# 5.5 General Water Quality

# 5.5.1 Purpose

To evaluate the groundwater resources for a safe drinking water supply, it is very important to investigate not only arsenic but also other groundwater quality parameters in the groundwater. The analysis of general groundwater quality can provide hydrochemical characteristics of the groundwater as well as basic information of the safety of the groundwater. Attention should be paid particularly on some substances that will have a health impact by drinking.

In this subchapter, at first the general characteristics of deep groundwater and shallow groundwater taken from the newly constructed observation wells/holes and the improved deep wells are mentioned. Then the relationships between the arsenic and other water quality parameters are examined. The safety of deep groundwater is also evaluated by the monitoring data of general water quality. The quality of deep groundwater is also evaluated comparing with the quality of shallow groundwater and pond water. The results of the general water quality analysis done in the study are evaluated by comparison with the Bangladeshi drinking water standard and the WHO guideline value for drinking water.

# 5.5.2 Methodology

The groundwater samples for general water quality analysis were collected from newly constructed observation wells/holes, existing wells, and existing ponds. The samples were systematically collected during the survey. The methods of sampling, numbering, quality control, etc. were well planned and performed.

# 1) Sampling and Analysis Procedures

# a. Procedure of Field Work for Water Quality Analysis

The operative procedure for collecting the samples used for water quality analysis, based on the Japanese Testing Method of Drinking Water, has been standardized as shown hereunder, starting from the method to clean the sample containers.

Especially, a Standard Operating Procedure (SOP), setting fieldwork standards for important operations, has been established in writing.

# b. Cleaning the sample containers

Sample containers consist of polyethylene bottles with ground stoppers, which can be sealed hermetically. They must be thoroughly washed before use so that the tests can be carried out properly.

Washing of polyethylene bottles with ground stoppers is carried out as follows:

(a) Before use, first wash the bottles using regular tap water, and then wash them again

with distilled water.

- (b) After step (a), wash with warm nitric acid (1+10: HNO3 diluted in as much as 10 times its volume of water) or warm hydrochloric acid (1+5), fill the bottles to the brim with nitric acid (1+65), seal hermetically and leave for at least 16 hours. Wash thoroughly with distilled water.
- (c) After the sample containers have been washed, drain all water, seal hermetically and keep until the collection of samples.

### c. Fieldwork Procedure

The fieldwork procedure for water quality analysis is as follows

(a) [Hand pump well]

Remove stagnant water in the tube by lifting water by pump (approx. 5 min.). [Production well]

If the pump is stopped, operate it for approx. 5 min to remove stagnant water. [Pond water]

Sample water from the center of the pond.

- (b) While pumping as noted in (a), fill in the required item in the field survey sheet.
- (c) Measure As (arsenic) and dissolved iron  $(Fe^{2+})$  using the field kit.
- (d) Measure water quality parameters of pH, ORP, EC and the temperature. Read the pH, EC and temperature values after each value has become stable. For ORP, read the value after becoming stable.

# d. Water Sampling Procedure

The water samples for laboratory analysis were collected during the field survey. The samples for arsenic were brought into the JICA Study Team laboratory. For others than arsenic, the samples were carried into a laboratory in Dhaka as soon as possible after sampling. The sampling procedure is as follows:

In case a sample contains suspended solids, shake it well in order to mix it uniformly before collecting a sample for testing. All sample bottles shall be rinsed beforehand with the sampled water.

Add 0.5 ml of conc. hydrochloric acid (for arsenic analysis grade) to 250 ml of the sample to be used for arsenic testing in order to lower its pH to approximately 1, and then store in a cool dark place.

Samples to be used for the following tests should be kept in a cool dark place: chemical oxygen demand (COD), ammonium ion, nitrous acid ion, nitric acid ion, cyanide, hardness, TDS, sulfate ion, chloride ion, bicarbonate ion, and fluoride ion.

Concerning samples to be used for testing the following metal elements, the pH should be

lowered to about 1 by adding 20 ml of nitric acid to 2.5 l of the sample, and the samples should be stored in a dark cool place: copper, zinc, lead, cadmium, nickel, chrome, mercury, sodium, potassium, calcium, magnesium, etc.

Concerning samples to be used for testing dissolved arsenic, dissolved iron and dissolved manganese, filter at the site immediately after collecting a sample, through a filter paper with a 0.45µm mesh by applying a vacuum (if filtration is difficult because of water condition, pre-filter using a 5 C filter paper), discard the first 50 ml of filtrate and keep the rest of the filtrate as a sample, then lower the pH to about 1 by adding 2.5 ml of nitric acid to 250 ml of the dissolved iron and dissolved manganese sample. In case of dissolved arsenic, add 0.5 ml of hydrochloric acid instead and all types of samples are stored in a dark cool place.

# 2) Laboratory Analysis and Analytical Parameters

The laboratory analysis was carried out by the Plasma Plus Application &Research Laboratory. The analysis methods were based on the Standard Methods for the Examination of Water and Wastewater, 20<sup>th</sup> edition. Analytical parameters and the standard numbers of testing method are shown in Table 5.5.1.

Analytical parameters	Standard No	Analytical parameters	Standard No
PH	4500 H <sup>+</sup> B	Sodium	3111 B
Temperature	Thermometric method	Potassium	3111 B
Electric conductivity	Electrometric method	Dissolved iron	3111 B
Hardness	Titrimetric method	Dissolved	3111 B
		manganese	
TDS	2540 C	Calcium	3111 B
COD	5220	Magnesium	3111 B
Ammonium	Nessler's method	Cadmium	3113A, 3113B
Nitrite	4500 NO2 <sup>-</sup> B	Total chromium	3113A, 3113B
Nitrate	APHA-4500	Copper	3113A, 3113B
Sulfate	4500 SO <sub>4</sub> <sup>2-</sup>	Lead	3113A, 3113B
Chloride	Turbidity of silver-chloride method	Mercury	3112B
Bicarbonate	Titrimetric method	Nickel	3113A, 3113B
Fluoride	4500 F D	Zinc	3111C
Cyanide	4500 CN E		

 Table 5.5.1 Analytical parameters and the standard numbers

# 3) Quality Control

Quality control of laboratory analysis was done as follows:

# a. Checking correctness of analyses

# a.1. Anion-cation balance

The anion and cation sums, expressed as milliequivalents per liter, must balance because all water samples are electrically neutral. The calculation is as follows:

% balance = 
$$100 \times \frac{\sum cations - \sum anions}{\sum cations + \sum anions}$$

### a.2. Measured TDS and calculated TDS

The measured total dissolved solids concentration must be higher than the calculated one because of the minor ion parameter. On the other hand, if the measured TDS is more than 20% higher than the calculated one, the low ion sum is suspected. The acceptable ratio is as follows:

$$1.0 < \frac{measuredTDS}{calculatedTDS} < 1.2$$

where:

calculated TDS = 
$$0.6 \times HCO3^{-} + Na^{+} + K^{+} + Ca^{2+} + Mg^{2+} + Cl^{-} + SO4^{2-} + NO3^{-} + F^{-}$$

### a.3. Measured EC and ion sums

Both the anion and cation sums should be 1/100 of the measured EC. The acceptable ratio is as follows:

 $0.9 \times \text{measured EC} < 100 \times \text{anion (or cation) sum, meq/L} < 1.1 \times \text{measured EC}$ 

# a.4. Calculated TDS and measured EC

The acceptable ratio is as follows:

Calculated TDS / measured EC = 0.55-0.7

#### b. Quality Control samples

In addition to checking the correctness of analyses, quality control samples were incorporated in the laboratory analysis samples. For the laboratory analysis, duplicate samples and field blank samples were collected from fields and tested in the Plasma Plus laboratory for data quality assurance.

# 5.5.3 General Characteristics of Groundwater Quality

# 1) Deep Observation Wells/Holes in Pourashava

The results of the laboratory chemical analysis for Observation Wells samples were shown in Table 1.6.2 in the **Data Report**. From these data, some general characteristics for deep groundwater (hereafter deep groundwater is indicated by the Sample Codes, "OW-" and "OH-###-4-") are found as mentioned below.

The most notable characteristic of the samples is reducing state. 95% of the samples are less than 200 mV. Fe and Mn concentrations are high in almost samples. 83.3% of the samples

contain more than 1 mg/l of Fe and 59.1% have more than 0.1 mg/l of Mn.  $NO_3$  and  $NO_2$  are low or lower than PQL in all samples from Observation Wells. On the other hand,  $NH_4$ concentrations are rarely high. About 3.0% of samples contain more than 1 mg/l of  $NH_4$ . Almost all SO<sub>4</sub> results (98.5%) show below PQL. These data (Fe, Mn,  $NO_3$ ,  $NO_2$ ,  $NH_4$ , SO<sub>4</sub>) also indicate that the groundwater of Observation Wells is in a strongly reducing state.

EC values are almost always (96.7%) less than 100 mS/m. From the results of EC, samples are likely to be almost fresh groundwater. High EC values (almost excess 100 mS/m samples) are distributed in Jessore, the southern part of the study area. pH values are almost always near 7, however, values around 8 are also found in Chuadanga.

Trace elements and heavy metals in samples are generally low. All samples contain less than 50 mg/l of Mg. 97.5% of the samples have below 1 mg/l of F. All samples have below PQL of Cd and Cr. 92.4% of the samples are below PQL in Cu. 92.4% of samples are below PQL in CN. 89.3% of the samples are below PQL in Pb. 98.5% of the samples are below PQL in Hg. 99.2% of the samples are below 0.01 mg/l in Ni. 89.4% of the samples are below 0.01 mg/l in Zn. COD is also low in the samples. 87.9% of the samples are below PQL in COD. High concentrations of COD (over 20 mg/l) are presented in the samples of the pumping test for

Observation Wells. Some COD values may be affected by contamination at the pumping test.

#### a. Deep Groundwater in Chuadanga Pourashava

Some relatively high concentrations of NO<sub>3</sub> (over 0.5 mg/l) are distributed in samples from CH-1 and CH-2 sites. However, NO<sub>2</sub> is mostly the same as the other districts. Relatively high concentrations of Pb (up to 0.0072 mg/l) are found in samples of the pumping test in CH -2, though mostly high concentrations of Pb are distributed in Jhenaidah. Some high concentrations of Zn (up to 0.17 mg/l) are found in samples of the pumping test in JH-1. Some Zn values may be affected by contamination at the pumping test.

#### b. Deep Groundwater in Jhenaidah Pourashava

It is notable that some high concentrations of  $SO_4$  are found in Jhenaidah and are distributed in samples from 150 m in depth (OH-JH1-3-), although almost all  $SO_4$  results in Observation Wells (95.8%) are below PQL. Some high concentrations of Zn (up to 0.17 mg/l) are found in samples of the pumping test in JH-1. Some relatively high concentrations of Pb (up to 0.013 mg/l) are distributed in samples of the pumping test in JH-1 and JH-2.

#### c. Deep Groundwater in Jessore Pourashava

The most notable characteristics in Jessore are high concentrations of Na (up to 160 mg/l) and Cl (up to 59 mg/l). It seems to be caused by salinity. Concentrations of Mn in Jessore are relatively higher than the other 2 districts. Furthermore, the result of each Observation Hole in

Jessore shows variation by depth. The results of Mn at shallow depths show relatively higher than deep ones. Depths of 50, 100, 150 and 300 m in JS-1 site samples show 1.7, 0.93, 0.96 and 0.65 mg/l (OH-JS1-1-SIP-140 min. to OH-JS1-4-SIP-140 min) of Mn, respectively. JS-2 site also shows the same tendency as JS-1. Some high concentrations of COD (up to 180 mg/l) are found in samples of the pumping test in JS-1. As Mn in Jessore, results of COD concentrations at shallow depths show relatively higher than at deep ones.

### 2) Deep Observation Holes in Model Rural Areas

The results of the laboratory chemical analysis in deep observation holes, which were initially drilled as core boring and later converted into observation holes, are shown in Table 1.4.2 in the **Data Report**. From these data, some general characteristics are observed as mentioned below.

All samples of Core Borings show a near neutral range of pH. Its range is 6.90 to 7.88. The most notable characteristic of the samples is the reducing state. All samples have less than 180 mV of ORP. Fe and Mn concentrations are relatively high in Core Borings. 57.1% of samples contain more than 1 mg/l of Fe and 47.6% contain more than 0.1 mg/l of Mn. NO<sub>3</sub> and NO<sub>2</sub> levels are low or lower than PQL in all samples of Core Borings. On the other hand, NH<sub>4</sub> levels are high in many samples. 47.6% of the samples contain more than 1 mg/l of NH<sub>4</sub>. All SO<sub>4</sub> results show below PQL. These data (Fe, Mn, NO<sub>3</sub>, NO<sub>2</sub>, NH<sub>4</sub>, SO<sub>4</sub>) also indicate that groundwater in the study area is in a reducing state.

EC values are all less than 100 mS/m. From the results of EC, samples are likely to be almost fresh groundwater. Trace elements and heavy metals in samples are generally low. All samples contain less than 45 mg/l of Mg. All samples contain below 1 mg/l of F. All samples contain below PQL of Cd and Cr. 81.0% of the samples contain below PQL of Cu. 95.2% of the samples are below PQL of Pb. All samples are below PQL of Hg. 95.2% of the samples contain below 0.01 mg/l of Ni. 90.5% of the samples are below 0.01 mg/l of Zn. COD concentrations are also low in samples. 71.4% of the samples are below PQL of COD.

#### a. Bara Dudpatila Village, Chuadanga District

Concentrations of Mn are relatively higher (up to 0.51 mg/l) than the other 2 districts. However, the results are sometimes fluctuant. Fe levels are also relatively higher (up to 15 mg/l) than the other 2 districts. However, CB-CDBd-0 m shows extremely high concentrations of Fe. It may be due to the casing pipe of the Core Boring tube well rather than natural sources in the deep aquifer. Concentrations of NO<sub>3</sub> are lower than the other 2 districts and are all below PQL. On the other hand, concentrations of NH<sub>4</sub> are relatively higher (up to 1.8 mg/l) than the other 2 districts

#### b. Krishna Chandrapur Village, Jhenaidah District

Generally, the chemical characteristics of the Core Boring in Krishna Chandrapur show that of fresh groundwater. However, it is notable that CB-JHKc-1 m to 2 m are likely to show some influence of salinity such as high concentrations of Na, Cl, and F (up to 200 mg/l, 96 and 0.6 mg/l, respectively) and low concentrations of HCO<sub>3</sub>, Ca, and Mg. The cause is unknown for now.

#### c. Rajnagar Bankabarsi Village, Jessore District

The most notable characteristics in the village are relatively high concentrations of Na (up to 140 mg/l) and Cl (up to 45 mg/l) because of salinity. Hardness results are stable and lower (up to 43.1 mg/l) than the other 2 sites. Concentrations of Mn are relatively lower (up to 0.20 mg/l) than the other 2 districts. However, the data from the last 2 monitorings show 0.1 mg/l and over of Mn although the other 2 sites' data also show some increase in Mn. Concentrations of Fe in the village are lower than the other 2 districts. All results show less than 1 mg/l. Concentrations of HCO<sub>3</sub>, Ca and Mg are lower than the other 2 districts. The results show up to 351, 27 and 17 mg/l, respectively. Concentrations of F are stable and relatively higher (up to 0.41 mg/l) than the other 2 districts. Some high concentrations of NO<sub>2</sub> (up to 2.2 mg/l) are found in Rajnagar Bankabarsi though the other 2 districts' results are all below PQL.

#### 3) Improved Deep Wells in the Model Rural Areas

The results of the laboratory chemical analysis for Improved Deep Well samples were shown in Table 1.5.2 in the **Data Report**. From these data, some general characteristics are observed as mentioned below.

All samples of Improved Deep Well show a near neutral range of pH. Its range is 6.84-7.95. pH results in Bankabarsi are relatively higher (up to 7.95) than the other 2 districts. ORP values are relatively low and have some variation. Its range is between 27.9 to 284 mV. EC shows from 45.5 to 106 mS/m. NO<sub>3</sub>, NO<sub>2</sub> are low or lower PQL in almost all the samples of Improved Deep Wells. On the other hand, NH<sub>4</sub> are high in many samples. 63.0% of samples contain more than 1 mg/l of NH<sub>4</sub>. Fe and Mn concentrations are relatively high in Improved Deep Wells. 69.4% of the samples contain more than 1 mg/l of Fe and 63.9% contain more than 0.1 mg/l of Mn. All SO<sub>4</sub> results are below PQL. These data (Fe, Mn, NO<sub>3</sub>, NO<sub>2</sub>, NH<sub>4</sub>, SO<sub>4</sub>) also indicate that groundwater in the study area is in a reducing state.

Trace elements and heavy metals in samples are generally low. All samples contain 30 mg/l or below of Mg. All samples contain below 0.5 mg/l of F. All samples are below PQL of Cd and Cr. 88.9% of the samples are below PQL of Cu. All samples contain below 0.03 mg/l of CN. 77.8% of the samples are below PQL of Pb. All samples are below PQL of Hg. 97.2% of the samples contain below 0.01 mg/l of Ni. 88.9% of the samples contain below 0.1 mg/l of Zn.

COD concentrations are also low in the samples. 88.9% of the samples are below PQL of COD.

#### a. Bara Dudpatila Village, Chuadanga District

Concentrations of Zn are relatively higher (up to 0.18 mg/l) than the other 2 districts. However, the results are sometimes fluctuant. Na is relatively lower (up to 18 mg/l) than the other 2 districts. NO<sub>3</sub> is relatively higher (up to 3.8 mg/l) than the other 2 districts. High concentrations (up to 2.5 mg/l) of NO<sub>2</sub> are also found in Dudpatila. On the other hand, NH<sub>4</sub> concentrations are relatively lower than other 2 districts.

#### b. Krishna Chandrapur Village, Jhenaidah District

EC values are higher than the other 2 districts. The results show up to 106 mS/m. TDS and hardness are higher than the other 2 districts. The results show up to 608 and 164 mg/l respectively. IM-JHKc-1-0 m to 3 m show extremely high concentrations of Fe (from 3.2 to 9.8 mg/l). Concentrations of HCO<sub>3</sub>, Ca and Mg in Chandrapur are relatively higher than the other 2 districts. The results show up to 557, 130 and 30 mg/l respectively.

#### c. Rajnagar Bankabarsi Village, Jessore District

Results of pH in Rajnagar Bankabarsi are higher than the other 2 districts. pH in Bankabarsi is from 7.05 to 7.95. PH for the other 2 districts shows from 6.84 to 7.23. The most notable characteristics in Bankabarsi are relatively high concentrations of Na (up to 71 mg/l) and Cl (up to 13 mg/l) because of salinity. Hardness results are stable and lower (up to 58.1 mg/l) than the other 2 sites. Some high concentrations of NO<sub>2</sub> (up to 2.0 mg/l) are found in Bankabarsi though the other 2 districts' results are all below PQL. It is notable that some results of NH<sub>34</sub> are extremely high (up to 8.4 mg/l) in Bankabarsi though the other 2 districts' results are relatively low. Concentrations of Fe in Bankabarsi are relatively lower (up to 1.5 mg/l) than the other 2 districts. Concentrations of HCO<sub>3</sub>, Ca and Mg in Bankabarsi are relatively lower than the other 2 districts. The results show up to 328, 41 and 19 mg/l respectively.

#### Existing Wells in the Study Area

As mentioned in Chapter 4.4, a total of 30 existing wells among the 300 exiting wells were elected to perform the general water quality analysis. The samples were collected in the rainy season and the dry season. The results of the laboratory chemical analysis for the Existing Wells Survey were shown in Table 1.1.3 to 1.1.4 in the **Data Report**. From these data, some general characteristics are observed as mentioned below.

The constituents of the Existing Wells Survey are the existing wells (35 to 50 m in depth) and production wells (85 to 135 m in depth). All samples show a near neutral range of pH. Its range is 6.2 to 8.3. High EC value sites (EW-JARj-R-[85], EW-JKPj-R-[102]) are found in the

southern part of Jessore (up to 258 mS/m in the rainy season, up to 227 mS/m in the dry season). Other EC values are in the range between 26.6 and 112 mS/m (Figure 5.5.1). High TDS values (up to 1,650 mg/l in the rainy season, up to 1,450 mg/l in the dry season) are shown in the same sites of high EC (Figure 5.5.2). Other TDS values are in the range between 170 and 718 mg/l. High Na and Cl are also found from the same sites of high EC (up to 400 mg/l, 570 mg/l respectively, Figures 5.5.3 and 5.5.4). These data (EC, TDS, Na, Cl) show that these 2 sites are affected by salinity. One result of an existing well shows extremely high concentrations of NO3 (180 mg/l) in the southern part of Jessore. However others show low concentrations (up to 16 mg/l). Some high concentrations of NO<sub>2</sub> (up to 4.2 mg/l) are found from existing wells. As compared with production wells,  $NO_3$  and  $NO_2$  concentrations in existing wells are higher (Figures 5.5.5 and 5.5.6).  $NH_4$  concentrations are extremely high (up to 20 mg/l) for both existing wells and production wells. Fe concentrations are high in samples from existing wells (up to 11 mg/l). Though individual data fluctuates, Fe in existing wells is higher than production wells on the whole. 65.0% of all samples (existing wells and production wells) contain more than 1 mg/l of Fe (Figure 5.5.7). Mn concentrations are also high in all existing wells and production wells (up to 1.5 mg/l). 90.0% of all samples (existing wells and production wells) are more than 0.1 mg/l of Mn. The NH<sub>4</sub> concentrations are high in the dry season (Figure 5.5.8). These data (NO<sub>3</sub>, NO<sub>2</sub>, NH<sub>4</sub>, Fe, Mn) indicate that the groundwater of existing wells and production wells are in a reducing state. However, some high concentrations of  $SO_4$  are also found in existing wells and production wells (up to 46 mg/l, 30 mg/l respectively).

Trace elements and heavy metals in samples are generally low but some results show high concentrations of them. It can be said that the concentrations in production wells are lower than existing wells on the whole. Regarding Cd, 23.9% of the samples for existing wells are above PQL though all samples for production wells show below PQL. In the case of Cr, 50.0% of the samples from existing wells are above PQL though all samples for production wells are above PQL. Regarding Pb, 19.6% of the samples from existing wells are above PQL though all samples for production wells show below PQL. Regarding Pb, 19.6% of the samples from existing wells are above PQL though all samples for production wells show below PQL. Concerning Ni, 60.9% of the samples for existing wells are above PQL though only 7.1% of the samples for production wells show below PQL (Figure 5.5.9). It is notable that Zn concentrations in production wells are higher than existing wells on the whole (Figure 5.5.10). The difference of aquifers used is one possibility. Another possibility is contamination from the facility such as the pipeline.

High COD concentrations are found in samples from existing wells (up to 160 mg/l) though all samples from production wells show below PQL

#### 5) Existing Wells in the Model Rural Areas

The results of the laboratory chemical analysis for the groundwater of existing wells in the Model Rural Villages were shown in Table 1.2.1 to 1.2.7 in the **Data Report**. From each village,

five (5) groundwater samples were collected and analyzed. From these data, some general characteristics are observed as mentioned below.

All samples show a near neutral range of pH. Its range is 6.83 to 7.82. High EC values are shown in Rajnagar Bankabarsi village (up to 297 mS/m). The other 2 villages show lower EC from 38.6 to 160 mS/m. High TDS values are shown in Rajnagar Bankabarsi village (up to 1,700 mg/l). The other 2 villages show lower TDS from 372 to 618 mg/l. High concentrations of NO<sub>2</sub> are found from Bara Dudpatila village (up to 4.0 mg/l) though the other 2 villages show at most 0.3 mg/l of NO<sub>2</sub>. NH<sub>4</sub> are high in many samples in all 3 villages. 73.3% of the samples contain more than 1 mg/l of NH<sub>4</sub>. Fe concentrations are high in 3 villages. 60.0% of the samples contain more than 1 mg/l of Fe. Mn concentrations are high in Bara Dudpatila and Krishna Chandrapur Village. 70.0% of the samples of 2 villages contain more than 0.1 mg/l of Mn. In Rajnagar Bankabarsi village, all results of Mn show below PQL. Two results of SO<sub>4</sub> (BS-CDBd-EW-060, BS-JSRb-EW-048) show high concentrations although others are below PQL.

Trace elements and heavy metals in the samples are generally low but some results show high concentrations of them. Samples in Rajnagar Bankabarsi village show high Mg concentrations (from 38 to 47 mg/l) though the other 2 villages show low concentrations of that. All samples in 3 villages have below 0.6 mg/l of F. All samples are below PQL of Cd. 93.3% of the samples are below PQL of Cr. 80.0% of the samples are below PQL of Cu. All samples are below 0.02 mg/l of CN. Two results exceed 0.01 mg/l of Pb. All samples are below PQL of Hg. 93.3% of the samples are below 0.025 mg/l of Ni. 93.3% of the samples are below PQL of Zn. Some high concentrations (up to 44 mg/l) of COD are found in Krishna Chandrapur and Rajnagar Bankabarsi villages.

#### 6) Existing Pond Water in the Model Rural Areas

Although pond water is not groundwater, the results of the general water quality analysis carried out for pond water in the model rural areas are mentioned here for the purpose of comparison with groundwater quality. The results of the laboratory chemical analysis for pond water of Model Rural Villages were shown in Table 1.2.8 in the **Data Report**. From these data, some general characteristics are observed as mentioned below.

It is notable that the results of pond water are distinctive from groundwater. This difference seems to have occurred due to oxidation through contact with air. Contamination caused by human activity is another possible reason of this. High Concentrations of NO<sub>3</sub> and NO<sub>2</sub> (up to 42 mg/l, 6.6 mg/l respectively) are found in Chandrapur, and Bankabarsi villages. In Dudpatila, though only 2 samples, NO<sub>3</sub> and NO<sub>2</sub> are below PQL (Figures 5.5.11 and 5.5.12). On the other hand, concentrations of NH<sub>4</sub> are lower than in shallow groundwater (Figure 5.5.13). 85.2% of the pond water contains below 1.0 mg/l of NH<sub>4</sub>. Concentrations of SO<sub>4</sub> (up to 8.0 mg/l), K (up

to 62 mg/l) and F (up to 3.6 mg/l) are higher than in shallow groundwater (Figures 5.5.14, 5.5.15, and 5.5.16). Na (up to 46 mg/l) is slightly higher than in Krishna Chandrapur and Bara Dudpatila villages, but lower than in Rajnagar Bankabarsi village.

Trace elements and heavy metals in samples are generally low but some results show high concentrations of them. 88.9% of the samples show below 15 mg/l of Mg (Figure 5.5.17). Fe concentrations are below PQL in the pond water (Figure 5.5.18). Mn concentrations near the Bangladeshi standard value were detected in samples from the pond water in Krishna Chandrapur village, whereas the shallow groundwater in Bara Dudpatila village and some wells in Krishna Chandrapur village is highly contaminated by Mn (Figure 5.5.19). Total hardness is higher in the shallow groundwater (Figure 5.5.20). Ca concentrations in pond water are less than the Bangladeshi standard value but all the samples of shallow groundwater exceed the standard (Figure 5.5.21). All samples are below PQL of Cd and Cr. 88.9% of the samples are below PQL of Cu (up to 0.0070 mg/l). All samples contain below 0.06 mg/l of CN. All samples are below PQL of Pb, Hg and Ni. 85.2% of the samples are below PQL of Zn.

COD shows high concentrations (up to 78 mg/l). 37.0% of the samples exceed 20 mg/l of COD (Figure 5.5.22). This high concentration may be due to contamination by human activity.

# 5.5.4 Monitoring Results of General Groundwater Quality

- 1) Trilinear Diagram Analysis
- a. Pourashava Observation Wells/Holes

# a.1. CH-1 Site [Poshu Hat, Chuadanga Pourashava]

Figure 5.5.23 shows the trilinear diagram of observation well/holes at CH-1 site. The general groundwater quality was analyzed for the samples before the pumping test and during the pumping test, and the samples from monthly monitoring. For the observation well, the sample during the pumping test was collected 48 hours after the pumping started. For the observation holes, the samples were collected twice: 30 minutes and 140 minutes after the pumping started. From the diamond-shaped diagram, all the samples are plotted on the left-hand side, showing (Ca+Mg) - HCO<sub>3</sub> type groundwater. In cations, Ca is the major component, occupying more than 50% of the total meq/l. In anions, more than 90% of the total meq/l are occupied by HCO<sub>3</sub>. In the Ch-1 well, the sample from before the pumping test shows a slightly different chemical composition in cations, but the samples during the pumping test and monitoring are plotted in almost the same domain in the cation diagram. The samples from observation holes during the pumping test show that the percentage of Ca in cations increased and that of (Na+K) decreased with time.

#### a.2. CH-2 Site [Girls College, Chuadanga Pourashava]

Figure 5.5.24 shows the trilinear diagram of observation well/holes at CH-2 site. The general

groundwater quality was analyzed for the samples before the pumping test and during the pumping test, and the samples from monthly monitoring. For the observation well, the sample during the pumping test was collected 48 hours after the pumping started. For the observation holes, the samples were collected twice: 30 minutes and 140 minutes after the pumping started. From the diamond-shaped diagram, all the samples are plotted on the left-hand side, showing (Ca+Mg) - HCO<sub>3</sub> type groundwater. In cations, Ca is the major component in most samples, occupying more than 50% of the total meq/l. However, the percentages of Mg to the total cations increased in the samples collected in June and August 2001. In anions, more than 90% of the total meq/l are occupied by HCO<sub>3</sub>.

In the Ch-2 well, the percentages of (Na+K) in cations are relatively stable, ranging from 8 to 20% of the total meq/l. However, the percentages of Mg and Ca greatly vary during the monitoring period. Higher Mg and lower Ca was observed in June and August. The samples of observation holes during the pumping test show that the percentage of Ca in cations increased and that of (Na+K) decreased with time.

#### a.3 JH-1 Site [Arabpur, Jhenaidah Pourashava]

Figure 5.5.25 shows the trilinear diagram of observation well/holes at JH-1 site. The general groundwater quality was analyzed for the samples before the pumping test and during the pumping test, and the samples from monthly monitoring. For the observation well, the sample during the pumping test was collected 48 hours after the pumping started. For the observation holes, the samples were collected twice: 30 minutes and 140 minutes after the pumping started.

From the diamond-shaped diagram, all the samples are plotted on the left-hand side, showing (Ca+Mg) -  $HCO_3$  type groundwater. In cations, Ca is the major component in most samples, occupying more than 50 to 75 % of the total meq/l. However, the percentages of Ca decreased below 40% in July and September 2001. In anions, more than 90% of the total meq/l are occupied by  $HCO_3$ .

In the Jh-1 well, the percentages of Mg in cations are relatively stable, ranging from 30 to 45% of the total meq/l. However, the percentages of Ca and (Na+K) vary relatively greatly during the monitoring period. Higher (Na+K) and lower Ca was observed in July and September. The samples from observation holes during the pumping test show that the percentage of Ca in cations increased with time particularly in Jh-1-1 and Jh-1-2 holes.

#### a.4 JH-2 Site [Hamdah, Jhenaidah Pourashava]

Figure 5.5.26 shows the trilinear diagram of observation well/holes at JH-2 site. The general groundwater quality was analyzed for the samples before the pumping test and during the pumping test, and the samples from monthly monitoring. For the observation well, the sample during the pumping test was collected 48 hours after the pumping started. For the observation

holes, the samples were collected twice: 30 minutes and 140 minutes after the pumping started. From the diamond-shaped diagram, all the samples are plotted on the left-hand side, showing (Ca+Mg) - HCO<sub>3</sub> type groundwater. In cations, Ca is the major in the observation holes, however, Mg became the major cation in Jh-2 well in the samples from August 2001. In anions, more than 90% of the total meq/l are occupied by HCO<sub>3</sub>.

In the Jh-2 well, the percentages of Ca in cations were more than 50% of the total meq/l until the pumping test time, but in the monitoring period the percentage decreased to 30 to 40%. The samples of observation holes during the pumping test show that the percentage of Ca in cations increased with time, particularly in Jh-2-4 and Jh-2-2 holes.

#### a.5. JS-1 Site [Ghop, Jessore Pourashava]

Figure 5.5.27 shows the trilinear diagram of observation well/holes at JS-1 site. The general groundwater quality was analyzed for the samples before the pumping test and during the pumping test, and the samples from monthly monitoring. For the observation well, the sample during the pumping test was collected 48 hours after the pumping started. For the observation holes, the samples were collected twice: 30 minutes and 140 minutes after the pumping started. From the diamond-shaped diagram, most of the samples are plotted on the left-hand side, showing (Ca+Mg) - HCO<sub>3</sub> type groundwater. However, the plotted domain is located slightly lower than that of Chuadanga and Jhenaidah samples. The sample of Js-1-4 before pumping test shows (Na+K) - HCO<sub>3</sub> type. In cations, Ca is the major in the observation holes, ranging from 30 to 60 % of the total meq/l. The percentage of Na is relatively higher than that of Chuadanga and Jhenaidah, ranging from 15 to 45% of the total meq/l. In anions, more than 84% of total meq/l are occupied by HCO<sub>3</sub>.

In the Jh-2 well, the percentage of Ca in cations was more than 48% until the pumping test time, but it decreased below 40% in August and September. In October, the Ca percentage again showed more than 45% of the total meq/l in cations. The samples of observation holes during the pumping test show that the percentage of Ca in cations increased with time particularly in Js-1-4 hole.

#### a.6. JS-2 Site [Kharki, Jessore Pourashava]

Figure 5.5.28 shows the trilinear diagram of observation well/holes at JS-2 site. The general groundwater quality was analyzed for the samples before the pumping test and during the pumping test, and the samples from monthly monitoring. For the observation well, the sample during the pumping test was collected 48 hours after the pumping started. For the observation holes, the samples were collected twice: 30 minutes and 140 minutes after the pumping started. From the diamond-shaped diagram, most of the samples are plotted on the left-hand side, showing (Ca+Mg) - HCO<sub>3</sub> type groundwater. However, the plotted domain is located slightly

lower than that of Chuadanga and Jhenaidah samples. The sample of Js-2-4 before the pumping test shows (Na+K) - HCO<sub>3</sub> type. In cations, it is characterized that the Mg percentage shows a relatively narrow range of variation, ranging from 20 to 30% for most samples. On the other hand, the percentages of (Na+K) and Ca range from 10 to 65% and 19 to 60%, respectively. In anions, more than 80% of the total meq/l are occupied by HCO<sub>3</sub>. However, compared with JS-1 site, the Cl percentage is slightly higher in JS-2 site.

In the Jh-2 well, the percentage of Mg in cations slightly increased in September 2001. The samples of deep groundwater taken from Js-2 well and Js-2-4 hole show a slightly different chemical composition from shallow groundwater, having higher (Na+K) and lower Ca. The samples of observation holes during the pumping test show that the percentage of Ca in cations increased with time, particularly in Js-2-4 hole.

#### b. Deep Observation Holes in the Model Rural Areas

Figure 5.5.29 shows the trilinear diagram of deep groundwater taken from the observation holes in the model rural areas. The general groundwater quality was analyzed in the monthly monitoring program.

From the diamond-shaped diagram, it is evaluated that the deep groundwater in Bara Dudpatila village shows a (Ca+Mg) -  $HCO_3$  type of chemical composition. On the other hand, the deep groundwater in Rajnagar Bankabarsi village shows to be (Na+K) -  $HCO_3$  type. The deep groundwater in Krishna Chandrapur generally shows to be (Ca+Mg) -  $HCO_3$  type but showed to be (Na+K) -  $HCO_3$  type in June and July 2001.

In cations, (Na+K) is always less than 20% in Bara Dudpatila village; But the Mg percentage jumped up more than 50% in August. The cations of the deep groundwater in Krishna Chandrapur are characterized by a higher percentage of Ca. The groundwater in Rajnagar Bankabarsi is rich in (Na+K). In anions, more than 80% of the total meq/l are occupied by HCO<sub>3</sub>. However, the samples from Rajnagar Bankabarsi and one sample from Krishna Chandrapur have Cl percentages of 10 to 20% and 27%, respectively.

# c. Improved Deep Wells in the Model Rural Areas

# c.1. Bara Dudpatila Village, Chuadanga District

Figure 5.5.30 shows the trilinear diagram of groundwater taken from the improved deep wells in Bara Dudpatila village. The general groundwater quality was analyzed in the monthly monitoring program.

From the diamond-shaped diagram, the deep groundwater in Bara Dudpatila village shows a (Ca+Mg) - HCO<sub>3</sub> type of chemical composition.

In cations, Ca is dominant, occupying 60 to 70%. The percentages of (Na+K) and Mg, are 5 to 15% and 20 to 30%, respectively. In anions, more than 97% of the total meq/l are occupied by

# HCO<sub>3</sub>.

During the monitoring, the changes in cation composition can be traced as shown in the figure. From the figure, the change of Type-C well is different from the other wells, indicating that the mechanical sealing method employed in the well may be not functioning properly.

# c.2. Krishna Chandrapur Village, Jhenaidah District

Figure 5.5.31 shows the trilinear diagram of groundwater taken from the improved deep wells in Krishna Chandrapur village. The general groundwater quality was analyzed in the monthly monitoring program.

From the diamond-shaped diagram, the deep groundwater shows a (Ca+Mg) -  $HCO_3$  type of chemical composition.

In cations, Ca is dominant, occupying 60 to 70%. The percentages of (Na+K) and Mg are 5 to 15% and 18 to 27 %, respectively. In anions, more than 97% of the total meq/l are occupied by  $HCO_3$ .

During the monitoring, the changes in cation composition can be traced as shown in the figure. From the figure, the composition of Type-A well in March 2001 is different from the other wells. In addition, the composition of Type-B well in June is different from the others. Although the plots of the three (3) wells showed a similar pattern from February to March, the difference from the 2nd month of the monitoring suggest that the effectiveness of sealing or other reasons such as the difference of water use conditions may have caused the slight difference in water quality.

# c.3. Rajnagar Bankabarsi Village, Jessore District

Figure 5.5.32 shows the trilinear diagram of groundwater taken from the improved deep wells in Rajnagar Bankabarsi village. The general groundwater quality was analyzed in the monthly monitoring program.

From the diamond-shaped diagram, the deep groundwater shows a type between (Ca+Mg) - HCO<sub>3</sub> and (Na+K) - HCO<sub>3</sub> in chemical composition.

In cations, (Na+K) is slightly high, occupying 40 to 50%. The percentages of Ca and Mg, are 27 to 37% and 20 to 30 %, respectively. In anions, more than 92% of the total meq/l are occupied by HCO<sub>3</sub>.

During the monitoring, the changes in cation composition can be traced as shown in the figure. From the figure, the changes in cation composition of the three (3) wells show similar patterns, indicating that the effectiveness of the sealing methods have no significant difference.

### 2) Changes in Groundwater Level and Groundwater Quality

#### a. Pourashava Observation Wells/Holes

#### a.1. CH-1 Site [Poshu Hat, Chuadanga Pourashava]

Figure 5.5.33 shows the changes in groundwater level with stiff diagrams and groundwater quality (As, Fe, and  $HCO_3$ ) in Ch-1 observation well.

The stiff diagrams show that there is no significant change in chemical composition; however, the size of the diagrams is slightly smaller when the water level declined. In the high water period from September to October, the concentration of Ca and  $HCO_3$  increased.

The graphs of As concentration and  $HCO_3$  concentration show similar patterns; however, it should be noted that the dissolved iron was high when the arsenic level was low.

Figure 5.5.34 shows the changes in groundwater level with stiff diagrams and groundwater quality (NH<sub>4</sub>, Fe, and Mn) in Ch-1 observation well.

The  $NH_4$  concentration was above 1.0 mg/l in February 2001, but it gradually declined from March to June. The concentration slightly increased from September to October. The Mn concentration was lower than 0.1 mg/l from February to April, but it showed more than 0.3 mg/l from June. In October it went up to above 0.8 mg/l.

#### a.2. CH-2 Site [Girls College, Chuadanga Pourashava]

Figure 5.5.35 shows the changes in groundwater level with stiff diagrams and groundwater quality (As, Fe, and HCO<sub>3</sub>) in Ch-2 observation well.

The stiff diagrams show that the sizes of the diagrams are smaller from June to September particularly when the groundwater level slightly declined on the way to reaching the highest water level in October. The samples from June and August show smaller concentration of Ca. In October, the concentration of Ca and  $HCO_3$  increased.

Although the As concentration in the well is very small, there is an inversely proportional relationship between As and Fe. The  $HCO_3$  curve resembles the curve of Fe.

Figure 5.5.36 shows the changes in groundwater level with stiff diagrams and groundwater quality (NH<sub>4</sub>, Fe, and Mn) in Ch-2 observation well.

The  $NH_4$  concentration was below 0.5 mg/l until September 2001, but it rose up to more than 1.0 mg/l in October. The Mn concentration was higher than 0.3 mg/l in March, but it showed below 0.1 mg/l from April to October.

### a.3. JH-1 Site [Arabpur, Jhenaidah Pourashava]

Figure 5.5.37 shows the changes in groundwater level with stiff diagrams and groundwater quality (As, Fe, and HCO<sub>3</sub>) in Jh-1 observation well.

The stiff diagrams show that the sizes of the diagrams are smaller from July to September when the water level rose and started to decline. The decrease in Ca is particularly observed. In October, the concentration of Ca and HCO<sub>3</sub> increased.

