

अधीक्षण अभियंता  
मंडल कार्यालय (वि०/या०)  
(ऊ० प्र० जल निगम ग्रामीण)  
वाराणसी ।

महोदय

जल जीवन मिशन कार्यक्रम अंतर्गत गिनौर ब्लॉक ठेकमा पेयजल योजना जनपद आजमगढ़ में 200x150 एम० एम० व्यास साइज के 165 मीटर गहरे नलकूप का निर्माण किया जाना है एवं उक्त नलकूप से 471 लि० प्र० मि० साव लिया जाना प्रस्तावित है । अनुबंध सं० 24/ED/PH-5/2022-23/V दिनांक 09-03-2023 के माध्यम से मेसर्स विक्रान इंजीनियरिंग एंड एक्सिम प्रा० लि०-वि पि आर पि ल-IV 401 ओडेस्सी आई टी पार्क वागले एस्टेट ठाणे महाराष्ट्र-400604 द्वारा नलकूप निर्माण कार्य सम्पादित कराया जा रहा है । फर्म द्वारा स्वीकृति BOQ/DPR में दी गयी विशिष्टियों के अनुसार लगभग 160/165 मी० गहरे नलकूप का निर्माण करने हेतु दिनांक 16.03.2024 को नलकूप के बोर को इलेक्ट्रिक लॉगिंग करायी जिसका विवरण निम्नानुसार है-

| Sr No | Depth Range (Mbgl) | Thickness(m) | Remarks                          |
|-------|--------------------|--------------|----------------------------------|
| 1     | 20.00-30.00        | 10.00        | Good (1to 2)<br>Good to Moderate |
| 2     | 36.00-39.00        | 3.00         |                                  |
| 3     | 44.00-50.00        | 6.00         |                                  |
| 4     | 53.00-57.00        | 4.00         | Good to Moderate                 |
| 5     | 60.00-65.00        | 5.00         | Good to Moderate                 |

Note: - Quality of the formation of water is deteriorating marginal to saline below 65.0 mbgl till depth logged. The formation below this depth is mostly clay.

अनुबंध सं० 24/ED/PH-5/2022-23/V दिनांक 09-03-2023 से 471 लि० प्र० मि० प्राप्त करने हेतु Entrance Velocity 0.01 m/sec पर 18 मी० स्लोटेड पाइप डालने का प्रावधान किया गया है । इलेक्ट्रिक लॉगिंग के उपरांत प्राप्त स्टार्ट के अनुसार अधिकतम 19 मी० स्लोटेड पाइप डाली जा सकती है ।

Physically encountered strata का अवलोकन करने पर क्ले + सैंड युक्त strata पाया गया, उक्त strata अत्यधिक वाटर रीच प्रतीत नहीं होता है, उक्त स्थिति में बफर strata को सम्मिलित किया जाना उचित प्रतीत होता है वास्तविक प्राप्त strata के दृष्टिगत 150 मि०मी० स्लाटेड पाइप के स्थान पे 200 मि०मी० स्लाटेड पाइप का उपयोग कर कुल 19 मीटर स्लाटेड पाइप का प्रवाधान किया जाये तो 19 मीटर की लम्बाई में Entrance area को बढ़ाकर आवश्यक वांछित श्राव प्राप्त करने का प्रयास किया जा सकता है । अनुबंध में निहित प्राविधान के अनुसार श्राव की प्रतिपूर्ति फर्म की स्वयं का उत्तर दायित्व में है, अतएव श्राव प्रतिपूर्ति न होने पर फर्म द्वारा दूसरा नलकूप निर्माण कराते हुए पूरा किया जायेगा एवं भूगर्भ के संबंध में राज्य पेयजल स्वच्छता मिशन (SWSM) द्वारा सक्षम स्तर से स्वीकृति उपरोक्त नियमानुसार किया जावेगा ।

अतः प्राप्त Aquifer के दृष्टिगत 200x150 मि०मी० साइज के नलकूप असेंबली को परिवर्तित करते हुए उक्त के स्थान पर 200x200 साइज की 69.00 मीटर गहरे नलकूप की असेंबली जिसमे 19.00 मीटर स्लाटेड पाइप का उपयोग किया जायेगा, आपको तकनीकी स्वीकृति हेतु संलग्न कर प्रेषित है । कृपया अनुमोदन करना चाहें ।

