	0.2373	1.65	0.3915	
6	18	3	0.89	0.14	0.229	0.41	0.273	0.55	0.191	0.2185	2.07	0.4482	
7	21	3	0.80	0.16	0.258	0.48	0.324	0.64	0.166	0.2650	2.40	0.6432	
8	24	3	0.95	0.19	0.227	0.57	0.250	0.76	0.210	0.2343	2.85	0.6676	
9	27	3	1.15	0.23	0.228	0.69	0.243	0.92	0.233	0.2363	3.45	0.8151	
10	30	3	1.10	0.22	0.232	0.66	0.261	0.88	0.244	0.2495	3.30	0.8234	
11	33	3	1.15	0.23	0.184	0.69	0.279	0.92	0.172	0.2285	3.45	0.7883	
12	36	3	1.45	0.29	0.252	0.87	0.28	1.16	0.214	0.2565	4.35	1.1158	
13	39	3	1.65	0.33	0.263	0.99	0.224	1.32	0.173	0.2210	4.95	1.0410	
14	42	3	1.45	0.29	0.224	0.87	0.21	1.16	0.151	0.1988	4.35	0.8646	
15	45	3	1.34	0.27	0.177	0.80	0.153	1.07	0.087	0.1375	4.02	0.5528	
16	48	3	0.88	0.14	0.113	0.41	0.108	0.54	0.082	0.1018	1.87	0.1903	
17	50.5	2.5	W/E(R/B)										
TOTAL											45.85	9.3764	

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 07 March 2002 TIME STARTED: 9:27 AM TIME FINISHED: 10:00 AM		GAUGE HT.: 0.80 m GAUGE HT.: 0.32 m			
NAME OF STATION: SGE4		OBSERVATION POINT / LOCATION: GEN. NAKAR				COMPUTED BY: DVG			CHECKED: RLB			
HYDROGRAPHIC TEAM: ENTENG, JERRY, DVG					REMARKS:							
FT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D		NR. 4 D		NR. 8 D		MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)			
0	0	0	W/E(L/B)									
1	1.5	1.5	0.84	0.17	0.086	0.50	0.086	0.67	UR	0.0670	1.89	0.1266
2	4.5	3	0.80	0.16	0.127	0.48	0.165	0.64	0.142	0.1498	2.40	0.3592
3	7.5	3	0.74	0.15	0.100	0.44	0.188	0.59	0.142	0.1670	2.22	0.3707
4	10.5	3	0.71	0.14	0.214	0.43	0.213	0.57	0.254	0.2235	2.13	0.4761
5	13.5	3	0.72	0.14	0.270	0.43	0.290	0.58	0.221	0.2678	2.16	0.5793
6	16.5	3	0.69	0.14	0.307	0.41	0.290	0.55	0.261	0.2858	2.07	0.5615
7	19.5	3	0.83	0.17	0.351	0.50	0.398	0.66	0.247	0.2985	2.49	0.7433
8	22.5	3	0.94	0.19	0.368	0.58	0.345	0.75	0.243	0.3103	2.82	0.8749
9	25.5	3	1.20	0.24	0.381	0.72	0.184	0.98	0.322	0.2678	3.80	0.9639
10	28.5	3	1.31	0.26	0.372	0.79	0.266	1.05	0.299	0.3003	3.93	1.1800
11	31.5	3	1.20	0.24	0.369	0.72	0.203	0.98	0.339	0.3235	3.60	1.1646
12	34.5	3	1.39	0.28	0.388	0.83	0.707	1.11	0.262	0.3110	4.17	2.1309
13	37.5	3	1.80	0.32	0.325	0.96	0.259	1.28	0.333	0.2940	4.80	1.4112
14	40.5	3	1.70	0.34	0.254	1.02	0.266	1.36	0.176	0.2405	5.10	1.2266
15	43.5	3	1.83	0.33	0.223	0.98	0.177	1.30	0.204	0.1953	4.89	0.9548
16	46.5	3	1.25	0.25	0.186	0.75	0.198	1.09	0.119	0.1738	3.75	0.8516
17	49.5	3	0.71	0.14	0.087	0.43	0.105	0.57	0.081	0.0970	1.78	
18	51.5	2	W/E(R/B)									
TOTAL											53.80	13.8043

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 11 March 2002 TIME STARTED: 9:16 AM TIME FINISHED: 9:44 AM		GAUGE HT.: 0.18 m GAUGE HT.: 0.18 m			
