

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

Actual Strata Chart of GHARIHA VILLAGE WSS, BLOCK - MARDAH, GRAM PANCHAYAT - GHARIHA TW 2  
Under Jal Jivan Mission, District- Ghazipur (U.P.)

PHYSICAL STRATA			
S.No.	BGL in meter		Formation
	From	to	
1	0	6	Clay
2	6	20	Kankad Clay
3	21	24	Kankad
4	28	34	Kankad with Very Fine Sand
5	34	40	Kankad
6	40	44	Very Fine Sand
7	44	52	Clay Kankad
8	52	58	Very Fine Sand
9	58	106	Kankad Clay
10	106	112	Kankad with Very Fine Sand
11	112	154	Clay Kankad
12	154	168	Very Fine Sand with Kankad
13	168	183	Clay Kankad

Drilling and assembly 200 mm 500MM	MS Ring Collar length	BGL including MS Ring Collar
6.050 P.P.	0.000	5.550
6.050 P.P.	0.000	11.600
6.040 P.P.	0.000	17.640
6.040 P.P.	0.000	23.680
6.020 P.P.	0.000	29.700
6.050 P.P.	0.000	35.750
4.500 P.P.	0.000	40.250
3.500 S.P.	0.000	43.750
6.070 P.P.	0.000	49.820
6.050 P.P.	0.000	55.870
6.050 P.P.	0.000	61.920
6.050 P.P.	0.000	67.970
6.040 P.P.	0.000	74.010
6.050 P.P.	0.000	80.060
6.050 P.P.	0.000	86.110
6.050 P.P.	0.000	92.160
6.050 P.P.	0.000	98.210
6.040 P.P.	0.000	104.250
2.000 P.P.	0.000	106.250
3.500 S.P.	0.000	109.750
6.040 P.P.	0.000	115.790
6.040 P.P.	0.000	121.830
6.040 P.P.	0.000	127.870
6.040 P.P.	0.000	133.910
6.050 P.P.	0.000	139.960
6.050 P.P.	0.000	146.010
6.050 P.P.	0.000	152.060
4.200 P.P.	0.000	156.260
6.020 S.P.	0.000	162.280
2.470 S.P.	0.000	164.750
1.250 P.P.	0.000	166.000
		183.000

Logging Report				
06-06-2023				
S.N.	Depth Range		Thickn ess	Remark
	From	to		
1	28	34	6	Good
2	40	44	4	Good
3	52	58	6	Good
4	106	110	4	Good
5	156	165	9	Good

Note-  
1. Zone- SI. No. 1, 2 & 3 are highly intermixed with fine bands of kankar  
2. Fine bands of kankar are intermixed with zones SI. No. 4 & 5.

DETAILS		AS PER DPR		ACTUAL	
1	Proposed Discharge	570.000	LPM		
2	Clear Depth of bore 600mm		Mbgl		Mbgl
3	Clear Depth of bore 500mm	65	Mbgl	183.000	Mbgl
4	Clear Depth of bore 450mm	200	Mbgl		Mbgl
5	Plane pipe 300MM		m	0.000	m
6	Plane pipe 200MM	60	m	151.010	m
7	Plane pipe 150MM	90	m	0.000	m
8	Slotted pipe 300MM	0	m	0.000	m
9	Slotted pipe 200MM	0	m	15.490	m
10	Slotted pipe 150MM	30	m	0.000	m
11	Date of lowering			16/6/2023	



(.....)  
**TPIA**  
 Medhaj Techno Concept Pvt. Ltd., Ghazipur

**(Nitish Kumar)**  
 Assistant Engineer  
 Division Office (E/M), U.P. Jal Nigam (Rural), Varanasi

**(Adarsh Verma)**  
 Exe. Engineer

Ref:GIT:UP: PJM:23-24:LS: 683  
Dated: 08-06-2023

GEOPHYSICAL BOREHOLE LOGGING REPORT

Site: Garihar  
Block: Mardah  
District: Ghazipur  
State: Uttar Pradesh  
Date of Logging: 06-06-2023  
Drilling depth: 220.0 m bgl  
Logging Depth: 180.0 m bgl  
Rm - 10.0  $\Omega$ m Rw - 11.0  $\Omega$ m

Borehole Drilled by: M/s VSAIPPL, Ghazipur, Uttar Pradesh, India.

