I/68405/2021

भारत सरकार
जल शक्ति मंत्रालय
जल संसाधनए नदी विकास एवं गंगा संरक्षण विभाग
केंद्रीय जल आयोग
उत्तर–पूर्वीअन्वेषणमण्डल–II

Government of India
Ministry of Jal Shakti
Dept. of Water Resources, RD&GR
Central Water Commission
North East Investigation Division-II

NEID-II/JE(HQ)/NIQ/2021-22 Date:

NOTICE INVITING QUOTATION

For and on behalf of the President of India, sealed quotations are invited for the following work by the undersigned from the authorized / reputed contractor/firms for carrying out the "**Supply of RD forms and Registers under NEID-II, CWC, Aizawl,.**" during the financial year 2021-22. The Sealed Quotation will be received in the office of undersigned i.e. O/o Executive Engineer, NEID-II, CWC, Aizawl during working hours up to 15:30 hrs. on or before 04/09/2021 & shall be opened on same day by 16:30 hrs. by the undersigned/authorized official in presence of interested quotations or their authorizes representatives who desired to remain present at the time of opening of quotations.

Description of items.	Estimate cost	Last date & time for receiving quotation.	Date & time for opening quotation	Location
Supply of RD forms and Registers	1,99,715/-	04.09.2021 15:30	04.09.2021 16:30	NEID-II, CWC, Aizawl

Terms and Conditions :-

1. The supply of the items should be done as per quotation within 15 days from the date of issue of Supply order.
2. The supply of RD forms and registers should be done in the O/o of Executive Engineer, NEID-II, CWC, Aizawl.
3. The material should be of standard quality and free from all defects and if found not suitable the same shall be asked for replacement at his own cost.
4. The rates shall be kept valid for minimum period of 60 days from the date of opening of quotation.
5. The rates should be inclusive of all local taxes such as Service Tax/GST etc.

जलषक्तिपूरम, जोमाबोक,
आईजोल,मिजोराम-796017
दूरभाष: 0389-2352266,
ई मेल: neid2-cwc@gov.in

Jalshaktipuram, Zemabawk
Aizawl, Mizoram-796017
Tel: 0389-2352266,
E-mail: neid2-cwc@gov.in

I/68405/2021

भारत सरकार
जल शक्ति मंत्रालय
जल संसाधनए नदी विकास एवं गंगा संरक्षण विभाग
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Government of India
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Dept. of Water Resources, RD&GR
Central Water Commission
North East Investigation Division-II

6. Rates of Service tax/GST should be mentioned as applicable.
7. The rate of items should be quoted both in figures as well as in words.
8. The quotation number with date of its opening has to be clearly mentioned on the top of the quotation and sealed cover.
9. The quantities mentioned are likely to increase or decrease at the time of placing of supply order.
10. Any correction in the quotation should be clearly attested.
11. Request for any advance payment will not be entertained.
12. The work carried out by the firm shall be guaranteed. The undersigned reserves the right to cancel/reject in part or full or any/all the quotation without assigning any reason thereof and without any financial involvement from either side.
13. Payment will generally be made via online mode through PFMS directly on the bank account of the bidder on production of bills.
14. Only those firms having PAN/GST etc. can be eligible to submit their quotation.
15. Any quotation, which does not comply with the above guidelines, runs the risk of being rejected.
16. In case of any dispute, the decision of The Executive Engineer, NEID-II, CWC, Aizawl shall be final and binding on all concerned.

Signed by Awdhesh Kumar
Date: 24-08-2021 16:40:05
Reason: Approved

(Awdhesh Kumar)
Executive Engineer
NEID-II, CWC, Aizawl

Copy along with copies of quotation for information and wide circulation to:

1. The Superintending Engineer (NEIC), CWC, Shillong
2. The SDE(HQ), NEID-II, CWC, Aizawl.
3. The Accounts Branch, NEID-II, CWC, Aizawl.
4. Notice Board/CWC Portal.

