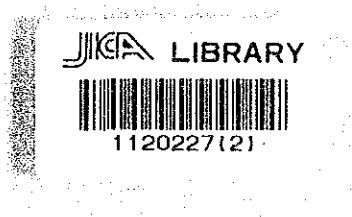


国際協力事業団

27911







**REPUBLIC OF ZAMBIA  
MINISTRY OF ENERGY AND WATER DEVELOPMENT**

**FINAL REPORT  
DATA BOOK**

**THE MASTER PLAN STUDY  
ON  
HYDROLOGIC OBSERVATION SYSTEMS  
OF  
THE MAJOR RIVER BASINS  
IN  
ZAMBIA**

**MARCH, 1992**

**JAPAN INTERNATIONAL COOPERATION AGENCY**

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92-030(4/4)





THE MASTER PLAN STUDY ON HYDROLOGIC OBSERVATION SYSTEMS  
OF THE MAJOR RIVER BASINS IN ZAMBIA  
FINAL REPORT  
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CHAPTER - 1

FLOW MEASUREMENT DATA

List of Stations Dealt in Study

No.	S T A T I O N S	Started Yr.	Meas. Nu.	Disket No.
1	1-150 Zambezi Pump House	1989/90	14	DB-01
2	1-650 Kabompo Boma	1989/90	14	DB-01
3	1-950 Watopa Pontoon	1957/58	189	DB-01
4	2-030 Lukulu	1989/90	14	DB-01
5	2-250 Kalabo	1989/90	57	DB-01
6	2-400 Senanga	1987/88	16	DB-01
7	4-050 Raglam Farm	1961/62	139	DB-01
8	4-120 Mwambashi	1959/60	200	DB-01
9	4-130 Smith's Bridge	1959/60	239	DB-01
10	4-200 Mpatamato	1959/60	381	DB-01
11	4-280 Machiya Ferry	1965/66	273	DB-01
12	4-350 Chilenga	1961/62	229	DB-01
13	4-450 Lubungu	1958/59	228	DB-01
14	4-560 Chifumpa Pontoon	1957/58	64	DB-01
15	4-669 Kafue Hook Bridge	1973/74	87	DB-01
16	4-941 Kaleya Dam Site	1951/52	24	DB-01
17	4-958 Uruaff Farm	1968/69	18	DB-01
18	5-030 Exchange Farm	1969/70	31	DB-01
19	5-940 Luangwa Bridge	1947/48	145	DB-01

[Note]

- (1) Stated Yr. : Hydrological year that flow measurement started
- (2) Meas. Nu. : Total number of flow measurement upto November 1991
- (3) Disket No. : Disket No. of FLOW MEASUREMENT DATA BY STATION



## LIST OF FLOW MEASUREMENT

ST.: 1-150 ZAMBEZI PUMP HOUSE

NO.	DATE	----[Feet - Second]----				++++[Meter - Second]++++			
		H (f)	Q (f3/s)	A (f2)	V (f/s)	H (m)	Q (m3/s)	A (m2)	V (m/s)
1	07-Mar-90	10.10	17514	10266	1.71	3.08	496	954	0.52
2	27-Jun-90	5.71	7219	5947	1.21	1.74	204	553	0.37
3	30-Jul-90	4.04	4350	4735	0.92	1.23	123	440	0.28
4	23-Aug-90	3.22	3717	4046	0.92	0.98	105	376	0.28
5	27-Sep-90	2.00	2298	3686	0.62	0.61	65	342	0.19
6	26-Oct-90	1.80	2103	3560	0.59	0.55	60	331	0.18
7	07-Dec-90	3.18	4547	4470	1.02	0.97	129	415	0.31
8	04-Feb-91	21.46	46314	17215	2.69	6.54	1311	1599	0.82
9	15-Mar-91	19.29	49388	16362	3.02	5.88	1399	1520	0.92
10	06-Jul-91	4.27	4045	3332	1.21	1.30	115	310	0.37
11	19-Aug-91	2.66	2096	3194	0.66	0.81	59	297	0.20
12	13-Sep-91	2.03	1847	2963	0.62	0.62	52	275	0.19
13	05-Oct-91	1.63	1697	2873	0.59	0.50	48	267	0.18
14	13-Nov-91	2.40	2616	3190	0.82	0.73	74	296	0.25

[Note] H:Water Level, Q:Discharge, A:Discharge Area, V:Velocity

FLOW MEASUREMENT ST. : 1-150 ZAMBEZI PUMP HOUSE MAR/ 7/90

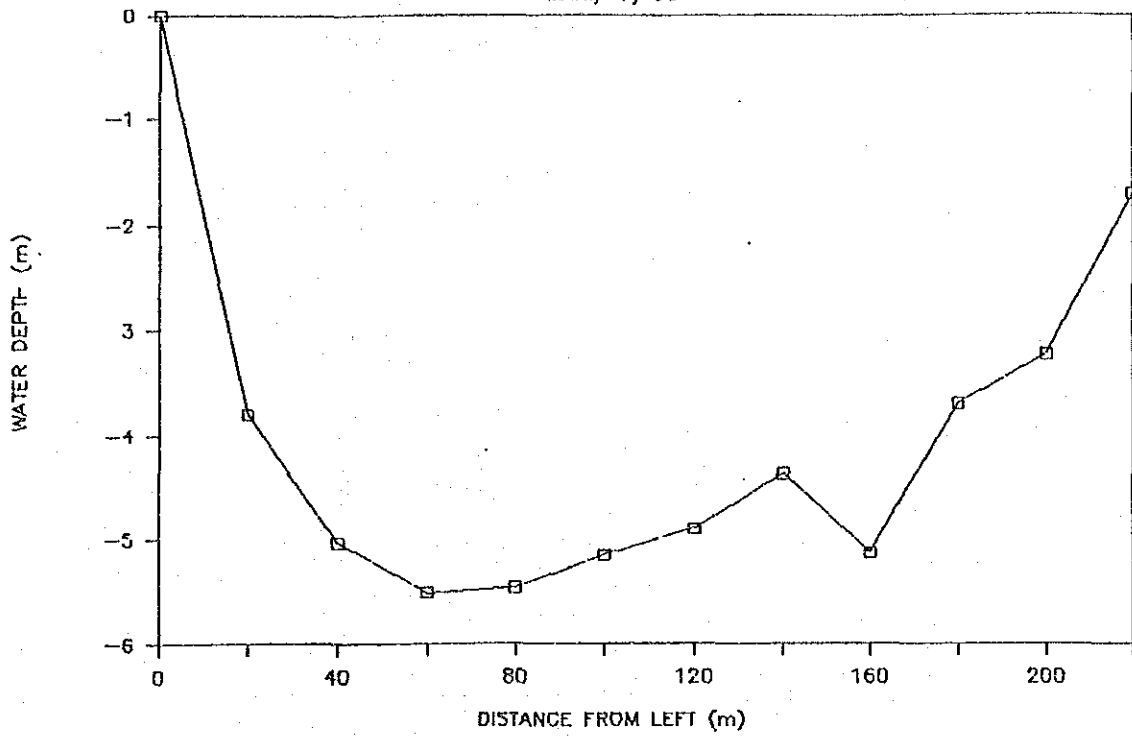
ITEMS	NO 1	NO 2	NO 3	NO 4	NO 5	NO 6	NO 7	NO 8	NO 9	NO 10	NO R
WATER DEPTH (m)	3.80	5.03	5.51	5.46	5.15	4.90	4.37	5.13	3.70	3.23	1.70
SE/WIDTH (m)	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
TOTAL SE/WIDTH(m)	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	220.00
VELOCITY.2 1(f/s)	1.40	1.90	2.50	2.70	2.30	2.10	2.20	2.00	1.60	0.90	0.00
VELOCITY.2 2(f/s)	1.40	1.80	2.40	2.40	2.20	2.20	2.00	1.90	1.50	0.80	0.00
MEAN VEL.2 (f/s)	1.40	1.85	2.45	2.55	2.25	2.15	2.10	1.95	1.55	0.85	0.00
VELOCITY.3 1(f/s)	1.30	1.50	1.90	2.00	1.60	1.60	1.50	1.30	1.10	0.70	0.00
VELOCITY.3 2(f/s)	1.20	1.40	2.00	2.00	1.50	1.60	1.50	1.30	1.10	0.80	0.00
MEAN VEL.3 (f/s)	1.25	1.45	1.95	2.00	1.55	1.60	1.50	1.30	1.10	0.75	0.00
MEAN VEL (f/s)	1.325	1.650	2.200	2.275	1.900	1.875	1.800	1.625	1.325	0.800	0.000
MEAN VEL (m/s)	0.404	0.503	0.671	0.693	0.579	0.572	0.549	0.495	0.404	0.244	0.000
L/MEAN DEPTH (m)	1.900	4.723	5.390	5.473	5.228	4.963	4.503	4.940	4.058	3.348	
L/MEAN WIDTH (m)	20.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	
L/SEC. AREA (m2)	38.00	47.23	53.90	54.73	52.28	49.63	45.03	49.40	40.58	33.48	
R/MEAN DEPTH (m)	4.108	5.150	5.498	5.383	5.088	4.768	4.560	4.773	3.583	2.848	
R/MEAN WIDTH (m)	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	
R/SEC. AREA (m2)	41.08	51.50	54.98	53.83	50.88	47.68	45.60	47.73	35.83	28.48	
S/AREA (m2)	79.08	98.73	108.88	108.55	103.15	97.30	90.63	97.13	76.40	60.43	
TOTAL AREA (m2)	0.0	79.1	286.7	395.2	498.4	595.7	686.3	783.4	859.8	950.3	
S/DISCHARGE (m3/s)	0.00	31.94	49.65	73.01	75.27	59.74	49.72	48.11	30.85	22.05	
TOTAL DIS. (m3/s)	0.00	31.94	81.59	154.59	229.86	289.60	345.21	394.93	443.03	473.89	495.94

WATER LEVEL (f) : 10.10 WATER LEVEL (m) : 3.08  
 TOTAL DISCHARGE : 495.94 MEAN VELOCITY(m/s) : 0.52



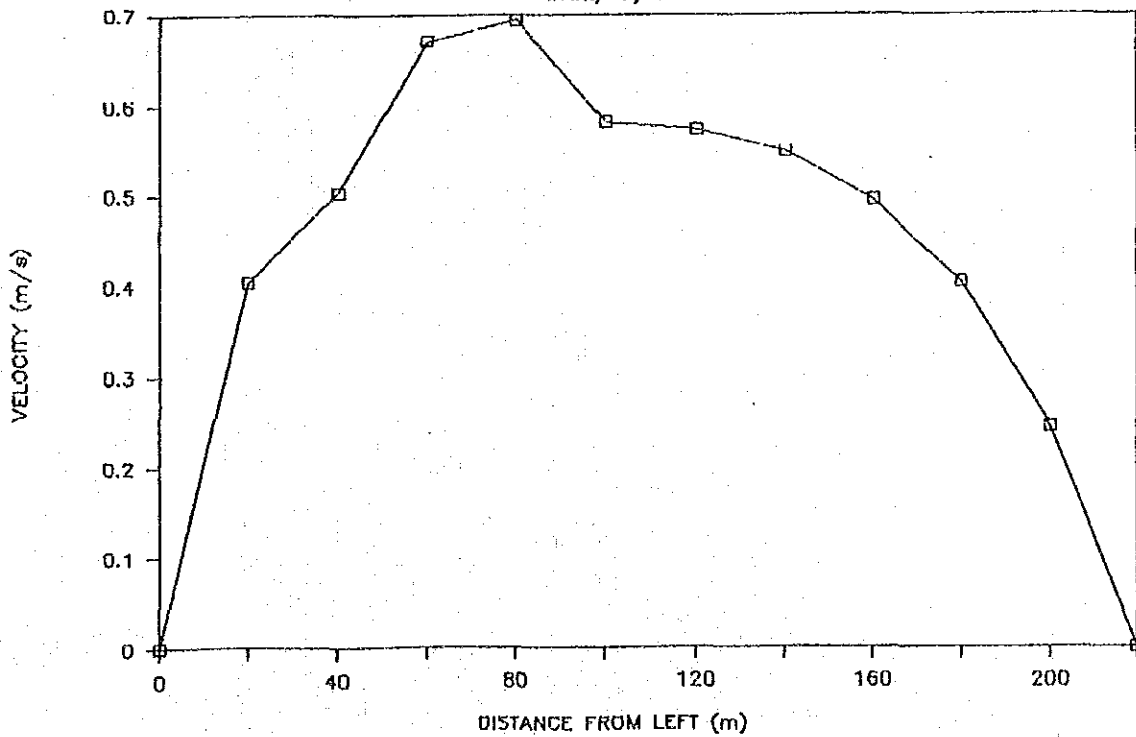
# WATER DEPTH (1-150)

MAR./ 7/'90



# VELOCITY (1-150)

MAR./ 7/'90



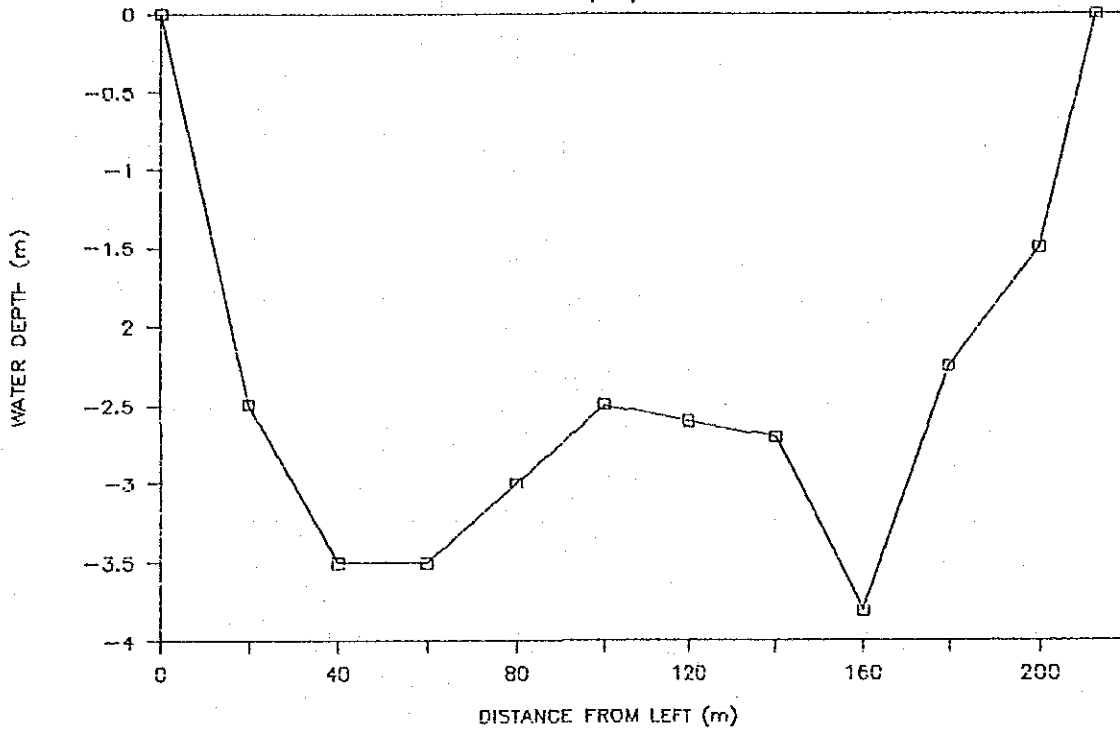
FLOW MEASUREMENT ST. : 1-150 ZAMBEZI PUMP HOUSE JUN/27/90

ITEMS	NO-1	NO-2	NO-3	NO-4	NO-5	NO-6	NO-7	NO-8	NO-9	NO-10	NO-R
WATER DEPTH (m)	2.50	3.50	3.50	3.00	2.50	2.60	2.70	3.90	2.25	1.50	0.00
SE/WIDTH (m)	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	12.90
TOTAL SE/WIDTH(m)	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	212.90
VELOCITY.2-1(f/s)	1.30	1.30	2.10	2.10	2.00	1.40	1.00	0.70	0.60	0.15	0.00
VELOCITY.2-2(f/s)	1.25	1.40	2.00	2.20	1.90	1.50	1.00	0.80	0.60	0.15	0.00
MEAN VEL.2 (f/s)	1.28	1.35	2.05	2.15	1.95	1.45	1.00	0.75	0.60	0.15	0.00
VELOCITY.8-1(f/s)	1.00	1.10	1.60	1.90	1.70	1.10	0.80	0.40	0.50	0.10	0.00
VELOCITY.8-2(f/s)	1.10	1.00	1.70	1.80	1.70	1.20	0.80	0.40	0.50	0.10	0.00
MEAN VEL.8 (f/s)	1.05	1.05	1.65	1.85	1.70	1.15	0.80	0.40	0.50	0.10	0.00
MEAN VEL (f/s)	1.163	1.200	1.850	2.000	1.825	1.300	0.900	0.575	0.550	0.125	0.000
MEAN VEL (m/s)	0.354	0.366	0.564	0.610	0.556	0.396	0.274	0.175	0.168	0.038	0.000
L/MEAN DEPTH (m)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
L/MEAN WIDTH (m)	0.00	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
L/SEC. AREA (m2)	25.00	32.50	35.00	31.25	26.25	25.75	26.75	35.25	26.38	16.98	0.00
R/MEAN DEPTH (m)	0.000	2.750	3.375	2.975	2.525	2.625	2.975	3.413	2.063	0.750	0.00
R/MEAN WIDTH (m)	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
R/SEC. AREA (m2)	0.00	27.50	33.75	28.75	25.25	25.25	29.75	34.13	20.63	9.68	0.00
S/AREA (m2)	0.00	52.50	67.50	60.00	51.50	52.00	56.50	69.38	47.00	26.55	0.00
TOTAL AREA (m2)	0.0	52.5	120.0	188.8	300.3	352.3	408.8	478.1	525.1	551.7	0.00
S/DISCHARGE(m3/s)	0.00	18.60	24.69	36.58	28.65	20.60	15.50	12.16	7.98	1.01	0.00
TOTAL DIS. (m3/s)	0.00	18.60	43.29	82.06	118.63	147.28	183.38	195.54	203.42	204.43	0.00

WATER LEVEL (f) : 5.72 WATER LEVEL (m) : 1.74  
 TOTAL DISCHARGE : 204.43 MEAN VELOCITY(m/s) : 0.37

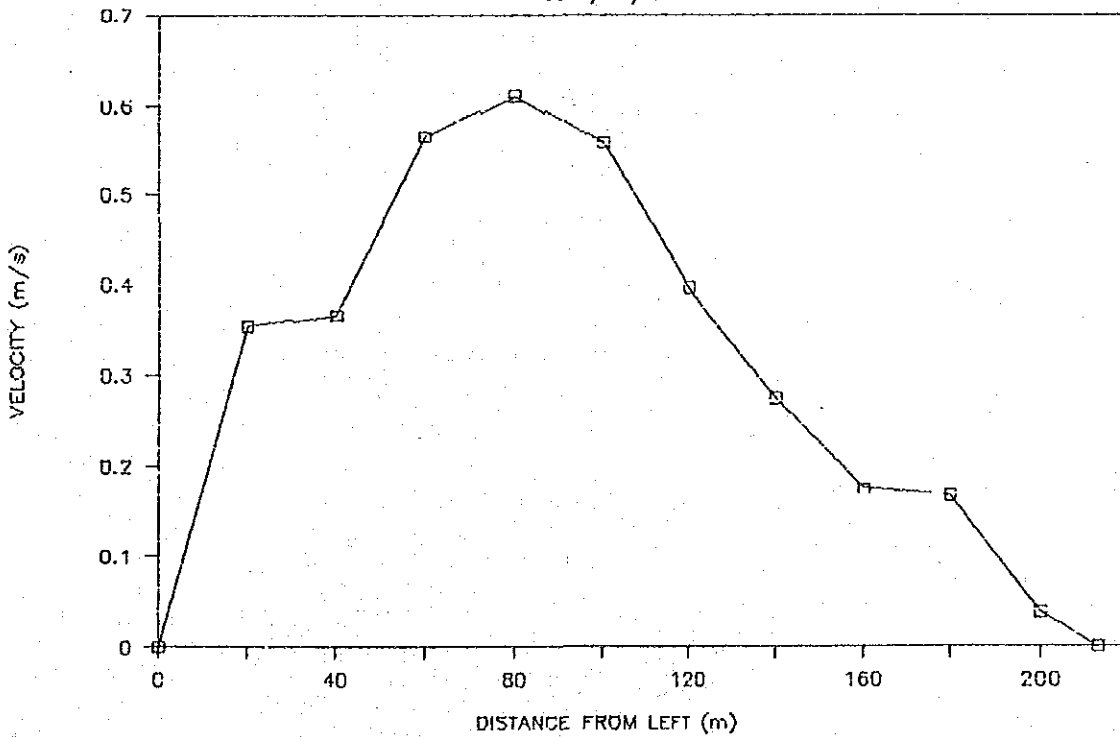
# WATER DEPTH (1-150)

JUN./27/90



# VELOCITY (1-150)

JUN./27/90



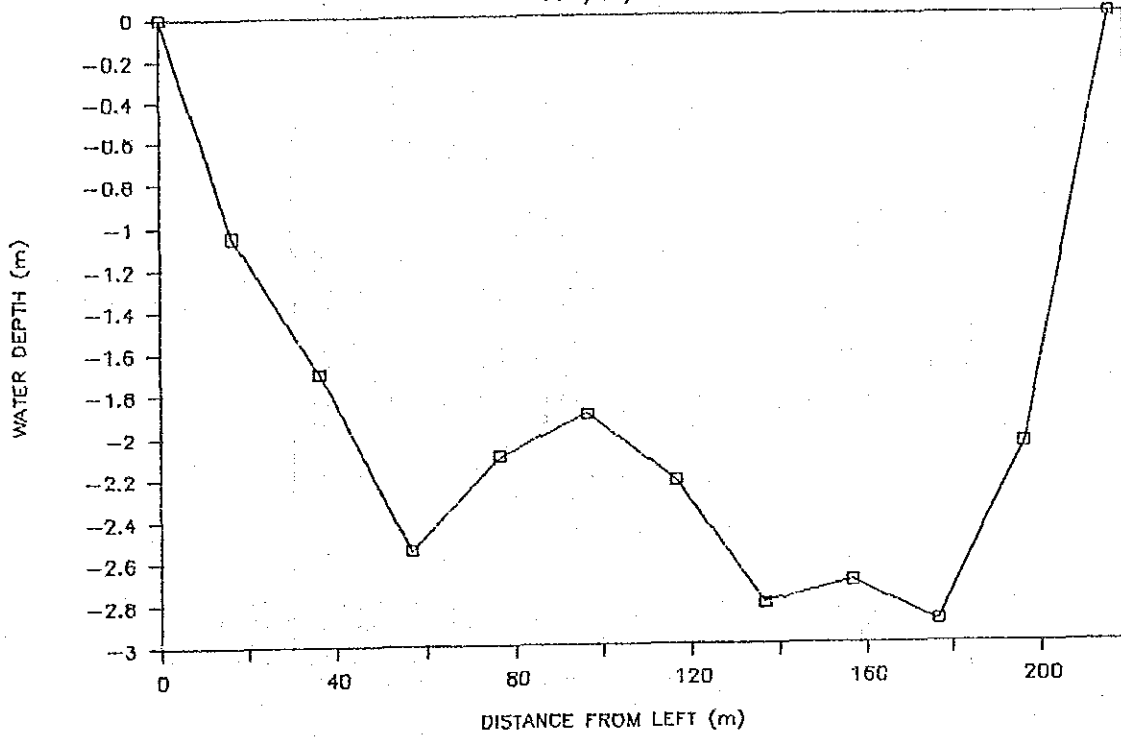
FLOW MEASUREMENT ST. : 1-150 ZAMBEZI PUMP HOUSE JUL./30/'90

ITEMS	NO-L	NO-1	NO-2	NO-3	NO-4	NO-5	NO-6	NO-7	NO-8	NO-9	NO-10	NO-R
WATER DEPTH (m)	0.00	1.05	1.70	2.54	2.10	1.90	2.22	2.80	2.70	2.89	2.05	0.00
SE/WIDTH (m)	0.00	16.50	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
TOTAL SE/WIDTH(m)	0.00	16.50	36.50	56.50	76.50	96.50	116.50	136.50	156.50	176.50	196.50	216.50
VELOCITY.2-1(f/s)	0.00	0.30	0.45	0.50	0.80	1.00	1.75	1.45	1.30	1.20	0.95	0.00
VELOCITY.2-2(f/s)	0.00	0.30	0.45	0.50	0.80	1.00	1.70	1.40	1.35	1.25	0.90	0.00
MEAN VEL.2 (f/s)	0.00	0.30	0.45	0.50	0.80	1.00	1.73	1.43	1.33	1.23	0.93	0.00
VELOCITY.8-1(f/s)	0.00	0.20	0.33	0.20	0.55	0.85	1.20	1.31	1.22	1.10	0.50	0.00
VELOCITY.8-2(f/s)	0.00	0.20	0.35	0.20	0.50	0.80	1.20	1.30	1.22	1.10	0.50	0.00
MEAN VEL.8 (f/s)	0.00	0.20	0.34	0.20	0.53	0.83	1.20	1.31	1.22	1.10	0.50	0.00
MEAN VEL (f/s)	0.000	0.250	0.395	0.350	0.663	0.913	1.463	1.365	1.273	1.163	0.713	0.000
MEAN VEL (m/s)	0.000	0.076	0.120	0.107	0.202	0.278	0.446	0.416	0.388	0.354	0.217	0.000
L/MEAN DEPTH (m)	0.000	0.525	1.538	2.330	2.210	1.950	2.140	2.655	2.725	2.843	2.260	-
L/MEAN WIDTH (m)	0.00	16.50	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	-
L/SEC. AREA (m2)	0.00	8.66	15.38	23.30	22.10	19.50	21.40	26.55	27.25	28.43	22.60	-
R/MEAN DEPTH (m)	0.000	1.213	1.910	2.430	2.050	1.980	2.365	2.775	2.748	2.680	1.025	-
R/MEAN WIDTH (m)	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	-
R/SEC. AREA (m2)	0.00	12.13	19.10	24.30	20.50	19.80	23.65	27.75	27.48	26.80	20.50	-
S/AREA (m2)	0.00	20.79	34.48	47.60	42.60	39.30	45.05	54.30	54.73	55.23	43.10	-
TOTAL AREA (m2)	0.0	20.8	55.3	102.9	145.5	184.8	229.8	284.1	338.8	394.1	437.2	-
S/DISCHARGE(m3/s)	0.00	1.58	4.15	5.08	8.60	10.93	20.08	22.59	21.23	19.57	9.36	-
TOTAL DIS. (m3/s)	0.00	1.58	5.73	10.81	19.41	30.35	50.43	73.02	94.24	113.81	123.17	-

WATER LEVEL (f) : 4.03 WATER LEVEL (m) : 1.23  
 TOTAL DISCHARGE : 123.17 MEAN VELOCITY(m/s) : 0.28

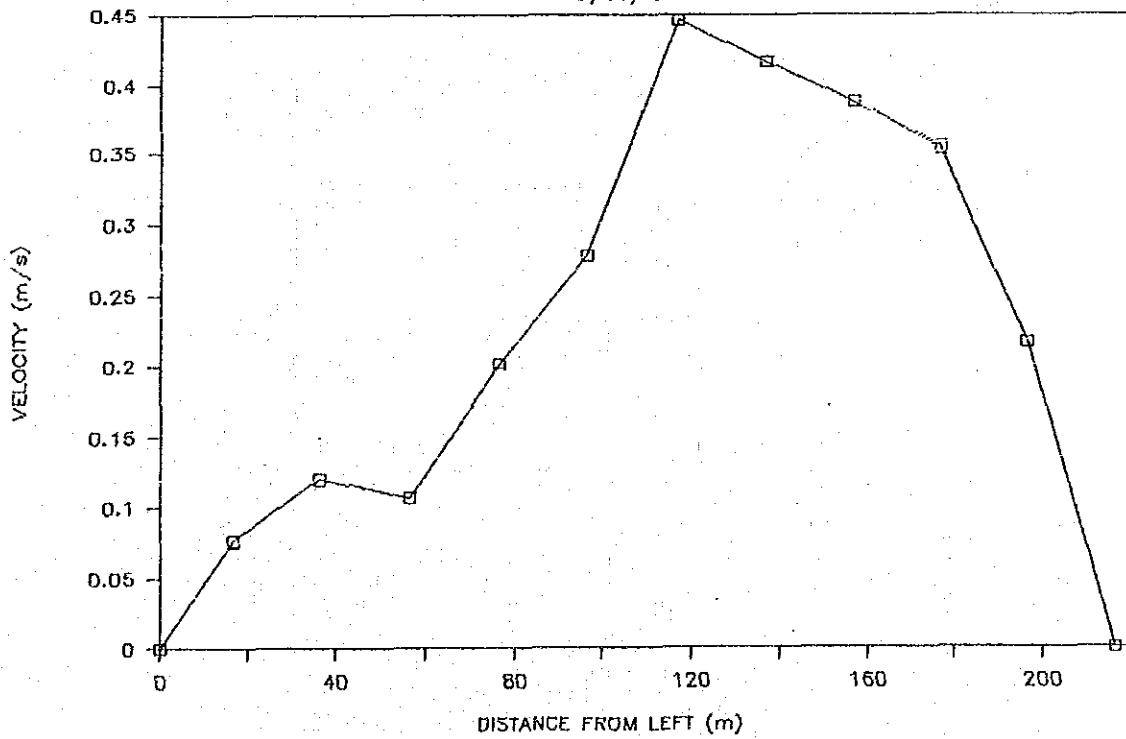
### WATER DEPTH (1-150)

