

NCC SWSM PROJECTS – UP – GORAKHPUR

Project Name : Survey, Design, Preparation of DPR, Construction, Commissioning and O&M for 10 years of Various Rural Water Supply Project in the State of Uttar Pradesh– Gorakhpur District
Client : SWSM/DWSM-UP-GKP
Consultant : Medhaj Techno Concept Pvt. Ltd.
Contractor : NCC Limited

Request For Inspection

RFI No:	SWSM-UP-GKP/S/Tw/78/K1	Date And Time -	01/03/2022
Description:	Rectification of Compliance.		
Location:	Block-Bonogoon, C-1-Kanpur B Kangeecha.		
Preceding RFI No.	SWSM-UP-GKP/S/Tw/78		
Commencement of work:	01/03/2022		
Submitted By:	Utkarsh		
Signature:	Utkarsh		
Designation:	JE (Civil)		
Concessionaire:	Proceed	Hold	
Name:			
Designation:			
Comments:	① Per-Channel Test report is attached. ② Wadding is rectified.		


Signature
Contractor Representative


Signature
Consultant Representative

Signature
Client Representative

NCC SWSM PROJECTS – UP – GORAKHPUR

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 Consultant : Medhaj Techno Concept Pvt. Ltd.
 Contractor : NCC Limited

Request For Inspection

RFI No:	SWSM-UP-GKP/S/ TW/78	Date And Time - 20/02/2022	
Description:	Lowering of Pipe Assembly & Killing of Pea Channel.		
Location:	Block - Bongsagan, Cir. Konepur & Konepacha		
Preceding RFI No.	NA		
Commencement of work:	01/03/2022		
Submitted By:	Atkash		
Signature:	Atkash		
Designation:	JE		
Concessionaire:		Proceed	Hold
Name:			
Designation:			
Comments:	① Pea gravel Test report not provided on site. ② welding. is not done properly. on ring and Pipe joint.		


 Signature
 Contractor Representative


 Signature
 Consultant Representative


 Signature
 Client Representative

Kanyeecha



GORAKHPUR-UP

SIEVE ANALYSIS OF PEA GRAVELS (SIZE-1.6 mm to 4.8 mm)

(As per IS : 460 and IS: 4097)

Date of Testing : 25/02/2022
Test report no : NCC/GRA-5/202079

SL NO.	DESCRIPTION	OBSERVATIONS
1	Source of material :	Lalkuan, Nainital, Uttarakhand.
2	Location :	Block Name- BANSUAON
		G.P Name- KANYEECHA
3	Date of sampling :	24/02/2022
4	Lab. Test no :	79
5	Sample no. :	79
6	Total wt. of sample (gm) :	1000 gm

SIEVE ANALYSIS

IS Sieve Size	retained	Cumulative wt. Retained (gm)	Cumulative % wt. Retained	% passing	Acceptable / Not Acceptable
6.3 mm	08	08	0.8	99.2	OK
4.75 mm	108	116	11.6	88.8	OK
2.36 mm	735	851	85.1	14.9	OK
1.18 mm	147	998	99.8	0.2	OK
Pan	02				
Total(gm)=					

The Hardness of Material is=

Note:- The Hardness value should not be less than 5 in Moh's scale.

(Signature)
NCC LTD.

(Signature)
PMC/TPIA

(Signature)
CLIENT

NCC
NCC Limited

NCC LTD.

STATE WATER AND SANITATION MISSION

CLIENT: JJM / SWSM / DWSM

GORAKHPUR-UP



SPECIFIC GRAVITY OF PEA GRAVELS (SIZE- 1.6 mm to 4.8 mm)

As per IS : 2386 (Part-3)

Date of Testing-

25/02/2022

Test report no :

NCC/URP-S/SC/079

SL NO.	DESCRIPTION	OBSERVATIONS
1	Source of material :	Lalkuan, Nainital, Uttarakhand
2	Location :	NAME OF THE BLOCK - BANSGAON
		NAME OF THE GRAM PANCHAYAT - KANYABECHA
3	Date of sampling :	24/02/2022
4	Lab. Test no :	79
5	Sample no :	79

SPECIFIC GRAVITY TEST AT ROOM TEMPERATURE

6	Weight of the Jar, W1 (gm)=	246 gm
7	Weight of Jar + Gravel, W2 (gm)=	458 gm
8	Weight of Jar + Gravel + Water, W3 (gm)=	654 gm
9	Weight of the Jar + Water, W4 (gm)=	718 gm
10	Specific Gravity =	$\frac{W2 - W1}{(W2 - W1) - (W3 - W4)} = \frac{212}{212 - 136} = 2.78$

Note : The Specific Gravity should not be less than 2.5

NCC LTD.