संलग्नक :-1 नलकूप की इलेक्ट्रिक लॉगिंग रिपोर्ट ।

2. स्ट्रेटा चार्ट की छाया प्रति ।

परियोजना प्रबंधक  
वि इं एक्सिम प्र० लि०

(जुनी० इंजी०)

(सहायक अभियंता)

(अधीक्षापी अभियंता)

(अधीक्षण अभियंता)

**Variation for Construction of Tubewell with 200x150mm dia MSERW assembly inspite of 200x200mm dia MSERW assembly (As per DPR )  
under Demri GINAUR TW , Block-THEKMA ,District-Azamgarh under JJM -5 Due to starta**

| Item Description                                                                                                                                                                                      | As per DPR for 200x150 mm dia lowering |      |              |                   | As per Actual for 200x200 mm dia lowering |      |              |                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------|--------------|-------------------|-------------------------------------------|------|--------------|-------------------|
|                                                                                                                                                                                                       | Quantity                               | Unit | Rate         | Amount            | Quantity                                  | Unit | Rate         | Amount            |
| <b>289-138</b>                                                                                                                                                                                        |                                        |      |              |                   |                                           |      |              |                   |
| DC/RC Drilling including hiring Transportation, Erection,Dismantling with loading and unloading of Rig and associated T&P complete in all respect including required all material labour and T&P etc. |                                        |      |              |                   |                                           |      |              |                   |
| <b>DC/RC Drilling up to 100Mtr.</b>                                                                                                                                                                   |                                        |      |              |                   |                                           |      |              |                   |
| 450 MMØ                                                                                                                                                                                               | 40                                     | m    | 2448.06      | 97922.4           | 28 20                                     | m    | 2448.06      | 48961.2           |
| 500 MMØ                                                                                                                                                                                               | 60                                     | m    | 2709.57      | 162574.20         | 72 80                                     | m    | 2709.57      | 216765.6          |
| 600 MMØ                                                                                                                                                                                               |                                        |      |              |                   |                                           |      |              |                   |
| <b>DC/RC Drilling from 101 MT. To 200 Mtr.Deep</b>                                                                                                                                                    |                                        |      |              |                   |                                           |      |              |                   |
| 450 MMØ                                                                                                                                                                                               | 65                                     | m    | 2766.85      | 179845.25         | 65                                        | m    | 2766.85      | 179845.25         |
| 500 MMØ                                                                                                                                                                                               |                                        |      |              |                   |                                           |      |              |                   |
| 600 MMØ                                                                                                                                                                                               |                                        |      |              |                   |                                           |      |              |                   |
| <b>Tubewell Assembly:</b>                                                                                                                                                                             |                                        |      |              |                   |                                           |      |              |                   |
| <b>MSERW plain pipe,As per IS 4270</b>                                                                                                                                                                |                                        |      |              |                   |                                           |      |              |                   |
| 150 MMØ                                                                                                                                                                                               | 78                                     | m    | 1991.60      | 155344.80         | 0                                         | m    | 1991.60      | 0                 |
| 200 MMØ                                                                                                                                                                                               | 54                                     | m    | 2539.29      | 137121.66         | 50.5                                      | m    | 2539.29      | 128234.145        |
| 300 MMØ                                                                                                                                                                                               |                                        |      |              |                   |                                           |      |              |                   |
| <b>MSERW Pipe slotted pipe thick as per IS 8110</b>                                                                                                                                                   |                                        |      |              |                   |                                           |      |              |                   |
| 150 MMØ                                                                                                                                                                                               | 18                                     | m    | 3067.06      | 55207.08          | 0                                         | m    | 3067.06      | 0                 |
| 200 MMØ                                                                                                                                                                                               |                                        |      | 3817.7       |                   | 19                                        | m    | 3817.70      | 72536.3           |
| 300 MMØ                                                                                                                                                                                               |                                        |      |              |                   |                                           |      |              |                   |
| <b>MS Ring</b>                                                                                                                                                                                        |                                        |      |              |                   |                                           |      |              |                   |
| 150 mmØ MS. Ring made by 150 mm × 12 mm Flat                                                                                                                                                          | 20                                     | Nos  | 1264.67      | 25293.4           | 0                                         | Nos  | 1264.67      | 0                 |
| 200 mmØ MS. Ring made by 150 mm × 12 mm Flat                                                                                                                                                          | 9                                      | Nos  | 1593.28      | 14339.52          | 14                                        | Nos  | 1593.28      | 22305.92          |
| 300 mmØ MS. Ring made by 175 mm × 16 mm Flat                                                                                                                                                          |                                        |      |              |                   |                                           |      |              |                   |
| <b>MS Bail plug As per IS 2800</b>                                                                                                                                                                    |                                        |      |              |                   |                                           |      |              |                   |
| 150 mm M.S. Bail plug                                                                                                                                                                                 | 1                                      | Nos  | 1717.76      | 1717.76           |                                           | Nos  | 1717.76      | 0                 |
| 200 mm M.S. Bail plug                                                                                                                                                                                 |                                        |      | 2061.31      | 0                 | 1                                         |      | 2061.31      | 2061.31           |
