

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/N/S/ TW/58	Date And Time -	15/01/2022/ 02:55PM
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Description:	lowering of pipe with Assembly & filling of Lea-Cum-w. Block - barhalgong a.p. - PERSIA TIWARI
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Preceding RFI No.	NA
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Commencement of work:	18/01/2022
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Submitted By:	Anita Pandey
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Signature:	
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Designation:	
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Concessionaire:	Proceed	Hold
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Name:	
Designation:	

Comments:
 ① Post delivery test Report not provided.
 ② Lea (General) Setive analysis test report not available
 ③ H - frame user not available of site.

Signature
 Client Representative

Signature
 Consultant Representative

Signature
 Contractor Representative

SWSM PROJECTS - UP - GORAKHPUR



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Request For Inspection

RFI No:	SWSM-UP-GKP/N/S/7ul/58/1R ₁	Date And Time -	18/01/2022
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Description:	Rectification of Conduits.
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Location:	Block - Barchalgany, C.I.P. Regate River.
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Preceding RFI No.	SWSM-UP-GKP/N/S/7ul/58/1R ₁
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Commencement of work:	18/01/2022
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Submitted By:	Arif Farid
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Signature:	<i>Arif Farid</i>
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Designation:	Supervisor
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Concessionaire:	Proceed	Hold
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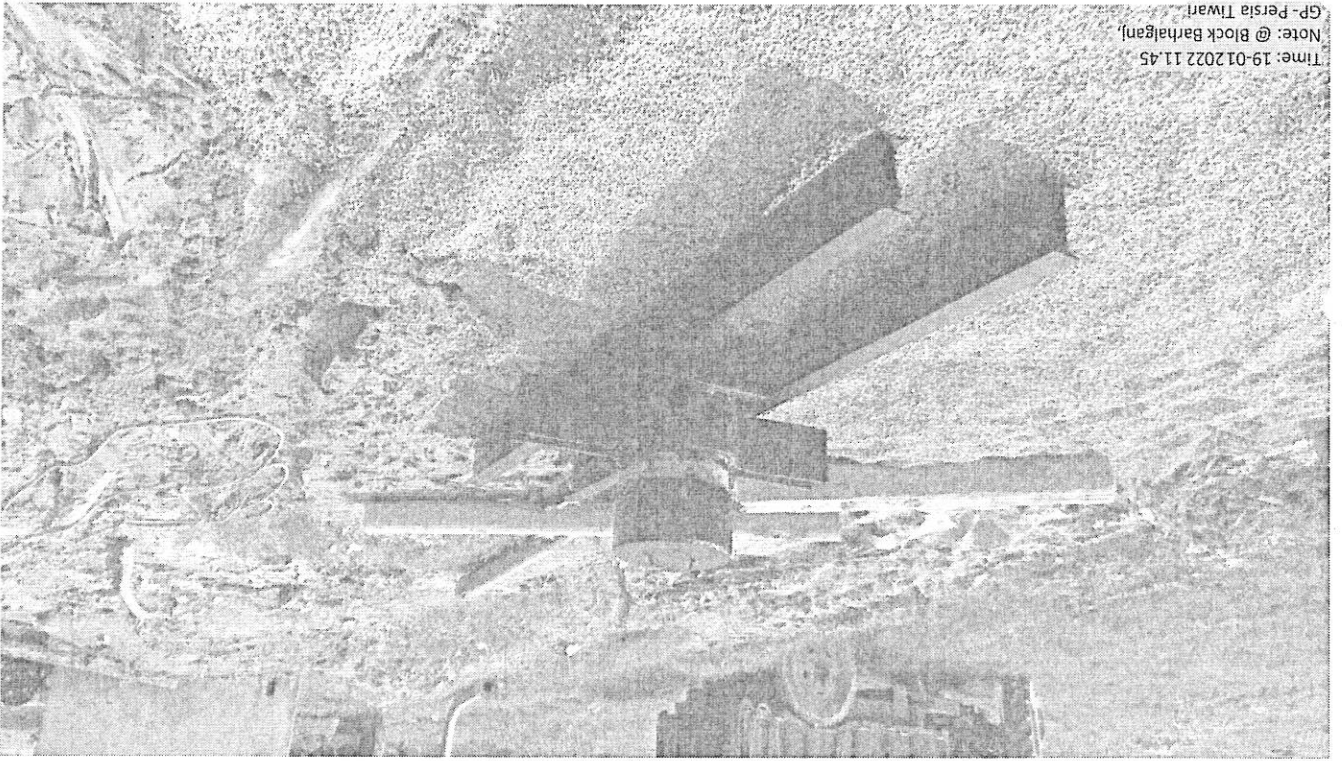
Name:	
Designation:	

Comments:	<p>① first delivery for report under progress.</p> <p>② first gravel sieve analysis for report attached.</p> <p>③ H-frame was fixed with tubewells.</p>
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Signature
 Contractor Representative

Signature
 Consultant Representative

Signature
 Client Representative



Time: 19-01-2022 11.45
Note: @ Block Barhalganj,
GP- Persia Tiwari

Persia Tiwari

NCC LTD. <i>(Signature)</i>	PMC/TPIA <i>(Signature)</i>	CLIENT <i>(Signature)</i>
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Note : The Specific Gravity should not be less than 2.5

10	=	Specific Gravity	=	$(W2 - W1) - (W3 - W4)$	=	$\frac{W20}{W20 - W136}$	=	2.61
9	Weight of the Jar + Water, W4 (gm) =				720 gm			
8	Weight of Jar + Gravel + Water, W3 (gm) =				856 gm			
7	Weight of Jar + Gravel, W2 (gm) =				466 gm			
6	Weight of the Jar, W1 (gm) =				246 gm			


SPECIFIC GRAVITY TEST AT ROOM TEMPERATURE

5	Sample no :	62
4	Lab. Test no :	62
3	Date of sampling :	20/01/2022
2	Location :	NAME OF THE BLOCK - Bahawalgarh NAME OF THE GRAM PANCHAYAT - PERSA TIWARI
1	Source of material :	Lakson, Narnal, Uttar Pradesh
SL NO.	DESCRIPTION	OBSERVATIONS

Date of Testing-	21/01/2022
Test report no :	NCC/RF-5/Bcl/062

As per IS : 2386 (Part-3)

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

	NCC LTD.
STATE WATER AND SANITATION MISSION	NCC Limited
CLIENT: JIM / SWSM / DWSM	NCC
GORAKHPUR-UP	



NCC LTD.
 STATE WATER AND SANITATION MISSION
 CLIENT: JIM / SWSM / DWSM



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 : 21/01/2022
 Test report no : NCC/CLP-5/8C/062

