FAP24

Government of the People's Republic of Bangladesh

Water Resources Planning Organization

European Commission

Delft Hydraulics

Danish Hydraulic Institute

Hydroland

Approtech

Osiris

RIVER SURVEY PROJECT

Special Report No.23

River Data Book April 1995 - May 1996

Part B.6: Mawa

October 1996

Special Report 23

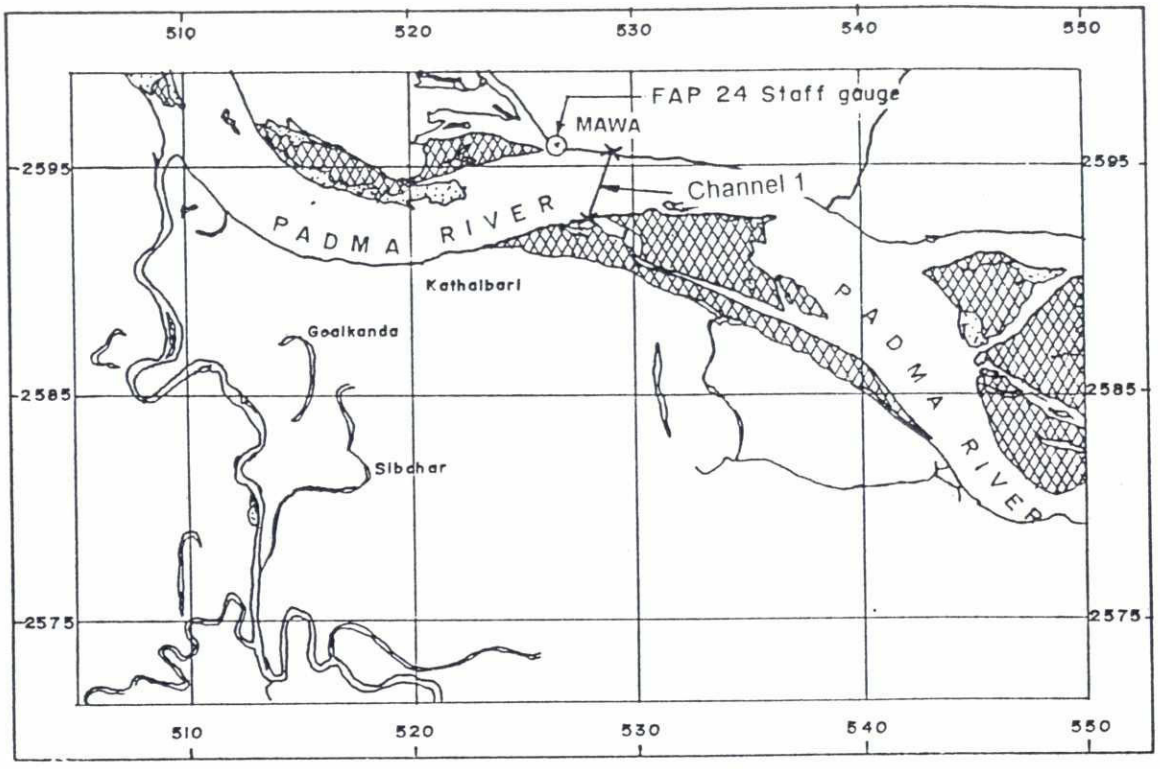
River Data Book
April 1995 - March 1996

Part B.6: Mawa

October 1996

Contents of entire Data Book

Contents of Part B.6



LEGEND:

- High land
- Unstable / low char
- Measurement cross-section.
- FAP 24 Staff gauge.

N

10000m 5000m 0

Map is based on satellite image of March 1995.

FAP 24 DELFT - DHI	RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities	Survey Bulletin 176 : 28 - 29 July, 1995	
		Location 6 : Padma River, Mawa	
	Date : 31 Dec 1995 Init : ss	Location map	page 1.1

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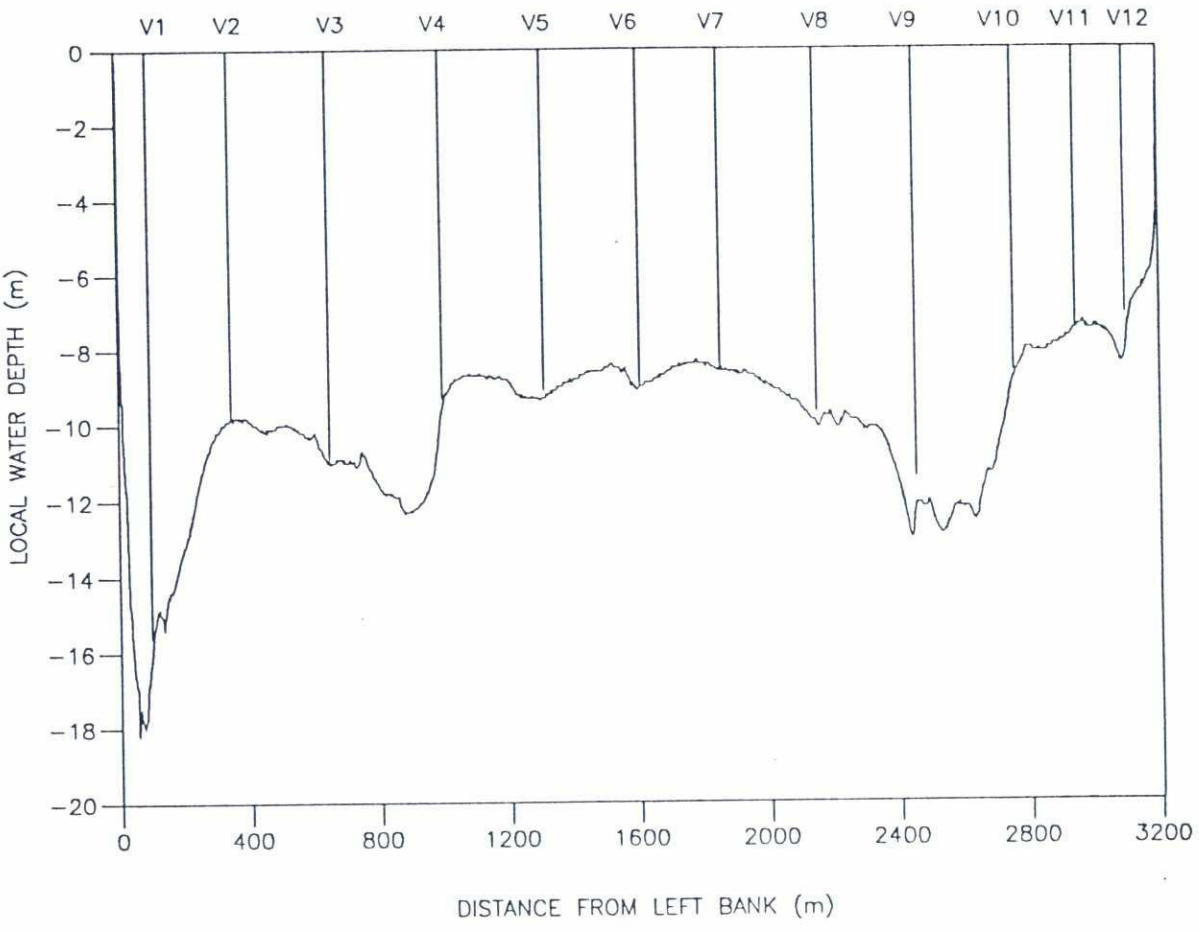


Water level : 5.79 m + PWD measured at the station indicated on page 1.1

FAP 24 DELFT - DHI	RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities	Survey Bulletin 176 : 28 - 29 July, 1995	
		Location 6 : Padma River, Mawa	
File : M57S3T02	Date : 31 Dec 1995	Cross-sections and measured verticals	page
	Init : ss	Channel 1	1.2

Type of measurement	Method	No. of measurements in channel			
		1	2	3	4
Discharge	ADCP transect	6	-	-	-
	EMF transect	-	-	-	-
	Echo-Sounding	-	-	-	-
Vertical current profile	No.of verticals in channel	12	-	-	-
	ADCP	12	-	-	-
	S4 current meter	-	-	-	-
	Ott current meter	-	-	-	-
Vertical sediment profile	Pump bottle sampling	-	-	-	-
	Andreasen settling tube	-	-	-	-
	MEX turbidity meter	-	-	-	-
	Integrated bottle sampling	12	-	-	-
	Collapsible bag	-	-	-	-
Bed load	Dune tracking	-	-	-	-
	Helley-Smith sampler	24	-	-	-
	Delft Bottle	-	-	-	-
Bed material	US BM-54 bed sampler	-	-	-	-
	Van Veen bed sampler	-	-	-	-

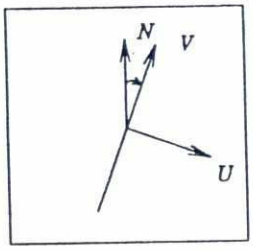
Table 2.1: Survey programme as made

Channel	Width (m)	Area (m^2)	Stage h (m+PWD)	Discharge Q (m^3/s)	Bed load transport Sb (kg/s)	Suspended Sediment transport Ss total (kg/s)
Channel 1	3202	31896	5.79	59570	593	60275

Table 2.2: Key figures

Gauge Location	Channel	Date	Water level (Daily average) (m+PWD)	Gauge
Mawa	Channel 1	28 Jul 95	5.79	FAP 24
		29 Jul 95	5.71	

Table 2.3: Water-levels

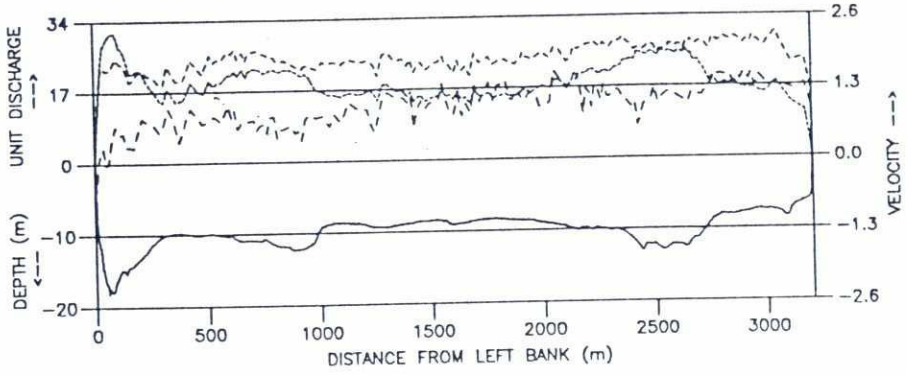


TRANSECT AZIMUTH = 20°

U – VELOCITY NORMAL TO TRANSECT (m/s)

V – VELOCITY PARALLEL TO TRANSECT (m/s)

N – MAGNETIC NORTH



FLOW

LEGEND :

—— WATER DEPTH (m below STAGE)

..... UNIT DISCHARGE (m^2/s.m)

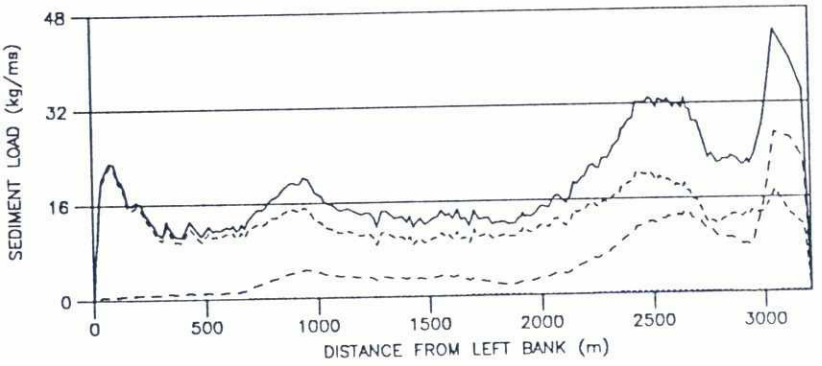
---- U – (m/s)

- - - V – (m/s)

STAGE = 5.79 (m+PWD)

A = 31896 (m^2)

Q = 59570 (m^2/s)



SEDIMENT TRANSPORT

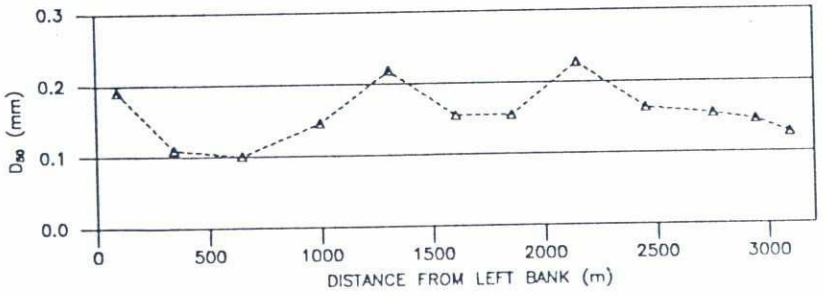
LEGEND :

—— S_{TOTAL} 60868 (kg/s)

----- $S_{WASH\ LOAD}$ 41705 (kg/s)

- - - - $S_{SUSP.\ BED}$ 18570 (kg/s)

..... $S_{BED\ LOAD}$ 593 (kg/s)



GRAIN SIZE

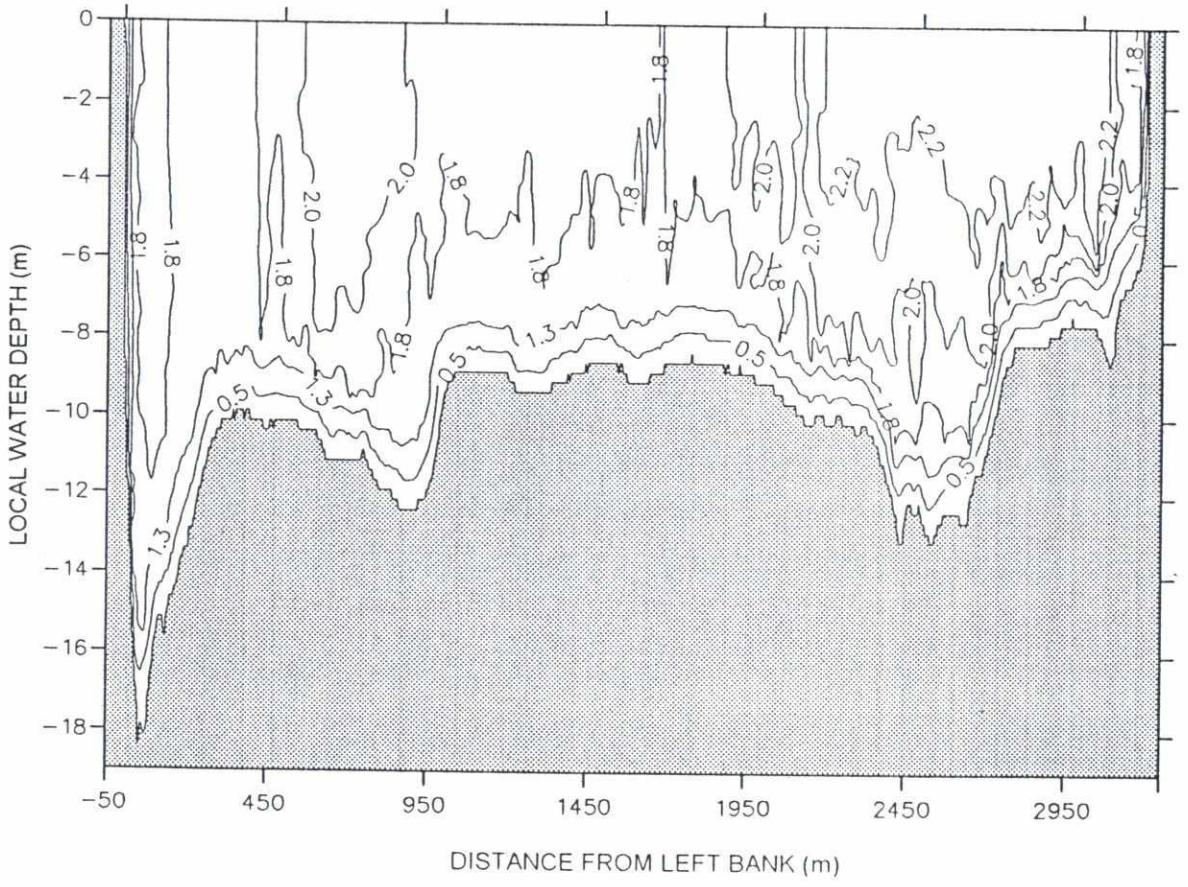
LEGEND :

◇◇◇◇◇ $D_{60\ SUSP.}$ (mm)

△△△△△ $D_{60\ BED\ LOAD}$ (mm)

□□□□□ $D_{60\ BED\ MAT.}$ (mm)

FAP 24 DELFT - DHI RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities		Survey Bulletin 176 : 28 - 29 July, 1995	
		Location 6 : Padma River, Mawa	
File : M57S3T02	Date : 31 Dec 1995 Init : ss	Horizontal distribution of flow and sediments Channel 1	page 3.1



Iso-velocity contours (m/s)
Water level : 5.79 m + PWD measured at the station indicated on page 1.1

FAP 24 DELFT - DHI	RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities	Survey Bulletin 176 : 28 - 29 July, 1995	
		Location 6 : Padma River, Mawa	
File : M57S3T02	Date : 31 Dec 1995	**Cross-sectional distribution of flow velocity**	page
	Init : ss	**Channel 1**	4.1

Helley-Smith

Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Depth (m)	Weight percent < 0.06 mm	Weight percent > 0.06 mm	D35 (mm)	D50 (mm)	D65 (mm)
Channel 1	1	9507281525-1532	15.60	20.77	79.23	0.082	0.107	0.144
	2	9507281550-1558	9.80	7.81	92.20	0.091	0.111	0.144
	3	9507281610-1614	11.00	6.25	93.75	0.093	0.114	0.147
	4	9507291156-1203	9.30	1.52	98.48	0.139	0.160	0.185
	5	9507291212-1217	9.10	0.57	99.44	0.277	0.319	0.368
	6	9507291225-1231	9.00	0.84	99.16	0.152	0.177	0.205
	7	9507291239-1245	8.50	0.48	99.52	0.159	0.182	0.208
	8	9507291251-1257	9.70	0.64	99.36	0.293	0.335	0.383
	9	9507291336-1343	11.40	0.62	99.38	0.157	0.186	0.220
	10	9507291356-1402	8.60	0.81	99.19	0.146	0.168	0.192
	11	9507291412-1420	7.50	0.76	99.24	0.137	0.159	0.185
	12	9507291426-1433	7.10	1.27	98.74	0.130	0.153	0.179
	1	9507281525-1532	15.60	2.46	97.55	0.269	0.311	0.361
	2	9507281550-1558	9.80	5.07	94.93	0.098	0.122	0.168
	3	9507281610-1614	11.00	12.84	87.16	0.082	0.099	0.118
	4	9507291156-1203	9.30	3.12	96.88	0.136	0.159	0.186
	5	9507291212-1217	9.10	1.58	98.42	0.146	0.169	0.195
	6	9507291225-1231	9.00	1.58	98.42	0.141	0.164	0.191
	7	9507291239-1245	8.50	1.79	98.21	0.145	0.168	0.195
	8	9507291251-1257	9.70	0.76	99.25	0.151	0.174	0.201
	9	9507291336-1343	11.40	0.53	99.47	0.154	0.178	0.205
	10	9507291356-1402	8.60	0.71	99.29	0.146	0.167	0.191
	11	9507291412-1420	7.50	0.72	99.28	0.143	0.169	0.201
	12	9507291426-1433	7.10	2.31	97.69	0.110	0.138	0.170

Table 5.1 : Grain sizes of bed load

Method	Channel	Time (YYMMDDHHMM-HHMM)	File name
ADCP & EMF transect	1	9507281213-1332	M57S3T01
		9507281352-1419	M57S3T02 *
		9507291005-1119	M57T3T03
		9507291122-1145	M57T3T05
		9507291437-1459	M57T3T06
		9507291501-1614	M57T3T07

Table 6.1: ADCP & EMF transects

* : transect in PSD 24 data base and presented in Sections 3 and 4

Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	File name
Vertical current & turbidity profiles (ADCP/S4/MEX)	1	1	9507281525-1532	529120	595043	15.60	M57S3P01 *
		2	9507281550-1558	529029	594814	9.80	M57S3P02 *
		3	9507281610-1614	528926	594533	11.00	M57S3P03 *
		4	9507291156-1203	528798	594210	9.30	M57T3P01 *
		5	9507291212-1217	528700	593905	9.10	M57T3P02 *
		6	9507291225-1231	528597	593637	9.00	M57T3P03 *
		7	9507291239-1245	528506	593400	8.50	M57T3P04 *
		8	9507291251-1257	528411	593119	9.70	M57T3P05 *
		9	9507291336-1343	528297	592835	11.40	M57T3P06 *
		10	9507291356-1402	528190	592557	8.60	M57T3P07 *
		11	9507291412-1420	528113	592384	7.50	M57T3P08 *
		12	9507291426-1433	528058	592236	7.10	M57T3P09 *

Table 6.2: Vertical profiles

* S4 & MEX not available

Method	Channel	Vertical	No. of samples	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)
Suspended sediments	1	1	1	9507281525-1532	529120	595043	15.60
		2	1	9507281550-1558	529029	594814	9.80
		3	1	9507281610-1614	528926	594533	11.00
		4	1	9507291156-1203	528798	594210	9.30
		5	1	9507291212-1217	528700	593905	9.10
		6	1	9507291225-1231	528597	593637	9.00
		7	1	9507291239-1245	528506	593400	8.50
		8	1	9507291251-1257	528411	593119	9.70
		9	1	9507291336-1343	528297	592835	11.40
		10	1	9507291356-1402	528190	592557	8.60
		11	1	9507291412-1420	528113	592384	7.50
		12	1	9507291426-1433	528058	592236	7.10