| 300 mm M.S. Bail plug                                                                                                                                                                                 |                                        |      |              |                   |                                           |      |              |                   |
| <b>Reducer</b>                                                                                                                                                                                        |                                        |      |              |                   |                                           |      |              |                   |
| 300 × 200 mm Reducer                                                                                                                                                                                  |                                        |      |              |                   |                                           |      |              |                   |
| 200 × 150 mm Reducer                                                                                                                                                                                  | 1                                      | Nos  | 4132.57      | 4132.57           | 0                                         | Nos  | 4132.57      | 0                 |
| 300 × 150 mm Reducer                                                                                                                                                                                  |                                        |      |              |                   |                                           |      |              |                   |
| <b>MSSI Clamp - As per IS 2800</b>                                                                                                                                                                    |                                        |      |              |                   |                                           |      |              |                   |
| 200 mm Ø MS S.I Clamp                                                                                                                                                                                 | 1                                      | Nos  | 1991.60      | 1991.60           | 1                                         | Nos  | 1991.60      | 1991.6            |
| 300 mm Ø MS S.I Clamp                                                                                                                                                                                 |                                        |      |              |                   |                                           |      |              |                   |
| <b>TW Assembly Support</b>                                                                                                                                                                            |                                        |      |              |                   |                                           |      |              |                   |
| 200 mm Ø Tubewell Assembly Support                                                                                                                                                                    | 1                                      | Nos  | 15434.90     | 15434.90          | 1                                         | Nos  | 15434.90     | 15434.90          |
| 300 mm Ø Tubewell Assembly Support                                                                                                                                                                    |                                        |      |              |                   |                                           |      |              |                   |
| <b>MS Well Cap</b>                                                                                                                                                                                    |                                        |      |              |                   |                                           |      |              |                   |
| 200 mm Ø MS Well Cap                                                                                                                                                                                  | 1                                      | Nos  | 1344.33      | 1344.33           | 1                                         | Nos  | 1344.33      | 1344.33           |
| 300 mm Ø MS Well Cap                                                                                                                                                                                  |                                        |      |              |                   |                                           |      |              |                   |
| <b>Center Guide</b>                                                                                                                                                                                   |                                        |      |              |                   |                                           |      |              |                   |
| Center Guide for 150 mmØ TW assembly                                                                                                                                                                  | 6                                      | Nos  | 916.14       | 5496.84           | 1                                         | Nos  | 916.14       | 916.14            |
| Center Guide for 200 mmØ TW assembly                                                                                                                                                                  |                                        |      |              |                   |                                           |      |              |                   |
| <b>Lowering of aboveTubewll assembly including carting up to site and welding of parts complete in all respect with all required material, T&amp;P, labour, etc.</b>                                  |                                        |      |              |                   |                                           |      |              |                   |
| <b>Lowering up to 100 Mtr. Deep</b>                                                                                                                                                                   |                                        |      |              |                   |                                           |      |              |                   |
| 150 MMØ MSERW Plane/Slotted Pipe                                                                                                                                                                      | 46                                     | m    | 279.46       | 12855.16          |                                           | m    | 279.46       | 0                 |
| 200 MMØ MSERW Plane/Slotted Pipe                                                                                                                                                                      | 54                                     | m    | 405.29       | 21885.66          | 69                                        | m    | 405.29       | 27965.01          |
| 300 MMØ MSERW Plane/Slotted Pipe                                                                                                                                                                      |                                        |      |              |                   |                                           |      |              |                   |
| <b>Lowering from 101 Mtr. To 200 Mtr. Deep</b>                                                                                                                                                        |                                        |      |              |                   |                                           |      |              |                   |
| 150 MMØ MSERW Plane/Slotted Pipe                                                                                                                                                                      | 50                                     | m    | 366.77       | 18338.5           | 0                                         | m    | 366.77       | 0                 |
| 200 MMØ MSERW Plane/Slotted Pipe                                                                                                                                                                      |                                        |      |              |                   |                                           |      |              |                   |
| 300 MMØ MSERW Plane/Slotted Pipe                                                                                                                                                                      |                                        |      |              |                   |                                           |      |              |                   |
| Logging of Borehole by electric logging                                                                                                                                                               | 1                                      | Nos  | 17924.4      | 17924.4           | 1                                         | Nos  | 17924.4      | 17924.4           |
| Supplying and unconsolidated packing of gravel with suitable size                                                                                                                                     | 37                                     | Cum  | 7468.5       | 276334.5          | 36                                        | Cum  | 7468.5       | 268866            |
|                                                                                                                                                                                                       |                                        |      | <b>Total</b> | <b>1205104.53</b> |                                           |      | <b>Total</b> | <b>1005152.11</b> |

