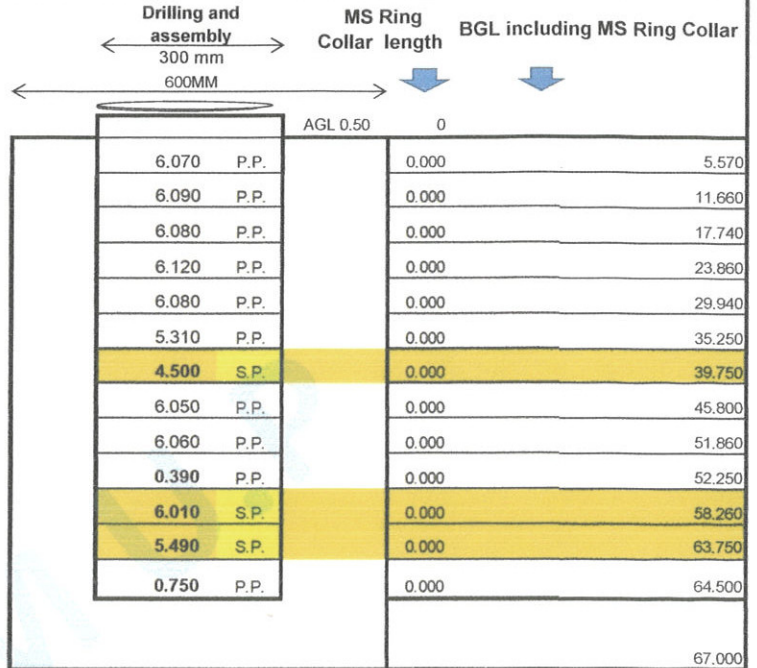


## M/S VSAIPPL-SMC JV, Ghazipur (U.P)

**Actual Strata Chart of RAJAPUR KALAN REORGANISATION WATER SUPPLY SCHEME, BLOCK-KASIMABAD ,ZONE 1, GRAM PANCAHYAT- RAJAPUR KALAN TW-2**  
Under Jal Jeevan Mission, District- Ghazipur(U.P.)

PHYSICAL STRATA			
S.No.	BGL in meter		Formation
	From	to	
1	0	3	CLAY
2	3	14	KANKAD CLAY
3	14	34	VERY VERY FINE SAND WITH KANKAD
4	34	42	VERY FINE SAND WITH KANKAD
5	42	50	KANKAD CLAY
6	50	64	VERY FINE SAND WITH KANKAD
7	64	67	CLAY
8	67	94	FINE SAND WITH KANKAD
9	94	118	KANKAD CLAY
10	118	136	KANKAD WITH FINE SAND
11	136	188	KANKAD CLAY
12	188	200	KANKAD WITH FINE SAND



**Logging Report**

19.11.2023

S.N.	Depth Range		Thickn ess	Remark
	From	to		
1	15	25	10	Good
2	28	32	4	Good
3	35	40	5	Good
4	52	64	12	Good

**Note -**

1. All zone are intermixed with kankar. Quality of the formation water is deteriorating marginal to saline below 67.0 mbgl till depth logged.

DETAILS		AS PER DPR	ACTUAL
1	Proposed Discharge	550.000	
2	Clear Depth of bore 600mm	0 LPM	67.000 Mbgl
3	Clear Depth of bore 500mm	65 Mbgl	0.000 Mbgl
4	Clear Depth of bore 450mm	200 Mbgl	200.000 Mbgl
5	Plane pipe 300MM	0 Mbgl	49.000 m
6	Plane pipe 200MM	60 m	0.000 m
7	Plane pipe 150MM	96 m	0.000 m
8	Slotted pipe 300MM	0 m	16.000 m
9	Slotted pipe 200MM	0 m	0.000 m
10	Slotted pipe 150MM	24 m	0.000 m
11	Date of lowering		02-12-2023