Although the As concentration became smaller than 0.01 mg/l from June, the Fe concentration greatly fluctuated between 2 and 10 mg/l irregularly. The HCO<sub>3</sub> concentration decreased from 490 mg/l in April to 360 mg/l in July. The changing pattern of HCO<sub>3</sub> is similar to that of As concentrations.

Figure 5.5.38 shows the changes in groundwater level with stiff diagrams and groundwater quality (NH<sub>4</sub>, Fe, and Mn) in Jh-1 observation well.

The  $NH_4$  concentration was smaller than 0.2 mg/l and had a tendency to decrease over time. The Mn concentration was higher than 0.1 mg/l from April to August, but it declined below 0.05 mg/l in September and October.

#### a.4. JH-2 Site [Hamdah, Jhenaidah Pourashava]

Figure 5.5.39 shows the changes in groundwater level with stiff diagrams and groundwater quality (As, Fe, and HCO<sub>3</sub>) in Jh-2 observation well.

The stiff diagrams show that the sizes of the diagrams are smaller from July to September when the water level rose and started to decline. The decrease in Ca is particularly observed. In Jh-2 well, the size is still smaller in October.

Although the As concentration became smaller than 0.01 mg/l from July, the changing patterns of As, Fe and HCO<sub>3</sub> show similar patterns. The Fe concentration was above 2.0 mg/l in June, but it declined below 0.5 mg/l in July. It again went up to 1.8 mg/l, and then declined below 0.5 mg/l. The HCO<sub>3</sub> concentration was as high as 460 mg/l in June, but it decreased below 300 mg/l in July and August.

Figure 5.5.40 shows the changes in groundwater level with stiff diagrams and groundwater quality (NH<sub>4</sub>, Fe, and Mn) in Jh-2 observation well.

The  $NH_4$  concentration was smaller than 0.2 mg/l and decreased over time. The Mn concentration was always below 0.05 mg/l.

#### a.5. JS-1 Site [Ghop, Jessore Pourashava]

Figure 5.5.41 shows the changes in groundwater level with stiff diagrams and groundwater quality (As, Fe, and HCO<sub>3</sub>) in Js-1 observation well.

The stiff diagrams show that the shapes of the diagrams are similar over time.

Although the As concentration was always smaller than 0.004 mg/l, the level decreased from September to November. However, the Fe concentration was still high above 0.8 mg/l in September. The  $HCO_3$  concentration decreased in August at 430 mg/l, and then it went up to nearly 500 mg/l in October.

Figure 5.5.42 shows the changes in groundwater level with stiff diagrams and groundwater quality (NH<sub>4</sub>, Fe, and Mn) in Js-1 observation well.

The  $NH_4$  concentration was smaller than 0.2 mg/l from August to October. The Mn concentration was increasing from 0.13 mg/l in July to 1.2 mg/l in October.

#### a.6. JS-2 Site [Kharki, Jessore Pourashava]

Figure 5.5.43 shows the changes in groundwater level with stiff diagrams and groundwater quality (As, Fe, and HCO<sub>3</sub>) in Js-2 observation well.

The stiff diagrams show that the shapes of the diagrams are similar over time.

Although the As concentration was always smaller than 0.002 mg/l, the level decreased from September to October. However, the Fe concentration increased from 0.86 mg/l in August to 10.0 mg/l in September. The HCO<sub>3</sub> concentration also increased from 429 mg/l in August to 507 mg/l in September.

Figure 5.5.44 shows the changes in groundwater level with stiff diagrams and groundwater quality ( $NH_4$ , Fe, and Mn) in Js-2 observation well.

The  $NH_4$  concentration declined from 0.38 to below 0.1 mg/l from August to October. The Mn concentration was high in September at 2.3 mg/l.

# 2) Deep Observation Holes in the Model Rural Areas

# a. Bara Dudpatila Village, Chuadanga District

Figure 5.5.45 shows the changes in groundwater level with stiff diagrams and groundwater quality (As, NH<sub>4</sub>, Fe, and Mn) in Ch-CB-2 observation hole.

The stiff diagrams show that the size of the diagrams is small when the groundwater level was lowest in the dry season. But the size became larger from June to August when water level went up.

The As concentration was always smaller than 0.01 mg/l and there is no significant correlation with the groundwater level change. The NH<sub>4</sub> concentration declined from 1.76 mg/l in January to 0.72 mg/l in April. But a slight increase in NH<sub>4</sub> concentrations was observed from June to August. The Fe concentration was very high at 15 mg/l in April. But the value declined to 1.0 mg/l in April and then ranged from 2.5 to 4 mg/l. The Mn concentration once decreased below 0.1 mg/l in March and April, but increased up to 0.5 mg/l in July.

# b. Krishna Chandrapur Village, Jhenaidah District

Figure 5.5.46 shows the changes in groundwater level with stiff diagrams and groundwater quality (As, NH<sub>4</sub>, Fe, and Mn) in Jh-CB-2 observation hole.

The stiff diagrams show that the shapes of the diagrams changed in June and July, showing (Na+K) dominated in cations and Cl concentrations increased in anions. However, from August to November the shape returned to Ca-HCO<sub>3</sub> type.

The As concentration exceeded the Bangladeshi standard value of 0.05 mg/l from August and

then reached 0.1 mg/l in November. The  $NH_4$  concentration also went up from 0.12 mg/l in July to 1.57 mg/l in August. From September the value ranged from 1.2 to 1.5 mg/l. The Fe concentration jumped up to above 3.0 mg/l in July, and then ranged from 2.0 to 3.0 mg/l. The Mn concentration gradually increased from May to October. It was below 0.1 mg/l in May and June, but the value reached 0.24 mg/l in October.

#### c. Rajnagar Bankabarsi Village, Jessore District

Figure 5.5.47 shows the changes in groundwater level with stiff diagrams and groundwater quality (As, NH<sub>4</sub>, Fe, and Mn) in Js-CB-2 observation hole.

The stiff diagrams show that the (Na+K) -  $HCO_3$  type all the time, and the size of the diagrams are also almost stable.

The As concentration was very low in the observation hole. The  $NH_4$  concentration was below 0.2 mg/l from May to August, but it rose from September and exceeded 1.0 mg/l in October. The Fe concentration was below 0.3 mg/l from May to August. But the value exceeded 0.3 mg/l in September and October. The Mn concentration was low from May to September, but it reached 0.1 mg/l in October.

#### d. Improved Deep Wells in the Model Rural Areas

#### d.1. Bara Dudpatila Village, Chuadanga District

Figure 5.5.48 shows the changes in arsenic concentrations with stiff diagrams and groundwater quality (NH<sub>4</sub>, Fe, and Mn) in the improved deep wells in Bara Dudpatila village.

The arsenic concentrations in all three (3) wells were above the Bangladeshi standard value of 0.05 mg/l. They rose from July to September and declined from October to December.

The general groundwater quality was analyzed for the samples taken from March to June 2001. The stiff diagrams show that the groundwater is Ca -  $HCO_3$  type. The shape and the size of the diagrams are almost the same and did not change during the period. In the period,  $NH_4$  concentrations varied from 0 to 2.0 mg/l. In June, all the improved wells had  $NH_4$  concentrations above 1.5 mg/l. The Fe concentrations are generally high in the wells. It was more than 5.0 mg/l in Type-C well. From April to June, the concentrations ranged from 2.0 to 3.0 mg/l. The Mn concentrations tend to increase from March to June. The values ranged from 0.1 to 0.3 mg/l.

#### d.2. Krishna Chandrapur Village, Jhenaidah District

Figure 5.5.49 shows the changes in arsenic concentrations with stiff diagrams and groundwater quality (NH<sub>4</sub>, Fe, and Mn) in the improved deep wells in Krishna Chandrapur village.

The arsenic concentrations in all three (3) wells exceeded the Bangladeshi standard value of 0.05 mg/l from July to September.

The general groundwater quality was analyzed for the samples taken from February to June 2001. The stiff diagrams show that the groundwater is Ca - HCO<sub>3</sub> type. The shape and the size of the diagrams are almost the same and did not change during the period. In the period, NH<sub>4</sub> concentrations increased greatly particularly in Type-A and Type-C wells. The rise in concentrations started March in Type-A well. In Type-C well, the concentration significantly increased from May to June. In June, the NH<sub>4</sub> concentrations of Type-A and Type-C wells show 4.0 to 5.0 mg/l, whereas the value of Type-B well is 1.5 mg/l. The Fe concentration of Type-A well is also the highest among the three (3) wells. The Type-A well had more than 6.0 mg/l from March to June. The concentration of Type-C slightly increased to 4.0 mg/l in June. The concentration in Type-B well is almost stable, showing about 2.0 mg/l. The Mn concentration is also high in Type-A well, showing 0.3 to 0.5 mg/l in May to June. The concentrations in Type-B and Type-C wells are below 0.2 mg/l, but they tended to increase from April to June.

#### d.3. Rajnagar Bankabarsi Village, Jessore District

Figure 5.5.50 shows the changes in arsenic concentrations with stiff diagrams and groundwater quality (NH<sub>4</sub>, Fe, and Mn) in the improved deep wells in Rajnagar Bankabarsi village.

The arsenic concentrations in all the three (3) wells were much lower than the WHO guideline value of 0.01 mg/l.

The general groundwater quality was analyzed for the samples taken from November 2000 to March 2001. The stiff diagrams show that the groundwater is (Na+K) - HCO<sub>3</sub> type. The shape and the size of the diagrams slightly changed in January 2001 but stayed almost the same for the rest of the period.

In the period,  $NH_4$  concentrations were very high in January 2001, ranging from 6 to 9 mg/l. But the values declined to below 0.5 mg/l in February and showed 1.10, 1.18, and 0.18 mg/l in Type-A well, Type-B well, and Type-C well, respectively. The Fe concentrations were also high in January 2001, exceeding 1.2 mg/l. But they declined in February and slightly increased in March. The Mn concentrations were also high in January 2001, exceeding 0.15 mg/l. But from February to March, the values were below 0.1 mg/l.

# 5.5.5 Relations between Arsenic and General Quality Parameters

Based on the arsenic concentrations and other water quality parameters analyzed for the newly constructed observation wells/holes by the monthly monitoring program, the relationship of arsenic concentrations and water quality parameters were examined.

# 1) Relation of $HCO_3$ to As, Fe, Eh and pH

Figure 5.5.51 shows the relationship between bicarbonate and As, Fe, Eh and pH in the observation well/holes. In the study area, the concentrations of  $HCO_3$  are generally high,

ranging from 200 to 550 mg/l. The groundwater samples having As concentrations more than 0.05 mg/l show HCO<sub>3</sub> concentrations ranging from 280 to 510 mg/l. The samples contaminated by arsenic have 1 to 6 mg/l of dissolved iron. There is a tendency that HCO<sub>3</sub> concentrations increase with decreasing Eh values. A clearer correlation between HCO<sub>3</sub> values and pH values are found in the figure, showing HCO<sub>3</sub> values increase with decreasing pH. The samples contaminated by arsenic are plotted on the lower part of graph d) in the figure.

# 2) Relation of Fe to As, NH<sub>4</sub>, Fe, Eh and pH

Figure 5.5.52 shows the relationship between dissolved iron and As, NH<sub>4</sub>, Eh and pH in the observation well/holes. In the study area, the concentrations of Fe are generally high, ranging from 0 to 17 mg/l. The groundwater samples having As concentrations of more than 0.05 mg/l show Fe concentrations ranging from 1 to 6 mg/l. From the NH<sub>4</sub> - Fe plots shown in graph b), the samples contaminated by As have higher values of both Fe and NH<sub>4</sub>. Graph c) shows that the Fe concentration increases with decreasing Eh. Most samples having Fe concentrations from 5 to 15 mg/l show Eh values from -20 to +100 mV. However, the contaminated samples by As are limited in the upper-left part of the graph. The relation between Fe and pH shows an inversely proportional correlation. As shown in graph d), the samples having more than 5 mg/l in Fe show 6.8 to 7.5 in pH.

# 3) Relation of Fe to As, NH<sub>4</sub>, Fe, Eh and pH

Figure 5.5.53 shows the relationship between calcium and As, Mg, Eh and pH in the observation well/holes. In the study area, the concentrations of Ca range from 0 to 130 mg/l. The groundwater samples having As concentrations of more than 0.05 mg/l show Ca concentrations ranging from 60 to 150 mg/l. From the Mg - Ca plots shown in graph b), the samples contaminated by As have higher values of Ca and relatively lower values of Mg, indicating that the arsenic does not originate from mica weathering even though the core samples in the study area showed the grains are rich in mica. Graph c) shows that the samples contaminated by As are plotted in the upper left domain of the graph, showing the samples having relatively higher values of Eh and Ca. The pH-Ca plots clearly show that Ca concentrations increase with decreasing pH. The area of samples contaminated by arsenic is concentrated in the lower part of graph d).

# 4) Relation of $NH_4$ to As, $HCO_3$ , Eh and pH

Figure 5.5.54 shows the relationship between ammonium and As,  $HCO_3$ , Eh and pH in the observation well/holes. In the study area, the concentrations of  $NH_4$  range from 0 to 8.1 mg/l. The groundwater samples having As concentrations more than 0.05 mg/l show  $NH_4$  concentrations ranging from 0 to 4.5 mg/l. From the  $HCO_3$  -  $NH_4$  plots shown in graph b), two

(2) groups of samples having higher value of As are identified. One has  $NH_4$  values from 1 to 2 mg/l with HCO<sub>3</sub> values around 500 mg/l. The other has  $NH_4$  values from 0 to 5 mg/l with HCO<sub>3</sub> values of 300 to 350 mg/l. As shown in graph c), there is no significant correlation between Eh and  $NH_4$ . However, the samples containing more than 2 mg/l of  $NH_4$  are limited to having Eh values from 80 to 200 mV. The samples contaminated by arsenic are plotted in the upper left domain of the graph. The pH-NH<sub>4</sub> plot shows that there are two (2) groups of samples having values of  $NH_4$  higher than 2 mg/l. One group has pH values from 6.8 to 7.2, and the other has pH values from 7.6 to 7.8. The samples contaminated by arsenic are concentrated in the former group.

# 5) Relation of COD to As, NH<sub>4</sub>, Eh and pH

Figure 5.5.55 shows the relationship between COD and As, NH<sub>4</sub>, Eh and pH in the observation well/holes. In the study area, the concentrations of COD range from 0 to 170 mg/l. The groundwater samples having As concentrations of more than 0.05 mg/l show COD concentrations ranging from 0 to 70 mg/l. From the NH<sub>4</sub> - COD plots shown in graph b), highly contaminated samples with more than 0.1 mg/l of As have COD values from 40 to 70 mg/l and NH<sub>4</sub> values from 1 to 4.5 mg/l. Graph c) shows that the samples having more than 50 mg/l in COD have Eh values from 0 to 70 mV, indicating that very high values of COD occur only under particular groundwater conditions. The relation between COD and arsenic concentrations suggest that the occurrence of arsenic may be related to the existence of organic materials.

# 5.5.6 Comparison with Bangladesh Standard and WHO Guideline

# 1) Observation Wells/Holes in Pourashava

The results of the laboratory chemical analysis were compared with the Standard for Drinking Water in Bangladesh and the WHO Guideline Values for Drinking Water. The following descriptions show the results of observation wells/holes that have more than the Standard or the Guideline values.

#### a. Nitrite (NO<sub>2</sub>)

Nitrite is an intermediate oxidation state of nitrogen, both in the oxidation of ammonia to nitrate and in the reduction of nitrate. Such oxidation and reduction occurr in groundwater. The toxicologic significance of nitrosation reactions in vivo and in the natural environment is the subject of much current concern and research.

The Standard in Bangladesh and the WHO Guideline for nitrite are 1 and 3 mg/l, respectively. High NO<sub>2</sub> concentrations exceeding the Standard in Bangladesh (=1 mg/l) are found in samples from 6 observation holes in Jessore (OH-JS2-3-SIP-140 min), Jhenaidah (OH-JH1-2-SIP-140 min, OH-JH1-3-BP) and Chuadanga (OH-CH1-1-BP, OH-CH2-1-BP, OH-CH2-2-SIP-30 to 140 min). NO<sub>2</sub> concentrations exceeding the WHO Guideline (=3 mg/l) are not found in any of the results.

From these results, it can be said that  $NO_2$  contamination is mainly distributed in shallow aquifers.

# b. Ammonia (NH<sub>4</sub>)

Ammonia is present naturally in surface and wastewaters. Its concentration is generally low in groundwater because it adsorbs in soil particles and is not leached readily from soils. Therefore if high concentrations of NH<sub>4</sub> occur, it can be said that it is produced by some human activities. Ammonia is not of immediate health relevance, and no health-based guideline value by WHO has been proposed. Instead, a level of 1.5 mg/l likely to give rise to consumer complaints has been proposed. The Standard in Bangladesh is 0.5 mg/l. High NH<sub>4</sub> concentrations exceeding the Standard in Bangladesh (=0.5 mg/l) are found in samples from 9 out of 30 observation wells/holes in Jessore (OH-JS2-3-BP), Jhenaidah (OH-JH1-2-BP to SIP-30 min, OH-JH1-3-SIP-30 to 140 min) and Chuadanga (OW-CH1-1-BP to 48h, OH-CH1-1-SIP-30 to 140 min, OH-CH1-2-SIP-140 min, OH-CH1-3-BP to SIP-140 min, OW-CH2-6 m, OH-CH2-1-BP to SIP-140 min). High NH<sub>4</sub> concentrations exceeding the WHO Guideline (=1.5 mg/l) are found in samples from 2 observation holes out of 30 observation wells/holes in Jessore (OH-JS2-3-BP) and Chuadanga (OH-CH2-1-SIP-30 to 140 min).

From these results, it can be said that  $NH_4$  contamination is mainly distributed in shallow aquifers at Chuadanga and Jhenaidah sites.

# c. Dissolved Manganese (Mn)

Manganese is associated with iron minerals, and occurs in ocean, fresh waters, and soils. The aqueous chemistry of manganese is similar to that of iron. The common aqueous species are the reduced  $Mn^{2+}$  and the oxidized  $Mn^{4+}$ . Since groundwater in Bangladesh is usually anoxic, any soluble Mn in groundwater is in the reduced state ( $Mn^{2+}$ ). Upon exposure to air, groundwater containing Mn will precipitate black  $MnO_2$ . High concentration of Mn therefore cause stains in water pipeline, laundry, and cooking utensils. On the other hand, Mn is considered an essential trace element for plants and animals.

The Standard in Bangladesh and the WHO Guideline for Mn are 0.1 and 0.5 mg/l, respectively. 75.8% of Mn samples exceed the Standard in Bangladesh and 32.5% of the samples exceed the WHO Guideline. In the case of deep groundwater (300 m in depth), 22.4% of the samples exceed the Standard. The high Mn concentrations are mainly distributed in Jessore.

The results show some correlation with iron concentrations. Moreover, the results of Mn show some correlation with As concentrations.

#### d. Dissolved Iron (Fe)

Iron occurs in minerals such as hematite, magnetite, taconite, and pyrite. Since groundwater in Bangladesh is usually anoxic, any soluble iron in groundwater is in the ferrous state ( $Fe^{2+}$ ). On exposure to air, ferrous iron is oxidized to the ferric state ( $Fe^{3+}$ ) to form red, insoluble hydrated ferric oxide. It is observed frequently when samples are collected in the field. High concentrations of Fe in groundwater therefore cause stains in water pipeline, laundry, and cooking utensils, and impact the taste and color of foods.

The Standard in Bangladesh is 0.3 to 1 mg/l. No health-based Guideline value by WHO has been proposed. Instead, a level of 0.3 mg/l likely to give rise to consumer complaints is proposed. Almost all the results of Fe (up to 18 mg/l) exceed these criteria. 83.3% of Fe samples exceed the Standard in Bangladesh and 96.7% of samples exceed the WHO Guideline. The high Mn concentrations are mainly distributed in Jessore.

The results show some correlation with Mn. Moreover, the results of Fe show some correlation with As concentrations.

#### e. Calcium (Ca)

Calcium is necessary in plant and animal nutrition and is an essential component of bones, shells, and plant structures. The presence of calcium in groundwater results from limestone, dolomite, etc.

The Standard in Bangladesh is 75 mg/l. A WHO guideline value has not been set so far because Ca is no health threat. High Ca concentrations exceeding the Standard in Bangladesh (=75 mg/l) are found in samples from 24 out of 30 observation wells/holes in Jessore (OW-JS1 - BP to 48h, OW-JS1 - 3 m to 5 m, OH-JS1-1 - BP to SIP-140 min, OH-JS1-2 - BP to SIP-140 min, OH-JS1-3 - SIP-30 to 140 min, OH-JS1-4 - SIP-30 to 140 min, OW-JS2 - 2 m to 4 m, OH-JS2-1 - BP to SIP-140 min, OH-JS2-2 - BP to SIP-140 min, OH-JS2-3 - SIP30 to 140 min), Jhenaidah (OW-JH1 - BP to 1 m, OW-JH1 - 3 m, OW-JH1 - 5 m to 7 m, OH-JH1-2 - BP to SIP-140 min, OH-JH1-3 - BP to SIP-140 min, OH-JH1-4 - BP to SIP-140 min, OW-JH2 - BP to 48h, OH-JH2-1 - BP to SIP-140 min, OH-JH2-2 - BP to SIP-140 min, OH-JH2-3 - BP to SIP-140 min, OH-JH2-4 - SIP-30 to 140 min) and Chuadanga (OW-CH1 - BP to 8 m, OH-CH1-3 - SIP-30 to 140 min, OH-CH1-4 - SIP-BP to 140 min, OW-CH2 - 7 m, OH-CH2-2 - SIP-30 min, OH-CH2-4 - BP to SIP-140 min).

As a result, quite a lot of samples from both shallow and deep aquifers exceed this criterion.

#### f. Magnesium (Mg)

Magnesium occurs usually in the minerals magnesite and dolomite. The common aqueous species is  $Mg^{2+}$ . Magnesium is one of the important contributors to the hardness of groundwater. Magnesium is an essential element in chlorophyll and in red blood cells. Some salts of

magnesium are toxic by ingestion or inhalation.

The Standard in Bangladesh is 30 to 35 mg/l. A guideline by WHO has not been set so far because Mg is no health threat.

High Mg concentrations exceeding the Standard in Bangladesh (= Max 35 mg/l) are found in samples from 4 out of 30 observation wells/holes in Jessore (OW-JS2 - 1 m) and Jhenaidah (OW-JH1 - BP to 1 m, OW-JH1 - 4 m, OW-JH1 - 6 m to 7 m, OH-JH1-4 - BP to SIP-140 min, OW-JH2 - BP to 48h, OW-JH2 - 3 m, OW-JH2 - 5 m to 6 m).

As Ca, some samples from both shallow and deep aquifers exceed this criterion.

#### g. Fluoride (F)

Fluoride occurs naturally in minerals such as fluorite, cryolite, fluorapatite, etc. Inorganic fluorine compounds are used in the production of aluminium, and fluoride is released during the manufacture and use of phosphate fertilizers, which contain up to 4% of fluorine.

The Standard in Bangladesh and the WHO Guideline for F are 1 and 1.5 mg/l respectively. High F concentrations exceeding the Standard in Bangladesh (= 1 mg/l) are found in samples from 3 observation holes out of 30 observation wells/holes in Jessore (OH-JS1-2 - BP to 30 min, OH-JS2-4 - BP). High F concentrations exceeding the Guideline of WHO (= 1.5 mg/l) are found in one (1) observation hole in Jessore (OH-JS2-4 - BP).

#### h. Lead (Pb)

Lead occurs naturally in the minerals galena and serusite. The common aqueous species of Lead are Pb<sup>2+</sup>, hydroxide and carbonate complex. Pb is nonessential for plants and animals. It is toxic by ingestion and is a cumulative poison.

The Standard in Bangladesh and the WHO Guideline for Pb are 0.05 and 0.01 mg/l, respectively. High Pb concentrations exceeding the Standard in Bangladesh (= 0.05 mg/l) are not found in the collected samples. However, concentrations above the WHO Guideline (= 0.01 mg/l) are found in samples from 4 out of 30 observation wells/holes in Jhenaidah (OW-JH1 - 48h, OH-JH1-1 - SIP-140 min, OH-JH1-4 - BP, OH-JH2-4 - BP).

#### 2) Deep Observation Holes in Model Rural Areas

The results of the laboratory chemical analysis are compared with the Standard for Drinking Water in Bangladesh and the WHO Guideline Values for Drinking Water. The following descriptions show the results of Core Borings that have exceeded the Standard or the Guideline.

#### a. Nitrite (NO<sub>2</sub>)

The Standard in Bangladesh and the WHO Guideline for nitrite are 1 and 3 mg/l respectively. High NO<sub>2</sub> concentrations (up to 2.2 mg/l) exceeding the Standard of Bangladesh (= 1 mg/l) are found in samples from Rajnagar Bankabarsi Core Boring site (CB-JSRb - 2 m, CB-JSRb - 6 m). High  $NO_2$  concentrations exceeding the WHO Guideline (= 3 mg/l) are not found in any of the results.

It can be said that NO<sub>2</sub> contamination is distributed in Rajnagar Bankabarsi village but is not so serious.

# b. Ammonia (NH<sub>4</sub>)

Ammonia is not of immediate health relevance, and no health-based guideline value by WHO has been proposed. Instead a level of 1.5 mg/l likely to give rise to consumer complaints has been proposed. The Standard in Bangladesh is 0.5 mg/l. High NH<sub>4</sub> concentrations (up to 1.8 mg/l) exceeding the Standard in Bangladesh (= 0.5 mg/l) are found in samples from Rajnagar Bankabarsi (CB-JSRb - 4 m to 5 m), Krishna Chandrapur (CB-JHKc - 1 m, CB-JHKc - 3 m to 6 m) and all samples from Bara Dudpatila. High NH<sub>4</sub> concentrations exceeding the WHO Guideline (= 1.5 mg/l) are found in samples from Krishna Chandrapur (CB-JHKc - 3 m, CB-JHKc - 6 m) and Bara Dudpatila (CB-CDBd - 0 m).

From these results, it can be said that some NH<sub>4</sub> contamination is found in the Core Borings.

# c. Dissolved Manganese (Mn)

The Standard in Bangladesh and the WHO Guideline for Mn are 0.1 and 0.5 mg/l, respectively. 0.1 mg/l and over of Mn are found in Rajnagar Bankabarsi (CB-JSRb - 5 m to 6 m), Krishna Chandrapur (CB-JHKc - 2 m to 6 m) and Bara Dudpatila (CB-CDBd - 0 m to 1 m, CB-CDBd - 4 m to 6 m). Only one (1) sample (CB-CDBd-5 m, 0.51 mg/l) exceeds the Guideline by WHO.

# d. Dissolved Iron (Fe)

The Standard in Bangladesh for Fe is 0.3 to 1 mg/l. No health-based Guideline value by WHO has been proposed for Fe. Instead a level of 0.3 mg/l likely to give rise to consumer complaints has been proposed by WHO. High Fe concentrations (up to 15 mg/l) exceeding the Standard in Bangladesh (= 1 mg/l) are found in samples from Krishna Chandrapur (CB-JHKc-0 m, CB-JHKc-2 m to 6 m) and Bara Dudpatila (CB-CDBd-0 m to 2 m, CB-CDBd-4 m to 6 m). Concentrations exceeding the WHO Guideline (= 0.3 mg/l) are found in 76% of samples.

# e. Calcium (Ca)

The Standard in Bangladesh for Ca is 75 mg/l. A WHO Guideline has not been set so far because Ca is not a health threat. High Ca concentrations exceeding the Standard in Bangladesh (= 75 mg/l) are found in samples from Krishna Chandrapur (CB-JHKc-0 m, CB-JHKc-3 m to 6 m) and Bara Dudpatila (CB-CDBd-0 m to 1 m, CB-CDBd-4 m to 6 m). None of the samples from Rajnagar Bankabarsi exceed the Standard.

#### f. Magnesium (Mg)

The Standard in Bangladesh for Mg is 30 to 35 mg/l. A WHO Guideline has not been set so far because Mg is not a health threat. High Mg concentrations exceeding the Standard in Bangladesh (=Max 35 mg/l) are found only in Bara Dudpatila (CB-CDBd-1 m, 43 mg/l).

### g. Sodium (Na)

Sodium salts (e.g., sodium chloride) are found in virtually all food (the main source of daily exposure) and drinking water. Although concentrations of sodium in potable water are typically less than 20 mg/l, they can greatly exceed this in some countries.

The Standard in Bangladesh for Na is 200 mg/l. A WHO Guideline has not been set so far because Na is not a health threat. Instead a level of 200 mg/l likely to give rise to consumer complaints has been proposed by WHO. High Na concentrations exceeding the Standard in Bangladesh and the WHO Guideline are found in only one (1) sample from Krishna Chandrapur (CB-JHKc-1 m, 200 mg/l).

# 3) Proved Deep Wells in the Model Rural Areas

The results of the laboratory chemical analysis are compared with the Standard for Drinking Water in Bangladesh and the WHO Guideline Values for Drinking Water. The following descriptions show the results of Improved Deep Well that have exceeded the Standard or the Guideline.

# a. Nitrite (NO<sub>2</sub>)

The Standard in Bangladesh and the WHO Guideline for nitrite are 1 and 3 mg/l, respectively. High NO<sub>2</sub> concentrations (up to 2.5 mg/l) exceeding the Standard in Bangladesh (= 1 mg/l) are found in samples from Rajnagar Bankabarsi (IM-JSRb-2-2 m, IM-JSRb-3-2 m to 3 m) and Bara Dudpatila (IM-CDBd-1-2 m, IM-CDBd-2-1 m to 2 m). However, high NO<sub>2</sub> concentrations exceeding the WHO Guideline (= 3 mg/l) are not found in any of the results.

It can be said that some  $NO_2$  contamination is found in Rajnagar Bankabarsi and Bara Dudpatila but it not so serious.

# b. Ammonia (NH<sub>4</sub>)

Ammonia is not of immediate health relevance, and no health-based guideline value by WHO has been proposed. Instead a level of 1.5 mg/l likely to give rise to consumer complaints has been proposed. The Standard in Bangladesh is 0.5 mg/l.

High NH<sub>4</sub> concentrations (up to 8.4 mg/l) exceeding the Standard in Bangladesh (= 0.5 mg/l) are found in many samples. 77.8% of samples exceed this criterion. High NH<sub>4</sub> concentrations exceeding the WHO Guideline (= 1.5 mg/l) are also found in all villages. 55.6% of the samples

exceed the Guideline. Compared with the observation wells/holes and core boring,  $NH_4$  concentrations of the improved deep wells are higher and may cause some consumer complaints such as taste or odor for drinking purposes.

### c. Dissolved Manganese (Mn)

The Standard in Bangladesh and the WHO Guideline for Mn are 0.1 and 0.5 mg/l respectively. 0.1 mg/l and over of Mn (up to 0.46 mg/l) are found in many samples. 63.9% of the samples exceed this criterion. However, no sample exceeds the Guideline by WHO. This contamination is not so serious.

### d. Dissolved Iron (Fe)

The Standard in Bangladesh for Fe is 0.3 to 1 mg/l. No health-based Guideline value by WHO has been proposed for Fe. Instead a level of 0.3 mg/l likely to give rise to consumer complaints has been proposed by WHO. High Fe concentrations (up to 9.8 mg/l) exceeding the Standard in Bangladesh (= 1 mg/l) are found in many samples. 69.4% of the samples exceed this criterion. Fe concentrations exceeding the WHO Guideline (= 0.3 mg/l) are also found in many samples. 88.9% of the samples exceed this Guideline.

### e. Calcium (Ca)

The Standard in Bangladesh for Ca is 75 mg/l. A WHO Guideline has not set so far because Ca is no health threat. High Ca concentrations (up to 130 mg/l) exceeding the Standard in Bangladesh (= 75 mg/l) are found in all samples of Krishna Chandrapur and Bara Dudpatila. None of the samples from Rajnagar Bankabarsi exceed the Standard.

# f. Lead (Pb)

The Standard in Bangladesh and the WHO Guideline for Pb are 0.05 mg/l and 0.01 mg/l respectively. High Pb concentrations exceeding the Standard in Bangladesh (= 0.05 mg/l) have not been found in the collected samples. However, some high concentrations exceed the WHO Guideline (= 0.01 mg/l) are found in Rajnagar Bankabarsi (IM-JSRb-3-0 m) and Bara Dudpatila (IM-CDBd-1-0 m).

# 4) Existing Wells in the Study Area

The results of the laboratory chemical analysis are compared with the Standard for Drinking Water in Bangladesh and the WHO Guideline Values for Drinking Water. The following descriptions show the results of the general water quality analysis at 30 existing wells in the 300 Existing Wells Survey that have exceeded the Standard or the Guideline.

#### a. Total dissolved solid (TDS)

TDS comprise inorganic salts (principally calcium, magnesium, potassium, sodium, bicarbonates, chlorides and sulfates) and small amounts of organic matter that are dissolved in water. TDS in drinking water originate from natural sources, sewage, urban run-off, and industrial wastewater. Salts used for road de-icing in some countries may also contribute to the TDS content in drinking water. Concentrations of TDS in water vary considerably in different geological regions owing to differences in the solubilities of minerals.

The Standard in Bangladesh and the WHO Guideline for TDS are both 1,000 mg/l. Four (4) results (2 sites) of existing wells show extremely high (up to 1,650 mg/l) values of TDS. It exceeds the Standard in Bangladesh (1,000 mg/l) and the WHO Guideline. All samples for production wells are below these criteria.

#### b. Nitrate (NO<sub>3</sub>)

Nitrate is a naturally occurring ion that is a part of the nitrogen cycle. Nitrate is used mainly in inorganic fertilizers, and sodium. The nitrate concentration in groundwater and surface water is normally low but can reach high levels as a result of agricultural runoff, refuse dump runoff, or contamination by human or animal wastes. The toxicity of nitrate to humans is mainly attributable to its reduction to nitrite.

The Standard in Bangladesh and the WHO Guideline for nitrate are 10 and 50 mg/l respectively. 4.3% of the results for existing wells (up to 180 mg/l) exceed the Standard in Bangladesh (= 10 mg/l). 2.2% of the results for existing wells exceed the WHO Guideline (= 50 mg/l). All samples from production wells are below these criteria.

#### c. Nitrite (NO<sub>2</sub>)

The Standard in Bangladesh and the WHO Guideline for NO<sub>2</sub> are 1 and 3 mg/l, respectively. 10.7 % of the results for existing wells (up to 4.2 mg/l) exceed the Standard in Bangladesh (= 1 mg/l). One of the samples from production wells exceeds the Standard. 8.7 % of the results for existing wells exceed the WHO Guideline (= 3 mg/l). All samples for production wells are below the Guideline.

#### d. Ammonia (NH<sub>4</sub>)

Ammonia is not of immediate health relevance, and no health-based guideline value has been proposed by WHO. Instead, a level of 1.5 mg/l likely to give rise to consumer complaints has been proposed. The Standard in Bangladesh is 0.5 mg/l. 65.2 % of the results for existing wells (up to 12 mg/l) and 64.3 % of the results for production wells (up to 8.2 mg/l) exceed the Standard in Bangladesh (= 0.5 mg/l). 65.2 % of the results for existing wells and 50.0 % of the results for production wells exceed the WHO Guideline (= 1.5 mg/l).

#### e. Dissolved Manganese (Mn)

The Standard in Bangladesh and the WHO Guideline for Mn are 0.1 and 0.5 mg/l respectively. 87.0% of the results for existing wells (up to 1.5 mg/l) and 85.7% of the results for production wells (up to 0.75 mg/l) exceed the Standard in Bangladesh (= 0.1 mg/l). 52.2 % of the results for existing wells exceed the WHO Guideline (= 0.5 mg/l). 35.7% of the results for production wells exceed the WHO Guideline.

#### f. Dissolved Iron (Fe)

The Standard in Bangladesh for Fe is 0.3 to 1 mg/l. No health-based guideline value for Fe has been proposed by WHO. Instead, a level of 0.3 mg/l likely to give rise to consumer complaints has been proposed by WHO. 32.6% of the results for existing wells (up to 11 mg/l) and 57.1% of the results for production wells (up to 2.6 mg/l) exceed the Standard in Bangladesh (=1 mg/l). 89.1% of the results for existing wells and 78.6% of the results for production wells exceed the WHO Guideline (= 0.3 mg/l).

### g. Chloride (Cl)

Cl in drinking water originates from natural sources, sewage and industrial effluents, and saline intrusion. The main source of human exposure to chloride is the addition of salt to food, and the intake from this source is usually greatly in excess of that from drinking water. Excessive chloride concentrations increase the rate of corrosion of metals in the distribution system, depending on the alkalinity of the water. This can lead to increased concentrations of metals in the supply.

The Standard in Bangladesh for Cl is 150 to 600 mg/l. No health-based guideline value for Cl has been proposed by WHO. Instead, a level of 250 mg/l likely to give rise to consumer complaints is proposed by WHO. No results for existing wells or production wells (up to 570 mg/l) exceed the Standard in Bangladesh (= 600 mg/l). 4.3% of the results for existing wells exceed the WHO Guideline (= 250 mg/l). No results for production wells exceed the WHO Guideline.

# h. Bicarbonate (HCO<sub>3</sub>)

Bicarbonate is one of the functional constituents of Alkalinity, which is significant in many uses and treatment of natural waters and wastewaters. Bicarbonate alkalinity is present if phenolphthalein alkalinity is less than half the total alkalinity. Bicarbonate is a major Anion in groundwater.

The Standard in Bangladesh for  $HCO_3$  is 600 mg/l. No guideline value by WHO has been proposed for  $HCO_3$ . 4.3% of the results for existing wells (up to 720 mg/l) exceed the Standard in Bangladesh (= 600 mg/l).

### i. Calcium (Ca)

The Standard in Bangladesh for Ca is 75 mg/l. A WHO guideline value has not been set so far because Ca is not a health threat. 76.1% of the results for existing wells (up to 160 mg/l) and 85.7% of the results for production wells (up to 110 mg/l) exceed the Standard in Bangladesh (= 75 mg/l).

### j. Magnesium (Mg)

The Standard in Bangladesh for Mg is maximum 35 mg/l. A WHO guideline value has not been set so far. 6.5% of the results for existing wells (up to 45 mg/l) and 7.1% of the results for production wells (up to 35 mg/l) exceed the Standard in Bangladesh (= 35 mg/l).

# k. Sodium (Na)

The Standard in Bangladesh of Na is 200 mg/l. A WHO guideline value has not been set so far because Na is not a health threat. Instead, a level 200 mg/l likely to give rise to consumer complaints has been proposed by WHO. 6.5% of the results for existing wells (up to 400 mg/l) exceed the Standard in Bangladesh (= 35 mg/l). No result for production wells exceeds the Standard in Bangladesh.

### **l.** Fluoride (F)

The Standard in Bangladesh and the WHO guideline for F are 1 and 1.5 mg/l respectively. 15.2% of the results for existing wells (up to 1.7 mg/l) exceed the Standard in Bangladesh (= 1 mg/l). No result for production wells exceeds the Standard in Bangladesh. 2.2% of results for existing wells exceed the WHO Guideline (= 1.5 mg/l). No results for production wells exceed the WHO Guideline.

#### m. Cadmium (Cd)

Cd is used in the steel industry and in plastics. Cadmium compounds are widely used in batteries. Cadmium is released to the environment in wastewater, and diffuse pollution is caused by contamination from fertilizers and local air pollution. Contamination in drinking water may also be caused by impurities in the zinc of galvanized pipes and solders and some metal fittings. The Standard in Bangladesh and the WHO Guideline for F are 0.005 and 0.003 mg/l, respectively. 10.9% of the results for existing wells (up to 0.0079 mg/l) exceed the Standard in Bangladesh (= 0.005 mg/l). No result for production wells exceeds the Standard in Bangladesh. 17.4% of results for existing wells exceed the WHO Guideline (= 0.003 mg/l). No results for production wells exceeds the Standard in Bangladesh.

#### n. Total Chromium (Cr)

Chromium is widely distributed in the earth's crust. It can exist in valences of +3 to +6.  $Cr^{3+}$  would be expected to form strong complexes with amines, and be adsorbed by clay minerals.  $Cr^{6+}$  has been shown to be carcinogenic by inhalation and is corrosive to tissue. In general, food appears to be the major source of intake.

The Standard in Bangladesh is 0.05 mg/l. A WHO guideline value has not been set so far for total Cr. 45.7% of the results for existing wells exceed the Standard in Bangladesh (= 0.05 mg/l). No result for production wells exceeds the Standard in Bangladesh.

### o. Lead (Pb)

The Standard in Bangladesh and the WHO Guideline for Pb are 0.05 and 0.01 mg/l, respectively. No results for existing wells and production wells exceed the Standard in Bangladesh (= 0.05 mg/l). 13.0% of the results (up to 0.037 mg/l) for existing wells exceed the WHO Guideline (= 0.01 mg/l). 7.1% of the results for production wells exceed the WHO Guideline.

### p. Nickel (Ni)

Nickel is used mainly in the production of stainless steel and nickel alloys. Food is the dominant source of nickel exposure in the non-smoking, non-occupationally exposed population; water is generally a minor contributor to the total daily oral intake. However, there is heavy pollution due to the use of certain types of kettles and non-resistant material in wells, or water that has stood for an extended time in water pipes.

The Standard in Bangladesh and the WHO Guideline for Ni are 0.1 and 0.02 mg/l, respectively. No results for existing wells and production wells exceed the Standard in Bangladesh (= 0.1 mg/l). 26.1% of the results for existing wells (up to 0.069 mg/l) exceed the WHO Guideline (= 0.02 mg/l). No result for production wells exceeds the WHO Guideline.