COST OF TUBEWELL AS PER DPR  
COST OF TUBEWELL AS PER ACTUAL  
SAVING  
% SAVING AS COMPARED TO DPR COST

1205104.53

1005152.11

199952.43

16.59

%

Contractor

J.E.

A.E.

EE

Approved By

(J P SINGH)

SE(E/M),UPJN(RURAL),VARANASI

48574  
195089

1003059

1003059  
202045  
20.14

# VIKRAN ENGINEERING & EXIM PVT.LTD.

**SITE OFFICE -BELAISA NEAR MEDICITY HOSPITAL AZAMGARH 276001**

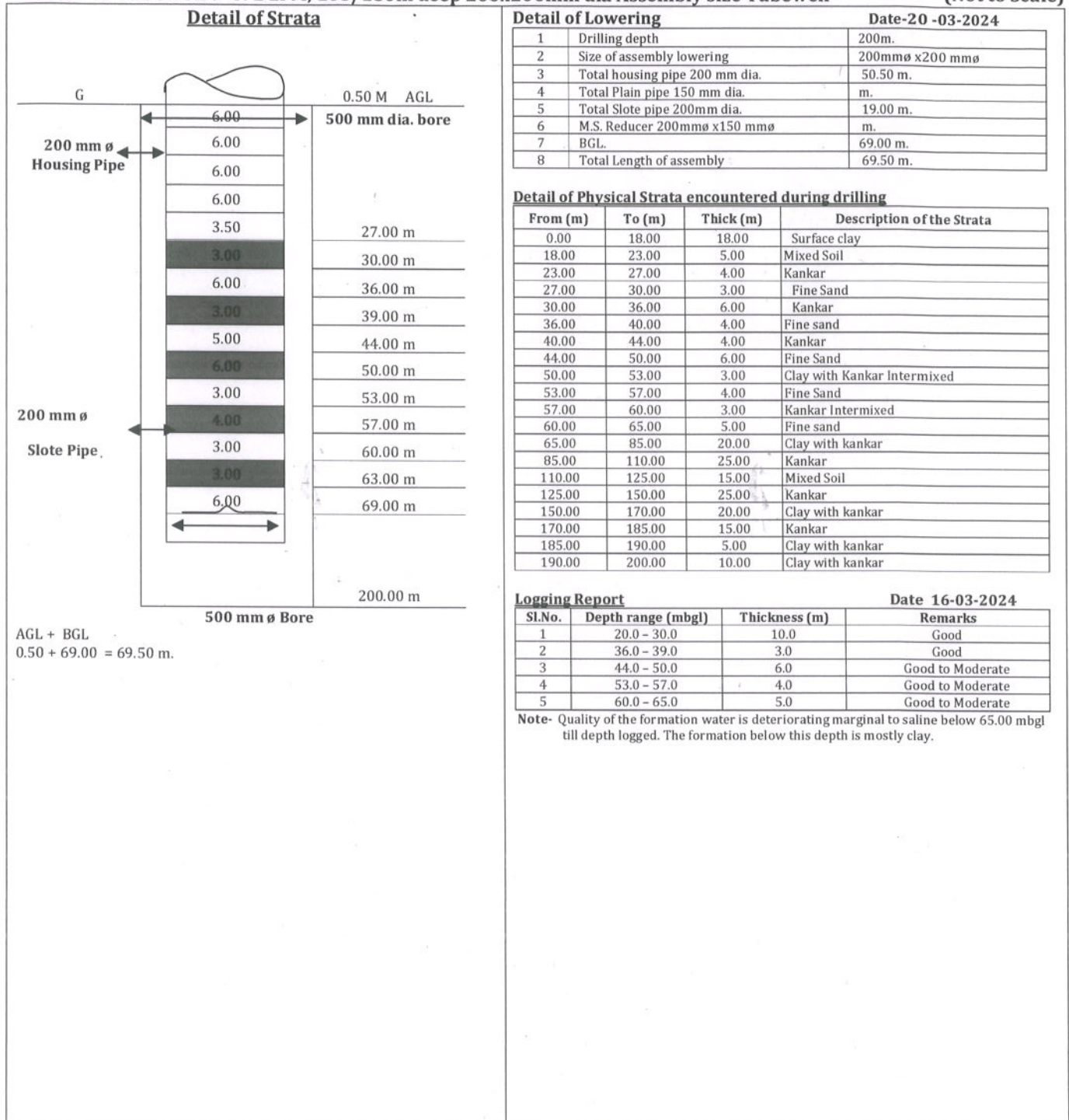
Contact No- 8318186564

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## **Actual Completion Plan of Tube well Assembly Chart cum strata Chart For Ginaur water supply. Block- Thekma, District- Azamgarh (Under I.I.M. Progarme).**

Details of Tubewell :- 471 LPM, 165/150m deep 200x200mm dia Assembly size Tubewell

(Not to Scale)



Prepared by

Checked by

M/s VIKRAN ENGIN..  
Azamgarh

J. E.

Assistant Engineer

Executive Engineer

# VALPS GEOTECH PVT LTD

## Geophysical Well Logging Report

Ref No: 160324/03

Date 16/03/2024

NAME OF SITE GINAUR  
BLOCK THEKMA  
DISTRICT AZAMGARH

NAME OF AGENCY  
VIKRAN - VPRPL JV

VALPS GEOTECH PVT LTD  
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BHOPAL, M.P.  
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# VALPS GEOTECH PVT LTD

## Geophysical Well Logging Report

Ref No: 160324/03

Date 16/03/2024

Name of the Site :- Ginaur , Block- Thekma  
District :- Azamgarh  
Date of logging :- 16-03-2024  
Logging Depth :- 184m  
Drilled Depth :- 200m  
Types of log :- SP,N16,N64,SPR,Gama,Temperature  
Logger Used :- JDX-3Dr Natural Gamma & Electrical Resistivity  
Name of Agency :- VIKRAN – VPRPL JV  
Co-ordinates :- 25.824428N, 82.898474E

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

| S. No. | Depth<br>Range from<br>MBGL | Depth<br>Range To<br>MBGL | Thickness<br>Mtr. | Inferred Lithology                       | Quality of Ground<br>Water |