JUL./30/90



### VELOCITY (1-150)

JUL./30/90



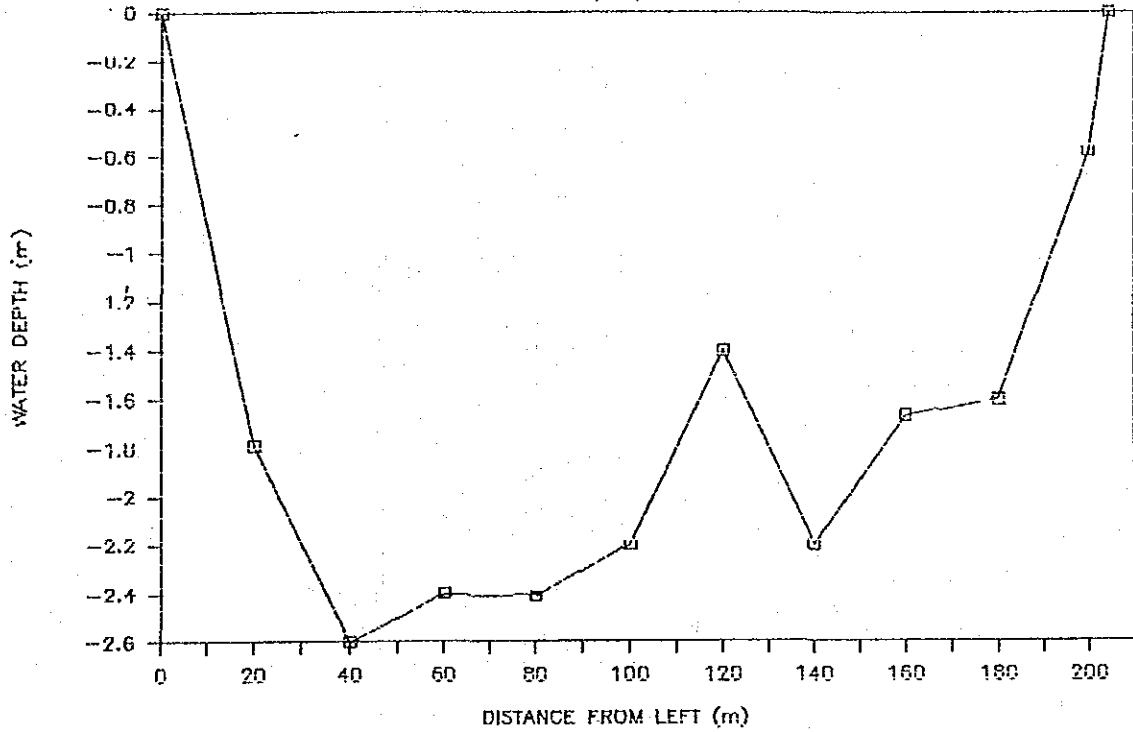
FLOW MEASUREMENT ST. : 1-150 ZAMBEZI PUMP HOUSE AUG./23/'90

ITEMS	NO-1	NO-2	NO-3	NO-4	NO-5	NO-6	NO-7	NO-8	NO-9	NO-10	NO-R
WATER DEPTH (m)	1.79	2.60	2.40	2.41	2.20	1.40	2.20	1.67	1.60	0.58	0.00
SP/WIDTH (m)	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	4.50
TOTAL SE/WIDTH(m)	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	204.50
VELOCITY.2-1(f/s)	0.95	1.60	1.50	1.45	1.20	1.00	0.80	0.20	0.10	0.00	0.00
VELOCITY.2-2(f/s)	0.95	1.60	1.50	1.45	1.20	1.00	0.80	0.20	0.10	0.00	0.00
MEAN VEL.2 (f/s)	0.95	1.60	1.50	1.45	1.20	1.00	0.80	0.20	0.10	0.00	0.00
VELOCITY.8-1(f/s)	0.75	1.20	1.35	1.25	1.00	0.90	0.50	0.10	0.05	0.00	0.00
VELOCITY.8-2(f/s)	0.75	1.20	1.30	1.25	1.00	0.90	0.50	0.10	0.05	0.00	0.00
MEAN VEL.8 (f/s)	0.75	1.20	1.33	1.25	1.00	0.90	0.50	0.10	0.05	0.00	0.00
MEAN VEL (f/s)	0.850	1.400	1.413	1.350	1.100	0.950	0.650	0.150	0.075	0.000	0.000
MEAN VEL (m/s)	0.259	0.427	0.431	0.411	0.335	0.290	0.198	0.046	0.023	0.000	0.000
L/MEAN DEPTH (m)	0.895	2.398	2.450	2.408	2.253	1.600	2.000	1.803	1.618	0.835	-
L/MEAN WIDTH (m)	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	-
L/SEC AREA (m2)	0.00	17.90	23.98	24.08	22.53	16.00	20.00	18.03	16.18	8.35	-
R/MEAN DEPTH (m)	1.993	2.550	2.403	2.358	2.000	1.600	2.068	1.653	1.345	0.290	-
R/MEAN WIDTH (m)	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	4.50	-
R/SEC. AREA (m2)	0.00	19.93	25.50	24.03	20.00	16.00	20.68	16.53	13.45	1.31	-
S/AREA (m2)	0.00	37.83	49.48	48.53	42.53	32.00	40.68	34.55	28.63	9.66	-
TOTAL AREA (m2)	0.0	37.8	87.3	135.8	183.5	258.0	298.7	333.2	362.9	372.5	-
S/DISCHARGE(m3/s)	0.00	9.80	21.11	20.89	14.26	9.27	8.06	1.58	0.68	0.00	-
TOTAL DIS. (m3/s)	0.00	9.80	30.91	51.80	85.67	94.93	102.99	104.57	105.25	105.25	-

WATER LEVEL (f) : 3.20 WATER LEVEL (m) : 0.98  
 TOTAL DISCHARGE : 105.25 MEAN VELOCITY(m/s) : 0.28

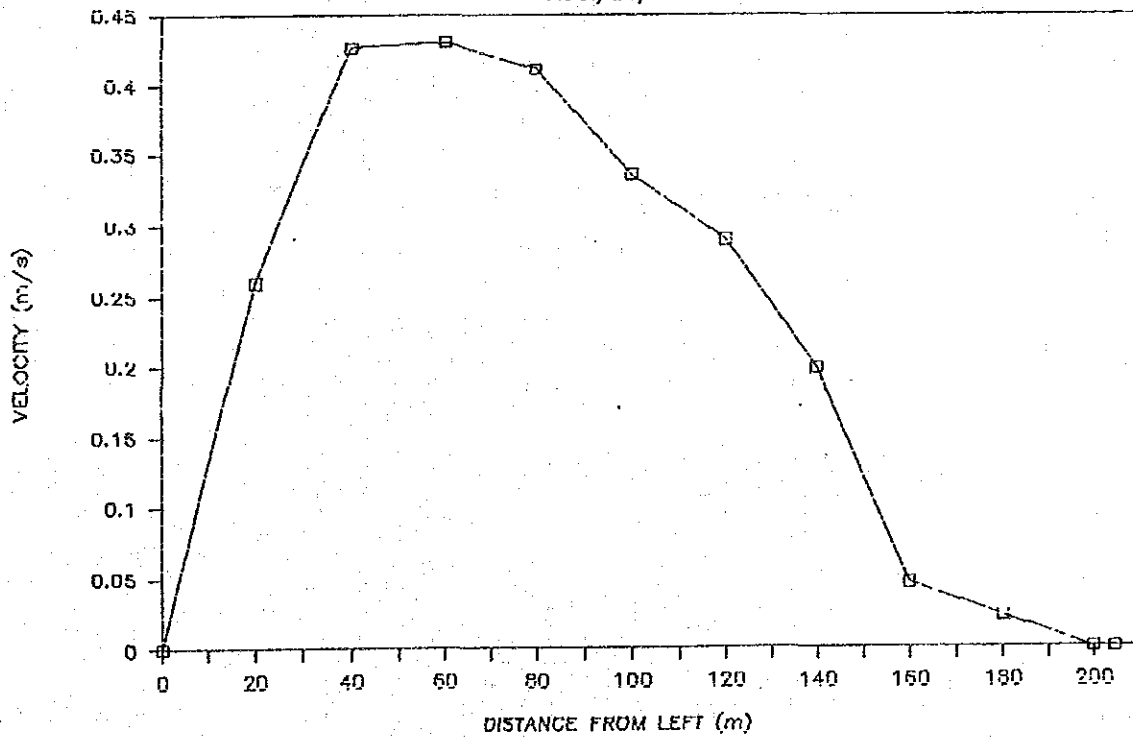
# WATER DEPTH (1-150)

AUG./23/90



# VELOCITY (1-150)

AUG./23/90



FLOW MEASUREMENT ST. : 1-150 ZAMBEZI PUMP HOUSE SEP./27/'90

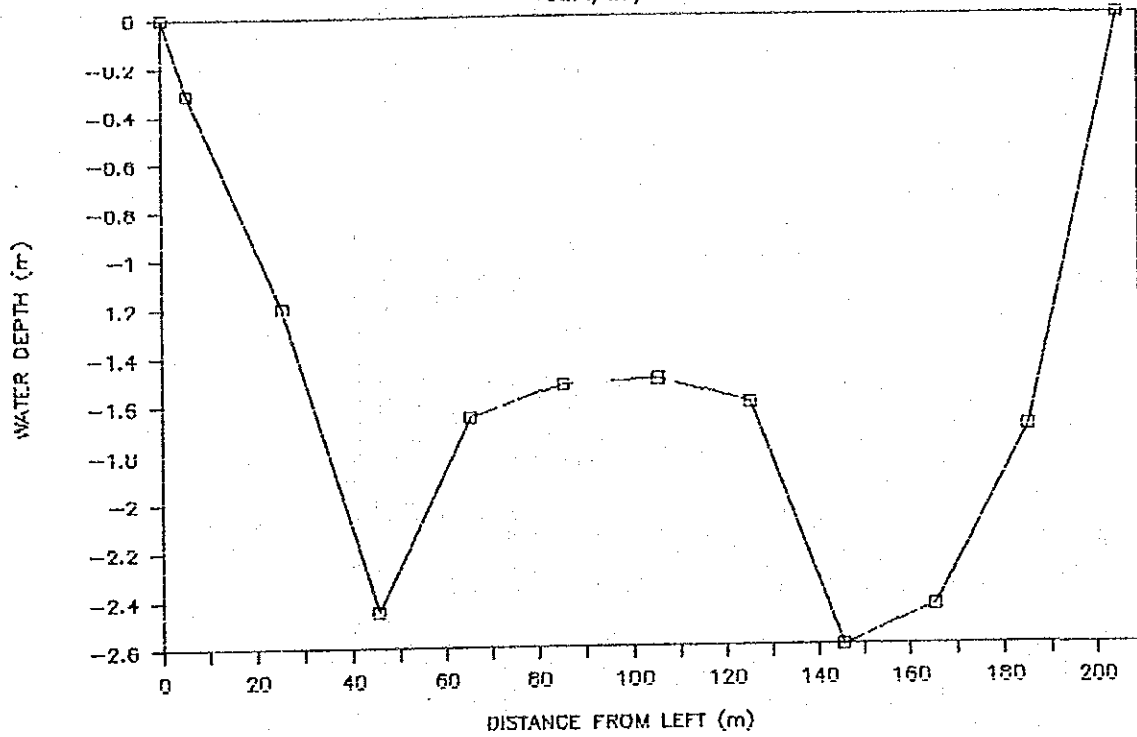
ITEMS	NO-L	NO-1	NO-2	NO-3	NO-4	NO-5	NO-6	NO-7	NO-8	NO-9	NO-10	NO-R
WATER DEPTH (m)	0.00	0.31	1.20	2.45	1.65	1.52	1.50	1.60	2.60	2.44	1.70	0.00
SE/WIDTH (m)	0.00	5.50	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
TOTAL SE/WIDTH(m)	0.00	5.50	25.50	45.50	65.50	85.50	105.50	125.50	145.50	165.50	185.50	205.50
VELOCITY.2-1(f/s)	0.00	0.00	0.15	0.15	0.45	0.50	1.00	1.10	1.10	1.30	0.90	0.00
VELOCITY.2-2(f/s)	0.00	0.00	0.15	0.15	0.45	0.55	1.00	1.10	1.10	1.30	1.00	0.00
MEAN VEL.2 (f/s)	0.00	0.00	0.15	0.15	0.45	0.53	1.00	1.10	1.10	1.30	0.95	0.00
VELOCITY.8-1(f/s)	0.00	0.00	0.10	0.10	0.40	0.30	0.80	0.90	0.50	0.90	0.40	0.00
VELOCITY.8-2(f/s)	0.00	0.00	0.10	0.10	0.40	0.30	0.85	0.90	0.50	0.90	0.40	0.00
MEAN VEL.8 (f/s)	0.00	0.00	0.10	0.10	0.40	0.30	0.83	0.90	0.50	0.90	0.40	0.00
MEAN VEL. (f/s)	0.000	0.000	0.125	0.125	0.425	0.413	0.913	1.000	0.800	1.100	0.675	0.000
MEAN VEL (m/s)	0.000	0.000	0.038	0.038	0.130	0.126	0.278	0.305	0.244	0.335	0.206	0.000
L/MEAN DEPTH (m)	0.000	0.155	0.978	2.138	1.850	1.553	1.505	1.575	2.350	2.480	1.885	-
L/MEAN WIDTH (m)	0.00	5.50	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	-
L/SEC. AREA (m2)	0.00	0.85	9.77	21.38	18.50	15.53	15.05	15.75	23.50	24.80	18.85	-
R/MEAN DEPTH (m)	0.000	0.533	1.513	2.250	1.618	1.515	1.525	1.850	2.560	2.255	0.850	-
R/MEAN WIDTH (m)	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	20.00	-
R/SEC. AREA (m2)	0.00	5.33	15.13	22.50	16.18	15.15	15.25	18.50	25.60	22.55	17.00	-
S/AREA (m2)	0.00	6.18	24.90	43.88	34.68	30.68	30.30	34.25	49.10	47.35	35.85	-
TOTAL AREA (m2)	0.0	6.2	31.1	75.0	109.6	140.3	170.6	204.9	254.0	301.3	337.2	-
S/DISCHARGE(m3/s)	0.00	0.00	0.95	1.67	4.49	3.86	8.43	10.44	11.97	15.88	7.38	-
TOTAL DIS. (m3/s)	0.00	0.00	0.95	2.62	7.11	10.97	19.40	29.84	41.81	57.68	65.06	-

WATER LEVEL (m) : 0.61  
 TOTAL DISCHARGE : 65.06  
 MEAN VELOCITY(m/s) : 0.19



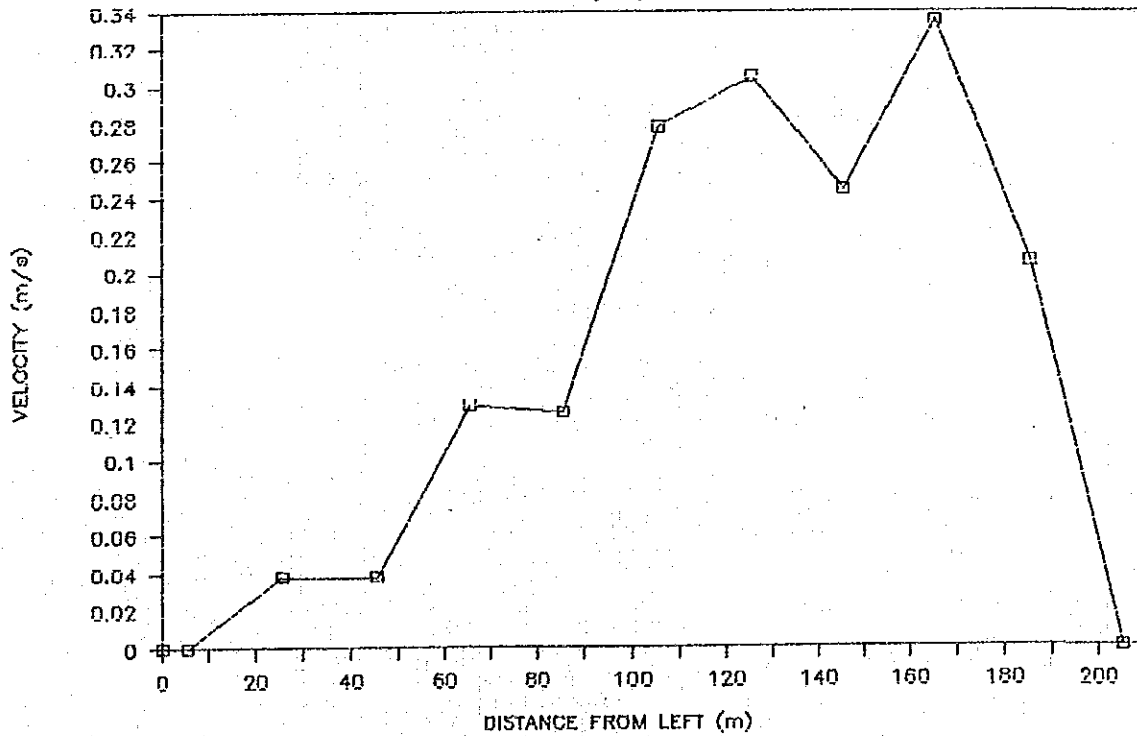
### WATER DEPTH (1-150)

SEP./21/90



### VELOCITY (1-150)

SEP./21/90



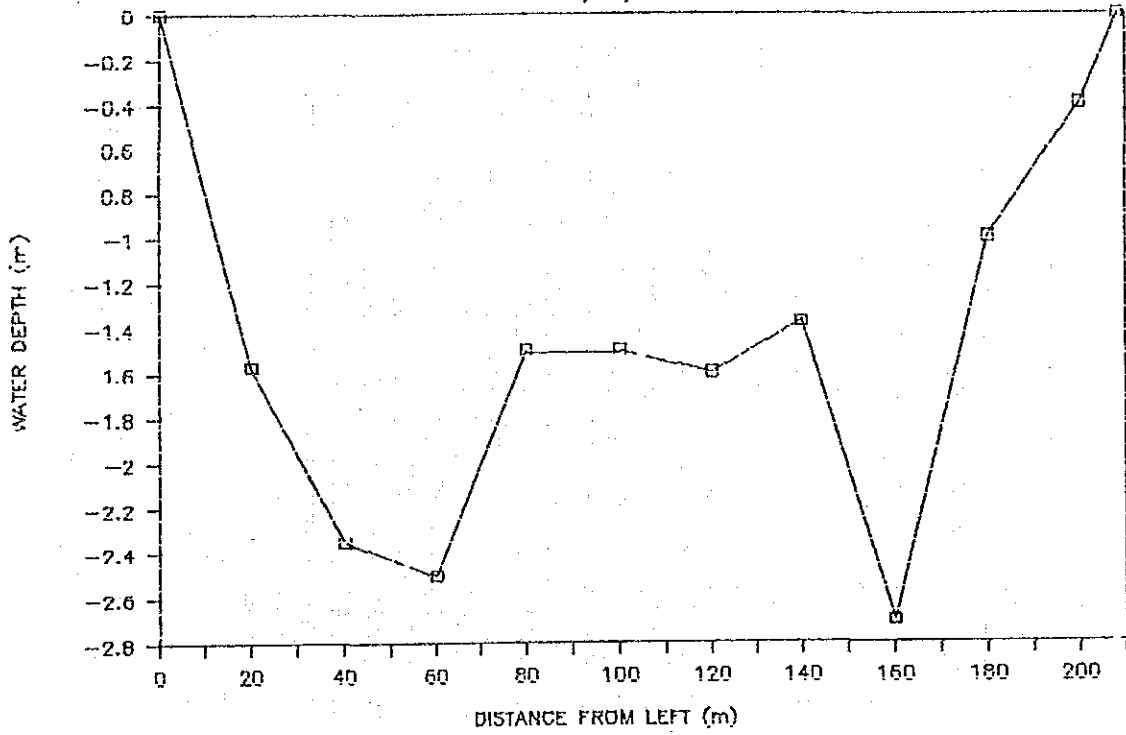
FLOW MEASUREMENT ST. : 1-150 ZAMBEZI PUMP HOUSE OCT./26/'90

ITEMS	NO-1	NO-2	NO-3	NO-4	NO-5	NO-6	NO-7	NO-8	NO-9	NO-10	NO-R
WATER DEPTH (m)	0.00	1.57	2.35	2.50	1.50	1.60	1.37	2.70	1.00	0.40	0.00
SE/WIDTH (m)	0.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	8.50
TOTAL SE/WIDTH(m)	0.00	20.00	40.00	60.00	80.00	100.00	140.00	160.00	180.00	200.00	208.50
VELOCITY.2-1(f/s)	0.00	0.85	1.40	1.10	1.00	0.85	0.40	0.10	0.10	0.00	0.00
VELOCITY.2-2(f/s)	0.00	0.80	1.40	1.00	0.95	0.30	0.40	0.10	0.10	0.00	0.00
MEAN VEL.2 (f/s)	0.00	0.83	1.40	1.05	0.98	0.30	0.40	0.10	0.10	0.00	0.00
VELOCITY.8-1(f/s)	0.00	0.65	1.00	0.80	0.70	0.65	0.25	0.05	0.05	0.00	0.00
VELOCITY.8-2(f/s)	0.00	0.60	1.00	0.80	0.70	0.65	0.25	0.05	0.05	0.00	0.00
MEAN VEL.8 (f/s)	0.00	0.63	1.00	0.80	0.70	0.65	0.25	0.05	0.05	0.00	0.00
MEAN VEL (f/s)	0.000	0.725	1.200	0.925	0.838	0.750	0.325	0.075	0.075	0.000	0.000
MEAN VEL (m/s)	0.000	0.221	0.366	0.282	0.255	0.229	0.099	0.023	0.023	0.000	0.000
L/MEAN DEPTH (m)	0.000	0.785	2.155	2.463	1.750	1.500	1.428	2.368	1.425	0.550	-
L/MEAN WIDTH (m)	0.00	20.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	-
L/SEC. AREA (m2)	0.00	15.70	21.55	24.63	17.50	15.00	14.28	23.68	14.25	5.50	-
R/MEAN DEPTH (m)	0.000	1.765	2.388	2.250	1.500	1.525	1.703	2.275	0.850	0.200	-
R/MEAN WIDTH (m)	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	8.50	-
R/SEC. AREA (m2)	0.00	17.65	23.88	22.50	15.00	15.25	17.03	22.75	8.50	1.70	-
S/AREA (m2)	0.00	33.35	45.43	47.13	32.50	30.25	31.30	46.43	22.75	7.20	-
TOTAL AREA (m2)	0.0	33.4	78.8	125.9	158.4	188.7	251.1	297.6	320.3	327.5	-
S/DISCHARGE(m3/s)	0.00	7.37	16.61	13.29	8.30	6.92	3.10	1.06	0.52	0.00	-
TOTAL DIS. (m3/s)	0.00	7.37	23.98	37.27	45.57	52.48	57.96	59.02	59.54	59.54	-

WATER LEVEL (f) : 1.80 WATER LEVEL (m) : 0.55  
 TOTAL DISCHARGE : 59.54 MEAN VELOCITY(m/s) : 0.18

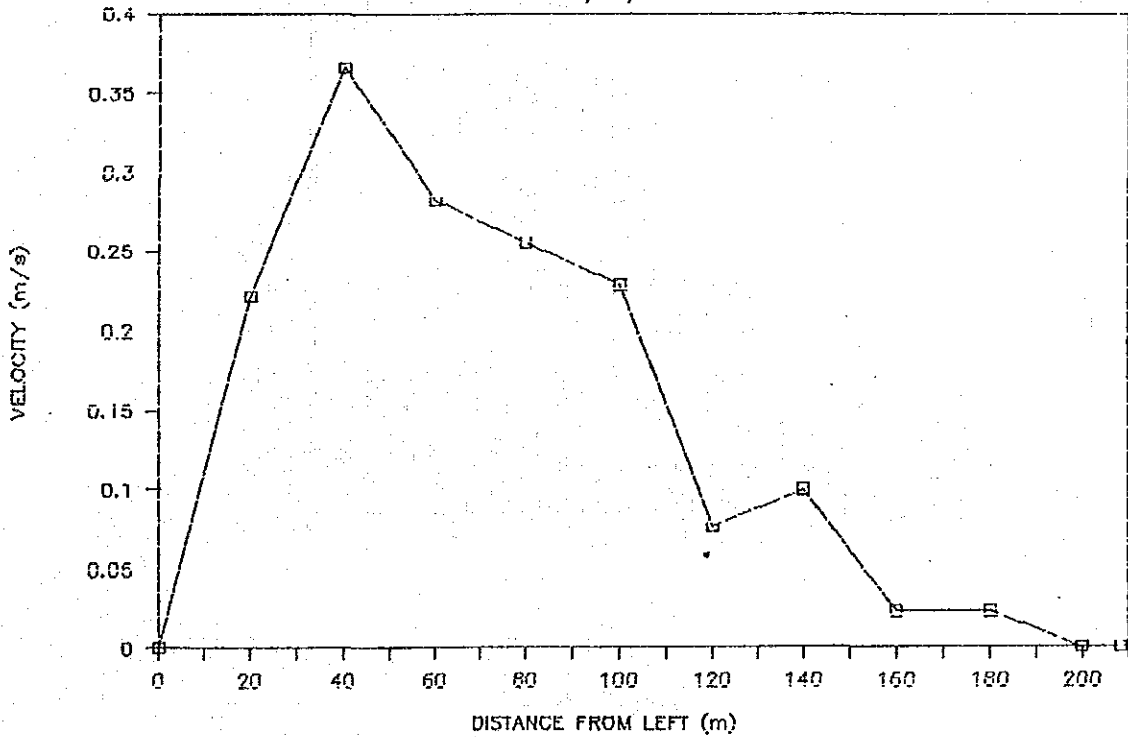
### WATER DEPTH (1-150)

OCT./26/90



### VELOCITY (1-150)

OCT./26/90



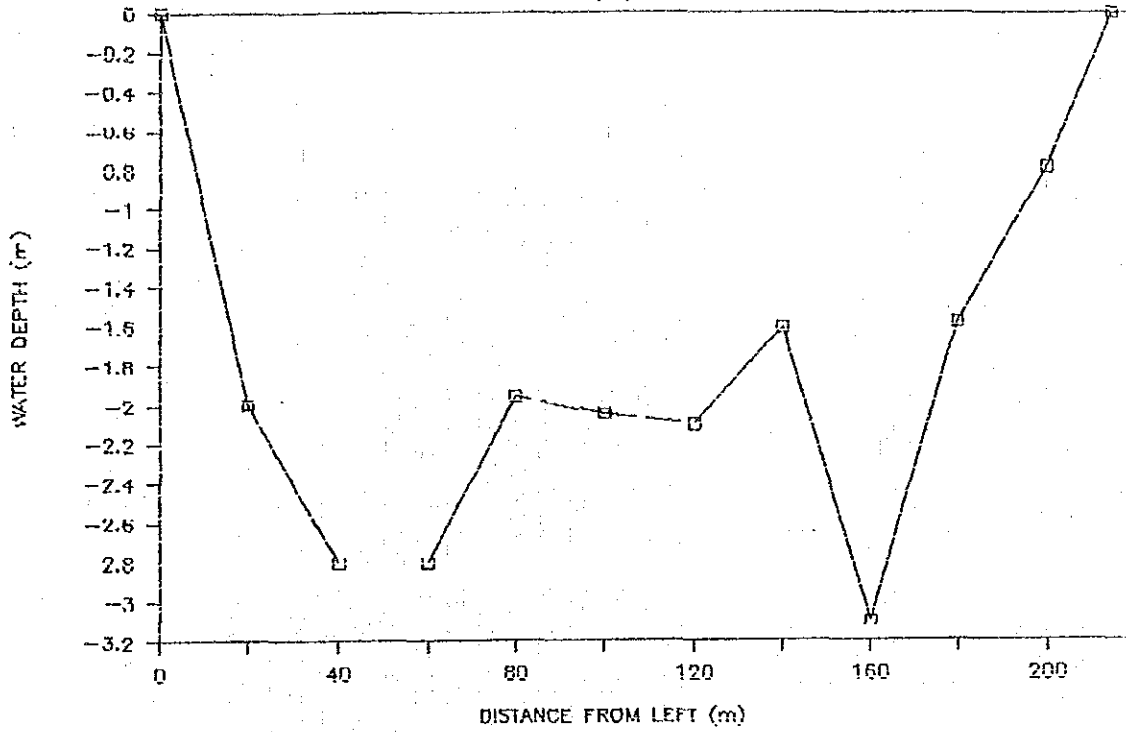
FLOW MEASUREMENT ST. : 1-150 ZAMBEZI PUMP HOUSE DEC./7/'90

ITEMS	NO-1	NO-2	NO-3	NO-4	NO-5	NO-6	NO-7	NO-8	NO-9	NO-10	NO-R
WATER DEPTH (m)	0.00	2.80	2.80	1.96	2.05	2.10	1.61	3.10	1.58	0.80	0.00
SE/WIDTH (m)	0.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	15.00
TOTAL SE/WIDTH(m)	0.00	20.00	40.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	215.00
VELOCITY 2-1(f/s)	0.00	1.90	2.00	1.90	1.50	1.20	0.70	0.30	0.35	0.15	0.00
VELOCITY 2-2(f/s)	0.00	1.90	2.00	1.90	1.50	1.20	0.70	0.30	0.35	0.15	0.00
MEAN VEL. 2 (f/s)	0.00	1.90	2.00	1.90	1.50	1.20	0.70	0.30	0.35	0.15	0.00
VELOCITY 8-1(f/s)	0.00	0.70	1.30	1.30	1.00	0.90	0.50	0.15	0.20	0.10	0.00
VELOCITY 8-2(f/s)	0.00	0.70	1.30	1.30	1.00	0.90	0.50	0.15	0.20	0.10	0.00
MEAN VEL. 8 (f/s)	0.00	0.70	1.30	1.30	1.00	0.90	0.50	0.15	0.20	0.10	0.00
MEAN VEL (f/s)	0.000	0.850	1.600	1.750	1.600	1.250	0.600	0.225	0.275	0.125	0.000
MEAN VEL (m/s)	0.000	0.259	0.488	0.533	0.488	0.381	0.183	0.069	0.084	0.038	0.000
L/MEAN DEPTH (m)	0.000	1.000	2.600	2.800	2.170	2.028	1.733	2.728	1.960	0.995	-
L/MEAN WIDTH (m)	0.00	20.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	-
L/SEC. AREA (m2)	0.00	20.00	26.00	28.00	21.70	20.28	17.33	27.28	19.60	9.95	-
R/MEAN DEPTH (m)	0.000	2.200	2.600	2.590	1.983	1.978	1.983	2.720	1.385	0.400	-
R/MEAN WIDTH (m)	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	15.00	-
R/SEC. AREA (m2)	0.00	22.00	28.00	25.90	19.83	20.63	19.83	27.20	13.85	6.00	-
S/AREA (m2)	0.00	42.00	54.00	53.90	41.53	40.90	37.15	54.48	33.45	15.95	-
TOTAL AREA (m2)	0.0	42.0	96.0	149.9	191.4	232.3	310.1	364.6	398.1	414.0	-
S/DISCHARGE(m3/s)	0.00	10.88	26.33	28.75	20.25	15.58	13.01	3.74	2.80	0.61	-
TOTAL DIS. (m3/s)	0.00	10.88	37.22	65.97	86.22	101.80	121.60	125.34	128.14	128.75	-