Schedule of Quantities

जलषक्तिपूरम, जोमाबोक,
आईजोल,मिजोराम-796017
दूरभाष: 0389-2352266,
ई मेल: neid2-cwc@gov.in

Jalshaktipuram, Zemabawk
Aizawl, Mizoram-796017
Tel: 0389-2352266,
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I/68405/2021

भारत सरकार
जल शक्ति मंत्रालय
जल संसाधनए नदी विकास एवं गंगा संरक्षण विभाग
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Government of India
Ministry of Jal Shakti
Dept. of Water Resources, RD&GR
Central Water Commission
North East Investigation Division-II

Supply of RD forms and Registers under NEID-II, CWC, Aizawl

S.NO.	PARTICULARS	QUANTITY	RATE	AMOUNTS
	Details of Registers			
1	RD-1 Register(200page)	50		
2	RD-2 Resister(100page)	50		
3	RD-3 Resister(100page)	50		
4	RD-4 Resister(100page)	50		
5	RD-6 Resister(100page)	25		
6	RD-7 Resister(100page)	25		
7	RD-8 Resister(100page)	25		
8	RD-9 Resister(100page)	25		
	Details of forms			
9	RD-1(100page)	50		
10	RD-2(100page)	50		
11	RD-3(100page)	50		
12	RD-4(100page)	50		
13	RD-6(100page)	50		
14	RD-7(100page)	50		
15	RD-8(100page)	50		
16	RD-9(100page)	50		
17	RD-16(Sets)	200 sets		
		Total		

Rupees.....
.....)only

(Signature of contractor with seal)

जलषक्तिपूरम, जोमाबोक,
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Jalshaktipuram, Zemabawk
Aizawl, Mizoram-796017
Tel: 0389-2352266,
E-mail: neid2-cwc@gov.in

CWC/RD-1

Government of India

Central Water Commission

Daily Discharge Data

Observation No……

River……..Site…….. Code No. …… Date……..Time from……..to……..…

Mode of Crossing:- By Wading/ Bridge/ Boat/ Boat with OBE/ Boat With IBE/Boat with Cable Way/ Cable Way/Bank Operated Cable Way/Cable Way with trolley.....

Method of Velocity Observation:-Floats/ Current Meter/Slope Area/Dilution Method/ Floats with Respect to RDs/ ADCP…….

Location of Discharge Site: A) Permanent Site.....

B) Temporary Site.....

Distance of Permanent Site .....

U/S/ D/S/ .....

Depth measured with:- Wading Rod/Sounding Pole/Metallic Reel/ Echo Sounder/Cross Section……..

Sounding weight used: (Kg/Lb)……..

Condition of Water Fairly Clear…….

Ordinary Silty……..

Intensely Silty.....

River Water Temperature (^{o}C)……...

Mean Water Level (Standard Bank)……Meter

Atmospheric Temperature - Max……^{o}C…….. Min……^{o}C

Weather Condition……

Direction of Wind w.r.t. stream flow……

Strength of Wind: Very Slight / Slight / Strong / Very Strong…….

Velocity of Wind: Km / Hr …… Rainfall ……..

Current Meter Observation

Meter No. and make……Equation……Date of last Rating……Rated Spin ……..

Spin Before Measurement…….

Spin After Measurement…….

Date of first use …… No. of days used ……

Method of Suspending Meter: ……

Weight used with meter: ……

Observed velocity at 0.6 D / Surface……/……Float details……Float travel distance……Float travel distance marked with …….

Gauge Information

Zero RL (GTS) …….. m

Gauge	Permanent			Temporary		
	Left Bank	Right Bank	Average	Left Bank	Right Bank	Average
Beginning						
End						
Mean						

SECTION NO.	RD OF SECTION (m)	WATER DEPTH (m)	VERTICAL ANGLE (Deg.)	AIRLINE DEPTH (m)	AIRLINE CORRECTION(m)	WETLINE CORRECTION (m)	(6+7)Total Correction(m)	CORRECTED WAT ER DEPTH (m)	DIFF. IN DEPTH (m)	INCREASE IN BED (m)	AREA of SECTION (m^2)	C/s area correction	(12-13) NET AREA	TIME (sec)	No. OF REV. OF CM	CALCULATED VELOCITY	MEAN VELOCITY (m/s)	ANGLE OBLQ	CORR. MEAN VELOCITY(m/s)	DRIFT DISTANCE (m)	TIME DRIFT (S)	DRIFT CORRECTION	FINAL MEAN VELOCITY	DISCH SECTION (m3/s)	REMARKS
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26

