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M/S VSAIPPL-SMC JV, Ghazipur (U.P)
Actual Strata Chart of TIARA REORGANISATION WSS, BLOCK - BIRNO, ZONE 1, GRAM PANCHAYAT - TIARA
T.W-1
Under Jal Jeevan 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		Formation			
	From	to				
1	0	12	Clay	6.020	H.P.P.	5.520
2	12	20	Kankad Clay	6.020	H.P.P.	11.540
3	20	52	Very Fine Sand with Kankad	6.020	H.P.P.	17.560
4	52	74	Fine Sand with Kankad	6.020	H.P.P.	23.580
5	74	80	Clay	6.030	H.P.P.	29.610
6	80	106	Very Fine Sand with Kankad	6.020	H.P.P.	35.630
7	108	128	Sandy Clay	6.020	H.P.P.	41.650
8	128	150	Very Fine Sand with Kankad	6.030	H.P.P.	47.680
9	150	172	Kankad Clay	6.020	H.P.P.	53.700
				6.020	H.P.P.	59.720
				0.200	Reducer	59.920
				6.010	P.P.	65.930
				6.020	P.P.	71.950
				6.010	P.P.	77.960
				4.290	P.P.	82.250
				3.500	S.P.	85.750
				6.020	P.P.	91.770
				6.020	P.P.	97.790
				0.460	P.P.	98.250
				6.010	S.P.	104.260
				1.490	S.P.	105.750
				6.020	P.P.	111.770
				6.010	P.P.	117.780
				6.020	P.P.	123.800
				6.020	P.P.	129.820
				0.680	P.P.	130.500
				6.010	S.P.	136.510
				1.000	S.P.	137.510
				2.000	P.P.	139.510
				150		152.000
				450 MM		

Logging Report
29.07.2023

S.N.	Depth Range	Thickn	Quality/Remark	
	From	to	ess	
1	23	33	10	Good
2	44	48	4	Good
3	82	86	4	Good
4	98	106	8	Good
5	130	138	8	Good
6	142	146	4	Good

Note-
All zones are intermixed with Kankar. Quality of the formation water is deteriorating marginal to saline in between 53.0 to 75.0 mbgl & further below 153.0 mbgl till depth logged. Clay layer lies in between 75.0 to 80.0 mbgl. Sl.Nos. 2 & 6 are fine sand.

DETAILS	AS PER DPR	ACTUAL
1 Proposed Discharge	465,000	LPM
2 Clear Depth of bore 600mm	0	Mbgl
3 Clear Depth of bore 500mm	65	Mbgl
4 Clear Depth of bore 450mm	360	Mbgl
5 Plane pipe 300MM	0	m
6 Plane pipe 200MM	60	m
7 Plane pipe 150MM	252	m
9 Slotted pipe 300MM	0	m
10 Slotted pipe 200MM	0	m
11 Slotted pipe 150MM	18	m
12 Date of lowering		04.08.2023

 Company Repre. M/S VSAIPPL-SMC JV, Ghazipur (U.P)	 TPIA Medhaj Techno Concept Pvt. Ltd., Ghazipur	 (A.Srivastava) Junior Engineer Division Office (E/M), U.P. Jal Nigam (Rural), Varanasi	 (Nitish Kumar) Assistant Engineer	 (Adarsh Verma) Exe. Engineer
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M/S VSAIPPL-SMC JV, Ghazipur (U.P.)

Regd. Office-#10, APIIC Building, Type-III, I.E, Prashanth Nagar Kukatpally, Hyderabad-500072
Under Jal Jivan Mission, District- Ghazipur(U.P.)

Test Report of Tiara GP (Zone-1, TW-1) Tubewell under Tiara WSS, Block-Virno Development By 250 PSI Air Compressor

Size of tube well (mm): 200 X 150 RPM 1300

Static water level (m): 7.60 Discharge by-90 'V' notch (Rectangular)

Depth of TW (m): 139.510 Required Discharge- 465 LPM Date of testing 22-10-2023

S. N.	Pressure in kg/cm ²		Depression		Depth of air line at the time of testing (m)	Discharge by 'V' Notch		Sand content in P.P.M.				
	Starting Pressure	Running Pressure	In kg/cm ²	In mtr.		Inch	LPM	At start	After 5 min	After 10 min	After 15 min	After 20 min
1	12.10	11.30	0.80	8.00	131.00	7	1104	6600	3600	3400	3200	3100
2	8.90	8.30	0.60	6.00	99.00	6 1/4	831	5500	3100	2900	2700	2600
3	7.30	6.80	0.50	5.00	83.00	6	751	4800	2700	2500	2300	2100