WATER LEVEL (f) : 3.17 WATER LEVEL (m) : 0.97  
 TOTAL DISCHARGE : 128.75 MEAN VELOCITY(m/s) : 0.31

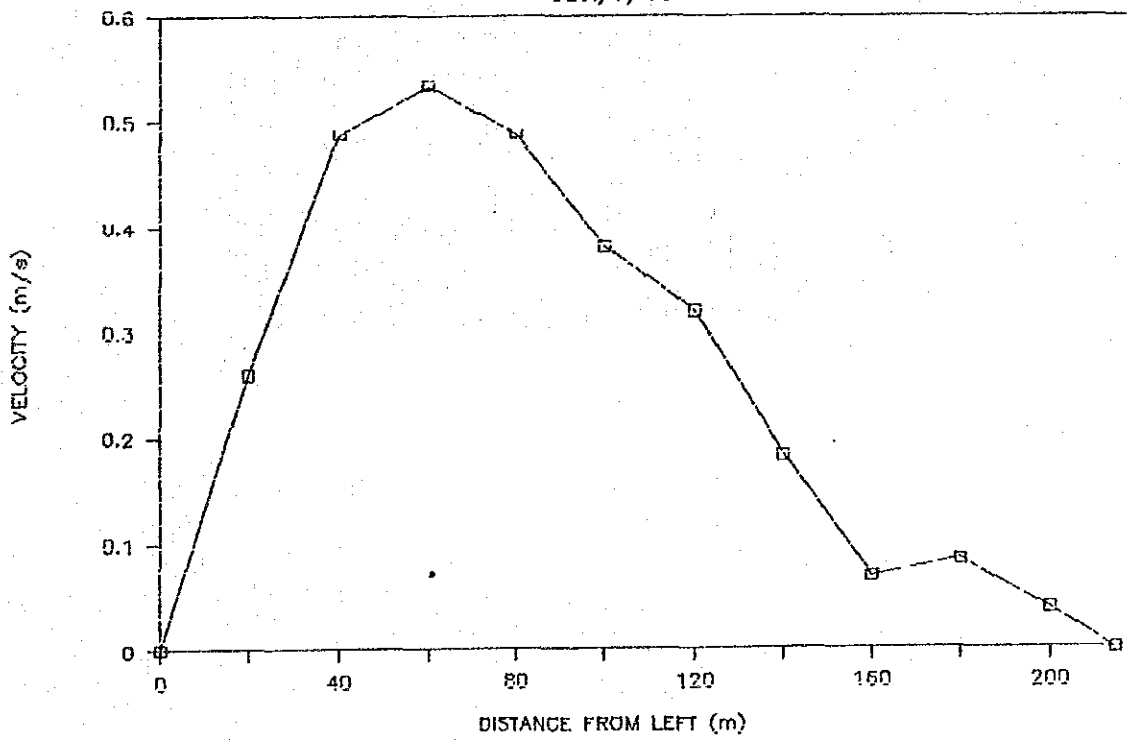
### WATER DEPTH (1-150)

DEC./11/00



### VELOCITY (1-150)

DEC./11/00



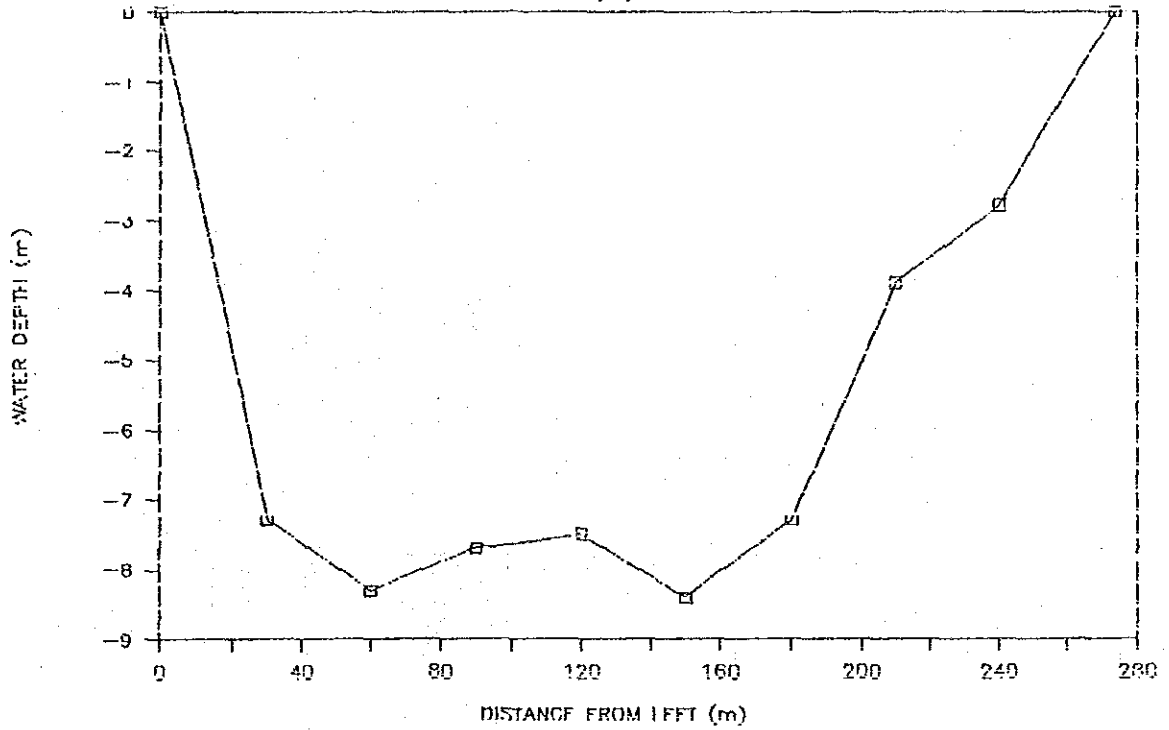
FLOW MEASUREMENT ST. : 1-130 ZAMEZI PUMP HOUSE FEB./4/91

ITEMS	ND-1	ND-2	ND-3	ND-4	ND-5	ND-6	ND-7	ND-8	ND-R	
WATER DEPTH (m)	0.00	7.30	8.30	7.70	7.50	8.40	7.30	3.90	2.80	0.00
S/WIDTH (m)	0.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	33.80
TOTAL SE/WIDTH(m)	0.00	30.00	60.00	90.00	120.00	150.00	180.00	210.00	240.00	273.80
VELOCITY.2-1(F/S)	0.00	3.20	4.00	4.00	4.50	3.00	3.00	0.20	0.30	0.00
VELOCITY.2-2(F/S)	0.00	3.20	4.00	4.00	4.50	3.00	3.00	0.20	0.30	0.00
MEAN VEL.2 (F/S)	0.00	3.20	4.00	4.00	4.50	3.00	3.00	0.20	0.30	0.00
VELOCITY.8-1(F/S)	0.00	3.00	3.30	2.50	2.00	2.00	2.50	0.10	0.05	0.00
VELOCITY.8-2(F/S)	0.00	3.00	3.30	2.50	2.00	2.00	2.50	0.10	0.05	0.00
MEAN VEL.8 (F/S)	0.00	3.00	3.30	2.50	2.00	2.00	2.50	0.10	0.05	0.00
MEAN VEL (F/S)	0.000	3.100	3.650	3.250	3.250	2.500	2.750	0.150	0.175	0.000
MEAN VEL (m/s)	0.000	0.945	1.113	0.991	0.991	0.762	0.838	0.045	0.053	0.000
L/MEAN DEPTH (m)	0.000	3.650	8.060	7.850	7.550	8.175	7.575	4.750	3.075	-
L/MEAN WIDTH (m)	0.00	30.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	-
L/SEC. AREA (m2)	0.00	109.50	120.75	117.75	113.25	122.63	113.63	71.25	46.13	-
R/MEAN DEPTH (m)	0.000	7.550	8.150	7.650	7.725	8.125	6.450	3.625	1.400	-
R/MEAN WIDTH (m)	0.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	33.80	-
R/SEC. AREA (m2)	0.00	113.25	122.25	114.75	115.88	121.88	96.75	54.38	47.32	-
S/AREA (m2)	0.00	222.75	243.00	232.50	229.13	244.50	210.38	125.63	93.45	-
TOTAL AREA (m2)	0.0	222.8	465.8	698.3	927.4	1171.9	1382.3	1507.9	1601.3	-
S/DISCHARGE(m3/s)	0.00	210.47	270.34	230.31	226.97	186.31	176.34	5.74	4.98	-
TOTAL DIS. (m3/s)	0.00	210.47	480.81	711.13	938.10	1124.41	1300.75	1306.49	1311.47	-

WATER LEVEL (F) : 21.46      WATER LEVEL (m) : 6.54  
 TOTAL DISCHARGE : 1311.47      MEAN VELOCITY(m/s) : 0.82

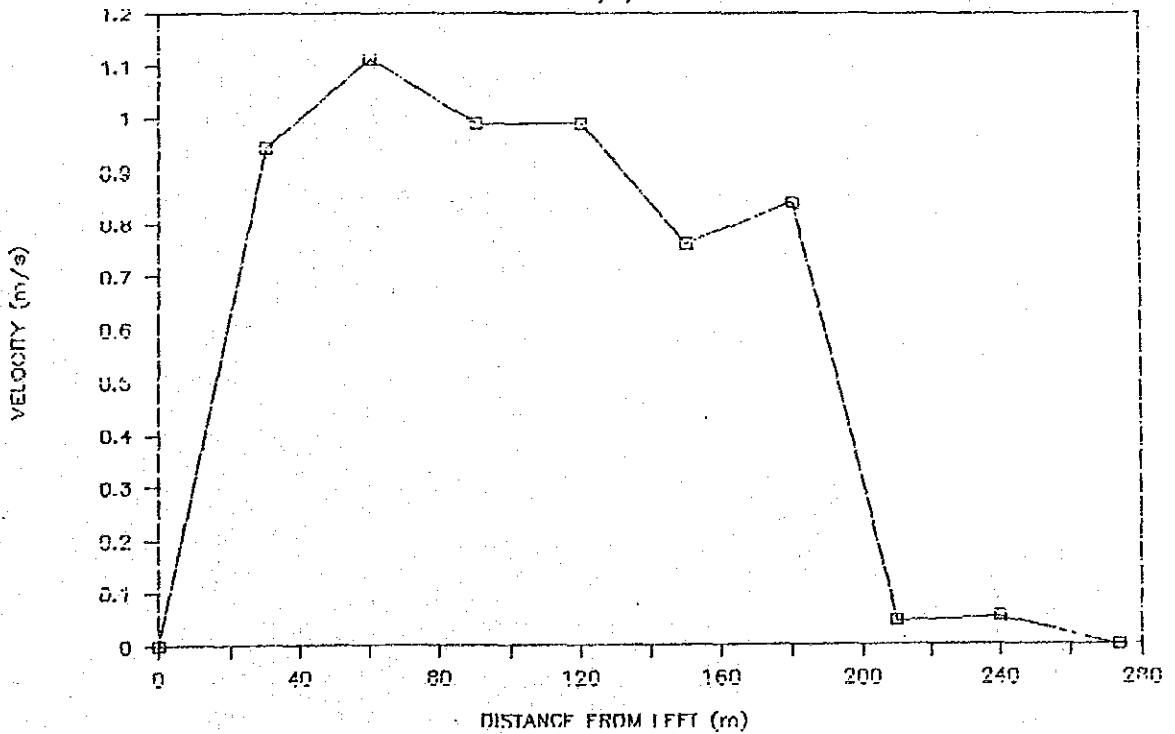
### WATER DEPTH (1-150)

FEB./4/91



### VELOCITY (1-150)

FEB./4/91



FLOW MEASUREMENT ST. : 1-150 ZAMBEZI PUMP HOUSE MAR./15/'91

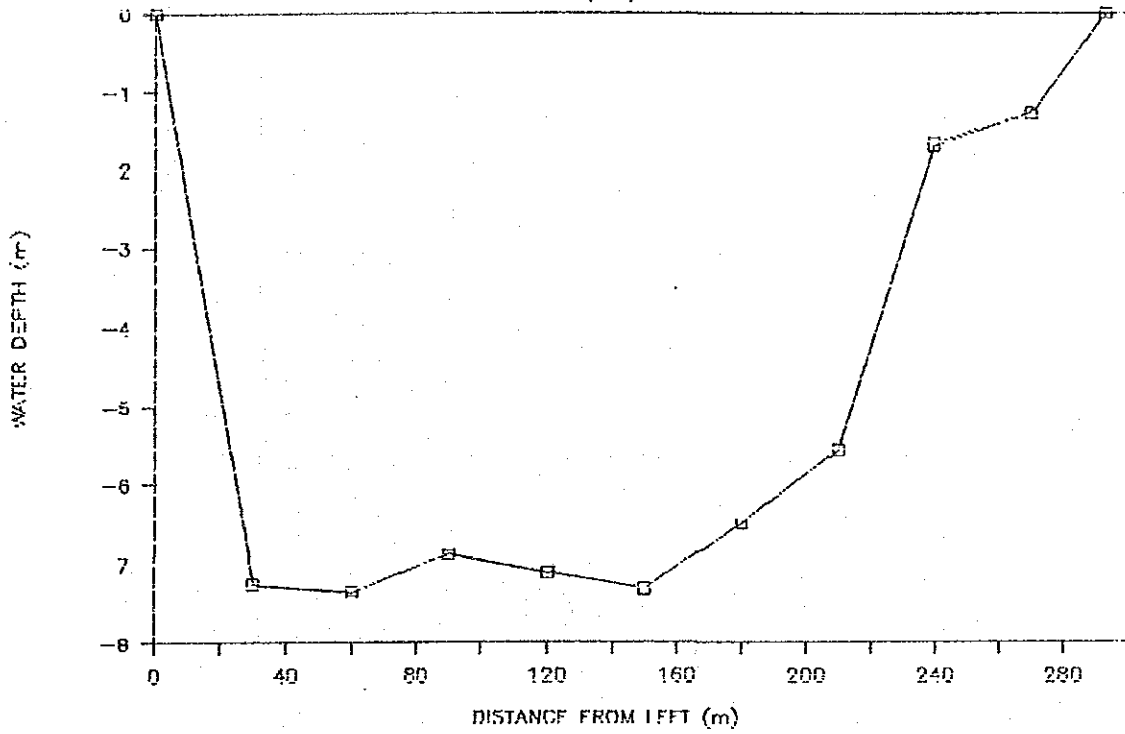
ITEMS	NO-1	NO-2	NO-3	NO-4	NO-5	NO-6	NO-7	NO-8	NO-9	NO-R
WATER DEPTH (m)	0.00	7.25	7.35	6.88	7.11	6.49	5.55	1.71	1.31	0.00
SE/WIDTH (m)	0.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	23.30
TOTAL SE/WIDTH(m)	0.00	30.00	60.00	90.00	120.00	180.00	210.00	240.00	270.00	293.30
VELOCITY.2-1(f/s)	0.00	3.80	4.30	3.80	3.60	3.20	2.20	0.70	-	0.00
VELOCITY.2-2(f/s)	0.00	3.80	4.30	3.80	3.60	3.20	2.20	0.70	-	0.00
MEAN VEL.2 (f/s)	0.00	3.80	4.30	3.80	3.60	3.20	2.20	0.70	-	0.00
VELOCITY.3-1(f/s)	0.00	3.00	3.50	3.00	2.80	3.00	2.00	0.60	0.50	0.00
VELOCITY.3-2(f/s)	0.00	3.00	3.50	3.00	2.80	3.00	2.00	0.60	0.50	0.00
MEAN VEL.3 (f/s)	0.00	3.00	3.50	3.00	2.80	3.00	2.00	0.60	0.50	0.00
MEAN VEL (f/s)	0.000	3.400	3.900	3.400	3.200	3.100	2.100	0.650	0.500	0.000
MEAN VEL (m/s)	0.000	1.036	1.189	1.036	0.975	0.945	0.640	0.198	0.152	0.000
L/MEAN DEPTH (m)	0.000	3.625	7.325	6.998	7.053	6.695	5.785	2.670	1.410	-
L/MEAN WIDTH (m)	0.00	30.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	-
L/SEC. AREA (m2)	0.00	108.75	109.88	104.96	105.79	100.43	86.78	40.05	21.15	-
R/MEAN DEPTH (m)	0.000	7.275	7.233	6.938	7.160	6.255	4.590	1.610	0.655	-
R/MEAN WIDTH (m)	0.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	23.30	-
R/SEC. AREA (m2)	0.00	109.13	108.49	104.06	107.40	93.83	68.85	24.15	15.26	-
S/AREA (m2)	0.00	217.88	218.36	209.03	213.19	194.25	155.63	64.20	36.41	-
TOTAL AREA (m2)	0.0	217.9	436.2	645.3	858.5	1073.9	1423.8	1488.0	1524.4	-
S/DISCHARGE(m3/s)	0.00	225.79	259.57	216.62	207.93	183.54	99.61	12.72	5.55	-
TOTAL DIS. (m3/s)	0.00	225.79	485.36	701.98	909.91	1097.09	1330.25	1392.96	1398.51	-

WATER LEVEL (f) : 19.30 WATER LEVEL (m) : 5.88  
 TOTAL DISCHARGE : 1398.51 MEAN VELOCITY(m/s) : 0.92



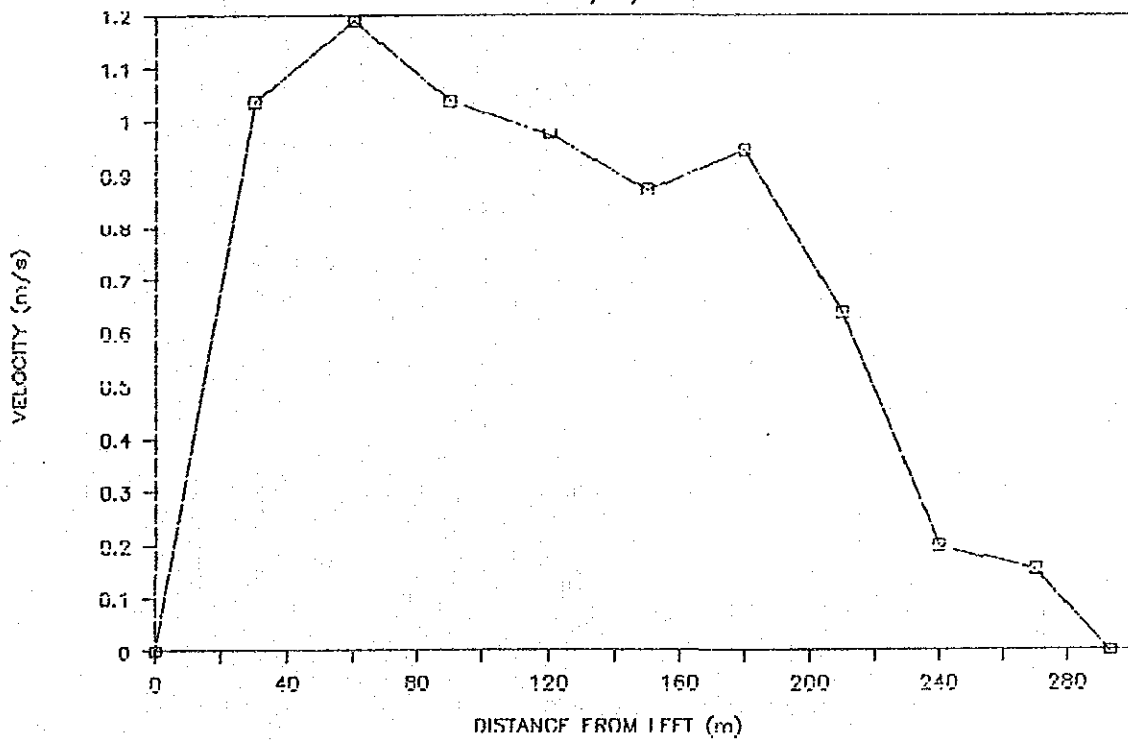
### WATER DEPTH (1-150)

MAR./15/91



### VELOCITY (1-150)

MAR./15/91



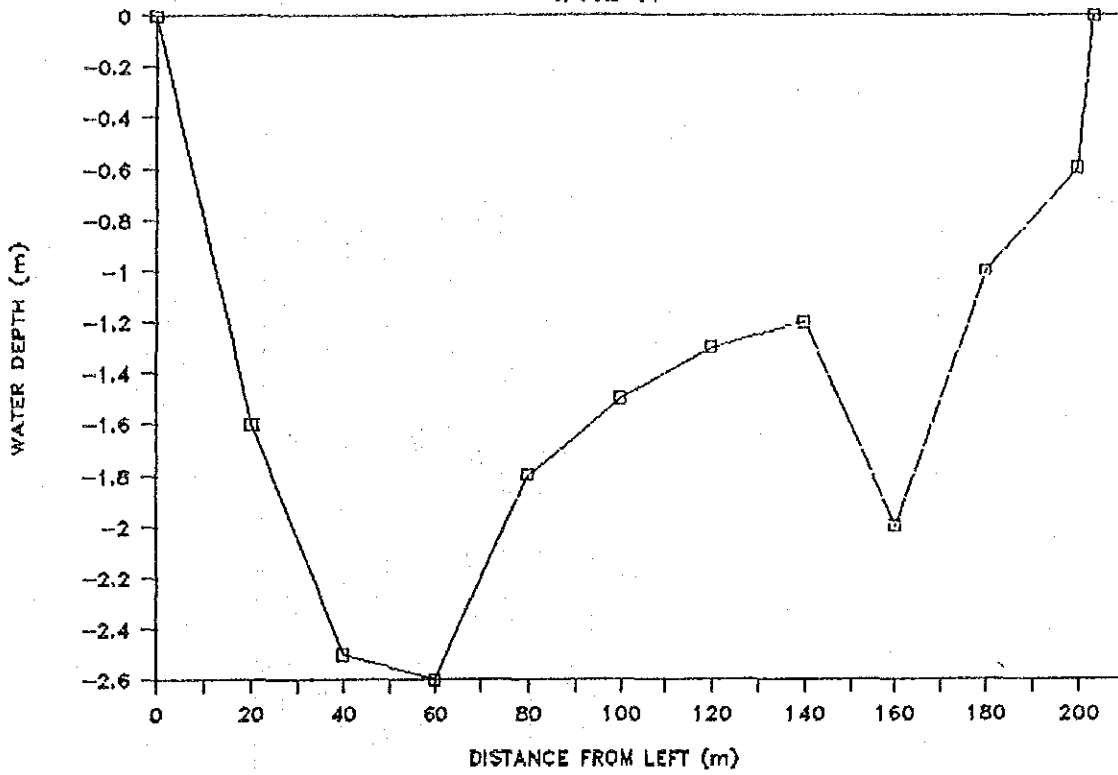
FLOW MEASUREMENT ST. : 1-150 ZAMBEZI PUMP HOUSE 6/JUL/'91

ITEMS	NO-L	NO-1	NO-2	NO-3	NO-4	NO-5	NO-6	NO-7	NO-8	NO-9	NO-10
WATER DEPTH (m)	0.00	1.60	2.50	2.60	1.80	1.50	1.30	1.20	2.00	1.00	0.60
SE/WIDTH (m)	0.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
TOTAL SE/WIDTH(m)	0.00	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00
VELOCITY.2-1(f/s)	0.00	0.90	1.10	2.00	2.00	1.80	1.80	1.30	0.60	0.20	0.00
VELOCITY.2-2(f/s)	0.00	1.00	1.15	1.80	1.80	1.90	2.00	1.40	0.60	0.10	0.00
MEAN VEL.2 (f/s)	0.00	0.95	1.13	1.90	1.90	1.85	1.90	1.35	0.60	0.15	0.00
VELOCITY.8-1(f/s)	0.00	1.00	1.10	1.30	1.80	1.20	1.20	0.90	0.40	0.40	0.00
VELOCITY.8-2(f/s)	0.00	0.95	1.00	1.40	2.00	1.00	1.10	1.00	0.40	0.50	0.00
MEAN VEL.8 (f/s)	0.00	0.98	1.05	1.35	1.90	1.10	1.15	0.95	0.40	0.45	0.00
MEAN VEL (f/s)	0.000	0.963	1.088	1.625	1.900	1.475	1.525	1.150	0.500	0.300	0.000
MEAN VEL (m/s)	0.000	0.293	0.331	0.495	0.579	0.450	0.465	0.351	0.152	0.091	0.000
L/MEAN DEPTH (m)	0.000	0.800	2.275	2.575	2.000	1.575	1.350	1.225	1.800	1.250	0.700
L/MEAN WIDTH (m)	0.00	20.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
L/SEC. AREA (m2)	0.00	16.00	22.75	25.75	20.00	15.75	13.50	12.25	18.00	12.50	7.00
R/MEAN DEPTH (m)	0.000	1.825	2.525	2.400	1.725	1.450	1.275	1.400	1.750	0.900	0.300
R/MEAN WIDTH (m)	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	3.60
R/SEC. AREA (m2)	0.00	18.25	25.25	24.00	17.25	14.50	12.75	14.00	17.50	9.00	1.08
S/AREA (m2)	0.00	34.25	48.00	49.75	37.25	30.25	26.25	26.25	35.50	21.50	8.08
TOTAL AREA (m2)	0.0	34.3	82.3	132.0	169.3	199.5	225.8	252.0	287.5	309.0	317.1
S/DISCHARGE(m3/s)	0.00	10.05	15.91	24.64	21.57	13.60	12.20	9.20	5.41	1.97	0.00
TOTAL DIS. (m3/s)	0.00	10.05	25.96	50.60	72.17	85.77	97.97	107.17	112.58	114.55	114.55

WATER LEVEL (f) : 4.27      WATER LEVEL (m) : 1.30  
 TOTAL DISCHARGE : 114.55      MEAN VELOCITY(m/s) : 0.37

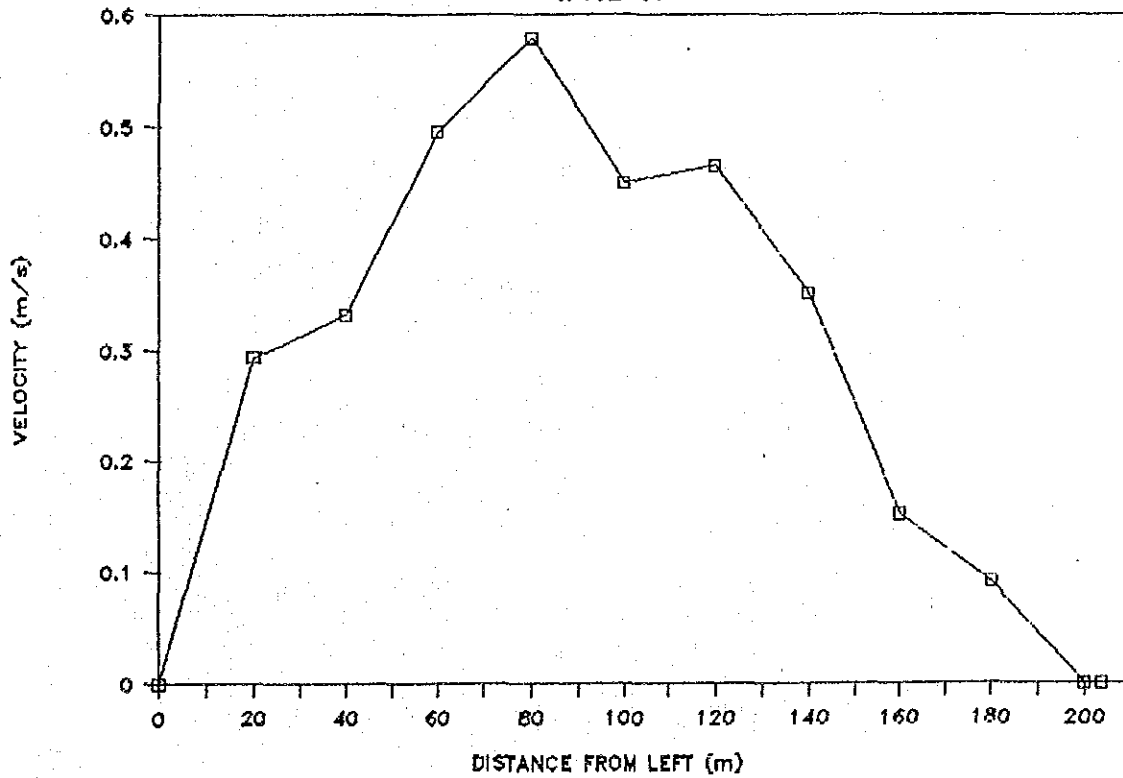
# WATER DEPTH (1 150)

6/JUL/'91



# VELOCITY (1-150)

6/JUL/'91



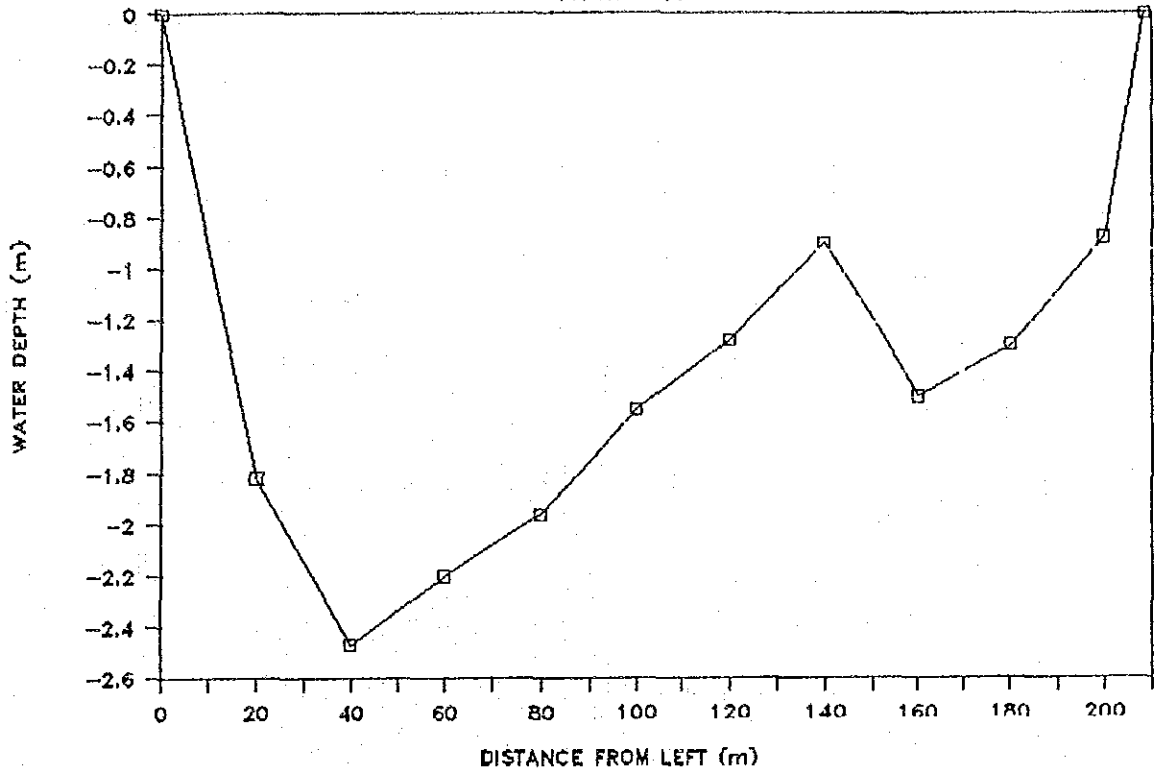
FLOW MEASUREMENT ST. : 1-150 ZAMBEZI PUMP HOUSE 19/AUG./1991

ITEMS	NO-L	NO-1	NO-2	NO-3	NO-4	NO-5	NO-6	NO-7	NO-8	NO-9	NO-10	NO-R
WATER DEPTH (m)	0.00	1.82	2.47	2.20	1.96	1.55	1.28	0.90	1.50	1.30	0.88	0.00
SE/WIDTH (m)	0.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	8.60
TOTAL SE/WIDTH(m)	0.00	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	208.60
VELOCITY.2-1(m/s)	0.00	0.25	0.40	0.40	0.35	0.30	0.25	0.10	0.00	0.00	0.00	0.00
VELOCITY.2-2(m/s)	0.00	0.25	0.40	0.40	0.35	0.30	0.25	0.10	0.00	0.00	0.00	0.00
MEAN VEL.2 (m/s)	0.00	0.25	0.40	0.40	0.35	0.30	0.25	0.10	0.00	0.00	0.00	0.00
VELOCITY.8-1(m/s)	0.00	0.04	0.25	0.25	0.20	0.15	0.10	0.10	0.00	0.00	0.00	0.00
VELOCITY.8-2(m/s)	0.00	0.04	0.25	0.25	0.20	0.15	0.10	0.10	0.00	0.00	0.00	0.00
MEAN VEL.8 (m/s)	0.00	0.04	0.25	0.25	0.20	0.15	0.10	0.10	0.00	0.00	0.00	0.00
MEAN VEL (m/s)	0.000	0.145	0.325	0.325	0.275	0.225	0.175	0.100	0.000	0.000	0.000	0.000
MEAN VEL (m/s)	0.000	0.145	0.325	0.325	0.275	0.225	0.175	0.100	0.000	0.000	0.000	0.000
L/MEAN DEPTH (m)	0.000	0.910	2.308	2.268	2.020	1.653	1.348	0.995	1.350	1.350	0.985	0.000
L/MEAN WIDTH (m)	0.00	20.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	-
L/SEC. AREA (m2)	0.00	18.20	23.08	22.68	20.20	16.53	13.48	9.95	13.50	13.50	9.85	-
R/MEAN DEPTH (m)	0.000	1.983	2.403	2.140	1.858	1.483	1.185	1.050	1.450	1.195	0.440	-
R/MEAN WIDTH (m)	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	8.60	-
R/SEC. AREA (m2)	0.00	19.83	24.03	21.40	18.58	14.83	11.85	10.50	14.50	11.95	3.78	-
S/AREA (m2)	0.00	38.03	47.10	44.08	38.78	31.35	25.33	20.45	28.00	25.45	13.63	-
TOTAL AREA (m2)	0.0	38.0	85.1	129.2	168.0	199.3	224.7	245.1	273.1	298.6	312.2	-
S/DISCHARGE(m3/s)	0.00	5.51	15.31	14.32	10.66	7.05	4.43	2.05	0.00	0.00	0.00	-
TOTAL DIS. (m3/s)	0.00	5.51	20.82	35.15	45.81	52.86	57.29	59.34	59.34	59.34	59.34	-