*(Signature)*  
TPIA

*(Signature)*  
(A.Srivastava)  
Junior Engineer

*(Signature)*  
(Nitish Kumar)  
Assistant Engineer

*(Signature)*  
(Adarsh Verma)  
Exe. Engineer

Medhaj Techno Concept Pvt. Ltd., Ghazipur

Division Office(E/M) ,U.P.Jal Nigam(Rural),Varanasi



12/

# Aqua Xplore

(Groundwater Assessment & Allied Services)

243/5, New Colony Jiyamau, Hazratganj, Lucknow - 226001

Mob. 9918202546 / 9889323322, Email-aquaxploreelko@gmail.com

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

Ref 1119 -R/ AX - 2023

Date 19.11.2023

## Geophysical Borehole Logging Report

Name of the site : Rajapur Kalan, Block - Kasimabad

District : Ghazipur

Date : 19.11.2023

Depth logged : 200.0 mbgl

Depth drilled : 210.0 mbgl- as reported

Logger used : Robertson make

Presence : Representative of M/S VSAIPPL-SMC JV, Ghazipur, U.P.

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

Sl.No.	Depth range(mbgl)	Thickness(m)	Remarks
1	15.0-25.0	10.0	
2	28.0-32.0	4.0	
3	35.0-40.0	5.0	
4	52.0-64.0	12.0	

Note. All zones are intermixed with kankar. Quality of the formation water is deteriorating marginal to saline below 67.0 mbgl till depth logged.

for Aqua Xplore

CC;

1. M/S VSAIPPL-SMC JV, Ghazipur, Uttar Pradesh



महोदय,

जल जीवन मिशन कार्यक्रम अन्तर्गत **राजापुर कलां पुनर्गठन पेयजल योजना, ब्लॉक-कासिमाबाद, जोन 1, ग्राम पंचायत- राजापुर कलां TW-2.** जनपद गाजीपुर में 200x150 एम0एम0 व्यास साइज के 200/180 मीटर गहरे नलकूप का निर्माण किया जाना है एवं उक्त नलकूप से 550 ली०प्र०मि० श्राव लिया जाना प्रस्तावित है।

अनुबन्ध सं०- 478/ED/PHASE 2/2022-23/X दिनांक 27.02.2023 के माध्यम से M/s VSAIPPL-SMC IV, District-Ghazipur द्वारा नलकूप निर्माण कार्य सम्पादित कराया जा रहा है। दिनांक 19.11.2023 को नलकूप के बोर की इलेक्ट्रिक लार्गिंग करायी गयी, जिसका विवरण निम्नानुसार है :-

19.11.2023				PHYSICAL STRATA				
				S.No.	BGL in meter		Formation	
S.N.	Depth Range		Thickness		Remark	From		to
	From	to						
1	15	25	10	Good	1	0	3	CLAY
2	28	32	4	Good	2	3	14	KANKAD CLAY
3	35	40	5	Good	3	14	34	VERY VERY FINE SAND WITH KANKAD
4	52	64	12	Good	4	34	42	VERY FINE SAND WITH KANKAD
<b>Note -</b> 1. All zone are intermixed with kankar. Quality of the formation water is deteriorating marginal to saline below 67.0 mbgl till depth logged.				5	42	50	KANKAD CLAY	
				6	50	64	VERY FINE SAND WITH KANKAD	
				7	64	67	CLAY	
				8	67	94	FINE SAND WITH KANKAD	
				9	94	118	KANKAD CLAY	
				10	118	136	KANKAD WITH FINE SAND	
				11	136	188	KANKAD CLAY	
				12	188	200	KANKAD WITH FINE SAND	

अनुबन्ध में उपरोक्त नलकूप से 550 ली०प्र०मि० श्राव प्राप्त करने हेतु Entrance Velocity 0.015m/sec पर 24 मीटर स्लाटेड पाइप का प्राविधान किया गया है। इलेक्ट्रिक लार्गिंग के उपरान्त प्राप्त स्ट्रेटा के अनुसार अधिकतम 16 मीटर ही स्लाटेड पाइप डाली जा सकती है।