PMC/TPIA

CLIENT

NAME OF THE DISTRICT- GORAKHPUR	TYPE OF RIG M/C- RC
NAME OF THE BLOCK- BANSGAON	SIZE OF BORE-
NAME OF THE GRAM PANCHAYAT- KANAYEECHA	STATIC WATER LEVEL- 12M
NAME OF THE VILLAGE-	J.E Incharge _____ A.E Incharge _____

DISCHARGE - 800 LPM

DEPTH B.G.L. IN METER	BORING CHART	STRATA	EXECUTED ASSEMBLY	ASSEMBLY DETAILS
0M		C.L	AGL - 0.50	300 mm Dia Housing Pipe A.G.L. = 0.50 m
				300 mm Dia Housing Pipe _____ m to 36.08 m
				300/150 mm Dia Reducer 35.58 m to 35.78 m
		SANDY CLAY		150 mm Dia BLIND pipe 35.78 m to 85.50 m
				150 mm Dia SLOTTED pipe 85.50 m to 88.50 m
24.0M				150 mm Dia BLIND pipe 88.50 m to 118.70 m
		MEDIUM SAND		150 mm Dia SLOTTED pipe 118.70 m to 130.77 m
32.0M				150 mm Dia BLIND pipe 130.77 m to 144.50 m
				150 mm Dia SLOTTED pipe 144.50 m to 156.57 m
		SANDY CLAY		150 mm Dia BLIND pipe 156.57 m to 159.57 m
51.0M			35.58M 35.78M	_____ mm Dia _____ pipe _____ m to _____ m
		MEDIUM SAND		_____ mm Dia _____ pipe _____ m to _____ m
65.0M		SANDY CLAY		_____ mm Dia _____ pipe _____ m to _____ m
				_____ mm Dia _____ pipe _____ m to _____ m
85.0M		MEDIUM SAND		_____ mm Dia _____ pipe _____ m to _____ m
89.0M		SANDY CLAY	85.50M 88.5M	_____ mm Dia _____ pipe _____ m to _____ m
				_____ mm Dia _____ pipe _____ m to _____ m
0M		MEDIUM SAND		_____ mm Dia _____ pipe _____ m to _____ m
112.0M		SANDY CLAY		_____ mm Dia _____ pipe _____ m to _____ m
118.0M			118.70M	_____ mm Dia _____ pipe _____ m to _____ m
		MEDIUM SAND		_____ mm Dia _____ pipe _____ m to _____ m
134.0M		SANDY CLAY	130.77M	_____ mm Dia _____ pipe _____ m to _____ m
144.0M			144.50M	_____ mm Dia _____ pipe _____ m to _____ m
		MEDIUM SAND		_____ mm Dia _____ pipe _____ m to _____ m
160.0M		CLAY	156.57M 159.57M	_____ mm Dia _____ pipe _____ m to _____ m
165.0M			BAIL PLUG	_____ mm Dia _____ pipe _____ m to _____ m
Total Assembly = 159.57 m + A.G.L. (m) = 160.07 m				

ABSTRACT

1. Drilling Started-
2. Drilling Completed/Lowering- 26/02/2022
3. Drilling Depth (m)- 165.0M
4. Assembly Lowered (m)- 160.07M
5. Housing Pipe (m)- 36.08M
6. Plain Pipe (m)- 96.65M
7. Slotted Pipe (m)- 27.14M
8. Reducer (m)- 0.20M

LOGGING REPORT

- 1- 23 - 32 - 09
- 2- 51 - 65 - 14
- 3- 85 - 89 - 04
- 4- 109 - 112 - 03
- 5- 118 - 134 - 16
- 6- 144 - 160 - 16
- 7-
- 8-
- 9-
- 10-



(Manoj Kumar) (Bobbangadav)
J.E & A.E

(Signature)
P.M.C.T.P.I.A

(Signature)
E.E

Tele Fax : +91-0522-246-5512(O)
Mobile : + 91 - 9415141232
E-mail : geo.instruments.technic@gmail.com

GEO INSTRUMENTS & TECHNIC'S

(A Division of Geophysical Exploration and Instrumentation)

Sales & Service Dealer : Uptron Borehole logging system, UPTRON INDIA LTD., LUCKNOW

Ref:GIT:UP: PJM:21-22:LS: 2/1

Dated: 16-02-2022

GEOPHYSICAL BOREHOLE LOGGING REPORT

Site: Kanayeecha
Block: Bansgaon
District: Gorakhpur
State: Uttar Pradesh
Date of logging: 15-02-2022
Drilling depth: 165.0 m bgl
Logging Depth: 160.0 m bgl
Rm - 18.0 Ω m Rw - 20.0 Ω m

Borehole Drilled by: M/s Megha Engg. & Infrastructure Ltd., Gorakhpur.


Based on the interpretation of Self Potential (SP), Short Normal (N-16"), Long Normal (N-64") and Lateral 6', geophysical logs following informations/granular zones have been deciphered:

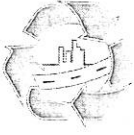
Sl. No.	Depth Range (mbgl)	Thickness (meters)	Remarks (Quality of aquifer water)
1.	23 - 32	09	Good
2.	51 - 65	14	Good
3.	85 - 89	04	Good
4.	109 - 112	03	Good
5.	118 - 131	15	Good
6.	144 - 160	16	Good

Verified as per logs provided.

15/02/22
ASSISTANT HYDROGEOLOGIST
YANTRIK MANDAL
U.P. JAL NIGAM (RURAL)
PRAYAGRAJ

For Geo Instruments & Technic's


(S. Shukla)



TECHPRO ENGINEERS PVT. LTD.