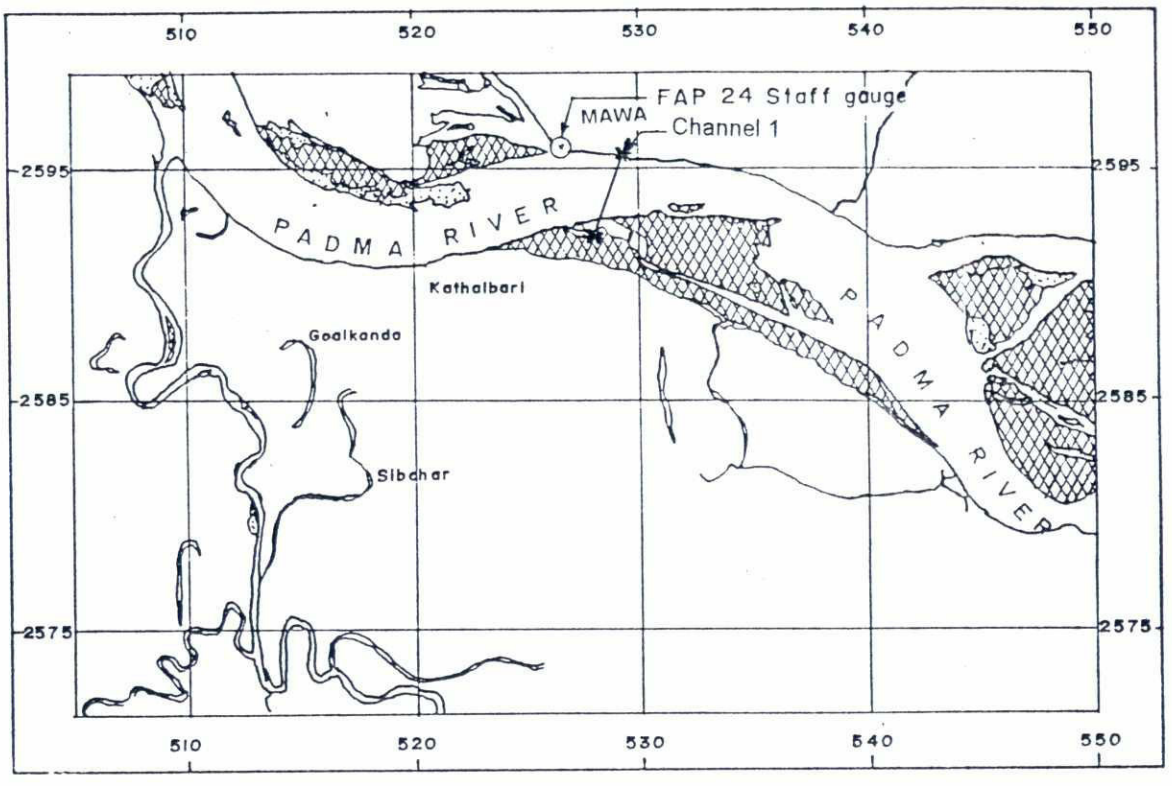
Table 6.3: Suspended sediment - depth integrated

Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	Sample No.
Helley-Smith Sample	1	1	9507281525-1532	529120	595043	15.60	C766
		2	9507281550-1558	529029	594814	9.80	C604
		3	9507281610-1614	528926	594533	11.00	C625
		4	9507291156-1203	528798	594210	9.30	C748
		5	9507291212-1217	528700	593905	9.10	C736
		6	9507291225-1231	528597	593637	9.00	C555
		7	9507291239-1245	528506	593400	8.50	C133
		8	9507291251-1257	528411	593119	9.70	C130
		9	9507291336-1343	528297	592835	11.40	C653
		10	9507291356-1402	528190	592557	8.60	C717
		11	9507291412-1420	528113	592384	7.50	C152
		12	9507291426-1433	528058	592236	7.10	C544
		1	9507281525-1532	529120	595043	15.60	C579
		2	9507281550-1558	529029	594814	9.80	C590
		3	9507281610-1614	528926	594533	11.00	C678
		4	9507291156-1203	528798	594210	9.30	C718
		5	9507291212-1217	528700	593905	9.10	C796
		6	9507291225-1231	528597	593637	9.00	C692
		7	9507291239-1245	528506	593400	8.50	C179
		8	9507291251-1257	528411	593119	9.70	C137
		9	9507291336-1343	528297	592835	11.40	C430
		10	9507291356-1402	528190	592557	8.60	C655
		11	9507291412-1420	528113	592384	7.50	C615
		12	9507291426-1433	528058	592236	7.10	C770

Table 6.4: Bed load

Types of Data	Channel	Format	Filename
ADCP/S4/EMF data	1	QUATTRO	M57S3T02 .ase
Echosounder data	1	QUATTRO	M57S3T02 .ech
Sediment transport data	1	QUATTRO	M57S3T02 .sed
Susp. sed. conc. analysis	1	QUATTRO	M57S3T02 .ssc
Bedload sediment analysis	1	QUATTRO	M57S3T02 .bdl
Transect plot data	1	QUATTRO	M57S3T02 .trs
Iso-velocity plot data	1	MIKE21 MIKE21	M57S3T02 .ct2 M57S3T02 .dt2

Table 7.1 PSD 24 Database file description



LEGEND:

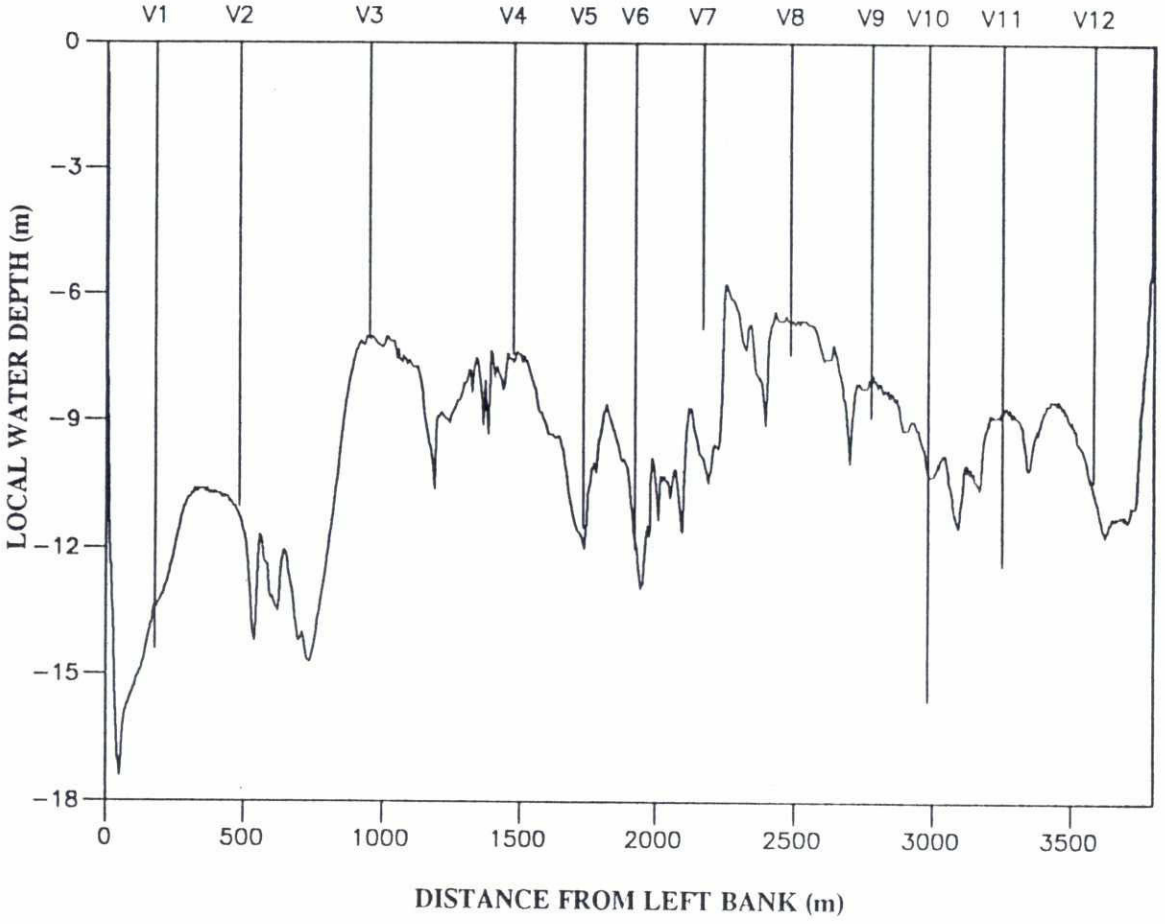
- High land
- Unstable / low char
- Measurement cross-section.
- FAP 24 Staff gauge.

N

10000m 5000m 0

Map is based on satellite image of March 1995.

FAP 24 DELFT - DHI	RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities	Survey Bulletin 194 : 18 - 22 September, 1995	
		Location 6 : Padma River, Mawa	
	Date : 29 Feb 1996 Init : mk/ss	Location map	page 1.1



Water level : 5.66 m+PWD measured at the station indicated on page 1.1

FAP 24 DELFT - DHI RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities		Survey Bulletin 194 : 18 - 22 September,1995	
		Location 6 : Padma River, Mawa	
File : M5913T13	Date : 29 Feb 1996 Init : mk/ss	Cross-sections and measured verticals Channel 1	page 1.2

Type of measurement	Method	No. of measurements in channel			
		1	2	3	4
Discharge	ADCP transect	10	-	-	-
	EMF transect	-	-	-	-
	Echo-Sounding	-	-	-	-
Vertical current profile	No.of verticals in channel	12	-	-	-
	ADCP	12	-	-	-
	S4 current meter	-	-	-	-
	Ott current meter	-	-	-	-
Vertical sediment profile	Pump bottle sampling	-	-	-	-
	Andreasen settling tube	-	-	-	-
	MEX turbidity meter	-	-	-	-
	Integrated bottle sampling	7	-	-	-
	Collapsible bag	-	-	-	-
Bed load	Dune tracking	-	-	-	-
	Helley-Smith sampler	13	-	-	-
	Delft Bottle	-	-	-	-
Bed material	US BM-54 bed sampler	-	-	-	-
	Van Veen bed sampler	-	-	-	-

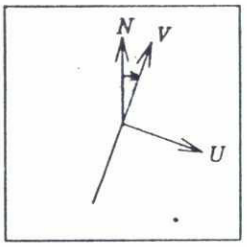
Table 2.1: Survey programme as made

Channel	Width (m)	Area (m^2)	Stage h (m+PWD)	Discharge Q (m^3/s)	Bed load transport Sb (kg/s)	Suspended Sediment transport Ss total (kg/s)
Channel 1	3796	36960	5.66	59540	285	76172

Table 2.2: Key figures

Gauge Location	Channel	Date	Water level (Daily average) (m+PWD)	Gauge
Mawa	Channel 1	18 Sep 95	5.66	FAP 24
		21 Sep 95	5.44	
		22 Sep 95	5.45	

Table 2.3: Water-levels

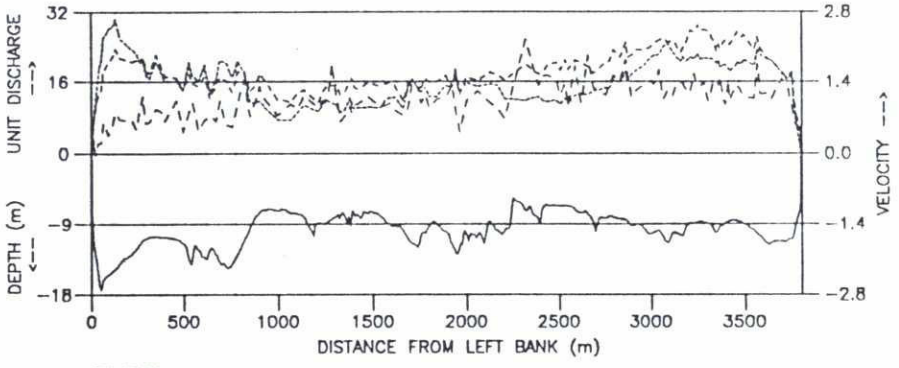


TRANSECT AZIMUTH = 20°

U – VELOCITY NORMAL TO TRANSECT (m/s)

V – VELOCITY PARALLEL TO TRANSECT (m/s)

N – MAGNETIC NORTH



FLOW

LEGEND :

WATER DEPTH (m below STAGE)

UNIT DISCHARGE (m^2/s.m)

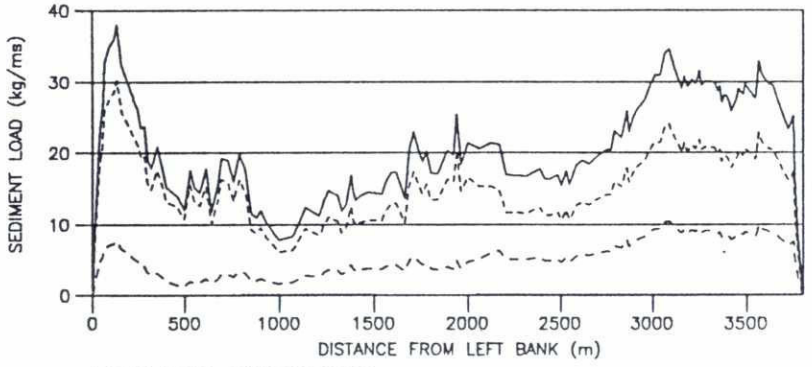
U – (m/s)

V – (m/s)

STAGE = 5.66 (m+PWD)

A = 36960 (m^2)

Q = 59540 (m^3/s)



SEDIMENT TRANSPORT

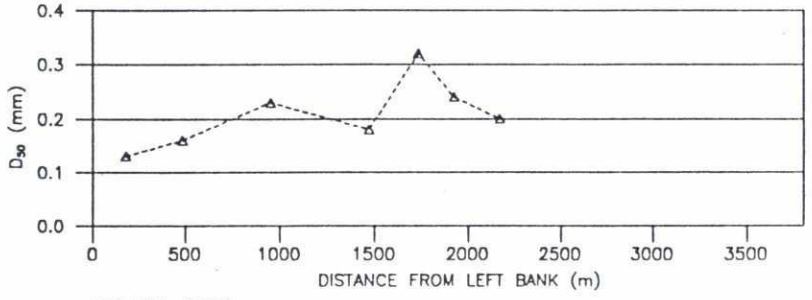
LEGEND :

S_{TOTAL} 76457 (kg/s)

$S_{WASH\ LOAD}$ 56693 (kg/s)

$S_{SUSP.\ BED}$ 19479 (kg/s)

$S_{BED\ LOAD}$ 285 (kg/s)



GRAIN SIZE

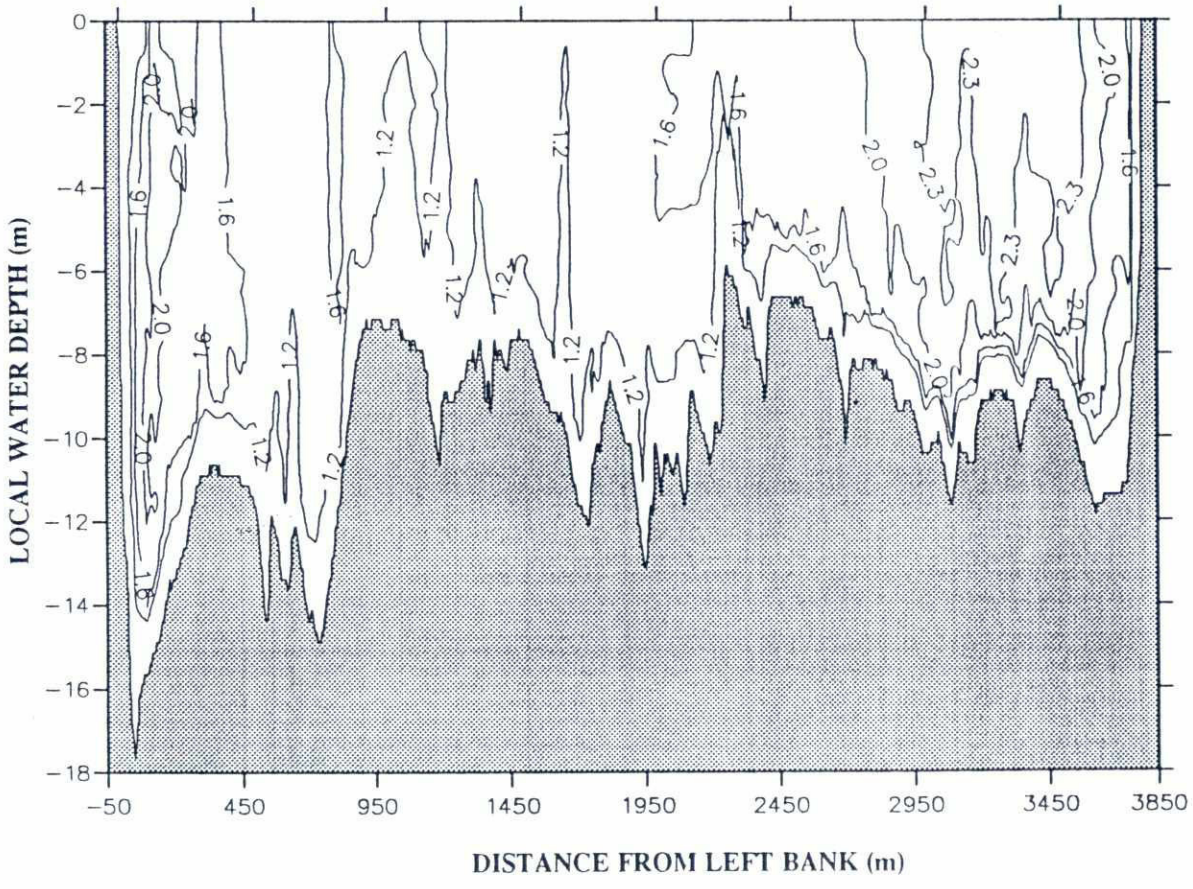
LEGEND :

$D_{50\ SUSP.}$ (mm)

$D_{50\ BED\ LOAD}$ (mm)

$D_{50\ BED\ MAT.}$ (mm)

FAP 24 DELFT - DHI RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities		Survey Bulletin 194 : 18 - 22 September, 1995	
		Location 6 : Padma River, Mawa	
File : M5913T13	Date : 29 Feb 1996 Init : mk/ss	Horizontal distribution of flow and sediments Channel 1	page 3.1



Iso-velocity contours (m/s)
Water level : 5.66 m+PWD measured at the station indicated on page 1.1

FAP 24 RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities DELFT - DHI		Survey Bulletin 194 : 18 - 22 September,1995	
		Location 6 : Padma River, Mawa	
File : M59I3T13	Date : 29 Feb 1996 Init : mk/ss	Cross-sectional distribution of flow velocity Channel 1	page 4.1

Helley-Smith

Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Depth (m)	Weight percent < 0.06 mm	Weight percent > 0.06 mm	D35 (mm)	D50 (mm)	D65 (mm)
1	1	9509181328-1334	14.40	4.87	95.13	0.108	0.141	0.183
	2	9509181346-1352	11.00	3.02	96.98	0.117	0.151	0.194
	3	9509181403-1410	7.00	1.44	98.56	0.134	0.156	0.182
	4	9509181420-1426	7.40	1.28	98.72	0.158	0.181	0.208
	5	9509181434-1440	11.50	0.14	99.86	0.283	0.327	0.377
	6	9509181451-1458	12.00	0.52	99.48	0.263	0.307	0.359
	7	9509211446-1451	6.80	0.68	99.32	0.170	0.198	0.231
	1	9509181328-1334	14.40	7.93	92.07	0.095	0.119	0.159
	2	9509181346-1352	11.00	2.28	97.72	0.127	0.165	0.216
	3	9509181403-1410	7.00	0.28	99.72	0.265	0.310	0.361
	4	9509181420-1426	7.40	0.94	99.06	0.157	0.179	0.204
	5	9509181434-1440	11.50	0.61	99.39	0.265	0.310	0.362
	6	9509181451-1458	12.00	0.94	99.06	0.159	0.182	0.207

Table 5.1 : Grain sizes of bed load

Method	Channel	Time (YYMMDDHHMM-HHMM)	File name
ADCP & EMF transect	1	9509181127-1224	M59I3T02
		9509181234-1256	M59I3T05
		9509181517-1540	M59I3T13 *
		9509181543-1637	M59I3T14
		9509211043-1138	M59L3T01
		9509211140-1204	M59L3T02
		9509220854-0943	M59M3T02
		9509220946-1007	M59M3T03
		9509221152-1214	M59M3T04
		9509221230-1320	M59M3T05

Table 6.1: ADCP & EMF transects

* : transect in PSD 24 data base and presented in Sections 3 and 4

Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	File name
Vertical current & turbidity profiles (ADCP/S4/MEX)	1	1	9509181328-1334	529103	595000	14.40	M59I3P07 *
		2	9509181346-1352	528982	594723	11.00	M59I3P08 *
		3	9509181403-1410	528826	594250	7.00	M59I3P09 *
		4	9509181420-1426	528655	593786	7.40	M59I3P10 *
		5	9509181434-1440	528560	593534	11.50	M59I3P11 *
		6	9509181451-1458	528492	593354	12.00	M59I3P12 *
		7	9509211446-1451	528416	593113	6.80	M59L3P01 *
		8	9509221119-1124	528298	592831	7.40	M59M3P05 *
		9	9509221110-1115	528193	592566	8.90	M59M3P04 *
		10	9509221035-1040	528107	592384	15.60	M59M3P01 *
		11	9509221047-1052	528032	592110	12.40	M59M3P02 *
		12	9509221057-1102	527903	591808	10.40	M59M3P03 *