# q. Chemical Oxygen Demand (COD)

COD is defined as the amount of a specified oxidant that reacts with the sample under controlled terms of its oxygen equivalence. COD is often used as a measurement of pollutants in wastewater and natural waters.

The Standard in Bangladesh is 4 mg/l. A WHO guideline value has not been set so far. 19.6% of the results for existing wells exceed the Standard in Bangladesh (= 4 mg/l). No result for production wells exceeds the Standard in Bangladesh.

5) Existing Wells and Pond in the Model Rural Areas

The results of the laboratory chemical analysis are compared with the Standard for Drinking Water in Bangladesh and the WHO Guideline Values for Drinking Water. The following descriptions show the results of the Model Village Survey that have exceeded the Standard or

the Guideline.

#### a. Total dissolved solid (TDS)

The Standard in Bangladesh and the WHO Guideline for TDS are both 1,000 mg/l. In shallow groundwater in Rajnagar Bankabarsi, all TDS values show extremely high (up to 1,700 mg/l). They exceed the Standard in Bangladesh (= 1,000 mg/l) and the WHO Guideline.

### b. Nitrate (NO<sub>3</sub>)

The Standard in Bangladesh and the WHO Guideline for nitrate are 10 and 50 mg/l respectively. 14.8% of the pond water (up to 42 mg/l) and 26.7% of the shallow groundwater (up to 23 mg/l) exceed the Standard in Bangladesh (= 10 mg/l). High NO<sub>3</sub> concentrations exceeding the WHO Guideline (= 50 mg/l) are not found in any of the results.

### c. Nitrite (NO<sub>2</sub>)

The Standard in Bangladesh and the WHO Guideline for NO<sub>2</sub> are 1 and 3 mg/l, respectively. 11.1% of the pond water (up to 6.6 mg/l) and 26.7% of the shallow groundwater (up to 4.0 mg/l) exceed the Standard in Bangladesh (= 1 mg/l). 7.4% of the pond water (up to 6.6 mg/l) and 20.0% of the shallow groundwater (up to 4.0 mg/l) exceed the WHO Guideline (= 50 mg/l).

# d. Ammonia (NH<sub>4</sub>)

Ammonia is not of immediate health relevance, and no health-based guideline value by WHO has been proposed. Instead, a level of 1.5 mg/l likely to give rise to consumer complaints is proposed. The Standard in Bangladesh is 0.5 mg/l. 33.3% of the pond water (up to 4.8 mg/l) and 73.3% of the existing wells (up to 27 mg/l) exceed the Standard in Bangladesh (= 0.5 mg/l). 7.4% of the pond water (up to 4.8 mg/l) and 73.3% of the existing wells (up to 27 mg/l) exceed the Standard in Bangladesh (= 1.5 mg/l).

# e. Dissolved Manganese (Mn)

The Standard in Bangladesh and the WHO Guideline for Mn are 0.1 and 0.5 mg/l respectively. 14.8% of the pond water (up to 0.16 mg/l) and 46.7% of the shallow groundwater (up to 1.1 mg/l) exceed the Standard in Bangladesh (= 0.1 mg/l). 26.7% of the shallow groundwater (up to 1.1 mg/l) exceeds the WHO Guideline (= 0.5 mg/l). No sample of pond water exceeds the WHO Guideline.

# f. Dissolved Iron (Fe)

The Standard in Bangladesh for Fe is 0.3 to 1 mg/l. No health-based guideline value by WHO has been proposed for Fe. Instead, a level of 0.3 mg/l likely to give rise to consumer complaints

has been proposed by WHO. 73.3% of the shallow groundwater (up to 8.2 mg/l) exceeds the Standard in Bangladesh (= 1 mg/l). All samples of the existing wells (up to 8.2 mg/l) exceed the WHO Guideline (= 0.3 mg/l). No sample of the pond water exceeds the Standard in Bangladesh or the WHO Guideline.

#### g. Calcium (Ca)

The Standard in Bangladesh for Ca is 75 mg/l. A WHO guideline value has not been set so far because Ca is no health threat. All samples of shallow groundwater (up to 120 mg/l) exceed the Standard in Bangladesh (= 75 mg/l). None of the pond water samples exceed the Standard.

### h. Magnesium (Mg)

The Standard in Bangladesh for Mg is maximum 35 mg/l. A WHO guideline value has not been set so far. All samples of shallow groundwater in Rajnagar Bankabarsi village (up to 47 mg/l) exceed the Standard in Bangladesh. None of the samples of pond water or existing wells from the other 2 villages exceed the Standard.

### i. Sodium (Na)

The Standard in Bangladesh for Na is 200 mg/l. A WHO guideline value has not been set so far because Na is not a health threat. Instead, a level of 200 mg/l likely to give rise to consumer complaints has been proposed by WHO. All samples of shallow groundwater in Rajnagar Bankabarsi village (up to 410 mg/l) exceed the Standard in Bangladesh (200 mg/l) and the WHO Guideline (200 mg/l). None of the pond water or shallow groundwater samples from the other 2 villages exceed the Standard or the Guideline.

# j. Potassium (K)

K is an essential element in both plant and human nutrition, and occurs in groundwater as a result of mineral dissolution, from decomposing plant material, and from agricultural runoff. The common aqueous species is  $K^+$ . Unlike Na, it doesn't remain in solution, but is assimilated by plants and is incorporated into a number of clay-mineral structures.

The Standard in Bangladesh is 12 mg/l. A guideline value by WHO has not been set so far because K is not a health threat. 20.0% of the pond water in Rajnagar Bankabarsi (up to 62 mg/l) exceeds the Standard in Bangladesh (= 12 mg/l). However, the pond water of the other 2 villages and all samples of shallow groundwater are below the Standard in Bangladesh.

# k. Fluoride (F)

The Standard in Bangladesh and the WHO Guideline for F are 1 and 1.5 mg/l, respectively. High concentrations of F (up to 3.6 mg/l) are found in the pond water of Krishna Chandrapur and Rajnagar Bankabarsi Villages.

# **l.** Total Chromium (Cr)

The Standard in Bangladesh is 0.05 mg/l. A WHO guideline value has not been set so far for total Cr. A high Cr concentration (0.066 mg/l) exceeding the Standard in Bangladesh (= 0.05 mg/l) is found in shallow groundwater from Bara Dudpatila.

### m. Lead (Pb)

The Standard in Bangladesh and the WHO Guideline for Pb are 0.05 and 0.01 mg/l, respectively. High Pb concentrations above the Standard in Bangladesh (= 0.05 mg/l) are not found in any of the collected samples. However, some high concentrations exceeding the WHO Guideline (= 0.01 mg/l) are found in Chandrapur and Dudpatila.

# n. Chemical Oxygen Demand (COD)

The Standard in Bangladesh is 4 mg/l. A guideline value by WHO has not been set so far. 37.0% of the pond water and 26.7% of the shallow groundwater exceed the criterion.

# 5.5.7 Re-analysis of Water Quality for Observation Holes of Which Hand Pumps are to be Installed, and Instruction on Their Use

In order to ensure the safe use of the observation holes to be installed with hand pumps by the Study Team in the Pourashava and Model rural areas, their water quality was re-analyzed for re-confirmation. Seven observation holes, which were not in excess of the WHO guideline value for As throughout all the monitoring, were selected for hand pump installation out of all fifteen observation holes (not including those in Brahmakati, installed for the supplemental survey). The samples of the seven observation holes were collected in mid-September 2002. The results of the water quality re-analysis in Japan and instruction on the use of observation holes based on the results were as follows.

# 1) Results of water quality re-analysis

# a. Methods of analysis

Analytical parameters	Analytical methods	Analytical parameters	Analytical methods
рН	Electrode method (A)	Sodium	ICP spectrophotometry
Temperature	Thermometer	Potassium	Flame spectrophotometry (B)
Electric conductivety	Electrode method (A)	Dissolved iron	Atomic absorption spectrophotometry (A)
Hardness	EDTA titration (A)	Dissolved manganese	Atomic absorption spectrophotometry (A)
TDS	Gravimetric method (B)	Calcium	ICP spectrophotometry (B)
COD	K2Cr2O7 titration (B)	Magnesium	ICP spectrophotometry (B)
Ammonium	Ion chromatography (B)	Cadmium	Atomic absorption spectrophotometry (A)
Nitrite	Adsorption spectrophotometry (A)	Total chromium	Atomic absorption spectrophotometry (A)
Nitrate		Copper	Atomic absorption spectrophotometry (A)
Sulfate	Ion chromatography (A)	Lead	ICP spectrophotometry (B)
Chloride	Ion chromatography (A)	Mercury	Atomic absorption spectrophotometry (A)
Bicarbonate	Infrared absorbing analysis (B)	Nickel	ICP spectrophotometry (B)
Fluoride	Adsorption spectrophotometry (A)	Zinc	Atomic absorption spectrophotometry (A)
Cyanide	Adsorption spectrophotometry (A)	Arsenic	Atomic absorption spectrophotometry (A)

The methods of analysis done in Japan are shown in the table below.

A = the Test Methods of Drinking Water B = JIS-K-0102

# b. Results of water quality

The results of the field measurement and laboratory analysis in Japan are shown in Table 5.5.17. The results are mostly in agreement with the results of the entrusted local laboratory in Bangladesh. It can be said that the results of the local analysis in Bangladesh are reliable. In these results, some points that need to be considered in comparing the Bangladesh standards and WHO guidelines are mentioned below

As levels do not exceed the Bangladesh standard (=0.05mg/l). However, two of the seven samples slightly exceeded the WHO guideline (=0.01mg/l) both with a value of 0.011mg/l. As for Mn levels, five of the seven samples exceeded the Bangladesh standard (=0.1mg/l). Of those, two were over the WHO health guideline (=0.5 mg/l) with values of 0.60 mg/l and 0.50 mg/l respectively. As for Fe levels, six of the seven samples exceeded the Bangladesh standard (=1 mg/l) and the WHO health guideline (=0.3 mg/l). Some samples also exceeded the Bangladesh standard for NO2,Ca, Mg and COD. Heavy metals such as Cd, Total-Cr, Cu, CN, Pb, Hg and Ni

were all below PQL.

These results show the following. The As levels of the two observation holes (OH-Jh2-4, OH-Ch1-4) that exceeded the WHO guideline had not exceeded the guideline during the monitoring. However, they showed slightly higher levels of As. The direct cause of the two observation holes exceeding the WHO guideline value may be the seasonal change in concentrations (In general, the results of monitoring show that high As concentrations tend to be seen in the rainy season) or the tendency of As concentrations to gradually increase, but it is unclear.

The Bangladesh standard of 0.1 mg/l for Mn is, according to the WHO guideline, set as a level likely to give rise to consumer complaints such as stained laundry or bad taste. Mn concentrations that exceeded the WHO health guideline value (=0.5 mg/l) were found in only two of the measured samples, and were from the same wells containing As concentration above the WHO guideline value. All of the samples showed high iron concentrations that may be a problem in terms of taste, smell, etc, however will not have a direct impact on health. As for the one site (1.7 mg/l) that exceeded the Bangladesh standard value (= 1 mg/l) for NO2, it is below the WHO health guideline value (= 3 mg/l). Furthermore, it is common in Japan to set the standard for nitrogen concentrations including both NO2 and NO3 as "nitrogen as nitric acid and nitrogen as nitrous acid". Based on the Water Works Law in Japan, for example, the drinking water quality standard for nitrogen is 10 mg/l. Ca, Mg and COD are also not parameters that have a negative impact on health.

### 2) Measures taken by the Study Team for well use based on the results of water quality measurements

Based on the above results of the water quality re-analysis, the Study Team took the following measures regarding the use of the seven wells.

- (1) As for the two wells OH-Jh2-4 (Jhenaidah) and OH-Ch1-4 (Chuadanga) that exceeded the WHO guideline values for As and Mn, hand pumps have already been installed by the Study Team, but they have not been dismantled in consideration of their convenience to residents. However, the Study Team has ensured that the wells are not used for drinking purposes by marking them with yellow paint to indicate the water is not safe to drink. In addition, they have instructed residents that they can continue to use the well for the purposes other than drinking.
  - (2) Hand pumps have also been installed at all the other wells. As iron concentrations are generally high and the oxidation-reduction potential (Eh value) is low, the reduction of iron and/or Mn concentrations in the water due to oxidation can be expected to some degree. The Study Team has instructed the residents to leave

fetched water overnight or longer when using it for drinking purposes.

(3) In order to ensure the residents fully understand the method of proper well use, the Study Team gave instruction to the residents directly on site as they fetched water. They also gave the results of these measurement to keypersons, such as the village leader or the owners of the land where the wells had been installed, and made sure they had a good understanding of the situation. Moreover, they instructed the residents to contact DPHE if any problems concerning water quality, etc. arose in future.

As for the counterparts from the DPHE head office, the Study Team notified the measurement results to them and explained the above well use measures in order to obtain their agreement in advance. They also gave a similar explanation to the Executive Engineer, Sub-Assistant Engineer and Sub-Divisional Engineer from the DPHE local offices and Thana offices in Chuadanga, Jhenaidah and Jessore. Furthermore, as emphasized in the seminar in September, DPHE was requested once again to conduct monitoring whenever they have the opportunity in future.

### 5.5.8 Evaluation of General Water Quality

### 1) Observation Wells/Holes in Pourashava

Generally, it can be said that groundwater in the deep aquifer in the observation wells/holes shows good water quality. Though some parameters mentioned above exceed the criteria, other toxicoid parameters such as heavy metals, cadmium, chromium, copper, and mercury are almost all below the criteria in Bangladesh and WHO or below the quantization limits of analysis.

Regarding Fe, a number of results are above the criteria. However, the WHO guidelines for Fe are just levels likely to give rise to consumer complaints. No health-based guideline values are proposed for Fe. This contamination originated from minerals naturally occurring in groundwater in a reducing state.

As with Fe, health-based guideline values have not been set by WHO for Ca and Mg though some results exceed the Standard in Bangladesh. This contamination by Fe, Ca, and Mg is not likely to be a serious problem.

Regarding Mn, some high concentrations are found. However, the concentrations in deep groundwater are lower than in shallow groundwater. 77.6% of the deep groundwater is below the Standard by WHO.

Regarding  $NH_4$  and  $NO_2$ , some results exceed the criteria. However, almost all exceeding results are distributed in the shallow aquifer. The deep aquifer of 300 m in depth is likely to be less contaminated. No interpretation of the contamination source of  $NH_4$  and  $NO_2$  is possible with this study. However, it may be an indication of the movement of fertilizers, manures and livestock wastes into shallow groundwater.

### 2) Deep Observation Holes in Model Rural Areas

Generally, it can be said that groundwater in the deep aquifer (300 m depth) of Core Borings shows good water quality. Though some parameters mentioned above exceed the criteria, other toxicoid parameters such as heavy metals are almost all below the Bangladesh and WHO criteria or below the quantization limits of analysis.

As for Mn, only one sample exceeds the WHO guidelines though some results exceed the Standard in Bangladesh. This contamination originated from minerals naturally occurring in groundwater in a reducing state.

As for Fe, three samples exceed the Standard in Bangladesh. However, no health-based guideline value is proposed by WHO. As with Mn, this contamination originated from minerals naturally occurring in groundwater in a reducing state.

As with Fe, health-based guideline values for Ca and Mg have not been set by WHO though some samples exceed the Standard in Bangladesh. This contamination by Fe, Mn, Ca, and Mg is not likely to be a serious problem.

As for NO<sub>2</sub>, two samples exceed the Standard in Bangladesh. However, none exceeds the WHO Guideline.

Regarding NH<sub>4</sub>, some results exceed the Standard in Bangladesh. However, no health-based guideline value has been proposed by WHO though the level likely to give rise to consumer complaints has been proposed by WHO. Therefore, this contamination is not likely to be a serious problem.

Compared with the shallow groundwater in the same village, some parameters of Core Borings show lower concentrations. Figures 5.5.56 to 5.5.59 show some examples in Rajnagar Bankabarsi. In the case of Pb, though some contamination is found in shallow groundwater in Bara Dudpatila and Krishna Chandrapur villages, results of Core Borings show no contamination.

These results show that deep groundwater is likely to be potable. Even though some parameters of deep groundwater exceed the criteria and some are influenced by salinity, it seems to be acceptable.

### 3) Improved Deep Wells in the Model Rural Areas

The actual depths of Improved Deep Wells are between 300 m ( Deep tube well, i.e. Observation Well, Core Borings) and around 50 m (shallow tube well, i.e. existing tube well).

Generally, it can be said that groundwater in Improved Deep Wells shows relatively good water quality. Though some parameters mentioned above exceed the criteria, other toxicoid parameters such as heavy metals, cadmium, chromium, copper, and mercury are almost all below the Bangladesh and WHO criteria or below the quantization limits of analysis.

Regarding Fe, a number of results are above the criteria. However, the WHO guidelines for Fe

are just levels likely to give rise to consumer complaints. No health-based guideline values are proposed for Fe. This contamination originated from minerals naturally occurring in groundwater in a reducing state.

As with Fe, a health-based guideline value for Ca has not been set by WHO though some results exceed the Standard in Bangladesh. This contamination by Fe and Ca, is not likely to be a serious problem.

Regarding Mn, some high concentrations exceeding the Standard in Bangladesh (up to 2.5 mg/l) are found. However, all results are below the WHO Guideline.

Regarding NO<sub>2</sub>, some results exceed the Standard in Bangladesh (up to 0.46 mg/l). However, all results are below the WHO Guideline.

Regarding NO<sub>3</sub>, all results are below the Standard in Bangladesh and the WHO Guideline.

Regarding COD, relatively high concentrations are found in Bankabarsi and Chandrapur. 16.7% of the results (up to 39 mg/l) are above the PQL.

Water quality of Improved Deep Well is generally good, but some parameters show higher concentrations like shallow groundwater. For example, high concentrations of  $NH_4$  are found in many samples of Improved Deep Well. They are also found in many samples from shallow tube wells. As with shallow tube wells, Improved Deep Well also may be contaminated by fertilizers, manure and livestock waste. There is another possible source of the contamination of  $NH_4$ . Cow dung was used in the installation of Improved Deep Wells. Therefore, this may have caused the contamination of  $NH_4$ .

### 4) Existing Wells in the Study Area

As mentioned earlier, the groundwater in existing wells indicates a reducing state on the whole. Almost all samples characterize fresh water though some samples show salinity.

It is notable that some contamination in existing wells has been found. From the viewpoint of potability, groundwater in existing wells often shows some contamination. Not only As contamination, but other parameters of water quality need to be carefully checked.

For example, as for N-related water quality parameters such as  $NO_3$ ,  $NO_2$ , and  $NH_4$ ,  $NO_3$  and  $NO_2$  concentrations in the rainy season are higher than that of the dry season overall (as shown before in Figures 5.5.5 and 5.5.6). On the other hand,  $NH_4$  concentrations in the rainy season are lower than in the dry season (as shown in Figure 5.5.8). Some oxidation-reduction reactions are likely to happen among the three parameters. Although there is no health-based guideline value for  $NH_4$  by WHO, high  $NH_4$  concentrations may give rise to consumer complaints such as odor or taste. Furthermore,  $NH_4$  in water is an indicator of possible bacterial, sewage, and animal waste pollution.

Other seasonal changes are also observed for some metals such as Cd, total-Cr, Ni (see Figure 5.5.9), and Zn (see Figure 5.5.10).

### 5) Pond Water in the Model Rural Areas

Since it contains low concentrations of As, pond water is a possible water resource for areas where other alternative water resources are limited. Due to the oxidation state, some water quality parameters show lower concentrations than shallow groundwater such as heavy metals, Fe, Mn, hardness, Ca, Mg and so on.

However, some other parameters show higher concentrations than shallow groundwater. High COD is a serious problem for potability. It shows that pond water may be contaminated from the surface of pond. There also seems to be other contamination caused from the surface of the pond. As a result, sanitary protection and treatment of raw water are essential for the use of pond water for drinking purposes.

The volume of drinking water is also likely to be limited, though this is not a problem of water quality.

### Reference

Jerome O. Nriagu (1994): Arsenic in the environment part 1

AWWA (American Water Works Association): *Standard method for the examination of water & wastewater*, 20<sup>th</sup> edition

Table 5.5.2 R

# Results of Observation Well and Hole (1/7)

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20-U4-01 8.86 29.7 43.3 25.9 377 <pol <pol="" <pol<="" td=""><td>OH-JS1-3-SIP- 140min</td><td>20-Jul-01</td><td>7.40</td><td>29.8</td><td>53.9</td><td>113</td><td></td><td></td><td>&lt;₽QL</td><td>3555 53</td><td>er are</td><td></td><td><b>8</b>.4.4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>PQL</td><td><pql< td=""><td><u> </u>.</td><td></td><td>Par</td></pql<></td></pol>	OH-JS1-3-SIP- 140min	20-Jul-01	7.40	29.8	53.9	113			<₽QL	3555 53	er are		<b>8</b> .4.4											PQL	<pql< td=""><td><u> </u>.</td><td></td><td>Par</td></pql<>	<u> </u> .		Par
20-M401       7.35       29.3       55.2       101       333 <pol< td="">       011       200       POL       4.7       0.30       POL       POL</pol<>	OH-JS1-4-BP	20-Jul-01	8.86	29.7	43.3	25.9																	<₽QL	PQL	<pql< td=""><td></td><td></td><td>Par</td></pql<>			Par
20-Vul-01 7.30 29.3 55.7 99.3 357 <poi 0.14="" 0.14<="" 3055="" 7055="" 70555="" <0.14="" <poi="" td=""><td>OH-JS1-4-SIP-30min</td><td>20-Jut-01</td><td>7.35</td><td>29.3</td><td>55.2</td><td>101</td><td></td><td></td><td></td><td><u></u></td><td>19. AC.N</td><td></td><td>1994 A</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td><td></td><td>PQL</td><td><pql< td=""><td>&lt;₽QL</td><td><u> </u></td><td><u> </u></td><td>Pol</td></pql<></td></poi>	OH-JS1-4-SIP-30min	20-Jut-01	7.35	29.3	55.2	101				<u></u>	19. AC.N		1994 A								-		PQL	<pql< td=""><td>&lt;₽QL</td><td><u> </u></td><td><u> </u></td><td>Pol</td></pql<>	<₽QL	<u> </u>	<u> </u>	Pol
	OH-JS1-4-SIP- 140min	20-Jul-01	7.30	29.3	55.7	99.3		··		<b>4</b>					_								₽ġ	<₽QL	₽dL		Ŀ	27

Excess of both Bangladesh Standard and WHO guideline

Excess of Bangladesh Standard

(The values were determined as exceeding the standards before rounding off)

Excess of WHO guideline

Results of Observation Well and Hole (2/7) **Table 5.5.2** 

Trtration ¶0µL ₽QL 5PQL ≺PQL Å 80 00 å Å å Å 180 38 38 8 20 8 36 R 88 38 8 92 / FAAS 0.005 0.0085 0.0074 Zinc ۳g۲ PQL PQL PΩL PQL Å, ÅPQL 0.012 PQL ٩ Å Por Pol PQL Å Å PQL ភ Suffate breaverse, Chloride Buzenovas Catolum Regnesism Sodium Posssism Functed Catomium Total Cr Copper Cyanide Lead Mercury Nickel SP FAAS SP FAAS FAAS FAAS FAAS FAAS SP Extraction Ext 0.005 тgЛ ₽QL ^PQL PoL 0.0053 0.0083 <PQL 0.012 PoL PQL ₽g ₽QL <PQL ₽g APQL ₹PQL ₹PQL Pot å ïŻ 0.001 PQL PaL Por ÅQL ₽QL <₽QL ղճա ₽d PQL Å ÅQL Å Å ₫ <₽QL Å PQL PQL <PQL å ßH 0.005 0.0051 лgл PQL <PQL PQL <₽QL <₽QL PQL 0.0058 APQL Å <PQL ^PQL ÅåL <₽ΩL <PQL < PQL ۶PQL ^PQL đ PΩL 0.050 <₽QL <PQL <₽QL 0.020 ₽ġ ÅåL ₽ġ <PQL ^PQL 0.0 тgл ₽QL ď 4 ₽0 PQL 0.010 ₽QL Pol S 0.0066 0.005 ¢PQL ₹₽ Por APQL ₽gL APQL ₽QL <₽QL ЩgГ ₽ ₽QL ₽d ₽ď 0.010 <₽QL å ₽ ₽d 3 0.0015 0.025 <₽QL mg/L PQL ₽QL PQL PΩL ₽Q PQL ₽Q <₽QL Pol ₽QL PQL Å. ÅQL ₽G PQL ₽ġ Å Շ тgЛ Å PQL ₽QL Å ₽ Åβ ₽gL Åβ ₽ġ Å Å РQL Å ₫ ğ ₫ <₽QL ₽g ₹₽QL 8 ղցո 0.40 0.45 0.40 <u>.</u> 0.38 0.34 0.30 0.38 0.39 0.44 0.38 0.39 0.30 0.26 0.34 u. 0.36 0.25 0.26 0.50 Ъ 5 4.0 3.1 3.1 2.5 4.4 40 4.9 6.2 4.5 2 ÷. 4.3 3.8 4.0 ¥ 4.3 44 1:7 4,2 ղջո 0.05 ŝ ۴ 8 8 72 67 8 4 28 27 3 ន 21 \$ 33 ñ <u>8</u> 1 8 тgл 0.05 ßŴ ន 33 99 38 R ខ 52 24 24 25 54 24 8 23 ង 8 ន 24 тgЛ 0.5 ۶ ទី 2 8 8 88 8 8 88 87 2 \$ 8 67 67 2 2 2 2 CaCOAL ŝ 20 429 507 **6**6 **453** 429 429 439 429 429 439 507 456 **46** 429 350 507 350 429 Ъ 0.6 4.6 3.0 4.6 3.5 1.9 3.9 15 ΰ 2 65 4 4 \$ 35 4 ₽ 6.7 **\$**  16.3 1 15 22 134 лgг 15 (%<u>52</u> 0133 12.1 629 0.86 213 0.2 4.64 04 974 2.9 0.92 2.8 2.0 .e ÅαL Å Å Å Å 1/Bui ₫ ₽d Å å ₽ å ₽ġ PQL PQL ≤PQL ₽d Pol å ŝ Ś Ammonium Dissolved Min 50 S 0.951 0.72 FAS 0429 (1940) 30 0.08 Jan J 0.13 000 0.39 0.29 0.19 0.20 0.35 ĥ 1.6 <₽QL PQL PQL PQL тgл -PQL ₽QL ₽QL ₽QL ₽QL PΩL ₽å PoL ₽d 0.12 0.38 0.37 0.22 ß 0.1 Ŧ Nitrite ٩Q тgл 0.02 Pol ₽ġ PΩL ٩ PQL ₽Q 0.040 <PQL Å <₽QL ₽QL Å, Å ß ŝ 0.31 ₽<mark>0</mark>4 0.60 1.5 Nitrate Å PQL Pol ₽QL ₽ mg∕L ₽ġ Pol 0.2 ₽QL Å ₽ġ Å ŝ ŝ 0.51 ĝ 0.41 0.30 1.4 2.5 1.5 Standard Standard ŝ 0.13 тgл ê 513 363 398 **4**5 607 575 572 371 346 윩 368 355 359 375 27 325 417 391 **Femperature** Conductivity Hardness CaCO<sub>M</sub> Hardness 65.0 0.5 90.2 10 113 113 113 114 11 <u>8</u> 93.1 93.1 92.9 90.3 **1**09 107 ŝ 5 ₽ Conductivity meter шS/т 0.02 89.8 43.2 80.1 50.9 B 62.2 61.2 63,3 94.8 89.4 58.0 2 53.2 57.4 56.7 55.4 56.0 58.6 65.1 0 Deg C Thermo meter Deg C 29.9 Temp 28.0 27.1 29.1 29.2 28.2 28.1 24.3 28.5 28.6 28.8 28.7 29.1 29.4 29.3 29.3 29.3 29.4 pH meter 7.19 7.35 7.50 H 7.56 7.24 7.99 7.19 7.37 7.27 7.28 7.62 7.23 7.49 7.59 7.24 7.46 7.23 6.94 표 0 18-Oct-10 06-Aug-01 02-Aug-01 05-Aug-01 05-Dec-01 06-Aug-01 06-Aug-01 06-Aug-01 08-Aug-01 06-Aug-01 06-Aug-01 06-Aug-01 06-Aug-01 Date of sampling 11-Sep-01 08-Nov-01 06-Aug-01 06-Aug-01 06-Aug-01 Practical Quantitation Limit Analyte Method Chit OH-US2-4-SIP-30min OH-US2-1-SIP-30min OH-US2-2-SIP-30min OH-US2-3-SIP-30min Sample No OH-JS2-1-SIP-140min OH-USZ-3-SIP-140min OHJS24-SIP-140min OH-US2-2-SIP-140min OW-JS2-48h M1-2SL-WO OW JS2-2M OH-US2-1-BP OHJS2-2-BP OH-US2-3-BP OH-US24BP OW-JS2-4M OW-JS2-BP ME-2SL-WO Jessone2

(The values were determined as exceeding the standards before rounding off)

Excess of both Bangladesh Standard and WHO guideline

Excess of Bangladesh Standard

Excess of WHO guideline

5-223

Table 5.5.2

### Results of Observation Well and Hole (3/7)

Metric	Analyte		Hd	Temperature Conductivity Hardness	Conductivity	Hardness	TDS	Nitrate	Nitritte	Ammonjum	Dissolved Min	Sulfate D	Dissolved Fe Chloride	iloride Bka	Bicarbonate CBI	Calcium Magr	Magnesium Soc	Sodium Pota	Potasshum Fluo	Fluoride Cadmium Total Cr	ium Total	I Cr Copper	ber Cyanide	ide Lead	Mercury	v Nickel	Zinc	COD
Image         Image <th< th=""><th>Method</th><th>a</th><th></th><th></th><th>Conductivity meter</th><th>Standard</th><th>Standard</th><th>٩ ٩</th><th>٩ ٩</th><th>SP</th><th>FAAS</th><th><u> </u></th><th> </th><th></th><th></th><th></th><th><u> </u></th><th></th><th>I —</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>Titration</th></th<>	Method	a			Conductivity meter	Standard	Standard	٩ ٩	٩ ٩	SP	FAAS	<u> </u>					<u> </u>		I —									Titration
1         0	Practical Quantitation	ţ		0 Deg C	0.02	0.5	0.13	0.2	0.02	0.1	0.08	5	<u> </u>													0.005	0.005	20
Image: boxed byTwo11<	Unit			Deg C	mS/m	CaCO <sub>A</sub> L	mg/L	mg/L	mg/L	mg/L	mg/L			· · ·						-		<u> </u>			-		mg/L	mg/L
111		f sampling	Ŧ	Temp	EC	Hardness	ŝĒ	°0N	NO2	NH4	Mn	so,	Fe												ę	ž	ភ	COD
werewe	Jhenaidah1														_										·			
111		Apr-01	7.25	24.8	76.8	141	492	0.46	<₽QL	< PQL	0.18	<pql< td=""><td>æ.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>&lt;₽QL</td><td>0.060</td><td>PQL</td></pql<>	æ.													<₽QL	0.060	PQL
weaking1 weaking1 weak1		Apr-01	7.22	25.3	78.2	146	501	0.41	₽QL	0.11	0.10	<pql< td=""><td>6.5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.0063</td><td>0.016</td><td>&lt;₽QL</td></pql<>	6.5													0.0063	0.016	<₽QL
weakingfixedfixedweak<		Jun-01	7.36	31.0	59.9	114	299	<pql< td=""><td>₽g</td><td><pql< td=""><td>0.19</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>ļ</td><td>₽QL</td><td>0.0060</td><td><pql< td=""></pql<></td></pql<></td></pql<>	₽g	<pql< td=""><td>0.19</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>ļ</td><td>₽QL</td><td>0.0060</td><td><pql< td=""></pql<></td></pql<>	0.19														ļ	₽QL	0.0060	<pql< td=""></pql<>
whileif andif and	<u> </u>	-uro1	7.96	28.5	44.2	69.69	283	PQL	PQL	0.17	0.091											<u> </u>				≮PQL	≮PQL	<₽QL
Owe-Hole(separe)(separe		Аид-01	7.30	29.3	51.6	105	330	<₽QL	PQL	PQL	0.15													<u> </u>		₽QL	spol	<pql< td=""></pql<>
(1)(2)(3)(3)(4)(3)(4)(3)(4)(3)(4)(3)(4)(3)(4)(3)(4)(3)(4)(3)(4)(3)(4)(3)(4)(3)(4)(3)(4)(3)(4)(1) </td <td></td> <td>Sep-01</td> <td>7.72</td> <td>28.5</td> <td>47.4</td> <td>79.0</td> <td>303</td> <td>&lt;₽QL</td> <td><pql< td=""><td>&lt;₽QL</td><td>≮PQL</td><td>PoL</td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>₹₽QĽ</td><td>&lt;₽QL</td><td>&lt;₽QL</td></pql<></td>		Sep-01	7.72	28.5	47.4	79.0	303	<₽QL	<pql< td=""><td>&lt;₽QL</td><td>≮PQL</td><td>PoL</td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>₹₽QĽ</td><td>&lt;₽QL</td><td>&lt;₽QL</td></pql<>	<₽QL	≮PQL	PoL			-											₹₽QĽ	<₽QL	<₽QL
OHHere(Memoint) <th< td=""><td></td><td>0ct-01</td><td>7.43</td><td>29.7</td><td>76.0</td><td>110</td><td>487</td><td>&lt;₽QL</td><td>&lt;₽QL</td><td>&lt;₽QL</td><td>POL</td><td><pql< td=""><td>292</td><td></td><td></td><td></td><td></td><td></td><td></td><td> </td><td></td><td></td><td><u> </u></td><td></td><td></td><td>₽QL</td><td>PQL</td><td><pql< td=""></pql<></td></pql<></td></th<>		0ct-01	7.43	29.7	76.0	110	487	<₽QL	<₽QL	<₽QL	POL	<pql< td=""><td>292</td><td></td><td></td><td></td><td></td><td></td><td></td><td> </td><td></td><td></td><td><u> </u></td><td></td><td></td><td>₽QL</td><td>PQL</td><td><pql< td=""></pql<></td></pql<>	292										<u> </u>			₽QL	PQL	<pql< td=""></pql<>
OWH:HM(126)(24) <th< td=""><td>OW-JH1-6M</td><td>Nov-01</td><td>7.25</td><td>27.1</td><td>82.5</td><td>143</td><td>528</td><td>POL</td><td>PQL</td><td>PQL</td><td>0.35</td><td>PoL</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td><u> </u></td><td><u> </u></td><td><pql< td=""><td>₽QL</td><td>&lt;₽QL</td></pql<></td></th<>	OW-JH1-6M	Nov-01	7.25	27.1	82.5	143	528	POL	PQL	PQL	0.35	PoL												<u> </u>	<u> </u>	<pql< td=""><td>₽QL</td><td>&lt;₽QL</td></pql<>	₽QL	<₽QL
Herrier         Exercise	M7-1H1-WO	Dec-01	7.26	24.7	79.8	147	510	PQL	₽a∟	0.11	0.32	6.6														₽QL	<pql< td=""><td>PQL</td></pql<>	PQL
Z-Mayeri7.342.626.632.66100.336.700.356.700.356.700.356.700.356.706.700.356.706.700.356.70																												
Z-Aprici7.312.64(47.4)9.06(9.0(6.5)(9.01)(6.5)(9.01)(6.01)(9.01) <t< td=""><td></td><td>Apr-01</td><td>7.34</td><td>25.2</td><td>46.3</td><td>92.6</td><td>296</td><td>1.0</td><td>0.53</td><td>₽QL</td><td>0.35</td><td>13</td><td>Sich</td><td>-</td><td></td><td></td><td></td><td></td><td>•</td><td></td><td></td><td></td><td></td><td></td><td></td><td>₽QL</td><td>PQL</td><td>₽QL</td></t<>		Apr-01	7.34	25.2	46.3	92.6	296	1.0	0.53	₽QL	0.35	13	Sich	-					•							₽QL	PQL	₽QL
Z-Apriori7.1725.44.169100660.640.630.640.030.640.010.740.010.74 <th< td=""><td></td><td>Apr-01</td><td>7.31</td><td>25.4</td><td>47.4</td><td>90.8</td><td>303</td><td>0.79</td><td>0.65</td><td><pql< td=""><td>0.33</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>&lt;₽aL</td><td><pql< td=""><td>sPQL</td></pql<></td></pql<></td></th<>		Apr-01	7.31	25.4	47.4	90.8	303	0.79	0.65	<pql< td=""><td>0.33</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>&lt;₽aL</td><td><pql< td=""><td>sPQL</td></pql<></td></pql<>	0.33															<₽aL	<pql< td=""><td>sPQL</td></pql<>	sPQL
Z-Aprol7.252.6.460.21093850.59POL0.510.04POL0.510.527.00.510.557.12.5POLPOL7.12.5POLPOL7.12.5POLPOL7.12.5POLPOL2.53.7 <th< td=""><td></td><td>Apr-01</td><td>7.27</td><td>25.4</td><td>47.8</td><td>91.0</td><td>306</td><td>0.68</td><td>0.65</td><td>PQL</td><td>0.31</td><td>8 J</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>&lt; PQL</td><td><pql< td=""><td><pql< td=""></pql<></td></pql<></td></th<>		Apr-01	7.27	25.4	47.8	91.0	306	0.68	0.65	PQL	0.31	8 J														< PQL	<pql< td=""><td><pql< td=""></pql<></td></pql<>	<pql< td=""></pql<>
Z-Apr-017.162556607115389180.0900.510.25Pold <b>Z</b> 3737132473.70.356906706701		Apt-01	7.25	25.4	60.2	109	385	0.69	<pql< td=""><td>0.61</td><td>0.40</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td><pql< td=""><td>0.0094</td><td>&lt;₽QL</td></pql<></td></pql<>	0.61	0.40															<pql< td=""><td>0.0094</td><td>&lt;₽QL</td></pql<>	0.0094	<₽QL
ZZAPU-01         7.17         25.3         62.6         12         401         12         14         0.42         0.25         401         13         31         31         31         31         31         31         31         31         31         401	_	Apr-01	7.16	25.5	60.7	115	388	1.8	060.0	0.51	0.25				_											<₽QL	0.13	<₽QL
ZZAPU-01         7:10         25:0         65.5         1:25         4:0         1:0         2:2         POL         1:0         2:2         POL         1:0         2:1         1:0         2:2         POL         1:0         2:1         1:0         2:0         1:0         2:0         1:0         2:0        2:0         2:0 <th< td=""><td></td><td>Apr-01</td><td>7.17</td><td>25.3</td><td>62.6</td><td>121</td><td>401</td><td>12</td><td>1.4</td><td>0.42</td><td>0.25</td><td></td><td>200</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td><pql< td=""><td>0.014</td><td>&lt;₽QL</td></pql<></td></th<>		Apr-01	7.17	25.3	62.6	121	401	12	1.4	0.42	0.25		200													<pql< td=""><td>0.014</td><td>&lt;₽QL</td></pql<>	0.014	<₽QL
ZZAPU-01         7.26         25.6         65.5         128         419         14         0.16         0.15         17         25.0         17         26.1         0.16         17         26.0         17         26.1         17         26.1         17         26.1         17         26.1         17         26.1         17         26.1         17         26.1         17         26.1         17.1         26.1         27.1         26.1         27.1 <th< td=""><td></td><td>Apr-01</td><td>7.10</td><td>25.0</td><td>65.6</td><td>125</td><td>420</td><td>1.6</td><td>1.1</td><td>0.22</td><td><pql< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>&lt;₽QL</td><td>spQL</td><td>&lt;₽QL</td></pql<></td></th<>		Apr-01	7.10	25.0	65.6	125	420	1.6	1.1	0.22	<pql< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>&lt;₽QL</td><td>spQL</td><td>&lt;₽QL</td></pql<>															<₽QL	spQL	<₽QL
ZZAPU-01       7.15       Z56       652       127       117       12       9-01       0.14       15       350       100       Z6       14       4.0       12       4.0       20       4.0       13       4.0       12       4.0       25       7.3       4.01       6-01       6		Apr-01	7.26	25.6	65.5	128	419	1.4	<₽QL	0.78	0.15	17											·. ·			<pαl< td=""><td>0.015</td><td>&lt;₽QL</td></pαl<>	0.015	<₽QL
22.Apr-01       7.16       25.5       73.9       137       473       0.24       epcl       0.005       400       901       11       480       99       38       13       4.4       0.31       epcl       601       2005       0.0053 <t< td=""><td></td><td>Apr-01</td><td>7.15</td><td>25.6</td><td>65.2</td><td>127</td><td>417</td><td>1.2</td><td>&lt;₽QL</td><td>0.78</td><td>0.14</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>PQL</td><td>0.011</td><td>&lt;₽QL</td></t<>		Apr-01	7.15	25.6	65.2	127	417	1.2	<₽QL	0.78	0.14															PQL	0.011	<₽QL
22-Apr-01 7.14 25.2 75.8 138 485 0.26 ePa1 ePa1 ePa1 ePa1 ePa1 ePa1 ePa1 ePa1		Apr-01	7.16	25.5	73.9	137	473	0.24	<₽QL	PQL	680.0		30 A										_			0.0092	0.0063	<₽QL
22-Apr-01 7.20 75.2 740 481 0.36 <pol 0.057="" 0.13="" 0.17<="" 0.33="" 100="" 11="" 24="" 3.8="" 38="" 433="" <pol="" td=""><td></td><td>Apr-01</td><td>7.14</td><td>25.2</td><td>75.8</td><td>138</td><td>485</td><td>0.26</td><td>₽QL</td><td>₽ġ</td><td>₽d</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.0069</td><td><pql< td=""><td><pql< td=""></pql<></td></pql<></td></pol>		Apr-01	7.14	25.2	75.8	138	485	0.26	₽QL	₽ġ	₽d															0.0069	<pql< td=""><td><pql< td=""></pql<></td></pql<>	<pql< td=""></pql<>
		Apr-01	7.20	25.0	75.2	140	481	0.36	<₽QL	0.13	₽QL																0.17	PQL