(Laboratory Division)

Lab Add. 131, Ram Ganga Housing Society, Naramau, Kanpur- 209217,

Tel.: 0512-2525759, 09793209918, Web site: www.techproindia.com

e-mail: tepllab@gmail.com, info@techproindia.com,

Doc No.: TEQR-36C, Issue No.: 02, Issue Date: 18/08/20, Rev. No. : 01, Rev. Date: 10/12/2020

TEPL/MT/2022/136/R1

Dated: 05-03-2022

TEST REPORT

Name of Customer	:	Jal Nigam, Gorakhpur
Project	:	SWSM-JJM Project (Har Ghar Jal Mission) at Gorakhpur U.P.
Reference No.	:	SWSM-UP/GKP/QC/77
Sample supplied to Lab by	:	Customer representative
Name of Contractor/ Agency	:	NCC Ltd.
Sample Particulars	:	Pea-Gravel

Sample Receipt Date	:	03/03/2022	Job No.	:	MT136
Condition of sample	:	Satisfactory	SRF No.	:	2022/29
Type of Sample	:	Pea-Gravel	ULR No.	:	NA
Source of sample	:	Lalkuan (Uttarakhand)	Period of Testing	:	03/03/2022 to 05/03/2022

Terms & Conditions:

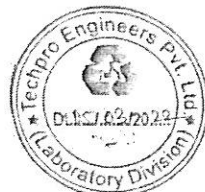
1	Results relate only to the test sample provided by customer.
2	This report is under copyright of Techpro Engineers Pvt. Ltd. (Laboratory Division) and is not to be reproduced, copied, handed over third party or used for any purpose other than for which it has been loaned.
3	The tested samples are retained for three months after issue of test report (if not collected by customer).
4	The unique identification of sample is as Job No. / Chainage No. /BH. No./SI. No. But only SI. No is mentioned in results.



Checked By:

Alok Chauhan

Alok Kumar Chauhan
(Technical Manager)



Approved By:

Arvind Kumar Garg

Arvind Kumar Garg
(Quality Manager)



TECHPRO ENGINEERS PVT. LTD.

(Laboratory Division)

Lab Add. 131, Ram Ganga Housing Society, Naramau, Kanpur- 209217,

Tel.: 0512-2525759, 09793209918, Web site: www.techproindia.com

e-mail: tepllab@gmail.com, info@techproindia.com.

Doc No.: TEQR-36C, Issue No.: 02, Issue Date: 18/08/20, Rev. No. : 01, Rev. Date: 10/12/2020

1. PHYSICAL TEST RESULT OF PEA GRAVEL

Sample Unique ID: MT136/TEPL/02

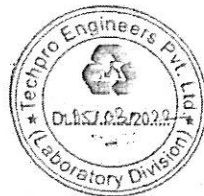
Sl. No.	Particular of Test	Test Passing %	Specification As Per IS (383 & 4097)	Test Method	Remarks
1.0	Sieve Analysis (% by weight)	12.5 mm	100	IS 2386 (Part-1) 1963, RA-2016	-
		8.0 mm	100		
		6.30mm	100		
		4.75 mm	80.90		
		3.35 mm	14.40		
		2.00 mm	8.60		
2.0	Combined Flakiness & Elongation Index (% by weight)	0.0	40 Max	IS 2386 (Part-1)-1963, RA-2016	Partical Size >6.3
3.0	Water Absorption (% by weight)	0.90	5 Max	IS 2386 (Part-3)-1963 RA-2016	-
4.0	Specific Gravity	2.66	2.1 - 3.2	IS 2386 (Part-3)-1963 RA-2016	-
5.0	Hardness Test (Number)	7.3	5 Min	IS 13630 (Part-13)-2006	-
6.0	Bulk Density , Kg/litre			IS 2386 (Part-3)-1963 RA-2016	-
	a) Compacted	1.59	NA		
	b) Loose	1.49	NA		



Checked By:

Alok Chauhan

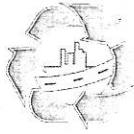
Alok Kumar Chauhan
(Technical Manager)



Approved By:

Arvind Kumar Garg

Arvind Kumar Garg
(Quality Manager)



TECHPRO ENGINEERS PVT. LTD.

(Laboratory Division)