WATER LEVEL (f) : 2.65 WATER LEVEL (m) : 0.81  
 TOTAL DISCHARGE : 59.34 MEAN VELOCITY(m/s) : 0.20

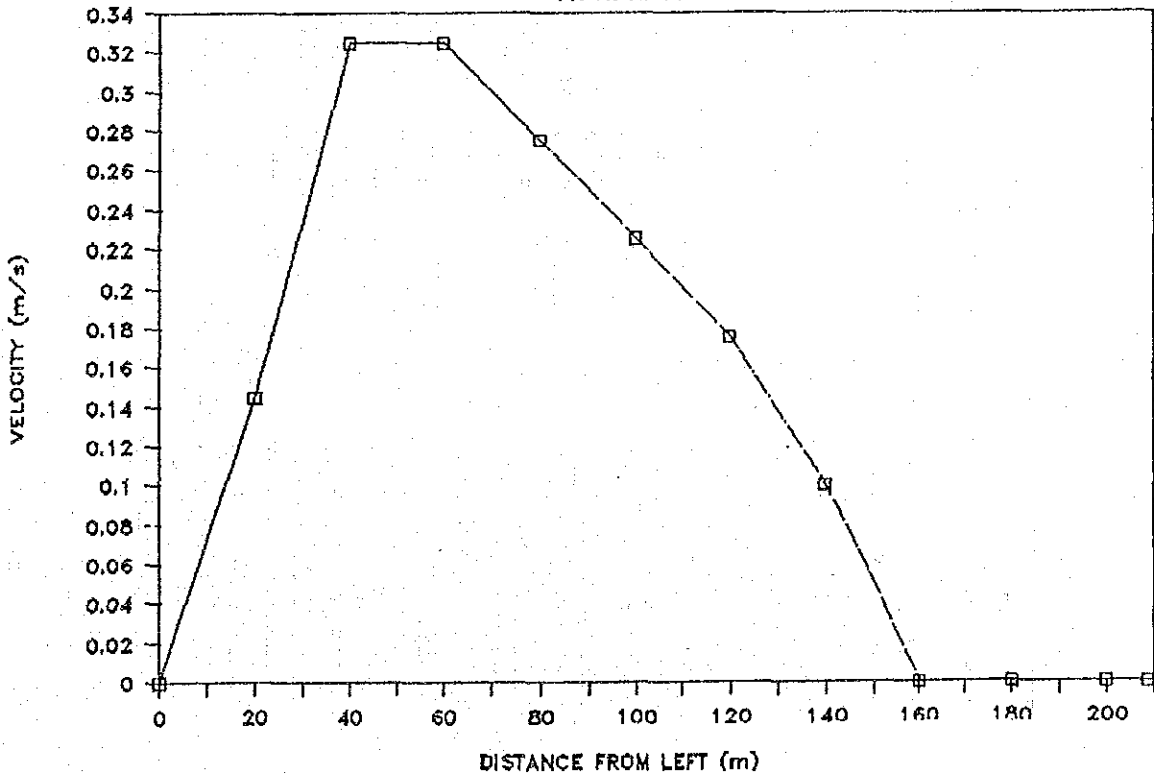
# WATER DEPTH (1-150)

19/AUG./91



# VELOCITY (1-150)

19/AUG./91



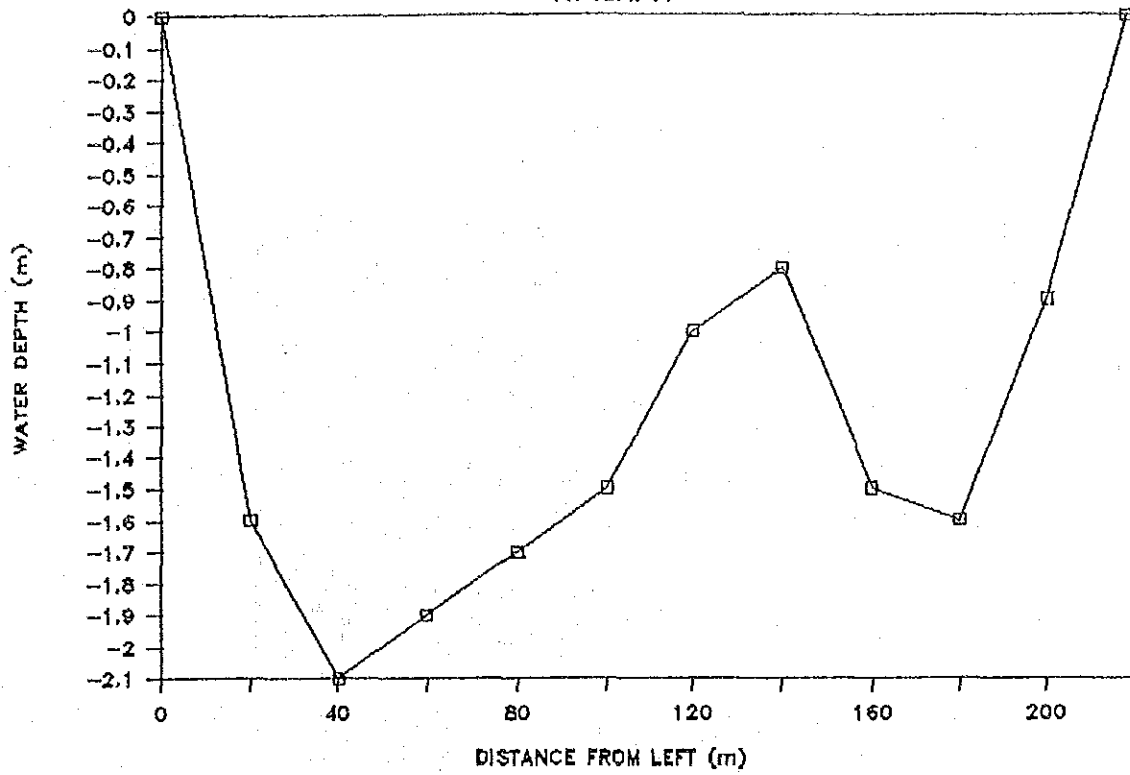
FLOW MEASUREMENT ST. : 1-150 ZAMBEZI PUMP HOUSE 13/SEP./91

ITEMS	NO-L	NO-1	NO-2	NO-3	NO-4	NO-5	NO-6	NO-7	NO-8	NO-9	NO-10	NO-R
WATER DEPTH (m)	0.00	1.60	2.10	1.90	1.70	1.50	1.00	0.80	1.50	1.60	0.90	0.00
SE/WIDTH (m)	0.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	18.00
TOTAL SE/WIDTH(m)	0.00	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	218.00
VELOCITY.2-1(f/s)	0.00	0.60	1.20	1.10	1.00	0.90	0.70	0.60	0.40	0.10	0.00	0.00
VELOCITY.2-2(f/s)	0.00	0.60	1.20	1.10	1.00	0.90	0.70	0.60	0.40	0.10	0.00	0.00
MEAN VEL.2 (f/s)	0.00	0.60	1.20	1.10	1.00	0.90	0.70	0.60	0.40	0.10	0.00	0.00
VELOCITY.8-1(f/s)	0.00	0.20	0.90	0.60	0.70	0.60	0.50	0.40	0.05	0.10	0.10	0.00
VELOCITY.8-2(f/s)	0.00	0.20	0.90	0.80	0.70	0.60	0.50	0.40	0.05	0.10	0.05	0.00
MEAN VEL.8 (f/s)	0.00	0.20	0.90	0.70	0.70	0.60	0.50	0.40	0.05	0.10	0.08	0.00
MEAN VEL (f/s)	0.000	0.400	1.050	0.900	0.850	0.750	0.600	0.500	0.225	0.100	0.038	0.000
MEAN VEL (m/s)	0.000	0.122	0.320	0.274	0.259	0.229	0.183	0.152	0.069	0.030	0.011	0.000
L/MEAN DEPTH (m)	0.000	0.800	1.975	1.950	1.750	1.550	1.125	0.850	1.325	1.575	1.075	0.000
L/MEAN WIDTH (m)	0.00	20.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	-
L/SEC. AREA (m2)	0.00	16.00	19.75	19.50	17.50	15.50	11.25	8.50	13.25	15.75	10.75	-
R/MEAN DEPTH (m)	0.000	1.725	2.050	1.850	1.650	1.375	0.950	0.975	1.525	1.425	0.450	-
R/MEAN WIDTH (m)	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	18.00	-
R/SEC. AREA (m2)	0.00	17.25	20.50	18.50	16.50	13.75	9.50	9.75	15.25	14.25	8.10	-
S/AREA (m2)	0.00	33.25	40.25	38.00	34.00	29.25	20.75	18.25	28.50	30.00	18.85	-
TOTAL AREA (m2)	0.0	33.3	73.5	111.5	145.5	174.8	195.5	213.8	242.3	272.3	291.1	-
S/DISCHARGE(m3/s)	0.00	4.05	12.88	10.42	8.81	6.69	3.79	2.78	1.95	0.91	0.22	-
TOTAL DIS. (m3/s)	0.00	4.05	16.94	27.36	36.17	42.85	46.65	49.43	51.39	52.30	52.52	-

WATER LEVEL (f) : 2.02 WATER LEVEL (m) : 0.62  
 TOTAL DISCHARGE : 52.30 MEAN VELOCITY(m/s) : 0.19

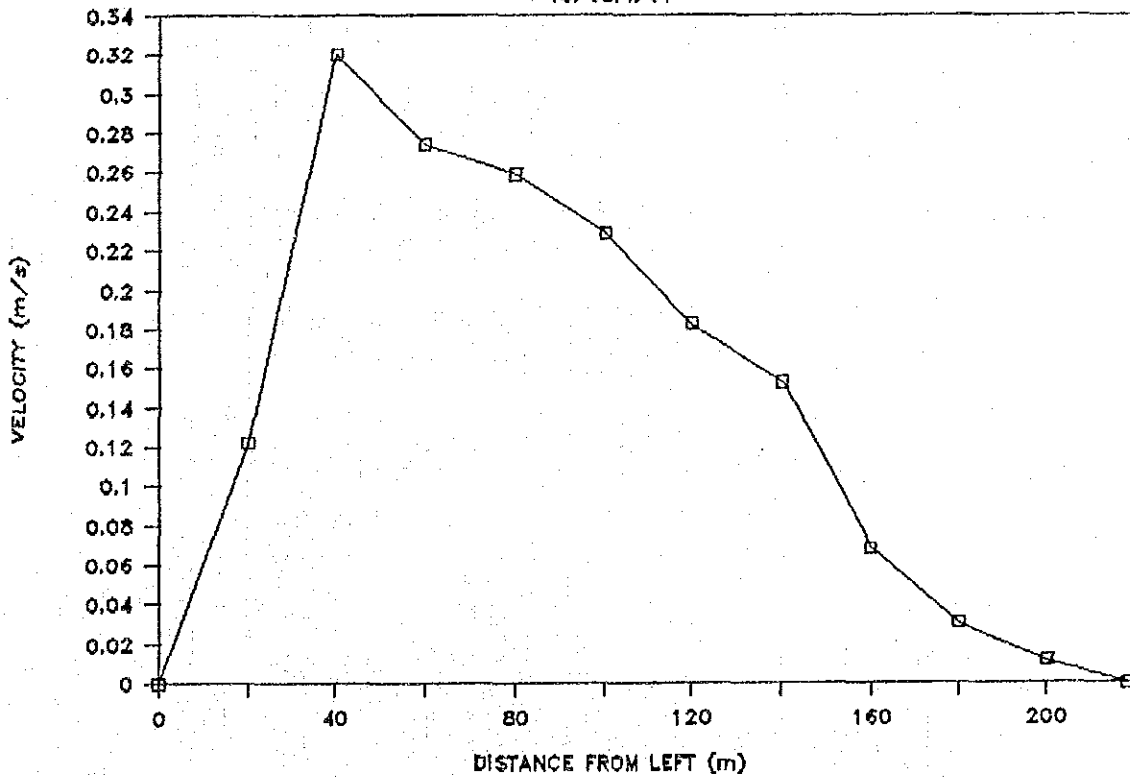
# WATER DEPTH (1-150)

13/SEP./91



# VELOCITY (1-150)

13/SEP./91



FLOW MEASUREMENT ST. : 1-150 ZAMBEZI PUMP HOUSE 05/OCT/'91

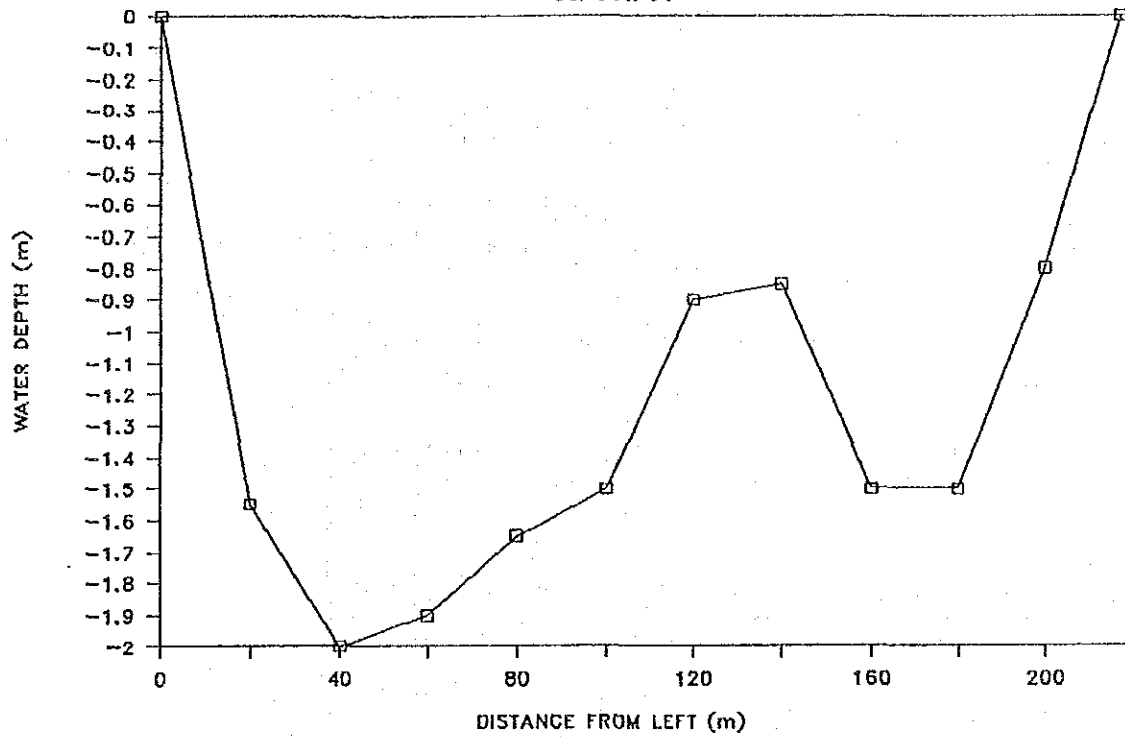
ITEMS	NO-L	NO-1	NO-2	NO-3	NO-4	NO-5	NO-6	NO-7	NO-8	NO-9	NO-10	NO-R
WATER DEPTH (m)	0.00	1.55	2.00	1.90	1.65	1.50	0.90	0.85	1.50	1.50	0.80	0.00
SE/WIDTH (m)	0.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	17.50
TOTAL SE/WIDTH(m)	0.00	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	217.50
VELOCITY.2-1(f/s)	0.00	0.60	1.10	1.00	1.00	0.75	0.70	0.60	0.40	0.10	0.00	0.00
VELOCITY.2-2(f/s)	0.00	0.50	1.15	1.00	1.00	0.80	0.70	0.60	0.40	0.10	0.00	0.00
MEAN VEL.2 (f/s)	0.00	0.55	1.13	1.00	1.00	0.78	0.70	0.60	0.40	0.10	0.00	0.00
VELOCITY.8-1(f/s)	0.00	0.20	0.30	0.60	0.70	0.60	0.50	0.40	0.05	0.10	0.10	0.00
VELOCITY.8-2(f/s)	0.00	0.20	0.80	0.60	0.70	0.60	0.50	0.40	0.05	0.10	0.05	0.00
MEAN VEL.8 (f/s)	0.00	0.20	0.30	0.60	0.70	0.60	0.50	0.40	0.05	0.10	0.08	0.00
MEAN VEL (f/s)	0.000	0.375	0.963	0.800	0.850	0.688	0.600	0.500	0.225	0.100	0.038	0.000
MEAN VEL (m/s)	0.000	0.114	0.293	0.244	0.239	0.210	0.183	0.152	0.069	0.030	0.011	0.000
L/MEAN DEPTH (m)	0.000	0.775	1.888	1.925	1.713	1.538	1.050	0.863	1.338	1.500	0.975	0.000
L/MEAN WIDTH (m)	0.00	20.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	-
L/SEC. AREA (m2)	0.00	15.50	18.88	19.25	17.13	15.38	10.50	8.63	13.38	15.00	9.75	-
R/MEAN DEPTH (m)	0.000	1.663	1.975	1.838	1.613	1.350	0.888	1.013	1.500	1.325	0.400	-
R/MEAN WIDTH (m)	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	17.50	-
R/SEC. AREA (m2)	0.00	16.63	19.75	18.38	16.13	13.50	8.88	10.13	15.00	13.25	7.00	-
S/AREA (m2)	0.00	32.13	38.63	37.63	33.25	28.88	19.38	18.75	28.38	28.25	16.75	-
TOTAL AREA (m2)	0.0	32.1	70.8	108.4	141.6	170.5	189.9	208.6	237.0	265.3	282.0	-
S/DISCHARGE(m3/s)	0.00	3.67	11.33	9.17	8.61	6.05	3.54	2.86	1.95	0.86	0.19	-
TOTAL DIS. (m3/s)	0.00	3.67	15.00	24.18	32.79	38.84	42.39	45.24	47.19	48.05	48.24	-

WATER LEVEL (f) : 1.64 WATER LEVEL (m) : 0.50  
 TOTAL DISCHARGE : 48.05 MEAN VELOCITY(m/s) : 0.18



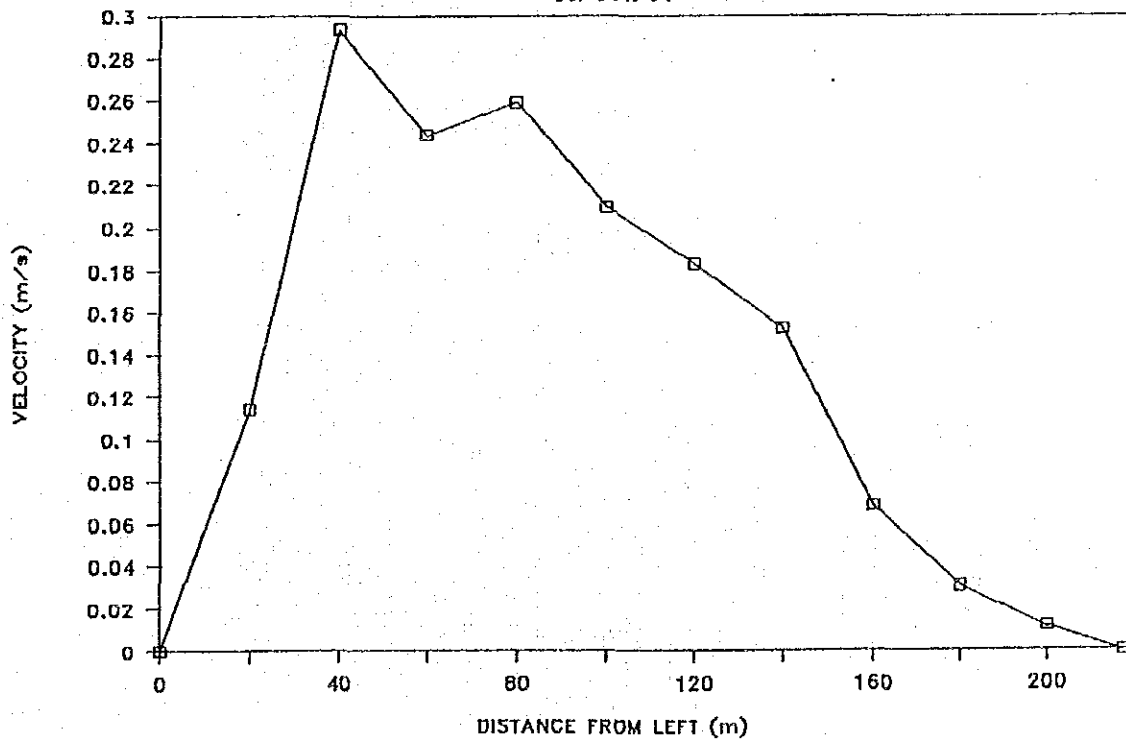
# WATER DEPTH (1-150)

05/OCT/91



# VELOCITY (1-150)

05/OCT/91

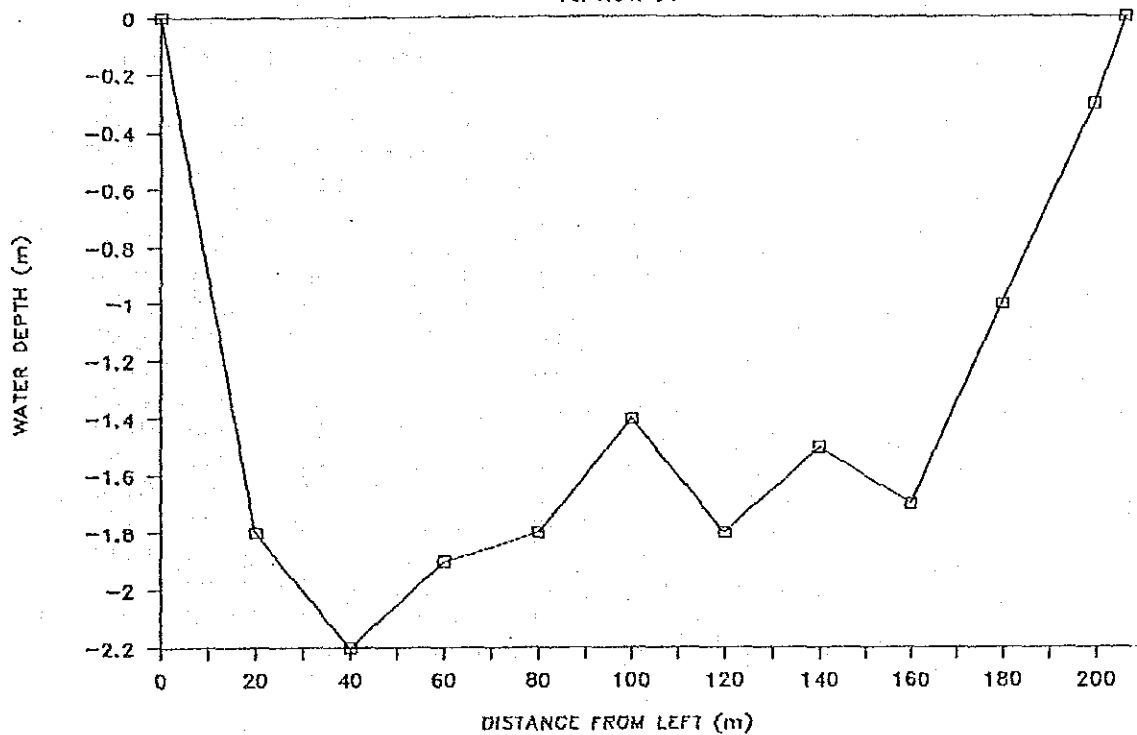


FLOW MEASUREMENT ST. : 1-150 ZAMBEZI PUMP HOUSE 13/NOV/'91

ITEMS	NO-L	NO-1	NO-2	NO-3	NO-4	NO-5	NO-6	NO-7	NO-8	NO-9	NO-10	NO-R
WATER DEPTH (m)	0.00	1.80	2.20	1.90	1.80	1.40	1.80	1.50	1.70	1.00	0.30	0.00
SE/WIDTH (m)	0.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	6.60
TOTAL SE/WIDTH(m)	0.00	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	206.60
VELOCITY.2-1(f/s)	0.00	0.30	1.40	1.60	1.50	1.00	0.90	0.70	0.50	0.10	0.00	0.00
VELOCITY.2-2(f/s)	0.00	0.30	1.40	1.60	1.50	1.00	0.90	0.70	0.50	0.10	0.00	0.00
MEAN VELOCITY (f/s)	0.00	0.30	1.40	1.60	1.50	1.00	0.90	0.70	0.50	0.10	0.00	0.00
VELOCITY.8-1(f/s)	0.00	0.20	1.20	1.00	1.20	0.90	0.50	0.20	0.30	0.10	0.00	0.00
VELOCITY.8-2(f/s)	0.00	0.20	1.20	1.00	1.20	0.90	0.50	0.20	0.30	0.10	0.00	0.00
MEAN VELOCITY.8 (f/s)	0.00	0.20	1.20	1.00	1.20	0.90	0.50	0.20	0.30	0.10	0.00	0.00
MEAN VELOCITY (f/s)	0.000	0.250	1.300	1.300	1.350	0.950	0.700	0.450	0.400	0.100	0.000	0.000
MEAN VELOCITY (m/s)	0.000	0.076	0.396	0.396	0.411	0.290	0.213	0.137	0.122	0.030	0.000	0.000
L/MEAN DEPTH (m)	0.000	0.900	2.100	1.975	1.825	1.500	1.700	1.575	1.650	1.175	0.475	0.000
L/MEAN WIDTH (m)	0.00	20.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	-
L/SEC. AREA (m2)	0.00	18.00	21.00	19.75	18.25	15.00	17.00	15.75	16.50	11.75	4.75	-
R/MEAN DEPTH (m)	0.000	1.900	2.125	1.875	1.700	1.500	1.725	1.550	1.525	0.825	0.150	-
R/MEAN WIDTH (m)	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	6.60	-
R/SEC. AREA (m2)	0.00	19.00	21.25	18.75	17.00	15.00	17.25	15.50	15.25	8.25	0.99	-
S/AREA (m2)	0.00	37.00	42.25	38.50	35.25	30.00	34.25	31.25	31.75	20.00	5.74	-
TOTAL AREA (m2)	0.0	37.0	79.3	117.8	153.0	183.0	217.3	248.5	280.3	300.3	306.0	-
S/DISCHARGE(m3/s)	0.00	2.82	16.74	15.26	14.50	8.69	7.31	4.29	3.87	0.61	0.00	-
TOTAL DISCHARGE (m3/s)	0.00	2.82	19.56	34.82	49.32	58.01	65.31	69.60	73.47	74.08	74.08	-
<p>WATER LEVEL (f) : 2.40 WATER LEVEL (m) : 0.73</p> <p>TOTAL DISCHARGE : 74.08 MEAN VELOCITY(m/s) : 0.25</p>												

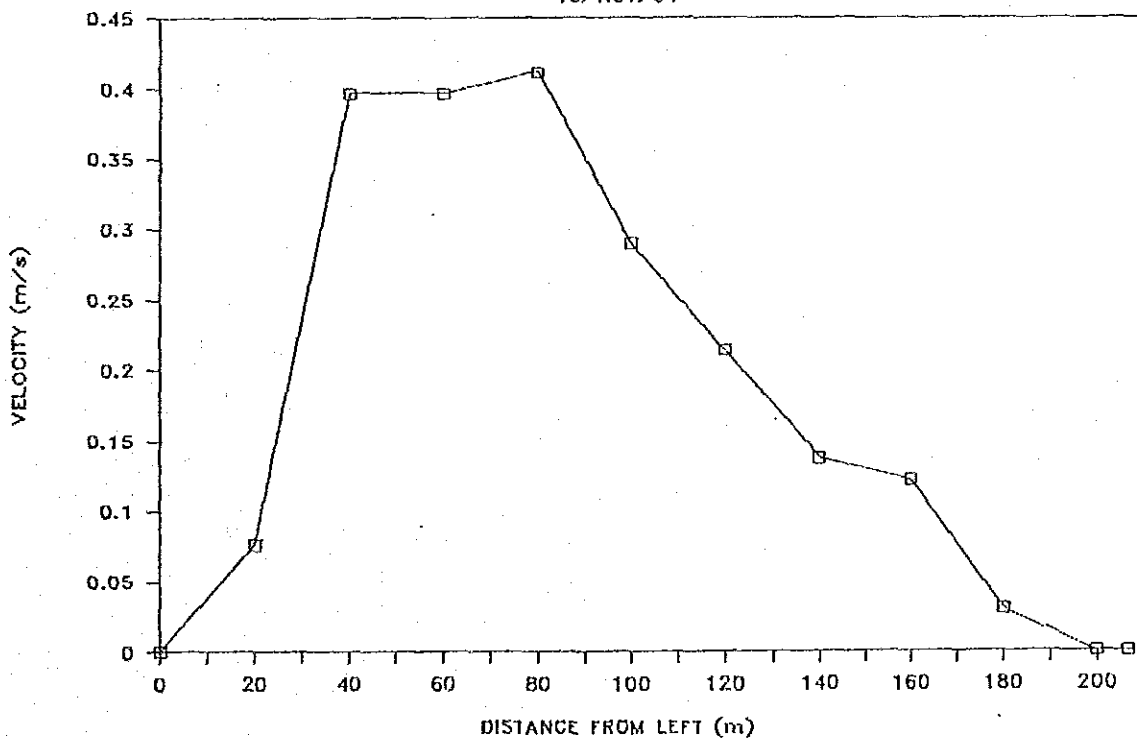
### WATER DEPTH (1-150)