NAME OF STATION: SGE4		OBSERVATION POINT / LOCATION: GEN. NAKAR				COMPUTED BY: DVG			CHECKED: RLB			
HYDROGRAPHIC TEAM: ENTENG, JERRY, DVG					REMARKS:							
FT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D		NR. 4 D		NR. 8 D		MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)	VEL (mps)			
0	0	0	W/E(L/B)									
1	1.15	1.15	0.88	0.14	0.102	0.41	0.080	0.54	UR	0.0910	1.41	0.1284
2	4.15	3	0.83	0.13	0.120	0.38	0.150	0.50	0.189	0.1523	1.89	0.2878
3	7.15	3	0.83	0.13	0.153	0.38	0.138	0.50	0.128	0.1388	1.89	0.2622
4	10.15	3	0.81	0.12	0.190	0.37	0.130	0.49	0.171	0.1593	1.83	0.2821
5	13.15	3	0.59	0.12	0.175	0.35	0.199	0.47	0.148	0.1795	1.77	0.3177
6	16.15	3	0.60	0.12	0.215	0.38	0.233	0.48	0.143	0.2060	1.80	0.3706
7	19.15	3	0.78	0.18	0.201	0.41	0.285	0.62	0.112	0.2208	2.34	0.5186
8	22.15	3	0.83	0.17	0.251	0.50	0.261	0.66	0.155	0.2320	2.49	0.5777
9	25.15	3	1.02	0.20	0.248	0.61	0.275	0.82	0.271	0.2673	3.06	0.8178
10	28.15	3	1.17	0.23	0.258	0.70	0.298	0.94	0.289	0.2408	3.51	0.8450
11	31.15	3	1.14	0.23	0.247	0.68	0.195	0.91	0.251	0.2220	3.42	0.7582
12	34.15	3	1.26	0.25	0.289	0.76	0.247	1.01	0.166	0.2373	3.78	0.8968
13	37.15	3	1.35	0.27	0.251	0.81	0.194	1.08	0.229	0.2170	4.05	0.9789
14	40.15	3	1.58	0.32	0.263	0.95	0.204	1.28	0.205	0.2415	4.74	1.1447
15	43.15	3	1.49	0.30	0.208	0.89	0.183	1.19	0.181	0.1888	4.47	0.8437
16	46.15	3	1.08	0.21	0.183	0.84	0.150	0.86	0.102	0.1388	3.18	0.4412
17	49.15	3	0.44	0.09	UR	0.26	UR	0.35	UR	0.0000	0.88	0.0000
18	50.15	1	W/E(R/B)									
TOTAL											46.51	9.3726

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS The Study on Water Resources Development for Metro Manila in the Republic of the Philippines						DATE: 18 March 2002 TIME STARTED: 9:47 AM TIME FINISHED: 10:37 AM			GAUGE HT.: 0.25 m GAUGE HT.: 0.28 m	
NAME OF STATION: SGB4			OBSERVATION POINT / LOCATION: GEN. NAKAR						COMPUTED BY: DVG			CHECKED: RLB	
HYDROGRAPHIC TEAM: DVG, AMR, JBD						REMARKS:							
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. & D				MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE			
				NR. 2 D	VEL (mps)	NR. & D	VEL (mps)				NR. & D	VEL (mps)	
0	0	0	WE(L/S)										
1	1.5	1.5	0.80	0.16	UR	0.48	UR	0.84	UR	0.0000	1.80	0.0000	
2	4.5	3.0	0.70	0.14	0.103	0.42	0.125	0.56	0.1080	0.1103	2.10	0.2315	
3	7.5	3.0	0.68	0.14	0.190	0.41	0.177	0.54	0.172	0.1760	2.04	0.3552	
4	10.5	3.0	0.66	0.13	0.191	0.40	0.187	0.53	0.169	0.1805	1.98	0.3574	
5	13.5	3.0	0.65	0.13	0.214	0.39	0.262	0.52	0.156	0.2235	1.95	0.4358	
6	16.5	3.0	0.60	0.12	0.207	0.38	0.272	0.48	0.203	0.2635	1.80	0.4723	
7	19.5	3.0	0.65	0.17	0.242	0.51	0.295	0.69	0.235	0.3068	2.79	0.8560	