SL NO.	DESCRIPTION	OBSERVATIONS
1	Source of material :	Lakshmi, Nethal, Uttarakhand
2	Location :	Block Name- BIRHARAS G.P Name- PERSIA THAKRI
3	Date of sampling :	20/01/2022
4	Lab. Test no :	62
5	Sample no. :	62
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	19	19	1.9	98.1	OK
4.75 mm	219	238	23.8	76.2	OK
2.36 mm	698	936	93.6	6.4	OK
1.18 mm	62	998	99.8	0.2	OK
Pan	02				
Total(gm)=					

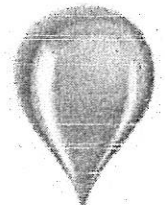
The Hardness of Material is=

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

NCC LTD. *[Signature]*

PMC/TPIA *[Signature]*

CLIENT *[Signature]*



Aqua Xplore

(Groundwater Assessment & Allied Services)

243/5, New Colony Jiyamau, Hazratganj, Lucknow – 226001
Mob. 9918202546 / 9889323322, Email-aquaxploreilko@gmail.com

Advisor- Dr. R. A. Yadav, ex-Manager(Groundwater), U. P. Jal Nigam

Ref. 114 – P / AX - 2022 Date 14.01.2022

Geophysical Borehole Logging Report

Name of the site : Persia Tiwari , Block- Barhaiganj

District : Gorakhpur

Date : 14.01.2022

Depth logged : 152.0 mbgl

Depth drilled : 167.0 mbgl- as reported

Logged by : Aqua Xplore

Presence : Representative of M/S NCC Limited, Gorakhpur - South

Based on the interpretation of geophysical logs, following information may be deciphered, particularly with respect to salinity of the formation water;

Note. All zones are intermixed with fine bands of kankar.

Sl.No.	Depth range(mbgl)	Thickness(m)	Remarks
1	20.0--35.0	15.0	Good all
2	42.0--53.0	11.0	
3	68.0--78.0	10.0	
4	95.0--110.0	15.0	
5	116.0--134.0	18.0	

for Aqua Xplore

[Signature]

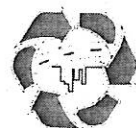
Verified as per logs provided.

6.8.22

ASSISTANT HYDROLOGIST
YANTRIK MANDAL
U.P. JAL NIGAM (RURAL)
PRAVAGRAJ

1. Executive Engineer, C.D. (Rural), U.P. Jal Nigam, Gorakhpur.
2. M/S NCC Limited, Gorakhpur-South, SWSM.

CC:



TEST REPORT

Name of Customer	: Jal Nigam, Gorakhpur
Project	: SWSM-JJM Project (Har Char Jal Mission) at Gorakhpur U.P.
Reference No.	: SWSM-UP/GKP/GC/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.



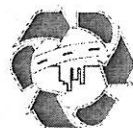
Checked By: *Alok Chauhan*

Alok Kumar Chauhan
 (Technical Manager)

Approved By:

Arvind Kumar Garg

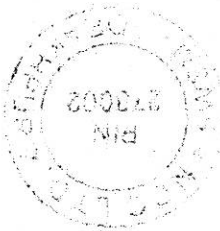
Arvind Kumar Garg
 (Quality Manager)



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
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	a) Compacted	1.59	NA	IS 2386 (Part-3)-1963	-
		b) Loose	1.49	NA	RA-2016	-



Approved By:

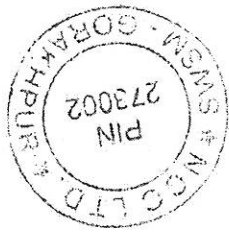
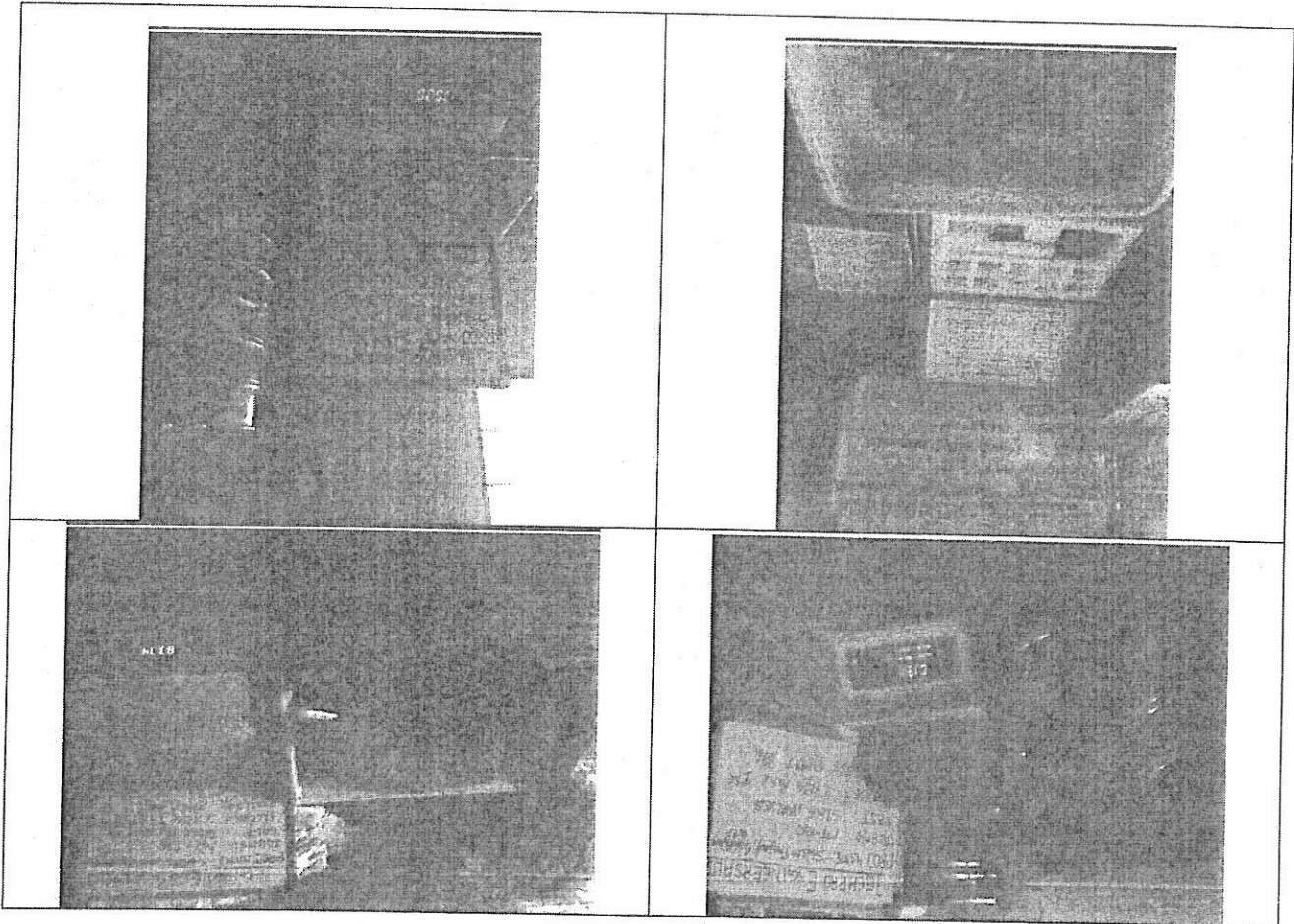
Arvind Kumar Garg
 (Quality Manager)