13/NOV/91



### VELOCITY (1-150)

13/NOV/91



## LIST OF FLOW MEASUREMENT

ST.: 1-650 KABOMPO BOMA

NO.	DATE	----[Feet - Second]----				++++[Meter - Second]++++			
		H (f)	Q (f3/s)	A (f2)	V (f/s)	H (m)	Q (m3/s)	A (m2)	V (m/s)
1	06-Mar-90	8.56	8603	2476	3.48	2.61	244	230	1.06
2	28-Jun-90	6.30	3371	2284	1.48	1.92	95	212	0.45
3	31-Jul-90	5.87	2444	2191	1.12	1.79	69	204	0.34
4	24-Aug-90	5.68	2386	2078	1.15	1.73	68	193	0.35
5	28-Sep-90	5.25	1807	1776	1.02	1.60	51	165	0.31
6	26-Oct-90	5.15	1745	1834	0.95	1.57	49	170	0.29
7	07-Dec-90	5.77	2816	2094	1.35	1.76	80	195	0.41
8	12-Jan-91	8.56	8543	3720	2.30	2.61	242	346	0.70
9	03-Feb-91	10.27	13442	4181	3.22	3.13	381	388	0.98
10	08-Jul-91	6.33	3529	3163	1.12	1.93	100	294	0.34
11	18-Aug-91	5.94	1669	1816	0.92	1.81	47	169	0.28
12	12-Sep-91	5.61	1368	1668	0.82	1.71	39	155	0.25
13	05-Oct-91	5.43	2061	2244	0.92	1.66	58	208	0.28
14	13-Nov-91	5.91	2400	1784	1.35	1.80	68	166	0.41

[Note] H:Water Level, Q:Discharge, A:Discharge Area, V:Velocity

MAR/ 6/90

FLOW MEASUREMENT ST. : 1-650 KABOMPO BOMA

ITEMS	NO 1	NO 2	NO 3	NO 4	NO 5	NO 6	NO 7	NO 8	NO 9	NO 10	NO 11
WATER DEPTH (m)	1.30	1.60	1.90	1.90	1.90	2.00	1.30	1.30	1.30	1.30	1.60
SE/WIDTH (m)	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
TOTAL SE/WIDTH(m)	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00
VELOCITY.2 1(f/s)	3.00	3.60	4.40	4.40	4.50	4.20	4.40	4.40	4.00	3.90	3.80
VELOCITY.2 2(f/s)	3.00	3.60	4.30	4.20	4.40	4.20	4.30	4.50	4.00	4.00	3.90
MEAN VEL.2 (f/s)	3.00	3.60	4.35	4.30	4.45	4.20	4.35	4.45	4.00	3.95	3.85
VELOCITY.8 1(f/s)	2.70	3.50	3.40	3.10	3.20	3.50	3.20	3.20	3.40	2.60	2.60
VELOCITY.8 2(f/s)	2.70	3.40	3.40	3.10	3.10	3.60	3.10	3.40	3.20	2.70	2.70
MEAN VEL.8 (f/s)	2.70	3.45	3.40	3.10	3.15	3.55	3.15	3.30	3.30	2.65	2.65
MEAN VEL (f/s)	2.850	3.525	3.875	3.700	3.800	3.875	3.750	3.875	3.650	3.300	3.250
MEAN VEL (m/s)	0.869	1.074	1.181	1.128	1.158	1.181	1.143	1.181	1.113	1.006	0.991
L/MEAN DEPTH (m)	0.650	1.525	1.825	1.900	1.900	1.975	1.850	1.425	1.300	1.300	1.525
L/MEAN WIDTH (m)	10.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
L/SEC. AREA (m2)	6.50	7.63	9.13	9.50	9.50	9.88	9.25	7.13	6.50	6.50	7.63
R/MEAN DEPTH (m)	1.375	1.675	1.900	1.900	1.925	1.950	1.675	1.300	1.300	1.375	1.600
R/MEAN WIDTH (m)	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
R/SEC. AREA (m2)	6.88	8.38	9.50	9.50	9.63	9.75	8.38	6.50	6.50	6.88	8.00
S/AREA (m2)	13.38	16.00	18.63	19.00	19.13	19.63	17.63	13.63	13.00	13.38	15.63
TOTAL AREA (m2)	13.4	29.4	48.0	67.0	86.1	105.8	123.4	137.0	150.0	163.4	179.0
S/DISCHARGE(m3/s)	11.62	17.19	22.00	21.43	22.15	23.18	20.15	16.09	14.46	13.45	15.48
TOTAL DIS. (m3/s)	11.62	28.81	50.81	72.23	94.39	117.57	137.71	153.80	168.27	181.72	197.20

WATER LEVEL (f) : WATER LEVEL (m) :  
 TOTAL DISCHARGE : MEAN VELOCITY(m/s) :

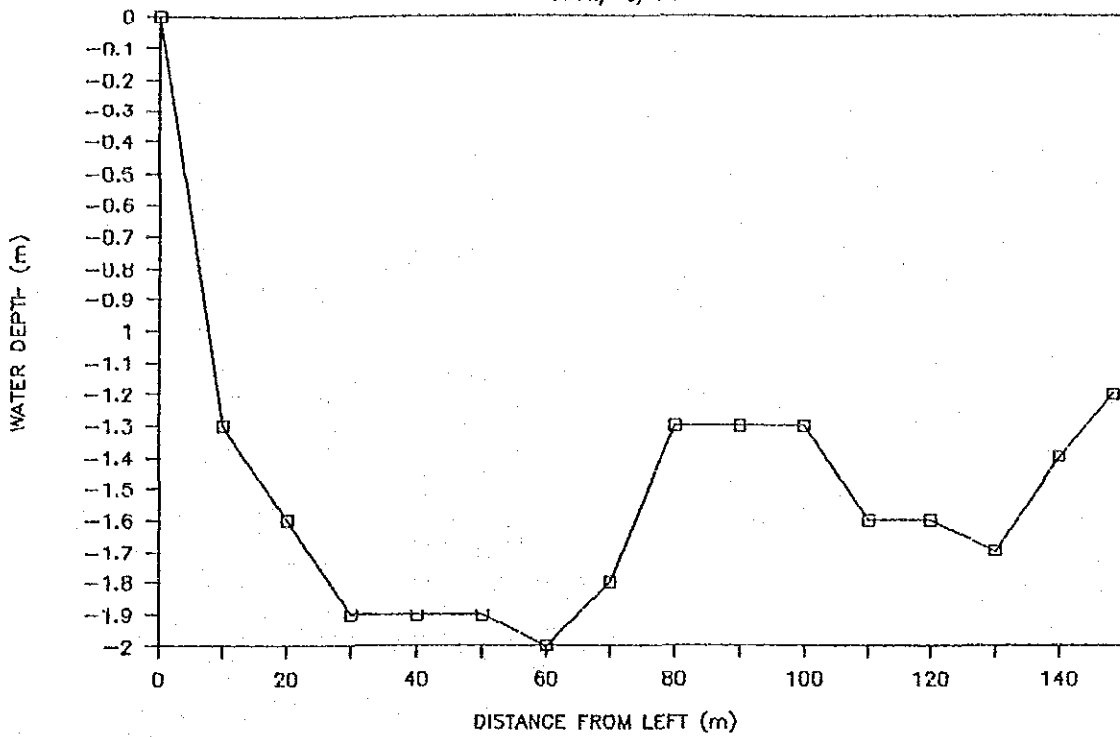
FLOW MEASUREMENT ST. : 1-650 KABOMPO BOMA MAR/ 6/90

ITEMS	NO 12	NO 13	NO 14	NO 13
WATER DEPTH (m)	1.60	1.70	1.40	1.20
SE/WIDTH (m)	10.00	10.00	10.00	8.50
TOTAL SE/WIDTH(m)	120.00	130.00	140.00	148.50
VELOCITY.2 1(f/s)	3.40	3.10	3.60	0.00
VELOCITY.2 2(f/s)	3.50	3.20	3.50	0.00
MEAN VEL.2 (f/s)	3.45	3.15	3.55	0.00
VELOCITY.3 1(f/s)	2.80	2.50	2.50	0.00
VELOCITY.3 2(f/s)	2.90	2.40	2.40	0.00
MEAN VEL.3 (f/s)	2.85	2.45	2.45	0.00
MEAN VEL (f/s)	3.150	2.800	3.000	0.000
MEAN VEL (m/s)	0.960	0.853	0.914	0.000
L/MEAN DEPTH (m)	1.600	1.675	1.475	
L/MEAN WIDTH (m)	5.00	5.00	5.00	
L/SEC. AREA (m2)	8.00	8.38	7.38	
R/MEAN DEPTH (m)	1.625	1.625	1.300	
R/MEAN WIDTH (m)	5.00	5.00	3.50	
R/SEC. AREA (m2)	8.13	8.13	11.05	
S/AREA (m2)	16.13	16.50	18.43	
TOTAL AREA (m2)	195.1	211.63	230.05	
S/DISCHARGE (m3/s)	15.48	14.08	16.85	
TOTAL DIS. (m3/s)	212.63	226.76	243.61	

WATER LEVEL (f) : 3.55 WATER LEVEL (m) : 2.61  
 TOTAL DISCHARGE : 243.61 MEAN VELOCITY(m/s) : 1.06

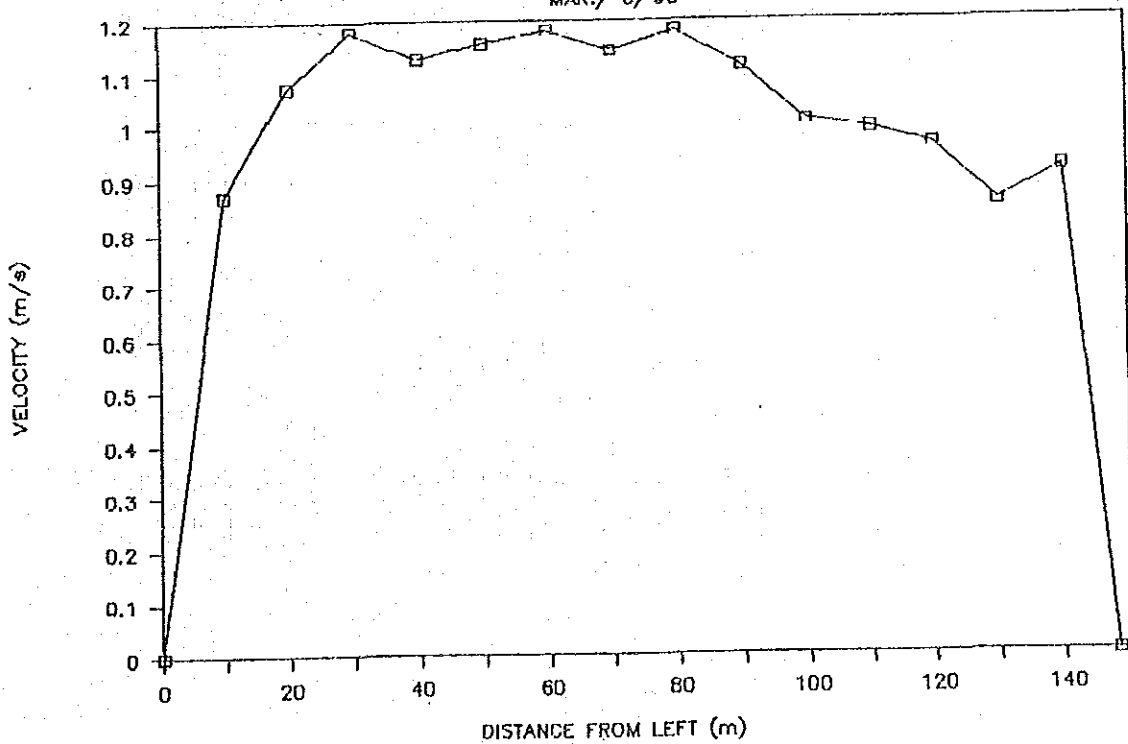
# WATER DEPTH (1-650)

MAR./ 6/'90



# VELOCITY (1-650)

MAR./ 6/'90



FLOW MEASUREMENT ST. : 1-650 KABOMPO BOMA JUN/28/90

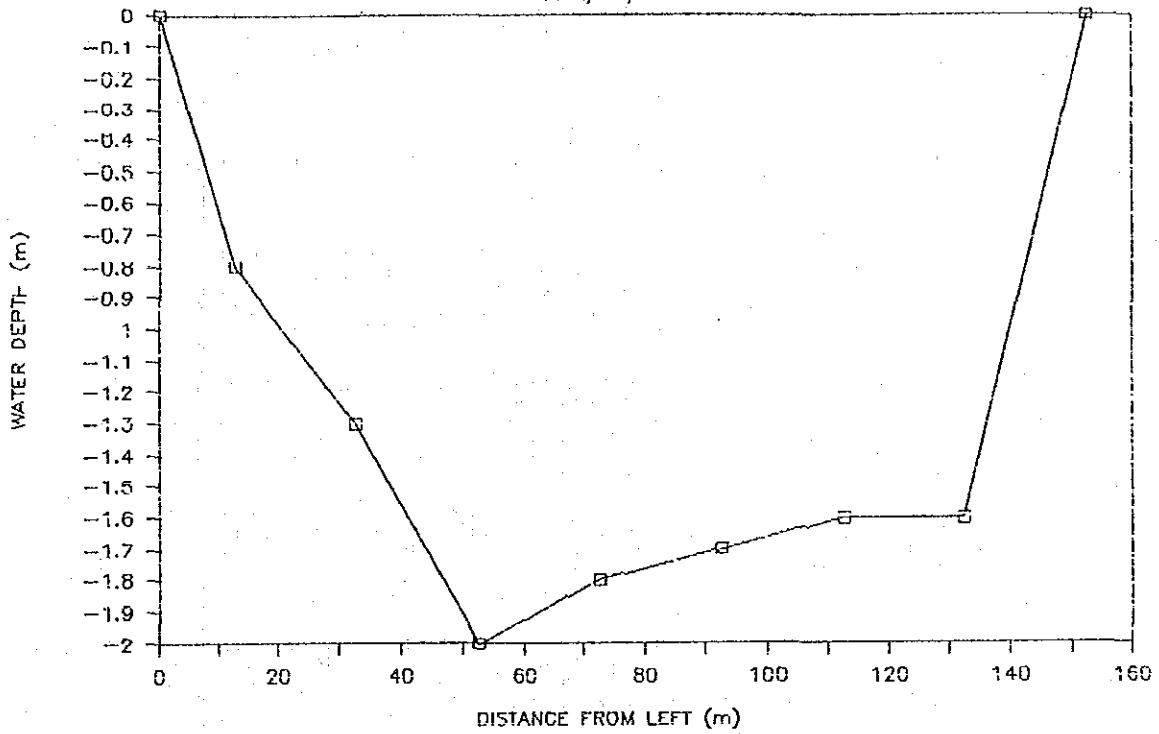
ITEMS	NO-1	NO-2	NO-3	NO-4	NO-5	NO-6	NO-7	NO-R
WATER DEPTH (m)	0.80	1.30	2.00	1.80	1.70	1.50	1.60	0.00
SE/WIDTH (m)	12.50	20.00	20.00	20.00	20.00	20.00	20.00	20.00
TOTAL SE/WIDTH(m)	12.50	32.50	52.50	72.50	92.50	112.50	132.50	152.50
VELOCITY.2-1(f/s)	2.50	1.40	1.80	1.80	1.60	1.50	1.50	-
VELOCITY.2-2(f/s)	2.50	1.40	1.80	1.80	1.65	1.51	1.51	-
MEAN VEL.2 (f/s)	2.50	1.40	1.80	1.80	1.63	1.51	1.51	-
VELOCITY.8-1(f/s)	2.10	1.10	1.20	1.30	1.20	1.10	1.35	-
VELOCITY.8-2(f/s)	2.10	1.10	1.20	1.30	1.20	1.00	1.30	-
MEAN VEL.8 (f/s)	2.10	1.10	1.20	1.30	1.20	1.05	1.33	-
MEAN VEL (f/s)	2.300	1.250	1.500	1.550	1.413	1.279	1.415	-
MEAN VEL (m/s)	0.701	0.381	0.457	0.472	0.431	0.399	0.431	-
L/MEAN DEPTH (m)	0.400	1.175	1.825	1.850	1.725	1.625	1.600	-
L/MEAN WIDTH (m)	12.50	10.00	10.00	10.00	10.00	10.00	10.00	-
L/SEC. AREA (m2)	5.00	11.75	18.25	18.50	17.25	16.25	16.00	-
R/MEAN DEPTH (m)	0.925	1.475	1.950	1.775	1.675	1.600	0.800	-
R/MEAN WIDTH (m)	10.00	10.00	10.00	10.00	10.00	10.00	20.00	-
R/SEC. AREA (m2)	9.25	14.75	19.50	17.75	16.75	16.00	16.00	-
S/AREA (m2)	14.25	26.50	37.75	36.25	34.00	32.25	32.00	-
TOTAL AREA (m2)	0.0	40.8	78.5	114.8	148.8	181.0	213.0	-
S/DISCHARGE(m3/s)	0.00	9.99	10.10	17.26	14.64	12.56	13.80	-
TOTAL DIS. (m3/s)	0.00	9.99	20.09	54.47	69.11	81.67	95.47	-

WATER LEVEL (f) : 6.31 WATER LEVEL (m) : 1.92  
 TOTAL DISCHARGE : 95.47 MEAN VELOCITY(m/s) : 0.45  
 \*MEASUREMENT DONE AT 500m UPSTREAM



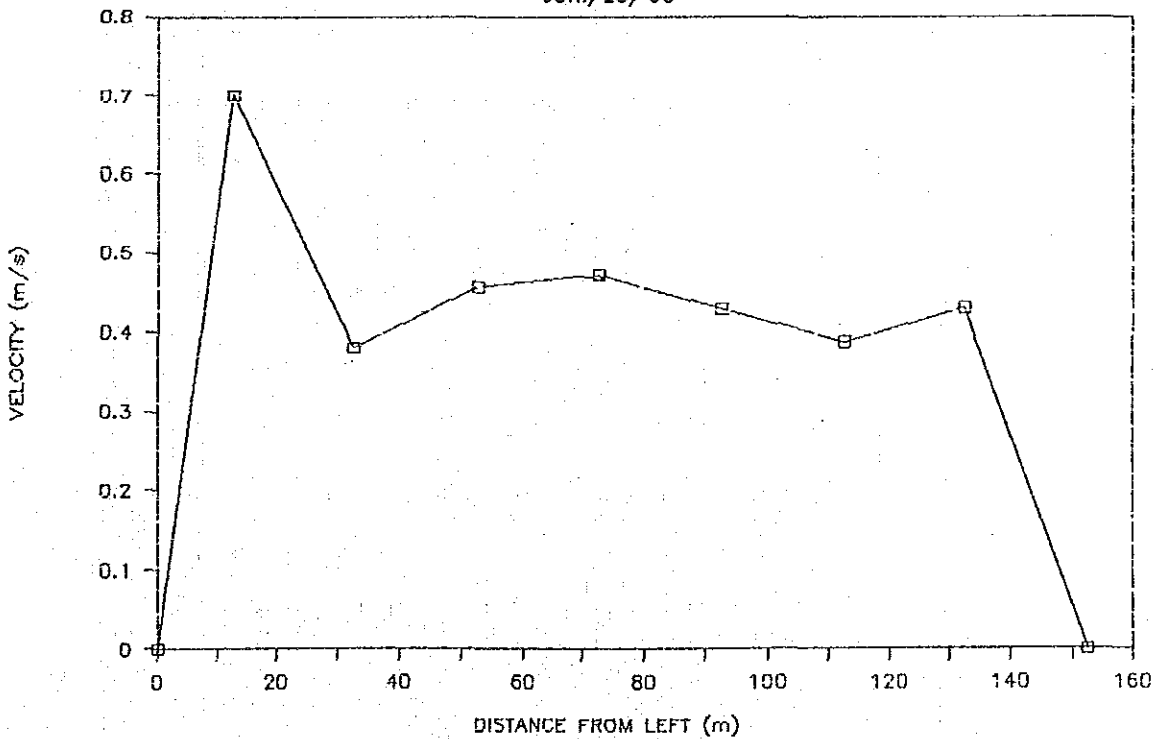
# WATER DEPTH (1-650)

JUN./28/'90



# VELOCITY (1-650)

JUN./28/'90



FLOW MEASUREMENT ST. : 1-650 KABOMPO BOMA JUL./31/'90

ITEMS	NO-L	NO-1	NO-2	NO-3	NO-4	NO-5	NO-6	NO-7	NO-8	NO-9	NO-10	NO-11
WATER DEPTH (m)	0.00	0.75	1.32	1.50	1.67	2.00	1.84	1.70	1.70	1.57	1.50	1.63
SE/WIDTH (m)	0.00	9.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
TOTAL SE/WIDTH(m)	0.00	9.00	19.00	29.00	39.00	49.00	59.00	69.00	79.00	89.00	99.00	109.00
VELOCITY.2-1(f/s)	0.00	-	2.10	1.60	1.70	1.50	1.60	1.55	1.10	1.35	1.25	1.30
VELOCITY.2-2(f/s)	0.00	-	2.00	1.60	1.75	1.50	1.60	1.50	1.12	1.40	1.20	1.35
MEAN VEL.2 (f/s)	0.00	-	2.05	1.60	1.73	1.50	1.60	1.53	1.11	1.38	1.23	1.33
VELOCITY.8-1(f/s)	0.00	2.00	1.20	0.50	0.60	0.45	0.80	0.50	0.45	0.55	0.60	0.65
VELOCITY.8-2(f/s)	0.00	2.00	1.20	0.55	0.60	0.40	0.80	0.55	0.40	0.50	0.60	0.65
MEAN VEL.8 (f/s)	0.00	2.00	1.20	0.53	0.60	0.43	0.80	0.53	0.43	0.53	0.60	0.65
MEAN VEL (f/s)	0.000	2.000	1.625	1.063	1.163	0.963	1.200	1.025	0.768	0.950	0.913	0.988
MEAN VEL (m/s)	0.000	0.610	0.495	0.324	0.354	0.293	0.366	0.312	0.234	0.290	0.278	0.301
L/MEAN DEPTH (m)	0.000	0.375	1.178	1.455	1.628	1.918	1.880	1.735	1.700	1.603	1.518	1.598
L/MEAN WIDTH (m)	0.00	9.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
L/SEC. AREA (m2)	0.00	3.38	5.89	7.28	8.14	9.59	9.40	8.68	8.50	8.01	7.59	7.99
R/MEAN DEPTH (m)	0.000	0.893	1.365	1.543	1.753	1.960	1.805	1.700	1.668	1.553	1.533	1.623
R/MEAN WIDTH (m)	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
R/SEC. AREA (m2)	0.00	4.46	6.83	7.71	8.76	9.80	9.03	8.50	8.34	7.76	7.66	8.11
S/AREA (m2)	0.00	7.84	12.71	14.99	16.90	19.39	18.43	17.18	16.84	15.78	15.25	16.10
TOTAL AREA (m2)	0.0	7.8	20.6	35.5	52.4	71.8	90.3	107.4	124.3	140.0	155.3	171.4
S/DISCHARGE(m3/s)	0.00	4.78	6.30	4.85	5.99	5.69	6.74	5.37	3.94	4.57	4.24	4.85
TOTAL DIS. (m3/s)	0.00	4.78	11.07	15.93	21.92	27.60	34.34	39.71	43.65	48.22	52.46	57.30

WATER LEVEL (f) : - WATER LEVEL (m) : -  
 TOTAL DISCHARGE : - MEAN VELOCITY(m/s) : -  
 \*MEASUREMENT DONE AT 500m UPSTREAM

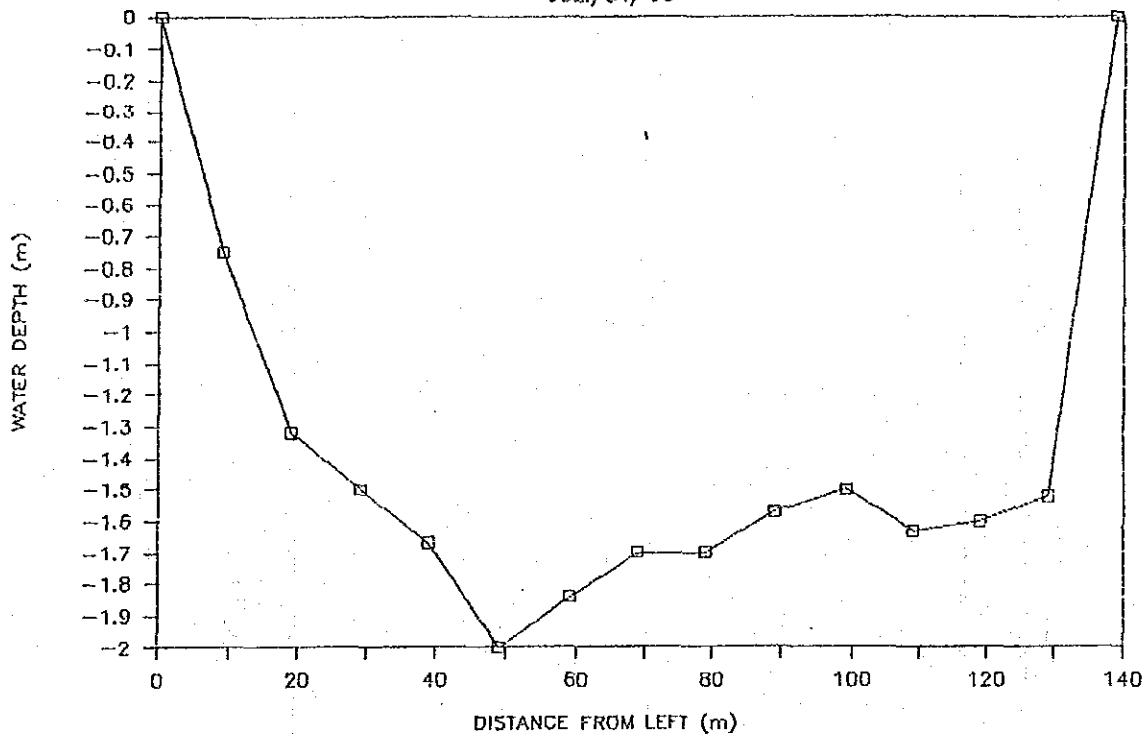
FLOW MEASUREMENT ST. : 1-650 KABOMPO BOMA JUL./31/'90

ITEMS	NO-12	NO-13	NO-R
WATER DEPTH (m)	1.60	1.52	0.00
SE/WIDTH (m)	10.00	10.00	10.00
TOTAL SE/WIDTH(m)	119.00	129.00	139.00
VELOCITY.2-1(f/s)	1.40	1.50	-
VELOCITY.2-2(f/s)	1.45	1.60	-
MEAN VEL.2 (f/s)	1.43	1.55	-
VELOCITY.8-1(f/s)	1.10	0.90	-
VELOCITY.8-2(f/s)	1.10	0.95	-
MEAN VEL.8 (f/s)	1.10	0.93	-
MEAN VEL (f/s)	1.263	1.238	-
MEAN VEL (m/s)	0.385	0.377	-
L/MEAN DEPTH (m)	1.608	1.540	-
L/MEAN WIDTH (m)	5.00	5.00	-
L/SEC. AREA (m2)	8.04	7.70	-
R/MEAN DEPTH (m)	1.580	0.760	-
R/MEAN WIDTH (m)	5.00	10.00	-
R/SEC. AREA (m2)	7.90	7.60	-
S/AREA (m2)	15.94	15.30	-
TOTAL AREA (m2)	187.3	202.6	-
S/DISCHARGE(m3/s)	6.13	5.77	-
TOTAL DIS. (m3/s)	63.44	69.21	-

WATER LEVEL (f) : 5.87 WATER LEVEL (m) : 1.79  
 TOTAL DISCHARGE : 69.21 MEAN VELOCITY(m/s) : 0.34  
 \*MEASUREMENT DONE AT 500m UPSTREAM

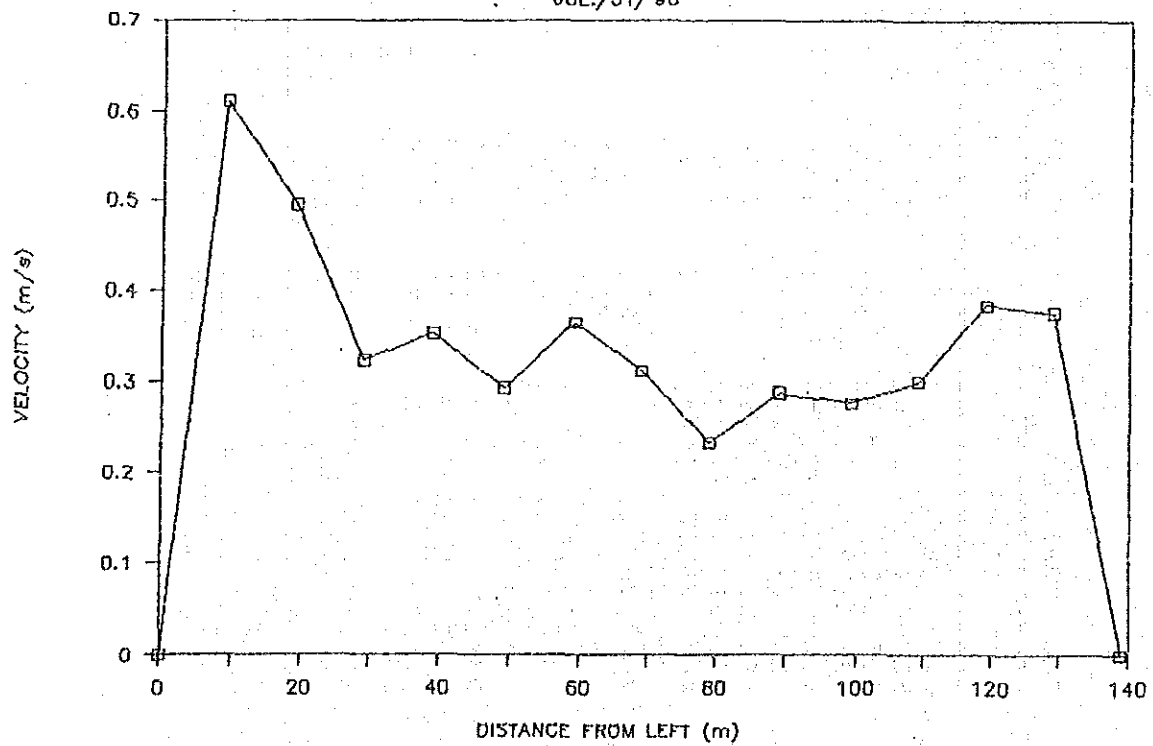
# WATER DEPTH (1-650)