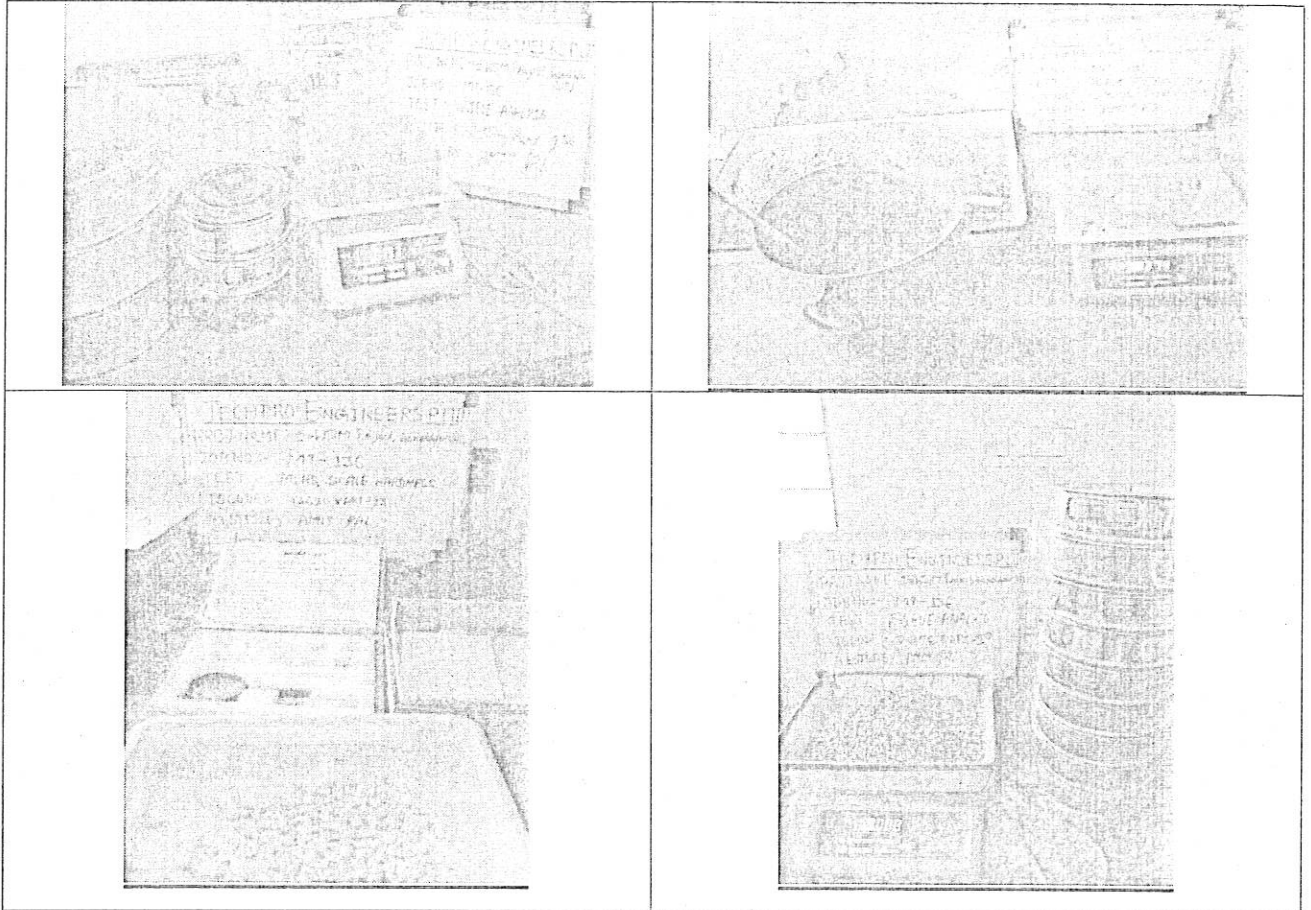
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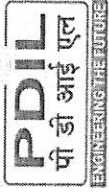
e-mail: teplab@gmail.com, info@techproindia.com,

Doc No.: TEQR-36C, Issue No.: 02, Issue Date: 18/08/20, Rev. No. : 01, Rev. Date: 10/12/2020

PHOTOGRAPHS



END OF REPORT



प्रोजेक्ट्स एण्ड डेवलपमेंट इण्डिया लिमिटेड
PROJECTS & DEVELOPMENT INDIA LIMITED

Inspection Report/Certificate

Certificate/Report No. 1500-005000049311-C
Dated 14.02.2022

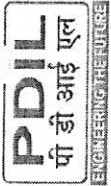
Client /Purchaser	M/S SWSM UP/ M/S NCC LIMITED	Inspection office	INSP NOIDA
P.O. No. & Date	NCC/SWSM-GORAKHPUR-SOUTH/2157/21-22 03.02.2021	Start Date of Inspection	12.02.2022
Supplier /Manufacturer	M/S DADU PIPES (P) LTD.	End Date of Inspection	12.02.2022
Sub Supplier	NA	PDIL Job no	4004006945
Sub supplier P.O.No & date	NA	PDIL Sales Order No.	
Project Name		Total P.O. value	LS
Client Reference		Total inspected item value	LS
P.O.Status	COMPLETE	Inspection Status	FINAL

IC/IR Status APPROVED

SI No.	P.O./BOM /Item No.	Description (Nomenclature,Size,Final Specification)	Unit	Ordered Qty	Offered Qty	Inspected Qty	Status	Accepted Qty	Cummulative Qty	Document Ref.	Heat no./batch No./Earlier certificate NO./material identification etc.
01	01	150MM DIA 5.4 MM THK (THE SLOT SIZE SHALL BE 75MM*1.20MM AND IT SHOULD BE ZIG-ZAG PATTERN AS PER IS8110)	MTR	738	738	738	A	738	738	AS PER PO	BATCH NO.: 22B05
02	02	200MM DIA 7.1 MM THK (THE SLOT SIZE SHALL BE 75MM*1.20MM AND IT SHOULD BE ZIG-ZAG PATTERN AS PER IS8110)	MTR	108	108	108	A	108	108	AS PER PO	BATCH NO.: 22B01
03	03	150MM DIA 5MM THK MS ERW PIPE AS PER IS 4270	MTR	1458	1470	1470	A	1458	1458	AS PER PO	BATCH NO.: 22B04
04	04	300MM DIA 7.1MM THK	MTR	468	480	480	A	468	468	AS PER PO	BATCH NO.: 22A29

Status Code(for details refer remarks): A- Accepted, C- Customer Clearance Required, D-Deviated, P- Partial Accepted, R- Rejected, S- Stage, W- Rework, X-Refer Remarks	
Signature	
Name	SANDEEP SINGH BHATT
Company/organization	PDIL (Inspection & NDT)
Client/Purchaser	
Supplier/Manufacturer	
Sub Supplier	

This Inspection Certificate is issued without prejudice of contractual obligation of the supplier and does not relieve him from the guarantees and obligations set forth in purchase order and attachment.