Checked By:

Alok Kumar Chauhan
 (Technical Manager)

PHOTOGRAPHS



END OF REPORT

TUV INDIA PRIVATE LIMITED

INSPECTION RELEASE NOTE / CERTIFICATE

IRN - 8119494049-NCC/ROK/SWSMUP-G(S)/PO/47 - Sr. No 1.- Rev. 00




- 5) QAP Sr.No 3.3 Hydro test done randomly selected @5% items at 7Mpa test pressure and hold period 3 seconds minimum - observed no pressure drop - found satisfactory.
- 6) QAP Sr.No 3.4 - Identification marking checked randomly - found in order.
- 7) All measuring instruments/ equipment were verified for continued suitability for intended use, proper identification, calibration status, traceability to national standards & found satisfactory.

Documents Reviewed:

- 1) QAP Sr. No. 1.1 Raw material test certificates reviewed for its technical content only as declared by manufacturer and endorsed by vendor- Found to meet the applicable code and project specification requirement
- 2) QAP Sr. No. 1.2, 1.3 & 1.4 - Physical Properties, Dimension & Visual report of Raw material reviewed - found in order.
- 3) QAP Sr. No. 2.1-In-process Dimension inspection report reviewed and found in order.
- 4) QAP Sr. No. 2.2 -In-process Mechanical testing report reviewed and found in order.
- 5) QAP Sr. No. 2.3 -In-process Hydro testing report reviewed and found in order.
- 6) QAP Sr. No. 2.4 -In-process workmanship & protective coating report reviewed and found in order.
- 7) Material test certificates Number DPP/LQC/TC-01212 Date 10.12.2021 reviewed and found in order.

NCR / Waiver (if Any): None

Identification: Inspected items identified with TUV Hard stamp "  " on OD near manufacturers marking (Double on witnessed & rest single)

Order status: Complete Incomplete
 Sub order status: (if applicable) Complete Incomplete

Date(s) of Inspection: 10.12.2021

Conclusion: All items were inspected within the scope defined in approved PO, QAP, specifications & Found to meet the requirements of purchase order & Specifications.

Inspector(s) to TUV India Private Limited

Gaurav Kumar



Distribution List: TUV India Client/End User TUV India Executing /Originating Branch Vendor/Sub Vendor
 Revision Number (if Applicable): 00-Type Reason for revision here.
 This Document Supersedes IRN No.: Mention previous IRN Number.

गो. ऑफिस (50) यहाँ पर प्रेषित
 यहाँ पर प्रेषित
 यहाँ पर प्रेषित

Approved By
 Chief Engineer
 Gorakhpur Zone
 Forwarded As Recommended
 by DWSSM For SLSSC
 (50) (50) (50)

SLSSC - 388.39
 DPE - 419.38
 NMR - 359.34

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

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

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

M/S NCC Ltd.
 J.E(T) Assistant Engineer

7320	Per Capita Cost	(NET COST+CONTINGENCY+GST)
5735		

Sr. No.	Description of Work	Amount (Rs. in Lacs)	%	Govt. of U.P. Share	Govt. of India Share
1	Cost of Work	367.97		0	0
2	0.14% Discount as per Contract on Cost of work	367.97	-0.14%	0.52	0.44
	Net Cost of Work	367.45		367.45	34.51
3	Add Contingency 2%	367.45	2.00%	7.35	6.29
	Sub Total (A)	374.80		374.80	320.2
4	Add GST 12 % - B	374.80	12.00%	44.98	38.51
5	Add 12.5% Cengage - C	374.80	12.50%	46.85	40.10
	Grand Total (A+B+C)	466.83		466.83	399.4
6	1st O&M Cost (after DLP)	367.45	2%	7.35	3.67
		367.45		367.45	314.91

Estimate for PERSIA TIWARI
 Water Supply Scheme
 Under - SWSM
 Block - BARHALGANJ, District - Gorakhpur
 Form "J" - Comprehensive Scheme

SLSSC - 388.39
 DPE - 419.38
 NMR - 359.34

Break up of Cost

Sl. No.	Sub Head	Total Cost of work	Building	R.C.C. Reservoir	Pipe Line	Machinery	Misc.
A. Civil works :							
1	Pump house & Chlorinating room	597,000	597,000				
2	Rising Main	89,882			89,882	179,763	
3	R.C.C. Over head tank 350 KL/14 m staging	7,448,401		7,448,401			
4	Distribution System	16,609,524		16,609,524			
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	363,139	363,139				363,139
	(Total A)	28,509,160	4,176,214	24,057,925	89,882	179,763	363,139
B. E&M works:							
1	Cost of Tubewell construction	2,009,368				2,009,368	
2	Cost of pumping plant and Chlorinating Plant	1,477,206				1,477,206	
3	Solar plant	3,385,200				3,385,200	
4	Electrification of pump house, SCADA	1,238,000				1,238,000	
	Total (B)	8,109,775				8,109,775	
	G. Total (A+B)	36,796,934	4,176,214	24,057,925	89,882	8,289,538	363,139

214,98,711

Estimate for PERSIA TIWARI
Water Supply Scheme
Under - SWSM
Block - BARHALGANJ, District - Gorakhpur