JUL./31/'90



# VELOCITY (1-650)

JUL./31/'90



FLOW MEASUREMENT ST. 1-650 KABOMPO BOMA		AUG./24/'90										
ITEMS	NO-1	NO-2	NO-3	NO-4	NO-5	NO-6	NO-7	NO-8	NO-9	NO-10	NO-11	
WATER DEPTH (m)	1.42	1.48	1.38	1.42	1.50	1.58	1.58	1.63	1.88	1.60	1.08	
SE/WIDTH (m)	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	
TOTAL SE/WIDTH(m)	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	
VELOCITY.2-1(f/s)	1.65	1.40	1.35	1.30	1.20	1.40	1.50	1.55	1.45	1.43	1.55	
VELOCITY.2-2(f/s)	1.60	1.40	1.35	1.30	1.20	1.40	1.50	1.55	1.45	1.43	1.55	
MEAN VEL.2 (f/s)	1.63	1.40	1.35	1.30	1.20	1.40	1.50	1.55	1.45	1.43	1.55	
VELOCITY.8-1(f/s)	1.20	1.05	0.95	0.85	0.60	0.90	1.00	1.10	0.80	1.00	1.20	
VELOCITY.8-2(f/s)	1.20	1.05	0.90	0.85	0.60	0.90	1.00	1.10	0.80	1.00	1.20	
MEAN VEL.8 (f/s)	1.20	1.05	0.93	0.85	0.60	0.90	1.00	1.10	0.80	1.00	1.20	
MEAN VEL (f/s)	1.200	1.225	1.138	1.075	0.900	1.150	1.250	1.325	1.125	1.215	1.375	
MEAN VEL (m/s)	0.366	0.373	0.347	0.328	0.274	0.351	0.381	0.404	0.343	0.370	0.419	
L/MEAN DEPTH (m)	0.710	1.465	1.405	1.410	1.480	1.560	1.588	1.620	1.818	1.670	1.210	
L/MEAN WIDTH (m)	10.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	
L/SEC. AREA (m2)	7.10	7.33	7.03	7.05	7.40	7.80	7.94	8.10	9.09	8.35	6.05	
R/MEAN DEPTH (m)	1.435	1.455	1.390	1.440	1.520	1.583	1.600	1.693	1.810	1.470	1.143	
R/MEAN WIDTH (m)	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	
R/SEC. AREA (m2)	7.18	7.28	6.95	7.20	7.60	7.91	8.00	8.46	9.05	7.35	5.71	
S/AREA (m2)	14.28	14.60	13.98	14.25	15.00	15.71	15.94	16.56	18.14	15.70	11.76	
TOTAL AREA (m2)	14.3	28.9	42.9	57.1	72.1	87.8	103.8	120.3	138.5	154.2	165.3	
S/DISCHARGE(m3/s)	5.22	5.45	4.85	4.67	4.11	5.51	6.07	6.69	6.22	5.81	4.93	
TOTAL DIS. (m3/s)	5.22	10.67	15.52	20.19	24.30	29.81	35.88	42.57	48.79	54.60	59.53	
WATER LEVEL (f) :	-	-	-	-	-	-	-	-	-	-	-	
TOTAL DISCHARGE :	-	-	-	-	-	-	-	-	-	-	-	
*MEASUREMENT DONE AT 500m UPSTREAM												

FLOW MEASUREMENT ST. : 1-650 KABOMPO BOMA AUG./24/'90

ITEMS NO-12 NO-13 NO-14 NO-R

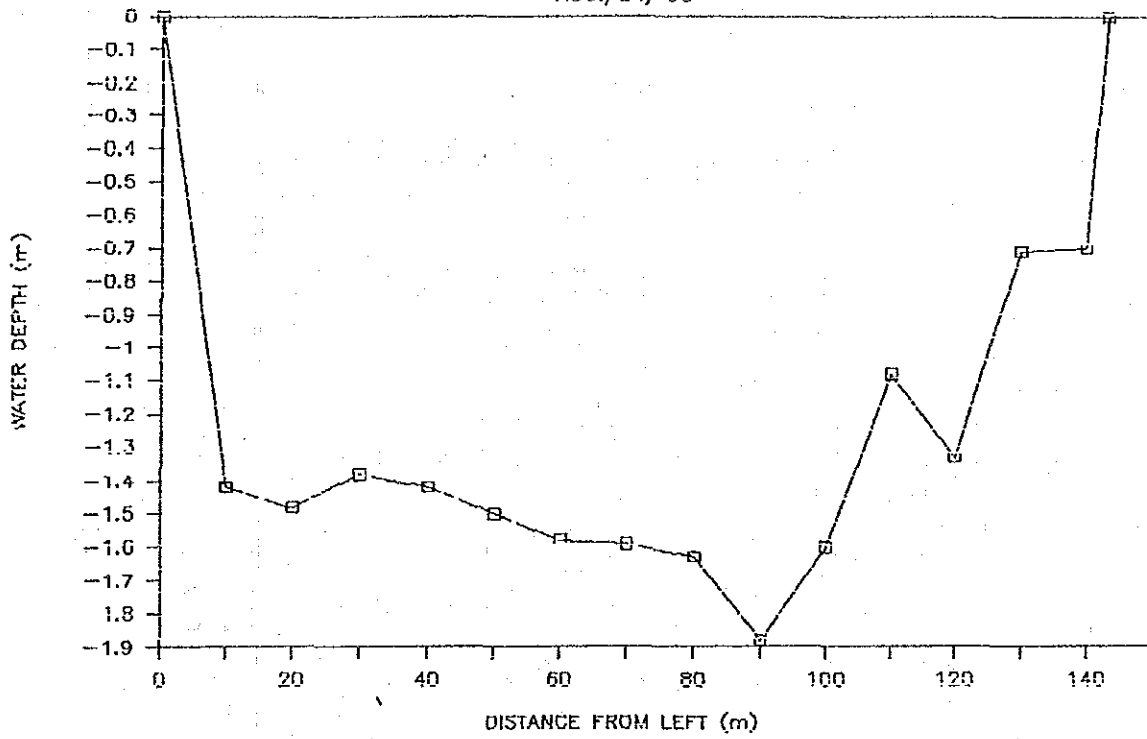
WATER DEPTH (m)	1.33	0.71	0.70	0.00
SE/WIDTH (m)	10.00	10.00	10.00	3.50
TOTAL SE/WIDTH(m)	120.00	130.00	140.00	143.50
VELOCITY.2-1(f/s)	1.50	-	0.00	-
VELOCITY.2-2(f/s)	1.50	-	0.00	-
MEAN VEL.2 (f/s)	1.50	-	0.00	-
VELOCITY.8-1(f/s)	1.10	1.33	0.00	-
VELOCITY.8-2(f/s)	1.10	1.33	0.00	-
MEAN VEL.8 (f/s)	1.10	1.33	0.00	-
MEAN VEL (f/s)	1.300	1.330	0.000	-
MEAN VEL (m/s)	0.396	0.405	0.000	-
L/MEAN DEPTH (m)	1.268	0.865	0.703	-
L/MEAN WIDTH (m)	5.00	5.00	5.00	-
L/SEC. AREA (m2)	6.34	4.33	3.51	-
R/MEAN DEPTH (m)	1.175	0.708	0.350	-
R/MEAN WIDTH (m)	5.00	5.00	3.50	-
R/SEC. AREA (m2)	5.88	3.54	1.23	-
S/AREA (m2)	12.21	7.86	4.74	-
TOTAL AREA (m2)	178.1	186.0	190.7	-
S/DISCHARGE(m3/s)	4.84	3.19	0.00	-
TOTAL DIS. (m3/s)	64.37	67.56	67.56	-

WATER LEVEL (f) : 5.68 WATER LEVEL (m) : 1.73  
 TOTAL DISCHARGE : 67.56 MEAN VELOCITY(m/s) : 0.35

\*MEASUREMENT DONE AT 500m UPSTREAM

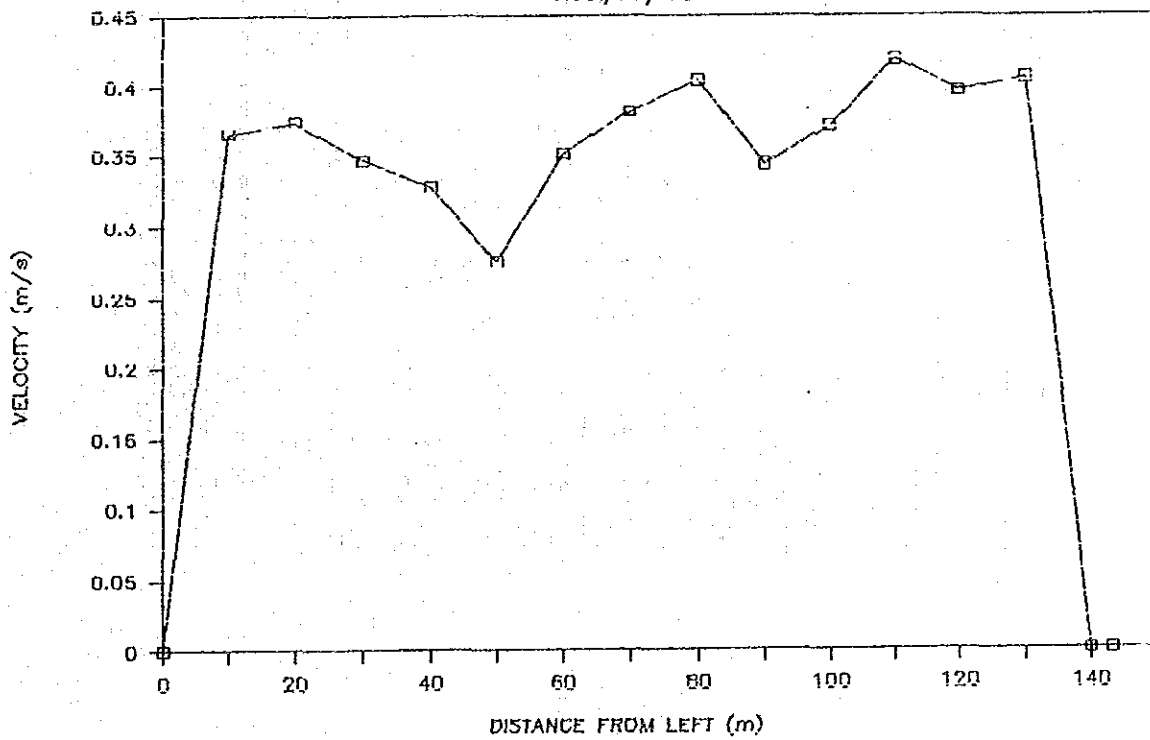
# WATER DEPTH (1-650)

AUG./24/'90



# VELOCITY (1-650)

AUG./24/'90



FLOW MEASUREMENT ST. : 1-650 KABOMPO BOMA SEP./28/'90

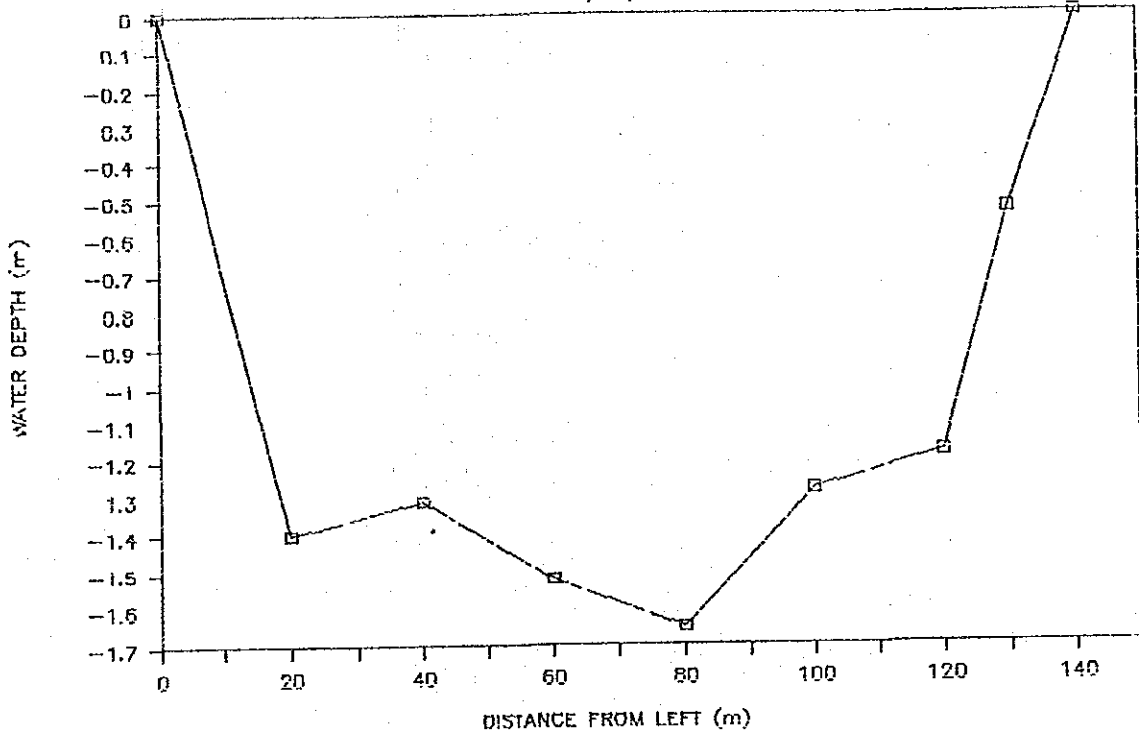
ITEMS	NO-L	NO-1	NO-2	NO-3	NO-4	NO-5	NO-6	NO-7	NO-R
WATER DEPTH (m)	0.00	1.40	1.31	1.52	1.55	1.28	1.18	0.53	0.00
SE/WIDTH (m)	0.00	20.00	20.00	20.00	20.00	20.00	20.00	10.00	10.60
TOTAL SE/WIDTH(m)	0.00	20.00	40.00	60.00	80.00	100.00	120.00	130.00	140.60
VELOCITY.2-1(f/s)	0.00	1.40	1.10	1.20	1.10	0.80	1.50	1.70	0.00
VELOCITY.2-2(f/s)	0.00	1.40	1.10	1.25	1.10	0.80	1.50	1.70	0.00
MEAN VEL.2 (f/s)	0.00	1.40	1.10	1.23	1.10	0.80	1.50	1.70	0.00
VELOCITY.8-1(f/s)	0.00	0.80	0.70	0.80	0.90	0.70	1.10	1.20	0.00
VELOCITY.8-2(f/s)	0.00	0.80	0.70	0.75	0.90	0.70	1.10	1.20	0.00
MEAN VEL.8 (f/s)	0.00	0.80	0.70	0.78	0.90	0.70	1.10	1.20	0.00
MEAN VEL (f/s)	0.000	1.100	0.900	1.000	1.000	0.750	1.300	1.450	0.000
MEAN VEL (m/s)	0.000	0.335	0.274	0.305	0.305	0.229	0.396	0.442	0.000
L/MEAN DEPTH (m)	0.000	0.700	1.333	1.458	1.618	1.373	1.205	0.693	-
L/MEAN WIDTH (m)	0.00	20.00	10.00	10.00	10.00	10.00	10.00	5.00	-
L/SEC. AREA (m2)	0.00	14.00	13.33	14.68	16.18	13.73	12.05	3.46	-
R/MEAN DEPTH (m)	0.000	1.378	1.363	1.553	1.558	1.255	1.018	0.265	-
R/MEAN WIDTH (m)	0.00	10.00	10.00	10.00	10.00	10.00	5.00	10.60	-
R/SEC. AREA (m2)	0.00	13.78	13.63	15.53	15.58	12.55	5.09	2.81	-
S/AREA (m2)	0.00	27.78	26.95	30.20	31.75	26.28	17.14	6.27	-
TOTAL AREA (m2)	0.0	27.8	54.7	84.9	116.7	143.0	180.1	186.4	-
S/DISCHARGE(m3/s)	0.00	9.31	7.39	9.20	9.68	6.01	5.79	2.77	-
TOTAL DIS. (m3/s)	0.00	9.31	18.71	25.91	35.59	41.59	48.38	51.16	-

WATER LEVEL (f) : 5.28 WATER LEVEL (m) : 1.60  
 TOTAL DISCHARGE : 51.16 MEAN VELOCITY(m/s) : 0.31  
 \*MEASUREMENT DONE AT 500m UPSTREAM



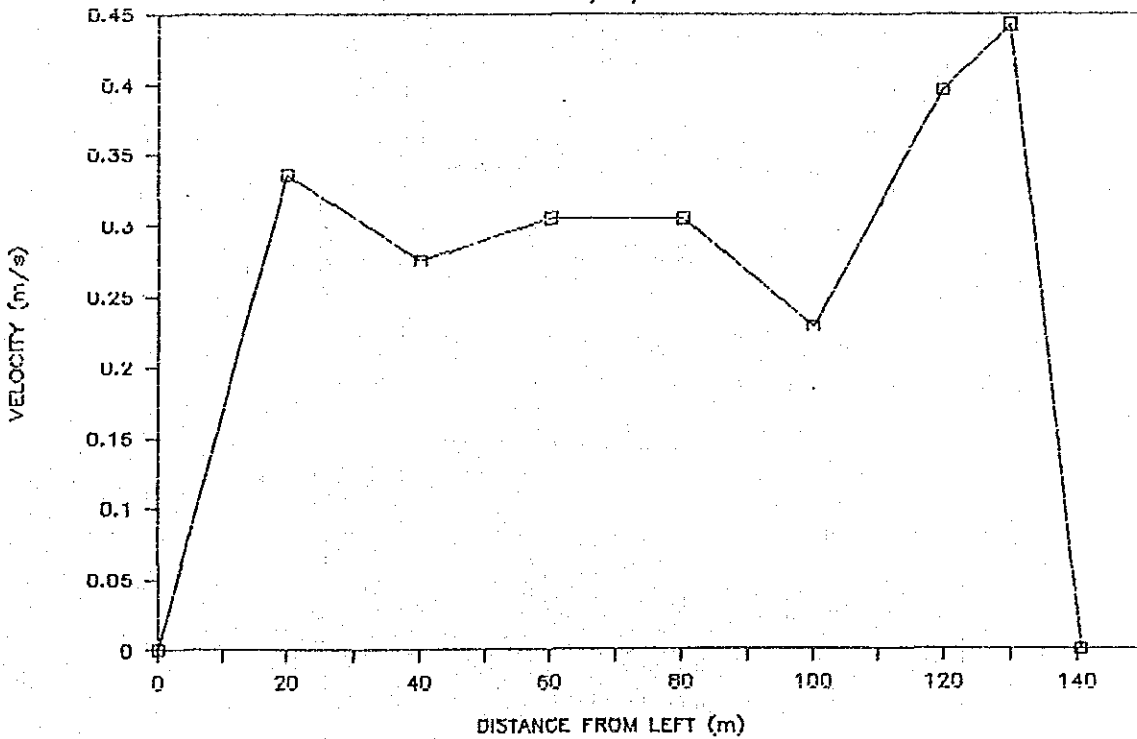
# WATER DEPTH (1-650)

SEP./28/90



# VELOCITY (1-650)

SEP./28/90



ST. : 1-650 KAROMPO BOMA

OCT./26/90

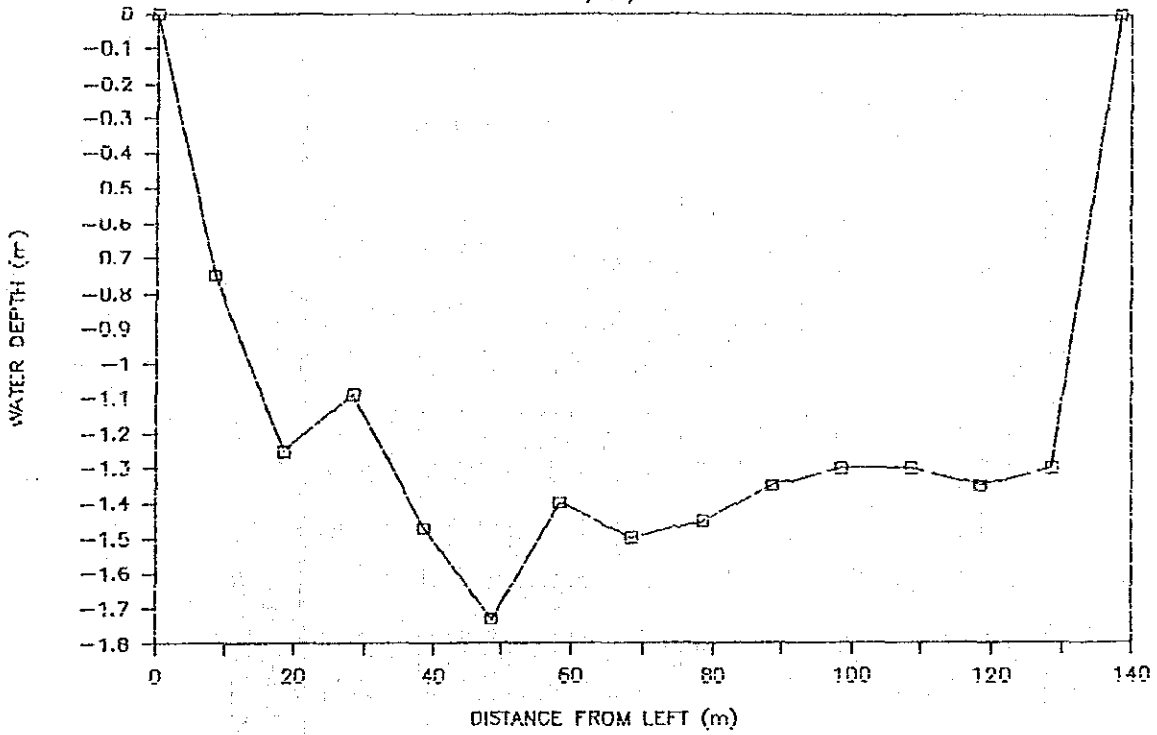
FLOW MEASUREMENT

ITEMS\POINT	NO-L	NO-1	NO-2	NO-3	NO-4	NO-5	NO-6	NO-7	NO-8	NO-9	NO-10	NO-11	NO-12	NO-13	NO-R
WATER DEPTH (m)	0.00	0.75	1.25	1.09	1.47	1.73	1.40	1.50	1.45	1.35	1.30	1.30	1.35	1.30	0.00
SECTIONAL WIDTH (m)	0.00	8.50	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
TOTAL SE/WIDTH (m)	0.00	8.50	18.50	28.50	38.50	48.50	58.50	68.50	78.50	88.50	98.50	108.50	118.50	128.50	138.50
VELOCITY.2-1st(f/s)	0.00	1.80	1.20	0.80	0.95	1.00	1.10	1.35	1.50	1.25	1.30	1.15	1.25	1.20	0.00
VELOCITY.2-2nd(f/s)	0.00	1.80	1.20	0.80	0.95	1.00	1.10	1.35	1.50	1.25	1.30	1.18	1.23	1.20	0.00
Mean VEL.2 (f/s)	0.00	1.80	1.20	0.80	0.95	1.00	1.10	1.35	1.50	1.25	1.30	1.18	1.23	1.20	0.00
VELOCITY.8-1st(f/s)	0.00	0.60	0.75	0.40	0.45	0.55	0.55	0.65	0.95	0.75	0.85	0.80	0.80	0.85	0.00
VELOCITY.8-2nd(f/s)	0.00	0.60	0.75	0.40	0.45	0.50	0.55	0.65	0.95	0.75	0.85	0.80	0.80	0.85	0.00
Mean VEL.8 (f/s)	0.00	0.60	0.75	0.40	0.45	0.53	0.55	0.65	0.95	0.75	0.85	0.80	0.80	0.85	0.00
Mean VEL (f/s)	0.000	1.200	0.975	0.600	0.700	0.763	0.825	1.000	1.225	1.000	1.075	0.988	1.013	1.025	0.000
Mean VEL (m/s)	0.000	0.366	0.297	0.183	0.213	0.232	0.251	0.305	0.373	0.305	0.328	0.301	0.309	0.312	0.000
L/MEAN DEPTH (m)	0.000	0.375	1.125	1.130	1.375	1.665	1.483	1.475	1.463	1.375	1.313	1.300	1.338	1.313	-
L/MEAN WIDTH (m)	0.00	8.50	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	-
L/SEC. AREA (m2)	0.00	3.19	5.63	5.65	6.88	8.33	7.41	7.38	7.31	6.88	6.56	6.50	6.69	6.56	-
R/MEAN DEPTH (m)	0.000	0.875	1.210	1.185	1.535	1.648	1.425	1.488	1.425	1.398	1.300	1.313	1.338	1.338	-
R/MEAN WIDTH (m)	0.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	-
R/SEC. AREA (m2)	0.00	4.38	6.05	5.93	7.68	8.24	7.13	7.44	7.13	6.69	6.50	6.55	6.69	6.50	-
SECTIONAL AREA (m2)	0.00	7.56	11.68	11.58	14.55	16.56	14.54	14.81	14.44	13.56	13.06	13.06	13.38	13.06	-
TOTAL AREA (m2)	0.0	7.6	19.2	30.8	45.4	61.9	76.5	91.3	105.7	119.3	132.3	145.4	158.8	171.8	-
S/DISCHARGE (m3/s)	0.00	2.77	3.47	2.12	3.10	3.85	3.66	4.51	5.39	4.13	4.28	3.93	4.13	4.08	-
TOTAL DIS. (m3/s)	0.00	2.77	6.24	8.35	11.46	15.31	18.96	23.48	28.87	33.00	37.28	41.21	45.34	49.42	-

WATER LEVEL (f) : 5.15 WATER LEVEL (m) : 1.57  
 TOTAL DISCHARGE : 49.42 MEAN VELOCITY(m/s) : 0.29  
 \*MEASUREMENT DONE AT 500M UPSTREAM

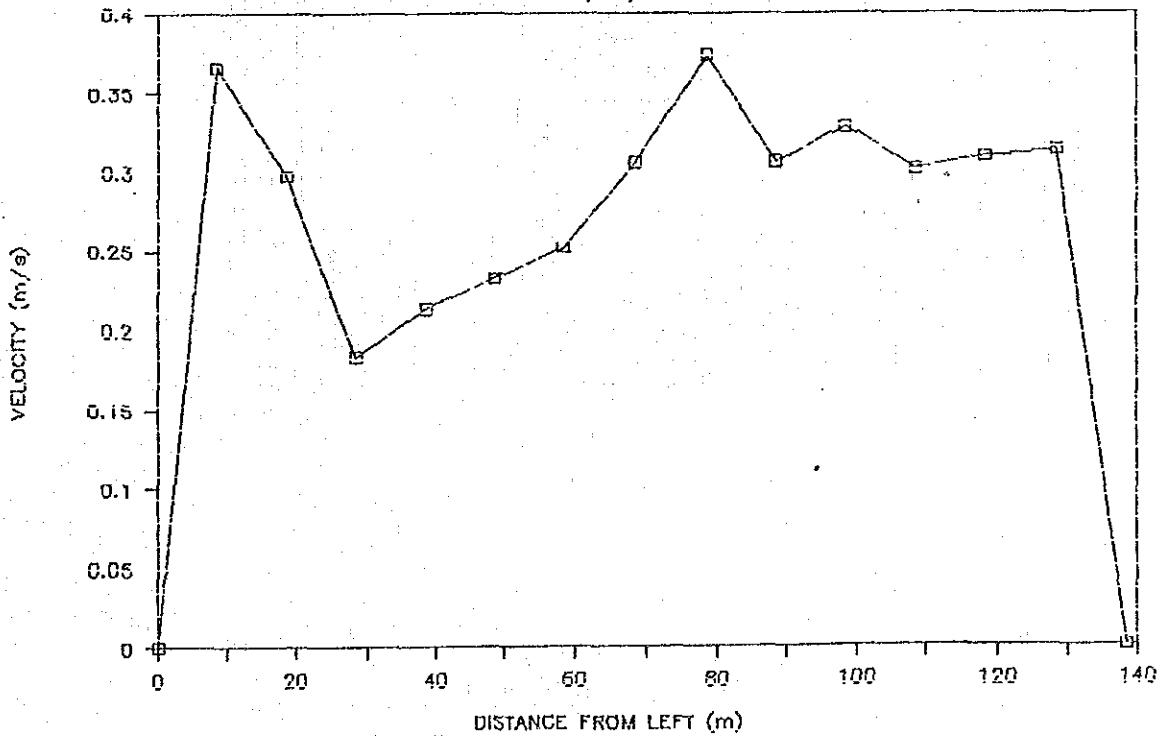
### WATER DEPTH (1-650)

001./26/90



### VELOCITY (1-650)

001./26/90

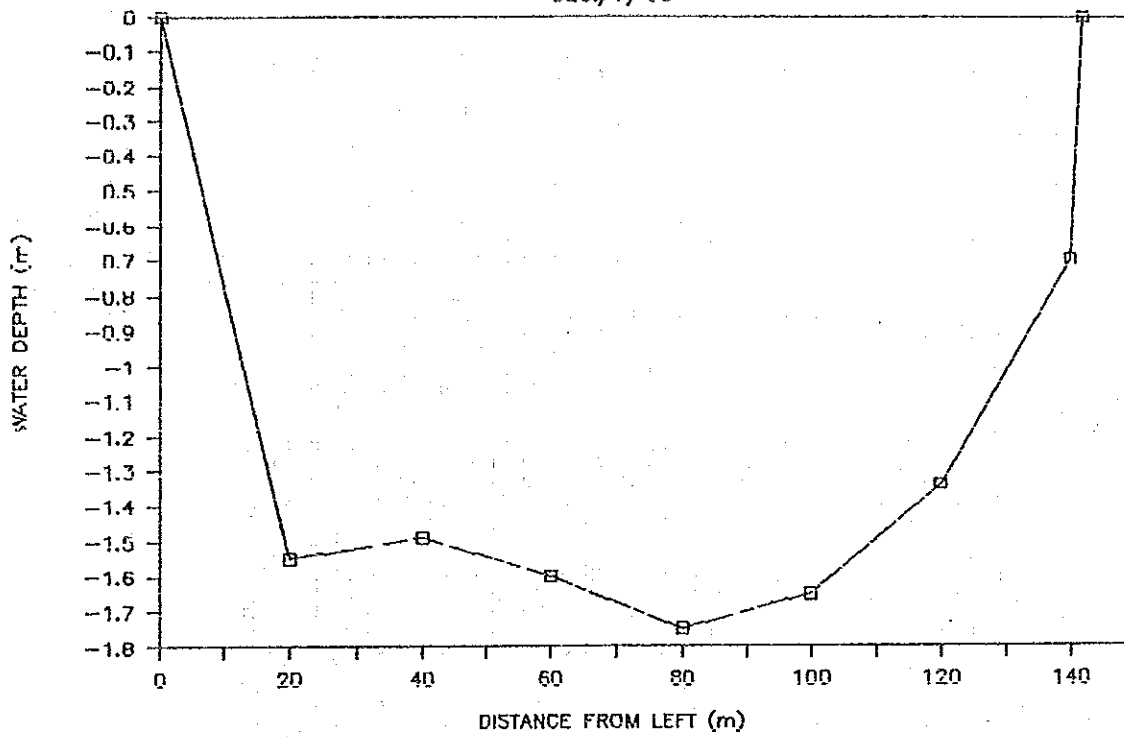


ITEMS\POINT	NO-1	NO-2	NO-3	NO-4	NO-5	NO-6	NO-7	NO-R
WATER DEPTH (m)	1.55	1.49	1.60	1.75	1.65	1.34	0.70	0.00
SECTIONAL WIDTH (m)	20.00	20.00	20.00	20.00	20.00	20.00	20.00	2.00
TOTAL SE/WIDTH (m)	20.00	40.00	60.00	80.00	100.00	120.00	140.00	142.00
VELOCITY.2-1st(f/s)	1.40	1.55	1.50	1.80	1.95	1.50	0.80	0.00
VELOCITY.2-2nd(f/s)	1.40	1.55	1.50	1.80	1.95	1.50	0.80	0.00
Mean VEL.2 (f/s)	1.40	1.55	1.50	1.80	1.95	1.50	0.80	0.00
VELOCITY.8-1st(f/s)	1.00	1.15	1.10	1.30	1.20	0.90	0.60	0.00
VELOCITY.8-2nd(f/s)	1.00	1.15	1.10	1.30	1.20	0.90	0.60	0.00
Mean VEL.8 (f/s)	1.00	1.15	1.10	1.30	1.20	0.90	0.60	0.00
Mean VEL (f/s)	1.200	1.350	1.300	1.550	1.575	1.200	0.700	0.000
Mean VEL (m/s)	0.366	0.411	0.396	0.472	0.480	0.366	0.213	0.000
L/MEAN DEPTH (m)	0.775	1.505	1.573	1.713	1.675	1.418	0.860	-
L/MEAN WIDTH (m)	0.00	10.00	10.00	10.00	10.00	10.00	10.00	-
L/SEC. AREA (m2)	15.50	15.05	15.73	17.13	16.75	14.18	8.60	-
R/MEAN DEPTH (m)	1.535	1.518	1.638	1.725	1.573	1.180	0.350	-
R/MEAN WIDTH (m)	10.00	10.00	10.00	10.00	10.00	10.00	2.00	-
R/SEC. AREA (m2)	15.35	15.18	16.38	17.25	15.73	11.80	0.70	-
SECTIONAL AREA (m2)	30.85	30.23	32.10	34.38	32.48	25.98	9.30	-
TOTAL AREA (m2)	30.9	61.1	93.2	127.6	160.0	186.0	195.3	-
S/DISCHARGE (m3/s)	11.28	12.44	12.72	16.24	15.59	9.50	1.98	-
TOTAL DIS. (m3/s)	11.28	23.72	36.44	52.68	68.27	77.77	79.75	-