Excess of both Bangladesh Standard and WHO guideline

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Excess of Bangladesh Standard

(The values were determined as exceeding the standards before rounding off)

Excess of WHO guideline

Table 5.5.2 Results of Ob

# Results of Observation Well and Hole (4/7)

Analyte		Hq	Temperature	Temperature Conductivity Hardness	Hardness	TDS	Nitrate	Nitrite A	Ammonium Dis	Dissoftwed Min	Sulfate Dime	Disactived Fe	Chloride Bicarbonate	mate Calcium	um Magnesium	um Sodium	m Potasshum	m Fluoride	Cadmium	Cadmium Total Cr	Copper	Cyanide	Lead	Mercury	Nickel Z	Zinc	ß
Method	P	pH meter	Thermo metter	Conductivity meter	Standard	Standard	ЪР	ß	SP F	FAAS	SP F#	FAAS S	SP Titration	tion FAAS	AS FAAS	S FAAS	s FAAS	SP SP	Extraction/ FAAS	Extraction / FAAS	Extraction /FAAS	SР	/FAAS	Extraction E	Edtraction Edt	Extraction Tri / FAAS	Titration
Practical Quantitation Limit	ation Limit	•	0 Deg C	0.02	0.5	0.13	0.2	0.02	<u>.</u>	0.08	2	0.2	0.6 20	0.5	5 0.05	5 0.0 <del>5</del>	0.1	0.1	0.0015	0.025	0.005	0.01	0.005	0.001 0	0.005 0.	0.005	R
Unit			Deg C	mS/m	CacoyL	mg/L	шBЛ	mg/L	ı Jogu	r mg/L	m Jom	աց/լ. աջ	mg/L caco/L	2 <sup>4</sup> mg/	L mg/L	Г Ш	mg/L	т ш бг	тви	mg/L	ш6Л	тgл	Ъ	ug/L	mg/L m	u Dg/L	Jan Jan
Sample No	Date of sampling	μd	Temp	EC	Hardness	ŝŒ	°0N	NO2	μ	uW	so,	Fe	CI HCO	° °	BW	R	¥	ш	8	ნ	3	S	8	£	Z	5	8
Jhenaidah 2										<b> </b>																╞	
OW-1H2-BP	03-Jun-01	7.30	31.3	61.5	134	307	<₽aL	0.10	<pol< th=""><th>0.096</th><th><pql< th=""><th>- and</th><th>2.7 467</th><th>7 97</th><th>37</th><th>4</th><th>3.9</th><th>0.36</th><th>PQL</th><th><pql< th=""><th>0.0085</th><th>≮PαL</th><th>PoL</th><th>• ₽QL</th><th><pql 0.0<="" th=""><th>0.0086 &lt;</th><th>₽QL</th></pql></th></pql<></th></pql<></th></pol<>	0.096	<pql< th=""><th>- and</th><th>2.7 467</th><th>7 97</th><th>37</th><th>4</th><th>3.9</th><th>0.36</th><th>PQL</th><th><pql< th=""><th>0.0085</th><th>≮PαL</th><th>PoL</th><th>• ₽QL</th><th><pql 0.0<="" th=""><th>0.0086 &lt;</th><th>₽QL</th></pql></th></pql<></th></pql<>	- and	2.7 467	7 97	37	4	3.9	0.36	PQL	<pql< th=""><th>0.0085</th><th>≮PαL</th><th>PoL</th><th>• ₽QL</th><th><pql 0.0<="" th=""><th>0.0086 &lt;</th><th>₽QL</th></pql></th></pql<>	0.0085	≮PαL	PoL	• ₽QL	<pql 0.0<="" th=""><th>0.0086 &lt;</th><th>₽QL</th></pql>	0.0086 <	₽QL
OW-JH2-48h	06-Jun-01	7.64	30.7	61.2	135	306	<pql< th=""><th>&lt;₽QL</th><th>0.18</th><th>&lt; PQL &lt;</th><th><pql 2323<="" th=""><th></th><th>9.3 456</th><th>86 98</th><th>8</th><th>15</th><th>4.1</th><th>0:30</th><th>&lt;₽QL</th><th>PQL</th><th>₽ġ</th><th>sPQL</th><th>&lt;₽QL</th><th>- ₽QL</th><th>⊳PQL</th><th><ul> <li>&gt;</li> /ul></th><th>₽QL</th></pql></th></pql<>	<₽QL	0.18	< PQL <	<pql 2323<="" th=""><th></th><th>9.3 456</th><th>86 98</th><th>8</th><th>15</th><th>4.1</th><th>0:30</th><th>&lt;₽QL</th><th>PQL</th><th>₽ġ</th><th>sPQL</th><th>&lt;₽QL</th><th>- ₽QL</th><th>⊳PQL</th><th><ul> <li>&gt;</li> /ul></th><th>₽QL</th></pql>		9.3 456	86 98	8	15	4.1	0:30	<₽QL	PQL	₽ġ	sPQL	<₽QL	- ₽QL	⊳PQL	<ul> <li>&gt;</li> /ul>	₽QL
OW-2H2-1M	03-Jul-01	7.99	29.0	36.8	49.6	236	<pql< th=""><th><pql< th=""><th>0.13</th><th><pql <<="" th=""><th>&lt;₽QL &lt;</th><th><pql 3.<="" th=""><th>3.2 272</th><th>2 26</th><th>23</th><th>14</th><th>5.4</th><th>0.17</th><th>&lt;₽QL</th><th><pql< th=""><th>0.011</th><th>₽QL</th><th>ď,</th><th>₽OL</th><th>PQL</th><th>₽QL</th><th>27</th></pql<></th></pql></th></pql></th></pql<></th></pql<>	<pql< th=""><th>0.13</th><th><pql <<="" th=""><th>&lt;₽QL &lt;</th><th><pql 3.<="" th=""><th>3.2 272</th><th>2 26</th><th>23</th><th>14</th><th>5.4</th><th>0.17</th><th>&lt;₽QL</th><th><pql< th=""><th>0.011</th><th>₽QL</th><th>ď,</th><th>₽OL</th><th>PQL</th><th>₽QL</th><th>27</th></pql<></th></pql></th></pql></th></pql<>	0.13	<pql <<="" th=""><th>&lt;₽QL &lt;</th><th><pql 3.<="" th=""><th>3.2 272</th><th>2 26</th><th>23</th><th>14</th><th>5.4</th><th>0.17</th><th>&lt;₽QL</th><th><pql< th=""><th>0.011</th><th>₽QL</th><th>ď,</th><th>₽OL</th><th>PQL</th><th>₽QL</th><th>27</th></pql<></th></pql></th></pql>	<₽QL <	<pql 3.<="" th=""><th>3.2 272</th><th>2 26</th><th>23</th><th>14</th><th>5.4</th><th>0.17</th><th>&lt;₽QL</th><th><pql< th=""><th>0.011</th><th>₽QL</th><th>ď,</th><th>₽OL</th><th>PQL</th><th>₽QL</th><th>27</th></pql<></th></pql>	3.2 272	2 26	23	14	5.4	0.17	<₽QL	<pql< th=""><th>0.011</th><th>₽QL</th><th>ď,</th><th>₽OL</th><th>PQL</th><th>₽QL</th><th>27</th></pql<>	0.011	₽QL	ď,	₽OL	PQL	₽QL	27
OW-JH2-2M	13-Aug-01	7.91	29.6	36.8	62.5	235	<pql< th=""><th><pql< th=""><th>&lt; PQL</th><th>- FOL</th><th><pql 0<="" th=""><th>0.56 1.</th><th>1.7 234</th><th>4</th><th>27</th><th>ę</th><th>3.6</th><th>0.17</th><th><pql< th=""><th><pql< th=""><th>₽QL</th><th>₽aL</th><th>0.0068</th><th>≁ ¢0T</th><th><pql 0.0<="" th=""><th>&gt; 0600.0</th><th>βġ</th></pql></th></pql<></th></pql<></th></pql></th></pql<></th></pql<>	<pql< th=""><th>&lt; PQL</th><th>- FOL</th><th><pql 0<="" th=""><th>0.56 1.</th><th>1.7 234</th><th>4</th><th>27</th><th>ę</th><th>3.6</th><th>0.17</th><th><pql< th=""><th><pql< th=""><th>₽QL</th><th>₽aL</th><th>0.0068</th><th>≁ ¢0T</th><th><pql 0.0<="" th=""><th>&gt; 0600.0</th><th>βġ</th></pql></th></pql<></th></pql<></th></pql></th></pql<>	< PQL	- FOL	<pql 0<="" th=""><th>0.56 1.</th><th>1.7 234</th><th>4</th><th>27</th><th>ę</th><th>3.6</th><th>0.17</th><th><pql< th=""><th><pql< th=""><th>₽QL</th><th>₽aL</th><th>0.0068</th><th>≁ ¢0T</th><th><pql 0.0<="" th=""><th>&gt; 0600.0</th><th>βġ</th></pql></th></pql<></th></pql<></th></pql>	0.56 1.	1.7 234	4	27	ę	3.6	0.17	<pql< th=""><th><pql< th=""><th>₽QL</th><th>₽aL</th><th>0.0068</th><th>≁ ¢0T</th><th><pql 0.0<="" th=""><th>&gt; 0600.0</th><th>βġ</th></pql></th></pql<></th></pql<>	<pql< th=""><th>₽QL</th><th>₽aL</th><th>0.0068</th><th>≁ ¢0T</th><th><pql 0.0<="" th=""><th>&gt; 0600.0</th><th>βġ</th></pql></th></pql<>	₽QL	₽aL	0.0068	≁ ¢0T	<pql 0.0<="" th=""><th>&gt; 0600.0</th><th>βġ</th></pql>	> 0600.0	βġ
OW-JH2-3M	14-Sep-01	7.77	28.2	42.5	7.17	272	<pql< th=""><th><pql< th=""><th><pql <<="" th=""><th><pql <<="" th=""><th><pql 1.8<="" th=""><th></th><th>4.8 312</th><th>2 36</th><th>35</th><th>21</th><th>=</th><th>0.21</th><th>&lt;₽QL</th><th><pql< th=""><th>0.0069</th><th>₹PQL</th><th>₽ġ</th><th>v PQL</th><th>₽oL</th><th>&gt; PQL</th><th>₽ġĽ</th></pql<></th></pql></th></pql></th></pql></th></pql<></th></pql<>	<pql< th=""><th><pql <<="" th=""><th><pql <<="" th=""><th><pql 1.8<="" th=""><th></th><th>4.8 312</th><th>2 36</th><th>35</th><th>21</th><th>=</th><th>0.21</th><th>&lt;₽QL</th><th><pql< th=""><th>0.0069</th><th>₹PQL</th><th>₽ġ</th><th>v PQL</th><th>₽oL</th><th>&gt; PQL</th><th>₽ġĽ</th></pql<></th></pql></th></pql></th></pql></th></pql<>	<pql <<="" th=""><th><pql <<="" th=""><th><pql 1.8<="" th=""><th></th><th>4.8 312</th><th>2 36</th><th>35</th><th>21</th><th>=</th><th>0.21</th><th>&lt;₽QL</th><th><pql< th=""><th>0.0069</th><th>₹PQL</th><th>₽ġ</th><th>v PQL</th><th>₽oL</th><th>&gt; PQL</th><th>₽ġĽ</th></pql<></th></pql></th></pql></th></pql>	<pql <<="" th=""><th><pql 1.8<="" th=""><th></th><th>4.8 312</th><th>2 36</th><th>35</th><th>21</th><th>=</th><th>0.21</th><th>&lt;₽QL</th><th><pql< th=""><th>0.0069</th><th>₹PQL</th><th>₽ġ</th><th>v PQL</th><th>₽oL</th><th>&gt; PQL</th><th>₽ġĽ</th></pql<></th></pql></th></pql>	<pql 1.8<="" th=""><th></th><th>4.8 312</th><th>2 36</th><th>35</th><th>21</th><th>=</th><th>0.21</th><th>&lt;₽QL</th><th><pql< th=""><th>0.0069</th><th>₹PQL</th><th>₽ġ</th><th>v PQL</th><th>₽oL</th><th>&gt; PQL</th><th>₽ġĽ</th></pql<></th></pql>		4.8 312	2 36	35	21	=	0.21	<₽QL	<pql< th=""><th>0.0069</th><th>₹PQL</th><th>₽ġ</th><th>v PQL</th><th>₽oL</th><th>&gt; PQL</th><th>₽ġĽ</th></pql<>	0.0069	₹PQL	₽ġ	v PQL	₽oL	> PQL	₽ġĽ
OW-IHZ-4M	18-Oct-01	7.91	29.8	47.0	57.0	301	<pql< th=""><th><pql< th=""><th><pol +<="" th=""><th><pql <<="" th=""><th><pql 0<="" th=""><th>0.40 2.</th><th>2.2 279</th><th>9 28</th><th>59</th><th>15</th><th>5.1</th><th>0.27</th><th>PQL</th><th><pql< th=""><th>Å</th><th>≮PQL</th><th>₽QL</th><th>* ₽aL</th><th><pql 0.0<="" th=""><th>0.0074 &lt;</th><th>PQL</th></pql></th></pql<></th></pql></th></pql></th></pol></th></pql<></th></pql<>	<pql< th=""><th><pol +<="" th=""><th><pql <<="" th=""><th><pql 0<="" th=""><th>0.40 2.</th><th>2.2 279</th><th>9 28</th><th>59</th><th>15</th><th>5.1</th><th>0.27</th><th>PQL</th><th><pql< th=""><th>Å</th><th>≮PQL</th><th>₽QL</th><th>* ₽aL</th><th><pql 0.0<="" th=""><th>0.0074 &lt;</th><th>PQL</th></pql></th></pql<></th></pql></th></pql></th></pol></th></pql<>	<pol +<="" th=""><th><pql <<="" th=""><th><pql 0<="" th=""><th>0.40 2.</th><th>2.2 279</th><th>9 28</th><th>59</th><th>15</th><th>5.1</th><th>0.27</th><th>PQL</th><th><pql< th=""><th>Å</th><th>≮PQL</th><th>₽QL</th><th>* ₽aL</th><th><pql 0.0<="" th=""><th>0.0074 &lt;</th><th>PQL</th></pql></th></pql<></th></pql></th></pql></th></pol>	<pql <<="" th=""><th><pql 0<="" th=""><th>0.40 2.</th><th>2.2 279</th><th>9 28</th><th>59</th><th>15</th><th>5.1</th><th>0.27</th><th>PQL</th><th><pql< th=""><th>Å</th><th>≮PQL</th><th>₽QL</th><th>* ₽aL</th><th><pql 0.0<="" th=""><th>0.0074 &lt;</th><th>PQL</th></pql></th></pql<></th></pql></th></pql>	<pql 0<="" th=""><th>0.40 2.</th><th>2.2 279</th><th>9 28</th><th>59</th><th>15</th><th>5.1</th><th>0.27</th><th>PQL</th><th><pql< th=""><th>Å</th><th>≮PQL</th><th>₽QL</th><th>* ₽aL</th><th><pql 0.0<="" th=""><th>0.0074 &lt;</th><th>PQL</th></pql></th></pql<></th></pql>	0.40 2.	2.2 279	9 28	59	15	5.1	0.27	PQL	<pql< th=""><th>Å</th><th>≮PQL</th><th>₽QL</th><th>* ₽aL</th><th><pql 0.0<="" th=""><th>0.0074 &lt;</th><th>PQL</th></pql></th></pql<>	Å	≮PQL	₽QL	* ₽aL	<pql 0.0<="" th=""><th>0.0074 &lt;</th><th>PQL</th></pql>	0.0074 <	PQL
MR-2H2-MO	05-Nov-01	7.38	26.8	71.3	122	457	Pol	₽QĽ	0,15	0.12	<pol 492<="" th=""><th></th><th>4.5 418</th><th>83</th><th>8</th><th>15</th><th>3.6</th><th>0.25</th><th>PQL</th><th>TÖd&gt;</th><th>PQL</th><th>₽OL</th><th>₽QL</th><th>₽a∟</th><th><pre> </pre></th><th>^ ₽0L</th><th>POL</th></pol>		4.5 418	83	8	15	3.6	0.25	PQL	TÖd>	PQL	₽OL	₽QL	₽a∟	<pre> </pre>	^ ₽0L	POL
M8-2HL-WO	04-Dec-01	7.86	24.4	49.1	76.7	314	₽QL	PQL	- ₽0Г	0.092 <	-Pol -Pol	¥.5 3.	3.9 284	33	37	4	4.0	0.20	<pql< th=""><th>¢ΩL</th><th>PQL</th><th>₽QL</th><th>PQL</th><th>₽GL</th><th>≮PQL</th><th>× ₽QL</th><th>POL</th></pql<>	¢ΩL	PQL	₽QL	PQL	₽GL	≮PQL	× ₽QL	POL
																								$\left  \right $	-	$\left  \right $	
OHJH2-1-BP	07-Jun-01	7.32	31.4	52.1	99.7	260	0.52	rPaL	<pql< th=""><th></th><th><pql< th=""><th>6</th><th>7.5 357</th><th>7 82</th><th>18</th><th>88</th><th>3.8</th><th>0.33</th><th>sPQL</th><th>PQL</th><th>PQL</th><th>₽QL</th><th>PQL</th><th>6 PQL</th><th>0.0089</th><th>× ⊳or</th><th>₽QL</th></pql<></th></pql<>		<pql< th=""><th>6</th><th>7.5 357</th><th>7 82</th><th>18</th><th>88</th><th>3.8</th><th>0.33</th><th>sPQL</th><th>PQL</th><th>PQL</th><th>₽QL</th><th>PQL</th><th>6 PQL</th><th>0.0089</th><th>× ⊳or</th><th>₽QL</th></pql<>	6	7.5 357	7 82	18	88	3.8	0.33	sPQL	PQL	PQL	₽QL	PQL	6 PQL	0.0089	× ⊳or	₽QL
OH-JH2-1-SIP-30min	07-Jun-01	7.34	31.0	46.4	92.6	232	2.2	≮PQL	0.13		POL S	11 5.	.5 276	е 1 1	15	18	3.8	0.33	<pql< th=""><th>₽ġ</th><th>PQL</th><th>₽QL</th><th>PQL</th><th>Por</th><th>₽or</th><th>Pol</th><th>₽QL</th></pql<>	₽ġ	PQL	₽QL	PQL	Por	₽or	Pol	₽QL
OH-JH2-1-SIP- 140min	07-Jun-01	7.40	31.4	49.9	101	250	0.74	<pql< th=""><th><pql< th=""><th></th><th><pql 218<="" th=""><th>si. e</th><th>6.7 336</th><th>5 85</th><th>9</th><th>20</th><th>3.1</th><th>0.39</th><th>PQL</th><th>₽QL</th><th>₽ΩL</th><th>PQL</th><th>POL</th><th>₽QL</th><th>₽ar</th><th><pre>&gt; Not</pre></th><th>PQL</th></pql></th></pql<></th></pql<>	<pql< th=""><th></th><th><pql 218<="" th=""><th>si. e</th><th>6.7 336</th><th>5 85</th><th>9</th><th>20</th><th>3.1</th><th>0.39</th><th>PQL</th><th>₽QL</th><th>₽ΩL</th><th>PQL</th><th>POL</th><th>₽QL</th><th>₽ar</th><th><pre>&gt; Not</pre></th><th>PQL</th></pql></th></pql<>		<pql 218<="" th=""><th>si. e</th><th>6.7 336</th><th>5 85</th><th>9</th><th>20</th><th>3.1</th><th>0.39</th><th>PQL</th><th>₽QL</th><th>₽ΩL</th><th>PQL</th><th>POL</th><th>₽QL</th><th>₽ar</th><th><pre>&gt; Not</pre></th><th>PQL</th></pql>	si. e	6.7 336	5 85	9	20	3.1	0.39	PQL	₽QL	₽ΩL	PQL	POL	₽QL	₽ar	<pre>&gt; Not</pre>	PQL
OH-IH2-2-BP	07-Jun-01	7.26	31.4	61.8	99.1	309	< PQL	<₽QL	0.35	() () () () () () () () () () () () () (	<pol 2.6<="" th=""><th>تشور أوم</th><th>21 363</th><th>3 81</th><th>18</th><th>55</th><th>4.8</th><th>0.51</th><th>.<pql< th=""><th>₽0F</th><th>0.0055</th><th>0.011</th><th>PQL</th><th>, IÅ</th><th>PaL 0.</th><th>0.011 - &lt;</th><th>PQL</th></pql<></th></pol>	تشور أوم	21 363	3 81	18	55	4.8	0.51	. <pql< th=""><th>₽0F</th><th>0.0055</th><th>0.011</th><th>PQL</th><th>, IÅ</th><th>PaL 0.</th><th>0.011 - &lt;</th><th>PQL</th></pql<>	₽0F	0.0055	0.011	PQL	, IÅ	PaL 0.	0.011 - <	PQL
OHJH2-2-SIP-30min	07-Jun-01	7.45	31.2	54.1	104	270	0.43	<₽QL	0.13		<pql 11.7<="" th=""><th>Line</th><th>11 361</th><th>1 86</th><th>18</th><th>34</th><th>4.1</th><th>0.40</th><th><pql< th=""><th><pql< th=""><th>&lt;₽QL</th><th>PQL</th><th>PQL</th><th>₽gL</th><th><pql 0.0<="" th=""><th>&gt; 0600.0</th><th>^PQL</th></pql></th></pql<></th></pql<></th></pql>	Line	11 361	1 86	18	34	4.1	0.40	<pql< th=""><th><pql< th=""><th>&lt;₽QL</th><th>PQL</th><th>PQL</th><th>₽gL</th><th><pql 0.0<="" th=""><th>&gt; 0600.0</th><th>^PQL</th></pql></th></pql<></th></pql<>	<pql< th=""><th>&lt;₽QL</th><th>PQL</th><th>PQL</th><th>₽gL</th><th><pql 0.0<="" th=""><th>&gt; 0600.0</th><th>^PQL</th></pql></th></pql<>	<₽QL	PQL	PQL	₽gL	<pql 0.0<="" th=""><th>&gt; 0600.0</th><th>^PQL</th></pql>	> 0600.0	^PQL
OH-JH2-2-SIP- 140min	08-Jun-01	7.38	31.6	53.9	99.3	270	0.51	0.20	0.13		<pol 211<="" th=""><th></th><th>8.8 285</th><th>5 83</th><th>16</th><th>15</th><th>4.1</th><th>0.34</th><th>SPQL</th><th><pql< th=""><th>to⊿&gt;</th><th>PQL</th><th>POL</th><th>₽QL</th><th>₽OL</th><th>PQL</th><th>₽aL</th></pql<></th></pol>		8.8 285	5 83	16	15	4.1	0.34	SPQL	<pql< th=""><th>to⊿&gt;</th><th>PQL</th><th>POL</th><th>₽QL</th><th>₽OL</th><th>PQL</th><th>₽aL</th></pql<>	to⊿>	PQL	POL	₽QL	₽OL	PQL	₽aL
OH.JP2-3-BP	08-Jun-01	7.36	32.0	58.3	127	53	12	<₽QL	0.14	an Tab	PQL 433	1.164	3.2 399	9 11 <sup>0</sup>	8	4	4.3	0.33	<pql< th=""><th>&lt;₽QL</th><th>sPQL</th><th>0.016</th><th>0.0058</th><th><pal< th=""><th>0.0053 0.0</th><th>0.0076 &lt;</th><th>PaL</th></pal<></th></pql<>	<₽QL	sPQL	0.016	0.0058	<pal< th=""><th>0.0053 0.0</th><th>0.0076 &lt;</th><th>PaL</th></pal<>	0.0053 0.0	0.0076 <	PaL
OH-JH2-3-SIP-30min	08-Jun-01	7.28	31.3	60.3	123	302	1.1	0.64	0.12	0.59	<pat 21<="" th=""><th>-1 3.4</th><th>.4 427</th><th>7 100</th><th>22</th><th>23</th><th>4.2</th><th>0.34</th><th>&lt;₽QL</th><th><pql< th=""><th>≺PQL</th><th>sPQL</th><th>- ₽ 0 1</th><th>* ₽0Г</th><th><pql <₽<="" th=""><th>POL</th><th>POL</th></pql></th></pql<></th></pat>	-1 3.4	.4 427	7 100	22	23	4.2	0.34	<₽QL	<pql< th=""><th>≺PQL</th><th>sPQL</th><th>- ₽ 0 1</th><th>* ₽0Г</th><th><pql <₽<="" th=""><th>POL</th><th>POL</th></pql></th></pql<>	≺PQL	sPQL	- ₽ 0 1	* ₽0Г	<pql <₽<="" th=""><th>POL</th><th>POL</th></pql>	POL	POL
OH-JH2-3-SIP- 140min	08-Jun-01	7.19	31.5	37.9	123	190	< PQL	0.47	0.12	0.47	<pql 21.<="" th=""><th>െ</th><th>2.5 222</th><th>2 100</th><th>22</th><th>18</th><th>4.1</th><th>0.23</th><th>&lt;₽QL</th><th>PQL</th><th>&lt;₽aL</th><th>PQL</th><th>-ba -ba</th><th>PQL</th><th>POL ≤</th><th>⊳ PQL</th><th>PQL</th></pql>	െ	2.5 222	2 100	22	18	4.1	0.23	<₽QL	PQL	<₽aL	PQL	-ba -ba	PQL	POL ≤	⊳ PQL	PQL
OH-JH2-4-BP	08-Jun-01	7.88	31.2	49.0	53.8	245	<₽QL	PQL	0.11 <	<pql <<="" th=""><th><pql 0.<="" th=""><th>0.47 11</th><th>16 304</th><th>4 25</th><th>29</th><th><b>8</b>4</th><th>5.5</th><th>0.27</th><th>&lt;₽QL</th><th>-PQL</th><th><pql< th=""><th><pol &lt;</pol </th><th>0.012</th><th><pql <<="" th=""><th>4 ►PQL <f< th=""><th><pql th="" ≤<=""><th>₽GL</th></pql></th></f<></th></pql></th></pql<></th></pql></th></pql>	<pql 0.<="" th=""><th>0.47 11</th><th>16 304</th><th>4 25</th><th>29</th><th><b>8</b>4</th><th>5.5</th><th>0.27</th><th>&lt;₽QL</th><th>-PQL</th><th><pql< th=""><th><pol &lt;</pol </th><th>0.012</th><th><pql <<="" th=""><th>4 ►PQL <f< th=""><th><pql th="" ≤<=""><th>₽GL</th></pql></th></f<></th></pql></th></pql<></th></pql>	0.47 11	16 304	4 25	29	<b>8</b> 4	5.5	0.27	<₽QL	-PQL	<pql< th=""><th><pol &lt;</pol </th><th>0.012</th><th><pql <<="" th=""><th>4 ►PQL <f< th=""><th><pql th="" ≤<=""><th>₽GL</th></pql></th></f<></th></pql></th></pql<>	<pol &lt;</pol 	0.012	<pql <<="" th=""><th>4 ►PQL <f< th=""><th><pql th="" ≤<=""><th>₽GL</th></pql></th></f<></th></pql>	4 ►PQL <f< th=""><th><pql th="" ≤<=""><th>₽GL</th></pql></th></f<>	<pql th="" ≤<=""><th>₽GL</th></pql>	₽GL
OH-JH2-4-SIP-30min	08-Jun-01	7.17	31.6	57.8	112	289	0.46	0.26	< PQL	0.725   <	<pql 13.0<="" th=""><th>1</th><th>2.8 346</th><th>5 82</th><th>29</th><th>æ</th><th>5.3</th><th>0.33</th><th>PQL</th><th>sPQL</th><th>&lt;₽QL</th><th>₽ġ</th><th>- ₽0Г</th><th>PQL</th><th><pql th="" ≤<=""><th><pql< th=""><th>₽G</th></pql<></th></pql></th></pql>	1	2.8 346	5 82	29	æ	5.3	0.33	PQL	sPQL	<₽QL	₽ġ	- ₽0Г	PQL	<pql th="" ≤<=""><th><pql< th=""><th>₽G</th></pql<></th></pql>	<pql< th=""><th>₽G</th></pql<>	₽G
OH-JH2-4-SIP- 140min	08-Jun-01	7.09	. 31.5	41.4	121	207	<pql< th=""><th>0.26</th><th><pat< th=""><th>0.37 &lt;</th><th><pal< th=""><th>2.3 1.</th><th>1.7 247</th><th>7 90</th><th>34</th><th>ส่</th><th>4.3</th><th>0.20</th><th><pql< th=""><th>&lt;₽QL</th><th>PQL</th><th>PQL</th><th>- ≻or</th><th>× ₽0L</th><th><pol th="" ≤<=""><th>PQL</th><th>₽QL</th></pol></th></pql<></th></pal<></th></pat<></th></pql<>	0.26	<pat< th=""><th>0.37 &lt;</th><th><pal< th=""><th>2.3 1.</th><th>1.7 247</th><th>7 90</th><th>34</th><th>ส่</th><th>4.3</th><th>0.20</th><th><pql< th=""><th>&lt;₽QL</th><th>PQL</th><th>PQL</th><th>- ≻or</th><th>× ₽0L</th><th><pol th="" ≤<=""><th>PQL</th><th>₽QL</th></pol></th></pql<></th></pal<></th></pat<>	0.37 <	<pal< th=""><th>2.3 1.</th><th>1.7 247</th><th>7 90</th><th>34</th><th>ส่</th><th>4.3</th><th>0.20</th><th><pql< th=""><th>&lt;₽QL</th><th>PQL</th><th>PQL</th><th>- ≻or</th><th>× ₽0L</th><th><pol th="" ≤<=""><th>PQL</th><th>₽QL</th></pol></th></pql<></th></pal<>	2.3 1.	1.7 247	7 90	34	ส่	4.3	0.20	<pql< th=""><th>&lt;₽QL</th><th>PQL</th><th>PQL</th><th>- ≻or</th><th>× ₽0L</th><th><pol th="" ≤<=""><th>PQL</th><th>₽QL</th></pol></th></pql<>	<₽QL	PQL	PQL	- ≻or	× ₽0L	<pol th="" ≤<=""><th>PQL</th><th>₽QL</th></pol>	PQL	₽QL
																											l

Excess of both Bangladesh Standard and WHO guideline

Excess of Bangladesh Standard

(The values were determined as exceeding the standards before rounding off)

Excess of WHO guideline

**Table 5.5.2** 

### Results of Observation Well and Hole (5/7)

(i)	Analyte		Hd	emperature	Temperature Conductivity Hardness	Hardness	SQ1	Nitrate	Nitrite	Ammonium D	Disselved Me	Suffate pt	Ditzohuut Fe Ch	Chloride Blc	Bicarbonate Cal	Calcium Mag	Magnesium So	Sodium Pat	Potassium Fluo	Fluoride Cadmium	kum Total Cr	Cr Copper	er Cyanide	de Lead	Mercury	Nickel	Zinc	COD
Method10 0040002010 <t< th=""><th>Method</th><th></th><th>pH meter 1</th><th>Thermo meter</th><th>Conductivity meter</th><th>Standard</th><th>Standard</th><th>SP</th><th>SP</th><th>SP</th><th>FAAS</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>1</th><th>-</th><th></th><th>Extraction/ FAAS</th><th>Titration</th></t<>	Method		pH meter 1	Thermo meter	Conductivity meter	Standard	Standard	SP	SP	SP	FAAS													1	-		Extraction/ FAAS	Titration
(4) (1) (2) (2) (2) (3) (3) (3) (3) (3) (3) (3) (3) (3) (3	Practical Quantitation	n Limit		0 Deg C	0.02	0.5	0.13	0.2	0.02	0.1	0.08	5		0.6												0.005	0.005	20
Monome         Mode         <	Unit			Deg C	mS/m	mg CeCO/L	mg/L	mg/L	mg/L	тдЛ	mg/L				<u> </u>	<u> </u>							·		<u> </u>	mg/L	mg/L	mg/L
111 <th1< th=""><th></th><th>or sampling</th><th>Ħ</th><th>Temp</th><th>EC</th><th>Hardness</th><th>70S</th><th>°0N</th><th>NO2</th><th>NH4</th><th>Wu</th><th>so,</th><th>Fe</th><th></th><th></th><th></th><th></th><th>e)</th><th></th><th></th><th></th><th></th><th>NO</th><th>å</th><th>Ŧ</th><th>ïZ</th><th>ន</th><th>8</th></th1<>		or sampling	Ħ	Temp	EC	Hardness	70S	°0N	NO2	NH4	Wu	so,	Fe					e)					NO	å	Ŧ	ïZ	ន	8
111	Chuadanga1																											
21.4.121.721.611.611.612.6		l-Jan-01	722	23.2	81.7	12	523	≮PQL	0.16	0.65	0.29	<pql< td=""><td>00</td><td>3.0</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td><u> </u></td><td></td><td><u> </u></td><td>₽QL</td><td>₽aL</td><td>sPaL</td><td>₽aL</td></pql<>	00	3.0								<u> </u>		<u> </u>	₽QL	₽aL	sPaL	₽aL
Applicatione1/1300600601600600600600700700600 </td <td></td> <td>2-Feb-01</td> <td>7.27</td> <td>23.9</td> <td>84.1</td> <td>155</td> <td>638</td> <td>₽QL</td> <td>₽QL</td> <td>1.1</td> <td>₽QL</td> <td>&lt;₽QL</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td><u> </u></td> <td><u> </u></td> <td><u>.</u></td> <td> </td> <td>₽QL</td> <td>0.0057</td> <td>PQL</td> <td>₽ġ</td>		2-Feb-01	7.27	23.9	84.1	155	638	₽QL	₽QL	1.1	₽QL	<₽QL									<u> </u>	<u> </u>	<u>.</u>		₽QL	0.0057	PQL	₽ġ
AppendityTaxBit		3-Mar-01	7.41	26.6	56.0	88.1	359	<₽QL	₽QL	0.48	<₽QL	₽QL	لكند								<u> </u>	<u> </u>	┞.	<u> </u>	₽ġ	₽QL	0.0078	₽QL
(4).4)(2.4)(3.1)(3.1)(3.2)(3.1)(3.2)(3.1)(3.2)(3.1)(3.2)(3.1)(3.2)(3.1)(3.2)(3.1) <th< td=""><td></td><td>3-Apr-01</td><td>7.26</td><td>25.1</td><td>64.9</td><td>133</td><td>415</td><td>0.29</td><td>PQL</td><td>0.42</td><td>sol</td><td>&lt;₽QL</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td><u> </u></td><td></td><td></td><td>ğ</td><td>0.0052</td><td>₽QL</td><td>≤PQL</td></th<>		3-Apr-01	7.26	25.1	64.9	133	415	0.29	PQL	0.42	sol	<₽QL										<u> </u>			ğ	0.0052	₽QL	≤PQL
46.4et7.22.86.1 <th< td=""><td></td><td>Hum-01</td><td>724</td><td>31.2</td><td>63.4</td><td>136</td><td>317</td><td>0.59</td><td>PQL</td><td>₽QL</td><td>0.32</td><td>PQL</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td><u> </u></td><td><u> </u></td><td><u>├</u></td><td>₽ġ</td><td>PQL</td><td>0.0084</td><td>-⊅aL</td></th<>		Hum-01	724	31.2	63.4	136	317	0.59	PQL	₽QL	0.32	PQL										<u> </u>	<u> </u>	<u>├</u>	₽ġ	PQL	0.0084	-⊅aL
(4).00(3)(4) <th< td=""><td></td><td>5-Jul-Of</td><td>7.32</td><td>28.9</td><td>52.5</td><td>146</td><td>336</td><td>0.73</td><td>&lt;₽QL</td><td>0.11</td><td>0.35</td><td>≺PQL</td><td>عد</td><td></td><td>_</td><td></td><td></td><td></td><td></td><td></td><td><u> </u></td><td></td><td>-</td><td></td><td>₽QL</td><td>₽QL</td><td>₽aL</td><td>₽aL</td></th<>		5-Jul-Of	7.32	28.9	52.5	146	336	0.73	<₽QL	0.11	0.35	≺PQL	عد		_						<u> </u>		-		₽QL	₽QL	₽aL	₽aL
1:367:18:46:36:26:06		IÒ-BmV-1	7.05	29.4	46.1	141	282	0.52	₽QL	₽ġ	0.33	PoL										<u> </u>	<del>  _ </del>	<u>.</u>	₽ġ	₽aL	0.0065	spa∟
(3.2)(3.2)(3.2)(3.2)(3.1)(3.2)(3.1)(3.2)(3.1)(3.2)(3.1)		-Sep-01	7.18	27.1	54.9	153	352	₽g	₽aĽ		10.70 10.70	₽ol	عد										<del>  .</del>	<u> </u>	₽QL	PQL	₽ġ	₽ġ
0.00000000000000000000000000000000000		1-Oct-01	7.32	29.8	82.9	157	530	<₽QL	<pql< td=""><td></td><td>1005</td><td>≁oL</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td>¢PQL</td><td>₽Q</td><td>₽QL</td><td>₽ ₽</td></pql<>		1005	≁oL									<u> </u>	<u> </u>	<u> </u>	<u> </u>	¢PQL	₽Q	₽QL	₽ ₽
44455411411 <th1< td=""><td></td><td>Hov-01</td><td>724</td><td>27.0</td><td>61.9</td><td>156</td><td>396</td><td>₽QL</td><td>&lt; Pot</td><td>0.37</td><td>0.49</td><td>PQL</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td><u> </u></td><td></td><td><del>  .</del></td><td>₽0</td><td>¢PQL</td><td>₽oĽ</td><td>PQL</td></th1<>		Hov-01	724	27.0	61.9	156	396	₽QL	< Pot	0.37	0.49	PQL										<u> </u>		<del>  .</del>	₽0	¢PQL	₽oĽ	PQL
04-Febril         127         236         420         573         640         573         640          25         240         341																			-									
ZFFED17.11Z50461787289POL <t< td=""><td></td><td>Feb-01</td><td>7.27</td><td>23.6</td><td>42.0</td><td>57.9</td><td><b>5</b>89</td><td>4</td><td>1.0</td><td>_</td><td>0.52</td><td>¢₽QĽ</td><td></td><td>_</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td><u> </u></td><td></td><td>₽QL</td><td>≮PαL</td><td>₽aL</td><td>÷</td></t<>		Feb-01	7.27	23.6	42.0	57.9	<b>5</b> 89	4	1.0	_	0.52	¢₽QĽ		_									<u> </u>		₽QL	≮PαL	₽aL	÷
ZFFEDOI7.2324046.780.02599C0160.151060.160		Feb-01	7.11	25.0	45.1	78.7	289	<pqt< td=""><td>₽QL</td><td>0.59</td><td>0.24</td><td>&lt;₽QL</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>- ¢or</td><td>₽aL</td><td>0.0060</td><td>₽QL</td><td>27</td></pqt<>	₽QL	0.59	0.24	<₽QL												- ¢or	₽aL	0.0060	₽QL	27
04-Feb-01         7.37         2.65         97.1         57.1         27.7         26.6         97.1         57.1         27.7         26.7         97.0         67.1         67.1         27.7         67.0         67.1		i-Feb-01	7.23	24.0	46.7	80.0	289	₽QL	¢QL	0.71	0.16	4PQL													₽aL	0.0082	₽QL	53
ZFFED01         7.45         4.13         7.14         255         401         7.3         401         6.13         6.11         5.1 <t< td=""><td></td><td>LFeb-01</td><td>7.37</td><td>24.5</td><td>37.1</td><td>57.1</td><td>237</td><td><pql< td=""><td>₽QL</td><td>0.44</td><td>0.17</td><td>spol</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>₽ġ</td><td>0.0073</td><td>sPQL</td><td>₽</td></pql<></td></t<>		LFeb-01	7.37	24.5	37.1	57.1	237	<pql< td=""><td>₽QL</td><td>0.44</td><td>0.17</td><td>spol</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>₽ġ</td><td>0.0073</td><td>sPQL</td><td>₽</td></pql<>	₽QL	0.44	0.17	spol													₽ġ	0.0073	sPQL	₽
ZFFEDOI         7.22         2.8.8         42.0         73.7         259         400         701         50.0         400         50.0         400         50.0         701         201         601		Feb-01	7.20	24.6	41.3	71.4	265	<pql< td=""><td>PQL</td><td>0.47</td><td>0.13</td><td>₽QL</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td><u> </u></td><td><u> </u></td><td>₽GL</td><td>0.0051</td><td>0.0066</td><td>₽QL</td></pql<>	PQL	0.47	0.13	₽QL											<u> </u>	<u> </u>	₽GL	0.0051	0.0066	₽QL
Offendor         7.57         2.3.9         50.7         7.69         3.4         4.0         5.3         3.0         4.1         2.39         5.0         4.1         2.39         5.0         7.1         3.6         7.0         7.0         7.0         7.0         7.0         7.0         7.0         7.1         2.30         7.1         3.1         3.2         6.01         6.01         0.20         0.33         6.01         7.0         7.1         2.0         7.0		HFeb-01	7.22	24.8	42.0	73.7	569	₹₽ØΓ	₽QL	0.52	0.10	₽QĽ											<u> </u>		₽QL	0.0068	₽QL	₽oĽ
25 Feb-01         715         253         583         583         5941         0.23         501         24         73         73         73         74         701         732         691         601         602         603         603         603         603         603         603         601         603         601         603<		-Feb-01	7.57	23.9	50.7	76.9	324	1.4	0.64	0.70	0.14	5.5										_	- <u> </u>	₽QL	₽QL	₽QL	₽QL	31
25-Feb-01         7.12         2.48         58.2         59.4         7.03         6.021         6.021         6.041         6.23         8.0         20         19         3.1         6.021         6.021         6.01         6.02         7.12         7.14         6.01         6.01         6.01         6.01         6.01         6.01         6.01         7.1         2.1         7.41 <th7.41< th="">         7.41         7.41         <t< td=""><td></td><td>Feb-01</td><td>7.15</td><td>25.3</td><td>58.8</td><td>98.9</td><td>376</td><td>₽ġ</td><td>0.20</td><td>0.83</td><td>0.33</td><td>PQL</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>8</td><td></td><td>₽ġ</td><td>₽aı</td><td>₽g</td><td>₽₫</td></t<></th7.41<>		Feb-01	7.15	25.3	58.8	98.9	376	₽ġ	0.20	0.83	0.33	PQL											8		₽ġ	₽aı	₽g	₽₫
04Feb-01 7.35 24.1 74.8 101 479 주PU 주PU 주PU 0.4 0.90 PU 0.4 0.90 FU 0.49 19 349 74 26 38 4.5 0.21 주PU 701 701 701 701 701 701 701 701 701 701		i-Feb-01	7.12	24.8	58.2	99.4	373	PQL		0.82	0.21	₽QL											<del>  .</del>		₽QL	0.0052	0.0060	₽aL
25Feb-01 7.01 25.2 85.0 145 544 POL POL 0.47 0.40 PPL 25.0 4.9 0.40 PPL 25.0 12 28 4.3 4.1 0.31 PPL PPL PPL 0.19 PPL PPL 0.0050 0.031 25Feb-01 6.38 274 85.0 PPL 25.0		-Feb-01	7.35	24.1	74.8	101	479	<₽QL		0.24	0.090	4°oL	G.B						-		-		_		PQL	0,0095	₽ġ	31
25Feb-01 6.98 27.4 85.0 148 550 4PGL 4PGL 0.46 0.28 4PGL 2.0 490 120 27 490 120 27 2 4.8 0.25 4PGL 4PGL 4PGL 4PGL 4PGL 4PGL 4PGL 0.0050 0.070		i-Feb-01	7.01	25.2	85.0	145	544	PQL	PQL	0.47	0.40	₽QL	کند		_										₽d	0.0050	0.031	<₽QL
		iFeb-01	6.98	27.4	86.0	148	550	₽QĽ	₽g	0.46	0.28	₽ġ							-		<u> </u>		┢~		Por	0:0060	0.070	₽aL