Computed Data	Top Width (m):	Wetted Perimeter (m):	Area (m^2):	Area correction (m^2):	Net Area (m^2):	Discharge (m^3/sec):	Discharge correction (m^3/sec):	Net Discharge (m^3/sec):

Slope Measurement						Main data
Location of Level Observations	Right Bank Details		Left Bank Details		Mean Reading	1. Average velocity, V = Q/A =
	Distance from CGL	Level Reading	Distance from CGL	Level Reading		2. Max. velocity, V(max) =
U/S Gauge Line:						3. Hydraulic mean depth, R = A/P =
Central Gauge Line:						4. Chezy, $C=V/(RS)^{0.5}$ =
D/S Gauge Line:						5. Mannings, $N=R^{1/6}/C$ =
Slope:	Fall in meters:			Distance:		6. Average Depth = A/W =
Mean Slope:						7. Where W=width of water surface

Other information

1.Characteristic of river bed ……

2. Class of roughness under which it falls……

3. Every month or on each change a free hand sketch should be made of the configuration of the river, 500m upstream and downstream of the discharge site, Showing direction of general flow of the river and position of permanent and temporary gauges and other permanent mark and their distance from the C.L. Section.

Signature of Observer
Name
Designation

Signature of inspecting officer
Name
Designation

Note:-

1 Mean velocity (Cl. No. 18) will generally be velocity at 0.6 Depth. Where mean velocity is deducted from surface velocity, the co-efficient employed should be noted I remarks column. Unless proven specially, the co-efficient should be taken as 0.89.

2 If no drift occurs, it has to be shown as NIL in column No. 23, the column is never to be left blank.

3 Sum of area corrections due to unequal segments. Correction for each unequal segment=½ X (Dry distance of preceding/succeeding R.D. from water edge)X depth at the end Vertical.

CWC/RD-2

Government of India

Central Water Commission

Daily Discharge Data

Month……..20……..

Statement Showing details of First/ Second/ Third Ten Daily Discharge Observation

River…….. Site…….. Code……..

Position of Discharge Site……

Method of Segmentation……

Sounding taken with/weight used……

Velocity observed by……..at 0.6 depth/surface

Mode of discharge observation……

Standard Gauge on Right/Left Bank……..

R.L. of Zero of Gauge (G.T.S.)……

Date of its last checking……..

DAY	TIME	OBSERAVATION No.	MEAN GAUGE (m)	Water Level w.r.t. M.S.L. (m)	DISCHARGE (Q) (m^3/s)	Observed/Computed	AREA (A)	SURFACE SLOPE (S)	TOP WIDTH	WETTED PERIMETER	HYDROLIC RADIUS	VELOCITY	MANNING COEFFICIENT	GRADIENT	FALL	MODE CROSSING	METHOD VELOCITY	No. VERTICAL/FLOAT	VELOCITY MAX	WEATHER CONDITION	WIND VELOCITY	WIND DIR w.r.t. FLOW	REMARKS
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

Remarks :-

1. Actual observed discharges to be entered in red ink.
2. Tabular discharges to be entered in black ink.

Signature of Observer

Name

Designation

Signature of SDE

Sub- Division

Executive Engineer

…… ……. Division

Central Water Commission

……../ ……..

CWC/RD-3

Government of India
Central Water Commission

Month.....20.....Statement showing Daily Gauge Reading

River.....Site.....Code No.....

Zero of Gauge (G.T.S.)..... Type of Site

Date	**Gauge reading at C/G Line (m)**			**Water Level (m)**			River Water Temperature (°C)	Atmospheric Temperature(°C)		**Remarks of Inspecting Officer**
	0800 Hrs	1300 Hrs	1800 Hrs	0800 Hrs	1300 Hrs	1800 Hrs		Max.(° C)	Min.(° C)	
1	2	3	4	5	6	7	8	9	10	11

Signature of Observer
Name

Signature of SDE
Sub-Division

Executive Engineer
Division /Designation
Central Water Commission

CWC/RD-4

Government of India
Central Water Commission

Month.....20.....