WATER LEVEL (f) : 5.78 WATER LEVEL (m) : 1.76  
 TOTAL DISCHARGE : 79.75 MEAN VELOCITY(m/s) : 0.41

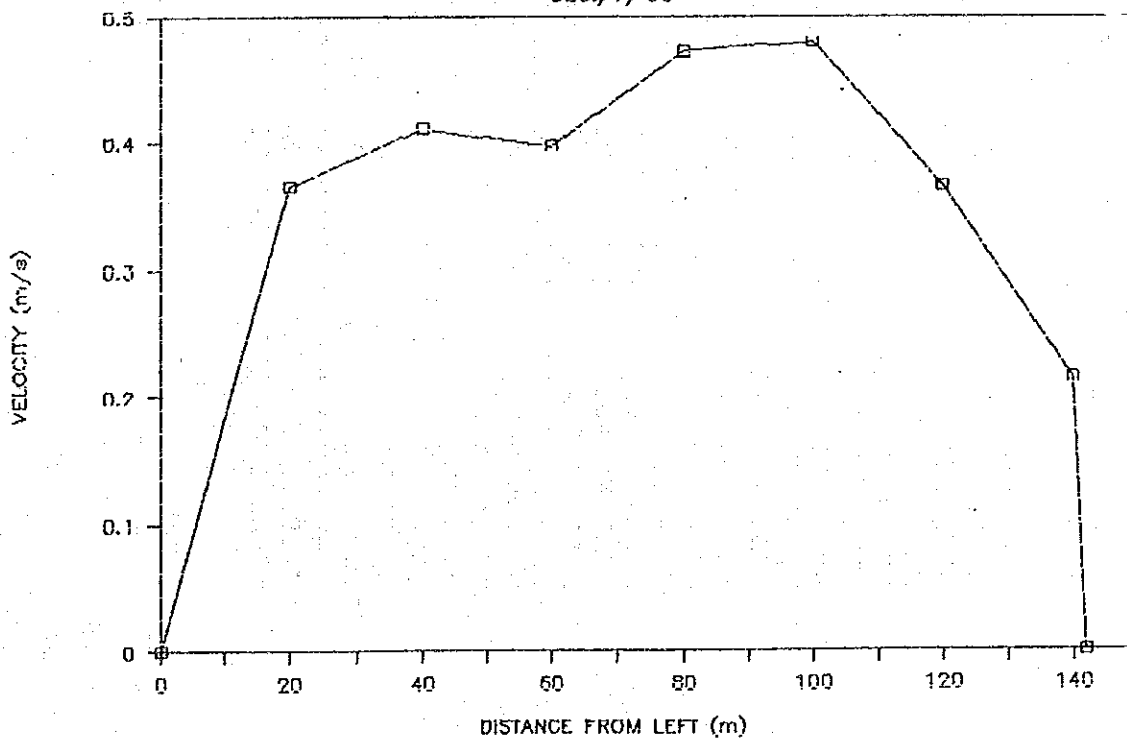
### WATER DEPTH (1-650)

DEC./1/90



### VELOCITY (1-650)

DEC./1/90



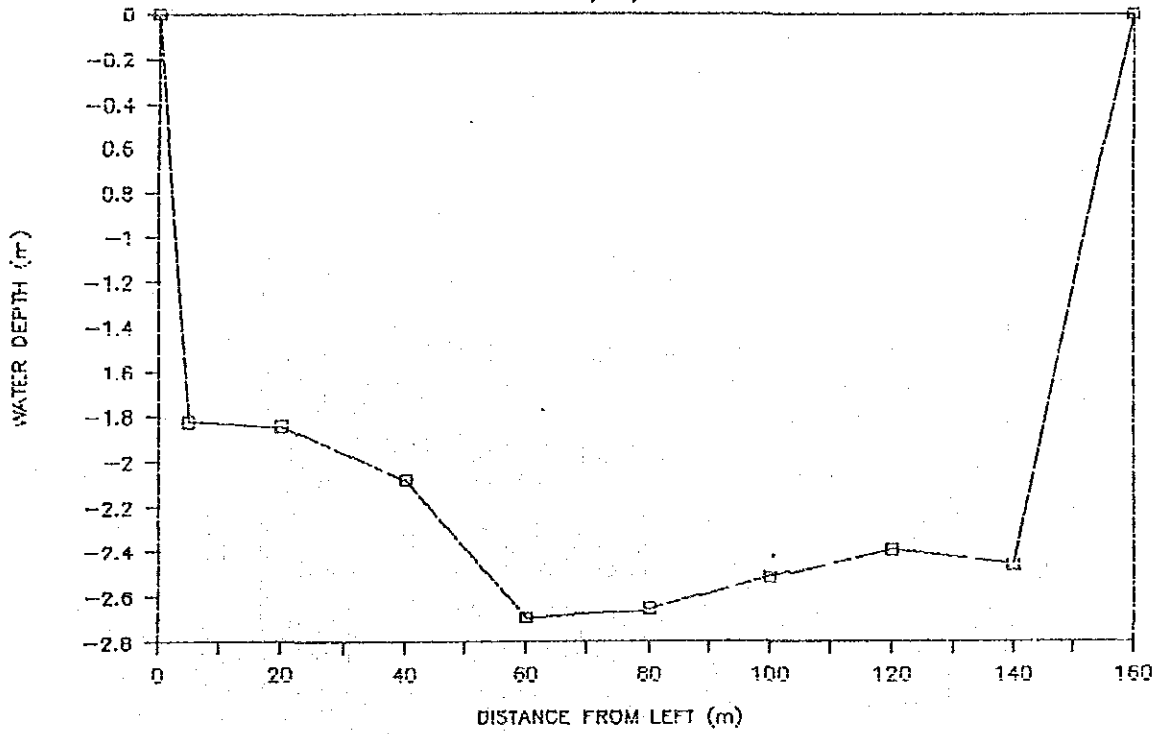
FLOW MEASUREMENT ST. : 1-650 KABOMPO BOMA JAN. /12/91'

ITEMS\POINT	NO-1	NO-2	NO-3	NO-4	NO-5	NO-6	NO-7	NO-8	NO-R
WATER DEPTH (m)	1.82	1.84	2.08	2.69	2.65	2.51	2.39	2.45	0.00
SECTIONAL WIDTH (m)	5.00	15.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
TOTAL SE/WIDTH (m)	5.00	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00
VELOCITY.2-1st(f/s)	2.50	4.00	3.50	2.40	2.90	2.80	2.40	2.60	0.00
VELOCITY.2-2nd(f/s)	2.50	4.00	3.50	2.40	2.90	2.80	2.40	2.80	0.00
Mean VEL.2 (f/s)	2.50	4.00	3.50	2.40	2.90	2.80	2.40	2.70	0.00
VELOCITY.8-1st(f/s)	2.00	1.50	1.50	1.60	1.40	2.40	1.50	1.90	0.00
VELOCITY.8-2nd(f/s)	2.00	1.50	2.00	1.60	1.40	1.80	1.80	1.90	0.00
Mean VEL.8 (f/s)	2.00	1.50	1.75	1.60	1.40	2.10	1.65	1.90	0.00
Mean VEL (f/s)	2.250	2.750	2.625	2.000	2.150	2.450	2.025	2.300	0.000
Mean VEL (m/s)	0.686	0.838	0.800	0.610	0.655	0.747	0.617	0.701	0.000
L/MEAN DEPTH (m)	0.910	1.835	2.020	2.538	2.660	2.545	2.420	2.435	-
L/MEAN WIDTH (m)	5.00	7.50	10.00	10.00	10.00	10.00	10.00	10.00	-
L/SEC. AREA (m2)	4.55	13.76	20.20	25.38	26.60	25.45	24.20	24.35	-
R/MEAN DEPTH (m)	1.825	1.900	2.233	2.680	2.615	2.480	2.405	1.225	-
R/MEAN WIDTH (m)	7.50	10.00	10.00	10.00	10.00	10.00	10.00	20.00	-
R/SEC. AREA (m2)	13.69	19.00	22.33	26.80	26.15	24.80	24.05	24.50	-
SECTIONAL AREA (m2)	18.24	32.76	42.53	52.18	52.75	50.25	48.25	48.85	-
TOTAL AREA (m2)	18.2	51.0	93.5	145.7	198.5	248.7	297.0	345.8	-
S/DISCHARGE (m3/s)	12.51	27.46	34.02	31.81	34.57	37.52	29.78	34.25	-
TOTAL DIS. (m3/s)	12.51	39.97	73.99	105.80	140.37	177.89	207.67	241.92	-

WATER LEVEL (f) : 11.05 WATER LEVEL (m) : 3.37  
 TOTAL DISCHARGE : 241.92 MEAN VELOCITY(m/s) : 0.70

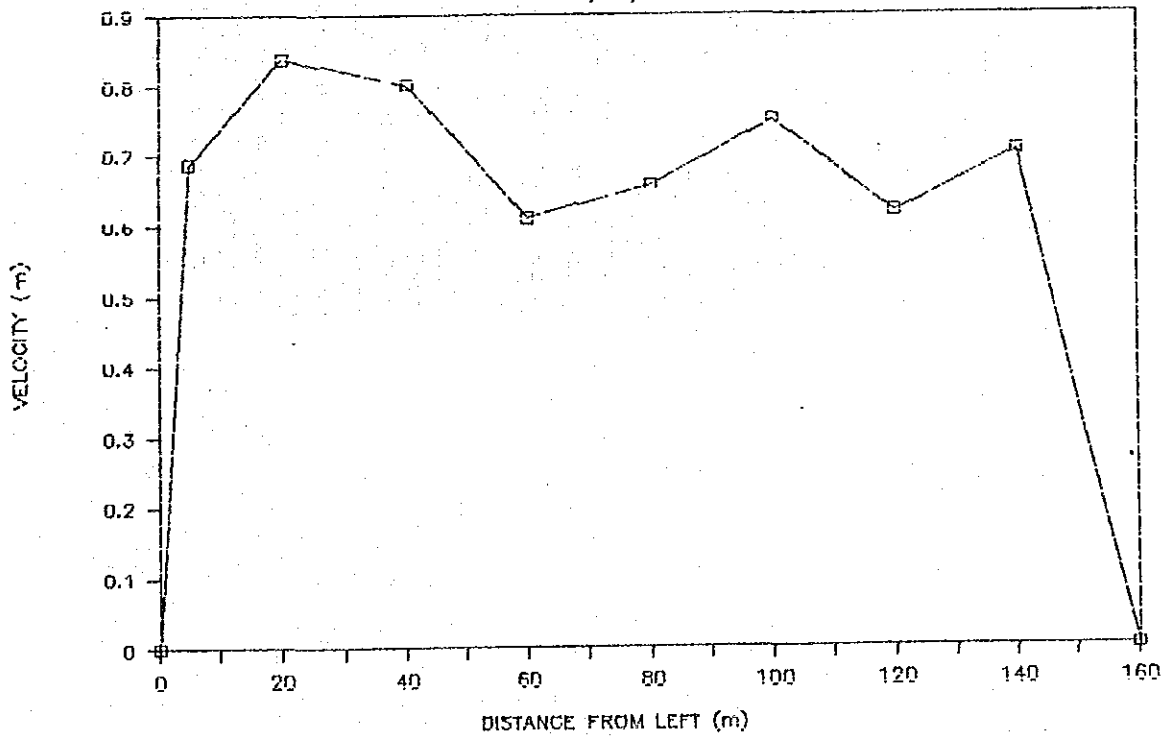
# WATER DEPTH (1-650)

JAN./12/'91



# VELOCITY (1-650)

JAN./12/'91



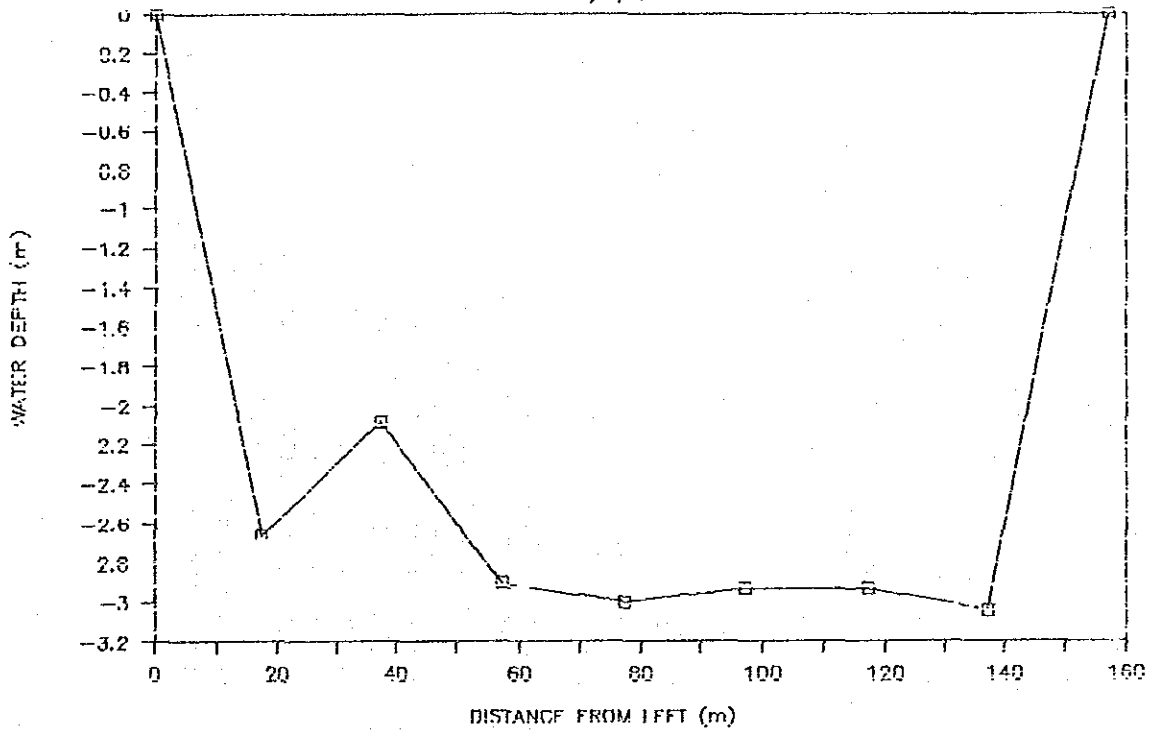
	ND-1	ND-2	ND-3	ND-4	ND-5	ND-6	ND-7	ND-R
WATER DEPTH (m)	0.00	2.66	2.08	2.90	3.00	2.93	2.93	3.04
SECTIONAL WIDTH (m)	0.00	17.20	20.00	20.00	20.00	20.00	20.00	20.00
TOTAL SE/WIDTH (m)	0.00	17.20	37.20	57.20	77.20	97.20	117.20	137.20
VELOCITY 2-1st (f/s)	0.00	5.00	5.50	4.50	4.00	3.50	3.50	3.40
VELOCITY 2-2nd (f/s)	0.00	5.00	5.30	4.50	4.00	3.50	3.50	3.40
MEAN VEL. 2 (f/s)	0.00	5.00	5.40	4.50	4.00	3.50	3.50	3.40
VELOCITY 8-1st (f/s)	0.00	3.00	2.50	1.50	2.50	2.50	2.50	2.00
VELOCITY 8-2nd (f/s)	0.00	3.00	2.50	1.50	2.50	2.50	2.50	2.00
MEAN VEL. 8 (f/s)	0.00	3.00	2.50	1.50	2.50	2.50	2.50	2.00
MEAN VEL (f/s)	0.000	4.000	3.950	3.000	3.250	3.000	3.000	2.700
MEAN VEL (m/s)	0.000	1.219	1.204	0.914	0.991	0.914	0.914	0.823
L/MEAN DEPTH (m)	0.000	1.330	2.225	2.696	2.975	2.948	2.930	3.013
L/MEAN WIDTH (m)	0.00	17.20	10.00	10.00	10.00	10.00	10.00	10.00
L/SEC. AREA (m2)	0.00	22.88	22.25	26.96	29.75	29.48	29.30	30.13
R/MEAN DEPTH (m)	0.000	2.515	2.285	2.925	2.983	2.930	2.958	1.520
R/MEAN WIDTH (m)	0.00	10.00	10.00	10.00	10.00	10.00	10.00	20.00
R/SEC. AREA (m2)	0.00	25.15	22.85	29.25	29.83	29.30	29.58	30.40
S/SECTIONAL AREA (m2)	0.00	48.03	45.10	56.20	59.58	58.78	58.88	60.53
TOTAL AREA (m2)	0.0	48.0	93.1	149.3	208.9	267.7	326.6	387.1
S/DISCHARGE (m3/s)	0.00	58.55	54.30	51.39	59.01	58.74	58.84	49.81
TOTAL DIS. (m3/s)	0.00	58.55	112.85	164.24	223.26	277.00	330.84	380.64

WATER LEVEL (f) : 12.78 WATER LEVEL (m) : 3.90  
 TOTAL DISCHARGE : 380.64 MEAN VELOCITY (m/s) : 0.98



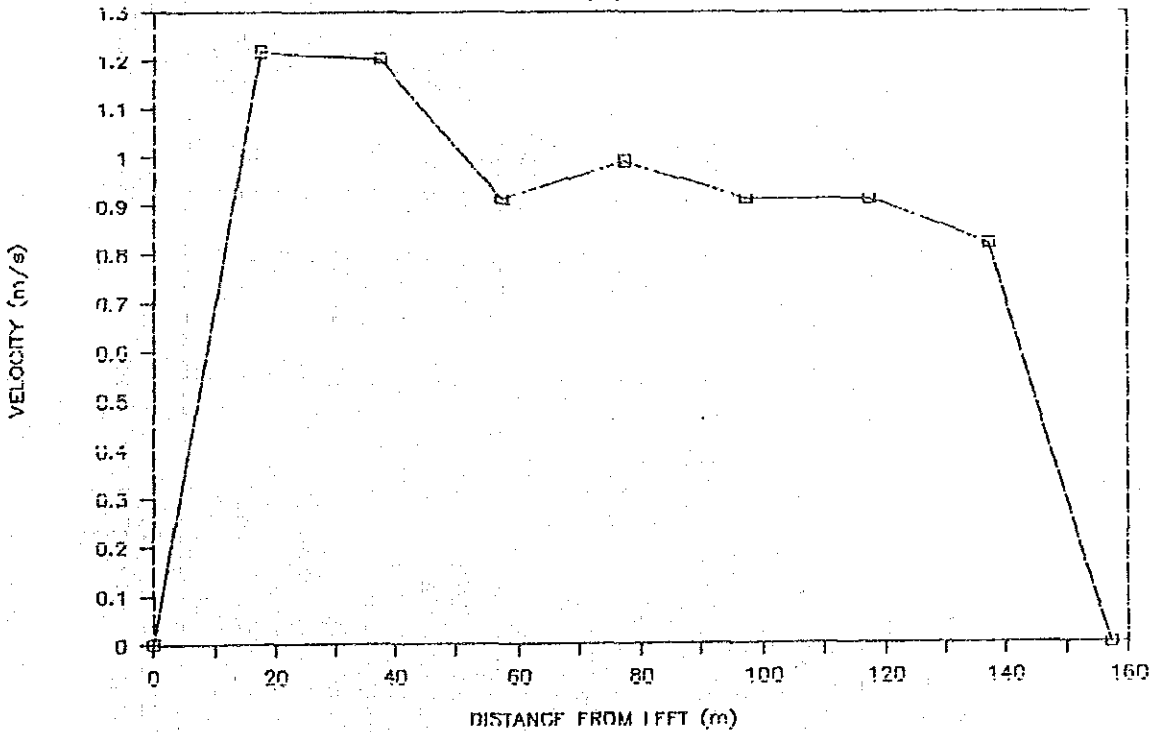
# WATER DEPTH (1-650)

FEB./3/91



# VELOCITY (1-650)

FEB./3/91



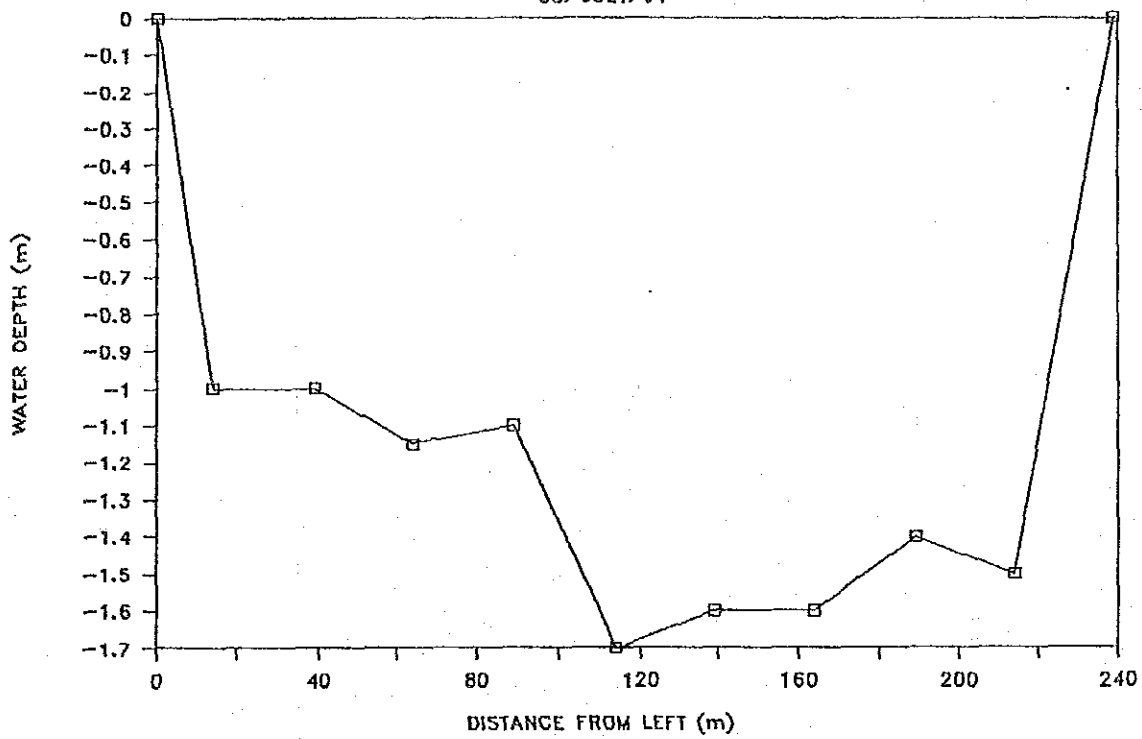
FLOW MEASUREMENT ST. : 1-650 KABOMPO BOMA 08/JULY/91

ITEMS\POINT	NO-1	NO-2	NO-3	NO-4	NO-5	NO-6	NO-7	NO-8	NO-9	NO-R
WATER DEPTH (m)	1.00	1.00	1.15	1.10	1.70	1.60	1.60	1.40	1.50	0.00
SECTIONAL WIDTH (m)	0.00	14.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
TOTAL SE/WIDTH (m)	0.00	14.00	39.00	64.00	89.00	114.00	139.00	164.00	189.00	239.00
VELOCITY.2-1st(f/s)	0.00	1.60	1.50	1.70	1.40	1.50	1.60	1.60	1.40	0.00
VELOCITY.2-2nd(f/s)	0.00	1.60	1.50	1.70	1.40	1.50	1.55	1.50	1.40	0.00
Mean VEL.2 (f/s)	0.00	1.60	1.50	1.70	1.40	1.50	1.58	1.60	1.40	0.00
VELOCITY.8-1st(f/s)	0.00	0.65	0.65	0.55	0.70	0.70	0.70	0.80	0.70	0.00
VELOCITY.8-2nd(f/s)	0.00	0.65	0.65	0.50	0.70	0.65	0.80	0.75	0.75	0.00
Mean VEL.8 (f/s)	0.00	0.65	0.65	0.53	0.70	0.68	0.75	0.78	0.73	0.00
Mean VEL (f/s)	0.000	1.125	1.075	1.113	1.050	1.088	1.163	1.100	1.188	1.063
Mean VEL (m/s)	0.000	0.343	0.328	0.339	0.320	0.331	0.354	0.335	0.362	0.324
L/MEAN DEPTH (m)	0.000	0.500	1.000	1.113	1.113	1.550	1.625	1.600	1.450	1.475
L/MEAN WIDTH (m)	0.00	14.00	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50
L/SEC. AREA (m2)	0.00	7.00	12.50	13.91	13.91	19.38	20.31	20.00	18.13	18.44
R/MEAN DEPTH (m)	0.000	1.000	1.038	1.138	1.250	1.675	1.600	1.550	1.425	0.750
R/MEAN WIDTH (m)	0.00	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	25.00
R/SEC. AREA (m2)	0.00	12.50	12.97	14.22	15.63	20.94	20.00	19.38	17.81	18.75
SECTIONAL AREA (m2)	0.00	19.50	25.47	28.13	29.53	40.31	40.31	39.38	35.94	37.19
TOTAL AREA (m2)	0.0	19.5	45.0	73.1	102.6	142.9	183.3	222.6	258.6	295.8
S/DISCHARGE (m3/s)	0.00	6.69	8.35	9.54	9.45	13.36	14.28	13.20	13.01	12.04
TOTAL DIS. (m3/s)	0.00	6.69	15.03	24.57	34.02	47.38	61.67	74.87	87.88	99.92

WATER LEVEL (f) : 6.33 WATER LEVEL (m) : 1.93  
 TOTAL DISCHARGE : 99.92 MEAN VELOCITY(m/s) : 0.34

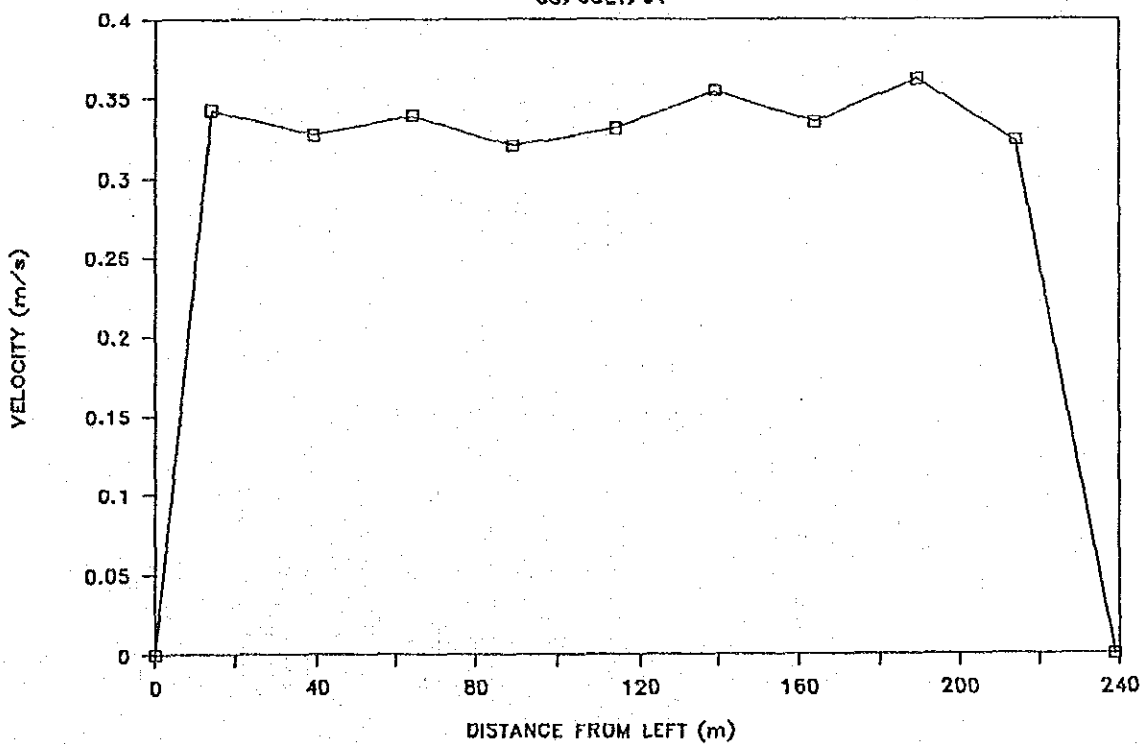
# WATER DEPTH (1-650)