Table 6.2: Vertical profiles

* S4 & MEX not available

Method	Channel	Vertical	No. of samples	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)
Suspended sediments	1	1	1	9509181328-1334	529103	595000	14.40
		2	1	9509181346-1352	528982	594723	11.00
		3	1	9509181403-1410	528826	594250	7.00
		4	1	9509181420-1426	528655	593786	7.40
		5	1	9509181434-1440	528560	593534	11.50
		6	1	9509181451-1458	528492	593354	12.00
		7	1	9509211446-1451	528416	593113	6.80

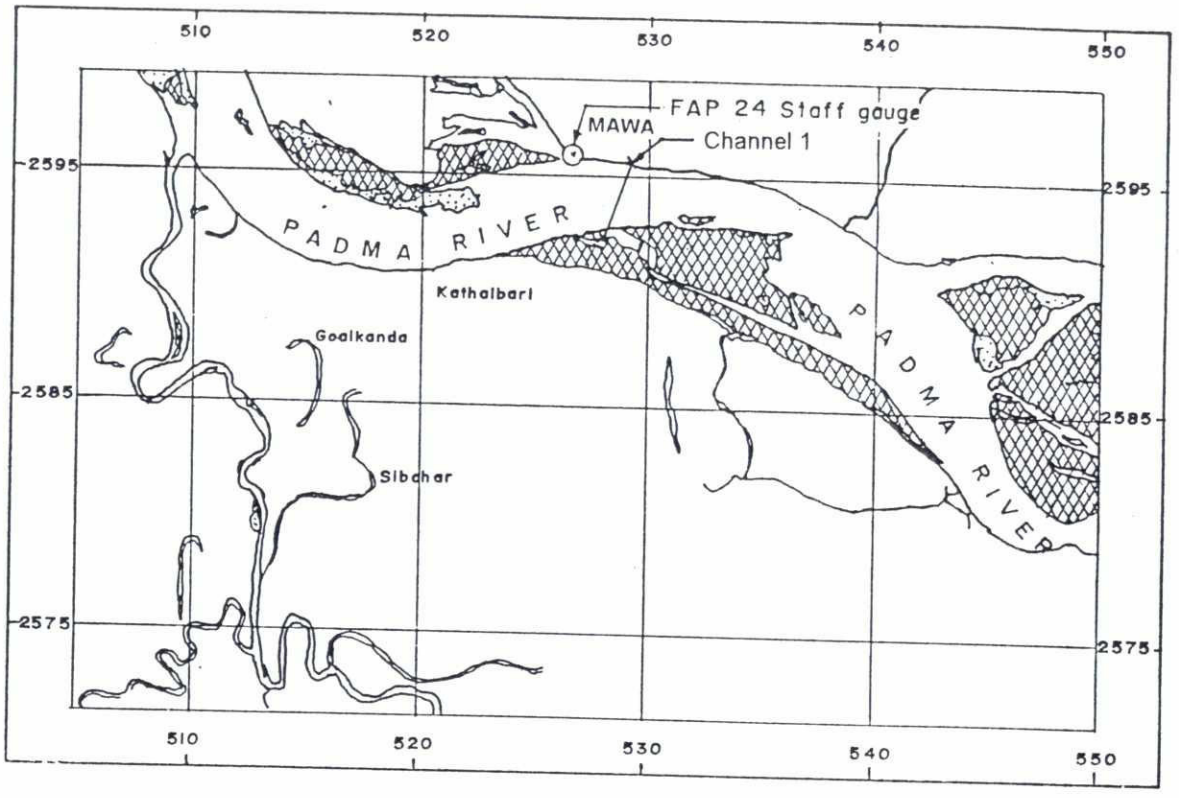
Table 6.3: Suspended sediment - depth integrated

Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	Sample No.
Helley-Smith Sample	1	1	9509181328-1334	529103	595000	14.40	C455
		2	9509181346-1352	528982	594723	11.00	C512
		3	9509181403-1410	528826	594250	7.00	C532
		4	9509181420-1426	528655	593786	7.40	C660
		5	9509181434-1440	528560	593534	11.50	C558
		6	9509181451-1458	528492	593354	12.00	C583
		7	9509211446-1451	528416	593113	6.80	C461
		1	9509181328-1334	529103	595000	14.40	C535
		2	9509181346-1352	528982	594723	11.00	C498
		3	9509181403-1410	528826	594250	7.00	C502
		4	9509181420-1426	528655	593786	7.40	C464
		5	9509181434-1440	528560	593534	11.50	C557
		6	9509181451-1458	528492	593354	12.00	C641

Table 6.4: Bed load

Types of Data	Channel	Format	Filename
ADCP/S4/EMF data	1	QUATTRO	M59I3T13 .ase
Echosounder data	1	QUATTRO	M59I3T13 .ech
Sediment transport data	1	QUATTRO	M59I3T13 .sed
Susp. sed. conc. analysis	1	QUATTRO	M59I3T13 .ssc
Bedload sediment analysis	1	QUATTRO	M59I3T13 .bdl
Transect plot data	1	QUATTRO	M59I3T13 .trs
Iso-velocity plot data	1	MIKE21 MIKE21	M59I3T13 .ct2 M59I3T13 .dt2

Table 7.1 PSD 24 Database file description



LEGEND:

- High land
- Unstable / low char
- Measurement cross-section.
- FAP 24 Staff gauge.

N

10000m 5000m 0

Map is based on satellite image of March 1995.

FAP 24 DELFT - DHI	RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities	Survey Bulletin 204 : 04 - 06 October, 1995	
		Location 06 : Padma River, Mawa	
	Date : 07 Mar 1996 Init : mk/ss	Location map	page 1.1

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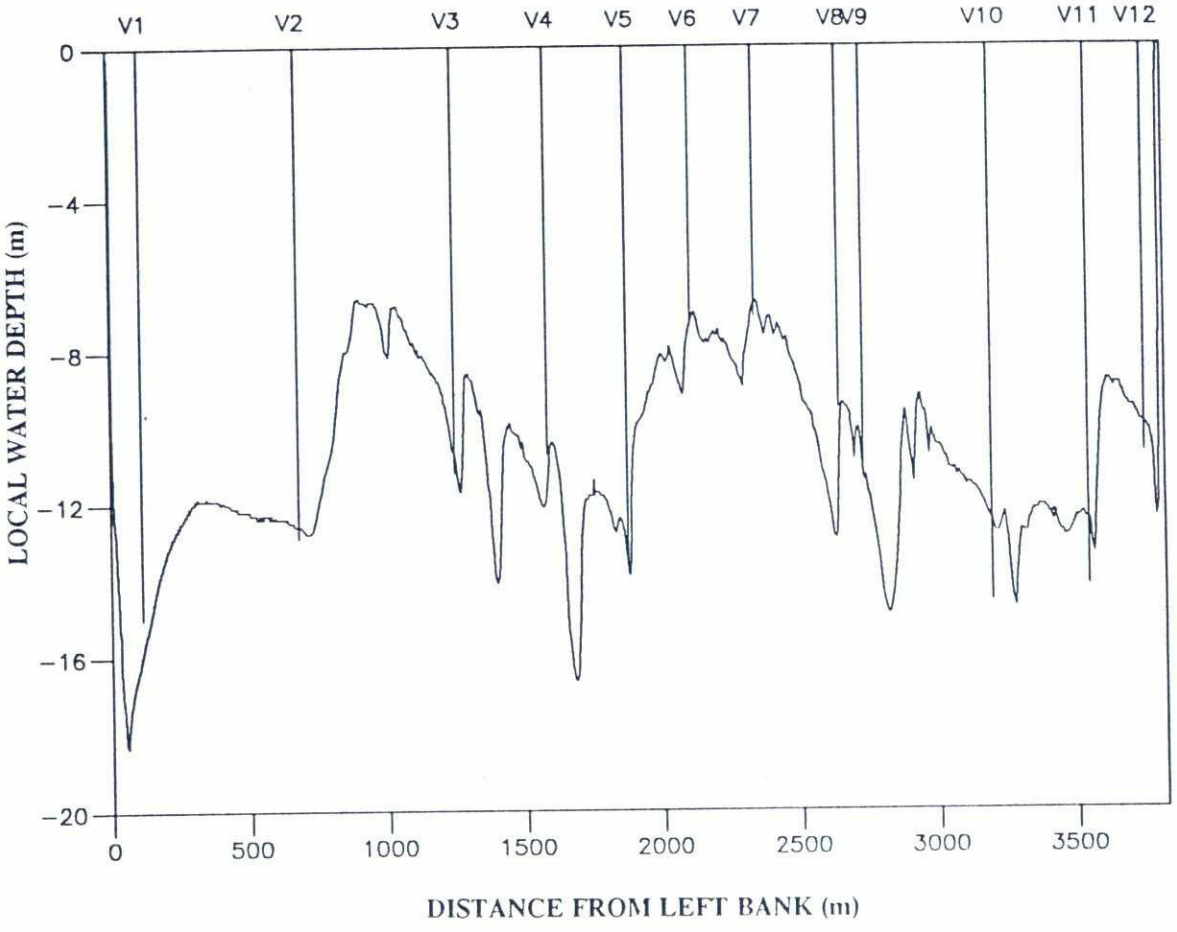


Water level : 5.63 m+PWD measured at the station indicated on page 1.1

FAP 24 RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities DELFT - DHI		Survey Bulletin 204 : 04 - 06 October, 1995	
		Location 06 : Padma River, Mawa	
File : M5A53T06	Date : 07 Mar 1996 Init : mk/ss	Cross-sections and measured verticals Channel 1	page 1.2

Type of measurement	Method	No. of measurements in channel			
		1	2	3	4
Discharge	ADCP transect	4	-	-	-
	EMF transect	-	-	-	-
	Echo-Sounding	-	-	-	-
Vertical current profile	No of verticals in channel	12	-	-	-
	ADCP	12	-	-	-
	S4 current meter	1	-	-	-
	Ott current meter	-	-	-	-
Vertical sediment profile	Pump bottle sampling	6	-	-	-
	Andreasen settling tube	-	-	-	-
	MEX turbidity meter	-	-	-	-
	Integrated bottle sampling	12	-	-	-
	Collapsible bag	-	-	-	-
Bed load	Dune tracking	-	-	-	-
	Helley-Smith sampler	24	-	-	-
	Delft Bottle	-	-	-	-
Bed material	US BM-54 bed sampler	-	-	-	-
	Van Veen bed sampler	-	-	-	-

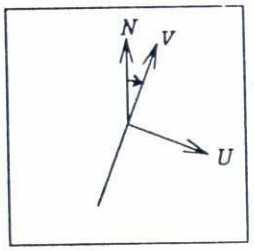
Table 2.1: Survey programme as made

Channel	Width (m)	Area (m^2)	Stage h (m+PWD)	Discharge Q (m^3/s)	Bed load transport Sb (kg/s)	Suspended Sediment transport Ss total (kg/s)
Channel 1	3806	41246	5.63	66899	460	103164

Table 2.2: Key figures

Gauge Location	Channel	Date	Water level (Daily average) (m+PWD)	Gauge
Mawa	Channel 1	04 Oct 95	5.72	FAP 24
		05 Oct 95	5.63	
		06 Oct 95	5.57	

Table 2.3: Water-levels

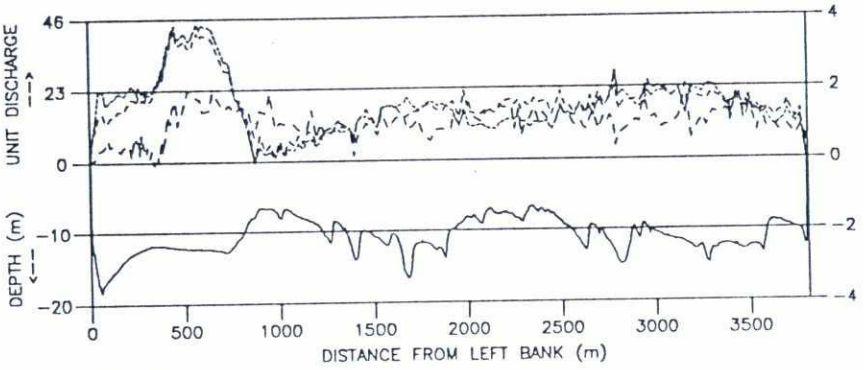


TRANSECT AZIMUTH = 21°

U – VELOCITY NORMAL TO TRANSECT (m/s)

V – VELOCITY PARALLEL TO TRANSECT (m/s)

N – MAGNETIC NORTH



FLOW

LEGEND :

—— WATER DEPTH (m below STACE)

····· UNIT DISCHARGE (m^2/s.m)

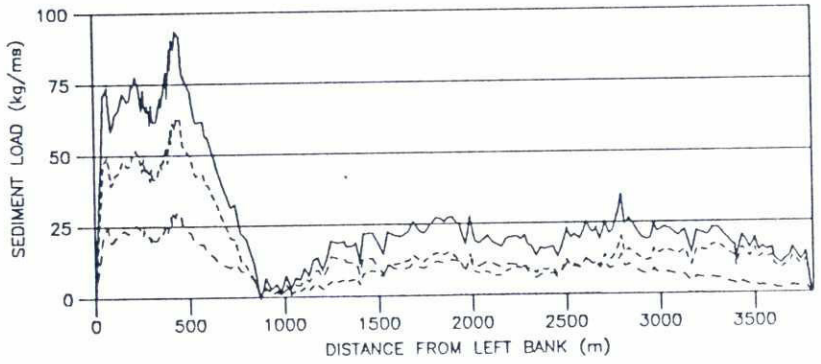
---- U – (m/s)

– – – V – (m/s)

STACE = 5.63 (m+PWD)

A = 41246 (m^2)

Q = 66899 (m^3/s)



SEDIMENT TRANSPORT

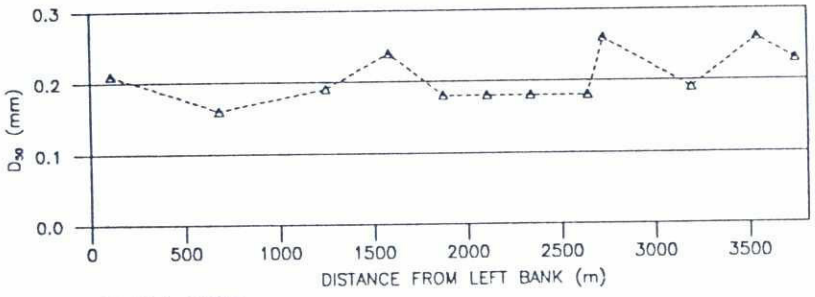
LEGEND :

—— S_{TOTAL} 103624 (kg/s)

----- $S_{WASH\ LOAD}$ 63735 (kg/s)

– – – $S_{SUSP.\ BED}$ 39429 (kg/s)

····· $S_{BED\ LOAD}$ 460 (kg/s)



GRAIN SIZE

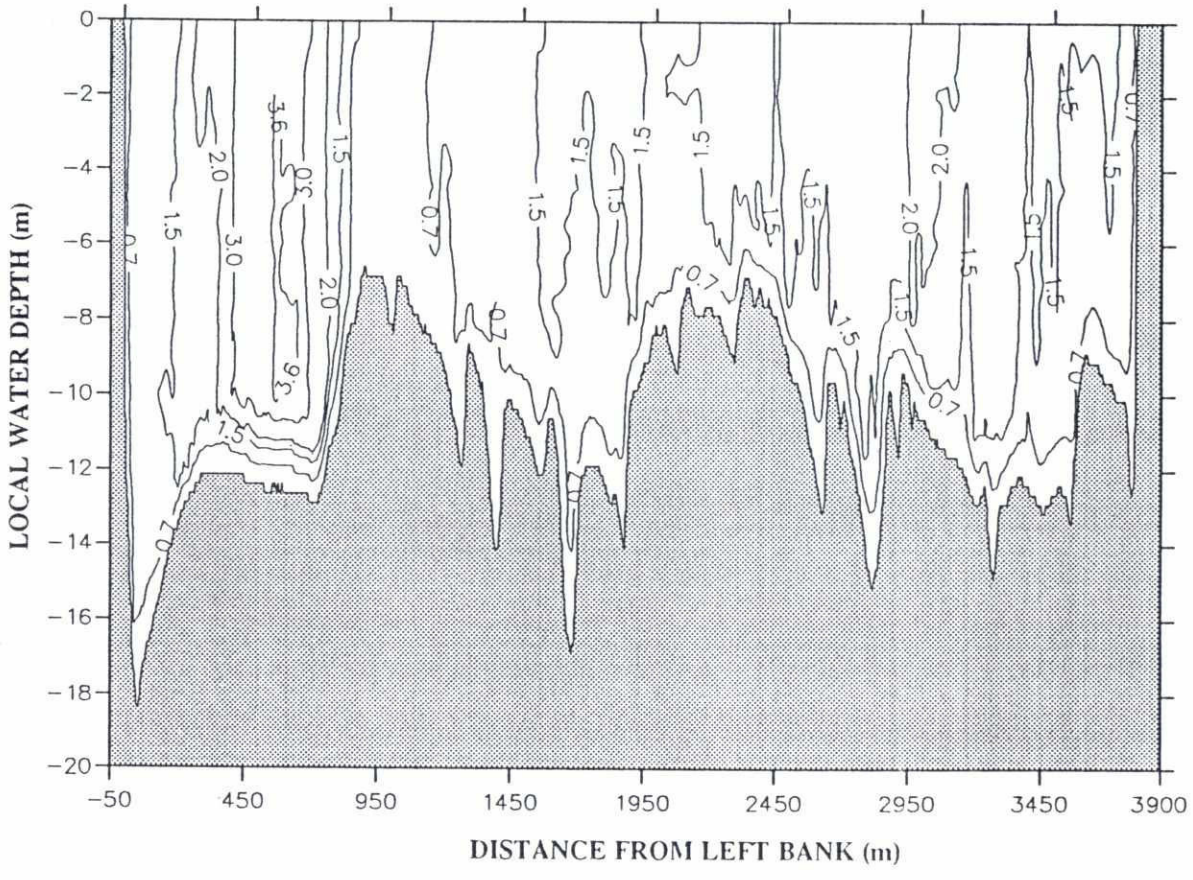
LEGEND :

◊◊◊◊ $D_{60\ SUSP.}$ (mm)

△△△△ $D_{60\ BED\ LOAD}$ (mm)

□□□□ $D_{60\ BED\ MAT.}$ (mm)

FAP 24 RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities DELFT - DHI		Survey Bulletin 204 : 04 - 06 October, 1995	
		Location 6 : Padma River, Mawa	
File : M5A53T06	Date : 06 Mar 1996 Init : mk/ss	Horizontal distribution of flow and sediments Channel 1	page 3.1



Iso-velocity contours (m/s)
Water level : 5.63 m+PWD measured at the station indicated on page 1.1

FAP 24 DELFT - DHI RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities		Survey Bulletin 204 : 04 - 06 October, 1995 Location 06 : Padma River, Mawa	
File : M5A53T06	Date : 07 Mar 1996 Init : mk/ss	Cross-sectional distribution of flow velocity Channel 1	page 4.1

Helley-Smith

Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Depth (m)	Weight percent < 0.06 mm	Weight percent > 0.06 mm	D35 (mm)	D50 (mm)	D65 (mm)
1	1	9510051050-1101	15.00	3.06	96.94	0.269	0.316	0.372
	2	9510051112-1124	12.90	8.80	91.20	0.089	0.108	0.137
	3	9510051141-1152	11.20	0.50	99.50	0.166	0.195	0.228
	4	9510051201-1211	10.70	0.17	99.83	0.272	0.315	0.364
	5	9510051228-1238	13.60	0.90	99.10	0.157	0.178	0.203
	6	9510051249-1259	7.20	0.69	99.31	0.159	0.180	0.204
	7	9510051417-1430	7.10	1.29	98.71	0.157	0.177	0.200
	8	9510051434-1443	9.50	0.49	99.51	0.162	0.184	0.210
	9	9510051453-1503	11.00	0.94	99.06	0.159	0.185	0.214
	10	9510060829-0840	14.60	0.85	99.15	0.169	0.197	0.230
	11	9510060850-0901	14.20	0.25	99.75	0.294	0.336	0.385
	12	9510060908-0918	10.70	0.64	99.36	0.253	0.299	0.352
	1	9510051050-1101	15.00	11.13	88.87	0.083	0.099	0.117
	2	9510051112-1124	12.90	1.86	98.14	0.164	0.207	0.265
	3	9510051141-1152	11.20	0.80	99.20	0.156	0.179	0.205
	4	9510051201-1211	10.70	1.46	98.54	0.147	0.171	0.198
	5	9510051228-1238	13.60	0.33	99.67	0.156	0.176	0.197
	6	9510051249-1259	7.20	1.03	98.97	0.159	0.180	0.204
	7	9510051417-1430	7.10	1.19	98.81	0.155	0.175	0.197
	8	9510051434-1443	9.50	0.80	99.20	0.160	0.182	0.207
	9	9510051453-1503	11.00	0.04	99.96	0.287	0.327	0.373
	10	9510060829-0840	14.60	0.55	99.45	0.165	0.191	0.220
	11	9510060850-0901	14.20	0.71	99.29	0.158	0.182	0.209
	12	9510060908-0918	10.70	1.84	98.16	0.124	0.161	0.209