Statement showing details of First/Second/Third Ten Daily Hourly Flood Level

River..... Site..... ..Code..... Zero of Gauge (G.T.S.) ……

Date	Water Level (m)																								Remarks of Inspecting Officer
	Hours																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Max.	Min.	

……Highest Water Level during the month …… m.
Highest Water Level during the year …….. (m)
Ever Recorded Highest Water Level and Date of occurrence……

Signature of Observer
Name
Designation

Signature of SDE
Sub-Division ……... ...……. Division

Executive Engineer
Central Water Commission

CWC/RD-5
Government of India
Central Water Commission

Month.....20.... Record of Ground Water Level

River.....Site.....Code No.....
Location of well(Village)…… Approximate Distance from Central Line……..…
Purpose for which well is used……..
Elevation of reference point on the top of the well……..
Average Elevation of the well…….…….
Elevation of the bed of well…….…….
Geological features of the well……..…….

Date	**Depth Below Reference Point**		**Elevation of Water level in the well**		**Temperature of Well Water (ºC)**		**Condition of measurement**	**Remarks**
	0500 Hrs	0800 Hrs	0500 Hrs	0800 Hrs	0500 Hrs	0800 Hrs		
1	2	3	4	5	6	7	8	9

Monthly Average Water Level

1- Enter approximate symbol in column ‘8’ according to the following description:-
   (a) Heavy precipitation (Rain and/or Snow) since last measurement.
   (b) Moderate precipitation (Rain and/or Snow) since last measurement.
   (c) Slight or no precipitation (Rain and/or Snow) since last measurement.
2- Pond, ditches and depressions nearly filled with water.
3- Pond, ditches and depressions nearly dried up.
4- The ground is frozen.
5- Surface water may be have flowed into the well.
6- If the well has been in use, indicate the time interval (in hours) between the cessation of use are measurement in remarks column.
7- If pumping takes place in a nearly well indicate its distance, duration of pumping and approximate discharge in the remarks column.

Signature of Observer	Signature of SDE	अधिशासी अभियंता / Executive Engineer
Name	Sub-Division	..…… Division
Designation		Central Water Commission

CWC/RD-6

Government of India

Central Water Commission

Month.....20.....Record of Rainfall

River..... Site..... Code.....

Type of Rain gauge: Ordinary/ Self-recording…….……

Date	**Rainfall at 20:30 hrs (mm) on the previous day**	**Rainfall at 08:30 hrs (mm)**	**Total Rainfall during the day (mm)**	**Cumulative Rainfall till date for the month (mm)**	**Cumulative Rainfall for the year (mm)**	**Remarks**
1	2	3	4	5	6	7
Total						

Total annual rainfall

1- Till the end of previous month…… mm
2- Till the end of current month……..……mm.
3- Number of rainy days during the current month……..

Signature of Observer
Name
Designation

Signature of SDE
Sub-Division

Executive Engineer
….……. Division
Central Water Commission

CWC/R.D.-7

Govt of India

Central Water Commission

Daily Record of Suspended Sediment Analysis

River.....Site.....Site Code No.....Date.....

Sampling section.....Gauge Line/Bridge/Temporary Section…….

.....Time.....From.....to.....

Mode of sampling/Launch/Ropeway/Boat with or without O.B.E/Bridge/Wading.....

River Water Colour.....

Type of Suspended sediment sampler used.....

Temp of River Water…….... Weather.....

Sampling Record										Sediment Analysis													
										Coarse Sediment Above 0.2 mm						Medium sediment bellow 0.2 mm and above 0.075 mm						
No.	R.D.on sampling Section	Water Depth(M)	Sampling Depth (M)	Velocity(m)/s	No.of Sampling bottels	Group No.	Volume of composite Samples	Group Discharge M^3/s	Group Run off 103 (Hect M)	Dish No.	Weight of empty dish(gm)	Weight of dish + dry sediment	Weight of Sediment(g)	Concentration(g/l)	Load (Tons/Day)	Dish No.	Weight of empty dish(gm)	Weight of dish + dry sediment	Weight of Sediment(g)	Concentration(g/l)	Load (Tons/Day)	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	Total																					
	Average																					
	Weighted Concentration																					

$$\text{Weighted mean concentration(g/l)} = \frac{\text{Total Load (Tones/day)}}{(\text{Run off}) \times 10^4}$$