08/JULY/91



# VELOCITY (1-650)

08/JULY/91



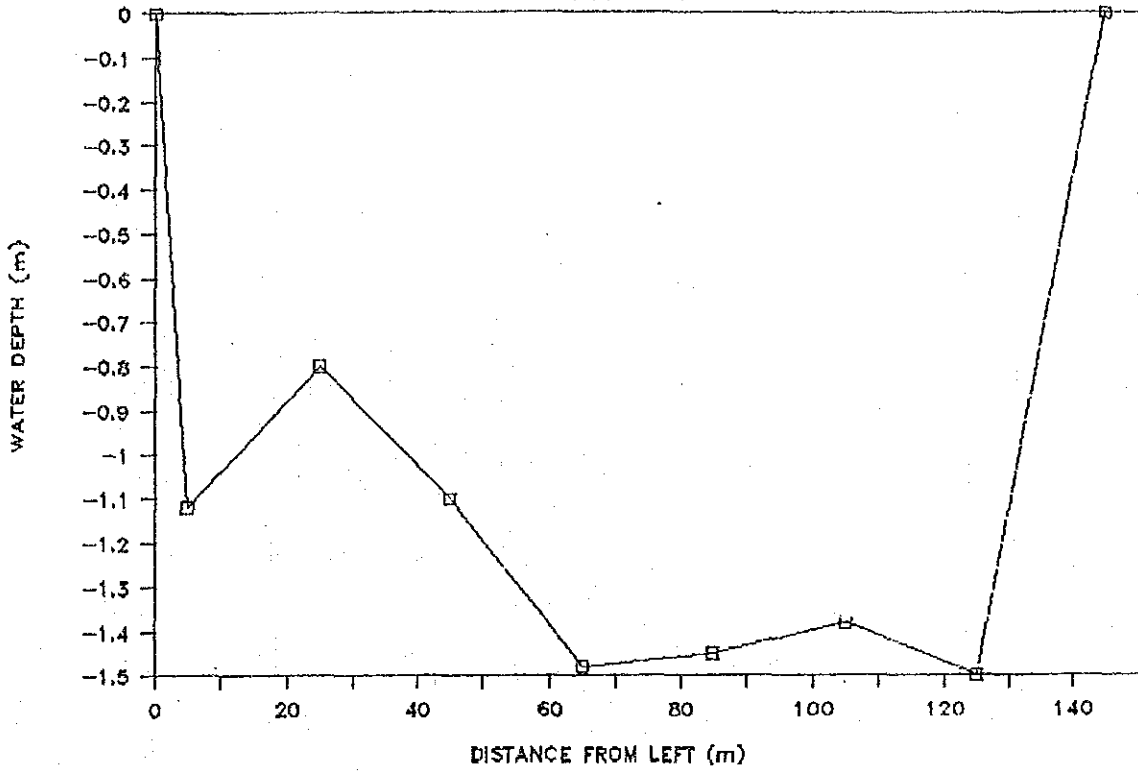
FLOW MEASUREMENT ST. : 1-650 KABOMPO BOWA 18/AUG./1991

ITEMS\POINT	NO-L	NO-1	NO-2	NO-3	NO-4	NO-5	NO-6	NO-7	NO-R
WATER DEPTH (m)	0.00	1.12	0.80	1.10	1.48	1.45	1.38	1.50	0.00
SECTIONAL WIDTH (m)	0.00	5.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
TOTAL SE/WIDTH (m)	0.00	5.00	25.00	45.00	65.00	85.00	105.00	125.00	145.00
VELOCITY.2-1st(m/s)	0.00	0.40	0.45	0.45	0.40	0.45	0.35	0.40	0.00
VELOCITY.2-2nd(m/s)	0.00	0.40	0.45	0.45	0.40	0.45	0.35	0.40	0.00
Mean VEL.2 (m/s)	0.00	0.40	0.45	0.45	0.40	0.45	0.35	0.40	0.00
VELOCITY.8-1st(m/s)	0.00	0.35	0.30	0.10	0.15	0.10	0.15	0.06	0.00
VELOCITY.8-2nd(m/s)	0.00	0.35	0.30	0.10	0.15	0.10	0.15	0.06	0.00
Mean VEL.8 (m/s)	0.00	0.35	0.30	0.10	0.15	0.10	0.15	0.06	0.00
Mean VEL (m/s)	0.000	0.375	0.375	0.275	0.275	0.275	0.250	0.229	0.000
Mean VEL (m/s)	0.000	0.375	0.375	0.275	0.275	0.275	0.250	0.229	0.000
L/MEAN DEPTH (m)	0.000	0.560	0.880	1.025	1.385	1.458	1.398	1.470	-
L/MEAN WIDTH (m)	0.00	5.00	10.00	10.00	10.00	10.00	10.00	10.00	-
L/SEC. AREA (m2)	0.00	2.80	8.80	10.25	13.85	14.58	13.98	14.70	-
R/MEAN DEPTH (m)	0.000	1.040	0.875	1.195	1.473	1.433	1.410	0.750	-
R/MEAN WIDTH (m)	0.00	10.00	10.00	10.00	10.00	10.00	10.00	20.00	-
R/SEC. AREA (m2)	0.00	10.40	8.75	11.95	14.73	14.33	14.10	15.00	-
SECTIONAL AREA (m2)	0.00	13.20	17.55	22.20	28.58	28.90	28.08	29.70	-
TOTAL AREA (m2)	0.0	13.2	30.8	53.0	81.5	110.4	138.5	168.2	-
S/DISCHARGE (m3/s)	0.00	4.95	6.58	6.11	7.86	7.95	7.02	6.79	-
TOTAL DIS. (m3/s)	0.00	4.95	11.53	17.64	25.49	33.44	40.46	47.25	-

WATER LEVEL<sup>3</sup>(f) : 5.95 WATER LEVEL (m) : 1.81  
 TOTAL DISCHARGE : 47.25 MEAN VELOCITY(m/s) : 0.28

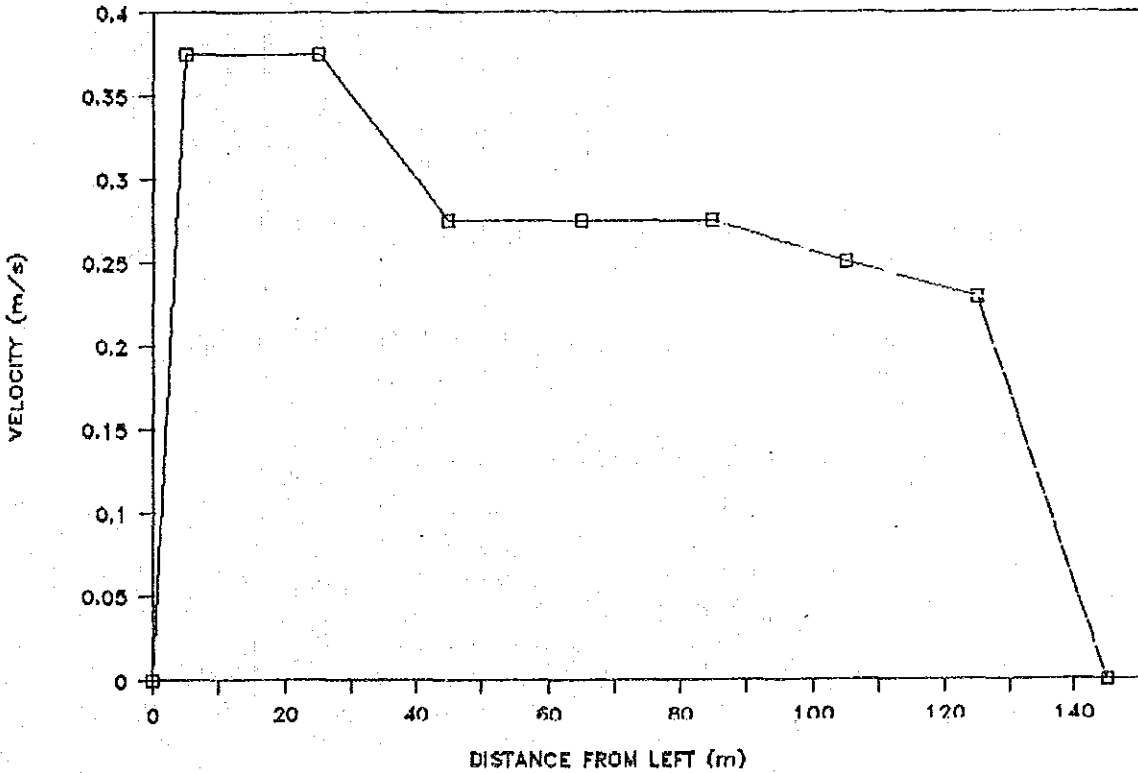
# WATER DEPTH (1-650)

18/AUG./1991



# VELOCITY (1-650)

18/AUG./1991



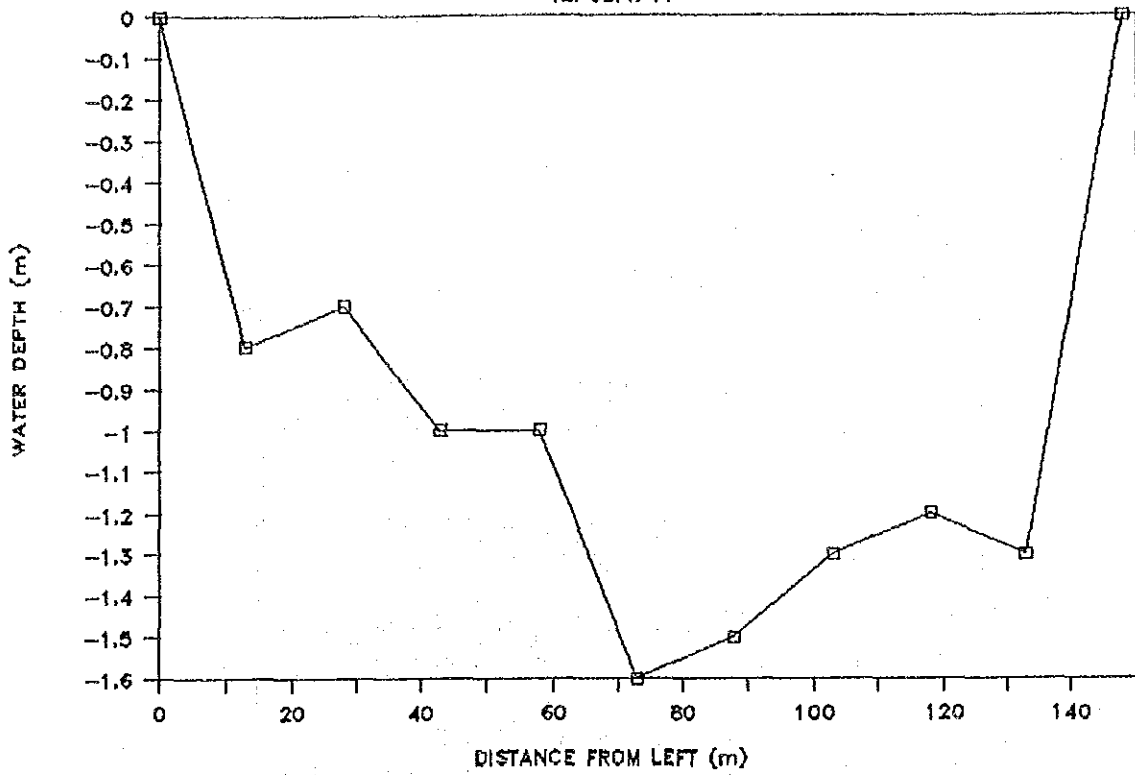
ITEMS\POINT	NO-L	NO-1	NO-2	NO-3	NO-4	NO-5	NO-6	NO-7	NO-8	NO-9	NO-R	
WATER DEPTH (m)	0.00	0.80	0.70	1.00	1.00	1.00	1.60	1.50	1.30	1.20	1.30	0.00
SECTIONAL WIDTH (m)	0.00	13.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
TOTAL SE/WIDTH (m)	0.00	13.00	26.00	43.00	58.00	73.00	88.00	103.00	116.00	133.00	148.00	0.00
VELOCITY.2-1st(f/s)	0.00	-	-	1.60	1.10	1.00	1.00	1.00	0.90	1.10	1.20	0.00
VELOCITY.2-2nd(f/s)	0.00	-	-	1.60	1.10	1.00	1.00	1.00	0.90	1.10	1.20	0.00
Mean VEL.2 (f/s)	0.00	-	-	1.60	1.10	1.00	1.00	1.00	0.90	1.10	1.20	0.00
VELOCITY.8-1st(f/s)	0.00	1.40	1.00	0.20	0.50	0.30	0.60	0.10	0.10	0.40	0.70	0.00
VELOCITY.8-2nd(f/s)	0.00	1.40	1.00	0.20	0.50	0.30	0.60	0.10	0.10	0.40	0.70	0.00
Mean VEL.8 (f/s)	0.00	1.40	1.00	0.20	0.50	0.30	0.60	0.10	0.10	0.40	0.70	0.00
Mean VEL (f/s)	0.000	1.400	1.000	0.900	0.800	0.650	0.800	0.500	0.500	0.750	0.950	-
Mean VEL (m/s)	0.000	0.427	0.305	0.274	0.244	0.198	0.244	0.152	0.152	0.229	0.290	-
L/MEAN DEPTH (m)	0.000	0.400	0.725	0.925	1.000	1.450	1.525	1.350	1.225	1.275	1.275	-
L/MEAN WIDTH (m)	0.00	13.00	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	-
L/SEC. AREA (m2)	0.00	5.20	5.44	6.94	7.50	10.88	11.44	10.13	9.19	9.56	9.56	-
R/MEAN DEPTH (m)	0.000	0.775	0.775	1.000	1.150	1.575	1.450	1.275	1.225	0.650	0.650	-
R/MEAN WIDTH (m)	0.00	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	-
R/SEC. AREA (m2)	0.00	5.81	5.81	7.50	8.63	11.81	10.88	9.56	9.19	9.75	9.75	-
SECTIONAL AREA (m2)	0.00	11.01	11.25	14.44	16.13	22.69	22.31	19.69	18.38	19.31	19.31	-
TOTAL AREA (m2)	0.0	11.0	22.3	36.7	52.8	75.5	97.8	117.5	135.9	155.2	155.2	-
S/DISCHARGE (m3/s)	0.00	4.70	3.43	3.96	3.93	4.49	5.44	3.00	4.20	5.59	5.59	-
TOTAL DIS. (m3/s)	0.00	4.70	8.13	12.09	16.02	20.52	25.96	28.96	33.16	38.75	38.75	-

WATER LEVEL (f) : 5.60 WATER LEVEL (m) : 1.71  
 TOTAL DISCHARGE : 38.75 MEAN VELOCITY(m/s) : 0.25

SOME OF SECTIONS ARE USED 0.6 DEPTH METHOD

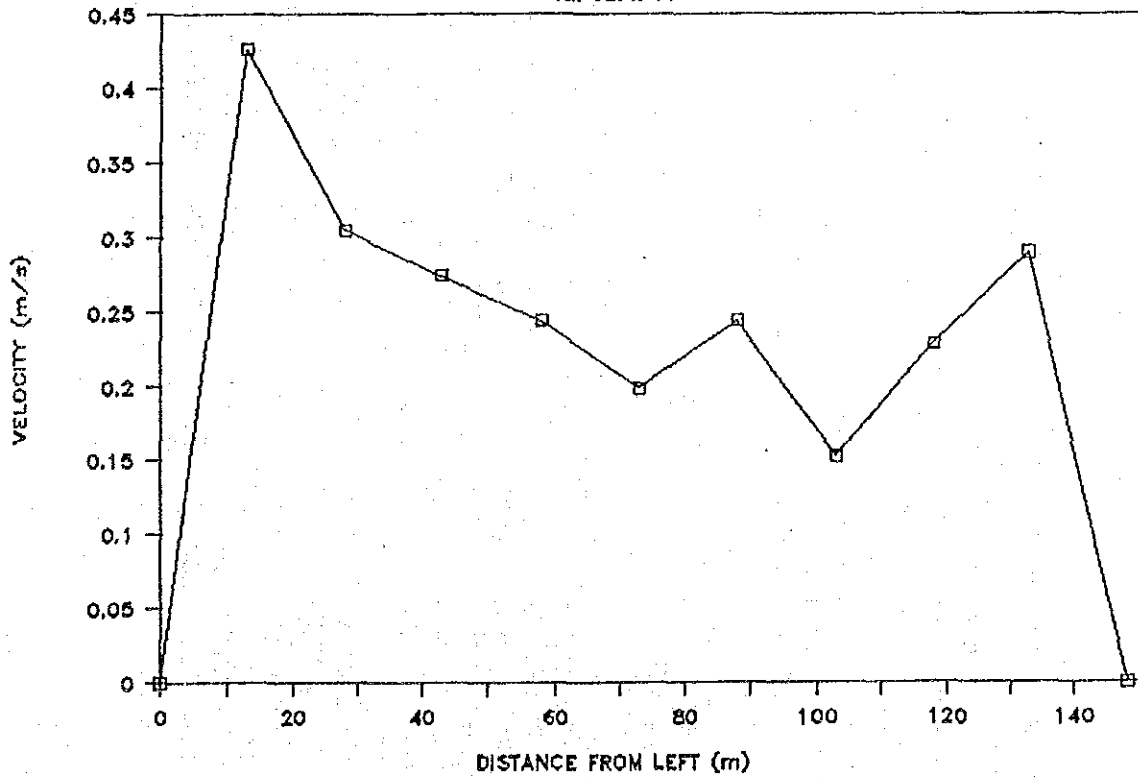
# WATER DEPTH (1-650)

12/SEP./91



# VELOCITY (1-650)

12/SEP./91



ST. : 1-650 KABOMPO BOMA 05/OCT/91

FLOW MEASUREMENT

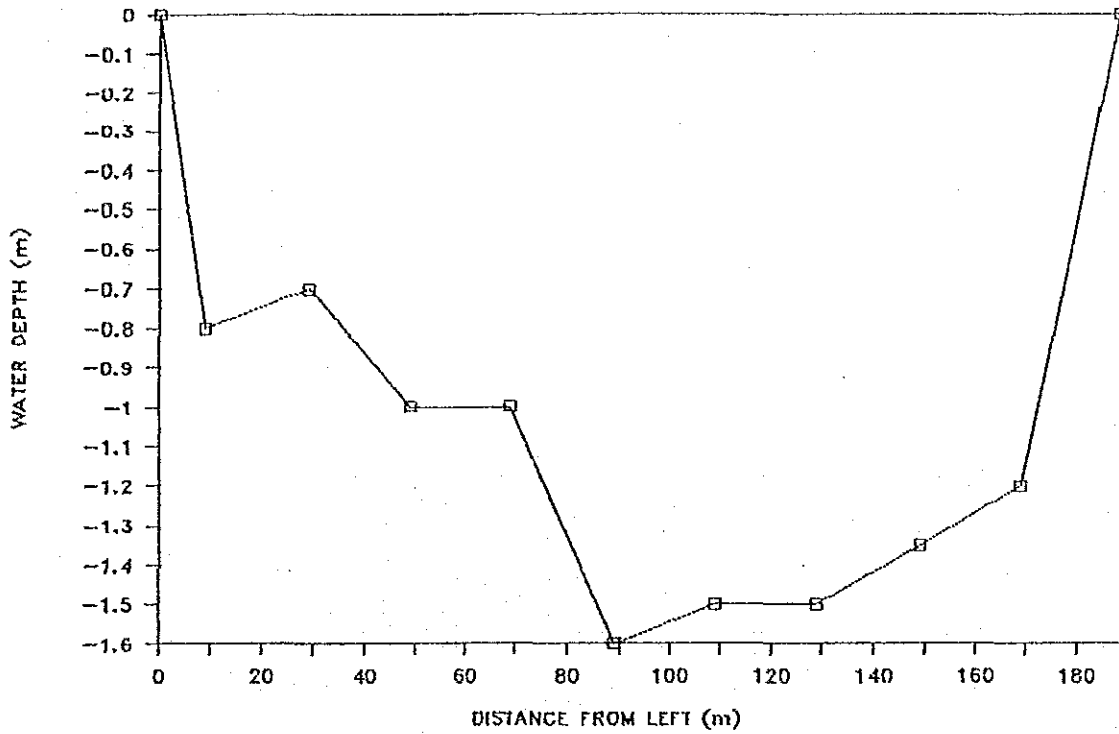
ITEMS\POINT	NO-L	NO-1	NO-2	NO-3	NO-4	NO-5	NO-6	NO-7	NO-8	NO-9	NO-R
WATER DEPTH (m)	0.00	0.80	0.70	1.00	1.00	1.60	1.50	1.50	1.35	1.20	0.00
SECTIONAL WIDTH (m)	0.00	9.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
TOTAL SE/WIDTH (m)	0.00	9.00	29.00	49.00	69.00	89.00	109.00	129.00	149.00	169.00	189.00
VELOCITY.2-1st(f/s)	0.00	1.00	1.20	1.60	1.35	1.35	1.40	1.40	1.35	1.35	0.00
VELOCITY.2-2nd(f/s)	0.00	1.00	1.25	1.55	1.35	1.40	1.40	1.40	1.40	1.30	0.00
Mean VEL.2 (f/s)	0.00	1.00	1.23	1.58	1.35	1.38	1.40	1.40	1.38	1.33	0.00
VELOCITY.8-1st(f/s)	0.00	0.50	0.60	0.55	0.50	0.50	0.40	0.40	0.40	0.55	0.00
VELOCITY.8-2nd(f/s)	0.00	0.50	0.55	0.50	0.50	0.55	0.40	0.40	0.35	0.60	0.00
Mean VEL.8 (f/s)	0.00	0.50	0.58	0.53	0.50	0.53	0.40	0.40	0.38	0.58	0.00
Mean VEL (f/s)	0.000	0.750	0.900	1.050	0.925	0.950	0.900	0.900	0.875	0.950	-
Mean VEL (m/s)	0.000	0.229	0.274	0.320	0.282	0.290	0.274	0.274	0.267	0.290	-
L/MEAN DEPTH (m)	0.000	0.400	0.725	0.925	1.000	1.450	1.525	1.500	1.388	1.238	-
L/MEAN WIDTH (m)	0.00	9.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	-
L/SEC. AREA (m2)	0.00	3.60	7.25	9.25	10.00	14.50	15.25	15.00	13.88	12.38	-
R/MEAN DEPTH (m)	0.000	0.775	0.775	1.000	1.150	1.575	1.500	1.463	1.313	0.600	-
R/MEAN WIDTH (m)	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	20.00	-
R/SEC. AREA (m2)	0.00	7.75	7.75	10.00	11.50	15.75	15.00	14.63	13.13	12.00	-
SECTIONAL AREA (m2)	0.00	11.35	15.00	19.25	21.50	30.25	30.25	29.63	27.00	24.38	-
TOTAL AREA (m2)	0.0	11.4	26.4	45.6	67.1	97.4	127.6	157.2	184.2	208.6	-
S/DISCHARGE (m3/s)	0.00	2.59	4.11	6.16	6.06	8.76	8.30	8.13	7.20	7.06	-
TOTAL DIS. (m3/s)	0.00	2.59	6.71	12.87	18.93	27.69	35.99	44.12	51.32	58.37	-

WATER LEVEL (f) : 5.45 WATER LEVEL (m) : 1.66  
 TOTAL DISCHARGE : 58.37 MEAN VELOCITY(m/s) : 0.28



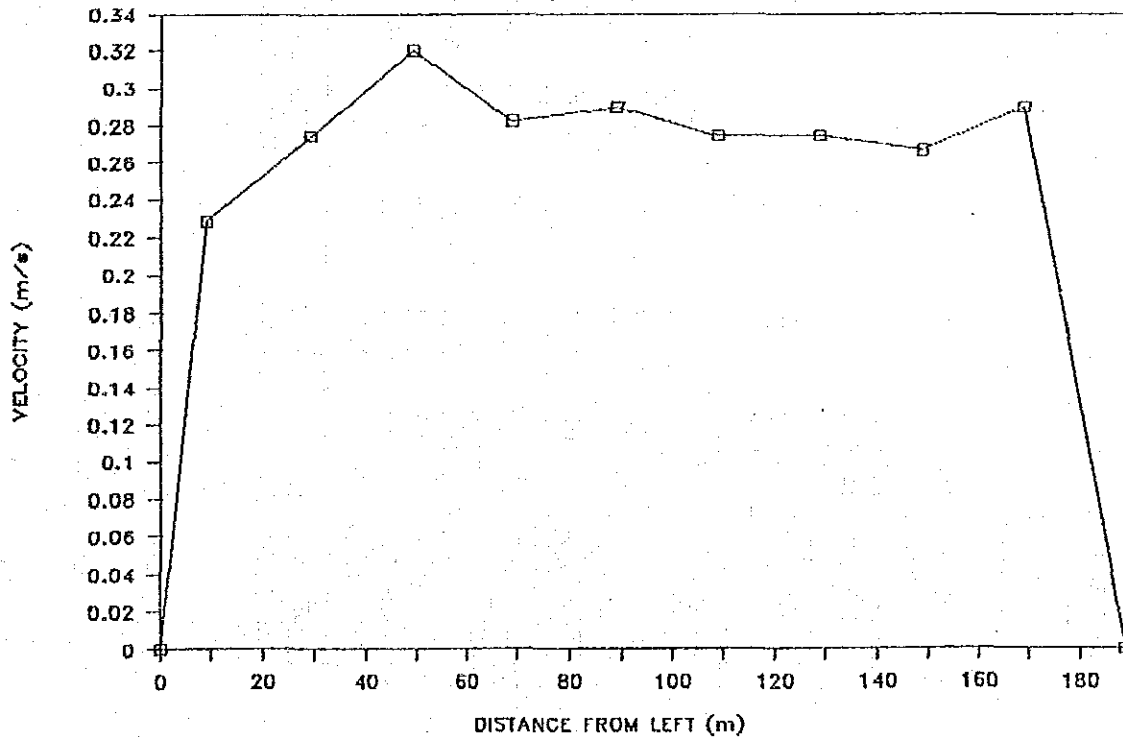
# WATER DEPTH (1-650)

05/OCT/91



# VELOCITY (1-650)

05/OCT/91



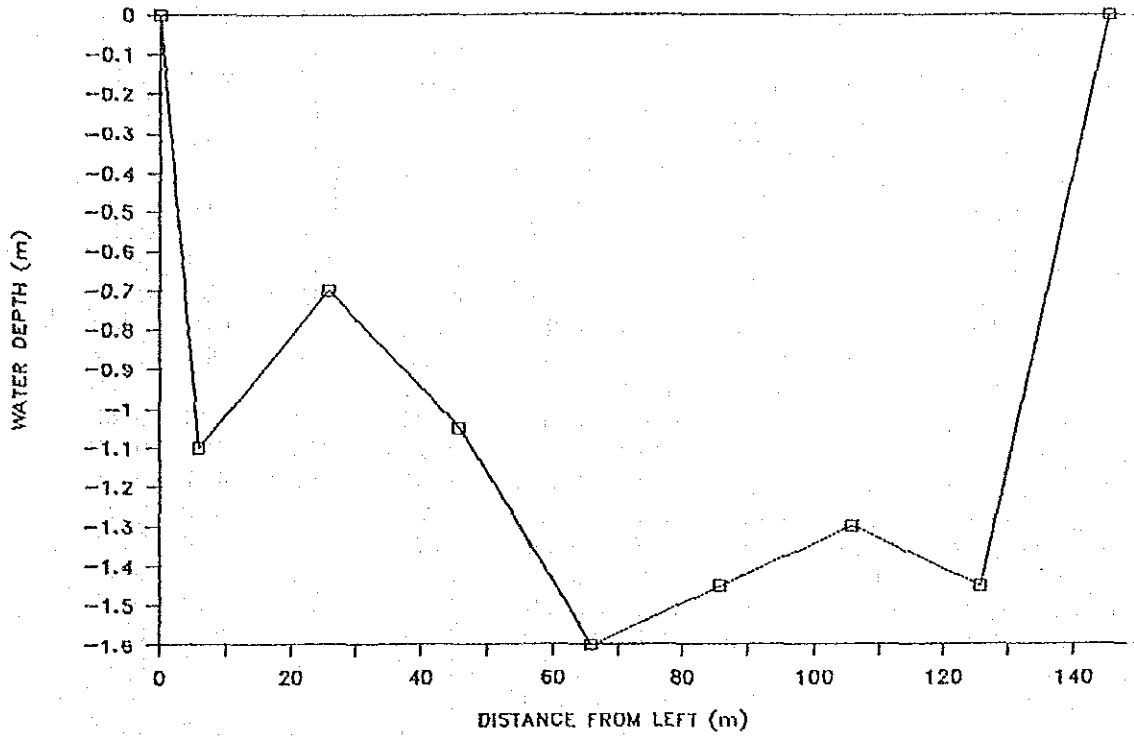
FLOW MEASUREMENT ST. : 1-650 KABOMPO BOMA 13/NOV/91

ITEMS\POINT	NO-L	NO-1	NO-2	NO-3	NO-4	NO-5	NO-6	NO-7	NO-R
WATER DEPTH (m)	0.00	1.10	0.70	1.05	1.60	1.45	1.30	1.45	0.00
SECTIONAL WIDTH (m)	0.00	5.80	20.00	20.00	20.00	20.00	20.00	20.00	20.00
TOTAL SE/WIDTH (m)	0.00	5.80	25.80	45.80	65.80	85.80	105.80	125.80	145.80
VELOCITY.2-1st(f/s)	0.00	1.60	2.20	1.50	1.50	1.40	1.40	1.40	0.00
VELOCITY.2-2nd(f/s)	0.00	1.60	2.20	1.50	1.50	1.40	1.40	1.40	0.00
Mean VEL.2 (f/s)	0.00	1.60	2.20	1.50	1.50	1.40	1.40	1.40	0.00
VELOCITY.8-1st(f/s)	0.00	1.50	-	1.00	1.10	1.10	0.90	1.00	0.00
VELOCITY.8-2nd(f/s)	0.00	1.50	-	1.00	1.10	1.10	0.90	1.00	0.00
Mean VEL.8 (f/s)	0.00	1.50	-	1.00	1.10	1.10	0.90	1.00	0.00
Mean VEL (f/s)	0.000	1.550	2.200	1.250	1.300	1.250	1.150	1.200	-
Mean VEL (m/s)	0.000	0.472	0.671	0.381	0.396	0.381	0.351	0.366	-
L/MEAN DEPTH (m)	0.000	0.550	0.800	0.963	1.463	1.488	1.338	1.413	-
L/MEAN WIDTH (m)	0.00	5.80	10.00	10.00	10.00	10.00	10.00	10.00	-
L/SEC. AREA (m2)	0.00	3.19	8.00	9.63	14.63	14.88	13.38	14.13	-
R/MEAN DEPTH (m)	0.000	1.000	0.788	1.188	1.563	1.413	1.338	0.725	-
R/MEAN WIDTH (m)	0.00	10.00	10.00	10.00	10.00	10.00	10.00	20.00	-
R/SEC. AREA (m2)	0.00	10.00	7.88	11.88	15.63	14.13	13.38	14.50	-
SECTIONAL AREA (m2)	0.00	13.19	15.88	21.50	30.25	29.00	26.75	28.63	-
TOTAL AREA (m2)	0.0	13.2	29.1	50.6	80.8	109.8	136.6	165.2	-
S/DISCHARGE (m3/s)	0.00	6.23	10.65	8.19	11.99	11.05	9.38	10.47	-
TOTAL DIS. (m3/s)	0.00	6.23	16.88	25.07	37.05	48.10	57.48	67.95	-

WATER LEVEL (f) : 5.90 WATER LEVEL (m) : 1.80  
 TOTAL DISCHARGE : 67.95 MEAN VELOCITY(m/s) : 0.41

# WATER DEPTH (1-650)

13/NOV/01



# VELOCITY (1-650)

13/NOV/01