Table 5.1 : Grain sizes of bed load

Method	Channel	Time (YYMMDDHHMM-HHMM)	File name
ADCP & EMF transect	1	9510041302-1354 9510041420-1439 9510051515-1542 9510051553-1621	M5A43T02 M5A43T03 M5A53T06 * M5A53T07

Table 6.1: ADCP & EMF transects

* : transect in PSD 24 data base and presented in Sections 3 and 4

Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	File name
Vertical current & turbidity profiles (ADCP/S4/MEX)	1	1	9510051050-1101	529106	595011	15.00	M5A53P01 *
		2	9510051112-1124	528926	594524	12.90	M5A53P02 *
		3	9510051141-1152	528713	593985	11.20	M5A53P03 *
		4	9510051201-1211	528594	593673	10.70	M5A53P04 *
		5	9510051228-1238	528501	593411	13.60	M5A53P05 **
		6	9510051249-1259	528423	593187	7.20	M5A53P06 *
		7	9510051417-1430	528343	592973	7.10	M5A53P07 *
		8	9510051434-1443	528228	592682	9.50	M5A53P08 *
		9	9510051453-1503	528206	592613	11.00	M5A53P09 *
		10	9510060829-0840	528050	592180	14.60	M5A63P02 *
		11	9510060850-0901	527914	591854	14.20	M5A63P03 *
		12	9510060908-0918	527846	591643	10.70	M5A63P04 *

Table 6.2: Vertical profiles

** MEX not available

* S4 & MEX not available

Method	Channel	Vertical	No. of samples	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)
Suspended sediments (pump bottle)	1	5	6	9510051228-1238	528501	593411	13.60

Table 6.3: Suspended sediment - point sample

Method	Channel	Vertical	No. of samples	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)
Suspended sediments	1	1	1	9510051050-1101	529106	595011	15.00
		2	1	9510051112-1124	528926	594524	12.90
		3	1	9510051141-1152	528713	593985	11.20
		4	1	9510051201-1211	528594	593673	10.70
		5	1	9510051228-1238	528501	593411	13.60
		6	1	9510051249-1259	528423	593187	7.20
		7	1	9510051417-1430	528343	592973	7.10
		8	1	9510051434-1443	528228	592682	9.50
		9	1	9510051453-1503	528206	592613	11.00
		10	1	9510060829-0840	528050	592180	14.60
		11	1	9510060850-0901	527914	591854	14.20
		12	1	9510060908-0918	527846	591643	10.70

Table 6.4: Suspended sediment - depth integrated

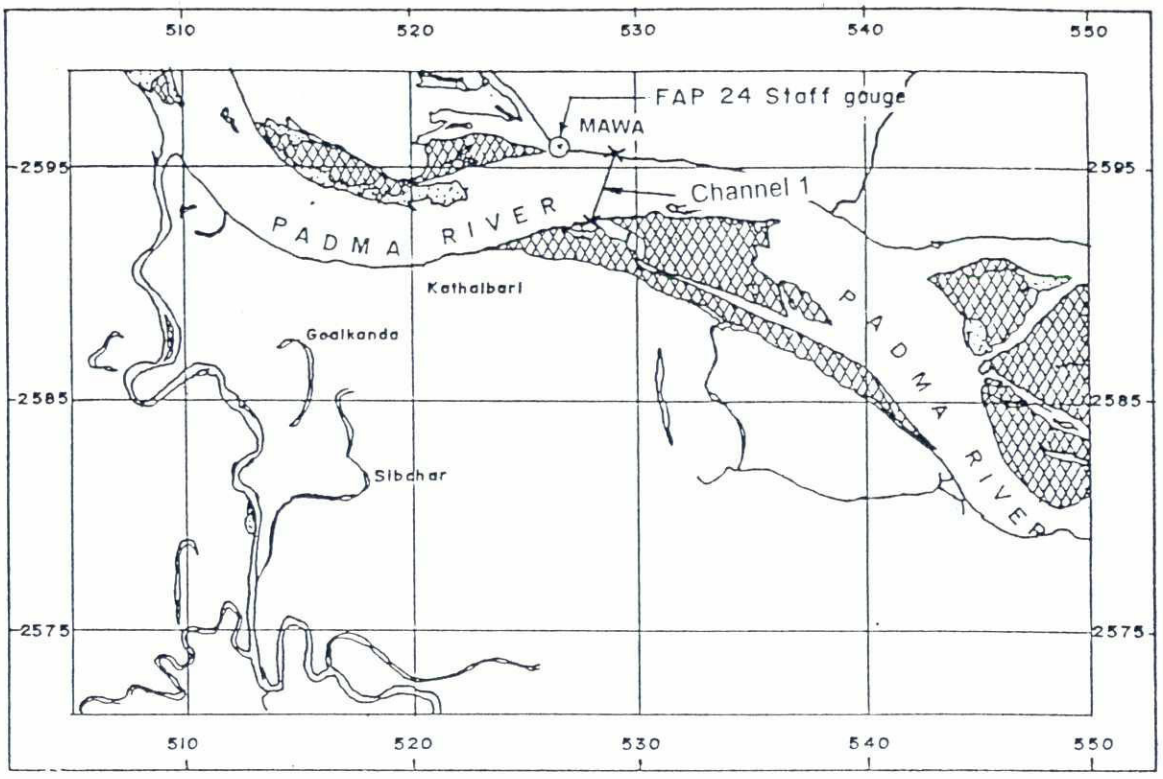
Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	Sample No.
Helley-Smith Sample	1	1	9510051050-1101	529106	595011	15.00	A64
		2	9510051112-1124	528926	594524	12.90	C172
		3	9510051141-1152	528713	593985	11.20	C178
		4	9510051201-1211	528594	593673	10.70	C570
		5	9510051228-1238	528501	593411	13.60	C476
		6	9510051249-1259	528423	593187	7.20	A352
		7	9510051417-1430	528343	592973	7.10	C210
		8	9510051434-1443	528228	592682	9.50	C468
		9	9510051453-1503	528206	592613	11.00	C595
		10	9510060829-0840	528050	592180	14.60	C368
		11	9510060850-0901	527914	591854	14.20	C039
		12	9510060908-0918	527846	591643	10.70	A924
		1	9510051050-1101	529106	595011	15.00	C458
		2	9510051112-1124	528926	594524	12.90	C251
		3	9510051141-1152	528713	593985	11.20	C543
		4	9510051201-1211	528594	593673	10.70	C452
		5	9510051228-1238	528501	593411	13.60	C262
		6	9510051249-1259	528423	593187	7.20	C753
		7	9510051417-1430	528343	592973	7.10	C657
		8	9510051434-1443	528228	592682	9.50	C519
		9	9510051453-1503	528206	592613	11.00	C243
		10	9510060829-0840	528050	592180	14.60	C494
		11	9510060850-0901	527914	591854	14.20	C756
		12	9510060908-0918	527846	591643	10.70	C244

Table 6.5: Bed load

Types of Data	Channel	Format	Filename
ADCP/S4/EMF data	1	QUATTRO	M5A53T06 .ase
Echosounder data	1	QUATTRO	M5A53T06 .ech
Sediment transport data	1	QUATTRO	M5A53T06 .sed
Susp. sed. conc. analysis	1	QUATTRO	M5A53T06 .ssc
Bedload sediment analysis	1	QUATTRO	M5A53T06 .bdl
Transect plot data	1	QUATTRO	M5A53T06 .trs
Iso-velocity plot data	1	MIKE21 MIKE21	M5A53T06 .ct2 M5A53T06 .dt2

Table 7.1 PSD 24 Database file description

02



LEGEND:

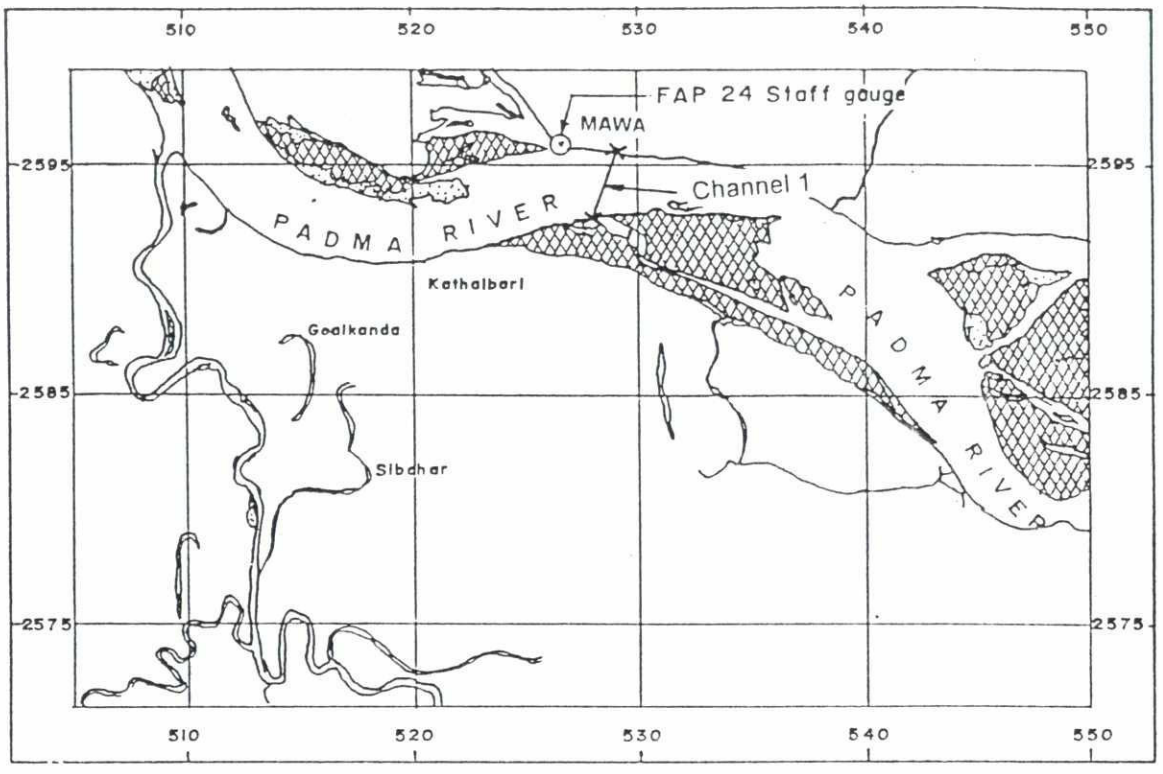
- High land
- Unstable / low char
- Measurement cross-section.
- FAP 24 Staff gauge.

N

10000m 5000m 0

Map is based on satellite image of March 1995.

FAP 24 DELFT - DHI	RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities	Survey Bulletin 254 : 29 - 31 January, 1996	
		Location 6 : Padma River, Mawa	
	Date : 07 May 1996	Location map	page 1.1
	Init : yas		



LEGEND:

- High land
- Unstable / low char
- Measurement cross-section.
- FAP 24 Staff gauge.

N

10000m 5000m 0

Map is based on satellite image of March 1995.

FAP 24 DELFT - DHI	RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities	Survey Bulletin 256 : 07 - 08 February, 1996	
		Location 6 : Padma River, Mawa	
	Date : 21 May 1996 Init : yas	Location map	page 1.1

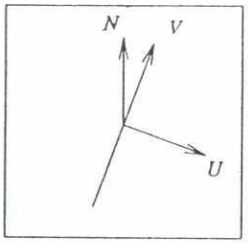
Type of measurement	Method	No. of measurements in channel			
		1	2	3	4
Discharge	ADCP transect	15	-	-	-
	EMF transect	-	-	-	-
	Echo-Sounding	-	-	-	-
Vertical current profile	No.of verticals in channel	6	-	-	-
	ADCP	42	-	-	-
	S4 current meter	94	-	-	-
	Ott current meter	-	-	-	-
Vertical sediment profile	Pump bottle sampling	204	-	-	-
	Andreasen settling tube	-	-	-	-
	MEX turbidity meter	-	-	-	-
	Integrated bottle sampling	-	-	-	-
	Collapsible bag	-	-	-	-
Bed load	Dune tracking	-	-	-	-
	Helley-Smith sampler	52	-	-	-
	Delft Bottle	50	-	-	-
Bed material	US BM-54 bed sampler	-	-	-	-
	Van Veen bed sampler	-	-	-	-
	Bottomgrab sampler	25	-	-	-

Table 2.1: Survey programme as made

Channel 1 File Names	Width (m)	Area (m^2)	AWLR h (m+PWD)	Discharge Q (m^3/s)
M6273t02	3824	29118	1.83	865
M6273t04	3820	28781	1.81	6652
M6273t06	3812	28193	1.67	7645
M6273t09	3813	27644	1.55	7657
M6273t19	3814	28793	1.81	2577
M6283t01	3810	28311	1.69	7077
M6283t12	3823	28223	1.58	3203

Table 2.2: Key figures

Note : Each transect measurment performed twice (reverse direction)

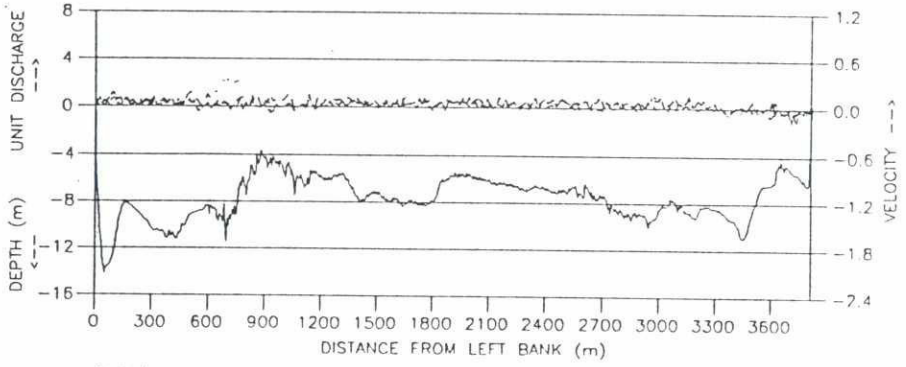


TRANSECT AZIMUTH = 20°

U – VELOCITY NORMAL TO TRANSECT (m/s)

V – VELOCITY PARALLEL TO TRANSECT (m/s)

N – MAGNETIC NORTH

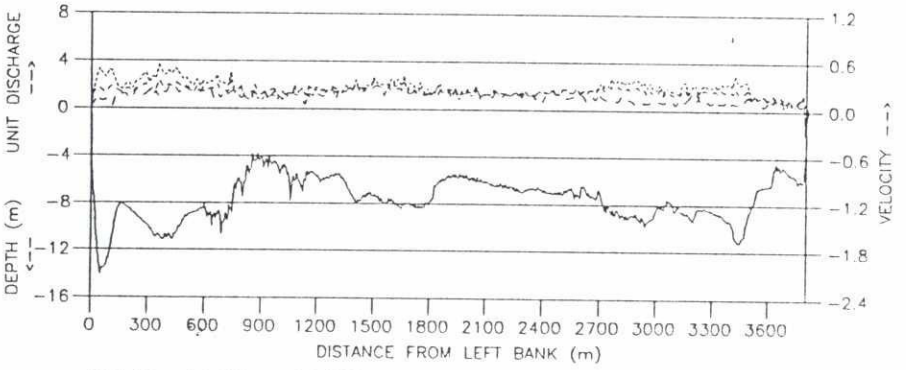


LEGEND :

WATER DEPTH (m below STAGE)
UNIT DISCHARGE ($m^3/s.m$)
U – (m/s)
V – (m/s)

STAGE = 1.83 (m+PWD)
A = 29118 (m^2)
Q = 865 (m^3/s)

(07/2 09:06 – 09:34)

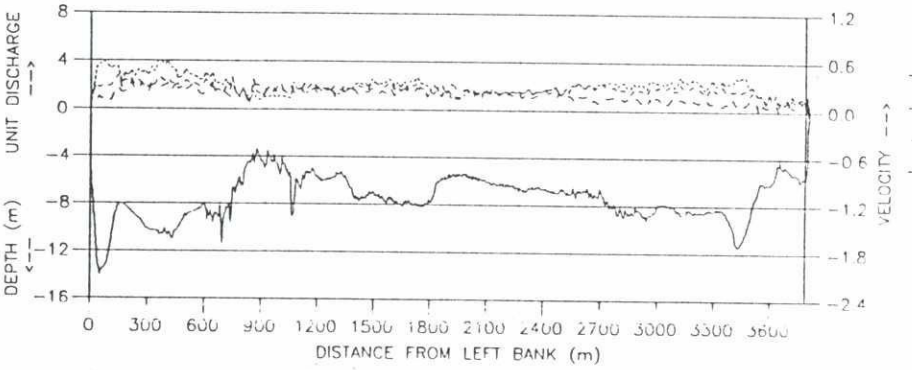


LEGEND :

WATER DEPTH (m below STAGE)
UNIT DISCHARGE ($m^3/s.m$)
U – (m/s)
V – (m/s)

STAGE = 1.81 (m+PWD)
A = 28781 (m^2)
Q = 6652 (m^3/s)

(07/2 11:33 – 11:59)



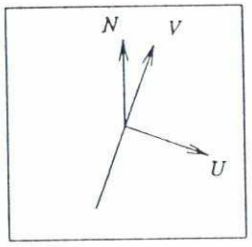
LEGEND :

WATER DEPTH (m below STAGE)
UNIT DISCHARGE ($m^3/s.m$)
U – (m/s)
V – (m/s)

STAGE = 1.67 (m+PWD)
A = 28193 (m^2)
Q = 7645 (m^3/s)

(07/2 14:02 – 14:28)

FAP 24 DELFT - DHI RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities		Survey Bulletin 256 : 07 - 08 February, 1996	
		Location 6 : Padma River, Mawa	
File : M6273t02 File : M6273t04 File : M6273t06	Date : 21 May 1996 Init : yas	Horizontal distribution of flow Channel 1	page 3.1

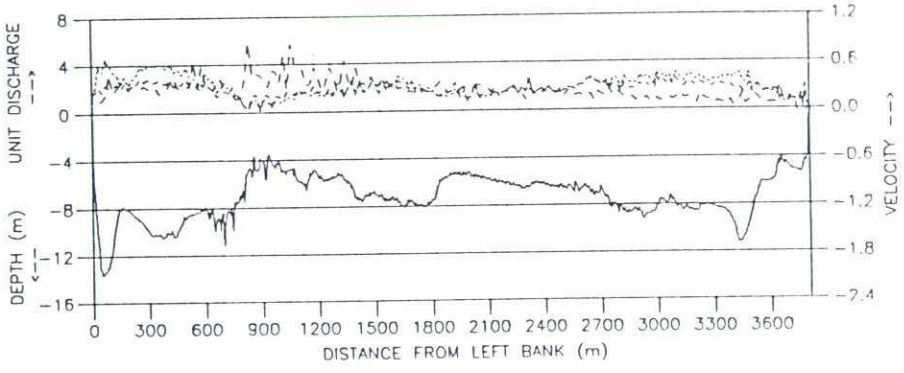


TRANSECT AZIMUTH = 20°

U - VELOCITY NORMAL TO TRANSECT (m/s)

V - VELOCITY PARALLEL TO TRANSECT (m/s)

N - MAGNETIC NORTH



LEGEND :

WATER DEPTH (m below STAGE)

UNIT DISCHARGE ($m^3/s.m$)

U - (m/s)

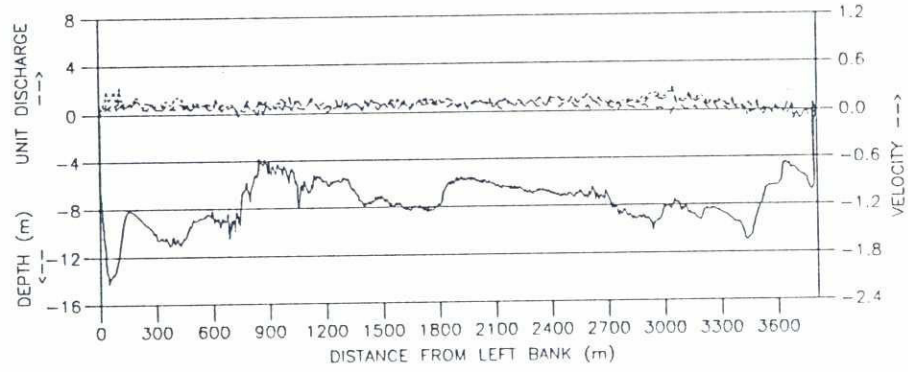
V - (m/s)

STAGE = 1.55 (m+PWD)

A = 27644 (m^2)

Q = 7657 (m^3/s)

(07/2 16:23 - 16:47)



LEGEND :

WATER DEPTH (m below STAGE)

UNIT DISCHARGE ($m^3/s.m$)

U - (m/s)

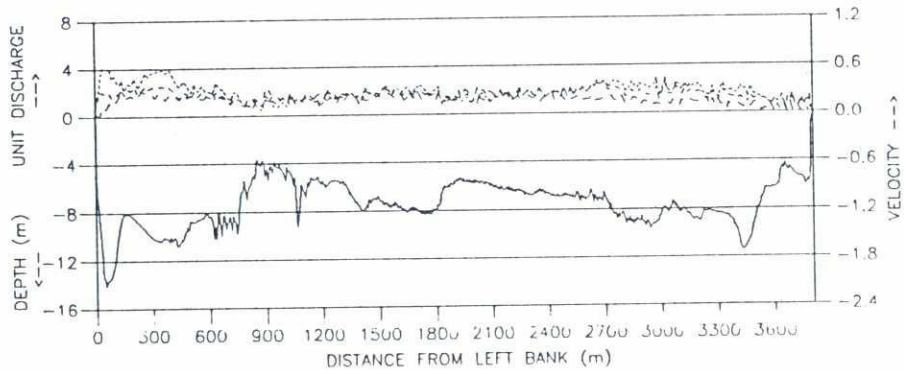
V - (m/s)