प्रोजेक्ट्स एण्ड डेवलपमेंट इण्डिया लिमिटेड
PROJECTS & DEVELOPMENT INDIA LIMITED

Inspection Report/Certificate

Certificate/Report No. 1500-005000049311-C
Dated 14.02.2022

Client /Purchaser	M/S SWSM UP/ M/S NCC LIMITED	Inspection office	INSP NOIDA										
P.O. No. & Date	NCC/SWSM-GORAKHPUR-SOUTH/2157/21-22 03.02.2021	Start Date of Inspection	12.02.2022										
Supplier /Manufacturer	M/S DADU PIPES (P) LTD.	End Date of Inspection	12.02.2022										
Sub Supplier	NA	PDIL Job no	4004006945										
Sub supplier P.O.No & date	NA	PDIL Sales Order No.	LS										
Project Name	NA	Total P.O. value	LS										
Client Reference	NA	Total inspected item value	LS										
P.O.Status	COMPLETE	Inspection Status	FINAL										
SI No.	P.O./BOM /Item No.	Description (Nomenclature, Size, Final Specification)	Unit	Ordered Qty	Offered Qty	Inspected Qty	IC/IR Status	APPROVED	Accepted Qty	Cummulative Qty	Status	Document Ref.	Heat no./batch No./Earlier certificate NO./material identification etc.
		MS ERW PIPE AS PER IS4270											

Inspection/Test:

INSPECTION CARRIED OUT AS PER APPROVED QAP & IS4270

1) VISUAL & PHYSICAL INSPECTION FOR QUANTITY, MARKING, FINISHING AND FOUND OK.

2) DIMENSION CHECKED AND FOUND WITHIN TOLERANCE LIMITS.

3) TENSILE TEST, ELONGATION, FLATTENING & HYDRO TEST WITNESSED OF RANDOMLY SELECTED SAMPLES AND RESULTS FOUND SATISFACTORY.

4) INTERNAL REPORT, MTC AND CALIBRATION CERTIFICATES REVIEWED AND FOUND IN ORDER.

5) FOR IDENTIFICATION MATERIAL STAMPED AS "P&d/117"

Enclosure:

(1) MATERIAL TEST CERTIFICATE (2) CALIBRATION CERTIFICATE (3) INSPECTION VISIT REPORT

Remarks:

MATERIAL RELEASED FOR DISPATCH AS PER TERMS & CONDITIONS OF PURCHASE ORDER.

Status Code (for details refer remarks): A- Accepted, C- Customer Clearance Required, D-Deviated, P- Partial Accepted, R- Rejected, S- Stage, W- Rework, X-Refer Remarks	
Signature	
Name	SANDEEP SINGH BHATT
Company/Organization	PDIL (Inspection & NDT) Noida *
Approved By (HOD Insp.)	
Client/Purchaser	
Supplier/Manufacturer	
Sub Supplier	

* This Inspection Certificate is issued without prejudice of contractual obligation of the supplier and does not relieve him from the guarantees and obligations set forth in purchase order and attachment.



Salient Feature

Name of the State : Uttar Pradesh
 Name of the District : Gorakhpur
 Name of the Block : Bansgaon
 Name of the Programme : Jal Jeevan Mission
 Name of the Gram Panchayat : Kanapar & Kanayeecha
 No. of Village/Habitations : 4/8

Table 1: List of village and Habitation

S. No	District Name	Sub District Name	Block Name	Gram Panchayat	2011 Census Code	Revenue Village Name	Habitations Name
1	GORAKHPUR	Bansgaon	Bansgaon	Kanaparand Kanayeecha	0	Atrauli	Atrauli
2					0	Kanapar	Kanapar
a							Kanapar H B
3					0	Piperpati	Piperpati
a							Bakar Tola
b							Chhotka Tola
c							Harijan Basti
4					0	Kanayeecha	Kanayeecha

Table 2: Gram Panchayat Population Summary

S. NO	DESCRIPTION	GROWTH FACTOR WRT Y-2011	POPULATION	SC/ST	HOUSE HOLDS
1.	As per Census 2011	1	3378	1408	495
2.	Initial Stage 2022	1.15	3900 ✓	1626	571 ✓
3.	Middle Stage 2037	1.4	4740 ✓	1976	694
4.	Ultimate Stage 2052	1.7	5730 ✓	2389	839



Rate of Water Supply	:	64.70 LPCD (Added 15 % losses over 55 LPCD)
Nature of Sources	:	Ground Water
Source of Development	:	Tube Well
Daily Water Demand Summary	:	
a) Initial Year 2022	:	252 KLD
b) Intermediate Year 2037	:	307 KLD
c) Ultimate Year 2052	:	371 KLD
Number of Tube Wells	:	1
Nature of Treatments	:	Chlorinator through HDPE Tank (100L) and Dosing metering pump (0-6LPH)
Average Dosing Capacity	:	0.50 PPM
Pumping plant for Tube Well		
a) No. and Type of Plant	:	1
b) Anticipated Discharge	:	800 LPM ✓
c) Total Working Head	:	42 m
d) Motor (HP)	:	15 HP
Service Storage		
a) Quantity	:	1
b) Capacity	:	225 KL ✓
c) Staging	:	13m 12m