Excess of both Bandadesh Standard and WHO guideline

Excess of Bangladesh Standard

(The values were determined as exceeding the standards before rounding off) Excess of WHO guideline

Results of Observation Well and Hole (6/7) **Table 5.5.2** 

00 Trtration -POL <PQL ₽QL ŶQL ₽QL <PQL ₽QL Å Å 00 PQL Por Lo Ъ å ₽QL Å d 20 8 8 5 27 B ŝ Extraction / FAAS 0.005 0.040 0.012 0.0068 PQL <PQL 0.031 0.019 Zinc mg/L PQL Pol 0.012 PQL 0.032 0.013 PQL ₽Q 0.017 PQL Å Å 0.031 ñ Edraction | 0.005 0.0088 0.0053 0.0073 Nickel 0.0058 0.0060 0.0064 ₽qĽ 0.0061 0.0062 0.0059 ₽QL 0.0052 <PQL ШG Por å ğ Pol Å ğ ₽QL ž Mercury Ednaction / FAAS ₽QL ₽QL ₽QL 0.001 PQL ₽QL ₽Q ĝ Å Å2 PQL ₽Q Å <PQL ₹₽QĽ APQL Ъ ğ ğ ĝ Å <PQL f Lead Extraction / FAAS 0.005 0.0058 0.0072 0.0066 0.0054 mg/r. Å Pol L Pol ₽QL PQL ₽QL PQL ٩ ₹₽ ₽QL ₽QL ÅΩL PQL <PQL ₽QL å 4 Cedmium Total Cr Copper Cyanide PQL PQL 0.017 0.025 0.012 0.014 0.013 0.020 Pol 0.01 Å ğ Å ₽ġ Por 0.022 0.013 0.013 ₽d mg/L ٩PQL ŝ 0.012 S 0.005 Extraction / FAAS 0.0089 <₽QL ₽ġ 0.0055 <₽QL ₽QL ₽g ₽gL ₽ ₽QL ₽ġ **₽** ď ₽d ₽ <PQL ₽QĽ л<mark>в</mark>г ₽g ₫ ĝ 3 Extraction E 0.0015 0.025 mg/L <PQL PQL PQL ÅQL å ₽ġ ₽QL ₽gL ÅΩL å ₽ġ Å ₹₽QL Å PQ4 <₽QL <₽QL Å Å Å PQL ₽d ö Extraction/E mg/L PQL PQL å ٩PQL PQL ₽d PoL Å Å ğ PQL PoL PQL ₽ġ ₽d ₽å ğ ğ Å Å 8 Fluoride mg/L PQL 0.34 SР 0.1 0.18 0.17 0.19 0.15 0.17 0.25 0.30 0.42 0.23 0.32 0.35 0.37 0.33 0.28 0.34 0.24 0.20 0.18 u. FAAS mg/L <u>0</u> 4.0 4.1 ¥ 6.2 4.6 5.5 3.7 3.6 5.1 3.7 4.8 4.4 4.4 5.5 5.7 4.9 4.4 4.0 6.6 5.6 5.5 FAAS Sodium 0.05 Ъ R Ē 9 9 24 11 13 1 5 9 15 £ 8 8 26 19 20 4 ₽ 37 5 FAAS лgл 0.05 BW ដ 3 25 21 33 8 27 ខ្ល ₽ ₽ **₽** 4 11 ₽ 4 1 ₽ ដ ដ ដ icerbonite Calcium Titration FAAS тgЛ 0.5 ő 8 7 2 2 8 92 62 g ŝ 2 68 7 88 75 ۴ ۶ 2 8 87 2 CaCOAL нсо 20 410 <u>8</u> 306 315 320 315 30 296 418 g 407 <u></u>40 319 254 332 380 305 30 292 407 Dissolved Fe Chloride mg/L 7.6 ŝ 0.6 7.9 8.0 1.7 1.9 19 3.9 Ξ 8.3 6.7 4.7 6.2 7 2 \$ 2.4 2.1 9 8.4 ₽ ច FAAS **\* 1**2 (891 1.6 ٩ 37 22 45 49 8. 4.1 ¥ 234 тgп 0.75 0.32 1.6 13 72.2 0.2 1.5 (c.1.3 5°.1 æ Sulfate Pol ₽ġ ₽QL ₽QL g Å Å PQL . ₽0Ľ PQL Å ШgГ Å ₽Q ₽ G ₽oĽ ٩ PoL ₽QL ğ PQL \$0 ŝ ŝ 0.50 motived Bin FAAS -PQL ₽QL ₽d 0.08 Ъ ₽QL Å 0.084 Å2 PQL 0.15 0.48 0.32 0.081 0.34 0.15 0.18 0.19 Ŵ 0.45 0.16 0.16 Ammonitum ğ <₽QL å ₽QĽ SР 5 Ъ Η 0.13 0.22 0.14 0.15 1.2 0.18 <u>1</u> 44 3.4 0.14 0.19 0.12 0.12 0.14 0.43 ₽QL Å ₽ġ ₽ G Å. ₽QL PQL PQL 0.050 Nitrite 0.02 Ъ 0.020 ₫ ő 0.28 Å I 0.34 0.52 ₽QL 0.25 ß 2 0.12 2.7 12 Nitrate ₽Q Å ŝ å Å ğ ÅQL <del>;</del> ď Ъ 0.42 0.84 220 ₫ 0.78 0.86 0.2 12 0.23 SP 2.6 0.87 4 0.23 Standard õ 0.13 Ъ õ 356 499 415 8 588 253 277 371 426 386 378 397 88 382 383 352 477 483 487 381 Standard Conductivity Hardness CaCOAL Hardness 0.5 39.3 82.6 59.4 91.2 87.8 112 14 88.1 90.8 90.7 89.6 85.7 91.9 90.5 81.4 86.9 127 121 \$ 109 Conductivity meter mS/m 0.02 6.77 64.8 32.1 41.8 39.5 43.3 57.9 66.6 59.5 60.4 59.1 62.0 60.3 59.6 53.5 55.7 54.9 74.6 75.5 76.1 ы 0 Deg C Temperature Deg C Thermo Temp 24.7 28.4 29.6 28.1 29.8 29.4 29.2 28.9 28.9 28.7 28.6 28.3 30.8 27.1 28.8 28.7 28.7 29.2 28.4 28.0 pH meter 7.62 7.30 8.49 7.57 7.93 7.41 7.15 7.19 7.45 7.26 7.29 7.25 7.19 7.30 Ŧ 7.22 7.61 7.07 7.34 7.24 7.26 0 표 17-Mar-01 18-Mar-01 29-Apr-01 16-Jun-01 07-Jul-01 16-Aug-01 17-0ct-01 17-Mar-01 17-Mar-01 13-Sep-01 05-Nov-01 16-Mar-01 16-Mar-01 16-Mar-01 16-Mar-01 16-Mar-01 16-Mar-01 17-Mar-01 17-Mar-01 17-Mar-01 Date of sampling Practical Quantitation Limit Analyte Method Ë OH-CH2-3-SIP-30min OH-CH2-4-SIP-30mir OH-CH2-4-SIP-140min OH-CH2-2-SIP-30mi OHCH2-1-SIP-30m OH-CH2-1-SIP-140min OH-CH2-2-SIP-140min OH-CH2-3-SIP-140min Sample No OW-CH2-7M OH-CH2-1-BP OHCH2-3-BP OH-CH24-BP Chuadanga2 OW-CH2-1M OH-CH2-2-BP OW-CH2-BP OW-CH2-2M OW-CH2-6M OW-CH2-3M OW-CH2-4M OW-CH2-SM

Excess of both Bangladesh Standard and WHO guideline

Excess of Bangladesh Standard

(The values were determined as exceeding the standards before rounding off)

Excess of WHO guideline

### Results of Observation Well and Hole (7/7) **Table 5.5.2**

coD	Titration	20	щ <b>о</b> Г	cop		< POL
el Zinc	ion Extraction S / FAAS	5 0.005	т <mark>ю</mark> г	ន		L <pql< td=""></pql<>
Mercury Nickel	/ FAAS / FAAS / FAAS	0.005	mg/L	ïŻ		<₽QL
Mercur	Extraction / FAAS	0.001	mg/L	Вн		<pql< td=""></pql<>
Lead	Extraction / FAAS	0.005	mg/L	44		<pql< td=""></pql<>
Cyanide	SP	0.01	mg/L	CN		<₽aL
Copper	Extraction / FAAS	0.005	mg/L	Си		<pql <pql<="" td=""></pql>
Total Cr	Extraction / FAAS	0.025	mg/L	ŗ		<pql< td=""></pql<>
Cadmium	Extraction/ Extraction FAAS / FAAS / FAAS	0.1 0.0015 0.025	mg/L mg/L mg/L mg/L mg/L	cd		<pql< td=""></pql<>
Fluoride	SP	0.1	աց/Լ	Ľ		0.42
Potassium	FAAS	0.1	лgг	×		2.0
Sodium	FAAS	0.05	mg/L	Na		120
Magnesium	FAAS	0.05	mg/L	· BM		9.5
Ammonium basedwed also Suffräte basedwed re Chthoride bisenbenade Calcium Magnesium Sodium Potassium Fluoride Cadmium Total Cr Copper Cyanide Lead	Titration FAAS	0.5	лgл	Ca		19
Bicarbonate	Titration	20	mg CaCO <sub>A</sub> L	нсо,		361
Chloride	SP	0.6	mg/L	ם`		6.2
Dissolved Fe	FAAS	0.2	тgЛ	Fe		0.57
Sulfate	SP	5	mg/L	so		<₽QL
Dissofted Ma	FAAS	0.08	mg/L	Mn		<₽QL
Ammonium	SP	0.1	mg/L	NH		1.4
	SP	0.02	щ0/Г	NO2		<pql< td=""></pql<>
Nitrate Nitrite	SP	0.2	mg/L	NO3		<₽QL
TDS	Standard	0.13	шgЛ	TDS		419
Hardness	Standard	0.5	caco <sub>y</sub> t mg/L	Hardness		28.1
Temperature Conductivity Mandness TDS	Thermo Conductivity Standard Standard meter	0.02	mS/m	EC		65.4
Temperature	Thermo meter	0 Deg C 0.02	Deg C	Temp		25.8
Ha	pH meter	0		H		8.33
te -		tation Limit		Date of sampling		12-Mar-02
Analyte	Method	Practical Quantitation Limit	Unit	Sample No	Jessore3	OW-BM-CP-48h

Excess of WHO guideline

Excess of Bangladesh Standard Excess of both Bangladesh Standard and WHO guideline

(The values were determined as exceeding the standards before rounding off)

Table 5.5.3 Results of Core Boring

Anahr		H	Temperature	Conductivity Handness	Handness	SOT	Nitrate	Nitrite	Ammonium	Dissofreed Mr	Sulfate o	Charactered Fe	Chloride Blos	Bicarbonate Calc	Calcium Magnesium	ium Sodium	um Potassium		Fluoride Cadmium Total Cr	Total C	r Copper	Cyanido	Lead	Mercury	Nickel	Zinc	8
Method		pH meter	Thermo	Conductivi Standard Standard	Standard	Standard	РS	ъ	SP	FAAS	- B	FAAS	SP Titr	Titration FA	FAAS FAAS	IS FAAS	AS FAAS	S SP	Extractio n/ FAAS	o Extractio	b Extractio	۹.	Extractio n/ FAAS	Extractio n/ FAAS	Extractio E n/ FAAS r	Extractio T	Titration
Practical Quantitation Limit	tation Limit	0	၀ Deg	0.02	0.5	0.13	0.2	0.02	0.1	0.08	s	0.2	0.6	20	0.5 0.05	5 0.05	5 0.1	0.1	0.0015	0.025	0.005	0.01	0.005	0.001	0.005	0.005	8
Unit			Deg C	mS/m caco <sub>3</sub> /L	caco <sub>2</sub> L	Ъĝш	т <mark>о</mark> п	шĝЛ	mg/L	л9/г	mg/L	ug/L r	mg/L Cac	caco <sub>3</sub> t mg	mg/L mg/L	r mg/r	√r mg∕r	r mg/r	- mg/L	mg/L	увш	тgл	J∕Bm	mg/L	лgл	mg/L	mg/L
Sample No	Date of sampling	Hd	Temp	с Ш	Hardness	SOT	°ол	δ <sup>ν</sup>	Ϋ́́	E N	so,	Fe	¥ IJ	HCO1	Ca Mg	Na	×	Ľ	Cd	້ວ	3	S	8	6H	ž	ន	B
<u> </u>																											
CB-JSRb-OM	09-May-01	7.87	30.1	57.2	40.5	366	2.0	PQL	₽ġ	Å	ÅΩL	0.23	ल ह	336 24	11 17	8	4.2	0.32	₽g	₽QL	₽GF	₽QL	₹PΩL	₽QL	<₽QL	PoL	39
CB-JSRb-1M	21-Jun-01	7.91	31.1	59.2	38.0	296	1.9	2.2	0.16	₽ġ	₽QL	0.26	29	338 23	3 15	<del>6</del>	0 4.7	0.34	₽gL	₽	0.0073	₽QL	sPQL	<₽QL	0.012	0.0087	PQL
CB-JSRb-2M	10-11-60	8.01	28.7	48.0	40.5	307	1.7	<₽QL	0.15	₽QL	PQL	₽QL	45	324 27	14	10	0 5.4	0. 64	₽	₽d	0.0082	Å	spa∟	PQL	0.037	0.0062	27
CB-JSRb-3M	20-Aug-01	7.91	29.9	56.1	36.5	357	1.8	PQL	₽GL	PQL	<pql< th=""><th>&lt;₽QL</th><th>8</th><th>312 21</th><th>20 15</th><th>140</th><th>0 3.6</th><th>0.36</th><th>₽gL</th><th>₽Ğ</th><th>₽QĽ</th><th>₽ġ</th><th>₽QĽ</th><th>PΩL</th><th>PQL</th><th>PQL</th><th>PQL</th></pql<>	<₽QL	8	312 21	20 15	140	0 3.6	0.36	₽gL	₽Ğ	₽QĽ	₽ġ	₽QĽ	PΩL	PQL	PQL	PQL
CB-JSRb-4M	11-Sep-01	7.94	28.2	53.5	39.4	342	≺PQL	0.97	0.84	<pql< th=""><th><pql< th=""><th>0.39</th><th>25 3</th><th>347 2:</th><th>23 17</th><th>. 87</th><th>3.6</th><th>0.41</th><th>&lt;₽QL</th><th>₽gL</th><th>PQL</th><th><pql< th=""><th>₽QL</th><th>&lt;₽QL</th><th>₽ġ</th><th>PQL</th><th>PQL</th></pql<></th></pql<></th></pql<>	<pql< th=""><th>0.39</th><th>25 3</th><th>347 2:</th><th>23 17</th><th>. 87</th><th>3.6</th><th>0.41</th><th>&lt;₽QL</th><th>₽gL</th><th>PQL</th><th><pql< th=""><th>₽QL</th><th>&lt;₽QL</th><th>₽ġ</th><th>PQL</th><th>PQL</th></pql<></th></pql<>	0.39	25 3	347 2:	23 17	. 87	3.6	0.41	<₽QL	₽gL	PQL	<pql< th=""><th>₽QL</th><th>&lt;₽QL</th><th>₽ġ</th><th>PQL</th><th>PQL</th></pql<>	₽QL	<₽QL	₽ġ	PQL	PQL
CB-JSRb-5M	16-Oct-01	8.06	29.7	66.4	40.2	425	1.6	0.25	1.1	0.10	<pql< th=""><th>0.32</th><th>26 3</th><th>351 24</th><th>4 16</th><th></th><th>1 4.2</th><th>0.39</th><th>Pol</th><th>₽gL</th><th>JO4≻.</th><th>≺PQL</th><th>PQL</th><th>PQL</th><th>₽gL</th><th>PQL</th><th>PQL</th></pql<>	0.32	26 3	351 24	4 16		1 4.2	0.39	Pol	₽gL	JO4≻.	≺PQL	PQL	PQL	₽gL	PQL	PQL
CB-USRb-6M	07-Nov-01	7.88	27.0	66.4	43.1	425	0.49	1.9	POL	0.20	PQL	0.70	21 3	342 27	7 16	86	3.7	0.36	<pre>PQL</pre>	<₽a	<₽QL	<pql< th=""><th><pql< th=""><th>₽gL</th><th>₽ġ</th><th>PQL</th><th><pql< th=""></pql<></th></pql<></th></pql<>	<pql< th=""><th>₽gL</th><th>₽ġ</th><th>PQL</th><th><pql< th=""></pql<></th></pql<>	₽gL	₽ġ	PQL	<pql< th=""></pql<>
Jhenaidah																											
CB-JHKe-0M	05-May-01	7.35	31.3	65.4	138	419	2.0	<pαl< th=""><th>PQL</th><th>₽QL</th><th>-PQL ≺PQL</th><th><b>61.</b></th><th>8.1 5</th><th>505 11</th><th>110 29</th><th>8</th><th>6.1</th><th>0.22</th><th>₽gL</th><th>₽ot</th><th>₽QL</th><th>₽QL</th><th>¢ΩL</th><th>PQL</th><th>0.0071</th><th>0.011</th><th>27</th></pαl<>	PQL	₽QL	-PQL ≺PQL	<b>61.</b>	8.1 5	505 11	110 29	8	6.1	0.22	₽gL	₽ot	₽QL	₽QL	¢ΩL	PQL	0.0071	0.011	27
CB-JHKe-1M	17~Jun-01	8.78	31.0	86.4	5.78	432	SPQL	JDd≻	0.70	<pql< td=""><td><pql< td=""><td><pql< td=""><td><del>4</del></td><td>442 4.3</td><td>.3 1.5</td><td>200</td><td>0 2.4</td><td>0.60</td><td>&lt;₽QL</td><td>&lt;₽QL</td><td>JDd≻</td><td>≺PQL</td><td>JDd≻</td><td>&lt;₽QL</td><td><pql< td=""><td>&lt;₽aL</td><td>62</td></pql<></td></pql<></td></pql<></td></pql<>	<pql< td=""><td><pql< td=""><td><del>4</del></td><td>442 4.3</td><td>.3 1.5</td><td>200</td><td>0 2.4</td><td>0.60</td><td>&lt;₽QL</td><td>&lt;₽QL</td><td>JDd≻</td><td>≺PQL</td><td>JDd≻</td><td>&lt;₽QL</td><td><pql< td=""><td>&lt;₽aL</td><td>62</td></pql<></td></pql<></td></pql<>	<pql< td=""><td><del>4</del></td><td>442 4.3</td><td>.3 1.5</td><td>200</td><td>0 2.4</td><td>0.60</td><td>&lt;₽QL</td><td>&lt;₽QL</td><td>JDd≻</td><td>≺PQL</td><td>JDd≻</td><td>&lt;₽QL</td><td><pql< td=""><td>&lt;₽aL</td><td>62</td></pql<></td></pql<>	<del>4</del>	442 4.3	.3 1.5	200	0 2.4	0.60	<₽QL	<₽QL	JDd≻	≺PQL	JDd≻	<₽QL	<pql< td=""><td>&lt;₽aL</td><td>62</td></pql<>	<₽aL	62
CB-JHKo-2M	08-Jul-01	8.01	28.1	58.0	81.8	371	1.7	Å	0.12	0.12	<pql <<="" td=""><td>12</td><td>8</td><td>443 68</td><td>14</td><td>110</td><td>0 4.0</td><td>0.30</td><td>₽QF</td><td>PQL</td><td>PQL</td><td><pql< td=""><td>PQL</td><td>₽QL</td><td>PQL</td><td>₽ġ</td><td>₽Ğ</td></pql<></td></pql>	12	8	443 68	14	110	0 4.0	0.30	₽QF	PQL	PQL	<pql< td=""><td>PQL</td><td>₽QL</td><td>PQL</td><td>₽ġ</td><td>₽Ğ</td></pql<>	PQL	₽QL	PQL	₽ġ	₽Ğ
CB-LHKo3M	15-Aug-01	7.27	29.2	63.0	138	403	<pql< td=""><td><pql< td=""><td>1.6</td><td>0.10</td><td><pql< td=""><td>22.7</td><td>7.0 5</td><td>507 11</td><td>110 23</td><td>25</td><td>4.3</td><td>0.30</td><td>PQL</td><td>≮PQL</td><td><pql<< td=""><td><pql< td=""><td><pql< td=""><td>≺PQL</td><td>0.0097</td><td>PQL</td><td>&lt;₽QL</td></pql<></td></pql<></td></pql<<></td></pql<></td></pql<></td></pql<>	<pql< td=""><td>1.6</td><td>0.10</td><td><pql< td=""><td>22.7</td><td>7.0 5</td><td>507 11</td><td>110 23</td><td>25</td><td>4.3</td><td>0.30</td><td>PQL</td><td>≮PQL</td><td><pql<< td=""><td><pql< td=""><td><pql< td=""><td>≺PQL</td><td>0.0097</td><td>PQL</td><td>&lt;₽QL</td></pql<></td></pql<></td></pql<<></td></pql<></td></pql<>	1.6	0.10	<pql< td=""><td>22.7</td><td>7.0 5</td><td>507 11</td><td>110 23</td><td>25</td><td>4.3</td><td>0.30</td><td>PQL</td><td>≮PQL</td><td><pql<< td=""><td><pql< td=""><td><pql< td=""><td>≺PQL</td><td>0.0097</td><td>PQL</td><td>&lt;₽QL</td></pql<></td></pql<></td></pql<<></td></pql<>	22.7	7.0 5	507 11	110 23	25	4.3	0.30	PQL	≮PQL	<pql<< td=""><td><pql< td=""><td><pql< td=""><td>≺PQL</td><td>0.0097</td><td>PQL</td><td>&lt;₽QL</td></pql<></td></pql<></td></pql<<>	<pql< td=""><td><pql< td=""><td>≺PQL</td><td>0.0097</td><td>PQL</td><td>&lt;₽QL</td></pql<></td></pql<>	<pql< td=""><td>≺PQL</td><td>0.0097</td><td>PQL</td><td>&lt;₽QL</td></pql<>	≺PQL	0.0097	PQL	<₽QL
CB-JHKo-4M	11-Sep-01	71.7	28.0	58.5	147	374	<pql< td=""><td>₽QL</td><td>1.2</td><td>0.17</td><td>PoL</td><td>25 25</td><td>2.9 5</td><td>517 12</td><td>120 29</td><td>8</td><td>3.9</td><td>0.20</td><td>₽g</td><td>₽QL</td><td>₽d</td><td>₽ġ</td><td>PQL</td><td>Por</td><td>&lt;₽QL</td><td>0.0052</td><td>PQL</td></pql<>	₽QL	1.2	0.17	PoL	25 25	2.9 5	517 12	120 29	8	3.9	0.20	₽g	₽QL	₽d	₽ġ	PQL	Por	<₽QL	0.0052	PQL
CB-UHKo-SM	16-Oct-01	7.23	29.6	87.7	159	561	<₽QL	<pql< th=""><th>1.4</th><th>0.24</th><th><pql 3<="" th=""><th></th><th>2.2 5</th><th>513 13</th><th>130 26</th><th>19</th><th>4.8</th><th>0.22</th><th>&lt;₽QL</th><th>&lt;₽QL</th><th><pql< th=""><th>₽QL</th><th>&lt;₽aL</th><th>PQL</th><th>PQL</th><th>PQL</th><th>₽g</th></pql<></th></pql></th></pql<>	1.4	0.24	<pql 3<="" th=""><th></th><th>2.2 5</th><th>513 13</th><th>130 26</th><th>19</th><th>4.8</th><th>0.22</th><th>&lt;₽QL</th><th>&lt;₽QL</th><th><pql< th=""><th>₽QL</th><th>&lt;₽aL</th><th>PQL</th><th>PQL</th><th>PQL</th><th>₽g</th></pql<></th></pql>		2.2 5	513 13	130 26	19	4.8	0.22	<₽QL	<₽QL	<pql< th=""><th>₽QL</th><th>&lt;₽aL</th><th>PQL</th><th>PQL</th><th>PQL</th><th>₽g</th></pql<>	₽QL	<₽aL	PQL	PQL	PQL	₽g
CB-UHKo-GM	09-Nov-01	7.29	27.3	85.7	151	548	<pql< th=""><th><pql< th=""><th>1.5</th><th>0.28</th><th><pql< th=""><th>1. Sec. 1. Sec</th><th>1.8 5</th><th>513 12</th><th>122 29</th><th>27</th><th>4.0</th><th>0.17</th><th><pql< th=""><th>&lt;₽QL</th><th><pql< th=""><th><pql< th=""><th>&lt;₽QL</th><th>&lt; PQL</th><th><pql< th=""><th>&lt;₽QL</th><th>&lt;₽a</th></pql<></th></pql<></th></pql<></th></pql<></th></pql<></th></pql<></th></pql<>	<pql< th=""><th>1.5</th><th>0.28</th><th><pql< th=""><th>1. Sec. 1. Sec</th><th>1.8 5</th><th>513 12</th><th>122 29</th><th>27</th><th>4.0</th><th>0.17</th><th><pql< th=""><th>&lt;₽QL</th><th><pql< th=""><th><pql< th=""><th>&lt;₽QL</th><th>&lt; PQL</th><th><pql< th=""><th>&lt;₽QL</th><th>&lt;₽a</th></pql<></th></pql<></th></pql<></th></pql<></th></pql<></th></pql<>	1.5	0.28	<pql< th=""><th>1. Sec. 1. Sec</th><th>1.8 5</th><th>513 12</th><th>122 29</th><th>27</th><th>4.0</th><th>0.17</th><th><pql< th=""><th>&lt;₽QL</th><th><pql< th=""><th><pql< th=""><th>&lt;₽QL</th><th>&lt; PQL</th><th><pql< th=""><th>&lt;₽QL</th><th>&lt;₽a</th></pql<></th></pql<></th></pql<></th></pql<></th></pql<>	1. Sec. 1. Sec	1.8 5	513 12	122 29	27	4.0	0.17	<pql< th=""><th>&lt;₽QL</th><th><pql< th=""><th><pql< th=""><th>&lt;₽QL</th><th>&lt; PQL</th><th><pql< th=""><th>&lt;₽QL</th><th>&lt;₽a</th></pql<></th></pql<></th></pql<></th></pql<>	<₽QL	<pql< th=""><th><pql< th=""><th>&lt;₽QL</th><th>&lt; PQL</th><th><pql< th=""><th>&lt;₽QL</th><th>&lt;₽a</th></pql<></th></pql<></th></pql<>	<pql< th=""><th>&lt;₽QL</th><th>&lt; PQL</th><th><pql< th=""><th>&lt;₽QL</th><th>&lt;₽a</th></pql<></th></pql<>	<₽QL	< PQL	<pql< th=""><th>&lt;₽QL</th><th>&lt;₽a</th></pql<>	<₽QL	<₽a
Chuadanga																											
CB-CDBd-0M	30-Jan-01	10.7	24.4	82.2	124	526	<pql< th=""><th><pql< th=""><th>1.8</th><th>0.25</th><th><pql< th=""><th>15. 15</th><th>1.8 4</th><th>481 90</th><th>90 34</th><th>24</th><th>3.8</th><th>0.16</th><th>&lt;₽QL</th><th>PQL</th><th>-PQL</th><th>&lt;₽QL</th><th>≺PQL</th><th>&lt;₽QL</th><th>0.0051</th><th>&lt;₽QL</th><th>&lt;₽QL</th></pql<></th></pql<></th></pql<>	<pql< th=""><th>1.8</th><th>0.25</th><th><pql< th=""><th>15. 15</th><th>1.8 4</th><th>481 90</th><th>90 34</th><th>24</th><th>3.8</th><th>0.16</th><th>&lt;₽QL</th><th>PQL</th><th>-PQL</th><th>&lt;₽QL</th><th>≺PQL</th><th>&lt;₽QL</th><th>0.0051</th><th>&lt;₽QL</th><th>&lt;₽QL</th></pql<></th></pql<>	1.8	0.25	<pql< th=""><th>15. 15</th><th>1.8 4</th><th>481 90</th><th>90 34</th><th>24</th><th>3.8</th><th>0.16</th><th>&lt;₽QL</th><th>PQL</th><th>-PQL</th><th>&lt;₽QL</th><th>≺PQL</th><th>&lt;₽QL</th><th>0.0051</th><th>&lt;₽QL</th><th>&lt;₽QL</th></pql<>	15. 15	1.8 4	481 90	90 34	24	3.8	0.16	<₽QL	PQL	-PQL	<₽QL	≺PQL	<₽QL	0.0051	<₽QL	<₽QL
CB-CDBd-1M	27-Feb-01	7.12	23.2	80.4	141	514	<pql< th=""><th><pql< th=""><th>1.4</th><th>0.17</th><th><pql th="" §<=""><th>17. 17.</th><th>1.3 4</th><th>481 94</th><th>98 43</th><th>18</th><th>3.9</th><th>0.23</th><th>&lt;₽QL</th><th>PQL</th><th>0.0088</th><th>&lt;₽QL</th><th>&lt;₽QL</th><th>PQL</th><th>0.0061</th><th>0.0067</th><th>PQL</th></pql></th></pql<></th></pql<>	<pql< th=""><th>1.4</th><th>0.17</th><th><pql th="" §<=""><th>17. 17.</th><th>1.3 4</th><th>481 94</th><th>98 43</th><th>18</th><th>3.9</th><th>0.23</th><th>&lt;₽QL</th><th>PQL</th><th>0.0088</th><th>&lt;₽QL</th><th>&lt;₽QL</th><th>PQL</th><th>0.0061</th><th>0.0067</th><th>PQL</th></pql></th></pql<>	1.4	0.17	<pql th="" §<=""><th>17. 17.</th><th>1.3 4</th><th>481 94</th><th>98 43</th><th>18</th><th>3.9</th><th>0.23</th><th>&lt;₽QL</th><th>PQL</th><th>0.0088</th><th>&lt;₽QL</th><th>&lt;₽QL</th><th>PQL</th><th>0.0061</th><th>0.0067</th><th>PQL</th></pql>	17. 17.	1.3 4	481 94	98 43	18	3.9	0.23	<₽QL	PQL	0.0088	<₽QL	<₽QL	PQL	0.0061	0.0067	PQL
CB-CDBd-2M	26-Mar-01	7.41	27.9	62.0	165	397	<pql< th=""><th><pql< th=""><th>1.1</th><th><pql< th=""><th><pql 3<="" th=""><th>6.9 1</th><th>1.7 3</th><th>353 71</th><th>70 23</th><th>22</th><th>6.7</th><th>0.17</th><th>&lt;₽QL</th><th>&lt;₽QL</th><th>0.0054</th><th>0.013</th><th><pql< th=""><th>PQL</th><th>0.012</th><th>&lt;₽aL</th><th>68</th></pql<></th></pql></th></pql<></th></pql<></th></pql<>	<pql< th=""><th>1.1</th><th><pql< th=""><th><pql 3<="" th=""><th>6.9 1</th><th>1.7 3</th><th>353 71</th><th>70 23</th><th>22</th><th>6.7</th><th>0.17</th><th>&lt;₽QL</th><th>&lt;₽QL</th><th>0.0054</th><th>0.013</th><th><pql< th=""><th>PQL</th><th>0.012</th><th>&lt;₽aL</th><th>68</th></pql<></th></pql></th></pql<></th></pql<>	1.1	<pql< th=""><th><pql 3<="" th=""><th>6.9 1</th><th>1.7 3</th><th>353 71</th><th>70 23</th><th>22</th><th>6.7</th><th>0.17</th><th>&lt;₽QL</th><th>&lt;₽QL</th><th>0.0054</th><th>0.013</th><th><pql< th=""><th>PQL</th><th>0.012</th><th>&lt;₽aL</th><th>68</th></pql<></th></pql></th></pql<>	<pql 3<="" th=""><th>6.9 1</th><th>1.7 3</th><th>353 71</th><th>70 23</th><th>22</th><th>6.7</th><th>0.17</th><th>&lt;₽QL</th><th>&lt;₽QL</th><th>0.0054</th><th>0.013</th><th><pql< th=""><th>PQL</th><th>0.012</th><th>&lt;₽aL</th><th>68</th></pql<></th></pql>	6.9 1	1.7 3	353 71	70 23	22	6.7	0.17	<₽QL	<₽QL	0.0054	0.013	<pql< th=""><th>PQL</th><th>0.012</th><th>&lt;₽aL</th><th>68</th></pql<>	PQL	0.012	<₽aL	68
CB-CDBd-3M	27-Apr-01	7.98	24.9	43.7	67.6	579	₽QL	₽ØГ	0.72	AΩL	₽QL	0.79	1.3 2	273 31	35 33	4	4.7	0.11	PQL	<pql< td=""><td>&lt;₽QL</td><td>۶PQL</td><td>PQL</td><td>&lt;₽QL</td><td>PQL</td><td>0.11</td><td>39</td></pql<>	<₽QL	۶PQL	PQL	<₽QL	PQL	0.11	39
CB-CDBd-4M	23-Jun-01	7.33	31.0	63.4	124	317	<pql< td=""><td>&lt;₽QL</td><td>0.92</td><td>0.46</td><td><pql< td=""><td>\$ 3.5 20.2</td><td>0.73 4</td><td>459 94</td><td>30</td><td>9</td><td>4.8</td><td>0.16</td><td>₽gL</td><td>PoL</td><td>₽d</td><td>₽QL</td><td>₽ġ</td><td>₽QL</td><td>PQL</td><td>PaL</td><td>₽aL</td></pql<></td></pql<>	<₽QL	0.92	0.46	<pql< td=""><td>\$ 3.5 20.2</td><td>0.73 4</td><td>459 94</td><td>30</td><td>9</td><td>4.8</td><td>0.16</td><td>₽gL</td><td>PoL</td><td>₽d</td><td>₽QL</td><td>₽ġ</td><td>₽QL</td><td>PQL</td><td>PaL</td><td>₽aL</td></pql<>	\$ 3.5 20.2	0.73 4	459 94	30	9	4.8	0.16	₽gL	PoL	₽d	₽QL	₽ġ	₽QL	PQL	PaL	₽aL
CB-CDBd-5M	10-JuH01	7.28	29.1	52.5	128	336	<₽QL	<pql< td=""><td>1.2</td><td>0.51</td><td><pql< td=""><td>15.2</td><td>2.5 4</td><td>475 11</td><td>110 23</td><td>27</td><td>4.2</td><td>0.22</td><td>-PQL</td><td><pql< td=""><td>&lt; POL</td><td>sor</td><td>SPQL</td><td>&lt;₽QL</td><td>&lt;₽QL</td><td>&lt;₽QL</td><td>₽QL</td></pql<></td></pql<></td></pql<>	1.2	0.51	<pql< td=""><td>15.2</td><td>2.5 4</td><td>475 11</td><td>110 23</td><td>27</td><td>4.2</td><td>0.22</td><td>-PQL</td><td><pql< td=""><td>&lt; POL</td><td>sor</td><td>SPQL</td><td>&lt;₽QL</td><td>&lt;₽QL</td><td>&lt;₽QL</td><td>₽QL</td></pql<></td></pql<>	15.2	2.5 4	475 11	110 23	27	4.2	0.22	-PQL	<pql< td=""><td>&lt; POL</td><td>sor</td><td>SPQL</td><td>&lt;₽QL</td><td>&lt;₽QL</td><td>&lt;₽QL</td><td>₽QL</td></pql<>	< POL	sor	SPQL	<₽QL	<₽QL	<₽QL	₽QL
CB-CDBd-6M	18-Aug-01	7.29	29.6	58.7	122	375	PQL	<pql< td=""><td>1.2</td><td>0.39</td><td><pql< td=""><td>-9Z</td><td>0.77</td><td>488 94</td><td>96 26</td><td>16</td><td>4.5</td><td>0.18</td><td>≺PQL</td><td><pql< td=""><td>&lt; PQL</td><td><pql< td=""><td>&lt;₽QL</td><td>&lt;₽QL</td><td>&lt;₽aL</td><td><pql< td=""><td><pql< td=""></pql<></td></pql<></td></pql<></td></pql<></td></pql<></td></pql<>	1.2	0.39	<pql< td=""><td>-9Z</td><td>0.77</td><td>488 94</td><td>96 26</td><td>16</td><td>4.5</td><td>0.18</td><td>≺PQL</td><td><pql< td=""><td>&lt; PQL</td><td><pql< td=""><td>&lt;₽QL</td><td>&lt;₽QL</td><td>&lt;₽aL</td><td><pql< td=""><td><pql< td=""></pql<></td></pql<></td></pql<></td></pql<></td></pql<>	-9Z	0.77	488 94	96 26	16	4.5	0.18	≺PQL	<pql< td=""><td>&lt; PQL</td><td><pql< td=""><td>&lt;₽QL</td><td>&lt;₽QL</td><td>&lt;₽aL</td><td><pql< td=""><td><pql< td=""></pql<></td></pql<></td></pql<></td></pql<>	< PQL	<pql< td=""><td>&lt;₽QL</td><td>&lt;₽QL</td><td>&lt;₽aL</td><td><pql< td=""><td><pql< td=""></pql<></td></pql<></td></pql<>	<₽QL	<₽QL	<₽aL	<pql< td=""><td><pql< td=""></pql<></td></pql<>	<pql< td=""></pql<>
										Excess of WHO auideline	MHO quid	eline		Exce	Excess of Bandadesh Standard	ladesh St	andard		Excess	x both Ba	ndadesh	Standard a	Éxcess of both Bandadesh Standard and WHO quideline	uideline -			
								(The values		re dete	mined	as exce	were determined as exceeding the standard's before rounding off	e standa	inds befo	rre rour	idina off		<b>1</b>	5							
														·		· · · · · · · · · · · · · · · · · · ·		_		•							

Table 5.5.4 Results of Improved Deep Tubewell(1/2)