8	22.5	3.0	0.93	0.19	0.282	0.56	0.316	0.72	0.313	0.2668	2.55	0.6802	
9	25.5	3.0	1.15	0.23	0.310	0.69	0.285	0.92	0.249	0.3068	3.45	0.9729	
10	28.5	3.0	1.20	0.24	0.273	0.72	0.312	0.98	0.154	0.2843	3.60	0.9513	
11	31.5	3.0	1.20	0.24	0.314	0.72	0.267	0.98	0.226	0.2865	3.60	0.9666	
12	34.5	3.0	1.35	0.27	0.287	0.81	0.273	1.08	0.238	0.2578	4.05	1.0824	
13	37.5	3.0	1.50	0.30	0.343	0.90	0.288	1.20	0.161	0.2800	4.50	1.1700	
14	40.5	3.0	1.65	0.33	0.206	0.99	0.201	1.32	0.176	0.1960	4.35	0.9702	
15	43.5	3.0	1.45	0.29	0.248	0.87	0.127	1.16	0.164	0.1665	4.35	0.7243	
16	46.5	3.0	1.13	0.23	0.172	0.68	0.108	0.90	0.082	0.1175	3.39	0.3983	
17	49.5	3.0	0.5	0.10	0.064	0.30	0.065	0.40	UR	0.0545	1.08	0.0893	
18	50.8	1.3	WE(R/S)										
TOTAL										49.98	10.7077		

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS The Study on Water Resources Development for Metro Manila in the Republic of the Philippines						DATE: 18 March 2002 TIME STARTED: 13:18 PM TIME FINISHED: 13:39 PM			GAUGE HT.: 0.24 m GAUGE HT.: 0.24 m	
NAME OF STATION: SGB4			OBSERVATION POINT / LOCATION: GEN. NAKAR						COMPUTED BY: DVG			CHECKED: RLB	
HYDROGRAPHIC TEAM: DVG, AMR, JBD						REMARKS:							
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. & D				MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE			
				NR. 2 D	VEL (mps)	NR. & D	VEL (mps)				NR. & D	VEL (mps)	
0	0	0	WE(L/S)										
1	1.4	1.4	0.77	0.15	UR	0.46	0.086	0.62	0.106	0.0960	1.69	0.1826	
2	4.4	3.0	0.72	0.14	0.163	0.43	0.112	0.58	0.161	0.1420	2.18	0.3067	
3	7.4	3.0	0.70	0.14	0.162	0.42	0.109	0.58	0.145	0.1763	2.10	0.3701	
4	10.4	3.0	0.70	0.14	0.152	0.42	0.214	0.56	0.281	0.2153	2.10	0.4520	
5	13.4	3.0	0.63	0.13	0.367	0.38	0.229	0.50	0.285	0.2785	1.89	0.5264	
6	16.4	3.0	0.63	0.13	0.362	0.38	0.233	0.50	0.230	0.2645	1.89	0.4999	
7	19.4	3.0	0.82	0.16	0.304	0.49	0.194	0.68	0.220	0.2280	2.46	0.5609	
8	22.4	3.0	0.95	0.19	0.339	0.57	0.361	0.76	0.268	0.3323	2.85	0.9489	
9	25.4	3.0	1.08	0.22	0.406	0.65	0.270	0.86	0.296	0.3103	3.24	1.0052	
10	28.4	3.0	1.20	0.24	0.367	0.72	0.259	0.96	0.335	0.3250	3.60	1.1700	
11	31.4	3.0	1.20	0.24	0.357	0.72	0.386	0.96	0.231	0.3400	3.60	1.2240	
12	34.4	3.0	1.35	0.27	0.323	0.81	0.315	1.08	0.184	0.2843	4.05	1.1512	
13	37.4	3.0	1.55	0.31	0.237	0.93	0.241	1.24	0.236	0.2393	4.65	1.1125	
14	40.4	3.0	1.64	0.33	0.300	0.99	0.216	1.37	0.173	0.2263	4.92	1.1132	
15	43.4	3.0	1.45	0.29	0.127	0.87	0.259	1.16	0.193	0.2095	4.35	0.9113	
16	46.4	3.0	1.08	0.22	0.227	0.65	0.195	0.86	0.121	0.1845	3.24	0.5978	
17	49.4	3.0	0.47	0.09	0.114	0.28	0.098	0.38	0.061	0.0833	0.99	0.0920	
18	50.6	1.3	WE(R/S)										
TOTAL										49.78	12.2028		