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 with respect to Salinity only:

Sl. No.	Depth Range (m bgl)	Thickness (meters)	Remarks (Quality of aquifer water)
1.	28 - 34	06	Good
2.	40 - 44	04	Good
3.	52 - 58	06	Good
4.	106 - 110	04	Good
5.	156 - 165	09	Good

Note: 1. Zone Sl. No. 1, 2 & 3 are highly intermixed with fine bands of kankar.

2. Fine bands of kankar are intermixed with Zones Sl. No. 4 & 5.

Verified as per logs provided.

C.S. Shukla  
08/10/2023

For Geo Instruments & Technic's

S. Shukla  
(S. Shukla)



अधीक्षण अभियन्ता,  
महोदय.

जल जीवन मिशन कार्यक्रम अन्तर्गत पेयजल योजना ब्लॉक - मरदह, ग्राम पंचायत - घरिहा TW 2. जनपद गाजीपुर में 200x150 एम0एम0 व्यास साइज के 200/180 मीटर गहरे नलकूप का निर्माण किया जाना है एवं उक्त नलकूप से 570 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 06.06.2023 को नलकूप के बोर की इलेक्ट्रिक लार्गिंग करायी गयी, जिसका विवरण निम्नानुसार है :-

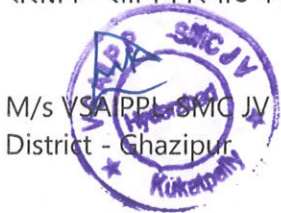
Logging Report					PHYSICAL STRATA			
6/6/2023					S.No.	BGL in meter		Formation
S.N.	Depth Range		Thickness	Remark		From	to	
1	28	34			6	Good	1	0
2	40	44	4	Good	2	6	20	Kankad Clay
3	52	58	6	Good	3	21	24	Kankad
4	106	110	4	Good	4	28	34	Kankad with Very Fine Sand
5	156	165	9	Good	5	34	40	Kankad
Note- 1.Zone- SI. No. 1, 2 & 3 are highly intermixed with find bands of kankar 2.Fine bands of kankar are intermixed with zones SI. No. 4 & 5.					6	40	44	Very Fine Sand
					7	44	52	Clay Kankad
					8	52	58	Very Fine Sand
					9	58	106	Kankad Clay
					10	106	112	Kankad with Very Fine Sand
					11	112	154	Clay Kankad
					12	154	168	Very Fine Sand with Kankad
					13	168	183	Clay Kankad

अनुबन्ध में उपरोक्त नलकूप से 570 ली०प्र०मि० श्राव प्राप्त करने हेतु Enterance Velocity 0.015m/sec पर 30 मीटर स्लाटेड पाइप का प्राविधान किया गया है। इलेक्ट्रिक लार्गिंग के उपरान्त प्राप्त स्ट्रैटा के अनुसार अधिकतम 15.50 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, Kankad with Very Fine Sand और Very Fine Sand का है एवं लार्गिंग रिपोर्ट के अनुसार केवल 15.50 मीटर स्लाटेड पाइप ही लोवर की जा सकती है, जिससे 570 ली०प्र०मि० श्राव प्राप्त किया जाना सम्भव नहीं है। ऐसी स्थिति में 150 मि०मी० स्लाटेड पाइप के स्थान पर 200 मि०मी० व्यास साइज की स्लाटेड पाइप का उपयोग किया जाय तो 15.50 मीटर की लम्बाई में Enterance area को बढ़ाकर आवश्यक वांछित श्राव प्राप्त करने का प्रयास किया जा सकता है। उल्लेखनीय है यदि 15.50 मीटर लम्बाई में 150 मि०मी० के स्थान पर 200 मि०मी० व्यास साइज की स्लाटेड पाइप का उपयोग किया जाय तो Opening entrance area 150 मि०मी० व्यास साइज के 20.615 मीटर पाइप के बराबर आयेगी, जो Aquifer structure के दृष्टिगत उचित होगा एवं वास्तविक श्राव यील्ड टेस्ट के उपरान्त डिप्रेशन की मानकों के गणना के दृष्टिगत स्पष्ट हो पायेगा। अनुबन्ध में निहित प्राविधान के अनुसार श्राव की प्रतिपूर्ति फर्म की स्वयं का उत्तर दायित्व में है, अतएव श्राव प्रतिपूर्ति न होने पर फर्म द्वारा द्वितीय नलकूप निर्माण कराते हुए पूरा किया जायेगा एवं भुगतान के संबंध में राज्य पेयजल स्वच्छता मिशन (एसडब्लूएसएम) द्वारा सक्षम स्तर से स्वीकृति उपरान्त नियमानुसार किया जायेगा।