Remark- Recommended for further development by O.P. Unit



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

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

(Abhishek Srivastava)
Junior Engineer

(Nitish Kumar)
Assistant Engineer

(Adarsh Verma)
Executive Engineer

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

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

Job Code:		Compressor unit capacity	As per DPR:	600 PSI	
Block:	VIRNO		As per Site:	250 PSI	
Scheme	TIARA REORGANISATION WSS	Compressor unit Hours	As per DPR:	60	
GP	TIARA ,ZONE 1TW-1		As per Site:	57.83 Hrs	
Lowering Depth(mtr):	139.510	Cumm Gravel(cumt)	As per DPR:	79.5	
Lowering Date :	4-Aug-23		As per Site:	69.91	
SI No	Date	Start Time	End Time	Total Hours	Remarks
1	14-Oct-23	7:29 AM	8:50 AM	1:21	
2		10:10 AM	11:25 AM	1:15	
3		12:00 PM	1:21 PM	1:21	
4		2:00 PM	3:30 PM	1:30	
5		4:00 PM	5:20 PM	1:20	
6	15-Oct-23	8:29 AM	9:54 AM	1:25	
7		10:00 AM	11:15 AM	1:15	
8		1:00 PM	2:30 PM	1:30	
9		4:20 PM	5:50 PM	1:30	
10	16-Oct-23	6:00 PM	7:30 PM	1:30	
11		9:00 AM	10:20 AM	1:20	
12		11:00 AM	12:26 PM	1:26	
13		2:00 PM	3:30 PM	1:30	
14		4:00 PM	5:20 PM	1:20	
15	17-Oct-23	6:29 PM	7:34 PM	1:05	
16		10:00 AM	11:10 AM	1:10	
17		12:00 PM	12:50 PM	0:50	
18		1:30 PM	2:30 PM	1:00	
19		3:00 PM	4:26 PM	1:26	
20	18-Oct-23	5:00 PM	6:30 PM	1:30	
21		8:00 AM	9:14 AM	1:14	
22		10:10 AM	11:20 AM	1:10	
23		1:30 PM	2:10 PM	0:40	
24		3:20 PM	4:26 PM	1:06	
25	19-Oct-23	5:30 PM	7:00 PM	1:30	
26		8:00 AM	9:14 AM	1:14	
27		10:10 AM	11:30 AM	1:20	
28		1:30 PM	2:30 PM	1:00	
29		3:20 PM	4:46 PM	1:26	
30		5:30 PM	6:31 PM	1:01	

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

Regd. Office-#10,APIIC Building,Type-III, I.E, Prashanth Nagar Kukatpally,Hyderabad-500072

Under Jal Jivan Mission, District- Ghazipur(U.P.)

Yield Test Report Of T.W at Tiara GP (Zone-1,TW-1) Tubewell under Tiara Reorganisation WSS, Block-

Birno by 1 Cusec O.P. Unit

Size of Ventury 4" X 3" Column Pipe Lowered(m): 30.00

Static water level(m): 7.10 Required Discharge(LPM)- 465 LPM Date: 22-12-2023

S.N.	Discharge		Running Water Level (m)	Depression (m)	Sand content in P.P.M.				
	Inch	LPM			At start	After 5 min	After 10 min	After 15 min	After 20 min
1	41.00	1018	14.20	7.10	550	300	200	150	100
2	22.00	746	12.40	5.30	300	200	150	100	50
3	8.50	473	11.00	3.90	100	50	Tr	Cl	Cl

Remark- Recommended discharge 465 LPM L.P.M. at 3.9 m depression after running 15 minute bypass.