Fine Sediment					
Concentration of Fine Sediment (bellow0.075 mm)		Dissolved Solid		Gauge and Discharge	
				Details	M.K.S.Unit
Weight of Filter Paper (gm)		Weight of Empty Dish(gram)		Initial Gauge	
				Final gauge	
Weight of Filter Paper + Dry Sediment		Weight of Empty dish+ Dissolved solid (Gm)		Average Gauge	
				Zero R.L.	
Weight of Sediment		Weight of Dissolved Solid(gm)		Average Water level	
				Discharge	
Concentration(gm/l)		Concentration(g/l)		Run Off Per Day	
				Average Velocity	
Load (Tons/Day)		Concentration (PPM)			

	Grade	Concentration(g/l)	Load (Tons/Day)	
	Coarse			
	Medium			
	Fine			
	Total			

Signature of Observer

Name.....

Designation.....

Asstt. Research Officer

.... Division

.....

Executive Engineer

.... Division

CWC/RD-8
GOVT.OF INDIA
CENTRAL WATER COMMISSION

During the Month of.....details of suspended sediment for the First/Second/Third 10 days

Site..... Code No.....

River ..... Rock and or soil type at Site.....

division..... Sub-Division.....

Zero reduced level of gauge .....

Date	Concentration of Medium sediment (g/l)							Total	Average	Concentration of Medium sediment (g/l)							Total	Average	Concentration of fine sediment (g/l)	Concentration of Dissolved solid g/l	Average Velocity (m/s)
	I	II	III	IV	V	VI	VII			I	II	III	IV	V	VI	VII					
Total																					
Average																					
Monthly Total																					
Monthly Avg																					

Weight of Daily Suspended Sediment

Date	M.W.L	Discharge in m^3/s	Run Off in 10^3 Hect. M	Coarse sediment		Medium Sediment		Fine Sediment		Total Sediment		Remarks
				gram/lit	Tons/Day	gram/lit	Tons/Day	gram/lit	Tons/Day	gram/lit	Tons/Day	
1	2	3	4	5	6	7	8	9	10	11	12	13
Total												
Monthly. Total												
Monthly. Avg												
Monthly. Avg												

Signature of observer.....

Name.....

Designation.....

Asstt. Research Officer/Research Officer

..... Division

.....

Executive Engineer

..... Division

.....

CWC/RD-9

Government of India

Central Water Commission

Year……..

ABSTRACT OF SUSPENDED SEDIMENT LOAD DATA FOR THE YEAR

River…….. Site…… Code No……..

Cross Section……..

Rock and Soil type at site…… Zero R.L. of Gauge (G.T.S.)……..m.

Month	Discharge (m^3/s)	Sediment Load in Tons																		Mode of sampling	Remarks
		(Runoff Ha. mx10)		Coarse				Medium				Fine				Total					
	Mean	Total	Mean	Total	Mean	Progressive Total	Mean	Total	Mean	Progressive Total	Mean	Total	Mean	Progressive Total	Mean	Total	Mean	Progressive Total	Mean		
1	2	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23

Signature of Observer

Name...

Designation..

Asstt. Research Officer

.... Division

....

Executive Engineer

.... Division

CWC/RD-10

Government of India

Central Water Commission

MEAN DIAMETER OF SEDIMENT PARTICLES

Below 0.6 mm. dia.)

IMPORTANT :-This Form is to be used alone when the percentage of particles above 0.6 mm is less than or equal to 5.0 and with Form CWC/RD-11 if the percentage exceeds 5.0.

River.....Temperature of water in Siltometer.....

Site .....Code No.....Field Sample No. .....

Date of Sampling .....Laboratory Sample No. .....

Date of Analysis .....