अतः प्राप्त एक्यूफर के दृष्टिगत 200x200 मि०मी० व्यास साइज के 166 मीटर गहरे नलकूप जिसमें 15.50 मीटर स्लाटेड पाइप का उपयोग किया जायेगा, आपको तकनीकी स्वीकृति हेतु संलग्न कर प्रेषित है। कृपया अनुमोदन करना चाहें।

संलग्नक- लार्गिंग रिपोर्ट की छायाप्रति



संगणक

अधीक्षण अभियन्ता

जूनियर इंजीनियर

सहायक अभियन्ता

अधीक्षासी अभियन्ता

अधीक्षण अभियन्ता

VARIATION STATEMENT AGAINST C.A. NO-478/ED/PHASE-2/2022-23/X, Date- 27-02-2023

For Construction of 183/166 mts. deep 200 X 200 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 Block - Mardah, Gram Panchayat - Ghariha TW2  
Water Supply Scheme in District - Ghazipur

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 (183/166 mts. deep 200 X 200 mm. dia assembly size)	
				Qty	Amount (Rs)	Qty	Amount (Rs)
1	2	3	4	5	6	7	8
1	Transportation, Installation Dismantling of Rig machine and logging of bore hole.	Job	156,159.07	1	156,159.07	1	156,159.07
	<b>Tubewell construction:</b> Drilling of Borehole for Tubewell construction by DC/RC/DTH Rig Machine including transportaion, erection, dismantling of Rig and assosiated T&P complete in all respect including required all material labour etc.						
2	DC/RC Drilling up to 100 Mtr.						
3	600 MMØ	Rmt	3,241.68				
4	500 MMØ	Rmt	2,717.19	65	176,617.39	100	271,719.06
5	450 MMØ	Rmt	2,454.95	35	85,923.19		
6	DC/RC Drilling from 100Mtr. To 200 Mtr.						
	600 MMØ	Rmt	3,551.98				
	500 MMØ	Rmt	3,033.75			83	251,800.98
7	450 MMØ	Rmt	2,774.63	100	277,463.01		
8	DC/RC Drilling from 200 Mtr. To 300 Mtr.						
	500 MMØ	Rmt	3,363.28				
9	450 MMØ	Rmt	3,158.99				
10	DC/RC Drilling from 300 Mtr. To 400 Mtr.						
11	450 MMØ	Rmt	3,703.10				
12	Tubewell Assembly:						
13	MSERW plain pipe As per IS 4270						
14	300 MMØ	Rmt	3,794.68				
15	200 MMØ	Rmt	2,546.43	60	152,785.80	151.01	384,536.39
16	150 MMØ	Rmt	1,897.34	90	170,760.60		
17	MSERW slotted pipe as per IS 8110						
18	150 MMØ	Rmt	2,796.08	30	83,882.40		
19	200 MMØ	Rmt	3,828.43			15.49	59,302.42
20	300 MMØ	Rmt	5,181.33				
21	MS Borewell cap fixture including fitting charges						
22	MS fittings such as clamp, bail plug, reducer, well cap, girder & support structure.	Job	32,249.79	1	32,249.79	1	32,249.79
23	MS fittings such as ring & centre guide	Rmt	471.02	180	84,783.54	166.50	78,424.77
24	Lowering of Tube well Assembly: Lowering of above assembly with welding of parts complete in all respect with all required material, T&P, labour, etc.						
25	Lowering of MSERW Plain/Slotted Pipe up to 100 Mtr. Deep						
26	300 MMØ MSERW Plane/Slotted Pipe	Rmt	489.31				
27	200 MMØ MSERW Plane/Slotted Pipe	Rmt	389.45	60	23,367.24	100.00	38,945.40
28	150 MMØ MSERW Plane/Slotted Pipe	Rmt	385.46	40	15,418.38		
29	Lowering of MSERW Plane/Slotted Pipe from 100 Mtr. To 200 Mtr. Deep						
30	150 MMØ MSERW Plane/Slotted Pipe	Rmt	442.38	80	35,390.38		
31	200 MMØ MSERW Plane/Slotted Pipe	Rmt	589.97			66.00	38,938.21
32	300 MMØ MSERW Plane/Slotted Pipe	Rmt	881.17				
	<b>Total Amount</b>				<b>1,294,800.79</b>		<b>1,312,076.10</b>
	<b>Say</b>				<b>1,294,801.00</b>		<b>1,312,076.00</b>