STAGE = 1.81 (m+PWD)

A = 28793 (m^2)

Q = 2577 (m^3/s)

(07/2 22:00 - 22:27)



LEGEND :

WATER DEPTH (m below STAGE)

UNIT DISCHARGE ($m^3/s.m$)

U - (m/s)

V - (m/s)

STAGE = 1.69 (m+PWD)

A = 28311 (m^2)

Q = 7077 (m^3/s)

(08/2 00:52 - 01:21)

FAP 24

DELFT - DHI

RIVER SURVEY PROJECT

Flood Plan Coordination Organization

Commission of the European Communities

Survey Bulletin 256 : 07 - 08 February, 1996

Location 6 : Padma River, Mawa

File: M6273t09

File: M6273t19

File: M6283t01

Date : 21 May 1996

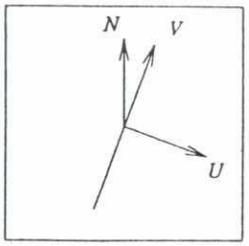
Init : yas

Horizontal distribution of flow

Channel 1

page

3.2

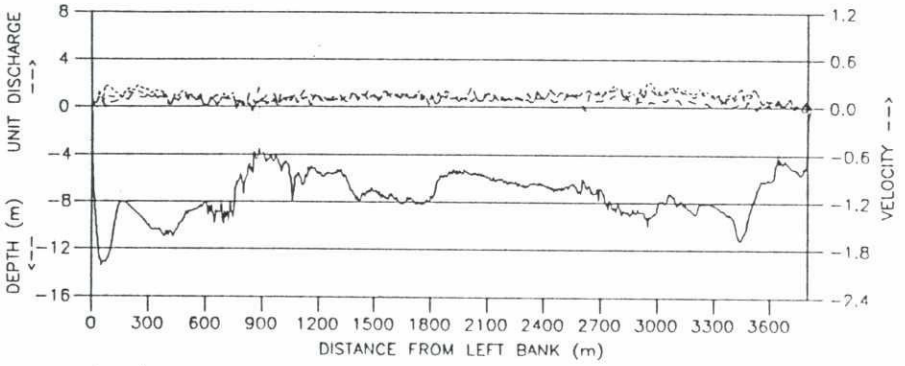


TRANSECT AZIMUTH = 20°

U – VELOCITY NORMAL TO TRANSECT (m/s)

V – VELOCITY PARALLEL TO TRANSECT (m/s)

N – MAGNETIC NORTH



(08/2 08:11 – 08:37)

LEGEND :

WATER DEPTH (m below STAGE)

UNIT DISCHARGE ($m^3/s.m$)

U – (m/s)

V – (m/s)

STAGE = 1.58 (m+PWD)

A = 28223 (m^2)

Q = 3203 (m^3/s)

FAP 24 DELFT - DHI RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities		Survey Bulletin 256 : 07 - 08 February, 1996	
		Location 6 : Padma River, Mawa	
File: M6283t12	Date : 21 May 1996 Init : yas	Horizontal distribution of flow Channel 1	page 3.3

Helley - Smith

Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Depth (m)	Weight percent < 0.06 mm	Weight percent > 0.06 mm	D35 (mm)	D50 (mm)	D65 (mm)
1	1	9602071446-1452	11.10	36.446	63.554	-	0.080	0.103
	2	9602071100-1143	?	3.597	96.403	0.171	0.219	0.281
		9602071200-1238	?	11.726	88.274	0.116	0.148	0.184
		9602071300-1340	?	6.221	93.779	0.142	0.173	0.209
		9602071400-1451	?	7.880	92.120	0.139	0.170	0.209
		9602071500-1545	?	12.283	87.717	0.117	0.149	0.183
		9602071600-1642	?	6.700	93.300	0.148	0.182	0.225
		9602071700-1741	?	4.111	95.889	0.161	0.197	0.240
		9602071840-1855	?	3.922	96.078	0.149	0.178	0.213
		9602071900-1943	10.90	5.660	94.340	0.126	0.155	0.190
		9602072000-2042	11.00	7.451	92.549	0.112	0.142	0.172
		9602072100-2137	11.40	9.943	90.057	0.119	0.148	0.179
		9602072200-2239	11.50	5.761	94.239	0.111	0.141	0.171
		9602072300-2348	11.20	8.037	91.963	0.130	0.161	0.199
		9602070000-0039	11.30	3.364	96.636	0.160	0.194	0.235
		9602080100-0146	11.00	11.830	88.170	0.132	0.162	0.199
		9602080200-0248	11.00	8.095	91.905	0.137	0.167	0.205
		9602080308-0339	10.90	9.122	90.878	0.135	0.167	0.206
		9602080400-0444	11.00	5.382	94.618	0.153	0.184	0.222
		9602080500-0549	10.90	6.295	93.705	0.136	0.169	0.209
		9602080600-0642	10.80	4.915	95.085	0.156	0.195	0.244
		9602080700-0744	10.90	6.741	93.259	0.141	0.173	0.212
		9602080800-0846	11.00	10.744	89.256	0.104	0.136	0.168
		9602080900-0945	11.20	10.893	89.107	0.141	0.187	0.246
	3	9602071730-1736	5.70	0.479	99.521	0.178	0.209	0.245
		9602080144-0151	5.60	0.079	99.921	0.162	0.182	0.204
		9602080902-0909	6.20	8.616	91.384	0.133	0.157	0.184
	5	9602071059-1105	7.60	2.337	97.663	0.201	0.252	0.311
		9602080008-0013	7.60	1.184	98.816	0.186	0.223	0.275
	2	9602071100-1143	?	7.496	92.504	0.135	0.172	0.219
		9602071200-1238	?	8.234	91.766	0.140	0.181	0.236
		9602071300-1340	?	7.726	92.274	0.146	0.180	0.223
		9602071400-1451	?	3.677	96.323	0.140	0.169	0.205
		9602071500-1545	?	4.596	95.40	0.150	0.179	0.214
		9602071600-1642	?	8.506	91.494	0.133	0.167	0.209
		9602071700-1741	?	6.633	93.367	0.158	0.198	0.248
		9602071840-1855	?	0.762	99.238	0.166	0.194	0.227
		9602071900-1943	10.90	1.456	98.544	0.162	0.190	0.222
		9602072000-2042	11.00	4.920	95.080	0.152	0.189	0.236
		9602072100-2137	11.40	8.770	91.230	0.139	0.166	0.199
		9602072200-2239	11.50	6.066	93.934	0.140	0.170	0.207
		9602072300-2348	11.20	5.247	94.753	0.116	0.144	0.174
		9602070000-0039	11.30	9.25	90.749	0.12	0.16	0.206
		9602080100-0146	11.00	20.54	79.461	0.09	0.13	0.172
		9602080200-0248	11.00	4.954	95.046	0.151	0.190	0.240
		9602080308-0339	10.90	6.975	93.025	0.142	0.174	0.213
		9602080400-0444	11.00	5.434	94.566	0.162	0.199	0.245
		9602080500-0549	10.90	6.452	93.548	0.119	0.156	0.204
		9602080600-0642	10.80	3.571	96.429	0.153	0.183	0.220
		9602080700-0744	10.90	5.449	94.551	0.141	0.167	0.198
		9602080800-0846	11.00	5.676	94.324	0.149	0.182	0.223
		9602080900-0945	11.20	11.628	88.372	0.116	0.147	0.179

Table 5.1 : Grain size of bed load (continued)

Delft Bottle

Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Depth (m)	Weight percent < 0.06 mm	Weight percent > 0.06 mm	D35 (mm)	D50 (mm)	D65 (mm)
1	2	9602070900-0943	11.40	3.896	96.104	0.141	0.165	0.193
		9602071000-1038	?	8.571	91.429	0.104	0.135	0.167
		9602071100-1143	?	6.486	93.514	0.124	0.150	0.182
		9602071200-1238	?	7.889	92.111	0.113	0.142	0.172
		9602071300-1340	?	8.009	91.991	0.095	0.120	0.154
		9602071400-1451	?	5.665	94.335	0.110	0.139	0.170
		9602071500-1545	?	10.607	89.393	0.086	0.105	0.129
		9602071600-1642	?	12.000	88.000	0.084	0.102	0.123
		9602071700-1741	?	11.579	88.421	0.087	0.106	0.132
		9602071840-1855	?	10.753	89.247	0.081	0.094	0.110
		9602071900-1943	10.90	12.357	87.643	0.080	0.094	0.110
		9602072000-2042	11.00	19.617	80.383	0.078	0.096	0.118
		9602072100-2137	11.40	3.486	96.514	0.103	0.130	0.160
		9602072200-2239	11.50	10.294	89.706	0.088	0.107	0.133
		9602072300-2348	11.20	4.444	95.556	0.095	0.117	0.147
		9602070000-0039	11.30	8.732	91.268	0.101	0.130	0.159
		9602080100-0146	11.00	12.789	87.211	0.085	0.105	0.131
		9602080200-0248	11.00	7.262	92.738	0.086	0.101	0.120
		9602080308-0339	10.90	7.477	92.523	0.089	0.107	0.132
		9602080400-0444	11.00	9.510	90.490	0.084	0.099	0.117
		9602080500-0549	10.90	9.602	90.398	0.082	0.095	0.111
		9602080600-0642	10.80	7.132	92.868	0.084	0.098	0.115
		9602080700-0744	10.90	9.289	90.711	0.081	0.094	0.108
		9602080800-0846	11.00	9.798	90.202	0.089	0.109	0.137
		9602080900-0945	11.20	1.165	98.835	0.107	0.136	0.173
	2	9602070900-0943	11.40	2.632	97.368	0.116	0.143	0.173
		9602071000-1038	?	11.406	88.594	0.096	0.125	0.165
		9602071100-1143	?	4.076	95.924	0.124	0.149	0.179
		9602071200-1238	?	8.394	91.606	0.126	0.152	0.183
		9602071300-1340	?	6.082	93.918	0.097	0.121	0.154
		9602071400-1451	?	10.030	89.970	0.090	0.111	0.140
		9602071500-1545	?	14.060	85.940	0.083	0.100	0.122
		9602071600-1642	?	8.146	91.854	0.088	0.106	0.128
		9602071700-1741	?	10.266	89.734	0.082	0.097	0.114
		9602071840-1855	?	18.135	81.865	0.076	0.090	0.107
		9602071900-1943	10.90	14.730	85.270	0.078	0.091	0.107
		9602072000-2042	11.00	4.352	95.648	0.107	0.135	0.164
		9602072100-2137	11.40	7.949	92.051	0.091	0.112	0.141
		9602072200-2239	11.50	20.000	80.000	0.078	0.095	0.118
		9602072300-2348	11.20	6.358	93.642	0.092	0.113	0.141
		9602070000-0039	11.30	23.219	76.781	0.074	0.090	0.110
		9602080100-0146	11.00	8.757	91.243	0.092	0.114	0.146
		9602080200-0248	11.00	9.623	90.377	0.083	0.098	0.115
		9602080308-0339	10.90	14.875	85.125	0.081	0.098	0.118
		9602080400-0444	11.00	5.541	94.459	0.094	0.115	0.146
		9602080500-0549	10.90	15.481	84.519	0.077	0.090	0.106
		9602080600-0642	10.80	10.542	89.458	0.080	0.093	0.109
		9602080700-0744	10.90	19.705	80.295	0.074	0.086	0.101
		9602080800-0846	11.00	16.945	83.055	0.086	0.111	0.143
		9602080900-0945	11.20	19.780	80.220	0.076	0.090	0.108

Table 5.2 : Grain sizes of bed load

Bottomgrab Samples

Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Depth (m)	Weight percent < 0.06 mm	Weight percent > 0.06 mm	D35 (mm)	D50 (mm)	D65 (mm)
1	1	9602071446-1452	11.10	89.869	10.131	0.017	0.027	0.039
		9602070502-0508	12.30	87.773	12.227	0.023	0.032	0.045
	2	9602070900-0943	11.40	3.629	96.371	0.101	0.126	0.156
		9602071400-1451	?	6.192	93.808	0.096	0.120	0.150
		9602072000-2042	11.00	4.635	95.365	0.099	0.124	0.154
		9602080200-0248	11.00	5.591	94.409	0.096	0.118	0.148
		9602080800-0846	11.00	6.048	93.952	0.088	0.105	0.125
	3	9602071225-1233	5.50	3.610	96.390	0.152	0.171	0.193
		9602071730-1736	5.70	0.708	99.292	0.158	0.178	0.199
		9602080144-0151	5.60	0.641	99.359	0.159	0.178	0.200
		9602080902-0909	6.20	10.715	89.285	0.139	0.163	0.190
	4	9602070807-0815	8.10	2.910	97.090	0.153	0.174	0.199
		9602071412-1430	8.00	2.156	97.844	0.154	0.178	0.205
		9602072000-2008	7.90	1.074	98.926	0.161	0.182	0.207
		9602080200-0213	8.00	1.012	98.988	0.159	0.179	0.201
		9602080800-0817	7.90	4.595	95.405	0.130	0.153	0.180
	5	9602071059-1105	7.60	1.685	98.315	0.166	0.191	0.220
		9602071551-1558	7.00	37.140	62.860	0.053	0.141	0.181
		9602080008-0013	7.60	35.400	64.600	0.046	0.149	0.187
		9602080557-0604	6.90	92.284	7.716	0.010	0.015	0.023
	6	9602070837-0844	10.20	97.934	2.066	0.008	0.015	0.020
		9602071327-1333	9.80	96.780	3.220	0.007	0.012	0.017
		9602071901-1908	9.10	97.585	2.415	0.008	0.012	0.017
		9602080328-0334	9.20	83.030	16.970	0.011	0.017	0.029
		9602080955-1002	10.40	95.684	4.316	0.008	0.013	0.021

Table 5.2 : Grain sizes of bed load

Method	Channel	Time (YYMMDDHHMM-HHMM)	File name
ADCP & EMF transect	1	9602070759-0826	M6273T01
		9602070906-0934	M6273T02 *
		9602071010-1036	M6273T03
		9602071133-1159	M6273T04 *
		9602071252-1319	M61V3T05
		9602071402-1428	M6273T06 *
		9602071506-1534	M6273T08
		9602071623-1647	M6273T09 *
		9602071820-1848	M6273T10
		9602072200-2227	M6273T19 *
		9602072317-2349	M6273T20
		9602080052-0121	M6283T01 *
		9602080512-0540	M6283T06
		9602080811-0837	M6283T12 *
		9602080921-0948	M6283T13

Table 6.1: ADCP & EMF transects * : transect in PSD 24 data base and presented in Sections 3 and 4

Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	File name
Vertical current & turbidity profiles (ADCP/S4/MEX)	1	1	9602070942-0948	529110	595140	11.90	m6273p02 *
			9602071446-1452	529140	595130	11.10	m6273p06 *
			9602072252-2257	529139	595115	14.00	m6273p11 *
			9602070502-0508	529140	595126	12.30	m6283p05 *
		2	9602070900-0943	529016	594792	11.40	m6271p01 *
			9602071000-1038	529016	594792	?	m6271p02 *
			9602071100-1143	529016	594792	?	m6271p03 *
			9602071200-1238	529016	594792	?	m6271p04 *
			9602071300-1340	529016	594792	?	m6271p05 *
			9602071400-1451	529016	594792	?	m6271p07 *
			9602071500-1545	529016	594792	?	m6271p08 *
			9602071600-1642	529016	594792	?	m6271p09 *
			9602071700-1741	529016	594792	?	m6271p10 *
			9602071840-1855	529016	594792	?	m6271p12 *
			9602071900-1943	529016	594792	10.90	m6271p14 *
			9602072000-2042	529016	594792	11.00	m6271p15 *
			9602072100-2137	529016	594792	11.40	m6271p16 *
			9602072200-2239	529016	594792	11.50	m6271p17 *
			9602072300-2348	529016	594792	11.20	m6271p18 *
			9602070000-0039	529016	594792	11.30	m6271p19 *
			9602080100-0146	529016	594792	11.00	m6281p01 *
			9602080200-0248	529016	594792	11.00	m6281p03 *
			9602080308-0339	529016	594792	10.90	m6281p04 *
			9602080400-0444	529016	594792	11.00	m6281p06 *
			9602080500-0549	529016	594792	10.90	m6281p08 *
			9602080600-0642	529016	594792	10.80	m6281p09 *

Table 6.2: Vertical profiles (continued) * Mex not avilable ** ADCP and Mex not available

Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	File name
Vertical current & turbidity profiles (ADCP/S4/MEX)	1	2	9602080700-0744	529016	594792	10.90	m6281p10 *
			9602080800-0846	529016	594792	11.00	m6281p11 *
			9602080900-0945	529016	594792	11.20	m6281p12 *
		3	9602071225-1233	528674	593941	5.50	m6273p04 *
			9602071730-1736	528683	593902	5.70	m6273p09 *
			9602080144-0151	528687	593907	5.60	m6283p02 *
			9602080902-0909	528637	593901	6.20	m6283p08 *
		4	9602070807-0815	528565	593573	8.10	m6272p01 **
			9602070850-0858	528538	593561	8.50	m6272p02 **
			9602070903-0915	528545	593570	8.70	m6272p03 **
			9602070935-0946	528571	593568	8.50	m6272p04 **
			9602071000-1016	528570	593567	8.50	m6272p05 **
			9602071030-1038	528571	593568	8.50	m6272p06 **
			9602071100-1112	528572	593571	8.30	m6272p07 **
			9602071130-1141	528571	593576	8.20	m6272p08 **
			9602071202-1221	528570	593581	8.10	m6272p09 **
			9602071230-1236	528570	593581	8.10	m6272p10 **
			9602071300-1322	528570	593580	8.10	m6272p11 **
			9602071330-1337	528569	593580	8.10	m6272p12 **
			9602071412-1430	528571	593580	8.00	m6272p13 **
			9602071143-1455	528570	593580	8.00	m6272p14 **
			9602071500-1513	528571	593580	8.00	m6272p15 **
			9602071530-1554	528571	593580	8.00	m6272p16 **
			9602071600-1615	528571	593581	8.00	m6272p17 **
			9602071630-1654	528570	593580	7.90	m6272p18 **
			9602071703-1714	528569	593580	7.90	m6272p19 **
			9602071731-1745	528569	593580	7.80	m6272p20 **
			9602071800-1816	528569	593580	7.80	m6272p21 **
			9602071830-1854	528571	593581	7.80	m6272p22 **
			9602071900-1908	528571	593580	7.80	m6272p23 **
			9602071930-1956	528570	593581	7.80	m6272p24 **
			9602072000-2008	528570	593580	7.90	m6272p25 **
			9602072038-2052	528569	593581	8.00	m6272p26 **
			9602072100-2113	528570	593579	8.10	m6272p27 **
			9602072130-2151	528570	593580	8.20	m6272p28 **
			9602072200-2212	528570	593579	8.30	m6272p29 **
			9602072230-2252	528571	593579	8.20	m6272p30 **
			9602072300-2318	528571	593579	8.20	m6272p31 **
			9602072330-2351	528571	593570	8.10	m6272p32 **
			9602080002-0012	528570	593579	8.10	m6282p01 **
			9602080030-0052	528569	593581	8.00	m6282p02 **
			9602080100-0108	528570	593579	8.00	m6282p03 **
			9602080130-0151	528569	593579	8.00	m6282p04 **
			9602080200-0213	528570	593580	8.00	m6282p05 **
			9602080230-0254	528571	593581	8.00	m6282p06 **
			9602080300-0320	528570	593580	7.90	m6282p07 **
			9602080333-0355	528570	593581	7.90	m6282p08 **
			9602080400-0414	528570	593580	7.90	m6282p09 **
			9602080430-0455	528570	593580	7.80	m6282p10 **
			9602080500-0513	528570	593581	7.80	m6282p11 **
			9602080530-0552	528570	593582	7.80	m6282p12 **
			9602080600-0612	528571	593581	7.80	m6282p13 **

Table 6.2: Vertical profiles (continued)

* Mex not avilable

** ADCP and Mex not available

Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	File name
Vertical current & turbidity profiles (ADCP/S4/MEX)	1	4	9602080630-0651	528570	593582	7.80	m6282p14 **
		4	9602080700-0714	528571	593580	7.80	m6282p15 **
		4	9602080731-0756	528570	593581	7.80	m6282p16 **
		4	9602080800-0817	528569	593580	7.90	m6282p17 **
		4	9602080835-0857	528564	593573	8.10	m6282p18 **
		4	9602080900-0915	528564	593571	8.10	m6282p19 **
		4	9602080930-0954	528567	593576	8.30	m6282p20 **
		5	9602071059-1105	528218	592620	7.60	m6273p03 *
		5	9602071551-1558	528226	592652	7.00	m6273p07 *
		5	9602080008-0013	528227	592647	7.60	m6283p01 *
		5	9602080557-0604	528222	592650	6.90	m6283p06 *
		6	9602070837-0844	527941	591953	10.20	m6273p01 *
		6	9602071327-1333	527977	591964	9.80	m6273p05 *
		6	9602071901-1908	527979	591972	9.10	m6273p10 *
		6	9602080328-0334	527980	591974	9.20	m6283p03 *
		6	9602080955-1002	527936	591965	10.40	m6283p09 *