BoQ Item No.	Description	Unit	Qty	Rate	Amount
1.01	All the works including Hydrological survey, topographical survey, Design charges including preparation and approval of DPR	LS	1.00	363139.00	363139
2.00	Drilling of Borehole for Tubewell construction by DC/R/C/DTH Rig Machine including transportation, 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	DC/R/C 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.	60.00	2422.00	145320
2.07	600 MMØ	Mtr.	40.00	2422.00	96880
2.08	DC/R/C Drilling from 101 Mtr. To 200 Mtr.Deep				
2.09	450 MMØ	Mtr.		1960.88	
2.10	500 MMØ	Mtr.	67.00	2144.00	143648
2.10.1	550 MMØ	Mtr.		2510.25	
2.11	6000 MMØ	Mtr.		2510.25	
2.12	DC/R/C 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/R/C 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 Tubewell Assembly (Supply + Fittings & Specials)	Hr.		2900.00	
3.01	MSEWRW plain pipe,As per IS 4270				
3.02	100 MMØ	Mtr.		927.50	
3.03	150 MMØ	Mtr.		1900.00	
3.04	200 MMØ	Mtr.	78.00	2550.00	198900
3.05	300 MMØ	Mtr.	36.00	3800.00	136800
3.06	MSEWRW Pipe slotted pipe as per IS 8110				
3.07	100 MMØ	Mtr.		1366.85	
3.08	150 MMØ	Mtr.		2800.00	
3.09	200 MMØ	Mtr.	36.00	3833.80	138017
3.10	300 MMØ	Mtr.		5188.59	
3.11	M5 fittings such as clamp, bail plug, reducer, well cap, girder & support structure	LS	1.00	32295.00	32295
3.12	M5 fittings such as ring & centre guide Tubewell Assembly Lowering Works	RM	150.00	471.68	70752
4.01	Lowering up to 100 Mtr. Deep material, T&P, labour, etc. respect with all required Lowering of above assembly with welding of parts complete in all				
4.02	100 MMØ MSERW Plane/Slotted Pipe	Mtr.		129.45	
4.03	150 MMØ MSERW Plane/Slotted Pipe	Mtr.		281.00	
4.04	200 MMØ MSERW Plane/Slotted Pipe	Mtr.		376.50	27861
4.05	300 MMØ MSERW Plain/Slotted Pipe	Mtr.	36.00	472.00	16992

BoQ Item No.	Description	Unit	Qty	Rate	Amount
4.06	Lowering from 101 Mtr. To 200 Mtr. Deep	Mtr.		376.00	
4.07	150 MMØ MSERW Plane/Stoiled Pipe	Mtr.		499.19	19968
4.08	200 MMØ MSERW Plane/Stoiled Pipe	Mtr.		745.58	
4.09	300 MMØ MSERW Plane/Stoiled Pipe	Mtr.		385.19	
4.10	Lowering from 201 Mtr. To 300 Mtr. Deep	Mtr.		459.00	
4.11	150 MMØ MSERW Plane/Stoiled Pipe	Mtr.		606.62	
4.12	200 MMØ MSERW Plane/Stoiled Pipe	Mtr.		426.53	
4.13	300 MMØ MSERW Plane/Stoiled Pipe	Mtr.		499.00	
4.14	Lowering from 301 Mtr. To 400 Mtr. Deep & above	Mtr.		643.94	
4.15	150 MMØ MSERW Plane/Stoiled Pipe	Mtr.		426.53	
4.16	200 MMØ MSERW Plane/Stoiled Pipe	Mtr.		499.00	
4.17	300 MMØ MSERW Plane/Stoiled Pipe	Mtr.		643.94	
5.00	Supply and unconsolidated packing of gravel with suitable size Development of Tube well	Cum	53.00	7500.00	397500
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.		3027.00	
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		67225.00	
6.10	Charges for Development of TW by 1 cusec OP Unit	Hr.		959.00	
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	1.00	89317.00	89317
6.13	Charges for Development of TW by 2 cusec OP Unit	Hr.	100.00	1119.00	111900
7.00	Pumping Plant:- SITC of Pumping plant including pumps with motors starter, panel, 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		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
9.00	Electrically operated Sluice Valve:- Electrically operated Sluice Valve PN 1.0 dia 100 mm	Nos		125000	
9.01	Electrically operated Sluice Valve PN 1.0 dia 150 mm	Nos		125000	
9.02	Electrically operated Sluice Valve PN 1.0 dia 200 mm	Nos		150000	
9.03	Check Valve PN 1.0 DPCV dia 100 mm	Nos		27519.8	
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 :-				

BoQ Item No.	Description	Unit	Qty	Rate	Amount
9.06	Dismantling Joint PN 1.0 dia 100 mm	Nos	3923.92		
9.07	Dismantling Joint PN 1.0 dia 150 mm	Nos	5605.6		
9.08	Dismantling Joint PN 1.0 dia 200 mm	Nos	7367.36		
9.09	SITC of Chain Pulley Blocks	Nos			
9.10	1 Tonne	Nos	46305		
9.11	2 Tonne	Nos	58432.5		58433
10.00	Turbidity & Chlorine analyzer	Nos	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	Stabilizer				
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	12777.78		
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.	1567		
13.07	150 mm Dia size - MS pipe	Mtr.	2167		65010
14.00	Chlorinating System:- Supply, installation of chlorinating system with dosing pump 0-6 LPH capacity with 100 Litres(lw+ls) 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	

BQ Item No.	Description	Unit	Qty	Rate	Amount
19.00	Tube Well Electrification:- Internal electrification of tube well	LS	1.00	20000	20000
20.00	Solar Power Plant:- SITC of Solar power plant (for complete plant) including solar panel, Structure, inverter etc. complete in all respect with required material, T&P labour	KW	39.00	86800	3385200
21.00	Boundary Wall:- Construction of 1.3 m high and 15mm thick boundary wall with 230 mmx230 mm thick pillar made in Brick masonry in 1 cement and 4 sand mortar, the spacing between two pillar should not be more than 3.0 m/c and the depth of foundation should not be less than 0.60m, at the site of water works as per departmental type design and drawing, and, as per specifications given in the bid document including supply of all materials, labour T&P etc. for proper completion of work as per instructions of Engineer - in - charge. (Drawing No.D-1)	Rmt	125.20	6400	801280
22.00	MIS Gate:- Supply and fixing of 3.6 m x 1.20 m MS gate including fabrication and supply of steel and construction of boundary wall pillars of size 1.35m x 0.23m with ornamental brick work 15mm th. around RCC, as per departmental type design and drawing (Drawing No. D-1) and as per specifications laid down in the bid document, including supply of all material, labour, T&P etc. required for proper completion of work as per instructions of Engineer-in-charge.	No.	1.00	52000	52000
23.00	MIS Wicket Gate :- Supply and fixing of 1.2m wide MS wicket gate including fabrication and supply of steel and construction of boundary wall pillars etc. as per specifications laid down in the bid document, including supply of all material, labour, T&P etc. required for proper completion of work as per instructions of Engineer-in-charge.	No.	1.00	19000	19000
24.00	Interlocking Pavement:- Construction of interlocking pavement for approach to water works, as per departmental type design and drawing and as per specifications laid down in the bid document, including supply of all materials, labour, T&P etc. required for proper completion of work as per instructions of Engineer -in-charge.	Sqm.	232.20	1070.5	248570
25.00	Granular Sub Base:- Construction of granular sub base by providing coarse grade materials, spreading in uniform layers including watering and compaction complete.	Cum	46.44	2800	130032
26.00	Construction of WBM:- Construction of WBM by providing grade materials, spreading in uniform layers including watering and compaction complete.	Cum	58.05	3029	175833
27.00	Earth Filling:- Earth filling work for proper leveling of water work site, in accordance with the contour map and Grid map of existing site enclosed (Drawing no.D-1), including leveling, dressing, excavation and filling of earth where necessary and also including all labour, materials, T&P etc. required for proper completion of works and also including carriage of earth from within a distance of about 8 km. from the site of works as per instructions of Engineer -in - charge.	Cum	890		
28.00	Semicircular Drain:- Provision for inside semicircular drain 200mm dia including supply of all materials, labour and T & P etc. complete.	Rmt	156.50	1607.14	251517