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(.....) (Abhishek Srivastava) Junior Engineer
(.....) (Nitish Kumar) Assistant Engineer
(.....) (Adarsh Verma) Executive Engineer





TPIA
Medhaj Techno Concept Pvt.
Ltd., Ghazipur

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

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

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

SI No	Date	Start Time	End Time	Total Hours	Remarks
1	09-12-2023	08:25:00	09:55:00	1:30	
2		10:23:00	11:55:00	1:32	
3		12:21:00	13:20:00	0:59	
4		15:46:00	17:17:00	1:31	
5		18:02:00	19:21:00	1:19	
6		19:45:00	20:31:00	0:46	
7	10-12-2023	08:45:00	09:40:00	0:55	
8		10:45:00	11:51:00	1:06	
9		12:50:00	13:20:00	0:30	
10		15:57:00	17:17:00	1:20	
11		18:02:00	19:10:00	1:08	
12		19:41:00	20:32:00	0:51	
13	11-12-2023	08:55:00	09:50:00	0:55	
14		10:34:00	11:53:00	1:19	
15		12:50:00	13:20:00	0:30	
16		15:56:00	17:18:00	1:22	
17		18:02:00	19:10:00	1:08	
18		19:40:00	20:30:00	0:50	
19	12-12-2023	08:15:00	09:40:00	1:25	
20		10:45:00	11:50:00	1:05	
21		12:50:00	13:20:00	0:30	
22		15:56:00	17:18:00	1:22	
23		18:02:00	19:11:00	1:09	
24		19:41:00	20:34:00	0:53	
25	13-12-2023	08:55:00	10:16:00	1:21	
26		10:44:00	11:55:00	1:11	
27		12:42:00	13:48:00	1:06	
28		15:56:00	17:26:00	1:30	
29		18:12:00	19:20:00	1:08	
30		19:42:00	21:11:00	1:29	
31	14-12-2023	08:45:00	10:10:00	1:25	
32		10:44:00	11:50:00	1:06	
33		12:53:00	14:21:00	1:28	
34		15:46:00	17:16:00	1:30	
35		18:02:00	19:10:00	1:08	
36		19:51:00	21:09:00	1:18	
37	15-12-2023	08:35:00	10:05:00	1:30	
38		10:44:00	11:55:00	1:11	
39		12:42:00	14:12:00	1:30	
40		15:44:00	17:18:00	1:34	
41		18:12:00	19:20:00	1:08	
42		19:40:00	21:00:00	1:20	
43	16-12-2023	08:45:00	10:10:00	1:25	
44		10:44:00	11:50:00	1:06	
45		12:50:00	14:10:00	1:20	
46		15:50:00	17:21:00	1:31	
47		18:02:00	19:10:00	1:08	
48		19:40:00	21:00:00	1:20	

M/S VSAIPPL-SMC JV,Ghazipur (U.P)					
Block:	BIRNO		Op unit Capacity	As per DPR:	1 cusec
Scheme	TIARA REORGANISATION WSS		Op unit Hours	As per Site:	1 cusec
GP	TIARA Z-1,T.W-1			As per DPR:	100
			Compressor Testing Date :	As per Site:	97.23Hrs
					22-10-2023
SI No	Date	Start Time	End Time	Total Hours	Remarks
49	17-12-2023	08:55:00	10:17:00	1:22	
50		10:44:00	11:56:00	1:12	
51		12:40:00	14:00:00	1:20	
52		15:56:00	17:26:00	1:30	
53		18:13:00	19:20:00	1:07	
54		19:43:00	21:00:00	1:17	
55	18-12-2023	08:45:00	10:00:00	1:15	
56		10:44:00	11:50:00	1:06	
57		12:50:00	14:10:00	1:20	
58		15:56:00	17:08:00	1:12	
59		18:02:00	18:28:00	0:26	
60	19-12-2023	08:45:00	10:00:00	1:15	
61		10:45:00	11:52:00	1:07	
62		12:40:00	14:01:00	1:21	
63		15:56:00	17:16:00	1:20	
64		18:12:00	19:20:00	1:08	
65	20-12-2023	08:45:00	10:10:00	1:25	
66		10:48:00	11:48:00	1:00	
67		12:55:00	14:12:00	1:17	
68		15:56:00	17:18:00	1:22	
69		18:02:00	19:10:00	1:08	
70	21-12-2023	08:45:00	10:10:00	1:25	
71		10:44:00	11:50:00	1:06	
72		12:50:00	14:10:00	1:20	
73		16:08:00	17:18:00	1:10	
74		18:02:00	19:13:00	1:11	
75		19:40:00	20:09:00	0:29	
76	22-12-2023	08:45:00	10:18:00	1:33	
77		10:44:00	11:52:00	1:08	
78		12:50:00	14:10:00	1:20	
79		15:56:00	17:19:00	1:23	
80		18:09:00	20:10:00	2:01	
			Total	97:14	
			Total (Hrs)	97.23Hrs	
 Site Incharge		 TPIA	 Junior Engineer	 Assistant Engineer	Exe. Engineer
M/S VSAIPPL-SMC JV,Ghazipur (U.P)		M/s Medhaj Techno Concept Pvt. Ltd.,Ghazipur	Construction Division Office(E/M) ,U.P.Jal Nigam(Rural),Varanasi		



QA Testing Laboratories Pvt. Ltd.