Table 6.2: Vertical profiles

* Mex not available

** ADCP and Mex not available

Method	Channel	Vertical	No. of samples	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)
Suspended sediments (pump bottle)		1	3	9602070942-0948	529110	595140	11.90
		1	3	9602071446-1452	529140	595130	11.10
		1	3	9602072252-2257	529139	595115	14.00
		1	3	9602070502-0508	529140	595126	12.30
		2	3	9602070900-0943	529016	594792	11.40
		2	3	9602071000-1038	529016	594792	?
		2	3	9602071100-1143	529016	594792	?
		2	3	9602071200-1238	529016	594792	?
		2	3	9602071300-1340	529016	594792	?
		2	3	9602071400-1451	529016	594792	?
		2	3	9602071500-1545	529016	594792	?
		2	3	9602071600-1642	529016	594792	?
		2	3	9602071700-1741	529016	594792	?
		2	3	9602071840-1855	529016	594792	?
		2	3	9602071900-1943	529016	594792	10.90
		2	3	9602072000-2042	529016	594792	11.00
		2	3	9602072100-2137	529016	594792	11.40
		2	3	9602072200-2239	529016	594792	11.50
		2	3	9602072300-2348	529016	594792	11.20
		2	3	9602070000-0039	529016	594792	11.30
		2	3	9602080100-0146	529016	594792	11.00
		2	3	9602080200-0248	529016	594792	11.00
		2	3	9602080308-0339	529016	594792	10.90
		2	3	9602080400-0444	529016	594792	11.00
		2	3	9602080500-0549	529016	594792	10.90
		2	3	9602080600-0642	529016	594792	10.80
		2	3	9602080700-0744	529016	594792	10.90
		2	3	9602080800-0846	529016	594792	11.00
		2	3	9602080900-0945	529016	594792	11.20
		3	3	9602071225-1233	528674	593941	5.50
		3	3	9602071730-1736	528683	593902	5.70
		3	3	9602080144-0151	528687	593907	5.60
		3	3	9602080902-0909	528637	593901	6.20
		4	3	9602070807-0815	528565	593573	8.10
		4	3	9602070903-0915	528545	593570	8.70
		4	3	9602071000-1016	528570	593567	8.50
		4	3	9602071100-1112	528572	593571	8.30
		4	3	9602071202-1221	528570	593581	8.10
		4	3	9602071300-1322	528570	593580	8.10
		4	3	9602071412-1430	528571	593580	8.00
		4	3	9602071500-1513	528571	593580	8.00
		4	3	9602071600-1615	528571	593581	8.00
		4	3	9602071703-1714	528569	593580	7.90
		4	3	9602071800-1816	528569	593580	7.80
		4	3	9602071900-1908	528571	593580	7.80
		4	3	9602072000-2008	528570	593580	7.90
		4	3	9602072100-2113	528570	593579	8.10
		4	3	9602072200-2212	528570	593579	8.30
		4	3	9602072300-23[illegible]8	528571	593579	8.20
		4	3	9602080002-0012	528570	593579	8.10

Table 6.3: Suspended sediment - point sampled (continued)

Method	Channel	Vertical	No. of samples	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)
Suspended sediments (pump bottle)	1	4	3	9602080100-0108	528570	593579	8.00
		4	3	9602080200-0213	528570	593580	8.00
		4	3	9602080300-0320	528570	593580	7.90
		4	3	9602080400-0414	528570	593580	7.90
		4	3	9602080500-0513	528570	593581	7.80
		4	3	9602080600-0612	528571	593581	7.80
		4	3	9602080700-0714	528571	593580	7.80
		4	3	9602080800-0817	528569	593580	7.90
		4	3	9602080900-0915	528564	593571	8.10
	1	5	3	9602071059-1105	528218	592620	7.60
		5	3	9602071551-1558	528226	592652	7.00
		5	3	9602080008-0013	528227	592647	7.60
		5	3	9602080557-0604	528222	592650	6.90
	1	6	3	9602070837-0844	527941	591953	10.20
		6	3	9602071327-1333	527977	591964	9.80
		6	3	9602071901-1908	527979	591972	9.10
		6	3	9602080328-0334	527980	591974	9.20
		6	3	9602080955-1002	527936	591965	10.40

Table 6.3: Suspended sediment - point sampled

Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	Sample No.
Helley - Smith Sample	1	1	9602071446-1452	529140	595130	11.10	C514
		2	9602071100-1143	529016	594792	?	C016
			9602071200-1238	529016	594792	?	A51
			9602071300-1340	529016	594792	?	A61
			9602071400-1451	529016	594792	?	C242
			9602071500-1545	529016	594792	?	C153
			9602071600-1642	529016	594792	?	C264
			9602071700-1741	529016	594792	?	C481
			9602071840-1855	529016	594792	?	C088
			9602071900-1943	529016	594792	10.90	A690
			9602072000-2042	529016	594792	11.00	A701
			9602072100-2137	529016	594792	11.40	C727
			9602072200-2239	529016	594792	11.50	C586
			9602072300-2348	529016	594792	11.20	C034
			9602070000-0039	529016	594792	11.30	C688
			9602080100-0146	529016	594792	11.00	C611
			9602080200-0248	529016	594792	11.00	C691
			9602080308-0339	529016	594792	10.90	C211
			9602080400-0444	529016	594792	11.00	C412
			9602080500-0549	529016	594792	10.90	C695
			9602080600-0642	529016	594792	10.80	C102
			9602080700-0744	529016	594792	10.90	C434
			9602080800-0846	529016	594792	11.00	C694
			9602080900-0945	529016	594792	11.20	C536
		3	9602071730-1736	528683	593902	5.70	C577
			9602080144-0151	528687	593907	5.60	C602
			9602080902-0909	528637	593901	6.20	C336
		5	9602071059-1105	528218	592620	7.60	C150
			9602080008-0013	528227	592647	7.60	C203
		2	9602071100-1143	529016	594792	?	A460
			9602071200-1238	529016	594792	?	C065
			9602071300-1340	529016	594792	?	C769
			9602071400-1451	529016	594792	?	C061
			9602071500-1545	529016	594792	?	C305
			9602071600-1642	529016	594792	?	C213
			9602071700-1741	529016	594792	?	C350
			9602071840-1855	529016	594792	?	C626
			9602071900-1943	529016	594792	11.00	C159
			9602072000-2042	529016	594792	11.00	C587
			9602072100-2137	529016	594792	11.00	C526
			9602072200-2239	529016	594792	12.00	C673
			9602072300-2348	529016	594792	11.00	C491
			9602070000-0039	529016	594792	11.00	C528
			9602080100-0146	529016	594792	11.00	C462
			9602080200-0248	529016	594792	11.00	C278
			9602080308-0339	529016	594792	11.00	C110
			9602080400-0444	529016	594792	11.00	C279
			9602080500-0549	529016	594792	11.00	C354
			9602080600-0642	529016	594792	11.00	C120
			9602080700-0744	529016	594792	11.00	C383
			9602080800-0846	529016	594792	11.00	C711
			9602080900-0945	529016	594792	11.00	C349

Table 6.4: Bed load (Continued)

Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	Sample No.
Delft - Bottle Sample	1	.2	9602070900-0943	529016	594792	11.00	A153
			9602071000-1038	529016	594792	?	A236
			9602071100-1143	529016	594792	?	A429
			9602071200-1238	529016	594792	?	A503
			9602071300-1340	529016	594792	?	A427
			9602071400-1451	529016	594792	?	A4085
			9602071500-1545	529016	594792	?	A496
			9602071600-1642	529016	594792	?	A203
			9602071700-1741	529016	594792	?	A450
			9602071840-1855	529016	594792	?	A577
			9602071900-1943	529016	594792	11.00	A204
			9602072000-2042	529016	594792	11.00	A4019
			9602072100-2137	529016	594792	11.00	A374
			9602072200-2239	529016	594792	12.00	A200
			9602072300-2348	529016	594792	11.00	A640
			9602070000-0039	529016	594792	11.00	A401
			9602080100-0146	529016	594792	11.00	A430
			9602080200-0248	529016	594792	11.00	A166
			9602080308-0339	529016	594792	11.00	A4056
			9602080400-0444	529016	594792	11.00	A183
			9602080500-0549	529016	594792	11.00	A182
			9602080600-0642	529016	594792	11.00	A621
			9602080700-0744	529016	594792	11.00	A4011
			9602080800-0846	529016	594792	11.00	A521
			9602080900-0945	529016	594792	11.00	A527
		2	9602070900-0943	529016	594792	11.00	A174
			9602071000-1038	529016	594792	?	A393
			9602071100-1143	529016	594792	?	A508
			9602071200-1238	529016	594792	?	A590
			9602071300-1340	529016	594792	?	A4047
			9602071400-1451	529016	594792	?	A642
			9602071500-1545	529016	594792	?	A4037
			9602071600-1642	529016	594792	?	A194
			9602071700-1741	529016	594792	?	A523
			9602071840-1855	529016	594792	?	A658
			9602071900-1943	529016	594792	11.00	A219
			9602072000-2042	529016	594792	11.00	A392
			9602072100-2137	529016	594792	11.00	A845
			9602072200-2239	529016	594792	12.00	A4001
			9602072300-2348	529016	594792	11.00	A641
			9602070000-0039	529016	594792	11.00	A841
			9602080100-0146	529016	594792	11.00	A386
			9602080200-0248	529016	594792	11.00	A4053
			9602080308-0339	529016	594792	11.00	A442
			9602080400-0444	529016	594792	11.00	A625
			9602080500-0549	529016	594792	11.00	A147
			9602080600-0642	529016	594792	11.00	A652
			9602080700-0744	529016	594792	11.00	A4020
			9602080800-0846	529016	594792	11.00	A490
			9602080900-0945	529016	594792	11.00	A766

Table 6.5: Bed load

Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	Sample No.
Bottomgrab Samples	1	1	9602071446-1452	529140	595130	11.10	DHB-5
			9602070502-0508	529140	595126	12.30	DHB-12
		2	9602070900-0943	529016	594792	11.40	DHA-1
			9602071400-1451	529016	594792	?	DHA-2
			9602072000-2042	529016	594792	11.00	DHA-3
			9602080200-0248	529016	594792	11.00	DHA-4
			9602080800-0846	529016	594792	11.00	DHA-5
		3	9602071225-1233	528674	593941	5.50	DHB-3
			9602071730-1736	528683	593902	5.70	DHB-7
			9602080144-0151	528687	593907	5.60	DHB-10
			9602080902-0909	528637	593901	6.20	DHB-14
		4	9602070807-0815	528565	593573	8.10	DHC-1
			9602071412-1430	528571	593580	8.00	DHC-2
			9602072000-2008	528570	593580	7.90	DHC-3
			9602080200-0213	528570	593580	8.00	DHC-4
			9602080800-0817	528569	593580	7.90	DHC-5
		5	9602071059-1105	528218	592620	7.60	DHB-2
			9602071551-1558	528226	592652	7.00	DHB-6
			9602080008-0013	528227	592647	7.60	DHB-9
			9602080557-0604	528222	592650	6.90	DHB-13
		6	9602070837-0844	527941	591953	10.20	DHB-1
			9602071327-1333	527977	591964	9.80	DHB-4
			9602071901-1908	527979	591972	9.10	DHB-8
			9602080328-0334	527980	591974	9.20	DHB-11
			9602080955-1002	527936	591965	10.40	DHB-15

Table 6.6: Bed Material

Types of Data	Channel	Format	Filename
ADCP/S4/EMF data	1	QUATTRO	M6273T02 .ase
		QUATTRO	M6273T04 .ase
		QUATTRO	M6273T06 .ase
		QUATTRO	M6273T09 .ase
		QUATTRO	M6273T19 .ase
		QUATTRO	M6283T01 .ase
		QUATTRO	M6283T12 .ase
Echosounder data	1	QUATTRO	M6273T02 .ech
		QUATTRO	M6273T04 .ech
		QUATTRO	M6273T06 .ech
		QUATTRO	M6273T09 .ech
		QUATTRO	M6273T19 .ech
		QUATTRO	M6283T01 .ech
		QUATTRO	M6283T12 .ech
Transect plot data	1	QUATTRO	M6273T02 .trs
		QUATTRO	M6273T04 .trs
		QUATTRO	M6273T06 .trs
		QUATTRO	M6273T09 .trs
		QUATTRO	M6273T19 .trs
		QUATTRO	M6283T01 .trs
		QUATTRO	M6283T12 .trs
Bed load sed. analysis	1	QUATTRO	M6173T02 .bdl
Suspended sed. conc. analysis	1	QUATTRO	M6173T02 .ssc
Bed material analysis	1	QUATTRO	M6173T02 .bdm

Table 7.1 PSD 24 Database file description (continued)

Types of Data	Channel	Format	Filename
Iso-velocity plot data	1	MIKE 21 MIKE 21	M6173T02 .ct2 M6173T02 .dt2
Iso-velocity plot data	1	MIKE 21 MIKE 21	M6173T04 .ct2 M6173T04 .dt2
Iso-velocity plot data	1	MIKE 21 MIKE 21	M6173T06 .ct2 M6173T06 .dt2
Iso-velocity plot data	1	MIKE 21 MIKE 21	M6173T09 .ct2 M6173T09 .dt2
Iso-velocity plot data	1	MIKE 21 MIKE 21	M6173T19 .ct2 M6173T19 .dt2
Iso-velocity plot data	1	MIKE 21 MIKE 21	M6183T01 .ct2 M6183T01 .dt2
Iso-velocity plot data	1	MIKE 21 MIKE 21	M6183T12 .ct2 M6183T12 .dt2

Table 7.1 PSD 24 Database file description

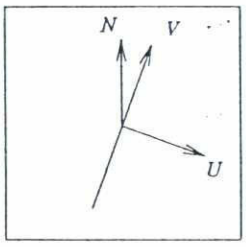
Type of measurement	Method	No. of measurements in channel			
		1	2	3	4
Discharge	ADCP transect	16	-	-	-
	EMF transect	-	-	-	-
	Echo-Sounding	-	-	-	-
Vertical current profile	No.of verticals in channel	6	-	-	-
	ADCP	42	-	-	-
	S4 current meter	92	-	-	-
	Ott current meter	-	-	-	-
Vertical sediment profile	Pump bottle sampling	154	-	-	-
	Andreasen settling tube	-	-	-	-
	MEX turbidity meter	-	-	-	-
	Integrated bottle sampling	-	-	-	-
	Collapsible bag	-	-	-	-
Bed load	Dune tracking	-	-	-	-
	Helley-Smith sampler	70	-	-	-
	Delft Bottle	52	-	-	-
Bed material	US BM-54 bed sampler	-	-	-	-
	Van Veen bed sampler	-	-	-	-
	Bottomgrab sampler	24	-	-	-

Table 2.1: Survey programme as made

Channel 1 File Names	Width (m)	Area (m^2)	AWLR h (m+PWD)	Discharge Q (m^3/s)
M61U3T04	3815	26619	1.20	7203
M61U3T09	3806	26354	1.15	7338
M61U3T12	3789	26363	1.17	6427
M61U3T14	3806	26066	1.12	7244
M61V3T05	3811	26288	1.11	5864
M61V3T08	3807	26840	1.25	5373
M61V3T11	3804	26759	1.28	6626
M61V3T13	3805	26517	1.22	7203

Table 2.2: Key figures

Note : Each transect measurment performed twice (reverse direction)

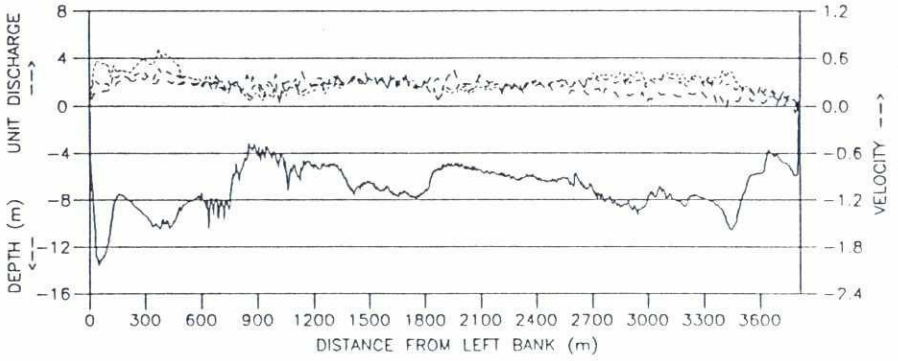


TRANSECT AZIMUTH = 20°

U – VELOCITY NORMAL TO TRANSECT (m/s)

V – VELOCITY PARALLEL TO TRANSECT (m/s)

N – MAGNETIC NORTH

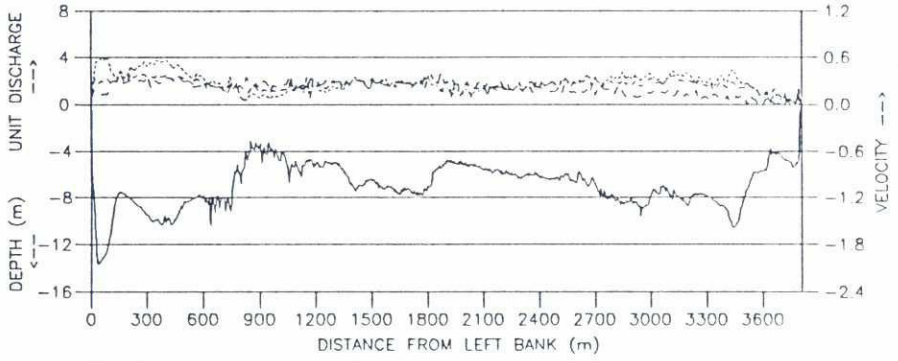


LEGEND :

WATER DEPTH (m below STAGE)
UNIT DISCHARGE ($m^3/s.m$)
U – (m/s)
V – (m/s)

STAGE = 1.20 (m+PWD)
A = 26619 (m^2)
Q = 7203 (m^3/s)

(30/1 12:19 – 12:45)

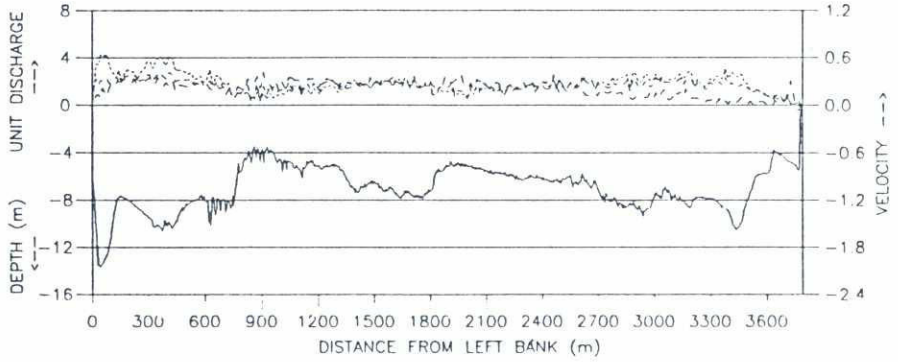


LEGEND :

WATER DEPTH (m below STAGE)
UNIT DISCHARGE ($m^3/s.m$)
U – (m/s)
V – (m/s)

STAGE = 1.15 (m+PWD)
A = 26354 (m^2)
Q = 7338 (m^3/s)

(30/1 15:55 – 16:22)



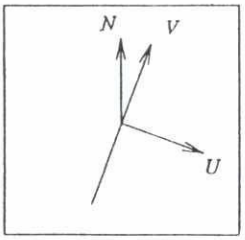
LEGEND :

WATER DEPTH (m below STAGE)
UNIT DISCHARGE ($m^3/s.m$)
U – (m/s)
V – (m/s)

STAGE = 1.17 (m+PWD)
A = 26363 (m^2)
Q = 6427 (m^3/s)

(30/1 20:05 – 20:33)

FAP 24 DELFT - DHI RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities		Survey Bulletin 254 : 29 - 31 January, 1996	
		Location 6 : Padma River, Mawa	
Files : M61U3T04 M61U3T09 M61U3T12	Date : 07 May 1996 Init : yas	Horizontal distribution of flow Channel 1	page 3.1

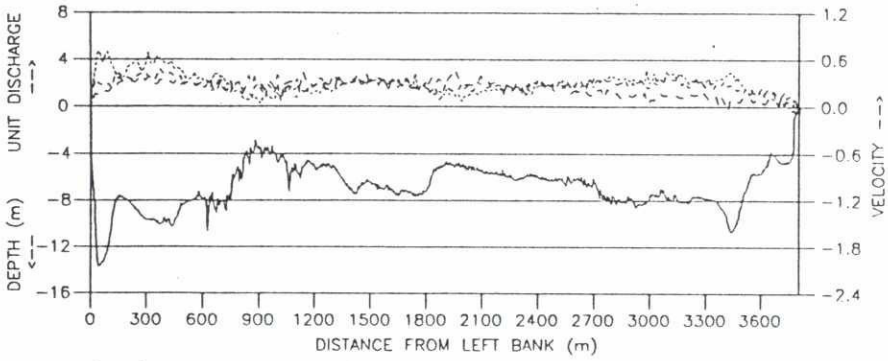


TRANSECT AZIMUTH = 20°

U – VELOCITY NORMAL TO TRANSECT (m/s)

V – VELOCITY PARALLEL TO TRANSECT (m/s)

N – MAGNETIC NORTH

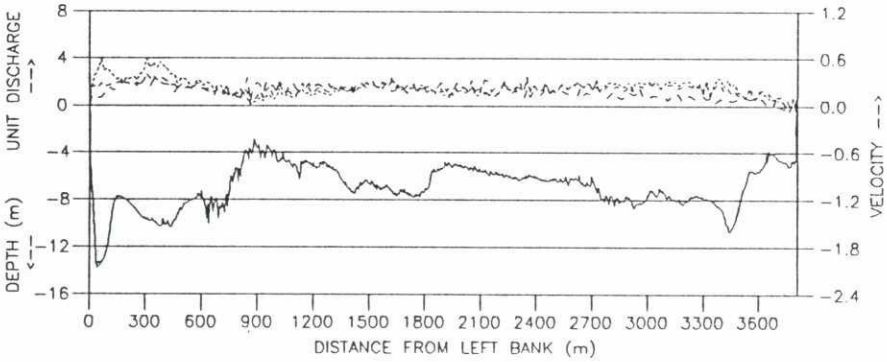


LEGEND :