BOQ Item No.	Description	Unit	Qty	Rate	Amount
29.00	Pump House (3.6x3.0x3.0):- Provide all materials, labour, T&P etc. complete and construct Pump house size (3.6x3.0x3.0)m Chlorinating room size (2.5x1.8x3.0)m as per departmental type design (drawing no-D-2) and as per the specifications for civil work given in the bid document, including supply of all material, labour and T&P etc complete as per instructions of Engineer - in - charge.	Job	1.00	597000	597000
30.00	Pump House (2.5x3.0x3.0):- Provide all materials, labour, T&P etc. complete and construct Pump house size (2.5x3.0x3.0)m Chlorinating room size (1.5x1.3x3.0)m as per departmental type design and drawing (drawing no-D-2) and as per the specifications for civil work given in the bid document, including supply of all material, labour and T&P etc complete as per instructions of Engineer - in - charge.	Job	1.00	404000	404000
31.00	Bye-pass Chamber:- Provide all materials, labour, T&P etc. complete and constructed Bye-pass chamber for pump house (1000 (L) x 1000 (W) x 1150 (H) mm) drawing (drawing no-D-3) and as per the specifications for civil work given in the bid document, including supply of all material, labour and T&P etc complete as per instructions of Engineer - in - charge.	No.	1.00	14600	14600
32.01	50 KL 10 M Staging	Job		1712500.00	1712500.00
32.02	50 KL 12 M Staging	Job		1788750.00	1788750.00
32.03	75 KL 10 M Staging	Job		2150000.00	2150000.00

BoQ Item No.	Description	Unit	Qty	Rate	Amount
32.04	75 KL 12 M Staging	Job		2242500.00	
32.06	100 KL 16 M Staging	Job		2886250.00	
32.07	150 KL 12 M Staging	Job		3073750.00	
32.08	150 KL 16 M Staging	Job		3241250.00	
32.09	175 KL 12 M Staging	Job		3457500.00	
32.10	175 KL 16 M Staging	Job		3441250.00	
32.11	200 KL 12 M Staging	Job		3732500.00	
32.12	200 KL 16 M Staging	Job		3843750.00	
32.13	200 KL 18 M Staging	Job		4040000.00	
32.14	225 KL 12 M Staging	Job		4105000.00	
32.141	225 KL 14 M Staging	Job		4170000.00	
32.15	250 KL 12 M Staging	Job		4587500.00	
32.16	300 KL 12 M Staging	Job		4877500.00	
32.17	300 KL 16 M Staging	Job		5508750.00	
32.18	350 KL 14 M Staging	Job		6093750.00	
32.19	400 KL 14 M Staging	Job		6830000.00	
32.20	400 KL 16 M Staging	Job		7021250.00	7021250
32.21	500 KL 14 M Staging	Job		7457500.00	
32.22	25 KI 10 M Staging	Job		1296250.00	
32.23	25 KI 12 M Staging	Job		1363750.00	
32.24	For 2 m Staging (5% additional per Meter)	Rm		351062.50	
33.00	Excavation:- Excavation of earth in ordinary soil (loam, clay or sand) for pipe line and rising main trenches including lift upto 1.50 m and lead upto 50 m and refilling watering, ramming of the excavated earth into the trench and also disposal of surplus earth upto 50m from the center of the trenches including supply of all material labour, T&P etc complete as per instructions of Engineer-in-charge.				
34.00	Ordinary Soil	Cum	8240.57	214.61	1768508
35.00	Mixed Soil with Kankar	Cum	2071.97	249.27	516479
36.00	Soft Rock	Cum		943.82	
37.00	Hard Rock	Cum		1319.18	
Additional	Disposal of Surplus Earth top 300 mm ht.	Cum			
38.00	Sand Bedding:- Sand Bedding in trenches in layers not exceeding 10 cm. in depth, consolidating each deposited layer by ramming and watering complete as per instructions of Engineer.	Cum	9.29	1656.00	15381
39.00	Retaining Wall:- Construction of Retaining Wall for Protection Survey, Investigation, Soil Testing, Planning, construction, commissioning etc. as per design and drawing provided by the contractor all in accordance with the conditions of the bid documents. The design and drawings provided by the contractor should be better by any IIT Institute or Government Engineering College approved by the Engineer, on contractor's cost. For construction of R.C.C. retaining wall including excavation of earth in hard rock/soft rock/ Kankar /mortum /bajri etc. for foundation, Plain Cement Concrete 1:4:8 (one cement four fine aggregates and eight coarse aggregates) and supply of steel as per drawing including bending, binding with all type of binding materials including wastage of steel Reinforced Cement Concrete (M20) 1:1½:3(one cement one and half fine aggregates and three coarse aggregates) including cost of all arrangement of shuttering, scaffolding and water with supply of all materials, labors T&P etc. required for proper completion of works as per the directions of the Engineer (Provisional)	Cum		16400.00	