EXPERIMENTAL VALUES				**-INTERPOLATED VALUES**			
Diameter in mm.	Actual Volume (C.C.)	Actual Percentage by Weight	Summation Percentage	Diameter in mm.	Summation Reading (=S)	Distribution Value Percentages	Mean Diameters Plotted mm.
				0.06			
				0.08			0.07
				0.10			0.09
				0.12			0.11
				0.14			0.13
				0.16			0.15
				0.18			0.17
				0.20			0.19
				0.22			0.21
				0.24			0.23
				0.26			0.25
				0.28			0.27
				0.30			0.29
				0.32			0.31
				0.34			0.33
				0.36			0.35
				0.38			0.37
				0.40			0.39

				0.42			0.41
				0.44			0.43
				0.46			0.45
				0.48			0.47
				0.50			0.49
				0.52			0.51
				0.54			0.53
				0.56			0.55
				0.58			0.57
				0.60			0.59
TOTAL							

Quantity Sieved =

Quantity below 0.6 =

Initial Weight W1
of portion put in =
Siltometer) = W2
Final Weight =
Loss = $(W_1-W_{2)}$

% above 0.6 mm.	=	(Y)	1. Total of 'S' Column = (T)
% 0.2-0.6 mm.	=		2. 0.61+0.0019(Y) =
% 0.2-0.6 mm.	=		3 0.0002 T =
% below 0.06 mm	=	(P)	0.0004 P =
50% Diameter	=		5. Mean Diameter = =(2)-(1)-(4)

Signature of Analyst Assistant Research Officer Executive Engineer

Name .....Division

Designation Water Quality Research Laboratory-2

.....Division

CWC/RD-11

Government of India

Central Water Commission

MEAN DIAMETER OF SEDIMENT PARTICLES

(Below 0.6 mm dia.)

IMPORTANT: -

This form is to be used as a supplement to Form No. CWC/RD-10 and only when the percentage of particles above 0.6 mm exceed 5.0. The summation curve in a case is to be drawn on a compressed scale as well as on ordinary scale.

River……. Cross Section No. …… R.D…….

Site ……Code No…… Field No. ……

Laboratory Sample No. ……

Experimental Values		**Interpolated Values**						**Result of Slope Analysis**		
Diameter in mm	Summation Percentage	Diameter in mm	Summation Reading (=S)	Distribution Value Percentage	Diameter in mm	) Summation Reading (=S)	Distribution Value Percentage	Aperture in mm	Quantity retained gms.	Retained Percentage
0.1		0.1								
0.2		0.2								
0.3		0.3								
0.4		0.4								
0.5		0.5								
0.6		0.6								
1.0		0.7								
1.5		0.8								
2.0		0.9								
2.5		1.0								

3.0		1.1								
3.5		1.2								
4.0		1.3								
4.8		1.4								
		1.5								
		1.6								
		1.7								
		1.8								
		1.9						4.8		
		2.0						4.0		
		2.1						3.5		
		2.2						3.0		
		2.3						2.5		
		2.4						2.0		
		2.5						1.5		
		2.6						1.0		
		2.7						0.6		
		2.8						Passing0.6		
		2.9								
		3.0								
		3.1						Total		
		3.2								
		3.3								
		3.4								
		3.5								
		3.6								
		3.7								
		3.8								
		3.9								
		4.0								
		4.1								
		4.2								

		4.3					
		4.4					
		4.5					
		4.6					
		4.7					
		4.8					

1. Total of 'S' column (=T) =
2. Highest Diameter + 0.05 (=A) =
3. 0.0001 T (=B) =
4. Mean Diameter (=A-B) =

Signature of Analysis

Name

Designation

Signature of A.R.O./R.O.

Executive Engineer

.....Division

CWC/RD-12

Government of India

Central Water Commission

RESULTS OF ANALYSIS OF BED MATERIAL

River…….. **Site…….. Code No. ……. Observation Section (CL/US/DS)……**

Sl.No.	Date of Collection	Lab. No.	Date of the Sample Collected											General data of the River								Remarks
			R. D.	R.L. of Dry Bed	R.L. of Bed Level	W.L.(GTS) of the sampling depth(m)	Depth of Water (m)	Width (m)	Velocity (m/s)	Discharge (m3/s)	Bed Material Composition			Wetted perimeter (m)	Hydraulic mean depth (m)	Mean Velocity (m/s)	Surface Water Slope	Discharge(m3/s)	Bed Material Composition			
											Max Size (mm)	Min. Size (mm)	Mean. Size (mm)						Max. Size(mm)	Min. Size(mm)	Mean. Size(mm)	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23

Signature of Lab Assistant/Analysist

Name……..