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT				HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 22 March 2002 TIME STARTED: 10:13 AM TIME FINISHED: 10:43 AM		GAUGE HT.: 0:13 m GAUGE HT.: 0:13 m		
NAME OF STATION: SGS4		OBSERVATION POINT / LOCATION: GEN. NAKAR				COMPUTED BY: DVG				CHECKED: RLB		
HYDROGRAPHIC TEAM: DVG, AMS, JBD						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D		NR. 5 D		NR. 8 D		MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				VEL (mps)	UR	VEL (mps)	UR	VEL (mps)	UR			
0	0	0	WE(L/B)									
1	1.5	3.0	0.65	0.13	UR	0.36	UR	0.52	UR	0.0000	1.46	0.0000
2	4.5	3.0	0.60	0.12	0.087	0.36	0.070	0.48	0.099	0.0978	1.80	0.1760
3	7.5	3.0	0.66	0.13	0.204	0.40	0.189	0.53	0.113	0.1738	1.98	0.3440
4	10.5	3.0	0.54	0.11	0.213	0.32	0.137	0.43	0.214	0.1753	1.82	0.2839
5	13.5	3.0	0.57	0.11	0.196	0.34	0.188	0.46	0.125	0.1743	1.71	0.2980
6	16.5	3.0	0.50	0.10	0.115	0.30	0.268	0.40	0.131	0.1855	1.50	0.2033
7	19.5	3.0	0.75	0.15	0.171	0.45	0.231	0.60	0.227	0.2150	2.25	0.4838
8	22.5	3.0	0.78	0.18	0.267	0.47	0.221	0.62	0.296	0.2513	2.34	0.5879
9	25.5	3.0	0.96	0.19	0.233	0.56	0.204	0.77	0.195	0.2090	2.88	0.6019
10	28.5	3.0	1.10	0.22	0.253	0.56	0.302	0.88	0.172	0.2073	3.30	0.6839
11	31.5	3.0	1.15	0.23	0.101	0.69	0.297	0.90	0.235	0.2325	3.45	0.8021
12	34.5	3.0	1.20	0.24	0.215	0.72	0.226	0.95	0.219	0.2215	3.60	0.7974
13	37.5	3.0	1.41	0.28	0.197	0.85	0.304	1.13	0.183	0.2470	4.23	1.0448
14	40.5	3.0	1.52	0.30	0.152	0.91	0.173	1.22	0.126	0.1560	4.56	0.7114
15	43.5	3.0	1.35	0.27	0.301	0.81	0.183	1.08	0.115	0.1700	4.05	0.6885
16	46.5	3.0	0.90	0.18	0.177	0.54	0.131	0.72	0.117	0.1390	2.70	0.3753
17	49.5	3.0	0.38	0.08	UR	0.23	UR	0.30	0.056	0.0560	0.78	0.0428
18	50.5	1	WE(R/B)									
TOTAL											44.19	8.2147

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT				HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 23 March 2002 TIME STARTED: 9:48 AM TIME FINISHED: 10:26 AM		GAUGE HT.: 0:11 m GAUGE HT.: 0:11 m		
NAME OF STATION: SGS4		OBSERVATION POINT / LOCATION: GEN. NAKAR				COMPUTED BY: DVG				CHECKED: RLB		
HYDROGRAPHIC TEAM: DVG, AMS, JBD						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D		NR. 5 D		NR. 8 D		MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
				VEL (mps)	UR	VEL (mps)	UR	VEL (mps)	UR			
0	0	0	WE(L/B)									
1	1.5	3.0	0.65	0.13	UR	0.36	UR	0.52	UR	0.0000	1.46	0.0000
2	4.5	3.0	0.60	0.12	0.087	0.36	0.070	0.48	0.071	0.0745	1.80	0.1341
3	7.5	3.0	0.55	0.11	0.120	0.33	0.116	0.44	0.068	0.1050	1.85	0.1733
4	10.5	3.0	0.52	0.10	0.147	0.31	0.124	0.42	0.114	0.1273	1.56	0.1985
5	13.5	3.0	0.50	0.10	0.170	0.30	0.134	0.40	0.095	0.1333	1.50	0.1999