BQ Item No.	Description	Unit	Qty	Rate	Amount
40.00	Supply of following sizes (D.I.) pipes for rising main/distribution system conforming to latest/relevant IS. 8329/2000 Specifications with all jointing materials such as specials conforming to latest/relevant IS. specifications, suitable for D.I pipes, as per IS-1239/2000 and IS 8329/2000 or their latest amendment including F.O.R. destination and all taxes and insurance etc. with loading, unloading and carting up to site of work, also including specials for these pipes and lowering them into the trenches and laying true to alignment and gradient and jointing etc. complete (including testing of pipe lines and cutting of pipes for making up the length but excluding the cost of trenches) all complete as per instructions of Engineer-in-charge.				
40.01	Ductile Iron Pipes:- 300 mm dia Ductile Iron K-9	m		3877.6	
40.02	250 mm dia Ductile Iron K-9	m		3103.5	
40.03	200 mm dia Ductile Iron K-9	m		2332.32	
40.04	150 mm dia Ductile Iron K-9	m	35.00	1728.48	60497
40.05	125 mm dia Ductile Iron K-9	m		1411.41	
40.06	100 mm dia Ductile Iron K-9	m		1191.41	
40.07	80 mm dia Ductile Iron K-9	m		905.41	
40.08	300 mm dia Ductile Iron K-7	m		3151.6	
40.09	250 mm dia Ductile Iron K-7	m		2564.5	
40.10	200 mm dia Ductile Iron K-7	m		1848.32	
40.11	150 mm dia Ductile Iron K-7	m		1497.48	
40.12	125 mm dia Ductile Iron K-7	m		1301.41	
40.13	100 mm dia Ductile Iron K-7	m		1007.11	
40.14	80 mm dia Ductile Iron K-7	m		909.49	
41	HDPE Pipes PN6, PE 100:- Supply of following sizes pipes for distribution system conforming to latest/relevant IS. 4984/1995 Specifications with all jointing materials and specials conforming to latest/relevant IS. specifications including F.O.R. destination and all taxes and insurance etc. with loading, unloading and carting up to site of work, also including specials for these pipes and lowering them into the trenches and laying true to alignment and gradient and jointing etc. complete (including testing of pipe lines and cutting of pipes for making up the length but excluding the cost of trenches) all complete as per instructions of Engineer-in-charge.				
41.01	90 mm dia HDPE Pipe PN6, PE 100	m	1600.00	229.5	367200
41.02	75 mm dia HDPE Pipe PN6, PE 100	m	1837.00	169.2	310820
41.03	63 mm dia HDPE Pipe PN6, PE 100	m	6070.00	125.8	763606
42.00	Valves:- Supply and carting up to site of work of the following dia DI butterfly /sluice valves, class I, working pressure 10 Kg/cm ² conforming to IS: 780/1969 or its latest amendments, including valve fittings & dismantling joints as per requirement F.O.R. destination, and lowering them into the already prepared trenches, fixing in position and jointing them with pipelines and testing etc. complete and also including supply of jointing materials etc. complete including all taxes and insurance, as per instructions of Engineer-in-charge.				
42.01	Isolating Sluice Valve				
42.01	Sluice valve - 300 mm dia	Nos		64042.00	
42.02	Sluice valve - 250 mm dia	Nos		48109.00	
42.03	Sluice valve - 200 mm dia	Nos		27304.00	
42.04	Sluice valve - 150 mm dia	Nos	1.00	17626.00	17626
42.05	Sluice valve - 125 mm dia	Nos	1.00	14505.00	14505
42.06	Sluice valve - 100 mm dia	Nos	5.00	14455.00	72275

BOQ Item No.	Description	Unit	Qty	Rate	Amount
42.07	Sluice valve - 80 mm dia	Nos	4.00	12401.00	49604
42.07.1	Sluice valve - 65 mm dia	Nos		10650.00	
42.07.2	Sluice valve - 50 mm dia	Nos		9700.00	
42.08	Scour Valve	Nos			
42.08	Scour valve - 80 mm dia	Nos	10.00	10160.84	101608
42.09	Scour valve - 100 mm dia	Nos		12535.28	
42.10	Scour valve - 150 mm dia	Nos		17625.57	
42.11	Scour valve - 200 mm dia	Nos		27304.03	
42.12	Scour valve - 250 mm dia	Nos		48109.48	
42.13	Pressure Relief Valve	Nos		54219.00	
42.14	PRV 80 mm dia	Nos		80025.00	
42.15	PRV 100 mm dia	Nos		124575.00	
42.16	PRV 150 mm dia	Nos			
42.17	Single / Double ball type Air Valve:- Supply and installation, testing etc. of single/double ball type air valve conforming to latest/relevant I.S. specifications including all taxes and insurance, carting up to site of work and lowering them into the trenches, fixing in position and joining them with pipelines and testing etc. complete (including supply of joining materials and Valve fittings) as per instructions of Engineer.	Nos			
42.18	20 mm	Nos	9.00	10229.21	92063
42.19	50 mm	Nos		23170.33	
42.20	80 mm	Nos	1.00	23170.33	23170
42.21	150 mm	Nos		41024.88	
42.22	Fire Hydrant:- Supply of under ground sluice valve type fire hydrant consisting of 80 mm dia sluice valve, 80mm dia tail pieces, 80mm dia duck foot bend and 80 mm dia standard makes iron coupling with cap and etc. complete conforming to latest/relevant I.S. specifications including all taxes and insurance up to site of work and lowering them into the trenches, fixing in position and joining them with pipelines and testing etc. complete (including supply of joining materials and Valve fittings) etc. complete as per instructions of Engineer - in - charge.	Nos	4.00	24500.00	98000
43.00	Valve Chambers:- Construction of following type chambers as per department type design and drawing including Heavy duty M.S. Manhole Cover and all materials, labour, T&P etc complete for proper completion of work as per instructions of Engineer - in - charge.				
43.01-43.02	Sluice Valve Chamber (Masonry Type):- Dia upto 200 mm - 1000 (L) x 1200 (W) x 1300 (H) mm	No.	11.00	25800.00	283800
43.03	Sluice Valve Chamber (Surface Box Type):- Dia upto 200 mm - 1000 (L) x 1200 (W) x 1300 (H) mm	No.		5000.00	
43.04	Fire Hydrant chamber (800 (L) X 1250 (W) X 1000 (H) mm)	No.	4.00	18500.00	74000
43.05	Air Valve Chamber				
43.06	350 (L) x 350 (W) x 500 (H) mm				
43.07	Scour Valve Chamber				
43.08	dia upto 200 mm - 1000 (L) x 1200 (W) x 1300 (H) mm				
43.09	PRV Valve Chamber - 1000 (L) x 1200 (W) x 1300 (H) mm	No.	11.00	29670.00	326370
44.00	Design and construct Thrust Block:- sand & 20 mm gauge stone ballast in proportion of 1:1.5:3, for pipe line, including supply of MS reinforcement wrought to equired shape as necessary, its bending, fixing & binding the same with 0.50 mm thick binding wire in position & necessary centering & shuftering including curting and supply of all materials, labour, T & P etc. required for proper completion of the work and as per specifications for RCC work as per instructions of Engineer - in - charge.	No.		28380.00	