											ŀ	ŀ	╞	-	-	╞		╞			-					F	Γ
Analyte	_	ł	Temperatura	Temperature Conductivity Marchess	y Hardness	TDS	Nitrate	Nitrite	Ammonitum D		Suttate a	Children Ch	Chloride Stear	Bleathenate Cald	Calchum Magneshum		Sodhum Potenatum	Huorida		Cadmium Total Cr Copper	Copp Cr	er Cyantde	le Lead	Mercury	Nickel	Z	8
Method		pH meter	Thermo meter	ConductMity meter	Standard	Standard	SP	SP	SP	FAAS	SP	FAAS	SP Thr	Titration FA	FAAS FAAS		FAAS FA	FAAS SP	P Edmectio	tto Edmactio AS n/ FAAS	to Eduactio	ts SP	Extractio n/ FAAS	Extractio	Extractio n/ FAAS	Extractio 1 n/ FAAS	Titration
Practical Quantitation Limit	tion Limit	0	0 Deg C	0.02	0.5	0.13	0.2	0.02	0.1	0.08	5	0.2 0	0.6 2	20 0	0.5 0.05		0.05 0.1	1 0.1	1 0.0015	15 0.025	5 0.005	5 0.01	0.005	0.001	0.005	0.005	8
Unit			Deg C	mS/m	E C C C C C C C C C C C C	mg/L	mg/L	тgл	mg/L	mg/L	u J/ɓm	л Лет	mg/L CaC	caco <sub>3</sub> n mg	mg/L mg/L		mg/L mg/L	J/Guu _Vf	t/f mg/r	L mg/L	- mg/L	L mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sample No	Date of sampling	Æ	Temp	ы	Hardness	TDS	NO3	NO2	NH	M.	so	Fe	ъ В		Ca		Na	X	C	ΰ	S	N	£	Нg	W	ន	60
Jessore																		_			 						
IM-JSRb-1-DM	26-Nov-00	67.7	24.0	60.4	48.1	387	₽Q	PQ		₽a	₽QL	0.27	9.4	333 3	31 17		53 3.5	5 0.37	37 <pql< th=""><th>r <pql< th=""><th>₽Q</th><th>L 0.017</th><th>0.0076</th><th>₽QL</th><th>PQL</th><th>PQL</th><th>PQL</th></pql<></th></pql<>	r <pql< th=""><th>₽Q</th><th>L 0.017</th><th>0.0076</th><th>₽QL</th><th>PQL</th><th>PQL</th><th>PQL</th></pql<>	₽Q	L 0.017	0.0076	₽QL	PQL	PQL	PQL
IM-JSRb-1-1M	03-Jan-01	7.63	24.0	62.4	55.5	339	₽ġ	PQ4	5.925	0.20	₽Q	2 2 2 2	9.3	317 3	39 16	<u> </u>	35	3.6 0.35	S5 APQL	k F	19 10 10 10	L _PQL	₽QL	₽ġ	₽QL	Å	PQL
IM-JSRb-1-2M	06-Feb-01	67.7	25.7	58.2	56.2	373	1.6	₽QL	₽QĽ	₽ġ	₽d	0.21	11	315 3	37 19	9 71	3.1	1 0.39	g ≮PQL	in Apol	₽ D	L 0.013	₽ġ	₽ġ	<pql< th=""><th>₽ġ</th><th>PQL</th></pql<>	₽ġ	PQL
IM-JSRb-1-3M	27-Mar-01	7.83	28.4	56.3	56.0	360	₽Q	PQL	÷	PQL	₽QL	0.73	13 3	315 3	39 17		69 5.8	.8 0.38	38 <pql< th=""><th>F 4bal</th><th>P2 P2</th><th>L ∻PQL</th><th>₽Q</th><th>Å</th><th>PQL</th><th>0.095</th><th>PQL</th></pql<>	F 4bal	P2 P2	L ∻PQL	₽Q	Å	PQL	0.095	PQL
IM-JSRb-2-0M	26-Nov-00	7.80	. 23.6	63.2	47.3	404	JDd>	0.13	2012	PQL	- ₽0Г		5.5 3.	320 3	30 17		53 3.4	4 0.42	t2 <pql< th=""><th>K <pol< th=""><th>₽</th><th>L 0.025</th><th>₽QL</th><th>₽QL</th><th>0.010</th><th>₽aL</th><th>PQL</th></pol<></th></pql<>	K <pol< th=""><th>₽</th><th>L 0.025</th><th>₽QL</th><th>₽QL</th><th>0.010</th><th>₽aL</th><th>PQL</th></pol<>	₽	L 0.025	₽QL	₽QL	0.010	₽aL	PQL
IM-JSRb-2-1M	03-Jan-01	7.67	24.0	62.1	54.5	396	1.7	₽ġ	843	0.17	₽QL	0.5	12 3	328 3	38 16		53 3.5	5 0.38	88	r <pal< th=""><th>- ∧PQL</th><th>r Api</th><th>-Pol</th><th>PQL</th><th>0.0075</th><th>₽ġ</th><th>₽ġ</th></pal<>	- ∧PQL	r Api	-Pol	PQL	0.0075	₽ġ	₽ġ
IM-JSRb-2-2M	06-Feb-01	7.72	23.6	56.9	55.1	364	1.5	1.5	₽Q	<pql< th=""><th><pql< th=""><th></th><th>11 3</th><th>315 3</th><th>36 19</th><th></th><th>68 3.1</th><th>1 0.40</th><th>to ⊲PQL</th><th>IL <pql< th=""><th>₽QL</th><th>L 0.014</th><th>0.0061</th><th>₽oĽ</th><th>PQL</th><th>₽Q</th><th>PQL</th></pql<></th></pql<></th></pql<>	<pql< th=""><th></th><th>11 3</th><th>315 3</th><th>36 19</th><th></th><th>68 3.1</th><th>1 0.40</th><th>to ⊲PQL</th><th>IL <pql< th=""><th>₽QL</th><th>L 0.014</th><th>0.0061</th><th>₽oĽ</th><th>PQL</th><th>₽Q</th><th>PQL</th></pql<></th></pql<>		11 3	315 3	36 19		68 3.1	1 0.40	to ⊲PQL	IL <pql< th=""><th>₽QL</th><th>L 0.014</th><th>0.0061</th><th>₽oĽ</th><th>PQL</th><th>₽Q</th><th>PQL</th></pql<>	₽QL	L 0.014	0.0061	₽oĽ	PQL	₽Q	PQL
IM-JSRb-2-3M	27-Mar-01	7.88	28.1	56.7	55.7	363	PQL	Pa∟	5	PQL	о Ц	0.66	12	3	39 17		66 5.7	7 0.31	e PQL PQL	r <pql< td=""><td>₽OL</td><td>PoL ⊢</td><td>0.0066</td><td>PQL</td><td>&lt;₽QL</td><td>0.017</td><td>₽QL</td></pql<>	₽OL	PoL ⊢	0.0066	PQL	<₽QL	0.017	₽QL
IM-JSRb-3-0M	26-Nov-00	7.45	23.9	64.0	50.0	410	₹₽QΓ	POL	27	0.16	-Pol	0.62	4.2 3.	320 3	32 17		49 4.7	7 0.46	te <pql< td=""><td>KL <pol< td=""><td>₽a</td><td>L 0.015</td><td>0.015</td><td>PQL</td><td>0.0059</td><td>PQL</td><td>39</td></pol<></td></pql<>	KL <pol< td=""><td>₽a</td><td>L 0.015</td><td>0.015</td><td>PQL</td><td>0.0059</td><td>PQL</td><td>39</td></pol<>	₽a	L 0.015	0.015	PQL	0.0059	PQL	39
IM-JSRb-3-1M	03-Jan-01	7.45	23.8	61.5	55.7	393	2.3	0.15	6.7	0.20	<₽QL	16, 5	8.5 3	315 4	40 16	16 5	50 3.7	7 0.43	t3 <pol< td=""><td>IC <pql< td=""><td>- ADL</td><td>L ⊲PQL</td><td>₽</td><td>₽QL</td><td>0.0064</td><td>PQL</td><td>Pol</td></pql<></td></pol<>	IC <pql< td=""><td>- ADL</td><td>L ⊲PQL</td><td>₽</td><td>₽QL</td><td>0.0064</td><td>PQL</td><td>Pol</td></pql<>	- ADL	L ⊲PQL	₽	₽QL	0.0064	PQL	Pol
IM-JSRb-3-2M	06-Feb-01	7.46	24.3	56.9	57.8	364	2.4	2.0	<₽QL	₽QL	o ≺PQL	0.41	7.3 3	305 4	40 18		66 2.8	8 0.45	t5 <pqi< td=""><td>IL ⊲PQL</td><td>- spor</td><td>L 0.017</td><td>₽ġ</td><td><pql< td=""><td>PoL</td><td>0.015</td><td>₽g</td></pql<></td></pqi<>	IL ⊲PQL	- spor	L 0.017	₽ġ	<pql< td=""><td>PoL</td><td>0.015</td><td>₽g</td></pql<>	PoL	0.015	₽g
IM-JSRb-3-3M	27-Mar-01	7.61	28.0	56.0	58.1	358	1.6	1.5	0.18	₽	₽ ₽	0.71	8.4 2	296 4	41 17		66 5.9	9 0.49	6ª IQ	ir ∽PQL	PQL -	r ⊲PaL	₽OL	PQL	<₽QL	0.026	<₽aL
Jhenaldah																											
IM-JHKc-1-OM	28-Feb-01	7.16	24.6	94.9	162	608	PQL	≺PQL	0.75	0.20	<₽QL	82.3	0.87 5-	546 13	130 29		29 4.9	9 0.31	31 <pql< th=""><th>IL <pol< th=""><th>- POL</th><th>L <pql< th=""><th>₽QL</th><th>₽QL</th><th>0.0098</th><th>₽OL</th><th>27</th></pql<></th></pol<></th></pql<>	IL <pol< th=""><th>- POL</th><th>L <pql< th=""><th>₽QL</th><th>₽QL</th><th>0.0098</th><th>₽OL</th><th>27</th></pql<></th></pol<>	- POL	L <pql< th=""><th>₽QL</th><th>₽QL</th><th>0.0098</th><th>₽OL</th><th>27</th></pql<>	₽QL	₽QL	0.0098	₽OL	27
IM-JHKc-1-1M	24-Mar-01	6:9	27.5	59.65	152	382	₽QL	PQL	言語	0.24	₽QL	20	1.1 5	555 13	130 22		23 8.6	6 0.22	22 <pql< th=""><th>ι &lt;ΡQL</th><th>PQL</th><th>L 0.017</th><th>₽QL</th><th>₽QL</th><th>sPar</th><th>0.030</th><th>₽ġ</th></pql<>	ι <ΡQL	PQL	L 0.017	₽QL	₽QL	sPar	0.030	₽ġ
IM-JHKc-1-2M	1st-May-01	7.26	30.9	68.2	153	437	<₽QL	<pql< th=""><th></th><th>0.46</th><th>&lt;₽QL</th><th>90 j</th><th>1.7 5</th><th>557 12</th><th>120 30</th><th></th><th>26 6.2</th><th>2 0.27</th><th>27 <pql< th=""><th>it <pql< th=""><th>- ≮PaL</th><th>L 0.018</th><th><pql< th=""><th>≺PQL</th><th><pql< th=""><th>&lt;₽aL</th><th>PΩL</th></pql<></th></pql<></th></pql<></th></pql<></th></pql<>		0.46	<₽QL	90 j	1.7 5	557 12	120 30		26 6.2	2 0.27	27 <pql< th=""><th>it <pql< th=""><th>- ≮PaL</th><th>L 0.018</th><th><pql< th=""><th>≺PQL</th><th><pql< th=""><th>&lt;₽aL</th><th>PΩL</th></pql<></th></pql<></th></pql<></th></pql<>	it <pql< th=""><th>- ≮PaL</th><th>L 0.018</th><th><pql< th=""><th>≺PQL</th><th><pql< th=""><th>&lt;₽aL</th><th>PΩL</th></pql<></th></pql<></th></pql<>	- ≮PaL	L 0.018	<pql< th=""><th>≺PQL</th><th><pql< th=""><th>&lt;₽aL</th><th>PΩL</th></pql<></th></pql<>	≺PQL	<pql< th=""><th>&lt;₽aL</th><th>PΩL</th></pql<>	<₽aL	PΩL
IM-JHKe-1-3M	17-Jun-01	7.21	30.8	68.6	149	343	₽Q	POL	4.5 4	0.35	⊲PQL	62 %	2.8 5	524 13	120 25		26 5.1	.1 0.18	18 <pql< th=""><th>k <pql< th=""><th>₽ġ</th><th>₽</th><th>₽QĹ</th><th>&lt;₽QL</th><th><pql< th=""><th>₽QL</th><th>27</th></pql<></th></pql<></th></pql<>	k <pql< th=""><th>₽ġ</th><th>₽</th><th>₽QĹ</th><th>&lt;₽QL</th><th><pql< th=""><th>₽QL</th><th>27</th></pql<></th></pql<>	₽ġ	₽	₽QĹ	<₽QL	<pql< th=""><th>₽QL</th><th>27</th></pql<>	₽QL	27
IM-JHKc-2-OM	28-Feb-01	7.07	23.7	90.4	162	578	sPQL	PQL	617	<₽QL	<pql< th=""><th>16 3</th><th>2.0 5</th><th>500 13</th><th>130 29</th><th>9 27</th><th></th><th>4.5 0.24</th><th>24 <pql< th=""><th>κ ⊲PQL</th><th>- POL</th><th>L 0.011</th><th>sPQL</th><th><pql< th=""><th>&lt;₽QL</th><th>₽aL</th><th>₽QL</th></pql<></th></pql<></th></pql<>	16 3	2.0 5	500 13	130 29	9 27		4.5 0.24	24 <pql< th=""><th>κ ⊲PQL</th><th>- POL</th><th>L 0.011</th><th>sPQL</th><th><pql< th=""><th>&lt;₽QL</th><th>₽aL</th><th>₽QL</th></pql<></th></pql<>	κ ⊲PQL	- POL	L 0.011	sPQL	<pql< th=""><th>&lt;₽QL</th><th>₽aL</th><th>₽QL</th></pql<>	<₽QL	₽aL	₽QL
IM-JHKc-2-1M	24-Mar-01	7.21	27.6	89.3	146	572	₽QL	₽Q	1.2	^PQL	<pql< th=""><th>228</th><th>3.6 5</th><th>509 12</th><th>120 22</th><th></th><th>23 6.7</th><th>.7 0.21</th><th>21 APQI</th><th>IL <pql< th=""><th>₽QL</th><th>L 0.012</th><th>₽QL</th><th>₽QL</th><th>0.0073</th><th>0.10</th><th>₽ġ</th></pql<></th></pql<>	228	3.6 5	509 12	120 22		23 6.7	.7 0.21	21 APQI	IL <pql< th=""><th>₽QL</th><th>L 0.012</th><th>₽QL</th><th>₽QL</th><th>0.0073</th><th>0.10</th><th>₽ġ</th></pql<>	₽QL	L 0.012	₽QL	₽QL	0.0073	0.10	₽ġ
IM-JHKo-2-2M	1st-May-01	7.08	24.7	81.1	164	519	0.81	₽QL	1.6	< PQL	<pql< th=""><th>28,</th><th>2.4 5</th><th>532 13</th><th>130 30</th><th></th><th>14 4.8</th><th>8 0.16</th><th>16 <pql< th=""><th>lL <pωl< th=""><th>- Fal</th><th>L ⊲PQL</th><th>₽ġ</th><th>₽QL</th><th>0.0062</th><th>0.072</th><th>₽QL</th></pωl<></th></pql<></th></pql<>	28,	2.4 5	532 13	130 30		14 4.8	8 0.16	16 <pql< th=""><th>lL <pωl< th=""><th>- Fal</th><th>L ⊲PQL</th><th>₽ġ</th><th>₽QL</th><th>0.0062</th><th>0.072</th><th>₽QL</th></pωl<></th></pql<>	lL <pωl< th=""><th>- Fal</th><th>L ⊲PQL</th><th>₽ġ</th><th>₽QL</th><th>0.0062</th><th>0.072</th><th>₽QL</th></pωl<>	- Fal	L ⊲PQL	₽ġ	₽QL	0.0062	0.072	₽QL
IM-JHKc-2-3M	17-Jun-01	7.23	30.9	66.0	144	330	<₽QL	₽QL	1.5	0.10	<pql< th=""><th>10 J</th><th>2.6 5.</th><th>535 15</th><th>120 24</th><th></th><th>19 4.</th><th>4.5 0.15</th><th>I5 <pql< th=""><th>IL <pql< th=""><th>- POL</th><th>L <pql< th=""><th>PQL</th><th>PQL</th><th>≮PQL</th><th><pql< th=""><th>&lt;₽QL</th></pql<></th></pql<></th></pql<></th></pql<></th></pql<>	10 J	2.6 5.	535 15	120 24		19 4.	4.5 0.15	I5 <pql< th=""><th>IL <pql< th=""><th>- POL</th><th>L <pql< th=""><th>PQL</th><th>PQL</th><th>≮PQL</th><th><pql< th=""><th>&lt;₽QL</th></pql<></th></pql<></th></pql<></th></pql<>	IL <pql< th=""><th>- POL</th><th>L <pql< th=""><th>PQL</th><th>PQL</th><th>≮PQL</th><th><pql< th=""><th>&lt;₽QL</th></pql<></th></pql<></th></pql<>	- POL	L <pql< th=""><th>PQL</th><th>PQL</th><th>≮PQL</th><th><pql< th=""><th>&lt;₽QL</th></pql<></th></pql<>	PQL	PQL	≮PQL	<pql< th=""><th>&lt;₽QL</th></pql<>	<₽QL
IM-JHKe-3-0M	28-Feb-01	6.79	24.1	94.5	163	605	<pql< th=""><th>₽QL</th><th>1.3</th><th>0.14</th><th><pql< th=""><th>80 <sup>3</sup></th><th>1.3 5</th><th>555 13</th><th>130 29</th><th></th><th>27 4.9</th><th>9 0.33</th><th>33 <pql< th=""><th>IL <pql< th=""><th>- spol</th><th>L 0.013</th><th>PQL</th><th><pql< th=""><th>&lt;₽QL</th><th><pql< th=""><th>35</th></pql<></th></pql<></th></pql<></th></pql<></th></pql<></th></pql<>	₽QL	1.3	0.14	<pql< th=""><th>80 <sup>3</sup></th><th>1.3 5</th><th>555 13</th><th>130 29</th><th></th><th>27 4.9</th><th>9 0.33</th><th>33 <pql< th=""><th>IL <pql< th=""><th>- spol</th><th>L 0.013</th><th>PQL</th><th><pql< th=""><th>&lt;₽QL</th><th><pql< th=""><th>35</th></pql<></th></pql<></th></pql<></th></pql<></th></pql<>	80 <sup>3</sup>	1.3 5	555 13	130 29		27 4.9	9 0.33	33 <pql< th=""><th>IL <pql< th=""><th>- spol</th><th>L 0.013</th><th>PQL</th><th><pql< th=""><th>&lt;₽QL</th><th><pql< th=""><th>35</th></pql<></th></pql<></th></pql<></th></pql<>	IL <pql< th=""><th>- spol</th><th>L 0.013</th><th>PQL</th><th><pql< th=""><th>&lt;₽QL</th><th><pql< th=""><th>35</th></pql<></th></pql<></th></pql<>	- spol	L 0.013	PQL	<pql< th=""><th>&lt;₽QL</th><th><pql< th=""><th>35</th></pql<></th></pql<>	<₽QL	<pql< th=""><th>35</th></pql<>	35
IM-JHKe-3-1M	24-Mar-01	7.11	27.6	87.3	146	559	<₽QL	¢Ω	10.00 M	PQL	<pql< td=""><td>26</td><td>3.1 5</td><td>505 12</td><td>120 21</td><td></td><td>22 6.7</td><td>7 0.31</td><td>31 <pql< td=""><td>IL <pql< td=""><td>0.0050</td><td>0 0.014</td><td>≤PQL</td><td>≺PQL</td><td>0.0087</td><td>0.036</td><td>₽QL</td></pql<></td></pql<></td></pql<>	26	3.1 5	505 12	120 21		22 6.7	7 0.31	31 <pql< td=""><td>IL <pql< td=""><td>0.0050</td><td>0 0.014</td><td>≤PQL</td><td>≺PQL</td><td>0.0087</td><td>0.036</td><td>₽QL</td></pql<></td></pql<>	IL <pql< td=""><td>0.0050</td><td>0 0.014</td><td>≤PQL</td><td>≺PQL</td><td>0.0087</td><td>0.036</td><td>₽QL</td></pql<>	0.0050	0 0.014	≤PQL	≺PQL	0.0087	0.036	₽QL
IM-JHKc-3-2M	1st-May-01	7.04	24.6	61.9	164	524	3.6	POL	22.100	<pql< td=""><td><pql< td=""><td>36 V</td><td>1.1 5</td><td>525 13</td><td>130 30</td><td></td><td>14 5.</td><td>5.3 0.18</td><td>18 <pql< td=""><td>IL <pql< td=""><td>0.0062</td><td>2 <pql< td=""><td>0.0052</td><td>≤PQL</td><td>&lt;₽QL</td><td>0.053</td><td>39</td></pql<></td></pql<></td></pql<></td></pql<></td></pql<>	<pql< td=""><td>36 V</td><td>1.1 5</td><td>525 13</td><td>130 30</td><td></td><td>14 5.</td><td>5.3 0.18</td><td>18 <pql< td=""><td>IL <pql< td=""><td>0.0062</td><td>2 <pql< td=""><td>0.0052</td><td>≤PQL</td><td>&lt;₽QL</td><td>0.053</td><td>39</td></pql<></td></pql<></td></pql<></td></pql<>	36 V	1.1 5	525 13	130 30		14 5.	5.3 0.18	18 <pql< td=""><td>IL <pql< td=""><td>0.0062</td><td>2 <pql< td=""><td>0.0052</td><td>≤PQL</td><td>&lt;₽QL</td><td>0.053</td><td>39</td></pql<></td></pql<></td></pql<>	IL <pql< td=""><td>0.0062</td><td>2 <pql< td=""><td>0.0052</td><td>≤PQL</td><td>&lt;₽QL</td><td>0.053</td><td>39</td></pql<></td></pql<>	0.0062	2 <pql< td=""><td>0.0052</td><td>≤PQL</td><td>&lt;₽QL</td><td>0.053</td><td>39</td></pql<>	0.0052	≤PQL	<₽QL	0.053	39
IM-JHKe-3-3M	17-Jun-01	60'1	6'0£	65.9	146	330	<pql< th=""><th>PQL</th><th>4.7</th><th>0.18</th><th>₹₽QL</th><th></th><th>1.5 5.</th><th>523 12</th><th>120 26</th><th></th><th>23 4.9</th><th>9 0.27</th><th>27 <pql< th=""><th>IL <pql< th=""><th>- 0.015</th><th>5 <pql< th=""><th>₽QL</th><th>&lt; POL</th><th>₽QL</th><th>PΩL</th><th>PQL</th></pql<></th></pql<></th></pql<></th></pql<>	PQL	4.7	0.18	₹₽QL		1.5 5.	523 12	120 26		23 4.9	9 0.27	27 <pql< th=""><th>IL <pql< th=""><th>- 0.015</th><th>5 <pql< th=""><th>₽QL</th><th>&lt; POL</th><th>₽QL</th><th>PΩL</th><th>PQL</th></pql<></th></pql<></th></pql<>	IL <pql< th=""><th>- 0.015</th><th>5 <pql< th=""><th>₽QL</th><th>&lt; POL</th><th>₽QL</th><th>PΩL</th><th>PQL</th></pql<></th></pql<>	- 0.015	5 <pql< th=""><th>₽QL</th><th>&lt; POL</th><th>₽QL</th><th>PΩL</th><th>PQL</th></pql<>	₽QL	< POL	₽QL	PΩL	PQL

Excess of Bangladesh Standard Excess of both Bangladesh Standard and WHO guideline (The values were determined as exceeding the standards before rounding off)

Excess of WHO guideline

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Results of Improved Deep Tubewell(2/2) **Table 5.5.4** 

Analyte		Æ	Temperature	Temperature Conductivity Hardness	Hardness	Ê	Nitrate	Nitrite	Ammonium Dt	Character In	Sulfate p	tractived Fe	Dassolved Fa Chiloride Buarbonata Calcium Magnasium	carbonate Ci	ticium May		Sodium Po	tasshum Fl.	uorida Cac	Potassium Fluoride Cadmium Total Cr Copper	al Cr	ypper   Cyr	Cyanide Le	Lead Merc	Mercury Nickel	cel Zinc	8
Method		pH meter	Thermo meter	Conductivity meter	Standard Standard	Standard	SP	SP	SP	FAAS	SP	FAAS	SP TI	Titration F	FAAS F.	FAAS F	FAAS F	FAAS	SP Ext	Extractio Ext n' FAAS n' F	Extractio Ext n/FAAS n/I	Extractio S n/ FAAS	SP Edf	Extractio Extractio n/ FAAS n/ FAAS	Extractio Extractio n/ FAAS n/ FAAS	ctio Extractio AS n/ FAAS	to Titration
Practical Quantitation Limit	tion Limit	0	0 Deg C	0.02	0.5	0.13	0.2	0.02	0.1	0.08	5	0.2	0.6	20	0.5 0	0.05	0.05	0.1	0.1 0.0	0.0015 0.	0.025 0.	0.005 0.	0.01 0.0	0.005 0.001	01 0.005	35 0.005	5 20
Unit			Deg C	mS/m	caco <sub>y</sub> r	щGГ	тgл	ן∕₿ш	mg/L	ШðЧ	mg/L	mg/L	mg/L Ci	caco <sub>A</sub> L <sup>Γ</sup>	u Jogm	ng/L	ug/L	u mg/L	m Jogm	m Mg/L	mg/L n	ù m6√	ш шоуг	աց/լ	աց/Լ աց/Լ	l mg/L	убш П
Sample No	Date of sampling	Hd	Temp	EC	Hardness	SQL	NO <sub>1</sub>	NO2	NH	Mn	so,	Fe	- U	нсо,	ۍ ۲	BW	Na	¥	ц Ц	Cd Cd	۔ ت	Cr.	CN	н Ч	H9 Ni	'n	COD
Chuadanga															-					_							•
IM-CDB4-1-0M	14-Mar-01	10.7	28.2	62.5	8	<b>6</b> 0	₽d	Por	1.5	0.32	Por Por	35°C	1.4	342	82	18	4	5.1	0.38	₽ ₽ 0 Г	⊳ Pol.	PaL 0.	0.010 <p< td=""><td><pre><pre><pre><pre><pre><pre><pre><pre></pre></pre></pre></pre></pre></pre></pre></pre></td><td>QL 0.0070</td><td>70 <pql< td=""><td>Å</td></pql<></td></p<>	<pre><pre><pre><pre><pre><pre><pre><pre></pre></pre></pre></pre></pre></pre></pre></pre>	QL 0.0070	70 <pql< td=""><td>Å</td></pql<>	Å
IM-CDBd-1-1M	14-Apr-01	1.22	26.0	57.8	116	370	3.8	₽d	1.6 <sup>1</sup>	0.25	ĮÅ.		0.93	357	92	53	6.8	3.2	0.39	₽ Fol	⊳ PQL	4PQL ≤PQL	PQL	POL POL	<pol <pol<="" td=""><td>NL 0.12</td><td>Å</td></pol>	NL 0.12	Å
IM-CDBd-1-2M	17-May-01	123	31.3	50.2	102	321	2.6	1.0	0.11	0.19	<pql< td=""><td>1973</td><td>1.8</td><td>346</td><td>80</td><td>22</td><td>12</td><td>4.2</td><td>0.34</td><td>₽</td><td>₽QL</td><td>POL F</td><td><pre>~ POL</pre></td><td><pre>&gt;DOIT <poil< pre=""></poil<></pre></td><td>or &lt;₽01</td><td>PO( ≁PO(</td><td>₽ ₽</td></pql<>	1973	1.8	346	80	22	12	4.2	0.34	₽	₽QL	POL F	<pre>~ POL</pre>	<pre>&gt;DOIT <poil< pre=""></poil<></pre>	or <₽01	PO( ≁PO(	₽ ₽
IM-CDBd-1-3M	23-Jun-01	7.26	30.9	51.1	101	256	₽QL	PQL	18 ft	0.29	<pol ***<="" td=""><td>10.21</td><td>&lt;₽QL</td><td>353</td><td>82</td><td>20</td><td>18</td><td>3.8</td><td>0.35 4</td><td>₽Q</td><td><pql 0.<="" td=""><td>0.0063 <f< td=""><td><pql <p<="" td=""><td><pql <p<="" td=""><td><pat <pat<="" td=""><td>NL 0.0059</td><td>POL ₽D</td></pat></td></pql></td></pql></td></f<></td></pql></td></pol>	10.21	<₽QL	353	82	20	18	3.8	0.35 4	₽Q	<pql 0.<="" td=""><td>0.0063 <f< td=""><td><pql <p<="" td=""><td><pql <p<="" td=""><td><pat <pat<="" td=""><td>NL 0.0059</td><td>POL ₽D</td></pat></td></pql></td></pql></td></f<></td></pql>	0.0063 <f< td=""><td><pql <p<="" td=""><td><pql <p<="" td=""><td><pat <pat<="" td=""><td>NL 0.0059</td><td>POL ₽D</td></pat></td></pql></td></pql></td></f<>	<pql <p<="" td=""><td><pql <p<="" td=""><td><pat <pat<="" td=""><td>NL 0.0059</td><td>POL ₽D</td></pat></td></pql></td></pql>	<pql <p<="" td=""><td><pat <pat<="" td=""><td>NL 0.0059</td><td>POL ₽D</td></pat></td></pql>	<pat <pat<="" td=""><td>NL 0.0059</td><td>POL ₽D</td></pat>	NL 0.0059	POL ₽D
IM-CDBd-2-0M	14-Mar-01	7.07	28.2	61.9	102	396	<pql< td=""><td>₽0L</td><td>44</td><td>0.16</td><td><pol< td=""><td><b>8</b>32)</td><td>0.81</td><td>348</td><td>83</td><td>19</td><td>13</td><td>5.6   1</td><td>0.47 <f< td=""><td><pql 4<="" td=""><td><pql td="" ⊲<=""><td><pol 0.<="" td=""><td>0.020 <p< td=""><td><pql <p(<="" td=""><td><pql 0.0052<="" td=""><td>52 0.066</td><td>s <pql< td=""></pql<></td></pql></td></pql></td></p<></td></pol></td></pql></td></pql></td></f<></td></pol<></td></pql<>	₽0L	44	0.16	<pol< td=""><td><b>8</b>32)</td><td>0.81</td><td>348</td><td>83</td><td>19</td><td>13</td><td>5.6   1</td><td>0.47 <f< td=""><td><pql 4<="" td=""><td><pql td="" ⊲<=""><td><pol 0.<="" td=""><td>0.020 <p< td=""><td><pql <p(<="" td=""><td><pql 0.0052<="" td=""><td>52 0.066</td><td>s <pql< td=""></pql<></td></pql></td></pql></td></p<></td></pol></td></pql></td></pql></td></f<></td></pol<>	<b>8</b> 32)	0.81	348	83	19	13	5.6   1	0.47 <f< td=""><td><pql 4<="" td=""><td><pql td="" ⊲<=""><td><pol 0.<="" td=""><td>0.020 <p< td=""><td><pql <p(<="" td=""><td><pql 0.0052<="" td=""><td>52 0.066</td><td>s <pql< td=""></pql<></td></pql></td></pql></td></p<></td></pol></td></pql></td></pql></td></f<>	<pql 4<="" td=""><td><pql td="" ⊲<=""><td><pol 0.<="" td=""><td>0.020 <p< td=""><td><pql <p(<="" td=""><td><pql 0.0052<="" td=""><td>52 0.066</td><td>s <pql< td=""></pql<></td></pql></td></pql></td></p<></td></pol></td></pql></td></pql>	<pql td="" ⊲<=""><td><pol 0.<="" td=""><td>0.020 <p< td=""><td><pql <p(<="" td=""><td><pql 0.0052<="" td=""><td>52 0.066</td><td>s <pql< td=""></pql<></td></pql></td></pql></td></p<></td></pol></td></pql>	<pol 0.<="" td=""><td>0.020 <p< td=""><td><pql <p(<="" td=""><td><pql 0.0052<="" td=""><td>52 0.066</td><td>s <pql< td=""></pql<></td></pql></td></pql></td></p<></td></pol>	0.020 <p< td=""><td><pql <p(<="" td=""><td><pql 0.0052<="" td=""><td>52 0.066</td><td>s <pql< td=""></pql<></td></pql></td></pql></td></p<>	<pql <p(<="" td=""><td><pql 0.0052<="" td=""><td>52 0.066</td><td>s <pql< td=""></pql<></td></pql></td></pql>	<pql 0.0052<="" td=""><td>52 0.066</td><td>s <pql< td=""></pql<></td></pql>	52 0.066	s <pql< td=""></pql<>
IM-CDBd-2-1M	14-Apr-01	7.15	25.7	55.4	112	355	2.6	2.3	<₽QL	0.20	<pol s<="" td=""><td>22 S</td><td>1.0</td><td>341</td><td>06</td><td>22</td><td>6.9</td><td>3.2 0</td><td>0.32</td><td>sedL   &lt;</td><td><pql td="" ⊲<=""><td><pql <p<="" td=""><td><pql <₽<="" td=""><td><pql <p<="" td=""><td><pal <pal<="" td=""><td>NL 0.15</td><td>-PQL</td></pal></td></pql></td></pql></td></pql></td></pql></td></pol>	22 S	1.0	341	06	22	6.9	3.2 0	0.32	sedL   <	<pql td="" ⊲<=""><td><pql <p<="" td=""><td><pql <₽<="" td=""><td><pql <p<="" td=""><td><pal <pal<="" td=""><td>NL 0.15</td><td>-PQL</td></pal></td></pql></td></pql></td></pql></td></pql>	<pql <p<="" td=""><td><pql <₽<="" td=""><td><pql <p<="" td=""><td><pal <pal<="" td=""><td>NL 0.15</td><td>-PQL</td></pal></td></pql></td></pql></td></pql>	<pql <₽<="" td=""><td><pql <p<="" td=""><td><pal <pal<="" td=""><td>NL 0.15</td><td>-PQL</td></pal></td></pql></td></pql>	<pql <p<="" td=""><td><pal <pal<="" td=""><td>NL 0.15</td><td>-PQL</td></pal></td></pql>	<pal <pal<="" td=""><td>NL 0.15</td><td>-PQL</td></pal>	NL 0.15	-PQL
IM-CDBd-2-2M	17-May-01	7.23	31.3	50.0	101	320	2.7	2.5	<pql< td=""><td>0.15</td><td><pol< td=""><td>312</td><td>1.6</td><td>333</td><td>80</td><td>21</td><td>12</td><td>4.2 (</td><td>0.40 &lt;</td><td>≮PQL &lt;</td><td><pql td="" ≤<=""><td><pql 0.<="" td=""><td>0.013 <p< td=""><td><pql <p<="" td=""><td><pql <pql<="" td=""><td>IL 0.0092</td><td>2 <pql< td=""></pql<></td></pql></td></pql></td></p<></td></pql></td></pql></td></pol<></td></pql<>	0.15	<pol< td=""><td>312</td><td>1.6</td><td>333</td><td>80</td><td>21</td><td>12</td><td>4.2 (</td><td>0.40 &lt;</td><td>≮PQL &lt;</td><td><pql td="" ≤<=""><td><pql 0.<="" td=""><td>0.013 <p< td=""><td><pql <p<="" td=""><td><pql <pql<="" td=""><td>IL 0.0092</td><td>2 <pql< td=""></pql<></td></pql></td></pql></td></p<></td></pql></td></pql></td></pol<>	312	1.6	333	80	21	12	4.2 (	0.40 <	≮PQL <	<pql td="" ≤<=""><td><pql 0.<="" td=""><td>0.013 <p< td=""><td><pql <p<="" td=""><td><pql <pql<="" td=""><td>IL 0.0092</td><td>2 <pql< td=""></pql<></td></pql></td></pql></td></p<></td></pql></td></pql>	<pql 0.<="" td=""><td>0.013 <p< td=""><td><pql <p<="" td=""><td><pql <pql<="" td=""><td>IL 0.0092</td><td>2 <pql< td=""></pql<></td></pql></td></pql></td></p<></td></pql>	0.013 <p< td=""><td><pql <p<="" td=""><td><pql <pql<="" td=""><td>IL 0.0092</td><td>2 <pql< td=""></pql<></td></pql></td></pql></td></p<>	<pql <p<="" td=""><td><pql <pql<="" td=""><td>IL 0.0092</td><td>2 <pql< td=""></pql<></td></pql></td></pql>	<pql <pql<="" td=""><td>IL 0.0092</td><td>2 <pql< td=""></pql<></td></pql>	IL 0.0092	2 <pql< td=""></pql<>
IM-CDBd-2-3M	23-Jun-01	7.27	31.0	51.3	<b>5</b> .99.5	257	<₽QL	<pql< td=""><td><math>\langle {\cal L} {\cal L} \rangle</math></td><td>0.24</td><td><pql< td=""><td>012.6</td><td><pql< td=""><td>348</td><td>81</td><td>18</td><td>13</td><td>3.3 (</td><td>0.37 &lt;5</td><td><pql <<="" td=""><td><pql td="" ⊲<=""><td><pql <₽<="" td=""><td><pql <₽<="" td=""><td><pql <p<="" td=""><td><pql <pql<="" td=""><td>ar ⊲PQL</td><td>L <pql< td=""></pql<></td></pql></td></pql></td></pql></td></pql></td></pql></td></pql></td></pql<></td></pql<></td></pql<>	$\langle {\cal L} {\cal L} \rangle$	0.24	<pql< td=""><td>012.6</td><td><pql< td=""><td>348</td><td>81</td><td>18</td><td>13</td><td>3.3 (</td><td>0.37 &lt;5</td><td><pql <<="" td=""><td><pql td="" ⊲<=""><td><pql <₽<="" td=""><td><pql <₽<="" td=""><td><pql <p<="" td=""><td><pql <pql<="" td=""><td>ar ⊲PQL</td><td>L <pql< td=""></pql<></td></pql></td></pql></td></pql></td></pql></td></pql></td></pql></td></pql<></td></pql<>	012.6	<pql< td=""><td>348</td><td>81</td><td>18</td><td>13</td><td>3.3 (</td><td>0.37 &lt;5</td><td><pql <<="" td=""><td><pql td="" ⊲<=""><td><pql <₽<="" td=""><td><pql <₽<="" td=""><td><pql <p<="" td=""><td><pql <pql<="" td=""><td>ar ⊲PQL</td><td>L <pql< td=""></pql<></td></pql></td></pql></td></pql></td></pql></td></pql></td></pql></td></pql<>	348	81	18	13	3.3 (	0.37 <5	<pql <<="" td=""><td><pql td="" ⊲<=""><td><pql <₽<="" td=""><td><pql <₽<="" td=""><td><pql <p<="" td=""><td><pql <pql<="" td=""><td>ar ⊲PQL</td><td>L <pql< td=""></pql<></td></pql></td></pql></td></pql></td></pql></td></pql></td></pql>	<pql td="" ⊲<=""><td><pql <₽<="" td=""><td><pql <₽<="" td=""><td><pql <p<="" td=""><td><pql <pql<="" td=""><td>ar ⊲PQL</td><td>L <pql< td=""></pql<></td></pql></td></pql></td></pql></td></pql></td></pql>	<pql <₽<="" td=""><td><pql <₽<="" td=""><td><pql <p<="" td=""><td><pql <pql<="" td=""><td>ar ⊲PQL</td><td>L <pql< td=""></pql<></td></pql></td></pql></td></pql></td></pql>	<pql <₽<="" td=""><td><pql <p<="" td=""><td><pql <pql<="" td=""><td>ar ⊲PQL</td><td>L <pql< td=""></pql<></td></pql></td></pql></td></pql>	<pql <p<="" td=""><td><pql <pql<="" td=""><td>ar ⊲PQL</td><td>L <pql< td=""></pql<></td></pql></td></pql>	<pql <pql<="" td=""><td>ar ⊲PQL</td><td>L <pql< td=""></pql<></td></pql>	ar ⊲PQL	L <pql< td=""></pql<>
IM-CDBd-3-0M	14-Mar-01	7.14	28.1	61.7	100	395	2.7	<₽QL	<pql< td=""><td>0.12</td><td><pql< td=""><td>1. S. S.</td><td>1.3</td><td>326</td><td>82</td><td>18</td><td>13</td><td>5.3 (</td><td>0.39 &lt;5</td><td><pql <5<="" td=""><td><pql td="" ⊲<=""><td><pql <₽<="" td=""><td><pol 0.0<="" td=""><td>0.0104 <p< td=""><td><pol <pol<="" td=""><td>KL <pql< td=""><td>L <pql< td=""></pql<></td></pql<></td></pol></td></p<></td></pol></td></pql></td></pql></td></pql></td></pql<></td></pql<>	0.12	<pql< td=""><td>1. S. S.</td><td>1.3</td><td>326</td><td>82</td><td>18</td><td>13</td><td>5.3 (</td><td>0.39 &lt;5</td><td><pql <5<="" td=""><td><pql td="" ⊲<=""><td><pql <₽<="" td=""><td><pol 0.0<="" td=""><td>0.0104 <p< td=""><td><pol <pol<="" td=""><td>KL <pql< td=""><td>L <pql< td=""></pql<></td></pql<></td></pol></td></p<></td></pol></td></pql></td></pql></td></pql></td></pql<>	1. S. S.	1.3	326	82	18	13	5.3 (	0.39 <5	<pql <5<="" td=""><td><pql td="" ⊲<=""><td><pql <₽<="" td=""><td><pol 0.0<="" td=""><td>0.0104 <p< td=""><td><pol <pol<="" td=""><td>KL <pql< td=""><td>L <pql< td=""></pql<></td></pql<></td></pol></td></p<></td></pol></td></pql></td></pql></td></pql>	<pql td="" ⊲<=""><td><pql <₽<="" td=""><td><pol 0.0<="" td=""><td>0.0104 <p< td=""><td><pol <pol<="" td=""><td>KL <pql< td=""><td>L <pql< td=""></pql<></td></pql<></td></pol></td></p<></td></pol></td></pql></td></pql>	<pql <₽<="" td=""><td><pol 0.0<="" td=""><td>0.0104 <p< td=""><td><pol <pol<="" td=""><td>KL <pql< td=""><td>L <pql< td=""></pql<></td></pql<></td></pol></td></p<></td></pol></td></pql>	<pol 0.0<="" td=""><td>0.0104 <p< td=""><td><pol <pol<="" td=""><td>KL <pql< td=""><td>L <pql< td=""></pql<></td></pql<></td></pol></td></p<></td></pol>	0.0104 <p< td=""><td><pol <pol<="" td=""><td>KL <pql< td=""><td>L <pql< td=""></pql<></td></pql<></td></pol></td></p<>	<pol <pol<="" td=""><td>KL <pql< td=""><td>L <pql< td=""></pql<></td></pql<></td></pol>	KL <pql< td=""><td>L <pql< td=""></pql<></td></pql<>	L <pql< td=""></pql<>
IM-CDBd-3-1M	14-Apr-01	7.72	24.9	54.6	109	ŝ	2.9	₽d	1.3	0.22	₽QL	1.24	17	351	87	ន	6.8	3.1	0.36	₽0L	₽ ₽	₽0L ₽	<pql 0.0<="" td=""><td>0.0093 <p< td=""><td><pql <pql<="" td=""><td>NL 0.18</td><td>-PQL</td></pql></td></p<></td></pql>	0.0093 <p< td=""><td><pql <pql<="" td=""><td>NL 0.18</td><td>-PQL</td></pql></td></p<>	<pql <pql<="" td=""><td>NL 0.18</td><td>-PQL</td></pql>	NL 0.18	-PQL
IM-CDBd-3-2M	17-May-01	7.42	31.2	50.4	8	32	₽QL	PQL	1.0	0.13	<pql< td=""><td>223</td><td>1.7</td><td>341</td><td>8</td><td>21</td><td>15</td><td>3.1 (</td><td>0.37</td><td><pql <₽<="" td=""><td>PQL</td><td><pql 0.<="" td=""><td>0.014 <p< td=""><td><pql <p<="" td=""><td><pol <pol<="" td=""><td>Π Γ</td><td>L _PQL</td></pol></td></pql></td></p<></td></pql></td></pql></td></pql<>	223	1.7	341	8	21	15	3.1 (	0.37	<pql <₽<="" td=""><td>PQL</td><td><pql 0.<="" td=""><td>0.014 <p< td=""><td><pql <p<="" td=""><td><pol <pol<="" td=""><td>Π Γ</td><td>L _PQL</td></pol></td></pql></td></p<></td></pql></td></pql>	PQL	<pql 0.<="" td=""><td>0.014 <p< td=""><td><pql <p<="" td=""><td><pol <pol<="" td=""><td>Π Γ</td><td>L _PQL</td></pol></td></pql></td></p<></td></pql>	0.014 <p< td=""><td><pql <p<="" td=""><td><pol <pol<="" td=""><td>Π Γ</td><td>L _PQL</td></pol></td></pql></td></p<>	<pql <p<="" td=""><td><pol <pol<="" td=""><td>Π Γ</td><td>L _PQL</td></pol></td></pql>	<pol <pol<="" td=""><td>Π Γ</td><td>L _PQL</td></pol>	Π Γ	L _PQL
IM-CDBd-3-3M	23-Jun-01	7.29	31.0	51.2	95.8	256	<₽QL	<pql< td=""><td>1.7</td><td>0.23</td><td><pql td="" 🖗<=""><td>2.4</td><td>1.4</td><td>342</td><td>78</td><td>17</td><td>9.9</td><td>4.0 (</td><td>0.38 &lt;</td><td><pql <₽<="" td=""><td><pql <<="" td=""><td><pa∟ <f<="" td=""><td><pql <p<="" td=""><td><pal <p<="" td=""><td><pol <pol<="" td=""><td>iL <pql< td=""><td>L <pal< td=""></pal<></td></pql<></td></pol></td></pal></td></pql></td></pa∟></td></pql></td></pql></td></pql></td></pql<>	1.7	0.23	<pql td="" 🖗<=""><td>2.4</td><td>1.4</td><td>342</td><td>78</td><td>17</td><td>9.9</td><td>4.0 (</td><td>0.38 &lt;</td><td><pql <₽<="" td=""><td><pql <<="" td=""><td><pa∟ <f<="" td=""><td><pql <p<="" td=""><td><pal <p<="" td=""><td><pol <pol<="" td=""><td>iL <pql< td=""><td>L <pal< td=""></pal<></td></pql<></td></pol></td></pal></td></pql></td></pa∟></td></pql></td></pql></td></pql>	2.4	1.4	342	78	17	9.9	4.0 (	0.38 <	<pql <₽<="" td=""><td><pql <<="" td=""><td><pa∟ <f<="" td=""><td><pql <p<="" td=""><td><pal <p<="" td=""><td><pol <pol<="" td=""><td>iL <pql< td=""><td>L <pal< td=""></pal<></td></pql<></td></pol></td></pal></td></pql></td></pa∟></td></pql></td></pql>	<pql <<="" td=""><td><pa∟ <f<="" td=""><td><pql <p<="" td=""><td><pal <p<="" td=""><td><pol <pol<="" td=""><td>iL <pql< td=""><td>L <pal< td=""></pal<></td></pql<></td></pol></td></pal></td></pql></td></pa∟></td></pql>	<pa∟ <f<="" td=""><td><pql <p<="" td=""><td><pal <p<="" td=""><td><pol <pol<="" td=""><td>iL <pql< td=""><td>L <pal< td=""></pal<></td></pql<></td></pol></td></pal></td></pql></td></pa∟>	<pql <p<="" td=""><td><pal <p<="" td=""><td><pol <pol<="" td=""><td>iL <pql< td=""><td>L <pal< td=""></pal<></td></pql<></td></pol></td></pal></td></pql>	<pal <p<="" td=""><td><pol <pol<="" td=""><td>iL <pql< td=""><td>L <pal< td=""></pal<></td></pql<></td></pol></td></pal>	<pol <pol<="" td=""><td>iL <pql< td=""><td>L <pal< td=""></pal<></td></pql<></td></pol>	iL <pql< td=""><td>L <pal< td=""></pal<></td></pql<>	L <pal< td=""></pal<>
			_	Excess of WHO guideline	HO guidelin	ē			Excess of Bangiadesh Standard	3anglades.	h Standard			ccess of bu	Excess of both Bangladesh Standard and WHO guideline	desh Star	idard and	WHO gui	teline								