6	16.5	3.0	0.50	0.10	0.220	0.30	0.190	0.40	0.186	0.1965	1.50	0.2548
7	19.5	3.0	0.70	0.14	0.233	0.42	0.195	0.56	0.186	0.2023	2.10	0.4247
8	22.5	3.0	0.78	0.16	0.211	0.47	0.222	0.62	0.201	0.2140	2.34	0.5008
9	25.5	3.0	0.94	0.19	0.256	0.58	0.224	0.75	0.172	0.2190	2.82	0.6176
10	28.5	3.0	1.10	0.22	0.204	0.66	0.223	0.88	0.184	0.2085	3.30	0.6591
11	31.5	3.0	1.08	0.22	0.203	0.65	0.204	0.86	0.217	0.2085	3.24	0.6691
12	34.5	3.0	1.20	0.24	0.200	0.72	0.207	0.96	0.165	0.1948	3.60	0.7011
13	37.5	3.0	1.40	0.28	0.204	0.84	0.174	1.12	0.189	0.1853	4.20	0.7781
14	40.5	3.0	1.51	0.30	0.170	0.91	0.181	1.21	0.160	0.1730	4.53	0.7837
15	43.5	3.0	1.34	0.27	0.203	0.80	0.183	1.07	0.175	0.1710	4.02	0.6874
16	46.5	3.0	0.94	0.19	0.129	0.56	0.115	0.75	0.121	0.1200	2.82	0.3384
17	49.5	3.0	0.38	0.07	UR	0.22	UR	0.28	UR	0.0000	0.74	0.0000
18	50.5	1	WE(R/B)									
TOTAL											43.18	7.1893

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS The Study on Water Resources Development for Metro Manila in the Republic of the Philippines				DATE: 24 March 2002 TIME STARTED : 13:41 PM TIME FINISHED: 14:04 PM		GAUGE HT. : 0.46 m GAUGE HT. : 0.45 m			
NAME OF STATION: SGG4		OBSERVATION POINT / LOCATION: GEN. NAKAR				COMPUTED BY: DVG		CHECKED: RLB				
HYDROGRAPHIC TEAM: DVG, AMR, JBD						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D	VEL (mps)	NR. 5 D	VEL (mps)	NR. 8 D	VEL (mps)	MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
0	0	0	WE(L/B)									
1	1.75	1.75	0.94	0.19	0.110	0.56	0.139	0.75	0.114	0.1255	2.23	0.2802
2	4.75	3.0	0.90	0.18	0.185	0.54	0.289	0.72	0.232	0.2439	2.70	0.6581
3	7.75	3.0	0.90	0.18	0.289	0.54	0.245	0.72	0.231	0.2525	2.70	0.6818
4	10.75	3.0	0.88	0.18	0.328	0.53	0.339	0.70	0.210	0.3043	2.64	0.8037
5	13.75	3.0	0.86	0.17	0.320	0.52	0.446	0.69	0.381	0.3983	2.58	1.0275
6	16.75	3.0	0.81	0.16	0.409	0.49	0.430	0.65	0.382	0.4128	2.43	1.0030
7	19.75	3.0	1.03	0.21	0.397	0.62	0.390	0.62	0.380	0.3843	3.09	1.1873
8	22.75	3.0	1.10	0.22	0.445	0.66	0.493	0.68	0.353	0.4460	3.30	1.4718
9	25.75	3.0	1.34	0.27	0.487	0.60	0.387	1.07	0.335	0.3990	4.02	1.6040
10	28.75	3.0	1.40	0.28	0.485	0.64	0.454	1.12	0.318	0.4228	4.20	1.7756
11	31.75	3.0	1.35	0.27	0.516	0.61	0.389	1.08	0.303	0.4218	4.05	1.7081
12	34.75	3.0	1.55	0.31	0.426	0.63	0.303	1.24	0.411	0.4065	4.85	1.8902
13	37.75	3.0	1.75	0.35	0.358	1.05	0.390	1.40	0.303	0.3603	5.25	1.8613
14	40.75	3.0	1.64	0.37	0.343	1.10	0.368	1.47	0.292	0.3428	5.52	1.8920
15	43.75	3.0	1.45	0.29	0.379	0.67	0.383	1.16	0.237	0.3455	4.35	1.5029
16	46.75	3.0	1.30	0.26	0.318	0.78	0.215	1.04	0.112	0.2155	3.90	0.8405
17	49.75	3.0	0.65	0.13	0.152	0.39	0.195	0.52	0.103	0.1613	1.65	0.2673
18	51.85	2.1	WE(R/B)									