Designation

Signature of A.R.O./R.O.

Name……..

Signature of Executive Engineer

……Division

……..

CWC/RD-13

Government of India

CENTRAL WATER COMMISSION

Vertical Velocity and Sediment Distribution Experiment

River..... Site..... Code No. .....

Date.....Time From.....To.....

Experiment No.....Section and R.D. .....Water Depth.....

Water Level Beginning..... End.....Mean.....Discharge.....

			Coarse Sediment		Medium Sediment		
Sampling point	Sampling depth	Velocity (m/s)	Total(g)	Concentration (g/l)	Total(g)	Concentration (g/l)	Remarks
1	2	3	4	5	6	7	8
Surface							
0.1 D							
0.2 D							
0.3 D							
0.4 D							
0.5 D							
0.6 D							
0.7 D							
0.8 D							
0.9 D							
Total							
Mean							
Max.							
Min.							

Note-

Total- Sum of values at all decs-depth+1/2 the value of water surface

Mean: $\frac{\text{Total}}{10}$

Summary:

1. Mean velocity by graphical integrative method (V)……...m/s
2. Mean velocity (V) /occurred at.....depth below water surface.
3. Ratio of mean velocity(V) to the surface velocity.....
4. Ratio of mean velocity to velocity at 0.6 depth.
5. Mean sediment concentration by graphical integration method: -

(i)Coarse sediment.....

(ii)Medium sediment .....

6.Mean Sediment concentration occurred at:

(i)Coarse sediment.....

(ii)Medium sediment .....

7. Ratio of mean sediment concentration to sediment concentration at 0.6 depth.....

(i) Coarse sediment.....

(i) Medium sediment.....

Signature of Observer

Name

Designation

Signature S.D.E.

Sub Division

Executive Engineer

…….Division

C.W.C/ R.D.-14
Government of India
Central Water Commission

Physical & Chemical Specialties of River/Well Water Samples
Pollution Study of Well & River at Central Line

Pollution Study of Well & River Water Samples collected at C/L																			
Sl. No	Lab Sample No.	River	Site	Situation	Date	Time	Weather	Water Color	Odor of Water	Temp in degree C	Discharge in m3/sec	Volume in Lit.	pH	Conductivity mho/cm	Water Level in well	Datum Level of Well	Distance of well from C/L	Depth of sampling Point	Mean Water Level of the river	Date of receipt
				U/S																
				D/S																
				C/L																
				Well																

Signature of Senior Research Asstt/Junior Engineer/
Gauge Asstt

Name of Discharge Site

C.W.C/ R.D.-15
Government of India
Central Water Commission

……. DIVISION…….

RESULT OF DISSOLVED OXYZEN AND BIO-CHEMICAL OXYGEN DEMAND EXPERIMENT

River…….. Site…….. Code No. ……

Type of Sampler used for collecting data for Dissolved Oxygen / B.D.O. Experiment……. Is sampler in working order……..

Sl. No.	Lab.No.	Date of sampling collection	Time in HRs.	Situation	River Water Temp. in degree	R.D.	Date of sending samples to divisional Lab.	Discharge in m^3 / sec	Depth in m	Velocity in m/sec	Sampling Depth	Strength of Potassium Dichromate and Sodium Hydrosulphate for standardization	Dissolved Oxygen / Biochemical Oxygen Demand (mg/litre)								
													Date of Standardization	on site	Before Heat Boat	After heat boat	concentration if any	(mg/l)	(ton/day)	(BOD Bottle no.)	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22

Signature of Observer

Name..... Asstt. Research Officer/Research Officer Executive Engineer

Post.....Division . ..... Division

CWC/RD-16

Government of India

Central Water Commission

INSPECTION REPORT

(Please do not leave any item blank. Fill up the form completely indicating N.A. against items not applicable)

River.....Site..... Code.....Date.....