Pipeline Summary

Table 3: Rising Mains

Pipeline Type	Details of tube well	Tube well Location	Material	Class	Diameter (mm)-OD	Length (m)
Rising Mains	New Tube Well	In Water Works	DI	K-9	150	35
Total Length (m)						35

SLSSC - 326.63
DPA - 337.7
NWC - 294.19

Estimate for Kanepur and Kanecchya
Water Supply Scheme
Under - SWSM
Block- Bangaon, District- Gorakhpur
Form "J" - Comprehensive Scheme

Sr. No.	Description of Work	Amount (Rs. in Lacs)	%	U.P. Share	Govt. of U.P. Share	Govt. of India Share
1	2	3	4	5	6	7
1	Cost of Work	296.02		296.02		
2	0.14% Discount as per Contract on Cost of work	296.02	-0.14%	0.41		
	Net Cost of Work			295.61		
3	Add Contingency 2%	295.61	2.00%	5.91		
	Sub Total (A)			301.52	150.76	150.76
4	Add GST 12 %-B	301.52	12.00%	36.18	18.09	18.09
5	Add 12.5% Centage-C	301.52	12.50%	37.69	18.85	18.85
	Grand Total (A+B+C)			375.39	206.84	168.85
6	10 year Ist O&M Cost (after DLP)	295.61	2%	5.91	2.96	2.96

257.88
0.36
257.52
5.15
262.67
31.52
32.83
327.02
66.08

TOTAL POPULATION A (ULTIMATE YEAR 2052)	5730
Per Capita Cost (NET COST+CONTIGENCY+GST)	589.4

PREPARED BY

CHECKED BY

(तकनीकी प्रकाश)
राज्य पंचजल एवं स्वच्छता मिशन

M/S NCC Ltd.

J.E(T) Assistant Engineer

Member Secretary DWSSM
Executive Engineer,
U.P Jal Nigam, 10th Div. Gorakhpur

Forwarded As Recommended
by DWSSM For SLSSC

(इं० डी०के० सिंह)

अधीक्षक अभियन्ता
राज्य पंचजल एवं स्वच्छता मिशन

Recommended By

Superintending Engineer,
23rd Circle
U.P Jal Nigam, Ayodhya

Recommended By

Superintending Engineer,
XVII Circle
U.P Jal Nigam, 10th Div. Gorakhpur

Approved By

Chief Engineer
Gorakhpur Zone

(इं० जी०पी० शुक्ला)
युनिट कोऑर्डिनेटर
राज्य पंचजल एवं स्वच्छता मिशन

Break up of Cost

SL. No.	Sub Head	Total Cost of work	Building	R.C.C. Reservoir	Pipe Line	Machinery	Misc.
1	2	3.0	4.0	5.0	6.0	7.0	8.0
A.	Civil works :						
1	Pump house & Chlorinating room	597,000	597,000				
2	Rising Main	89,882					
3	R.C.C. Over head tank 350 KL/14 m staging	4,775,981		4,775,981	89,882	179,763	
4	Distribution System	12,716,113		12,716,113			
5	Approach Road	1,736,334	1,736,334				
6	Boundary Wall and approach road	872,280	872,280				
7	Staff Quarter	970,600	970,600				
8	Surveying and designing	281,191					281,191
	(Total A)	22,039,381	4,176,214	17,492,094	89,882	179,763	281,191
B.	E&M works:						
1	Cost of Tubewell construction	1,776,364				1,776,364	
2	Cost of pumping plant and Chlorinating Plant	1,291,510				1,291,510	
3	Solar plant	2,256,800				2,256,800	
4	Electrification of pump house, SCADA	1,144,000				1,144,000	
	Total (B)	6,468,674				6,468,674	
	G. Total (A+B)	28,508,055	4,176,214	17,492,094	89,882	6,648,437	281,191

Estimate for Kanepar and Kaneechya Water Supply Scheme Under - SWSM Block- Bansgaon, District- Gorakhpur