TOTAL											59.27	20.4847

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS The Study on Water Resources Development for Metro Manila in the Republic of the Philippines				DATE: 10 April 2002 TIME STARTED : 9:14 AM TIME FINISHED: 9:47 AM		GAUGE HT. : 0.02 m GAUGE HT. : 0.02 m			
NAME OF STATION: SGG4		OBSERVATION POINT / LOCATION: GEN. NAKAR				COMPUTED BY: DVG		CHECKED: RLB				
HYDROGRAPHIC TEAM: ENTENG, JERRY, DVG						REMARKS:						
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D	VEL (mps)	NR. 5 D	VEL (mps)	NR. 8 D	VEL (mps)	MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE
0	0	0	WE(L/B)									
1	1.3	1.3	0.55	0.11	UR	0.33	UR	0.44	UR	0.0600	1.18	0.0900
2	4.3	3	0.50	0.10	UR	0.39	UR	0.40	0.056	0.0560	1.50	0.0840
3	7.3	3	0.47	0.09	0.079	0.26	0.089	0.38	0.068	0.0813	1.41	0.1146
4	10.3	3	0.50	0.10	0.093	0.30	0.109	0.40	0.070	0.0953	1.50	0.1429
5	13.3	3	0.45	0.09	0.114	0.27	0.145	0.36	0.085	0.1223	1.35	0.1650
6	16.3	3	0.41	0.08	0.154	0.25	0.132	0.33	0.143	0.1403	1.25	0.1725
7	19.3	3	0.50	0.12	0.162	0.36	0.165	0.48	0.188	0.1700	1.80	0.3060
8	22.3	3	0.68	0.14	0.184	0.41	0.205	0.54	0.123	0.1793	2.04	0.3657
9	25.3	3	0.83	0.17	0.150	0.50	0.180	0.68	0.165	0.1688	2.49	0.4262
10	28.3	3	0.95	0.19	0.137	0.57	0.207	0.76	0.147	0.1745	2.85	0.4973
11	31.3	3	1.03	0.21	0.162	0.62	0.122	0.82	0.175	0.1453	3.09	0.4489
12	34.3	3	1.12	0.22	0.173	0.67	0.239	0.90	0.143	0.1695	3.36	0.6970
13	37.3	3	0.14	0.03	0.158	0.08	0.168	0.11	0.184	0.1695	0.41	0.0686
14	40.3	3	1.44	0.29	0.155	0.66	0.172	1.15	0.230	0.1823	4.32	0.7873
15	43.3	3	1.25	0.25	0.170	0.75	0.136	1.00	0.083	0.1323	3.75	0.4959
16	46.3	3	0.85	0.17	0.145	0.51	0.096	0.68	0.117	0.1085	2.55	0.2767
17	49.3	3	0.35	UR			0.102	UR		0.1020	0.70	0.0714
18	50.3	1	WE(R/B)									
TOTAL											35.53	5.0839

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 30 April 2002 TIME STARTED: 9:25 AM TIME FINISHED: 10:00 AM		GAUGE HT.: 0.01 m GAUGE HT.: 0.01 m				
NAME OF STATION: S684		OBSERVATION POINT / LOCATION: GEN. NAKAR				COMPUTED BY: DVG			CHECKED: RLB				
HYDROGRAPHIC TEAM: ENTENG, JERRY, DVG						REMARKS:							
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D		NR. 5 D		NR. 8 D		MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE	
				VEL (mps)	LR	VEL (mps)	LR	VEL (mps)	LR				
0	0	0	WE(L/B)										
1	1.4	1.4	0.45	0.09	LR	0.27	LR	0.36	LR	0.0000	0.99	0.0900	
2	4.4	3	0.30	0.08	LR	0.18	LR	0.24	LR	0.0000	0.90	0.0000	
3	7.4	3	0.30	0.08	LR	0.18		0.032	0.24	LR	0.0320	0.90	0.0288
4	10.4	3	0.30	0.08		0.065	0.18	0.042	0.24	0.043	0.0480	0.90	0.0432
5	13.4	3	0.29	0.06		0.078	0.17	0.091	0.23	0.054	0.0735	0.87	0.0639