Net Savings Amount Rs. -17,275.00

Net Savings In Percentage -1.33%

  
(Company Rep.)

(TPIA Rep.)

  
(Computer)

  
Junior En

  
Ass. Engineer

  
Div. Accountant

  
Ex. Enginner

  
Sup. Engineer

M/S VSAIPPL-SMC JV, Ghazipur

Medhaj Techno Concept Pvt. Ltd., Ghazipur

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

Circle office (E/M),UPJN, Vns



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

Actual Strata Chart of GHARIHA VILLAGE WSS, BLOCK - MARDAH, GRAM PANCHAYAT - GHARIHA TW 2  
Under Jal Jivan Mission, District- Ghazipur(U.P.)

PHYSICAL STRATA			Drilling and assembly 200 mm 500MM		MS Ring Collar length	BGL including MS Ring Collar
S.No.	BGL in meter From to		Formation			
1	0	6	Clay			5.550
2	6	20	Kankad Clay			11.600
3	21	24	Kankad			17.640
4	28	34	Kankad with Very Fine Sand			23.680
5	34	40	Kankad			29.700
6	40	44	Very Fine Sand			35.750
7	44	52	Clay Kankad			40.250
8	52	58	Very Fine Sand			43.750
9	58	106	Kankad Clay			49.820
10	106	112	Kankad with Very Fine Sand			55.870
11	112	154	Clay Kankad			61.920
12	154	168	Very Fine Sand with Kankad			67.970
13	168	183	Clay Kankad			74.010
			6.050	P.P.	0.000	80.060
			6.050	P.P.	0.000	86.110
			6.050	P.P.	0.000	92.160
			6.050	P.P.	0.000	98.210
			6.040	P.P.	0.000	104.250
			2.000	P.P.	0.000	106.250
			3.500	S.P.	0.000	109.750
			6.040	P.P.	0.000	115.790
			6.040	P.P.	0.000	121.830
			6.040	P.P.	0.000	127.870
			6.040	P.P.	0.000	133.910
			6.050	P.P.	0.000	139.960
			6.050	P.P.	0.000	146.010
			6.050	P.P.	0.000	152.060
			4.200	P.P.	0.000	156.260
			6.020	S.P.	0.000	162.280
			2.470	S.P.	0.000	164.750
			1.250	P.P.	0.000	166.000
						183.000

**Logging Report**  
06-06-2023

S.N.	Depth Range		Thickn ess	Remark
	From	to		
1	28	34	6	Good
2	40	44	4	Good
3	52	58	6	Good
4	106	110	4	Good
5	156	165	9	Good

Note-  
1. Zone- SI. No. 1, 2 & 3 are highly intermixed with find bands of kankar  
2. Fine bands of kankar are intermixed with zones SI. No. 4 & 5.