|--------|-----------------------------|---------------------------|-------------------|------------------------------------------|----------------------------|
| 01     | 20                          | 30                        | 10                | Fine to Medium Sand mixed<br>With kankar | Good                       |
| 02     | 36                          | 39                        | 03                | Fine to medium sand                      | Good                       |
| 03     | 44                          | 50                        | 06                | Fine to medium sand                      | Good to moderate           |
| 04     | 53                          | 57                        | 04                | Fine to medium sand                      | Good to moderate           |
| 05     | 60                          | 65                        | 05                | Fine to medium sand                      | Good to moderate           |

**Note:** Quality of the formation water is deteriorating saline below 65.00mbgl till depth logged. The formation below this depth is mostly clay.

  
**Vishesh Seth (Geophysicist)**  
Passout IIT-ISM Dhanbad  
Previous Employee of Government of India,  
Ministry of Jal Shakti  
Central Ground Water Board

Figure 1 is a plot showing the dependence of the electron temperature  $T_e$  on the parameter  $\alpha$ . The x-axis is labeled  $\alpha$  and ranges from 0 to 100. The y-axis is labeled  $T_e$  and ranges from 0 to 150. A vertical line is drawn at  $\alpha = 50$ . The plot contains several curves in different colors (blue, green, red, black) representing different data series. The curves show a sharp increase in  $T_e$  as  $\alpha$  increases, with some curves exhibiting oscillations. Below the plot, there are several rows of numerical data corresponding to the curves.

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