(Govt. Approved Testing Laboratories)

B-76, Sector-64, Gautam Buddha Nagar, Noida-201301 (Uttar Pradesh)

Quality Assurance

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Website : www.qatestinglaboratories.com

CIN : U51100UP2018PTC108293 • GSTIN : 09AAACQ5609C1ZN

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M54009131N



ISO 9001:2015, 14001:2015, 45001:2018 & ISO/IEC 17025:2017 Accredited & BIS Recognised Laboratory

TEST CERTIFICATE

(This Certificate is not Valid without Hologram)



Test Report No : QAL/WT/240103002510 Issue Date : 09/01/2024
Sample Name: : Tube Well Water Sample Received On : 03/01/2024
Sample Code : - Reference No : VSAIPPL/WT/UPJN/23-24/59
Issued To : VSAIPPL-SMC JV Sampling Date : 03/01/2024
10, Floor, APIIC Building, Type III, IE, Prashanth Nagar, Sampling Quantity : 2Ltr.
Kukatpally, Hyderabad 500072 Batch No./Lot No. : NA
Date of Mfg. : NS
Sample Submitted By : VSAIPPL-SMC JV Date of Exp. : NS
Mfg. By : NA Date of Starting : 03/01/2024
Sample Description : Physical, Chemical & Heavy Metal Analysis Of Water Date of Completion : 09/01/2024
Location : Distt.-Ghazipur Block-Birno GP-Tiara TW-1

S.No.	Test Parameter	Units	Results	Specification as per IS:10500:2012		Test Method
				Acceptable Limit	Permissible Limit	
1	Color	Hazen	1	5 max.	15 max.	IS : 3025(P-4)
2	Turbidity	NTU	0.4	1 max.	5 max.	IS : 3025(P-10)
3	pH value at 25°C	-	7.75	6.5-8.5	No Relaxation	IS : 3025 (P-11)
4	Total Hardness as CaCO3	mg/l	185	200 max	600 max.	IS : 3025 (P-21)
5	Calcium (as Ca)	mg/l	39.2	75 max	200 max	IS : 3025 (P-40)
6	Iron (as Fe)	mg/l	0.032	1 max	-	IS : 3025 (P-53)
7	Magnesium (as Mg)	mg/l	21.1	30 max	100 max	IS : 3025 (P-46)
8	Chloride (as Cl)	mg/l	24.0	250 max.	1000 max.	IS : 3025 (P-32)
9	Free Residual Chlorine	mg/l	Nil	0.2 max.	1 Max	IS : 3025 (P-26)
10	Sulphates (as SO4)	mg/l	7.8	200 max.	400 max.	IS : 3025 (P-24)
11	Total Alkalinity (as CaCO3)	mg/l	118	200 max.	600 max.	IS : 3025 (P-23)
12	Fluoride (as F)	mg/l	0.034	1 max.	1.5 max.	IS : 3025 (P-60)
13	Total Dissolved Solid (TDS)	mg/l	430	500 max.	2000 max.	IS : 3025 (P-16)
14	Total Coliform Bacteria	MPN/10 0 ml	Absent	Shall not be detectable in any 100 ml sample	Shall not be detectable in any 100 ml sample	IS : 1622
15	E coli	MPN/10 0 ml	Absent	Shall not be detectable in any 100 ml sample	Shall not be detectable in any 100 ml sample	IS : 1622

SAMPLE COLLECTED BY US

End of Report

Upendra Kumar

Technical Manager

Authorized By (Sign & Stamp):

Queen Kumar

Quality Manager

Approver By (Sign & Stamp):

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QA Testing Laboratories Pvt. Ltd.