DETAILS		AS PER DPR		ACTUAL	
1	Proposed Discharge	570.000	LPM		
2	Clear Depth of bore 600mm		Mbgl		Mbgl
3	Clear Depth of bore 500mm	65	Mbgl	183.000	Mbgl
4	Clear Depth of bore 450mm	200	Mbgl		Mbgl
5	Plane pipe 300MM		m	0.000	m
6	Plane pipe 200MM	60	m	151.010	m
7	Plane pipe 150MM	90	m	0.000	m
8	Slotted pipe 300MM	0	m	0.000	m
9	Slotted pipe 200MM	0	m	15.490	m
10	Slotted pipe 150MM	30	m	0.000	m
11	Date of lowering			16/6/2023	



*(Signature)*  
TPIA  
Medhaj Techno Concept Pvt. Ltd., Ghazipur

*(Signature)*  
(A.Srivastava)  
Junior Engineer  
Division Office (E/M), U.P. Jal Nigam (Rural), Varanasi

*(Signature)*  
(Nitish Kumar)  
Assistant Engineer  
Exec. Engineer

**ESTIMATE FOR**  
**GHARIHA VILLAGE WATER SUPPLY SCHEME**  
**UNDER - SWSM**  
**BLOCK- MARDAH, DISTRICT- GHAZIPUR**  
**Estimate of Cost of Tubewell construction**

Sl No.	Item of work	No.	L	B	H/D	Qty	Rate	Unit	Amount	Remarks
1	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.									As per RFP.
1.1	Transportation, Installation Dismantling of Rig machine and logging of bore hole					1	1,56,378	Job	1,56,378	
1.2	DC/RC Drilling up to 100Mtr.									
1.2.1	500 MMØ	1	65			65	2,721	Rmt	1,76,865	
1.2.2	450 MMØ	1	35			35	2,458	Rmt	86,044	
1.3	DC/RC Drilling from 100 MT. To 200 Mtr.Deep									
1.3.1	450 MMØ	1	100			100	2,779	Rmt	2,77,852	
1.4	DC/RC Drilling from 200 MT. To 300 Mtr.Deep									
1.4.1	450 MMØ	1	0			0	3,163	Rmt	-	
1.5	DC/RC Drilling from 300 MT. To 400 Mtr.Deep									
1.5.1	450 MMØ	1	0			0	3,708	Rmt	-	
1.6	DTH Drilling upto 200.0 Mtr.Deep - 165/200 MMØ (In over burden/Hard Rock).	1	0			0	1,250	Rmt	-	
1.7	Development / Flushing of tubewell					0	2,900	Hrs	-	
	<b>Tube Well Assembly</b>									
1.8	MSERW plane pipe									
1.8.1	200 MMØ					60	2,550	Rmt	1,53,000	
1.8.2	150 MMØ					90	1,900	Rmt	1,71,000	
1.9	MSERW Pipe slotted pipe as per IS 8110									
1.9.1	150 MMØ					30	2,800	Rmt	84,000	
1.9.2	MS Borewell cap fixture including fitting charges					1	2,000	Nos	2,000	
1.9.3	MS fittings such as clamp, ball plug, reducer, well cap, girder & support structure					1	32,295	Job	32,295	
1.9.4	MS fittings such as ring & centre guide					180	472	Rmt	84,902	
2.0	Lowering of above assembly with welding of parts complete in all respect with all required material, T&P, labour, etc.									As per RFP.
2.1	Lowering up to 100 Mtr. Deep									
2.1.1	200 MMØ MSERW Plane/Slotted Pipe					60	390	Rmt	23,400	
2.1.2	150 MMØ MSERW Plane/Slotted Pipe					40	386	Rmt	15,440	