Excess of Bangladesh Standard Excess of both Bangladesh Standard and WHO g (The values were determined as exceeding the standards before rounding off)

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Table 5.5.5 Results of 300 Existing Well Survey (Rainy Season)

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Anaryte	Hd.		conductivity Hardness	Hardness	2	Nicrate	NITTIG	umonium Ohn	Chraoteed Min V			Cnionde Bicarbonate	onate Calcium	muteengew Wil	unipos u		Potassium Fluoride	Cadmium			Cyantole		Mercury Nickel		8
_	pH meter	Thermo meter	Conductivity Standard Standard meter	Standard	Standard	ß	Ъ,	ds L	FAAS	SP	FAAS S	SP Titration	tion FAAS	S FAAS	FAAS	FAAS	٩	Extractio E n/FAAS	Extractio E n/FAAS n	Diffactio In/FAAS	SP Ex	Extractio Extr n/FAAS n/F	Extractio Extractio	ctio Extractio AS   n/FAAS	SS Titration
Practical Quantitation	0	0 Deg C	0.02	0.5	0.13	0.2	0.02	0.1	0.08	5	0.2 0	0.6 20	0.5	0.05	0.05	0.1	0.1	0.0015	0.025 (	0.005 (	0.01 0	0.005 0.0	0.001 0.005		5 20
Unit		Deg C	mS/m	mg CaCO <sub>3</sub> /L	mg/L	mg/L	mg/L	u J/6m	mg/L n	mg/L m	mg/L mg	mg/L caco_/L	ירם ש∂ך	- mg/L	mg/L	mg/L	mg/L	mg/L	ng/L I	u J/6m	u mg/L	mg/L m	ղցու շիցո	V mg/	r mg/
Sample No	Ηđ	Temp	ß	Hardness	SQL	*ON	NO2	NH4	* - uM	so,	Fe 0	CI HCO3	o, Ca	BW	Na	¥	L	В	ŭ	3	S	4	IN BH	rz I	8
Existing Well								<b> </b>		<b>-</b>															-
EW-HJMd-R-[19]	00.7	26.4	70.2	166	449	0.80	<pql< th=""><th>- QQ</th><th></th><th><pql< th=""><th>1 66</th><th>1.8 460</th><th>0 140</th><th>31</th><th>21</th><th>1.9</th><th>0.53</th><th><pql< th=""><th>- ≁PQL</th><th>&gt; 104&gt;</th><th>o lo4&gt;</th><th>0.013 &lt;5</th><th><pql 0.022<="" th=""><th>22 <pol< th=""><th>L APOL</th></pol<></th></pql></th></pql<></th></pql<></th></pql<>	- QQ		<pql< th=""><th>1 66</th><th>1.8 460</th><th>0 140</th><th>31</th><th>21</th><th>1.9</th><th>0.53</th><th><pql< th=""><th>- ≁PQL</th><th>&gt; 104&gt;</th><th>o lo4&gt;</th><th>0.013 &lt;5</th><th><pql 0.022<="" th=""><th>22 <pol< th=""><th>L APOL</th></pol<></th></pql></th></pql<></th></pql<>	1 66	1.8 460	0 140	31	21	1.9	0.53	<pql< th=""><th>- ≁PQL</th><th>&gt; 104&gt;</th><th>o lo4&gt;</th><th>0.013 &lt;5</th><th><pql 0.022<="" th=""><th>22 <pol< th=""><th>L APOL</th></pol<></th></pql></th></pql<>	- ≁PQL	> 104>	o lo4>	0.013 <5	<pql 0.022<="" th=""><th>22 <pol< th=""><th>L APOL</th></pol<></th></pql>	22 <pol< th=""><th>L APOL</th></pol<>	L APOL
EW-JJDa-R-[38]	7.10	26.3	71.9	124	460	1.2	0.20	<pql< td=""><td>&gt; 16.03</td><td><pql <<="" td=""><td><pql 1<="" td=""><td>10 460</td><td>0 100</td><td>27</td><td>34</td><td>1.3</td><td>1.1</td><td><pql< td=""><td>0.036</td><td>^ ₽</td><td>&gt; PQL</td><td>-PoL ►</td><td><pql <pql<="" td=""><td>5T ≮bal</td><td>r <pat< td=""></pat<></td></pql></td></pql<></td></pql></td></pql></td></pql<>	> 16.03	<pql <<="" td=""><td><pql 1<="" td=""><td>10 460</td><td>0 100</td><td>27</td><td>34</td><td>1.3</td><td>1.1</td><td><pql< td=""><td>0.036</td><td>^ ₽</td><td>&gt; PQL</td><td>-PoL ►</td><td><pql <pql<="" td=""><td>5T ≮bal</td><td>r <pat< td=""></pat<></td></pql></td></pql<></td></pql></td></pql>	<pql 1<="" td=""><td>10 460</td><td>0 100</td><td>27</td><td>34</td><td>1.3</td><td>1.1</td><td><pql< td=""><td>0.036</td><td>^ ₽</td><td>&gt; PQL</td><td>-PoL ►</td><td><pql <pql<="" td=""><td>5T ≮bal</td><td>r <pat< td=""></pat<></td></pql></td></pql<></td></pql>	10 460	0 100	27	34	1.3	1.1	<pql< td=""><td>0.036</td><td>^ ₽</td><td>&gt; PQL</td><td>-PoL ►</td><td><pql <pql<="" td=""><td>5T ≮bal</td><td>r <pat< td=""></pat<></td></pql></td></pql<>	0.036	^ ₽	> PQL	-PoL ►	<pql <pql<="" td=""><td>5T ≮bal</td><td>r <pat< td=""></pat<></td></pql>	5T ≮bal	r <pat< td=""></pat<>
EW-CDNt-R-[43]	7.00	26.3	101	193	646	<del>1</del> 6	2.8	0.11	0.45	ہ بر	0.57 4	43 500	160	ತ	58	3.6	0.48	0.0019	0.061	>DC	0 ≺PQL	0.012 <f< td=""><td><pql 0.048<="" td=""><td>48 ~PQL</td><td>L PQL</td></pql></td></f<>	<pql 0.048<="" td=""><td>48 ~PQL</td><td>L PQL</td></pql>	48 ~PQL	L PQL
EW-CDHM-R-[73]	7.20	26.2	68.3	141	437	0.36	0.26		> (0.00	<pql 0<="" td=""><td>0.44 1</td><td>1.5 400</td><td>0 120</td><td><b>ฒ</b></td><td>43</td><td>3.7</td><td>0.59</td><td><pql< td=""><td>0.050</td><td>₽QL</td><td>o -PQL</td><td>0.017 &lt;</td><td><pql 0.030<="" td=""><td>30 -P.QL</td><td>L ∱QL</td></pql></td></pql<></td></pql>	0.44 1	1.5 400	0 120	<b>ฒ</b>	43	3.7	0.59	<pql< td=""><td>0.050</td><td>₽QL</td><td>o -PQL</td><td>0.017 &lt;</td><td><pql 0.030<="" td=""><td>30 -P.QL</td><td>L ∱QL</td></pql></td></pql<>	0.050	₽QL	o -PQL	0.017 <	<pql 0.030<="" td=""><td>30 -P.QL</td><td>L ∱QL</td></pql>	30 -P.QL	L ∱QL
EW-JARJ-R-[85]	7.20	26.3	158	75.6	0.00	0.24	APQL	_		<pol 0<="" td=""><td>0.25 22</td><td>220 720</td><td>27</td><td>21</td><td>ίω.</td><td>0.81</td><td>1.0</td><td>PQL</td><td>990.0</td><td>^ ₽QĽ</td><td>× ₽0Г</td><td><pql td="" ►<=""><td><pql <pql<="" td=""><td>al. <pql< td=""><td>L <pql< td=""></pql<></td></pql<></td></pql></td></pql></td></pol>	0.25 22	220 720	27	21	ίω.	0.81	1.0	PQL	990.0	^ ₽QĽ	× ₽0Г	<pql td="" ►<=""><td><pql <pql<="" td=""><td>al. <pql< td=""><td>L <pql< td=""></pql<></td></pql<></td></pql></td></pql>	<pql <pql<="" td=""><td>al. <pql< td=""><td>L <pql< td=""></pql<></td></pql<></td></pql>	al. <pql< td=""><td>L <pql< td=""></pql<></td></pql<>	L <pql< td=""></pql<>
EW-JBBs-R-[117]	7.10	26.1	52.3	119	334	₽ġ	Pol Na≊	0.0	×	÷ PQL €	<pql 2<="" td=""><td>2.3 320</td><td>66</td><td>8</td><td>9.0</td><td>1.6</td><td>0.50</td><td>0.0023</td><td>0.087</td><td>^ ₽0Ľ</td><td>× ₽0F</td><td><pql f<="" td=""><td><pql 0.040<="" td=""><td>40 <pql< td=""><td>L -PQL</td></pql<></td></pql></td></pql></td></pql>	2.3 320	66	8	9.0	1.6	0.50	0.0023	0.087	^ ₽0Ľ	× ₽0F	<pql f<="" td=""><td><pql 0.040<="" td=""><td>40 <pql< td=""><td>L -PQL</td></pql<></td></pql></td></pql>	<pql 0.040<="" td=""><td>40 <pql< td=""><td>L -PQL</td></pql<></td></pql>	40 <pql< td=""><td>L -PQL</td></pql<>	L -PQL
EW-HUNFR-[147]	7.20	26.3	54.1	94.2	346	<₽QL	<₽QL	~	200 A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A.A	<pql 0<="" td=""><td>0.36 2</td><td>20 340</td><td>69</td><td>25</td><td>5</td><td>1.4</td><td>0.61</td><td>PΩL</td><td>0.1</td><td>PQL ≁PQL</td><td>0.017 &lt;</td><td><pql <f<="" td=""><td><pql 0.0063<="" td=""><td>63 <pql< td=""><td>r ⊲Þor</td></pql<></td></pql></td></pql></td></pql>	0.36 2	20 340	69	25	5	1.4	0.61	PΩL	0.1	PQL ≁PQL	0.017 <	<pql <f<="" td=""><td><pql 0.0063<="" td=""><td>63 <pql< td=""><td>r ⊲Þor</td></pql<></td></pql></td></pql>	<pql 0.0063<="" td=""><td>63 <pql< td=""><td>r ⊲Þor</td></pql<></td></pql>	63 <pql< td=""><td>r ⊲Þor</td></pql<>	r ⊲Þor
EW-HHHr-R-[26]	7.28	22.9	73.1	138	468	<pql< td=""><td>0.25</td><td><pol< td=""><td>063</td><td>18 0</td><td>0.74 2</td><td>21 402</td><td>2 110</td><td>27</td><td>4</td><td>2.6</td><td>0.33</td><td>PQL</td><td>0.10</td><td>-PQL</td><td>0.013 &lt;</td><td><pql td="" ≤f<=""><td><pql <pql<="" td=""><td>דר ≼⊿סר סר</td><td>L <pαl< td=""></pαl<></td></pql></td></pql></td></pol<></td></pql<>	0.25	<pol< td=""><td>063</td><td>18 0</td><td>0.74 2</td><td>21 402</td><td>2 110</td><td>27</td><td>4</td><td>2.6</td><td>0.33</td><td>PQL</td><td>0.10</td><td>-PQL</td><td>0.013 &lt;</td><td><pql td="" ≤f<=""><td><pql <pql<="" td=""><td>דר ≼⊿סר סר</td><td>L <pαl< td=""></pαl<></td></pql></td></pql></td></pol<>	063	18 0	0.74 2	21 402	2 110	27	4	2.6	0.33	PQL	0.10	-PQL	0.013 <	<pql td="" ≤f<=""><td><pql <pql<="" td=""><td>דר ≼⊿סר סר</td><td>L <pαl< td=""></pαl<></td></pql></td></pql>	<pql <pql<="" td=""><td>דר ≼⊿סר סר</td><td>L <pαl< td=""></pαl<></td></pql>	דר ≼⊿סר סר	L <pαl< td=""></pαl<>
EW-CJULR-[31]	7.10	26.6	51.7	115	331	1.1	<₽QL	0.13		o ≮PQL	0.59 6	6.8 340	110	6.1	21	1.4	0.40	<₽QL	0.13	<pql 0<="" td=""><td>0.015 &lt;</td><td><pql td="" ←<=""><td><pql 0.047<="" td=""><td>47 <pql< td=""><td>r ⊲PQL</td></pql<></td></pql></td></pql></td></pql>	0.015 <	<pql td="" ←<=""><td><pql 0.047<="" td=""><td>47 <pql< td=""><td>r ⊲PQL</td></pql<></td></pql></td></pql>	<pql 0.047<="" td=""><td>47 <pql< td=""><td>r ⊲PQL</td></pql<></td></pql>	47 <pql< td=""><td>r ⊲PQL</td></pql<>	r ⊲PQL
EW-CCSk-R-[35]	7.00	26.4	59.9	74.9	383	1.4	<₽QL	<pol< td=""><td>&gt; (20)</td><td>PQL</td><td><i>د</i>ھ 1</td><td>14 200</td><td>23</td><td>ឌ</td><td>7</td><td>3.1</td><td>0.43</td><td>0.00515</td><td>0.14</td><td><pol 0<="" td=""><td>0.014 0</td><td>0.030 <f< td=""><td><pql 0.069<="" td=""><td>69 0.051</td><td>PoL 1</td></pql></td></f<></td></pol></td></pol<>	> (20)	PQL	<i>د</i> ھ 1	14 200	23	ឌ	7	3.1	0.43	0.00515	0.14	<pol 0<="" td=""><td>0.014 0</td><td>0.030 <f< td=""><td><pql 0.069<="" td=""><td>69 0.051</td><td>PoL 1</td></pql></td></f<></td></pol>	0.014 0	0.030 <f< td=""><td><pql 0.069<="" td=""><td>69 0.051</td><td>PoL 1</td></pql></td></f<>	<pql 0.069<="" td=""><td>69 0.051</td><td>PoL 1</td></pql>	69 0.051	PoL 1
EW-HTK1-R-[46]	8.30	26.4	26.6	154	170	1.4	<₽QL	0.11	0.20	6.5	1 1	13 360	0 130	23	8.0	3.4	0.52	0.0027	0.14	o loq<	0.010 <	<pql <₽<="" td=""><td><pql 0.035<="" td=""><td>35 0.024</td><td>4 <pql< td=""></pql<></td></pql></td></pql>	<pql 0.035<="" td=""><td>35 0.024</td><td>4 <pql< td=""></pql<></td></pql>	35 0.024	4 <pql< td=""></pql<>
EW-CAALR-[72]	7.10	26.2	91.2	167	284	1.7	PQL	0.10	0.38	8.2 0	0.92 2	26 460	140	25	19	4.0	0.35	0:0030	0.14	0 ≁PQL	0.014 <	₽gL	<pql 0.038<="" td=""><td>38 0.011</td><td>₽ġ</td></pql>	38 0.011	₽ġ
EW-HKRg-R-[74]	6.80	26.2	69.5	93.8	445	2.7	<pql< td=""><td>- Pol</td><td>0.21 &lt;</td><td>≺PQL</td><td>30 I</td><td>15 240</td><td>0 82</td><td>12</td><td>16</td><td>1.9</td><td>0.40</td><td>0.0035</td><td>0.17</td><td>&gt; 104</td><td>&gt; Pol</td><td>PQL €</td><td><pql 0.022<="" td=""><td>22 <pql< td=""><td>r <pql< td=""></pql<></td></pql<></td></pql></td></pql<>	- Pol	0.21 <	≺PQL	30 I	15 240	0 82	12	16	1.9	0.40	0.0035	0.17	> 104	> Pol	PQL €	<pql 0.022<="" td=""><td>22 <pql< td=""><td>r <pql< td=""></pql<></td></pql<></td></pql>	22 <pql< td=""><td>r <pql< td=""></pql<></td></pql<>	r <pql< td=""></pql<>
EW-JSBn-R-[88]	6.80	26.4	65.1	93.0	417	2.5	<₽QL	0.11	0.36 <	<₽QL	3,2	14 280	69 0	24	÷	22	0.48	0.0039	0.17	<pql <<="" td=""><td>~ ₽QL</td><td>PaL</td><td><pql 0.048<="" td=""><td>48 0.047</td><td>Z <pql< td=""></pql<></td></pql></td></pql>	~ ₽QL	PaL	<pql 0.048<="" td=""><td>48 0.047</td><td>Z <pql< td=""></pql<></td></pql>	48 0.047	Z <pql< td=""></pql<>
EW-HMN1-R-[95]	6.90	26.2	71.2	128	494	0.76			0.36 <	<pql< td=""><td>35 4</td><td>4.4 440</td><td>0 100</td><td>25</td><td>9</td><td>3.6</td><td>0.37</td><td>0.0052</td><td>0.17</td><td><pre>&gt; Vol</pre></td><td>~ ₽QL</td><td>-Pol L ←</td><td><pql 0.026<="" td=""><td>se <pol< td=""><td>L ^PQL</td></pol<></td></pql></td></pql<>	35 4	4.4 440	0 100	25	9	3.6	0.37	0.0052	0.17	<pre>&gt; Vol</pre>	~ ₽QL	-Pol L ←	<pql 0.026<="" td=""><td>se <pol< td=""><td>L ^PQL</td></pol<></td></pql>	se <pol< td=""><td>L ^PQL</td></pol<>	L ^PQL
EW-JKPj-R-[102]	6.80	26.1	258	164	949000	630	697	85 - I	<pql <<="" td=""><td>&lt;₽QL</td><td>9.C 3:</td><td>330 460</td><td>0 120</td><td>45</td><td>170</td><td>8.9</td><td>1.2</td><td>0.0073</td><td>0.18</td><td>&lt; ₽QL</td><td><pql <<="" td=""><td><pql <₽<="" td=""><td><pql 0.065<="" td=""><td>65 0.016</td><td>6 160</td></pql></td></pql></td></pql></td></pql>	<₽QL	9.C 3:	330 460	0 120	45	170	8.9	1.2	0.0073	0.18	< ₽QL	<pql <<="" td=""><td><pql <₽<="" td=""><td><pql 0.065<="" td=""><td>65 0.016</td><td>6 160</td></pql></td></pql></td></pql>	<pql <₽<="" td=""><td><pql 0.065<="" td=""><td>65 0.016</td><td>6 160</td></pql></td></pql>	<pql 0.065<="" td=""><td>65 0.016</td><td>6 160</td></pql>	65 0.016	6 160
EW-JHNn-R-[105]	6.70	26.0	63.0	107	403	11	38	_	0.14 <	<₽aL	1 1	1.2 280	0 84	23	12	3.0	0.53	0.0076	0.20 0	0.0086 0	0.012 <	<pql <₽<="" td=""><td><pql 0.057<="" td=""><td>57 <pql< td=""><td>33</td></pql<></td></pql></td></pql>	<pql 0.057<="" td=""><td>57 <pql< td=""><td>33</td></pql<></td></pql>	57 <pql< td=""><td>33</td></pql<>	33
EW-JMDk-R-[124]	7.10	23.0	93.3	48.1	467	<₽QL	PQL		× ≮PQL	<₽a∟	22 5	53 420	0 £	35	8	4.8	1:1	6,0079	0.19	<pql <<="" td=""><td>PQL &lt;</td><td>PQL €</td><td><pql 0.043<="" td=""><td>t3 <pql< td=""><td>39 L</td></pql<></td></pql></td></pql>	PQL <	PQL €	<pql 0.043<="" td=""><td>t3 <pql< td=""><td>39 L</td></pql<></td></pql>	t3 <pql< td=""><td>39 L</td></pql<>	39 L
EW-HSFI-R-[133]	6.90	25.8	65.7	117	420	0:30	PQL	<pre>&gt;bOL</pre>	0.69	7.6 0	0.34	2.4 360	8	27	9	1.3	0.50	₽GL	0.20	> ₽QL	>PQL	<pql <f<="" td=""><td><pql <pql<="" td=""><td>5r  </td><td>L <pql< td=""></pql<></td></pql></td></pql>	<pql <pql<="" td=""><td>5r  </td><td>L <pql< td=""></pql<></td></pql>	5r 	L <pql< td=""></pql<>
EW-JUIC-R-[170]	,01.7	25.8	40.1	125	257	0.71	<pql< td=""><td><pol< td=""><td>074%</td><td><pql 0<="" td=""><td>0.50</td><td>11 504</td><td>4 93</td><td>31</td><td>8</td><td>1.2</td><td>0.63</td><td>≺PQL</td><td>0.21</td><td>^ ₽d</td><td>&gt; ≁PQL</td><td>-PQL ≤PQL</td><td><pql 0.0059<="" td=""><td>159 0.024</td><td>4 79</td></pql></td></pql></td></pol<></td></pql<>	<pol< td=""><td>074%</td><td><pql 0<="" td=""><td>0.50</td><td>11 504</td><td>4 93</td><td>31</td><td>8</td><td>1.2</td><td>0.63</td><td>≺PQL</td><td>0.21</td><td>^ ₽d</td><td>&gt; ≁PQL</td><td>-PQL ≤PQL</td><td><pql 0.0059<="" td=""><td>159 0.024</td><td>4 79</td></pql></td></pql></td></pol<>	074%	<pql 0<="" td=""><td>0.50</td><td>11 504</td><td>4 93</td><td>31</td><td>8</td><td>1.2</td><td>0.63</td><td>≺PQL</td><td>0.21</td><td>^ ₽d</td><td>&gt; ≁PQL</td><td>-PQL ≤PQL</td><td><pql 0.0059<="" td=""><td>159 0.024</td><td>4 79</td></pql></td></pql>	0.50	11 504	4 93	31	8	1.2	0.63	≺PQL	0.21	^ ₽d	> ≁PQL	-PQL ≤PQL	<pql 0.0059<="" td=""><td>159 0.024</td><td>4 79</td></pql>	159 0.024	4 79
EW-HSAD-R-[177]	6.90	26.1	88.3	48.5	565	0.31	<pql< td=""><td>0.11</td><td>► 100716</td><td><pql <<="" td=""><td><pql 2<="" td=""><td>24 340</td><td>33</td><td>15</td><td>52</td><td>2.7</td><td>0.49</td><td><pql< td=""><td>0.22</td><td><pql <<="" td=""><td><pql< td=""><td>POL ←</td><td><pal <pal<="" td=""><td>or ⊲PoL</td><td>r <pql< td=""></pql<></td></pal></td></pql<></td></pql></td></pql<></td></pql></td></pql></td></pql<>	0.11	► 100716	<pql <<="" td=""><td><pql 2<="" td=""><td>24 340</td><td>33</td><td>15</td><td>52</td><td>2.7</td><td>0.49</td><td><pql< td=""><td>0.22</td><td><pql <<="" td=""><td><pql< td=""><td>POL ←</td><td><pal <pal<="" td=""><td>or ⊲PoL</td><td>r <pql< td=""></pql<></td></pal></td></pql<></td></pql></td></pql<></td></pql></td></pql>	<pql 2<="" td=""><td>24 340</td><td>33</td><td>15</td><td>52</td><td>2.7</td><td>0.49</td><td><pql< td=""><td>0.22</td><td><pql <<="" td=""><td><pql< td=""><td>POL ←</td><td><pal <pal<="" td=""><td>or ⊲PoL</td><td>r <pql< td=""></pql<></td></pal></td></pql<></td></pql></td></pql<></td></pql>	24 340	33	15	52	2.7	0.49	<pql< td=""><td>0.22</td><td><pql <<="" td=""><td><pql< td=""><td>POL ←</td><td><pal <pal<="" td=""><td>or ⊲PoL</td><td>r <pql< td=""></pql<></td></pal></td></pql<></td></pql></td></pql<>	0.22	<pql <<="" td=""><td><pql< td=""><td>POL ←</td><td><pal <pal<="" td=""><td>or ⊲PoL</td><td>r <pql< td=""></pql<></td></pal></td></pql<></td></pql>	<pql< td=""><td>POL ←</td><td><pal <pal<="" td=""><td>or ⊲PoL</td><td>r <pql< td=""></pql<></td></pal></td></pql<>	POL ←	<pal <pal<="" td=""><td>or ⊲PoL</td><td>r <pql< td=""></pql<></td></pal>	or ⊲PoL	r <pql< td=""></pql<>
EW-JMCFR-[201]	6.20	26.2	78.0	109	499	3.1		<b>1</b> 561 0	> 860.0	<pql< td=""><td>26 9</td><td>94 280</td><td>0 83</td><td>27</td><td>27</td><td>3.0</td><td>0.64</td><td><pql< td=""><td>0.22</td><td><pql <<="" td=""><td><pql <<="" td=""><td><pql <f<="" td=""><td><pql <pql<="" td=""><td>0.015 אר</td><td>5 <pql< td=""></pql<></td></pql></td></pql></td></pql></td></pql></td></pql<></td></pql<>	26 9	94 280	0 83	27	27	3.0	0.64	<pql< td=""><td>0.22</td><td><pql <<="" td=""><td><pql <<="" td=""><td><pql <f<="" td=""><td><pql <pql<="" td=""><td>0.015 אר</td><td>5 <pql< td=""></pql<></td></pql></td></pql></td></pql></td></pql></td></pql<>	0.22	<pql <<="" td=""><td><pql <<="" td=""><td><pql <f<="" td=""><td><pql <pql<="" td=""><td>0.015 אר</td><td>5 <pql< td=""></pql<></td></pql></td></pql></td></pql></td></pql>	<pql <<="" td=""><td><pql <f<="" td=""><td><pql <pql<="" td=""><td>0.015 אר</td><td>5 <pql< td=""></pql<></td></pql></td></pql></td></pql>	<pql <f<="" td=""><td><pql <pql<="" td=""><td>0.015 אר</td><td>5 <pql< td=""></pql<></td></pql></td></pql>	<pql <pql<="" td=""><td>0.015 אר</td><td>5 <pql< td=""></pql<></td></pql>	0.015 אר	5 <pql< td=""></pql<>
EW-JCPt-R-[207]	. 08'9	26.0	72.6	112	465	8.5	( 30-)	<pql< td=""><td>0.30 &lt;</td><td><pql< td=""><td>8.6 1</td><td>10 360</td><td>0 87</td><td>25</td><td>13</td><td>4.2</td><td>0.47</td><td><pql< td=""><td>0.22</td><td><pql <<="" td=""><td><pql <<="" td=""><td><pql <f<="" td=""><td><pql 0.0063<="" td=""><td>63 <pql< td=""><td>r <pql< td=""></pql<></td></pql<></td></pql></td></pql></td></pql></td></pql></td></pql<></td></pql<></td></pql<>	0.30 <	<pql< td=""><td>8.6 1</td><td>10 360</td><td>0 87</td><td>25</td><td>13</td><td>4.2</td><td>0.47</td><td><pql< td=""><td>0.22</td><td><pql <<="" td=""><td><pql <<="" td=""><td><pql <f<="" td=""><td><pql 0.0063<="" td=""><td>63 <pql< td=""><td>r <pql< td=""></pql<></td></pql<></td></pql></td></pql></td></pql></td></pql></td></pql<></td></pql<>	8.6 1	10 360	0 87	25	13	4.2	0.47	<pql< td=""><td>0.22</td><td><pql <<="" td=""><td><pql <<="" td=""><td><pql <f<="" td=""><td><pql 0.0063<="" td=""><td>63 <pql< td=""><td>r <pql< td=""></pql<></td></pql<></td></pql></td></pql></td></pql></td></pql></td></pql<>	0.22	<pql <<="" td=""><td><pql <<="" td=""><td><pql <f<="" td=""><td><pql 0.0063<="" td=""><td>63 <pql< td=""><td>r <pql< td=""></pql<></td></pql<></td></pql></td></pql></td></pql></td></pql>	<pql <<="" td=""><td><pql <f<="" td=""><td><pql 0.0063<="" td=""><td>63 <pql< td=""><td>r <pql< td=""></pql<></td></pql<></td></pql></td></pql></td></pql>	<pql <f<="" td=""><td><pql 0.0063<="" td=""><td>63 <pql< td=""><td>r <pql< td=""></pql<></td></pql<></td></pql></td></pql>	<pql 0.0063<="" td=""><td>63 <pql< td=""><td>r <pql< td=""></pql<></td></pql<></td></pql>	63 <pql< td=""><td>r <pql< td=""></pql<></td></pql<>	r <pql< td=""></pql<>
Production Well																				-					
EW-HTKI-R(PTW-2)	7.14	23.6	68.7	119	440	0.89	0.21	0.11	069	7.2 0	0.25 1	13 410	0 87	33	17	1.8	0.62	<pql< td=""><td><pql .<="" td=""><td><pql< td=""><td>&lt; Pol</td><td><pql <₽<="" td=""><td><pal <pal<="" td=""><td>2L 0.021</td><td>1 <pql< td=""></pql<></td></pal></td></pql></td></pql<></td></pql></td></pql<>	<pql .<="" td=""><td><pql< td=""><td>&lt; Pol</td><td><pql <₽<="" td=""><td><pal <pal<="" td=""><td>2L 0.021</td><td>1 <pql< td=""></pql<></td></pal></td></pql></td></pql<></td></pql>	<pql< td=""><td>&lt; Pol</td><td><pql <₽<="" td=""><td><pal <pal<="" td=""><td>2L 0.021</td><td>1 <pql< td=""></pql<></td></pal></td></pql></td></pql<>	< Pol	<pql <₽<="" td=""><td><pal <pal<="" td=""><td>2L 0.021</td><td>1 <pql< td=""></pql<></td></pal></td></pql>	<pal <pal<="" td=""><td>2L 0.021</td><td>1 <pql< td=""></pql<></td></pal>	2L 0.021	1 <pql< td=""></pql<>
EW-CCCd-R(PTW-2B)	7.09	23.5	69.3	123	444	<pql< td=""><td>&lt;₽QL</td><td>1.1</td><td>0.19 &lt;</td><td><pql< td=""><td>0.0 3</td><td>35 360</td><td>0 97</td><td>26</td><td>19</td><td>3.2</td><td>0.55</td><td><pql< td=""><td>&lt; PQL</td><td><pql <<="" td=""><td><pql <<="" td=""><td><pql <f<="" td=""><td><pql <pql<="" td=""><td>aL <pal< td=""><td>r <par< td=""></par<></td></pal<></td></pql></td></pql></td></pql></td></pql></td></pql<></td></pql<></td></pql<>	<₽QL	1.1	0.19 <	<pql< td=""><td>0.0 3</td><td>35 360</td><td>0 97</td><td>26</td><td>19</td><td>3.2</td><td>0.55</td><td><pql< td=""><td>&lt; PQL</td><td><pql <<="" td=""><td><pql <<="" td=""><td><pql <f<="" td=""><td><pql <pql<="" td=""><td>aL <pal< td=""><td>r <par< td=""></par<></td></pal<></td></pql></td></pql></td></pql></td></pql></td></pql<></td></pql<>	0.0 3	35 360	0 97	26	19	3.2	0.55	<pql< td=""><td>&lt; PQL</td><td><pql <<="" td=""><td><pql <<="" td=""><td><pql <f<="" td=""><td><pql <pql<="" td=""><td>aL <pal< td=""><td>r <par< td=""></par<></td></pal<></td></pql></td></pql></td></pql></td></pql></td></pql<>	< PQL	<pql <<="" td=""><td><pql <<="" td=""><td><pql <f<="" td=""><td><pql <pql<="" td=""><td>aL <pal< td=""><td>r <par< td=""></par<></td></pal<></td></pql></td></pql></td></pql></td></pql>	<pql <<="" td=""><td><pql <f<="" td=""><td><pql <pql<="" td=""><td>aL <pal< td=""><td>r <par< td=""></par<></td></pal<></td></pql></td></pql></td></pql>	<pql <f<="" td=""><td><pql <pql<="" td=""><td>aL <pal< td=""><td>r <par< td=""></par<></td></pal<></td></pql></td></pql>	<pql <pql<="" td=""><td>aL <pal< td=""><td>r <par< td=""></par<></td></pal<></td></pql>	aL <pal< td=""><td>r <par< td=""></par<></td></pal<>	r <par< td=""></par<>
EW-HUJn-R(PTW-3)	10.7	23.4	54.1	73	346	2.9	0.24	0.27	0.43	7.6 4	<pql 4<="" td=""><td>4.1 340</td><td>0 61</td><td>12</td><td>24</td><td>2.1</td><td>0.56</td><td><pql< td=""><td><pql< td=""><td><pql <<="" td=""><td><pql <<="" td=""><td><pql <f<="" td=""><td><pql <pql<="" td=""><td>2L 0.019</td><td>9 <pql< td=""></pql<></td></pql></td></pql></td></pql></td></pql></td></pql<></td></pql<></td></pql>	4.1 340	0 61	12	24	2.1	0.56	<pql< td=""><td><pql< td=""><td><pql <<="" td=""><td><pql <<="" td=""><td><pql <f<="" td=""><td><pql <pql<="" td=""><td>2L 0.019</td><td>9 <pql< td=""></pql<></td></pql></td></pql></td></pql></td></pql></td></pql<></td></pql<>	<pql< td=""><td><pql <<="" td=""><td><pql <<="" td=""><td><pql <f<="" td=""><td><pql <pql<="" td=""><td>2L 0.019</td><td>9 <pql< td=""></pql<></td></pql></td></pql></td></pql></td></pql></td></pql<>	<pql <<="" td=""><td><pql <<="" td=""><td><pql <f<="" td=""><td><pql <pql<="" td=""><td>2L 0.019</td><td>9 <pql< td=""></pql<></td></pql></td></pql></td></pql></td></pql>	<pql <<="" td=""><td><pql <f<="" td=""><td><pql <pql<="" td=""><td>2L 0.019</td><td>9 <pql< td=""></pql<></td></pql></td></pql></td></pql>	<pql <f<="" td=""><td><pql <pql<="" td=""><td>2L 0.019</td><td>9 <pql< td=""></pql<></td></pql></td></pql>	<pql <pql<="" td=""><td>2L 0.019</td><td>9 <pql< td=""></pql<></td></pql>	2L 0.019	9 <pql< td=""></pql<>
EW-JJS-R(PTW-15)	60'.2	23.2	101	114	644	<pql< td=""><td>&lt;₽QL</td><td>0.10</td><td>0.29</td><td>8.9 0</td><td>0.73 1</td><td>110 480</td><td>0 82</td><td>31</td><td>29</td><td>2.7</td><td>0.41</td><td><pql< td=""><td>&lt; PQL</td><td><pql <<="" td=""><td>&lt; PQL</td><td><pql <₽<="" td=""><td><pql <pql<="" td=""><td>3L 0.053</td><td>3 <pql< td=""></pql<></td></pql></td></pql></td></pql></td></pql<></td></pql<>	<₽QL	0.10	0.29	8.9 0	0.73 1	110 480	0 82	31	29	2.7	0.41	<pql< td=""><td>&lt; PQL</td><td><pql <<="" td=""><td>&lt; PQL</td><td><pql <₽<="" td=""><td><pql <pql<="" td=""><td>3L 0.053</td><td>3 <pql< td=""></pql<></td></pql></td></pql></td></pql></td></pql<>	< PQL	<pql <<="" td=""><td>&lt; PQL</td><td><pql <₽<="" td=""><td><pql <pql<="" td=""><td>3L 0.053</td><td>3 <pql< td=""></pql<></td></pql></td></pql></td></pql>	< PQL	<pql <₽<="" td=""><td><pql <pql<="" td=""><td>3L 0.053</td><td>3 <pql< td=""></pql<></td></pql></td></pql>	<pql <pql<="" td=""><td>3L 0.053</td><td>3 <pql< td=""></pql<></td></pql>	3L 0.053	3 <pql< td=""></pql<>
EW-HMMh-R(PTW-1)	7.12	23.7	53.0	102	339	4.5	0.17	1.2	< PQL <	<pql< td=""><td>(S) 3</td><td>3.0 330</td><td>0 83</td><td>30</td><td>8.7</td><td>2.8</td><td>0.27</td><td><pql< td=""><td>-PQL</td><td>PQL</td><td><pql< td=""><td><pql. <₽<="" td=""><td><pql <pql<="" td=""><td>al. 0.069</td><td>9 <pql< td=""></pql<></td></pql></td></pql.></td></pql<></td></pql<></td></pql<>	(S) 3	3.0 330	0 83	30	8.7	2.8	0.27	<pql< td=""><td>-PQL</td><td>PQL</td><td><pql< td=""><td><pql. <₽<="" td=""><td><pql <pql<="" td=""><td>al. 0.069</td><td>9 <pql< td=""></pql<></td></pql></td></pql.></td></pql<></td></pql<>	-PQL	PQL	<pql< td=""><td><pql. <₽<="" td=""><td><pql <pql<="" td=""><td>al. 0.069</td><td>9 <pql< td=""></pql<></td></pql></td></pql.></td></pql<>	<pql. <₽<="" td=""><td><pql <pql<="" td=""><td>al. 0.069</td><td>9 <pql< td=""></pql<></td></pql></td></pql.>	<pql <pql<="" td=""><td>al. 0.069</td><td>9 <pql< td=""></pql<></td></pql>	al. 0.069	9 <pql< td=""></pql<>
EW-HKKI-R(PTW-2)	7.12	23.6	67.8	111	434	7.4	1.1	PQL	0.50 <	<pql 0<="" td=""><td>0.48 1</td><td>16 380</td><td>98</td><td>25</td><td>10</td><td>2.2</td><td>0.30</td><td><pql< td=""><td><pql -<="" td=""><td><pql <<="" td=""><td><pql <<="" td=""><td><pql <f<="" td=""><td><pal <pal<="" td=""><td>0.054 ב</td><td>4 <pql< td=""></pql<></td></pal></td></pql></td></pql></td></pql></td></pql></td></pql<></td></pql>	0.48 1	16 380	98	25	10	2.2	0.30	<pql< td=""><td><pql -<="" td=""><td><pql <<="" td=""><td><pql <<="" td=""><td><pql <f<="" td=""><td><pal <pal<="" td=""><td>0.054 ב</td><td>4 <pql< td=""></pql<></td></pal></td></pql></td></pql></td></pql></td></pql></td></pql<>	<pql -<="" td=""><td><pql <<="" td=""><td><pql <<="" td=""><td><pql <f<="" td=""><td><pal <pal<="" td=""><td>0.054 ב</td><td>4 <pql< td=""></pql<></td></pal></td></pql></td></pql></td></pql></td></pql>	<pql <<="" td=""><td><pql <<="" td=""><td><pql <f<="" td=""><td><pal <pal<="" td=""><td>0.054 ב</td><td>4 <pql< td=""></pql<></td></pal></td></pql></td></pql></td></pql>	<pql <<="" td=""><td><pql <f<="" td=""><td><pal <pal<="" td=""><td>0.054 ב</td><td>4 <pql< td=""></pql<></td></pal></td></pql></td></pql>	<pql <f<="" td=""><td><pal <pal<="" td=""><td>0.054 ב</td><td>4 <pql< td=""></pql<></td></pal></td></pql>	<pal <pal<="" td=""><td>0.054 ב</td><td>4 <pql< td=""></pql<></td></pal>	0.054 ב	4 <pql< td=""></pql<>
EW-HSSI-R(PTW-1)	7.09	23.4	75.4	128	483	₽d	₽ġ	0.18	× ₽0L	4PQL	<pql 4<="" td=""><td>4.6 490</td><td>8</td><td>35</td><td>32</td><td>3.2</td><td>0.39</td><td>Å</td><td>₽aL</td><td>e ≮PaL</td><td>0.010 &lt;</td><td><pql td="" ≤<=""><td><pql <pql<="" td=""><td>2L 0.028</td><td>8 <pql< td=""></pql<></td></pql></td></pql></td></pql>	4.6 490	8	35	32	3.2	0.39	Å	₽aL	e ≮PaL	0.010 <	<pql td="" ≤<=""><td><pql <pql<="" td=""><td>2L 0.028</td><td>8 <pql< td=""></pql<></td></pql></td></pql>	<pql <pql<="" td=""><td>2L 0.028</td><td>8 <pql< td=""></pql<></td></pql>	2L 0.028	8 <pql< td=""></pql<>
								Щ	cess of Wi	Excess of WHO guideline	ę		Excess	Excess of Bangladesh Standard	esh Stand	ard		xcess of t	both Bangl	adesh Star	hdard and	Excess of both Bangladesh Standard and WHO guideline	eline		
							J	(The valu	es were	determ	vined as	exceedir	was values were determined as exceeding the standards before rounding off	andards	before I	oundin						1			