(Govt. Approved Testing Laboratories)

B-76, Sector-64, Gautam Buddha Nagar, Noida-201301 (Uttar Pradesh)

Quality Assurance

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JAS-ANZ



M54009131N



ISO 9001:2015, 14001:2015, 45001:2018 & ISO/IEC 17025:2017 Accredited & BIS Recognised Laboratory

TEST CERTIFICATE

(This Certificate is not Valid without Hologram)



Test Report No : QAL/WT/240103002510

Issue Date : 09/01/2024

Sample Name : Tube Well Water

Sample Received On : 03/01/2024

S.No.	Test Parameter	Units	Results	Specification as per IS:10500:2012		Test Method
				Acceptable Limit	Permissible Limit	
16	Nitrate (as NO ₃)	mg/l	0.36	45 max	No Relaxation	IS : 3025 (P-34)
17	Copper (as Cu)	mg/l	ND	0.05 max	1.5 max	IS : 3025 (P-42)
18	Manganese (as Mn)	mg/l	0.020	0.1 max	0.3 max	IS : 3025 (P-59)
19	Mercury (as Hg)	mg/l	ND	0.001 max	No Relaxation	IS : 3025 (P-48)
20	Cadmium (as Cd)	mg/l	ND	0.003 max	No Relaxation	IS : 3025 (P-41)
21	Selenium (as Se)	mg/l	ND	0.01 max	No Relaxation	IS : 3025 (P-56)
22	Total Arsenic (as As)	mg/l	ND	0.01 max	0.05 max	IS : 3025 (P-37)
23	Lead (as Pb)	mg/l	ND	0.01 max	No Relaxation	IS : 3025 (P-47)
24	Zinc (as Zn)	mg/l	0.022	5 max	15 max	IS : 3025 (P-49)
25	Cobalt	mg/l	ND	-	-	IS : 3025 (P-2)
26	Aluminium (as Al)	mg/l	ND	0.03 max	0.2 max	IS : 3025 (P-55)
27	Boron (as B)	mg/l	0.010	0.5 max	1.0 max	IS : 3025 (P-57)
28	Barium (as Ba)	mg/l	0.012	0.7 max	No Relaxation	IS:13428
29	Silver (as Ag)	mg/l	ND	0.1 max	No Relaxation	IS:13428
30	Molybdenum (as Mo)	mg/l	ND	0.07 max	No Relaxation	IS : 3025 (P-2)
31	Nickel (as Ni)	mg/l	ND	0.02 max	No Relaxation	IS : 3025 (P-54)
32	Total Chromium (as Cr)	mg/l	ND	0.05 max	No Relaxation	IS : 3025 (P-52)
33	Antimony (as Sb)	mg/l	ND	-	-	IS :3025 (P-2)

Note: ND= Not Detected

SAMPLE COLLECTED BY US

End of Report

Upendra Kumar
Technical manager
Authorized By (Sign & Stamp):

Dileep Kumar
Quality Manager
Approved By (Sign & Stamp):

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GEO INSTRUMENTS & TECHNIC'S

(A Division of Geophysical Exploration and Instrumentation)

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

Ref:GIT:UP: PJM:23-24:LS: K-136

Dated: 16-08-2023

GEOPHYSICAL BOREHOLE LOGGING REPORT

Site: **Tiara Tubewell - 2 Zone - 1**
 Block: **Birno**
 District: **Ghazipur**
 State: **Uttar Pradesh**
 Date of Logging: **16-08-2023**
 Drilling Depth: **360.0m bgl**
 Logging Depth: **185.0 m bgl**
 Rm - **12.0 Ωm** Rw - **14.0 Ωm**

Borehole Drilled by: M/s VSAIPPL-SMC (JV), Ghazipur, Uttar Pradesh

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 (meter)	Remark (Quality of Aquifer Water)
1.	20 - 33	13	Good
2.	36 - 40	04	Good
3.	45 - 52	07	Good
4.	84 - 90	06 -5.5	Good
5.	96 - 109	13 -5.5 12.5	Good
6.	128 - 134	06 -5.5	Good
7.	140 - 147	07	Good

Note: 1. Fine bands of kankar are intermixed with almost all the zones.
 2. Zone Sl. No. 2, 6 & 7 are highly intermixed with fine bands of kankar.

For Geo Instruments & Technic's

(S. Shukla)

Q = 465
 60 + 252 + 18
 200 x 150

200 x 150

	84.25
11 55	89.75
	96.25
11 12.5	108.75
	128.25
11 5.5	133.75
3	136.75

150