6	16.4	3	0.28	0.06		0.084	0.17	0.133	0.22	0.097	0.1118	0.84	0.0939
7	19.4	3	0.41	0.08		0.112	0.25	0.117	0.33	0.098	0.1110	1.23	0.1385
8	22.4	3	0.50	0.10		0.156	0.30	0.151	0.40	0.089	0.1338	1.50	0.2051
9	25.4	3	0.65	0.13		0.089	0.39	0.146	0.52	0.143	0.1335	1.95	0.2603
10	28.4	3	0.80	0.15		0.114	0.48	0.155	0.64	0.133	0.1393	2.40	0.3342
11	31.4	3	0.80	0.16		0.110	0.48	0.147	0.64	0.093	0.1243	2.40	0.2982
12	34.4	3	0.90	0.18		0.120	0.54	0.128	0.72	0.112	0.1220	2.70	0.3284
13	37.4	3	1.05	0.21		0.125	0.63	0.128	0.84	0.113	0.1235	3.15	0.3880
14	40.4	3	1.15	0.23		0.124	0.69	0.092	0.92	0.141	0.1123	3.45	0.3873
15	43.4	3	1.10	0.22		0.134	0.68	0.118	0.88	0.114	0.1210	3.30	0.3993
16	46.4	3	0.80	0.16		0.072	0.48	0.054	0.64	0.058	0.0595	2.40	0.1428
17	49.4	3	0.3		LR		LR			LR	0.0000	0.80	0.0000
	50.4	1	WE(R/B)										
TOTAL											30.48	3.1120	

Submitted by: KEYO CONSTRUCTION

DISCHARGE MEASUREMENT			HYDROLOGICAL INVESTIGATION WORKS <i>The Study on Water Resources Development for Metro Manila in the Republic of the Philippines</i>				DATE: 03 May 2002 TIME STARTED: 9:07 AM TIME FINISHED: 9:35 AM		GAUGE HT.: -0.32 m GAUGE HT.: -0.32 m				
NAME OF STATION: S684		OBSERVATION POINT / LOCATION: GEN. NAKAR				COMPUTED BY: DVG			CHECKED: RLB				
HYDROGRAPHIC TEAM: ENTENG, JERRY, DVG						REMARKS:							
PT	DISTANCE FROM INITIAL PT.	WIDTH (m.)	DEPTH (m.)	NR. 2 D		NR. 5 D		NR. 8 D		MEAN VELOCITY (mps)	AREA (sq.m)	DISCHARGE	
				VEL (mps)	LR	VEL (mps)	LR	VEL (mps)	LR				
0	0	0	WE(L/B)										
1	2	2	0.32	0.08	LR	0.19	LR	0.26	LR	0.0000	0.80	0.0000	
2	5	3	0.30	0.06		0.034	0.18	LR	0.24	LR	0.0340	0.90	0.0306
3	8	3	0.30	0.06		0.049	0.18		0.047	0.24	0.037	0.90	0.0392
4	11	3	0.22	0.04		0.047	0.13	0.067	0.18	0.079	0.0435	0.90	0.0392
5	14	3	0.20	0.04		0.084	0.12	0.105	0.18	0.090	0.0650	0.66	0.0429
6	17	3	0.31	0.06		0.095	0.19	0.100	0.25	0.117	0.0985	0.60	0.0591
7	20	3	0.45	0.08		0.098	0.27	0.107	0.35	0.118	0.1033	0.93	0.0960
8	23	3	0.50	0.10		0.113	0.30	0.140	0.40	0.161	0.1103	1.35	0.1488
9	26	3	0.70	0.14		0.150	0.42	0.140	0.56	0.143	0.1385	1.50	0.2078
10	29	3	0.82	0.16		0.119	0.49	0.178	0.68	0.110	0.1433	2.10	0.3008
11	32	3	0.80	0.16		0.115	0.48	0.18	0.84	0.117	0.1463	2.46	0.3598
12	35	3	1.00	0.20		0.128	0.60	0.14	0.80	0.058	0.1390	2.40	0.3312
13	38	3	1.10	0.22		0.192	0.66	0.246	0.88	0.215	0.1165	3.00	0.3465
14	41	3	1.20	0.24		0.071	0.72	0.184	0.96	0.162	0.2248	3.30	0.7417
15	44	3	0.90	0.18		0.091	0.54	0.157	0.72	0.068	0.1503	3.60	0.5409
16	47	3	0.60	0.12		0.056	0.36	0.051	0.48	0.048	0.1178	2.70	0.3179
17	50	3	WE(R/B)								0.0515	1.80	0.0927
TOTAL											29.00	3.6599	

Submitted by: KEYO CONSTRUCTION