BOQ Item No.	Description	Unit	Qty	Rate	Amount
	Survey, Design & Preparation of DPR				
1.01	All the works including Hydrological survey, topographical survey, Design charges including preparation and approval of DPR	LS	1.00	281191.00	281191
2.00	Drilling of Borehole for Tubewell construction by DC/RC/DTH Rig Machine including transportaion, erection, dismantling of Rig and associated T&P complete in all respect including required all material labour etc.				
2.01	RIG Transportation for Tube Well Construction Transportation, Installation Dismantling of Rig machine and logging of bore hole	Job	1.00	159478.88	159479
2.03	Tube Well Construction- Drilling of Borehole DC/RC Drilling up to 100Mtr.				
2.04	400 MMØ	Mtr.		1638.27	
2.05	450 MMØ	Mtr.		1834.20	
2.06	500 MMØ	Mtr.		2013.00	
2.06.01	550 MMØ	Mtr.	40.00	2422.00	96880
2.07	600 MMØ	Mtr.	60.00	2422.00	145320
2.08	DC/RC Drilling from 101 Mtr. To 200 Mtr.Deep				
2.09	450 MMØ	Mtr.		1960.88	
2.10	500 MMØ	Mtr.		2144.00	
2.11	550 MMØ	Mtr.	56.00	2510.25	140574
2.12	DC/RC Drilling from 201 Mtr. To 300 Mtr.Deep				
2.13	450 MMØ	Mtr.		2831.63	
2.14	500 MMØ	Mtr.		3014.75	
2.15	600 MMØ	Mtr.		3381.00	
2.16	DC/RC Drilling from 301 Mtr. To 400 Mtr.Deep & above				
2.17	450 MMØ	Mtr.		3319.35	
2.18	500 MMØ	Mtr.		3502.48	
2.19	600 MMØ	Mtr.		3868.72	
2.20	DTH Drilling upto 200.0 Mtr.Deep				
2.21	200/165 MMØ (in over burden/Hard Rock)	Mtr.		1250.00	
2.22	Development / Flushing of tubewell	Hr.		2900.00	
	Tubewell Assembly (Supply + Fittings & Specials)				
3.01	MSERW plain pipe,As per IS 4270				
3.02	100 MMØ	Mtr.		927.50	
3.03	150 MMØ	Mtr.	74.00	1900.00	140600
3.04	200 MMØ	Mtr.		2550.00	
3.05	300 MMØ	Mtr.	36.00	3800.00	136800
3.06	MSERW Pipe slotted pipe as per IS 8110				
3.07	100 MMØ	Mtr.		1366.85	
3.08	150 MMØ	Mtr.	30.00	2800.00	84000
3.09	200 MMØ	Mtr.		3833.80	
3.10	300 MMØ	Mtr.		5188.59	
3.11	MS fittings such as clamp, bail plug, reducer, well cap, girder & support structure	LS	1.00	32295.00	32295
3.12	MS fittings such as ring & centre guide	RM	140.00	471.68	66035
	Tubewell Assembly Lowering Works				
	Lowering of above assembly with welding of parts complete in all respect with all required material, T&P, labour, etc.				
4.01	Lowering up to 100 Mtr. Deep				
4.02	100 MMØ MSERW Plane/Slotted Pipe	Mtr.		129.45	
4.03	150 MMØ MSERW Plane/Slotted Pipe	Mtr.	64.00	281.00	17984
4.04	200 MMØ MSERW Plane/Slotted Pipe	Mtr.		376.50	
4.05	300 MMØ MSERW Plain/Slotted Pipe	Mtr.	36.00	472.00	16992
4.06	Lowering from 101 Mtr. To 200 Mtr. Deep				

BOQ Item No.	Description	Unit	Qty	Rate	Amount
4.07	150 MMØ MSERW Plane/Slotted Pipe	Mtr.	40.00	376.00	15040
4.08	200 MMØ MSERW Plane/Slotted Pipe	Mtr.		499.19	
4.09	300 MMØ MSERW Plane/Slotted Pipe	Mtr.		745.58	
4.10	Lowering from 201 Mtr. To 300 Mtr. Deep				
4.11	150 MMØ MSERW Plane/Slotted Pipe	Mtr.		385.19	
4.12	200 MMØ MSERW Plane/Slotted Pipe	Mtr.		459.00	
4.13	300 MMØ MSERW Plane/Slotted Pipe	Mtr.		606.62	
4.14	Lowering from 301 Mtr. To 400 Mtr. Deep & above				
4.15	150 MMØ MSERW Plane/Slotted Pipe	Mtr.		426.53	
4.16	200 MMØ MSERW Plane/Slotted Pipe	Mtr.		499.00	
4.17	300 MMØ MSERW Plane/Slotted Pipe	Mtr.		643.94	
	Supply and Packing of Gravel Works				
5.00	Supply and unconsolidated packing of gravel with suitable size	Cum	45.00	7500.00	337500
	Development of Tube well				
6.01	Transportation, Installation Dismantling of 150 PSI Compressor	Job		42120.00	
6.02	Charges for Development by 150 PSI Compressor per hour	Hr.		2544.52	
6.03	Transportation, Installation Dismantling of 250/400/600 PSI Compressor	Job	1.00	42120.00	42120
6.04	Charges for Development by 250 PSI Compressor per hour	Hr.	60.00	3027.00	181620
6.05	Charges for Development by 400 PSI Compressor per hour	Hr.		3154.10	
6.06	Charges for Development by 600 PSI Compressor per hour	Hr.		4062.20	
6.07	Transportation, Installation Dismantling of 0.5 Cusec OP Unit and Yield test, water test	Job		22321.28	
6.08	Charges for Development of TW by 0.5 Cusec OP Unit	Hr.		785.42	
6.09	Transportation, Installation Dismantling of 1 Cusec to 3 Cusec OP Unit and Yield test, water test	Job	1.00	67225.00	67225
6.10	Charges for Development of TW by 1 cusec OP Unit	Hr.	100.00	959.00	95900
6.11	Charges for Development of TW by 3 cusec OP Unit	Hr.		1196.00	
6.12	Transportation, Installation Dismantling of 2 Cusec OP Unit and Yield test, water test	Job		89317.00	
6.13	Charges for Development of TW by 2 cusec OP Unit	Hr.		1119.00	
	Pumping Plant:-				
7.00	SITC of Pumping plant including pumps with motors starter, pannel, cable, complete in all respect with all required material T&P labour etc.				
7.01	1 HP	Nos		32518.98	
7.02	2 HP	Nos		35843.14	
7.03	3 HP	Nos		46249.21	
7.04	5 HP	Nos		65037.95	
7.05	7.5HP	Nos		228500	
7.06	10 HP	Nos		230200	
7.07	12.5 HP	Nos		238800	
7.08	15 HP	Nos	1.00	252100	252100
7.09	17.5 HP	Nos		276504.56	
7.10	20 HP	Nos		295500	
7.11	25 HP	Nos		334043.48	
7.12	30 HP	Nos		366163.04	
7.13	35 HP	Nos		393723.7	
7.14	40 HP	Nos		426547.83	
7.15	Variation in HP due to change of site locations increased/decreased in per HP of the proposed pumping plants.	Rate/HP		30467	
8.00	Pressure Transmitter	Nos	1.00	43120	43120
	Electrically operated Sluice Valve:-				
9.00	Electrically operated Sluice Valve PN 1.0 dia 100 mm	Nos	2.00	125000	250000
9.01	Electrically operated Sluice Valve PN 1.0 dia 150 mm	Nos	1.00	125000	125000
9.02	Electrically operated Sluice Valve PN 1.0 dia 200 mm	Nos		150000	
	Check Valve:-				
9.03	Check Valve PN 1.0 DPCV dia 100 mm	Nos	1.00	27519.8	27520
9.04	Check Valve PN 1.0 DPCV dia 150 mm	Nos		51145.45	
9.05	Check Valve PN 1.0 DPCV dia 200 mm	Nos		73485.9	
	Dismantling Joint :-				
9.06	Dismantling Joint PN 1.0 dia 100 mm	Nos	3.00	3923.92	11772