Physically encountered Strata एवं लार्गिंग रिपोर्ट का निरीक्षण करने पर पाया गया कि उक्त के अन्तर्गत Aquifer Very Fine Sand with Kankad का है, निकटवर्तीय पेयजल योजनाओं यथा बहादुरगंज सतनपुर इत्यादि नलकूपों के सैलाइन स्ट्रेटा प्राप्त होने के दृष्टिगत अधिकतम संभव स्लॉट डालकर भविष्य में उक्त जोन में अन्य नलकूपों के सैलाइन स्ट्रेटा प्राप्त होने की संभावना के दृष्टिगत संदर्भित नलकूप से स्राव को बढ़ाकर उक्त जोन में वांछित स्राव की प्रति पूर्ति की जा सकेगी।

अतः प्राप्त एक्यूफर का प्रभावी क्षेत्रफल बढ़ाकर अधिक स्राव प्राप्त करने के दृष्टिगत 300x300 मि०मी० व्यास साइज के 64.50 मीटर गहरे नलकूप जिसमें 16 मीटर स्लाटेड पाइप का उपयोग किया जायेगा, आपको तकनीकी स्वीकृति हेतु संबंधित अभिलेख संलग्न कर प्रेषित है। कृपया अनुमोदन करना चाहें। संलग्नक- लार्गिंग रिपोर्ट की छायाप्रति



M/s VSAIPPL-SMC JV  
District - Ghazipur

संगणक

जूनि० इंजी०

सहायक अभियन्ता

अधिशासी अभियन्ता

अधीक्षण अभियन्ता

For Construction of 200/64.5 mts. deep 300 X 300 mm. dia assembly size T.W. inspite of 200/180 mts. deep 200 X 150 mm. dia assembly size T.W. by D.C. Rig Machine at RAJAPUR KALAN REORGANISATION WATER SUPPLY SCHEME, BLOCK-KASIMABAD, ZONE 1, GRAM PANCAHYAT- RAJAPUR KALAN TW2