BOQ Item No.	Description	Unit	Qty	Rate	Amount
44.01	Reinforced Cement Concrete:- Design and construct Thrust Block made in Reinforced Cement concrete (1:1.5:3), with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement, as per technical requirements.	Cum	0.40	13656.33	5463
44.02	Shuttering:- Providing shuttering for Thrust block using approved stout props and thick hard wood planks of approved thickness with required bracing for concrete works curved or straight including fitting fixing and striking out after completion of works.	Sqm	4.00	420.00	1680
44.03	Reinforcement of Thrust Block:- Providing reinforcement of Thrust block for reinforced concrete work including distribution bars, stirrups, binders etc. initial straightening and removal of loose rust (if necessary), cutting to requisite length, hooking and bending to correct shape, placing in proper position and binding with wire at every inter-section, complete as per drawing and direction.	MT	0.02	109838.98	2197
45.00	Staff Quarter / Office Room:- Provide all materials labour, T&P etc. and construct single room staff quarter / office room at water works site identified by the Engineer-in-charge as per department type design and drawing and specifications of civil works laid down in the bid document, including all material labour, T&P etc complete for proper completion of work as per instructions of Engineer-in-charge. (Drawing No.D-7)	No	1.00	970600	970600
46.00	Recharge Mechanism:- Water recharge Mechanism within the water works campus	Sqm	16.00	52500.00	840000
47.00	Backfilling of Earth:- Backfilling of abandoned tube well with available Earth	Cum		107.00	
48.00	Assess replacement items				
48.01	Pumping Plant:- SITC of Pumping plant including pumps with motors, starter, panel, cable, complete in all respect with all required material T&P labour etc.				
48.02	1 HP	Nos		32518.98	
48.03	2 HP	Nos		35843.14	
48.04	3 HP	Nos		46249.21	
48.05	5 HP	Nos		65037.95	
48.06	7.5HP	Nos		228500.00	
48.07	10 HP	Nos		230200.00	
48.08	12.5 HP	Nos		238800.00	
48.09	15 HP	Nos		252100.00	
48.10	17.5 HP	Nos		276504.56	
48.11	20 HP	Nos		295500.00	
48.12	25 HP	Nos		334043.48	
48.13	30 HP (discharge 1000 LPM Head 62 m)	Nos		366163.04	
48.14	35 HP	Nos		393723.70	
48.15	40 HP	Nos		426547.83	
48.16	Turbidity & Chlorine analyzer	Nos		273000.00	
48.17	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		126000.00	
48.18	3Mtr. Long Column Pipe				
48.19	32 mm Dia size - MS pipe	Nos		1500.00	
48.20	40 mm dia size - MS pipe	Nos		2000.01	
48.21	50 mm dia size - MS pipe	Nos		2763.00	
48.22	65 mm Dia size - MS pipe	Nos		3200.01	
48.23	80 mm Dia size - MS pipe	Nos		4200.00	
48.24	100 mm Dia size - MS pipe	Nos		4701.00	
48.25	150 mm Dia size - MS pipe	Nos		6501.00	

BoQ Item No.	Description	Unit	Qty	Rate	Amount
49.00	Installation of suitable capacity simple T.W. automation system to control operation of the pumping plant with respect to high/low water level in OHT with RTU panel, 7" HMI screen, surge device including energy meter inside the pump house with arrangement for communication of data with GSM and GPRS system to show required parameters including all accessories etc. complete in all respect as per instructions of Engineer-in-charge.	Job	1.00	375000	375000
50.00	Dismantling of Following type of surfaces including sorting out and stacking of servicable materials and disposal of unservicable materials upto a distance of 50m as per instructions of Engineer-in-charge.				
50.01	B.O.E. Surface	Sqm	2482.63	100.00	248263
50.02	Bituminous Surface	Sqm	2977.99	200.00	595599
50.03	Interlocking Road	Sqm	268.43	155.00	418948
50.04	C.C. Road	Sqm	268.43	329.96	88572
51.00	Restatement of Roads:- for proper completion of the work as per instructions of Engineer-in-charge. materials including supply of all materials, labour, T&P etc. required				
51.01	B.O.E. Surface (50% of existing bricks to be reused)	Sqm	2482.63	350	868921
51.02	Bituminous surface	Sqm	2977.99	1534.82	4570685
51.03	Interlocking Road	Sqm	268.43	1070.5	286948
51.04	C.C. Road	Sqm	268.43	1560.71	418948
52.00	Provision for following types of Culvert crossing -along the alignment of pipe line complete as per instructions of Engineer-in-charge. (casing of pipe is done by concreting)				
52.01	Nala/Culvert Crossing (width -3.5 m) upto Dia 300 mm	Nos	2.00	19000	38000
52.02-52.03	Trenchless Crossings:- Survey site Investigation Planning, design Drawings as per State Road manual and vetting / checked from State Road Divisional Office and taking NOC for trenchless crossing of National highway road and Railway track(crossing length 15m to 25m), Road for of required dia Risting main pipe with casing pipe as required for proper completion of work required size of MS casing pipe as per drawing and as per coating internally and 250 micron anti corrosive bituminous paint externally by trenchless technology method at an average depth 3.60 mt from normal ground level up to top of casing pipe including excavation & filling of Pit, Dewatering arrangement, Supporting system for soil, also including supply and fixing of 2 no Sluice valve ISI Mark, construction of sluice valve chamber etc. all complete work including supply & fixing specials in carrier pipe over main pipe, as per specification given in the bid documents including supply of all materials, labour T&P etc. for proper completion of work as per instruction of Engineer.				
52.04	Railway Line crossing (Upto Dia 350 mm)	Nos		60000	
52.05	National Highway road crossing (Upto Dia 350 mm)	Nos		40000	
52.06	State Highway road crossing (Upto Dia 350 mm)	Nos		27000	

BOQ Item No.	Description	Unit	Qty	Rate	Amount
52.08	50 mm dia. Pipe	Nos		1400	
52.09	100 mm dia. Pipe	Nos		1700	
52.10	150 mm dia. Pipe	Nos		2000	
52.11	200 mm dia. Pipe	Nos		2400	
52.12	250 mm dia. Pipe	Nos		3600	
52.13	300 mm dia. Pipe	Nos		3900	
52.14	350 mm dia. Pipe	Nos		4386	
52.15	400 mm dia. Pipe	Nos		4700	
52.16	450 mm dia. Pipe	Nos		5200	
52.17	500 mm dia. Pipe	Nos		6200	
52.18	600 mm dia. Pipe	Nos		7600	
53.00	Functional House Tap Connection:- Making house connection should be done atleast 2 m inside the boundary wall with provision of tap from distribution line to outer wall of house, with supply of 1 m G.I. pipe (15 mm) (above ground) & average 5 mtr. MDPE Pipe (20 mm) (below ground) including specials, saddle, Tap, etc. of suitable size. T&P etc. including excavation, laying and joining for proper completion of work as per instructions of Engineer as per Dwg 12 (excluding road restoration)	Nos.	738.00	3500	2583000
54.00	Stand Post:- Construction of single tap pillar type stand post as per type design	Nos.	5.00	10000	50000
55.00	Operation and Maintenance:- Operation and Maintenance for 10 years of water supply schemes after completion including staff required for operation and maintenance, chemicals, all materials, specials T & P for operation and maintenance, excluding electricity charges. (2% of Capex cost for first year of O&M) Note:- 6% Inflation Factor considered for arriving the O&M Cost from Second Year onwards. Cost of DPR Preparation & 1% of CAPEX Cost of DPR Electromagnetic flow meters	Rs	%		
56.01	150mm	Nos.	1.00	150000	150000
56.02	200mm	Nos.		190000	
56.03	250mm	Nos.		225000	
56.04	300mm	Nos.		260000	
56.05	350mm	Nos.		330000	
56.06	400mm	Nos.		420000	
56.07	450mm	Nos.		500000	
56.08	500mm	Nos.		550000	
A.1-56.09	100mm	Nos.		100000	
A.1-56.10	80mm	Nos.		80000	
57.00	Soft Starter :-	Nos.		80000	
57.01	soft starter with RS485 port -400V,7.5KW Rating	Nos		60000	
57.02	soft starter with RS485 port -400V,15KW Rating	Nos		70000	
57.03	soft starter with RS485 port -400V,22KW Rating	Nos		85000	
57.04	soft starter with RS485 port -400V,30KW Rating	Nos		100000	