1- From.....To.....
Period of present inspection:
By

2- When was this site last inspected and by whom?

I. GAUGE AND DISCHARGE OBSERVATION

3- Type of navigational equipment (Boat/Motor Launch/OBE/Jet Boat etc.) in use and its condition

4- Mention if sufficient number f life buoys, life jackets, oars etc. are provided.

5- Type of engine, if any and its condition.

6- Total running hours of the engine.

7- Date of change of gear oil.

8- Verify log book and fuel consumption.

9- Comment on condition and performance of the following.

(a) Stop Watch

(b) Sounding rod

(c) Wading rod

(d) Suspension equipment

(e) Tape

(f)Other scientific and mathematical instruments

10- Leveling operation-

(a) Level No.

(b) Check permanent adjustment and state the result.
(c) Check zero level of the gauge and state the result

11- Is there standard bench mark available within easy reach?

12- When the site B.M. was last checked with Musto type B.M.?

13- Type of river Gauges (wooden/concrete/steel/enamel plate/vertical/inclined/permanent/temporary etc.) and their condition.

14- Describe the river condition at site (Please indicate the number of channels, prevailing flow conditions including overflow of banks, river morphology, erosion problems, if any, etc.)

15- Describe method of segmentation

16- If pivot-point lay out is existing, has it been checked for the correctness? If yes, when and by whom?

17- If a cable way or cradle exists? Indicate its condition.

18- No. of current meter, make and its rating equation.

19- General condition (please indicate if the current meter and its accessories are in working condition without any damages)

20- Can the observer handle it efficiently?

21- When was it last re-rated?

22- Check spin before and after use and record result.

23- No. of check meter, make and its rating equation.

24- Mention the result of complete joint observation with both meters and record result if done during the inspection and enclose both discharge observations.

25- Possible reasons for the difference in two results and remedies suggested.

26- Submit a statement of daily gauge, discharge and value of ‘c’ ‘s’ and ‘n’ (manning) for the last ten days and comment on the data with detailed reasons for variation, if any.

II. FIELD SEDIMENT OBSERATION AND ANALYSIS.

27- Type of suspended sampler used and its condition.

28- Whether the samples are connected from 0.6 D? if not, state the sampling point and reason for non-collection of samples according to the prescribed norms.

29- Describe the arrangement for keeping the samples in the boat and the carriage of samples to the laboratory.

30- Make joint observation with the observer and record results.

31- Distance between the site and silt laboratory.

32- Is the laboratory kept neat and in proper order?

33- Check all the instruments in the lab and give your comments, if any.

(a) Physical balance

(b) Chemical balance

(c) Meter

(d)Weights

(d) Other instruments

34- Is laboratory fully equipped? If not, mention the apparatus required.

35- Has any special experiment been conducted? If so, state the nature and number of experiments conducted and suggestions for improvement, if any.

36- Has bed-material survey been conducted at the site? If so, state position and number of samples collected during the month.

37- Is the bed material sampler in working order?

III. WATER QUALITY WORK

38- Number of sampling sections and their location.

39- Number of samples collected from each section and exact position of sampling (width-wise and depth-wise)

40- No. of tests conducted at site and the comments of the inspecting officer thereon.

41- Number of samples sent to Division/Circle laboratory and purpose thereof.

IV RAIN GAUGE

42- Type of rain gauges and their conditions.

43- Whether the rain gauges are installed as per prescribed norms (please indicate if the site is free from obstructions.)

44- Check the working of the self-recording rain gauge.

V WIRELESS STATION

45- Mention the type and condition of wireless et at site.

46- Mention the condition of the building and its surroundings.

47- Condition of the battery in use.

48- Condition of the generator, if any.

49- Condition of the mast and antenna.

VI GENERAL

50- Have the points noted in the last inspection report fully attended?

51- Have the data in relevant formats been sent by the JE/RA promptly and regularly? Please indicate the action taken in cases of delay.

52- Examine all records maintained at site (including attendance register) and point out shortcomings.

53- General remarks and suggestions.

Signature of Junior Engineer	Signature of Asst Research	Signature of inspecting officer
Name	Name	Name
Designation	Designation	Designation
Date	Date	Date