WATER DEPTH (m below STAGE)
UNIT DISCHARGE (m²/s.m)
U – (m/s)
V – (m/s)

STAGE = 1.12 (m+PWD)
A = 26066 (m²)
Q = 7244 (m³/s)

(30/1 23:33 – 24:04)

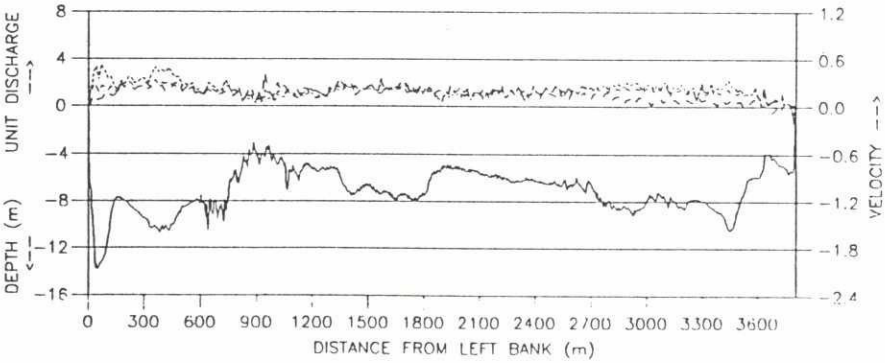


LEGEND :

WATER DEPTH (m below STAGE)
UNIT DISCHARGE (m²/s.m)
U – (m/s)
V – (m/s)

STAGE = 1.11 (m+PWD)
A = 26288 (m²)
Q = 5864 (m³/s)

(31/1 3:59 – 4:25)



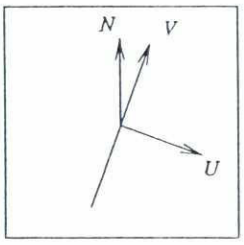
LEGEND :

WATER DEPTH (m below STAGE)
UNIT DISCHARGE (m²/s.m)
U – (m/s)
V – (m/s)

STAGE = 1.25 (m+PWD)
A = 26840 (m²)
Q = 5373 (m³/s)

(31/1 6:52 – 7:19)

FAP 24 DELFT - DHI RIVER SURVEY PROJECT Flood Plan Coordination Organization Commission of the European Communities		Survey Bulletin 254 : 29 - 31 January, 1996	
		Location 6 : Padma River, Mawa	
Files : M61U3T14 M61V3T05 M61V3T08	Date : 07 May 1996 Init : yas	Horizontal distribution of flow Channel 1	page 3.2

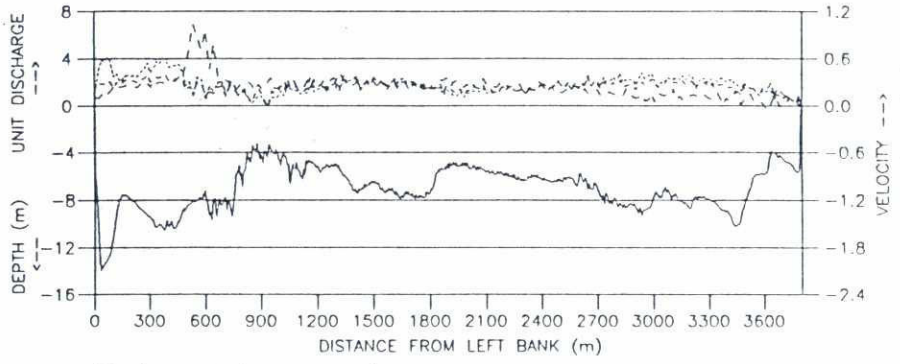


TRANSECT AZIMUTH = 20°

U – VELOCITY NORMAL TO TRANSECT (m/s)

V – VELOCITY PARALLEL TO TRANSECT (m/s)

N – MAGNETIC NORTH



(31/1 9:22 – 9:48)

LEGEND :

WATER DEPTH (m below STAGE)

UNIT DISCHARGE ($m^3/s.m$)

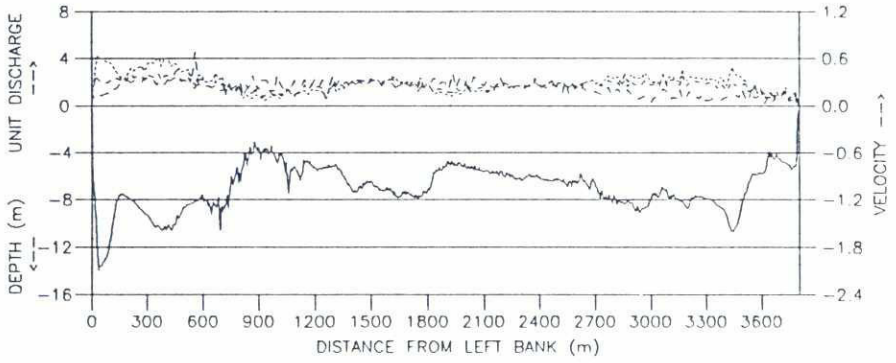
U – (m/s)

V – (m/s)

STAGE = 1.28 (m+PWD)

A = 26759 (m^2)

Q = 6626 (m^3/s)



(31/1 12:07 – 12:32)

LEGEND :

WATER DEPTH (m below STAGE)

UNIT DISCHARGE ($m^3/s.m$)

U – (m/s)

V – (m/s)

STAGE = 1.22 (m+PWD)

A = 26517 (m^2)

Q = 7203 (m^3/s)

Helley - Smith

Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Depth (m)	Weight percent < 0.06 mm	Weight percent > 0.06 mm	D35 (mm)	D50 (mm)	D65 (mm)
1	1	9601301259-1307	13.00	25.210	74.790	0.084	0.131	0.189
		9601302053-2103	13.00	59.700	40.300	-	-	0.069
		9601311014-1016	13.00	77.335	22.665	-	-	-
	2	9601301105-1152	10.80	1.982	98.018	0.183	0.232	0.293
		9601301200-1237	10.80	3.446	96.554	0.151	0.183	0.221
		9601301300-1334	10.80	3.308	96.692	0.158	0.192	0.233
		9601301400-1451	10.80	2.440	97.560	0.158	0.188	0.223
		9601301500-1542	10.80	4.498	95.502	0.148	0.178	0.215
		9601301600-1651	10.80	6.281	93.719	0.150	0.180	0.215
		9601301707-1755	10.80	2.422	97.578	0.141	0.167	0.198
		9601301800-1859	10.80	5.531	94.469	0.136	0.165	0.201
		9601301910-1940	10.80	3.804	96.196	0.155	0.196	0.249
		9601302000-2053	10.80	12.312	87.688	0.120	0.151	0.186
		9601302100-2148	10.80	1.892	98.108	0.169	0.204	0.247
		9601302206-2254	10.80	3.475	96.525	0.161	0.197	0.241
		9601302300-2359	10.80	4.985	95.015	0.138	0.173	0.216
		9601310001-0046	10.80	4.010	95.990	0.143	0.179	0.224
		9601310106-0140	10.80	0.863	99.137	0.187	0.228	0.286
		9601310200-0238	10.80	4.119	95.881	0.159	0.197	0.244
		9601310300-0347	10.80	2.959	97.041	0.164	0.197	0.237
		9601310400-0439	10.80	4.834	95.166	0.139	0.167	0.200
		9601310508-0552	10.80	12.978	87.022	0.109	0.144	0.181
		9601310600-0645	10.80	10.729	89.271	0.107	0.140	0.172
		9601310700-0747	10.80	6.784	93.216	0.134	0.159	0.190
		9601310800-0843	10.80	9.630	90.370	0.129	0.161	0.199
		9601310900-0948	10.80	9.889	90.111	0.122	0.154	0.192
		9601311000-1040	10.80	2.379	97.621	0.180	0.228	0.291
		9601311106-1148	10.80	0.985	99.015	0.167	0.200	0.239
		9601311200-1241	10.80	6.604	93.396	0.134	0.169	0.213
	3	9601301648-1655	5.30	0.052	99.948	0.184	0.217	0.261
		9601310039-0047	6.50	0.399	99.601	0.183	0.217	0.261
		9601310735-0741	6.60	0.049	99.951	0.170	0.194	0.222
		9601311252-1258	5.40	0.174	99.826	0.179	0.210	0.246
	4	9601301322-1329	7.60	0.066	99.934	0.182	0.214	0.254
		9601302100-2109	7.50	0.036	99.964	0.178	0.207	0.240
		9601310000-0010	7.50	0.021	99.979	0.173	0.198	0.228
		9601310100-0107	7.50	0.028	99.972	0.173	0.199	0.229
		9601310200-0216	7.50	0.026	99.974	0.173	0.199	0.229
		9601311100-1133	7.60	0.034	99.966	0.173	0.199	0.229
		9601311200-1207	7.60	0.014	99.986	0.174	0.201	0.232
	5	9601301422-1435	7.80	0.444	99.556	0.201	0.248	0.307
	6	9601301138-1145	8.90	0.657	99.343	0.286	0.328	0.377
		9601301855-1901	8.90	4.452	95.548	0.192	0.242	0.302
	2	9601301105-1152	10.80	1.996	98.004	0.150	0.184	0.224
		9601301200-1237	10.80	1.911	98.089	0.176	0.221	0.280
		9601301300-1334	10.80	2.772	97.228	0.171	0.215	0.275
		9601301400-1451	10.80	3.201	96.799	0.157	0.188	0.224
		9601301500-1542	10.80	4.321	95.679	0.158	0.199	0.250
		9601301600-1651	10.80	6.061	93.939	0.141	0.171	0.206
		9601301707-1755	10.80	1.183	98.817	0.157	0.185	0.218
		9601301800-1859	10.80	8.604	91.396	0.133	0.160	0.194

Table 5.1 : Grain size of bed load (continued)

Helley - Smith

Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Depth (m)	Weight percent < 0.06 mm	Weight percent > 0.06 mm	D35 (mm)	D50 (mm)	D65 (mm)
1	2	9601301910-1940	10.80	3.823	96.177	0.153	0.182	0.216
		9601302000-2053	10.80	5.689	94.311	0.113	0.143	0.174
		9601302100-2148	10.80	4.702	95.298	0.154	0.195	0.246
		9601302206-2254	10.80	6.076	93.924	0.142	0.181	0.229
		9601302300-2359	10.80	2.151	97.849	0.151	0.179	0.213
		9601310001-0046	10.80	4.819	95.181	0.150	0.186	0.231
		9601310106-0140	10.80	2.670	97.330	0.165	0.204	0.253
		9601310200-0238	10.80	6.928	93.072	0.140	0.180	0.230
		9601310300-0347	10.80	5.201	94.799	0.131	0.160	0.196
		9601310400-0439	10.80	9.583	90.417	0.126	0.156	0.193
		9601310508-0552	10.80	12.673	87.327	0.121	0.153	0.192
		9601310600-0645	10.80	6.742	93.258	0.125	0.153	0.188
		9601310700-0747	10.80	4.541	95.459	0.128	0.152	0.181
		9601310800-0843	10.80	4.788	95.212	0.130	0.157	0.191
		9601310900-0948	10.80	7.030	92.970	0.148	0.177	0.211
		9601311000-1040	10.80	9.492	90.508	0.124	0.152	0.185
		9601311106-1148	10.80	3.394	96.606	0.164	0.204	0.256
		9601311200-1241	10.80	3.312	96.688	0.157	0.189	0.226
	4	9601301322-1329	7.60	0.163	99.837	0.183	0.216	0.258

Table 5.1 : Grain sizes of bed load

Delft Bottle

Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Depth (m)	Weight percent < 0.06 mm	Weight percent > 0.06 mm	D35 (mm)	D50 (mm)	D65 (mm)
1	1	9601301259-1307	13.00	15.393	84.607	0.094	0.126	0.156
		9601302053-2103	13.00	15.869	84.131	0.091	0.122	0.153
		9601310454-0500	12.90	16.985	83.015	0.077	0.091	0.108
		9601311014-1016	13.00	11.608	88.392	0.081	0.094	0.110
	2	9601301105-1152	10.80	13.591	86.409	0.080	0.095	0.112
		9601301200-1237	10.80	17.967	82.033	0.079	0.097	0.119
		9601301300-1334	10.80	20.395	79.605	0.075	0.090	0.107
		9601301400-1451	10.80	7.781	92.219	0.088	0.106	0.129
		9601301500-1542	10.80	5.027	94.973	0.093	0.113	0.143
		9601301600-1651	10.80	21.521	78.479	0.073	0.086	0.102
		9601301707-1755	10.80	33.779	66.221	0.064	0.075	0.089
		9601301800-1859	10.80	11.931	88.069	0.079	0.092	0.106
		9601301910-1940	10.80	7.493	92.507	0.085	0.100	0.118
		9601302000-2053	10.80	5.123	94.877	0.087	0.102	0.119
		9601302100-2148	10.80	9.461	90.539	0.082	0.097	0.113
		9601302206-2254	10.80	8.085	91.915	0.082	0.094	0.109
		9601302300-2359	10.80	7.784	92.216	0.083	0.097	0.113
		9601310001-0046	10.80	7.306	92.694	0.089	0.107	0.131
		9601310106-0140	10.80	6.074	93.926	0.093	0.114	0.144
		9601310200-0238	10.80	4.277	95.723	0.104	0.131	0.169

Table 5.2 : Grain sizes of bed load (continued)

Delft Bottle

Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Depth (m)	Weight percent < 0.06 mm	Weight percent > 0.06 mm	D35 (mm)	D50 (mm)	D65 (mm)
1	2	9601310300-0347	10.80	5.078	94.922	0.099	0.124	0.173
		9601310400-0439	10.80	5.294	94.706	0.104	0.142	0.238
		9601310508-0552	10.80	7.952	92.048	0.087	0.104	0.125
		9601310600-0645	10.80	12.051	87.949	0.080	0.093	0.108
		9601310700-0747	10.80	5.533	94.467	0.088	0.104	0.123
		9601310800-0843	10.80	7.471	92.529	0.087	0.104	0.123
	2	9601301259-1307	13.00	2.906	97.094	0.091	0.108	0.131
		9601302053-2103	13.00	-	-	-	-	-
		9601310454-0500	12.90	6.940	93.060	0.084	0.097	0.113
		9601311014-1016	13.00	8.665	91.335	0.082	0.095	0.110
		9601301105-1152	10.80	5.069	94.931	0.087	0.102	0.119
		9601301200-1237	10.80	8.270	91.730	0.083	0.096	0.112
		9601301300-1334	10.80	8.433	91.567	0.084	0.098	0.115
		9601301400-1451	10.80	14.880	85.120	0.079	0.093	0.109
		9601301500-1542	10.80	4.144	95.856	0.087	0.102	0.119
		9601301600-1651	10.80	1.266	98.734	0.088	0.103	0.120
		9601301707-1755	10.80	0.449	99.551	0.094	0.111	0.137
		9601301800-1859	10.80	1.001	98.999	0.101	0.125	0.166
		9601301910-1940	10.80	-	-	-	-	-
		9601302000-2053	10.80	2.888	97.112	0.093	0.111	0.139
		9601302100-2148	10.80	-	-	-	-	-
		9601302206-2254	10.80	-	-	-	-	-
		9601302300-2359	10.80	4.741	95.259	0.090	0.107	0.131
		9601310001-0046	10.80	7.897	92.103	0.086	0.101	0.120
		9601310106-0140	10.80	6.944	93.056	0.086	0.101	0.119
		9601310200-0238	10.80					
		9601310300-0347	10.80	5.033	94.967	0.106	0.147	0.227
		9601310400-0439	10.80	6.165	93.835	0.104	0.146	0.244
		9601310508-0552	10.80	6.614	93.386	0.089	0.106	0.133
		9601310600-0645	10.80	-	-	-	-	-
		9601310700-0747	10.80	13.359	86.641	0.080	0.094	0.110
		9601310800-0843	10.80	-	-	-	-	-

Table 5.2 : Grain sizes of bed load

Bottomgrab Samples

Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Depth (m)	Weight percent < 0.06 mm	Weight percent > 0.06 mm	D35 (mm)	D50 (mm)	D65 (mm)
1	1	9601310454-0500	12.90	88.827	11.173	0.021	0.029	0.040
		9601311014-1016	13.00	91.748	8.252	0.019	0.025	0.035
	2	9601301105-1152	10.80	4.310	95.690	0.104	0.131	0.159
		9601301707-1755	10.80	5.322	94.678	0.096	0.120	0.150
		9601302300-2359	10.80	4.311	95.689	0.099	0.124	0.154
		9601310508-0552	10.80	4.290	95.710	0.096	0.119	0.148
		9601311106-1148	10.80	5.393	94.607	0.093	0.114	0.143
	3	9601301648-1655	5.30	0.538	99.462	0.159	0.177	0.198
		9601310039-0047	6.50	4.168	95.832	0.143	0.164	0.187
		9601310735-0741	6.60	7.405	92.595	0.131	0.154	0.182
		9601311252-1258	5.40	1.472	98.528	0.157	0.177	0.198

Table 5.3 : Grain size of bed material (continued)

Bottomgrab Samples								
Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Depth (m)	Weight percent < 0.06 mm	Weight percent > 0.06 mm	D35 (mm)	D50 (mm)	D65 (mm)
1	4	9601301253-12??	7.70	1.283	98.717	0.160	0.183	0.208
		9601301700-1715	7.60	0.776	99.224	0.160	0.181	0.204
	5	9601302300-23??	7.50	38.442	61.558	0.053	0.088	0.138
		9601310500-0525	7.60	52.204	47.796	0.037	0.059	0.081
		9601310535-0547	7.60	3.082	96.918	0.154	0.177	0.203
		9601310600-0612	6.90	92.004	7.996	0.009	0.013	0.020
	6	9601310630-0637	7.80	1.656	98.344	0.173	0.201	0.235
		9601310700-0712	6.80	0.679	99.321	0.170	0.195	0.224
		9601310732-0743	6.50	1.337	98.663	0.164	0.187	0.212
		9601310800-0815	8.90	51.557	48.443	0.020	0.057	0.163
		9601310835-0847	8.90	98.534	1.466	0.006	0.010	0.015
		9601310900-0909	9.20	93.641	6.359	0.007	0.013	0.019
		9601310930-0941	9.60	54.723	45.277	0.024	0.050	0.117

Table 5.3 : Grain size of bed material

Method	Channel	Time (YYMMDDHHMM-HHMM)	File name
ADCP & EMF transect	1	9601301054-1123	M61u3T01
		9601301219-1245	M61u3T04 *
		9601301344-1412	M61u3T05
		9601301555-1622	M61u3T09 *
		9601301809-1843	M61u3T10
		9601302005-2033	M61u3T12 *
		9601302138-2214	M61u3T13
		9601302333-0004	M61u3T14 *
		9601310239-0306	M61v3T03
		9601310359-0425	M61v3T05 *
		9601310520-0549	M61v3T06
		9601310652-0719	M61v3T08 *
		9601310803-0832	M61v3T09
		9601310922-0948	M61v3T11 *
		9601311032-1101	M61v3T12
		9601311207-1232	M61v3T13 *

Table 6.1: ADCP & EMF transects * : transect in PSD 24 data base and presented in Sections 3 and 4

Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	File name
Vertical current & turbidity profiles (ADCP/S4/MEX)	1	1	9601301259-1307	529154	595128	13.00	m61u3p02 *
			9601302053-2103	529154	595126	13.00	m61u3p06 *
			9601310454-0500	529156	595130	12.90	m61v3p04 *
			9601311014-1016	529155	595128	13.00	m61v3p10 *
		2	9601301105-1152	529025	594795	10.80	m61u1p01 *
			9601301200-1237	529025	594795	10.80	m61u1p02 *
			9601301300-1334	529025	594795	10.80	m61u1p03 *
			9601301400-1451	529025	594795	10.80	m61u1p04 *
			9601301500-1542	529025	594795	10.80	m61u1p07 *
			9601301600-1651	529025	594795	10.80	m61u1p08 *
			9601301707-1755	529025	594795	10.80	m61u1p11 *
			9601301800-1859	529025	594795	10.80	m61u1p15 *
			9601301910-1940	529025	594795	10.80	m61u1p16 *
			9601302000-2053	529025	594795	10.80	m61u1p17 *
			9601302100-2148	529025	594795	10.80	m61u1p18 *
			9601302206-2254	529025	594795	10.80	m61u1p20 *
			9601302300-2359	529025	594795	10.80	m61u1p21 *
			9601310001-0046	529025	594795	10.80	m61u1p22 *
			9601310106-0140	529025	594795	10.80	m61v1p02 *
			9601310200-0238	529025	594795	10.80	m61v1p03 *
			9601310300-0347	529025	594795	10.80	m61v1p04 *
			9601310400-0439	529025	594795	10.80	m61v1p05 *
			9601310508-0552	529025	594795	10.80	m61v1p07 *
			9601310600-0645	529025	594795	10.80	m61v1p08 *
			9601310700-0747	529025	594795	10.80	m61v1p09 *
			9601310800-0843	529025	594795	10.80	m61v1p10 *

Table 6.2: Vertical profiles (continued) * Mex not avilable ** ADCP and Mex not available

Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	File name
Vertical current & turbidity profiles (ADCP/S4/MEX)	1	2	9601310900-0948	529025	594795	10.80	m61v1p11 *
			9601311000-1040	529025	594795	10.80	m61v1p12 *
			9601311106-1148	529025	594795	10.80	m61v1p13 *
			9601311200-1241	529025	594795	10.80	m61v1p14 *
		3	9601301648-1655	528670	593908	5.30	m61u3p04 *
			9601310039-0047	528690	593883	6.50	m61v3p01*
			9601310735-0741	528683	593874	6.60	m61v3p07 *
			9601311252-1258	528688	593899	5.40	m61v3p13 *
		4	9601301253-12??	528569	593565	7.70	m61u2p02 **
			9601301322-1329	528569	593570	7.60	m61u2p03 **
			9601301340-1345	528568	593568	7.60	m61u2p04 **
			9601301400-1415	528568	593572	7.60	m61u2p05 **
			9601301333-1338	528567	593574	7.60	m61u2p06 **
			9601301500-1510	528569	593571	7.50	m61u2p07 **
			9601301516-1525	528567	593571	7.50	m61u2p10 **
			9601301530-1538	528568	593571	7.50	m61u2p08 **
			9601301600-1610	528567	593571	7.50	m61u2p09 **
			9601301630-1638	528567	593571	7.50	m61u2p11 **
			9601301700-1715	528566	593576	7.60	m61u2p12 **
			9601301736-1742	528563	593582	7.50	m61u2p13 **
			9601301803-1811	528565	593576	7.60	m61u2p14 **
			9601301830-1638	528567	593578	7.60	m61u2p15 **
			9601301900-1908	528565	593576	7.60	m61u2p16 **
			9601301930-1939	528568	593575	7.60	m61u2p17 **
			9601302000-2018	528568	593571	7.50	m61u2p18 **
			9601302030-2038	528566	593588	7.50	m61u2p19 **
			9601302100-2109	528566	593575	7.50	m61u2p20 **
			9601302130-2138	528566	593577	7.50	m61u2p21 **
			9601302200-2217	528567	593575	7.60	m61u2p22 **
			9601302230-2237	528568	593573	7.50	m61u2p23 **
			9601302300-23??	528567	593572	7.50	m61u2p24 **
			9601302330-2347	528567	593572	7.50	m61u2p25 **
			9601310000-0010	528568	593564	7.50	m61v2p01 **
			9601310040-0048	528567	593572	7.50	m61v2p02 **
			9601310100-0107	528566	593572	7.50	m61v2p03 **
			9601310130-0137	528565	593574	7.50	m61v2p04 **
			9601310200-0216	528565	593574	7.50	m61v2p05 **
			9601310230-0237	528567	593573	7.50	m61v2p06 **
			9601310300-0307	528567	593573	7.50	m61v2p07 **
			9601310330-0337	528566	593577	7.50	m61v2p08 **
			9601310400-0415	528568	593568	7.50	m61v2p09 **
			9601310430-0440	528568	593561	7.60	m61v2p10 **
			9601310500-0525	528568	593575	7.60	m61v2p11 **
			9601310535-0547	528569	593565	7.70	m61v2p12 **
			9601310600-0612	528568	593558	7.80	m61v2p13 **
			9601310630-0637	528567	593560	7.80	m61v2p14 **
			9601310700-0712	528568	593560	7.80	m61v2p15 **
			9601310732-0743	528568	593557	7.80	m61v2p16 **
			9601310800-0815	528566	593553	7.90	m61v2p17 **
			9601310835-0847	528567	593565	7.80	m61v2p18 **
			9601310900-0909	528567	593571	7.70	m61v2p19 **
			9601310930-0941	528568	593571	7.70	m61v2p20 **

Table 6.2 Vertical profiles (continued)

* Mex not avilable

** ADCP and Mex not available

Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	File name
Vertical current & turbidity profiles (ADCP/S4/MEX)	1	4	9601311000-1013	528565	593576	7.60	m61v2p21 **
			9601311030-1037	528566	593577	7.60	m61v2p22 **
			9601311100-1133	528566	593575	7.60	m61v2p23 **
			9601311139-1146	528565	593578	7.60	m61v2p24 **
			9601311200-1207	528566	593575	7.60	m61v2p25 **
			9601311232-1239	528565	593577	7.60	m61v2p26 **
		5	9601302248-2325	528217	592625	6.90	m61u3p07 *
			9601301422-1435	528203	592603	7.80	m61u3p03 *
			9601310605-0612	528219	592624	6.80	m61v3p05 *
			9601311114-1120	528217	592629	6.50	m61v3p12 *
		6	9601301138-1145	527975	591984	8.90	m61u3p01 *
			9601301855-1901	527974	591983	8.90	m61u3p05 *
			9601310314-0346	527973	591964	9.20	m61v3p02 *
			9601310841-0848	527951	591956	9.60	m61v3p08 *

Table 6.2 Vertical profiles

* Mex not available

** ADCP and Mex not available

Method	Channel	Vertical	No. of samples	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)
Suspended sediments (pump bottle)	1	1	3	9601301259-1307	529154	595128	13.00
		1	3	9601302053-2103	529154	595126	13.00
		1	3	9601310454-0500	529156	595130	12.90
		1	3	9601311014-1016	529155	595128	13.00
	1	2	3	9601301105-1152	529025	594795	10.80
		2	3	9601301200-1237	529025	594795	10.80
		2	3	9601301300-1334	529025	594795	10.80
		2	3	9601301400-1451	529025	594795	10.80
		2	3	9601301500-1542	529025	594795	10.80
		2	3	9601301600-1651	529025	594795	10.80
		2	3	9601301707-1755	529025	594795	10.80
		2	3	9601301800-1859	529025	594795	10.80
		2	3	9601301910-1940	529025	594795	10.80
		2	3	9601302000-2053	529025	594795	10.80
		2	3	9601302100-2148	529025	594795	10.80
		2	3	9601302206-2254	529025	594795	10.80
		2	3	9601302300-2359	529025	594795	10.80
		2	3	9601310001-0046	529025	594795	10.80
		2	3	9601310106-0140	529025	594795	10.80
		2	3	9601310200-0238	529025	594795	10.80
		2	3	9601310300-0347	529025	594795	10.80
		2	3	9601310400-0439	529025	594795	10.80
		2	3	9601310508-0552	529025	594795	10.80
		2	3	9601310600-0645	529025	594795	10.80
		2	3	9601310700-0747	529025	594795	10.80
		2	3	9601310800-0843	529025	594795	10.80
		2	3	9601310900-0948	529025	594795	10.80
		2	3	9601311000-1040	529025	594795	10.80
		2	3	9601311106-1148	529025	594795	10.80
		2	3	9601311200-1241	529025	594795	10.80
	1	3	3	9601301648-1655	528670	593908	5.30
		3	3	9601310039-0047	528690	593883	6.50
		3	3	9601310735-0741	528683	593874	6.60
		3	3	9601311252-1258	528688	593899	5.40
	1	4	3	9601301253-12??	528569	593565	7.60
		4	3	9601301322-1329	528569	593570	7.60
		4	3	9601301340-1345	528568	593568	7.50
		4	3	9601301400-1415	528568	593572	7.50
		4	3	9601301333-1338	528567	593574	7.50
		4	3	9601301500-1510	528569	593571	7.50
		4	3	9601301516-1525	528567	593571	7.50
		4	3	9601301530-1538	528568	593571	7.60
		4	3	9601301600-1610	528567	593571	7.50
		4	3	9601301630-1638	528567	593571	7.60
		4	3	9601301700-1715	528566	593576	7.60
		4	3	9601301736-1742	528563	593582	7.60
		4	3	9601301803-1811	528565	593576	7.60
		4	3	9601301830-1838	528567	593578	7.50
		4	3	9601301900-1908	528565	593576	7.50

Table 6.3 Suspended sediment - point sampled (continued)

Method	Channel	Vertical	No. of samples	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)
Suspended sediments (pump bottle)	1	4	3	9601301930-1939	528568	593575	7.60
		4	3	9601302000-2018	528568	593571	7.50
		4	3	9601302030-2038	528566	593588	7.50
		4	3	9601302100-2109	528566	593575	7.50
		4	3	9601302130-2138	528566	593577	7.50
		4	3	9601302200-2217	528567	593575	7.60
		4	3	9601302230-2237	528568	593573	7.50
		4	3	9601302300-23??	528567	593572	7.50
		4	3	9601302330-2347	528567	593572	7.50
		4	3	9601310000-0010	528568	593564	7.50
		4	3	9601310040-0048	528567	593572	7.50
		4	3	9601310100-0107	528566	593572	7.50
		4	3	9601310130-0137	528565	593574	7.50
		4	3	9601310200-0216	528565	593574	7.50
		4	3	9601310230-0237	528567	593573	7.50
		4	3	9601310300-0307	528567	593573	7.50
		4	3	9601310330-0337	528566	593577	7.50
		4	3	9601310400-0415	528568	593568	7.50
		4	3	9601310430-0440	528568	593561	7.60
		4	3	9601310500-0525	528568	593575	7.60
		4	3	9601310535-0547	528569	593565	7.70
		4	3	9601310600-0612	528568	593558	7.80
		4	3	9601310630-0637	528567	593560	7.80
		4	3	9601310700-0712	528568	593560	7.80
		4	3	9601310732-0743	528568	593557	7.80
		4	3	9601310800-0815	528566	593553	7.90
		4	3	9601310835-0847	528567	593565	7.80
		4	3	9601310900-0909	528567	593571	7.70
		4	3	9601310930-0941	528568	593571	7.70
		4	3	9601311000-1013	528565	593576	7.60
		4	3	9601311030-1037	528566	593577	7.60
		4	3	9601311100-1133	528566	593575	7.60
		4	3	9601311139-1146	528565	593578	7.60
		4	3	9601311200-1207	528566	593575	7.60
		4	3	9601311232-1239	528565	593577	7.60
	1	5	3	9601302248-2325	528217	592625	6.90
		5	3	9601301422-1435	528203	592603	7.80
		5	3	9601310605-0612	528219	592624	6.80
		5	3	9601311114-1120	528217	592629	6.50
	1	6	3	9601301138-1145	527975	591984	8.90
		6	3	9601301855-1901	527974	591983	8.90
		6	3	9601310314-0346	527973	591964	9.20
		6	3	9601310841-0848	527951	591956	9.60

Table 6.3 Suspended sediment - point sampled

Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	Sample No.
Helley - Smith Sample	1	1	9601301259-1307	529154	595128	13.00	C298
			9601302053-2103	529154	595126	13.00	C141
			9601311014-1016	529155	595128	13.00	C188
		2	9601301105-1152	529025	594795	10.80	C027
			9601301200-1237	529025	594795	10.80	C457
			9601301300-1334	529025	594795	10.80	C472
			9601301400-1451	529025	594795	10.80	C003
			9601301500-1542	529025	594795	10.80	C424
			9601301600-1651	529025	594795	10.80	C037
			9601301707-1755	529025	594795	10.80	C364
			9601301800-1859	529025	594795	10.80	C443
			9601301910-1940	529025	594795	10.80	A356
			9601302000-2053	529025	594795	10.80	A37
			9601302100-2148	529025	594795	10.80	A902
			9601302206-2254	529025	594795	10.80	C069
			9601302300-2359	529025	594795	10.80	C603
			9601310001-0046	529025	594795	10.80	C146
			9601310106-0140	529025	594795	10.80	C796
			9601310200-0238	529025	594795	10.80	C584
			9601310300-0347	529025	594795	10.80	C666
			9601310400-0439	529025	594795	10.80	C385
			9601310508-0552	529025	594795	10.80	C662
			9601310600-0645	529025	594795	10.80	C734
			9601310700-0747	529025	594795	10.80	C779
			9601310800-0843	529025	594795	10.80	C218
			9601310900-0948	529025	594795	10.80	C074
			9601311000-1040	529025	594795	10.80	A1378
			9601311106-1148	529025	594795	10.80	C667
			9601311200-1241	529025	594795	10.80	C607
		3	9601301648-1655	528670	593908	5.30	C590
			9601310039-0047	528690	593883	6.50	C085
			9601310735-0741	528683	593874	6.60	C156
			9601311252-1258	528688	593899	5.40	C249
		4	9601301322-1329	528569	593570	7.60	C750
			9601302100-2109	528569	593575	7.50	C324
			9601310000-0010	528568	593564	7.50	C009
			9601310100-0107	528566	593572	7.50	C095
			9601310200-0216	528565	593574	7.50	C659
			9601311100-1133	528566	593575	7.60	C530
			9601311200-1207	528566	593575	7.60	C797
		5	9601301422-1435	528203	592603	7.80	C525
		6	9601301138-1145	527975	591984	8.90	A714
			9601301855-1901	527974	591983	8.90	C622
		2	9601301105-1152	529025	594795	10.80	C228
			9601301200-1237	529025	594795	10.80	C504
			9601301300-1334	529025	594795	10.80	C360
			9601301400-1451	529025	594795	10.80	C286
			9601301500-1542	529025	594795	10.80	C289
			9601301600-1651	529025	594795	10.80	C660
			9601301707-1755	529025	594795	10.80	C294
			9601301800-1859	529025	594795	10.80	A122
			9601301910-1940	529025	594795	10.80	A695
			9601302000-2053	529025	594795	10.80	C497
			9601302100-2148	529025	594795	10.80	C751

Table 6.4: Bed load (Continued)

Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	Sample No.
Helley - Smith Sample	1	2	9601302206-2254	529025	594795	10.80	C768
			9601302300-2359	529025	594795	10.80	C783
			9601310001-0046	529025	594795	10.80	C729
			9601310106-0140	529025	594795	10.80	C531
			9601310200-0238	529025	594795	10.80	C241
			9601310300-0347	529025	594795	10.80	C437
			9601310400-0439	529025	594795	10.80	C524
			9601310508-0552	529025	594795	10.80	C442
			9601310600-0645	529025	594795	10.80	C126
			9601310700-0747	529025	594795	10.80	C640
			9601310800-0843	529025	594795	10.80	C299
			9601310900-0948	529025	594795	10.80	C661
			9601311000-1040	529025	594795	10.80	C318
			9601311106-1148	529025	594795	10.80	C658
			9601311200-1241	529025	594795	10.80	A129
		4	9601301322-1329	528569	593570	7.60	C057

Table 6.4: Bed load

Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	Sample No.
Delft - Bottle Sample	1	2	9601301259-1307	529154	595128	13.00	A229
			9601302053-2103	529154	595126	13.00	A4058
			9601310454-0500	529156	595130	12.90	A226
			9601311014-1016	529155	595128	13.00	A440
			9601301105-1152	529025	594795	10.80	A222
			9601301200-1237	529025	594795	10.80	A170
			9601301300-1334	529025	594795	10.80	A4046
			9601301400-1451	529025	594795	10.80	A400
			9601301500-1542	529025	594795	10.80	A388
			9601301600-1651	529025	594795	10.80	A375
			9601301707-1755	529025	594795	10.80	A662
			9601301800-1859	529025	594795	10.80	A684
			9601301910-1940	529025	594795	10.80	A609
			9601302000-2053	529025	594795	10.80	A146
			9601302100-2148	529025	594795	10.80	A479
			9601302206-2254	529025	594795	10.80	A437
			9601302300-2359	529025	594795	10.80	A169
			9601310001-0046	529025	594795	10.80	A231
			9601310106-0140	529025	594795	10.80	A847
			9601310200-0238	529025	594795	10.80	A397

Table 6.5: Bed load (Continued)

Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	Sample No.
Delft - Bottle Sample	1	2	9601310300-0347	529025	594795	10.80	A4063
			9601310400-0439	529025	594795	10.80	A583
			9601310508-0552	529025	594795	10.80	A176
			9601310600-0645	529025	594795	10.80	D001
			9601310700-0747	529025	594795	10.80	D003
			9601310800-0843	529025	594795	10.80	D005
		2	9601301259-1307	529154	595128	13.00	A449
			9601302053-2103	529154	595126	13.00	A4066
			9601310454-0500	529156	595130	12.90	A387
			9601311014-1016	529155	595128	13.00	A604
			9601301105-1152	529025	594795	10.80	A172
			9601301200-1237	529025	594795	10.80	A4054
			9601301300-1334	529025	594795	10.80	A498
			9601301400-1451	529025	594795	10.80	A480
			9601301500-1542	529025	594795	10.80	A434
			9601301600-1651	529025	594795	10.80	A384
			9601301707-1755	529025	594795	10.80	A433
			9601301800-1859	529025	594795	10.80	A4030
			9601301910-1940	529025	594795	10.80	A4036
			9601302000-2053	529025	594795	10.80	A626
			9601302100-2148	529025	594795	10.80	A672
			9601302206-2254	529025	594795	10.80	A4072
			9601302300-2359	529025	594795	10.80	A4055
			9601310001-0046	529025	594795	10.80	A512
			9601310106-0140	529025	594795	10.80	A158
			9601310200-0238	529025	594795	10.80	A511
			9601310300-0347	529025	594795	10.80	A443
			9601310400-0439	529025	594795	10.80	A232
			9601310508-0552	529025	594795	10.80	A522
			9601310600-0645	529025	594795	10.80	D002
			9601310700-0747	529025	594795	10.80	D004
			9601310800-0843	529025	594795	10.80	D006

Table 6.5: Bed load

Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	Sample No.
Bottomgrab Samples	1	1	9601310454-0500	529156	595130	12.90	DHB-10
			9601311014-1016	529155	595128	13.00	DHB-14
		2	9601301105-1152	529025	594795	10.80	DHA-1
			9601301707-1755	529025	594795	10.80	DHA-2
			9601302300-2359	529025	594795	10.80	DHA-3
			9601310508-0552	529025	594795	10.80	DHA-4
			9601311106-1148	529025	594795	10.80	DHA-5
		3	9601301648-1655	528670	593908	5.30	DHB-4
			9601310039-0047	528690	593883	6.50	DHB-8
			9601310735-0741	528683	593874	6.60	DHB-12
			9601311252-1258	528688	593899	5.40	DHB-16
		4	9601301253-1222	528569	593565	7.70	DHC-1
			9601301700-1715	528566	593576	7.60	DHC-2
			9601302300-2322	528567	593572	7.50	DHC-3

Table 6.6: Bed Material (continued)

Method	Channel	Vertical	Time (YYMMDDHHMM-HHMM)	Easting (m)	Northing (m)	Depth (m)	Sample No.
Bottomgrab Sample	1	4	9601310500-0525	528568	593575	7.60	DHC-4
			9601310535-0547	528569	593565	7.60	DHC-5
		5	9601310600-0612	528568	593558	6.90	DHB-7
			9601310630-0637	528567	593560	7.80	DHB-3
			9601310700-0712	528568	593560	6.80	DHB-11
			9601310732-0743	528568	593557	6.50	DHB-15
		6	9601310800-0815	528566	593553	8.90	DHB-1
			9601310835-0847	528567	593565	8.90	DHB-5
			9601310900-0909	528567	593571	9.20	DHB-9
			9601310930-0941	528568	593571	9.60	DHB-13

Table 6.6: Bed material

Types of Data	Channel	Format	Filename
ADCP/S4/EMF data	1	QUATTRO	M61U3T04 .ase
		QUATTRO	M61U3T09 .ase
		QUATTRO	M61U3T12 .ase
		QUATTRO	M61U3T14 .ase
		QUATTRO	M61V3T05 .ase
		QUATTRO	M61V3T08 .ase
		QUATTRO	M61V3T11 .ase
		QUATTRO	M61V3T13 .ase
Echosounder data	1	QUATTRO	M61U3T04 .ech
		QUATTRO	M61U3T09 .ech
		QUATTRO	M61U3T12 .ech
		QUATTRO	M61U3T14 .ech
		QUATTRO	M61V3T05 .ech
		QUATTRO	M61V3T08 .ech
		QUATTRO	M61V3T11 .ech
		QUATTRO	M61V3T13 .ech
Transect plot data	1	QUATTRO	M61U3T04 .trs
		QUATTRO	M61U3T09 .trs
		QUATTRO	M61U3T12 .trs
		QUATTRO	M61U3T14 .trs
		QUATTRO	M61V3T05 .trs
		QUATTRO	M61V3T08 .trs
		QUATTRO	M61V3T11 .trs
		QUATTRO	M61V3T13 .trs
Bed load sed. analysis	1	QUATTRO	M61U3T04 .bdl
Suspended sed. conc. analysis	1	QUATTRO	M61U3T04 .ssc
Bed material analysis	1	QUATTRO	M61U3T04 .bdm

Table 7.1 PSD 24 Database file description (continued)

Types of Data	Channel	Format	Filename
Iso-velocity plot data	1	MIKE 21 MIKE 21	M61U3T04 .ct2 M61U3T04 .dt2
Iso-velocity plot data	1	MIKE 21 MIKE 21	M61U3T09 .ct2 M61U3T09 .dt2
Iso-velocity plot data	1	MIKE 21 MIKE 21	M61U3T12 .ct2 M61U3T12 .dt2
Iso-velocity plot data	1	MIKE 21 MIKE 21	M61U3T14 .ct2 M61U3T14 .dt2
Iso-velocity plot data	1	MIKE 21 MIKE 21	M61V3T05 .ct2 M61V3T05 .dt2
Iso-velocity plot data	1	MIKE 21 MIKE 21	M61V3T08 .ct2 M61V3T08 .dt2
Iso-velocity plot data	1	MIKE 21 MIKE 21	M61V3T11 .ct2 M61V3T11 .dt2
Iso-velocity plot data	1	MIKE 21 MIKE 21	M61V3T13 .ct2 M61V3T13 .dt2

Table 7.1 PSD 24 Database file description