BQ Item No.	Description	Unit	Qty	Rate	Amount
57.05	soft starter with RS485 port -400V,45KW Rating	Nos	125000		
57.06	soft starter with RS485 port -400V,55KW Rating	Nos	140000		
57.07	soft starter with RS485 port -400V,75KW Rating	Nos	150000		
57.08	soft starter with RS485 port -400V,90KW Rating	Nos	175000		
57.09	soft starter with RS485 port -400V,110KW Rating	Nos	225000		
57.10	soft starter with RS485 port -400V,132KW Rating	Nos	250000		
57.11	soft starter with RS485 port -400V,220KW Rating	Nos	250000		
57.12	soft starter with RS485 port -400V,250KW Rating	Nos	275000		
57.13	soft starter with RS485 port -400V,312KW Rating	Nos	325000		
57.14	soft starter with RS485 port -400V,450KW Rating	Nos	375000		
58.00	Auto Phase Reversal Unit:-	Nos	550000		
58.01	100 Amp rating	Nos	45000		
58.02	125 Amp rating	Nos	50000		
58.03	160 Amp rating	Nos	70000		
58.04	200 Amp rating	Nos	120000		
58.05	250 Amp rating	Nos	120000		
58.06	315 Amp rating	Nos	135000		
58.07	400 Amp rating	Nos	140000		
58.08	500 Amp rating	Nos	150000		
58.09	630 Amp rating	Nos	190000		
59.00	Radar type Level transmitter	Nos	225000		
60.00	Control Panel:- control panel for all power equipments with IP 54 protection	Nos	1.00	120000	120000
61.00	Cabling for Tube Well:- complete cabling for tubewell including all power and control cables of all equipments at pumphouse and OHT	Nos	1.00	60000	60000
62.00	Master Control PLC:- Master control plc with CPU, SCADA software including GSM / GPRS modem, necessary firewall, ethernet switch, CCTV system	Nos		2665000	
63.00	Installation testing and commissioning	Nos	1.00	60000	60000
A1-1	110 mm dia HDPE Pipe PN6, PE 100	m	698.00	326.71	228044
A1-2	125 mm dia HDPE Pipe PN6, PE 100	m	398.00	414.95	165150
A1-3	140 mm dia HDPE Pipe PN6, PE 100	m	1751.00	513.86	899769
A1-4	160 mm dia HDPE Pipe PN6, PE 100	m	196.00	663.92	130128
A1-5	180 mm dia HDPE Pipe PN6, PE 100	m	283.00	829.93	234870
A1-6	200 mm dia HDPE Pipe PN6, PE 100	m	710.00	1016.89	721992
A1-7	Supply Installation of Display board of Size 2M X 1 M for Providing details of proposal of water supply scheme	LS	1.00	25000	25000
A1-8	Provision for arboriculture for development of water works	LS	1.00	50000	50000
A1-9	Battery 12 V 150 Ah (SITC)	Nos		92800	
A1-10	9 Watts Solar Street/Yard Lights Inbuilt with all accessories	Nos	4.00	30000	120000
A1-11	SITC of DG for Electricity support	Nos		240000	
A1-11-1	7.5 KVA	Nos		260000	
A1-11-2	10 KVA	Nos		306000	
A1-11-3	15 KVA	Nos		370000	
A1-11-3	20 KVA	Nos		389000	
A1-11-3	25 KVA	Nos		405000	
A1-11-3	30 KVA	Nos		483000	
A1-11-3	40 KVA	Nos		495000	
A1-11-3	45 KVA	Nos		555000	
A1-11-3	50 KVA	Nos		569000	
A1-11-3	62.5 KVA	Nos			



Salient Feature

Name of the State : Uttar Pradesh
Name of the District : Gorakhpur
Name of the Block : Barhalgang
Name of the Programme : Jal Jeevan Mission
Name of the Gram Panchayat : Parasia Tiwari
No. of Village/Habitations : 3/5

Table 1: List of village and Habitation

S. No	1	a	b	c	d	2	a	b	3	a	b	
S. No	1	a	b	c	d	2	a	b	3	a	b	
District Name	GORAKHPUR											
Sub District Name	Barhalgang											
Block Name	Barhalgang											
Gram Panchayat	Parasia tiwari											
2011 Census Code	0			0			0			0		
Revenue Village Name	Khajuri Gosai			Dhobi Tola			Bazar Tola			Harjan Basti		
Habitations Name	Khajuri Gosai			Dhobi Tola			Bazar Tola			Harjan Basti		
	Miya Tola			Parasia Tiwari			Yadav Tola			Harjan Basti		
	Parasia Tiwari			Yadav Tola			Harjan Basti			Ramgarh		
	Ramgarh			Harjan Basti			Yadav Tola			Harjan Basti		
	Yadav Tola			Harjan Basti			Ramgarh			Yadav Tola		

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	3235	870	467
2.	Initial Stage 2022	1.25	4030	1375	738
3.	Middle Stage 2037	1.68	5430	2174	1167



4.	Ultimate Stage	2052	2.26	7320	3437	1845
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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 : 331 KLD

b) Intermediate Year 2037 : 523 KLD

c) Ultimate Year 2052 : 827 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

1350 LPM

c) Total Working Head

45 m

d) Motor (HP)

25 HP

Service Storage

a) Quantity :

1

b) Capacity :

400 KL

c) Staging

16 m

Pipeline Summary

Table 3: Rising Mains

Details of Pipeline 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
	New Tube Well	Outside Water Works	DI	K-9	250	0
Total Length (m)						35