SL No	Item of work	Unit	Rate	Cost As Per Cover Aggrement (200/180 mts. deep 200 X 150 mm. dia assembly size)		Expenditure as per Actual Work Executed at Site due to adverse Geophysical Condition (200/64.5 mts. deep 300 X 300 mm. dia assembly size)	
				Qty	Amount (Rs)	Qty	Amount (Rs)
1	2	3	4	5	6	7	8
2.00	Drilling of borehole for tubewell construction by DC/RC/DTH/Rig Machine including transporation, erection, dismantling, of Rig and associated T&P complete in all respect including required all material labor etc.						
2.01	Transporation, installation, Dismantling of Rig machine and logging of bore hole		156159.071	1	1,56,159.07	1	1,56,159.07
2.02	Tube well construction						
2.03	DC/RC Drilling up to 100Mtr.						
2.04	400 MMO	Rmt	2192.706				
2.05	450 MMO	Rmt	2454.948	35	85,923.19	33	81,013.29
2.06	500 MMO	Rmt	2717.191	65	1,76,617.39		
2.07	600 MMO		3241.68			67	2,17,192.24
2.08	DC/RC Drilling from 101 MT. To 200 Mtr.Deep						
2.09	450 MMO	Rmt	2774.630	100	2,77,463.01	100	2,77,463.01
2.10	500 MMO	Rmt	3033.747				
2.11	600 MMO	Rmt	3551.980				
2.12	DC/RC Drilling from 201 Mtr. To 300 Mtr.Deep						
2.13	450 MMO	Rmt	3158.991				
2.14	500 MMO	Rmt	3363.285				
2.15	600 MMO	Rmt	3771.872				
2.16	DC/RC Drilling from 301 Mtr. To 400 Mtr.Deep & above						
2.17	450 MMO	Rmt	3703.098				
2.18	500 MMO	Rmt	3907.392				
2.19	600 MMO	Rmt	4315.989				
2.20	DTH Drilling upto 200.0 Mtr.Deep						
2.21	200/165 MMO (in over burden/Hard Rock)		1248.250				
2.22	Development / Flushing of tubewell		2895.940				
3.00	Tubwell Assembly:						
3.01	MSERW Pipe plain pipe as per IS 4270						
3.02	100 MMO	Rmt	926.202				
3.03	150 MMO	Rmt	1897.340	96	1,82,144.64		
3.04	200 MMO	Rmt	2546.430	60	1,52,785.80		
3.05	300 MMO		3794.680			49	1,85,939.32
3.06	MSERW Pipe slotted pipe as per IS 8110						
3.07	100 MMO	Rmt	1364.936				
3.08	150 MMO	Rmt	2796.080	24	67,105.92		
3.09	200 MMO	Rmt	3828.433				
3.10	300 MMO	Rmt	5181.326			16	82,901.22
3.11	MS fittings such as clamp, ball plug, reducer, well cap. Girder & support structure	Job	32249.787	1	32,249.79	1	32,249.79
3.12	MS fittings such as ring & centre guide		471.020	180	84,783.54	65	30,616.28
4.00	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 MMO MSERW Plane/Slotted Pipe	Rmt	177.571				
4.03	150 MMO MSERW Plane/Slotted Pipe	Rmt	385.460	40	15,418.38		
4.04	200 MMO MSERW Plane/Slotted Pipe	Rmt	389.454	60	23,367.24		
4.05	300 MMO MSERW Plane/Slotted Pipe	Rmt	489.314	0		64.5	31,560.75
4.06	Lowering from 101 Mtr. To 200 Mtr. Deep						
4.07	150 MMO MSERW Plane/Slotted Pipe	Rmt	442.380	80	35,390.38		
4.08	200 MMO MSERW Plane/Slotted Pipe	Rmt	589.973	0			
4.09	300 MMO MSERW Plane/Slotted Pipe	Rmt	881.175				
4.10	Lowering from 201 Mtr. To 300 Mtr. Deep						
4.11	150 MMO MSERW Plane/Slotted Pipe	Rmt	569.552				
4.12	200 MMO MSERW Plane/Slotted Pipe	Rmt	678.689	0			
4.13	300 MMO MSERW Plane/Slotted Pipe	Rmt	896.962				
4.14	Lowering from 301 Mtr. To 400 Mtr. Deep & above						
4.15	150 MMO MSERW Plane/Slotted Pipe	Rmt	425.933				
4.16	200 MMO MSERW Plane/Slotted Pipe	Rmt	498.301	0			
4.17	300 MMO MSERW Plane/Slotted Pipe	Rmt	643.038				
	<b>Total Amount</b>				<b>12,89,408.35</b>		<b>10,95,094.97</b>
	<b>Say</b>				<b>12,89,408.00</b>		<b>10,95,095.00</b>

Net Savings Amount Rs. 1,94,313.00  
 Net Savings In Percentage 15.07%

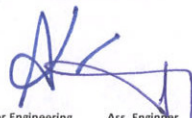


(Company Rep.)  
 M/S VSAIPPL-SMC JV, Ghazipur Medhaj Techno Concept  
 Pvt. Ltd., Ghazipur

(TPIA Rep.)  
 Division Office(E/M), Division



(Jur) Junior Engineering



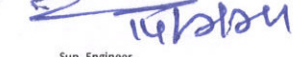
Ass. Engineer  
 Divisional Office(E/M), U.P.Jal Nigam(Rural), Varanasi



Div. Accountant



Ex. Engineer



Sup. Engineer  
 Circle office (E/M), UPJN, Vns



## RAJAPUR KALAN REORGANISATION WATER SUPPLY SCHEME

"UNDER JAL JEEVAN MISSION"