BOQ Item No.	Description	Unit	Qty	Rate	Amount
9.07	Dismantling Joint PN 1.0 dia 150 mm	Nos	3.00	5605.6	16817
9.08	Dismantling Joint PN 1.0 dia 200 mm	Nos		7367.36	
9.09	SITC of Chain Pulley Blocks				
9.10	1 Tonne	Nos	1.00	46305	46305
9.11	2 Tonne	Nos		58432.5	
10.00	Turbidity & Chlorine analyzer	Nos	1.00	273000	273000
11.00	Hydrostatic Level Sensor:- Providing and installation hydrostatic level sensor at all tubewell pumping system including all accessories etc. complete in all respect as per instructions of Engineer -in -charge.	Nos	1.00	126000	126000
12.00	Stabalizer				
12.01	2 KVA	Nos		12777.78	
12.02	5 KVA	Nos		25555.56	
12.03	7.5 KVA	Nos		44722.22	
12.04	10 KVA	Nos		127777.78	
12.05	15 KVA	Nos		166111.11	
12.06	20 KVA	Nos		191666.67	
12.07	25 KVA	Nos		204444.44	
12.08	30 KVA	Nos		230000	
12.09	40 KVA	Nos		281111.11	
12.10	50 KVA	Nos		319444.44	
12.11	60 KVA	Nos		345000	
13.00	Column Pipe:- SITC of Column pipe of MS pipe for connecting submersible pumps				
13.01	32 mm Dia size - MS pipe	Mtr.		500	
13.02	40 mm dia size - MS pipe	Mtr.		666.67	
13.03	50 mm dia size - MS pipe	Mtr.		921	
13.04	65 mm Dia size - MS pipe	Mtr.		1066.67	
13.05	80 mm Dia size - MS pipe	Mtr.		1400	
13.06	100 mm Dia size - MS pipe	Mtr.	30.00	1567	47010
13.07	150 mm Dia size - MS pipe	Mtr.		2167	
14.00	Chlorinating System:- Supply , installation of chlorinating system with dosing pump 0-6 LPH capacity with 100 Litres(1w+1s) tanks, valves ,pipes with required accessories (Automatic dosing system for chemical injection)	JOB	1.00	112000	112000
15.00	Fluoride Removal Plant:- Supplying, installation, testing, commissioning of Fluoride removal plant for required capacity including transportation and labour charges as complete. (vendor have to select the technology based on capacity (Electrolytic-de fluoridation plant or media based system). Rates for 400 KLD/ 500 LPM	LS		8062500	
16.00	Iron Removal Plant:- Supplying, installation, testing, commissioning of Iron removal plant which includes vessel, media, piping valves etc. for required capacity including transportation and labour charges as complete. Rates for 400 KLD/ 500 LPM	LS		6062500	
17.00	Arsenic Removal Plant:- Supplying, installation, testing, commissioning of Arsenic removal plant which include vessel, media, piping valves etc. for required capacity including transportation and labour charges as complete. Rates for 400 KLD/ 500 LPM	LS		9000000	
18.00	TDS and Hardness Removal Plant:- Supplying, installation, testing, commissioning of reverse osmosis plant which includes pump, micron cartridge filter, high pressure pump ,reverse osmosis membrane, cleaning system and required piping and valves etc. complete for required capacity including transportation and labour charges as complete. Rates for 400 KLD/ 500 LPM	LS		13125000	