TEHSIL - KHASIMABAD, BLOCK - KHASIMABAD

DISTRICT - GHAZIPUR

Bill of Quantity - TUBEWELL CONSTRUCTION

S.No.	SOR NO	Item of work	No.	L	B	H/D	Qty	Rate	Unit	Amount
1	As per RFP.	Drilling of Borehole for Tube well construction by DC/RC/DTH Rig Machine including transportation, erection, dismantling of Rig and associated T&P complete in all respect including required all material labor etc.					1	156159.07	Job	156,159.07
1.1	2.01	Transportation, Installation Dismantling of Rig machine and logging of bore hole								
1.2		DC/RC Drilling up to 100Mtr.								
1.2.1	2.06	500 MMØ	1	65			65	2717.19	Rmt	176,617.39
1.2.2	2.05	450 MMØ	1	35			35	2454.95	Rmt	85,923.19
1.3		DC/RC Drilling from 10. MT. To 200 Mtr.Deep								
1.5.1	2.09	450 MMØ	1	100			100	2774.63	Rmt	277,463.01
1.4		DC/RC Drilling from 201 MT. To 300 Mtr.Deep								
1.4.1	2.13	450 MMØ	1	0			0	3158.99	Rmt	-
1.5		DC/RC Drilling from 301 MT. To 400 Mtr.Deep								
1.5.1	2.17	450 MMØ	1	0			0	3703.10	Rmt	-
1.6	2.2	DTH Drilling upto 200.0 Mtr.Deep - 165/200 MMØ (in over burden/Hard Rock).	1	0			0	0	Rmt	-
1.7	2.22	Development / Flushing of tubewell	0				0	2895.94	Hrs	-
1.8	3.01	Tube Well Assembly								
1.8.1	3.04	MSERW plane pipe								
1.8.2	3.03	200 MMØ	1	60			60	2546.43	Rmt	152,785.80
1.9		150 MMØ	1	96			96	1897.34	Rmt	182,144.64
1.9.1	3.08	MSERW Pipe slotted pipe as per IS 8110	1	24.00			24	2796.08	Rmt	67,105.92

1.9.2	3.11	MS fittings such as clamp, bail plug, reducer, well cap, girder & support structure						1	32249.79	Job	32,249.79
1.9.3	3.12	MS fittings such as ring & centre guide	1	180				180	471.02	Rmt	84,783.54
2.0	As per RFP.	Lowering of above assembly with welding of parts complete in all respect with all required material, T&P, labour, etc.									
2.1	4	Lowering up to 100 Mtr. Deep									
2.1.1	4.04	200 MMØ MSERW Plane/Slotted Pipe						60	389.45	Rmt	23,367.24
2.1.2	4.03	150 MMØ MSERW Plane/Slotted Pipe						40	385.46	Rmt	15,418.38
2.2	4.06	Lowering from 100 Mtr. To 200 Mtr. Deep									
2.2.1	4.07	150 MMØ MSERW Plane/Slotted Pipe						80	442.38	Rmt	35,390.38
2.3	4.1	Lowering from 200 Mtr. To 300 Mtr. Deep									
2.3.1	4.11	150 MMØ MSERW Plane/Slotted Pipe						0	569.55	Rmt	-
2.4	4.14	Lowering from 300 Mtr. To 400 Mtr. Deep									
2.4.1	4.15	150 MMØ MSERW Plane/Slotted Pipe						0	425.93	Rmt	-
2.5	5	Supplying and unconsolidated packing of gravel with suitable size						45.3	7489.5	Cum	339,589.04
3.0	6	Development of Tube well									
3.1	6.03	Transportation, Installation Dismantling of 400 PSI Compressor						1	92022.59	Job	92,022.99
3.2	6.05	Charges for Development by 400 PSI Compressor per hour						40	3267.27	Hrs	130,650.78
3.3	6.09	Transportation, Installation Dismantling of 1 Cusec OP Unit and Yield test, water test						1	105089.67	Job	105,089.67
3.4	6.10	Charges for Development of TW by 1 Cusec OP Unit						70	993.04	Hr.	69,512.65
Total cost for each tubewell											2,026,313.5
Total cost for 2 tubewells											4,052,626.9
4	47	Earth filling of abandoned tubewell in Waterworks campus	1	34.23				34.23	106.85	Cum	3,657.86
Total Cost of Tubewell											4,056,284.79
Total Cost (In Lacs)											40.56