Table 5.5.6 Results of 300 Existing Well Survey (Dry Season)

		ſ					-	·	$\left  \right $	-	$\left  \right $	-	-					ŀ	╞	+	┢	}	-		
Analyte	Hd	Temperature	Temperature Conductivity Hardness	Hardness	Ś	Nitrate	Nitrite	Ammonium Disa	Dissolved Min Si	Suffate Dex	Dissolved Pe Child	Chloride Bicarbonate	ante Calcium	m Magnesium	n Sodium	Potasshum	Fluoride	Cadmium T	-		Cyanide L	Lead Mer		cel Zinc	8
	pH meter	Thermo meter	Conductivity meter	Standard Standard	Standard	Ъ	SP	SP F	FAAS	SP F/	FAAS	SP Titration	tion FAAS	5 FAAS	FAAS	FAAS	SP	Extractio E n/ FAAS n	Extractio Ex n/ FAAS n/	Extractio n/ FAAS	SP Ext	Extractio Extractio n/ FAAS n/ FAAS	Edractio Extractio n/ FAAS n/ FAAS	ctio Extractio AS n/ FAAS	o Titration
Practical Quantitation Limit	0	0 Deg C	0.02	0.5	0.13	0.2	0.02	0.1 0	0.08	5 0	0.2 0.	0.6 20	0.5	0.05	0.05	0.1	0.1	0.0015	0.025 0		0.01 0.	0.005 0.001		35 0.005	20
Unit		Deg C	mS/m	mg CaCO <sub>3</sub> L	mg/L	тgл	mg/L	mg/L n	mg/L n	mg/L m	mg/L mg	mg/L caco/L	°µ bm ng∕L	mg/L	ղճա	տց/Լ	ղճա	тдл	ng/L r	mg/L m	m 1/0m	ng/L mg/L	אר ער	L mg/	лgл
Sample No	Hd	Temp	ដ	Hardness	ŝŒ	ő	NO <sub>2</sub>	ŤN	Mn	so,	Fe C	CI HCO3	ca G	BW	Na	¥	u	8	ບັ	3	N	ВН 94	N D	ភ	8
Existing Well		, ,					•		╞	┢──	╞		 						╞	$\vdash$			-	-	
EWHUMHD-[18]	6.72	24.6	83.7	118	536	PQL	POL ≤POL	· 利利	0.18 <	<pql< th=""><th>0.0 J</th><th>1.1 448</th><th>96 8</th><th>ន</th><th>6</th><th>2.6</th><th>0.35</th><th>₫</th><th>Å</th><th>4 ≮PQL</th><th><pol th="" ≤<=""><th><pol <p<="" th=""><th><pql <pql<="" th=""><th>JL <pql< th=""><th>4 PGL</th></pql<></th></pql></th></pol></th></pol></th></pql<>	0.0 J	1.1 448	96 8	ន	6	2.6	0.35	₫	Å	4 ≮PQL	<pol th="" ≤<=""><th><pol <p<="" th=""><th><pql <pql<="" th=""><th>JL <pql< th=""><th>4 PGL</th></pql<></th></pql></th></pol></th></pol>	<pol <p<="" th=""><th><pql <pql<="" th=""><th>JL <pql< th=""><th>4 PGL</th></pql<></th></pql></th></pol>	<pql <pql<="" th=""><th>JL <pql< th=""><th>4 PGL</th></pql<></th></pql>	JL <pql< th=""><th>4 PGL</th></pql<>	4 PGL
EW-JUDa-D-[38]	7.14	24.4	81.3	102	520	0.31	0.020	19.9 M		o ⊲PQL	0.84 4.	4.5 456	6 72	31	4	1.7	1.3	₽ ₽	₽QL	4 AD	<pql 0.<="" td=""><td>0.010 <pql< td=""><td>QL 0.0062</td><td>82 0.037</td><td>₽ P</td></pql<></td></pql>	0.010 <pql< td=""><td>QL 0.0062</td><td>82 0.037</td><td>₽ P</td></pql<>	QL 0.0062	82 0.037	₽ P
EW-CDNF-D-[43]	60'2	23.7	100	161	642	2.0	₹ 36) \$	200		46	B.C.	13 463	3 130	8	8	4.0	0.58	Å Å	^ ₽QL	PQL 4	PQL ≤	<pql <pql<="" td=""><td>al <pat< td=""><td>SL <pol< td=""><td>8</td></pol<></td></pat<></td></pql>	al <pat< td=""><td>SL <pol< td=""><td>8</td></pol<></td></pat<>	SL <pol< td=""><td>8</td></pol<>	8
EW-CDHM-D-[73]	7.13	23.6	68.5	119	\$38	sPQL	sel s		× 33.	<pql< td=""><td>33. 3 35</td><td>3.0 426</td><td>100</td><td>18</td><td>8</td><td>3.4</td><td>0.40</td><td>₽or</td><td><pql <<="" td=""><td>₽aL</td><td><pql td="" ≤<=""><td><pql <pql<="" td=""><td>or ≮Pot</td><td>k _PQL</td><td>ĝ</td></pql></td></pql></td></pql></td></pql<>	33. 3 35	3.0 426	100	18	8	3.4	0.40	₽or	<pql <<="" td=""><td>₽aL</td><td><pql td="" ≤<=""><td><pql <pql<="" td=""><td>or ≮Pot</td><td>k _PQL</td><td>ĝ</td></pql></td></pql></td></pql>	₽aL	<pql td="" ≤<=""><td><pql <pql<="" td=""><td>or ≮Pot</td><td>k _PQL</td><td>ĝ</td></pql></td></pql>	<pql <pql<="" td=""><td>or ≮Pot</td><td>k _PQL</td><td>ĝ</td></pql>	or ≮Pot	k _PQL	ĝ
EW-JARJ-D-[85]	7.11	24.4	<del>1</del> 8	66.2		PQL	0.020			₹₽QL	P.dsi	240 700	48	18	1330	1.3	1.0	₽QL	PQL	<pql td="" ≤<=""><td>⊳ ¢PQL</td><td><pql <pql<="" td=""><td>QL 0.0072</td><td>72 <pol< td=""><td>Å</td></pol<></td></pql></td></pql>	⊳ ¢PQL	<pql <pql<="" td=""><td>QL 0.0072</td><td>72 <pol< td=""><td>Å</td></pol<></td></pql>	QL 0.0072	72 <pol< td=""><td>Å</td></pol<>	Å
EW-JBBs-D-(117]	6.93	23.8	58.6	84.6	375	₽ġ	₽ØF	10.23	•	₽QL	18 0	0.71 315	69 5	16	4.3	2.1	0.43	혁	töd	<pql 0.<="" td=""><td>0.013</td><td><pql <pql<="" td=""><td>QL 0.0077</td><td>77 <pql< td=""><td>P04</td></pql<></td></pql></td></pql>	0.013	<pql <pql<="" td=""><td>QL 0.0077</td><td>77 <pql< td=""><td>P04</td></pql<></td></pql>	QL 0.0077	77 <pql< td=""><td>P04</td></pql<>	P04
EW-HUNHD-[147]	7.19	24.5	60.6	78.9	88 88	₽ġ	< <u>Pol</u>		±0.52 1 <	<pql< td=""><td>12 2</td><td>2.2 328</td><td>65 8</td><td>ຊ</td><td>12</td><td>1.7</td><td>0.55</td><td>Å Por</td><td>₽a⊑</td><td>₽dL</td><td>4PQL 0.(</td><td>0.0094 <pql< td=""><td>QL 0.0053</td><td>53 APQL</td><td>₽Q</td></pql<></td></pql<>	12 2	2.2 328	65 8	ຊ	12	1.7	0.55	Å Por	₽a⊑	₽dL	4PQL 0.(	0.0094 <pql< td=""><td>QL 0.0053</td><td>53 APQL</td><td>₽Q</td></pql<>	QL 0.0053	53 APQL	₽Q
EW-HHHr-D-[26]	7.13	24.6	78.7	107	Ş	₽QL	0.47			20	25	18 383	8	\$	7.8	2.9	0.41	∱0Ľ	₽a⊑	-PQL 0.	0.014 0.	0.012 <pql< td=""><td>or ≮Par</td><td>ır <pql< td=""><td>dÅ</td></pql<></td></pql<>	or ≮Par	ır <pql< td=""><td>dÅ</td></pql<>	dÅ
EW-CJUHD-[31]	7.24	23.8	61.1	109	391	0.98	0.64	065		<₽QL	1.1 2 371	7.7 319	6	19	15	3.8	0.28	₽a	₽g	-PQL 0.	0.014	<pql <pql<="" td=""><td>or ≮PaL</td><td>lL <pql< td=""><td>P04 10</td></pql<></td></pql>	or ≮PaL	lL <pql< td=""><td>P04 10</td></pql<>	P04 10
EW-CCSk-D-[35]	7.16	24.1	. 65.8	112	421	1.5	0.26	8	× ¥00¥	≤PQL	640	12 324	4 83	\$	4.3	3.6	0.28	₽G	ğ	PoL 0.	0.010	<pql <pql<="" td=""><td>ar _Par</td><td>PaL PaL</td><td>Po Po</td></pql>	ar _Par	PaL PaL	Po Po
EW HTKI-D-[48]	7.45	23.9	70.0	ş	45	PQL	POL	120		7.2	261 2	24 352	2 86	19	1.5	3.9	0.46	ğ	₽	<pql 0.<="" td=""><td>0.015 4</td><td><pql <pql<="" td=""><td>or -PoL</td><td>POL POL</td><td>₽g</td></pql></td></pql>	0.015 4	<pql <pql<="" td=""><td>or -PoL</td><td>POL POL</td><td>₽g</td></pql>	or -PoL	POL POL	₽g
EW-CAALD-[72]	7.42	24.1	90.7	150	581	1.4	0.020		074	14	847 R. S	24 410	0 120	25	ង	3.9	0.31	₽d	^ ₽0⊑	<pql 4<="" td=""><td><pol td="" ≤<=""><td><pql <pql<="" td=""><td>GL 0.0057</td><td>57 <pql< td=""><td>₽QL</td></pql<></td></pql></td></pol></td></pql>	<pol td="" ≤<=""><td><pql <pql<="" td=""><td>GL 0.0057</td><td>57 <pql< td=""><td>₽QL</td></pql<></td></pql></td></pol>	<pql <pql<="" td=""><td>GL 0.0057</td><td>57 <pql< td=""><td>₽QL</td></pql<></td></pql>	GL 0.0057	57 <pql< td=""><td>₽QL</td></pql<>	₽QL
EW-HKRg-D-[74]	11.7	24.5	0.77	110	493	1.8	1.2		0.26 <	<pol< td=""><td>196 1</td><td>14 387</td><td>7 89</td><td>3</td><td>8.6</td><td>2.7</td><td>0.31</td><td>Å</td><td>v ₽</td><td><pql 0.<="" td=""><td>0.010 &lt;1</td><td><pql <pql<="" td=""><td>or ⊱por</td><td>NL 0.017</td><td>₽Q</td></pql></td></pql></td></pol<>	196 1	14 387	7 89	3	8.6	2.7	0.31	Å	v ₽	<pql 0.<="" td=""><td>0.010 &lt;1</td><td><pql <pql<="" td=""><td>or ⊱por</td><td>NL 0.017</td><td>₽Q</td></pql></td></pql>	0.010 <1	<pql <pql<="" td=""><td>or ⊱por</td><td>NL 0.017</td><td>₽Q</td></pql>	or ⊱por	NL 0.017	₽Q
EW-JSBn-D-[88]	6.89	24.3	60.5	96.0	387	<pql< td=""><td><pql< td=""><td>126</td><td>0.45 &lt; </td><td><pql< td=""><td>R. 1 1</td><td>11 333</td><td>3 76</td><td>50</td><td>ę</td><td>1.8</td><td>0.35</td><td>₽QL</td><td>PQL</td><td>PQL</td><td>₽ ₽0Г</td><td><pql <pql<="" td=""><td>ar A</td><td>NL 0.020</td><td>å</td></pql></td></pql<></td></pql<></td></pql<>	<pql< td=""><td>126</td><td>0.45 &lt; </td><td><pql< td=""><td>R. 1 1</td><td>11 333</td><td>3 76</td><td>50</td><td>ę</td><td>1.8</td><td>0.35</td><td>₽QL</td><td>PQL</td><td>PQL</td><td>₽ ₽0Г</td><td><pql <pql<="" td=""><td>ar A</td><td>NL 0.020</td><td>å</td></pql></td></pql<></td></pql<>	126	0.45 <	<pql< td=""><td>R. 1 1</td><td>11 333</td><td>3 76</td><td>50</td><td>ę</td><td>1.8</td><td>0.35</td><td>₽QL</td><td>PQL</td><td>PQL</td><td>₽ ₽0Г</td><td><pql <pql<="" td=""><td>ar A</td><td>NL 0.020</td><td>å</td></pql></td></pql<>	R. 1 1	11 333	3 76	50	ę	1.8	0.35	₽QL	PQL	PQL	₽ ₽0Г	<pql <pql<="" td=""><td>ar A</td><td>NL 0.020</td><td>å</td></pql>	ar A	NL 0.020	å
EW-HMNt-D-[95]	6.85	24.5	81.1	105	520	<pql< td=""><td><pol td="" 👸<=""><td></td><td>0.28</td><td>8.1</td><td>GF 3 1.</td><td>1.9 444</td><td>4 80</td><td>24</td><td>19</td><td>3.2</td><td>0.26</td><td><pql< td=""><td>PQL</td><td>₽QL</td><td>₽ ₽</td><td>49 ≺PQL</td><td><pql 0.0072<="" td=""><td>72 ≮PQL</td><td>8</td></pql></td></pql<></td></pol></td></pql<>	<pol td="" 👸<=""><td></td><td>0.28</td><td>8.1</td><td>GF 3 1.</td><td>1.9 444</td><td>4 80</td><td>24</td><td>19</td><td>3.2</td><td>0.26</td><td><pql< td=""><td>PQL</td><td>₽QL</td><td>₽ ₽</td><td>49 ≺PQL</td><td><pql 0.0072<="" td=""><td>72 ≮PQL</td><td>8</td></pql></td></pql<></td></pol>		0.28	8.1	GF 3 1.	1.9 444	4 80	24	19	3.2	0.26	<pql< td=""><td>PQL</td><td>₽QL</td><td>₽ ₽</td><td>49 ≺PQL</td><td><pql 0.0072<="" td=""><td>72 ≮PQL</td><td>8</td></pql></td></pql<>	PQL	₽QL	₽ ₽	49 ≺PQL	<pql 0.0072<="" td=""><td>72 ≮PQL</td><td>8</td></pql>	72 ≮PQL	8
EW-JKPj-D-[102]	7.03	24.4	727	119	1000	<pql< td=""><td><pql< td=""><td></td><td>0.41 &lt;</td><td><pql< td=""><td>(.B. ] 57</td><td>570 546</td><td>8 82</td><td>37</td><td></td><td>6.7</td><td>\$1 B</td><td>&lt;₽QL</td><td>≁ ₽QL</td><td>₽ ₽ 0 F</td><td>₹ Por</td><td><pql <pql<="" td=""><td>QL 0.0064</td><td>64 0.10</td><td>8</td></pql></td></pql<></td></pql<></td></pql<>	<pql< td=""><td></td><td>0.41 &lt;</td><td><pql< td=""><td>(.B. ] 57</td><td>570 546</td><td>8 82</td><td>37</td><td></td><td>6.7</td><td>\$1 B</td><td>&lt;₽QL</td><td>≁ ₽QL</td><td>₽ ₽ 0 F</td><td>₹ Por</td><td><pql <pql<="" td=""><td>QL 0.0064</td><td>64 0.10</td><td>8</td></pql></td></pql<></td></pql<>		0.41 <	<pql< td=""><td>(.B. ] 57</td><td>570 546</td><td>8 82</td><td>37</td><td></td><td>6.7</td><td>\$1 B</td><td>&lt;₽QL</td><td>≁ ₽QL</td><td>₽ ₽ 0 F</td><td>₹ Por</td><td><pql <pql<="" td=""><td>QL 0.0064</td><td>64 0.10</td><td>8</td></pql></td></pql<>	(.B. ] 57	570 546	8 82	37		6.7	\$1 B	<₽QL	≁ ₽QL	₽ ₽ 0 F	₹ Por	<pql <pql<="" td=""><td>QL 0.0064</td><td>64 0.10</td><td>8</td></pql>	QL 0.0064	64 0.10	8
EW-JHNn-D-[105]	6.87	24.2	66.0	98.7	423	<pql< td=""><td><pat< td=""><td></td><td>0.44 &lt;</td><td><pql< td=""><td>ana a</td><td>1.1 370</td><td>62 0</td><td>20</td><td>10</td><td>2.6</td><td>0.20</td><td>PQL</td><td>v 104</td><td><pql 0.<="" td=""><td>0.016 0.0</td><td>0.0070 <pql< td=""><td>or ≎Pol</td><td>F F</td><td>Po4 ►</td></pql<></td></pql></td></pql<></td></pat<></td></pql<>	<pat< td=""><td></td><td>0.44 &lt;</td><td><pql< td=""><td>ana a</td><td>1.1 370</td><td>62 0</td><td>20</td><td>10</td><td>2.6</td><td>0.20</td><td>PQL</td><td>v 104</td><td><pql 0.<="" td=""><td>0.016 0.0</td><td>0.0070 <pql< td=""><td>or ≎Pol</td><td>F F</td><td>Po4 ►</td></pql<></td></pql></td></pql<></td></pat<>		0.44 <	<pql< td=""><td>ana a</td><td>1.1 370</td><td>62 0</td><td>20</td><td>10</td><td>2.6</td><td>0.20</td><td>PQL</td><td>v 104</td><td><pql 0.<="" td=""><td>0.016 0.0</td><td>0.0070 <pql< td=""><td>or ≎Pol</td><td>F F</td><td>Po4 ►</td></pql<></td></pql></td></pql<>	ana a	1.1 370	62 0	20	10	2.6	0.20	PQL	v 104	<pql 0.<="" td=""><td>0.016 0.0</td><td>0.0070 <pql< td=""><td>or ≎Pol</td><td>F F</td><td>Po4 ►</td></pql<></td></pql>	0.016 0.0	0.0070 <pql< td=""><td>or ≎Pol</td><td>F F</td><td>Po4 ►</td></pql<>	or ≎Pol	F F	Po4 ►
EW-JMDk-D-1124]	6.93	24.7	105	98.8	672	<pql< td=""><td>kPat</td><td><b>1</b></td><td></td><td>&lt;₽QL</td><td>26 S 5</td><td>50 463</td><td>89 88</td><td>30</td><td>81</td><td>3.8</td><td>0.57</td><td>PQL</td><td><pql <<="" td=""><td><pal td="" ∢<=""><td>⊲PQL 0.</td><td>0.011 <pql< td=""><td>QL 0.0066</td><td>66 <pql< td=""><td>54</td></pql<></td></pql<></td></pal></td></pql></td></pql<>	kPat	<b>1</b>		<₽QL	26 S 5	50 463	89 88	30	81	3.8	0.57	PQL	<pql <<="" td=""><td><pal td="" ∢<=""><td>⊲PQL 0.</td><td>0.011 <pql< td=""><td>QL 0.0066</td><td>66 <pql< td=""><td>54</td></pql<></td></pql<></td></pal></td></pql>	<pal td="" ∢<=""><td>⊲PQL 0.</td><td>0.011 <pql< td=""><td>QL 0.0066</td><td>66 <pql< td=""><td>54</td></pql<></td></pql<></td></pal>	⊲PQL 0.	0.011 <pql< td=""><td>QL 0.0066</td><td>66 <pql< td=""><td>54</td></pql<></td></pql<>	QL 0.0066	66 <pql< td=""><td>54</td></pql<>	54
EW-HSFLD-[133]	721	23.7	70.7	115	453	₽or	<pql< td=""><td>(B)</td><td>► 30,0</td><td><pql 0<="" td=""><td>0.26 3.</td><td>3.0 389</td><td>94</td><td>21</td><td>24</td><td>1.2</td><td>0.45</td><td><pql< td=""><td><pql <<="" td=""><td><pa∟ td="" ∢<=""><td>₽QL</td><td><pql <pql<="" td=""><td>ar <par< td=""><td>For For</td><td>PQL</td></par<></td></pql></td></pa∟></td></pql></td></pql<></td></pql></td></pql<>	(B)	► 30,0	<pql 0<="" td=""><td>0.26 3.</td><td>3.0 389</td><td>94</td><td>21</td><td>24</td><td>1.2</td><td>0.45</td><td><pql< td=""><td><pql <<="" td=""><td><pa∟ td="" ∢<=""><td>₽QL</td><td><pql <pql<="" td=""><td>ar <par< td=""><td>For For</td><td>PQL</td></par<></td></pql></td></pa∟></td></pql></td></pql<></td></pql>	0.26 3.	3.0 389	94	21	24	1.2	0.45	<pql< td=""><td><pql <<="" td=""><td><pa∟ td="" ∢<=""><td>₽QL</td><td><pql <pql<="" td=""><td>ar <par< td=""><td>For For</td><td>PQL</td></par<></td></pql></td></pa∟></td></pql></td></pql<>	<pql <<="" td=""><td><pa∟ td="" ∢<=""><td>₽QL</td><td><pql <pql<="" td=""><td>ar <par< td=""><td>For For</td><td>PQL</td></par<></td></pql></td></pa∟></td></pql>	<pa∟ td="" ∢<=""><td>₽QL</td><td><pql <pql<="" td=""><td>ar <par< td=""><td>For For</td><td>PQL</td></par<></td></pql></td></pa∟>	₽QL	<pql <pql<="" td=""><td>ar <par< td=""><td>For For</td><td>PQL</td></par<></td></pql>	ar <par< td=""><td>For For</td><td>PQL</td></par<>	For For	PQL
EW-JUIC-D-(170)	7.13	24.5	92.8	109	594	<₽QL	<pol< td=""><td>19 . BOA</td><td>&gt; 200</td><td><pat -<="" td=""><td>아오 날 1</td><td>15 481</td><td>1 79</td><td>8</td><td>59</td><td>1.3</td><td>0.70</td><td>PQL</td><td>PQL</td><td>≉ ~Por</td><td>₽d</td><td><pol <pol<="" td=""><td>QL 0.0052</td><td>52 0.013</td><td>₽d</td></pol></td></pat></td></pol<>	19 . BOA	> 200	<pat -<="" td=""><td>아오 날 1</td><td>15 481</td><td>1 79</td><td>8</td><td>59</td><td>1.3</td><td>0.70</td><td>PQL</td><td>PQL</td><td>≉ ~Por</td><td>₽d</td><td><pol <pol<="" td=""><td>QL 0.0052</td><td>52 0.013</td><td>₽d</td></pol></td></pat>	아오 날 1	15 481	1 79	8	59	1.3	0.70	PQL	PQL	≉ ~Por	₽d	<pol <pol<="" td=""><td>QL 0.0052</td><td>52 0.013</td><td>₽d</td></pol>	QL 0.0052	52 0.013	₽d
EW-HSAb-D-[177]	7.07	23.8	100	138	627	<₽QL	<pat< td=""><td>59.00</td><td>2 1 93 1 8</td><td><pql 0<="" td=""><td></td><td>22 463</td><td>3 110</td><td>ઞ</td><td>37</td><td>2.5</td><td>0.48</td><td>&lt;₽aL</td><td><pal <<="" td=""><td><pql 0.<="" td=""><td>0.011 &lt;</td><td><pal <pal<="" td=""><td>QL 0.0092</td><td>92 <pql< td=""><td>Pol</td></pql<></td></pal></td></pql></td></pal></td></pql></td></pat<>	59.00	2 1 93 1 8	<pql 0<="" td=""><td></td><td>22 463</td><td>3 110</td><td>ઞ</td><td>37</td><td>2.5</td><td>0.48</td><td>&lt;₽aL</td><td><pal <<="" td=""><td><pql 0.<="" td=""><td>0.011 &lt;</td><td><pal <pal<="" td=""><td>QL 0.0092</td><td>92 <pql< td=""><td>Pol</td></pql<></td></pal></td></pql></td></pal></td></pql>		22 463	3 110	ઞ	37	2.5	0.48	<₽aL	<pal <<="" td=""><td><pql 0.<="" td=""><td>0.011 &lt;</td><td><pal <pal<="" td=""><td>QL 0.0092</td><td>92 <pql< td=""><td>Pol</td></pql<></td></pal></td></pql></td></pal>	<pql 0.<="" td=""><td>0.011 &lt;</td><td><pal <pal<="" td=""><td>QL 0.0092</td><td>92 <pql< td=""><td>Pol</td></pql<></td></pal></td></pql>	0.011 <	<pal <pal<="" td=""><td>QL 0.0092</td><td>92 <pql< td=""><td>Pol</td></pql<></td></pal>	QL 0.0092	92 <pql< td=""><td>Pol</td></pql<>	Pol
EW-JMCHD-[201]	6.81	24.5	75.6	97.9	<b>†8</b> 4	<₽QL	<pql< td=""><td></td><td>0.45 &lt;</td><td><pql< td=""><td>esenter A</td><td>0.98 407</td><td>7 77</td><td>21</td><td>21</td><td>2.6</td><td>0.28</td><td>AQL</td><td><pql <<="" td=""><td><pql <<="" td=""><td><pql 0.<="" td=""><td>0.037 <pql< td=""><td>or ⊱or</td><td>R <pol< td=""><td>24</td></pol<></td></pql<></td></pql></td></pql></td></pql></td></pql<></td></pql<>		0.45 <	<pql< td=""><td>esenter A</td><td>0.98 407</td><td>7 77</td><td>21</td><td>21</td><td>2.6</td><td>0.28</td><td>AQL</td><td><pql <<="" td=""><td><pql <<="" td=""><td><pql 0.<="" td=""><td>0.037 <pql< td=""><td>or ⊱or</td><td>R <pol< td=""><td>24</td></pol<></td></pql<></td></pql></td></pql></td></pql></td></pql<>	esenter A	0.98 407	7 77	21	21	2.6	0.28	AQL	<pql <<="" td=""><td><pql <<="" td=""><td><pql 0.<="" td=""><td>0.037 <pql< td=""><td>or ⊱or</td><td>R <pol< td=""><td>24</td></pol<></td></pql<></td></pql></td></pql></td></pql>	<pql <<="" td=""><td><pql 0.<="" td=""><td>0.037 <pql< td=""><td>or ⊱or</td><td>R <pol< td=""><td>24</td></pol<></td></pql<></td></pql></td></pql>	<pql 0.<="" td=""><td>0.037 <pql< td=""><td>or ⊱or</td><td>R <pol< td=""><td>24</td></pol<></td></pql<></td></pql>	0.037 <pql< td=""><td>or ⊱or</td><td>R <pol< td=""><td>24</td></pol<></td></pql<>	or ⊱or	R <pol< td=""><td>24</td></pol<>	24
EW-JCP+D-[207]	7.01	24.9	8.77	117	499	<pql< td=""><td><pql td="" ⊗<=""><td>9號 0</td><td>0.43 &lt;</td><td><pql< td=""><td>3.9 A 9.</td><td>9.2 407</td><td>66 4</td><td>18</td><td>11</td><td>3.9</td><td>0.32</td><td><pql< td=""><td><pql <<="" td=""><td><pql <∮<="" td=""><td>POL</td><td><pol <pol<="" td=""><td>QL 0.0079</td><td>79 <pgl< td=""><td>₽g</td></pgl<></td></pol></td></pql></td></pql></td></pql<></td></pql<></td></pql></td></pql<>	<pql td="" ⊗<=""><td>9號 0</td><td>0.43 &lt;</td><td><pql< td=""><td>3.9 A 9.</td><td>9.2 407</td><td>66 4</td><td>18</td><td>11</td><td>3.9</td><td>0.32</td><td><pql< td=""><td><pql <<="" td=""><td><pql <∮<="" td=""><td>POL</td><td><pol <pol<="" td=""><td>QL 0.0079</td><td>79 <pgl< td=""><td>₽g</td></pgl<></td></pol></td></pql></td></pql></td></pql<></td></pql<></td></pql>	9號 0	0.43 <	<pql< td=""><td>3.9 A 9.</td><td>9.2 407</td><td>66 4</td><td>18</td><td>11</td><td>3.9</td><td>0.32</td><td><pql< td=""><td><pql <<="" td=""><td><pql <∮<="" td=""><td>POL</td><td><pol <pol<="" td=""><td>QL 0.0079</td><td>79 <pgl< td=""><td>₽g</td></pgl<></td></pol></td></pql></td></pql></td></pql<></td></pql<>	3.9 A 9.	9.2 407	66 4	18	11	3.9	0.32	<pql< td=""><td><pql <<="" td=""><td><pql <∮<="" td=""><td>POL</td><td><pol <pol<="" td=""><td>QL 0.0079</td><td>79 <pgl< td=""><td>₽g</td></pgl<></td></pol></td></pql></td></pql></td></pql<>	<pql <<="" td=""><td><pql <∮<="" td=""><td>POL</td><td><pol <pol<="" td=""><td>QL 0.0079</td><td>79 <pgl< td=""><td>₽g</td></pgl<></td></pol></td></pql></td></pql>	<pql <∮<="" td=""><td>POL</td><td><pol <pol<="" td=""><td>QL 0.0079</td><td>79 <pgl< td=""><td>₽g</td></pgl<></td></pol></td></pql>	POL	<pol <pol<="" td=""><td>QL 0.0079</td><td>79 <pgl< td=""><td>₽g</td></pgl<></td></pol>	QL 0.0079	79 <pgl< td=""><td>₽g</td></pgl<>	₽g
Production Well																									
EW-HTKI-D-(PTW-2)	7.05	24.6	ĽЦ	107	497	<pql< td=""><td><pat td="" 🎇<=""><td>2.768 20</td><td></td><td>&lt;₽QL</td><td>±€) 1</td><td>12 416</td><td>5 79</td><td>28</td><td>24</td><td>2.8</td><td>0.57</td><td>Pol</td><td>&lt; PQL</td><td>≮PQL</td><td><pql td="" ≤<=""><td><pql <pql<="" td=""><td>or &lt;⊳or</td><td>R <pol< td=""><td>₽dL</td></pol<></td></pql></td></pql></td></pat></td></pql<>	<pat td="" 🎇<=""><td>2.768 20</td><td></td><td>&lt;₽QL</td><td>±€) 1</td><td>12 416</td><td>5 79</td><td>28</td><td>24</td><td>2.8</td><td>0.57</td><td>Pol</td><td>&lt; PQL</td><td>≮PQL</td><td><pql td="" ≤<=""><td><pql <pql<="" td=""><td>or &lt;⊳or</td><td>R <pol< td=""><td>₽dL</td></pol<></td></pql></td></pql></td></pat>	2.768 20		<₽QL	±€) 1	12 416	5 79	28	24	2.8	0.57	Pol	< PQL	≮PQL	<pql td="" ≤<=""><td><pql <pql<="" td=""><td>or &lt;⊳or</td><td>R <pol< td=""><td>₽dL</td></pol<></td></pql></td></pql>	<pql <pql<="" td=""><td>or &lt;⊳or</td><td>R <pol< td=""><td>₽dL</td></pol<></td></pql>	or <⊳or	R <pol< td=""><td>₽dL</td></pol<>	₽dL
EW-CCCD-D-(PTW-2B)	7.01	24.0	81.9	111	524	0.95	<pat td="" 🎆<=""><td></td><td>10 601</td><td>30</td><td>4</td><td>45 352</td><td>2 92</td><td>19</td><td>ន</td><td>4.3</td><td>0.55</td><td><pql< td=""><td><pql <<="" td=""><td><pql td="" ≤<=""><td><pql td="" ≤<=""><td><pql <pql<="" td=""><td>ar A</td><td>FL ∽PQL</td><td>Å</td></pql></td></pql></td></pql></td></pql></td></pql<></td></pat>		10 601	30	4	45 352	2 92	19	ន	4.3	0.55	<pql< td=""><td><pql <<="" td=""><td><pql td="" ≤<=""><td><pql td="" ≤<=""><td><pql <pql<="" td=""><td>ar A</td><td>FL ∽PQL</td><td>Å</td></pql></td></pql></td></pql></td></pql></td></pql<>	<pql <<="" td=""><td><pql td="" ≤<=""><td><pql td="" ≤<=""><td><pql <pql<="" td=""><td>ar A</td><td>FL ∽PQL</td><td>Å</td></pql></td></pql></td></pql></td></pql>	<pql td="" ≤<=""><td><pql td="" ≤<=""><td><pql <pql<="" td=""><td>ar A</td><td>FL ∽PQL</td><td>Å</td></pql></td></pql></td></pql>	<pql td="" ≤<=""><td><pql <pql<="" td=""><td>ar A</td><td>FL ∽PQL</td><td>Å</td></pql></td></pql>	<pql <pql<="" td=""><td>ar A</td><td>FL ∽PQL</td><td>Å</td></pql>	ar A	FL ∽PQL	Å
EW-HUN-D-(PTW-3)	6.99	24.5	63.9	91.0	409	<₽QL	0.050	1		<pql 6<="" td=""><td>5.G § 3.</td><td>3.1 333</td><td>3 73</td><td>18</td><td>14</td><td>3.3</td><td>0.28</td><td><pql< td=""><td>^ ₽QL</td><td>4 ₽0</td><td><pql 0.<="" td=""><td>0.021 <pql< td=""><td>al. <pal< td=""><td>rr ⊳Por</td><td>Å</td></pal<></td></pql<></td></pql></td></pql<></td></pql>	5.G § 3.	3.1 333	3 73	18	14	3.3	0.28	<pql< td=""><td>^ ₽QL</td><td>4 ₽0</td><td><pql 0.<="" td=""><td>0.021 <pql< td=""><td>al. <pal< td=""><td>rr ⊳Por</td><td>Å</td></pal<></td></pql<></td></pql></td></pql<>	^ ₽QL	4 ₽0	<pql 0.<="" td=""><td>0.021 <pql< td=""><td>al. <pal< td=""><td>rr ⊳Por</td><td>Å</td></pal<></td></pql<></td></pql>	0.021 <pql< td=""><td>al. <pal< td=""><td>rr ⊳Por</td><td>Å</td></pal<></td></pql<>	al. <pal< td=""><td>rr ⊳Por</td><td>Å</td></pal<>	rr ⊳Por	Å
EW-JUS-D-(PTW-15)	7.03	24.6	112	111	718	<pql< td=""><td><pql td="" ∰<=""><td></td><td>0.20 &lt;</td><td><pql 6<="" td=""><td>940 J</td><td>110 444</td><td>4 82</td><td>29</td><td>82</td><td>3.5</td><td>0.41</td><td>&lt;₽QL</td><td>&lt; Pol</td><td><pql 0.<="" td=""><td>0.010 &lt;5</td><td><pql <pql<="" td=""><td>ar Pot</td><td>11 0.0055</td><td>₽ ₽</td></pql></td></pql></td></pql></td></pql></td></pql<>	<pql td="" ∰<=""><td></td><td>0.20 &lt;</td><td><pql 6<="" td=""><td>940 J</td><td>110 444</td><td>4 82</td><td>29</td><td>82</td><td>3.5</td><td>0.41</td><td>&lt;₽QL</td><td>&lt; Pol</td><td><pql 0.<="" td=""><td>0.010 &lt;5</td><td><pql <pql<="" td=""><td>ar Pot</td><td>11 0.0055</td><td>₽ ₽</td></pql></td></pql></td></pql></td></pql>		0.20 <	<pql 6<="" td=""><td>940 J</td><td>110 444</td><td>4 82</td><td>29</td><td>82</td><td>3.5</td><td>0.41</td><td>&lt;₽QL</td><td>&lt; Pol</td><td><pql 0.<="" td=""><td>0.010 &lt;5</td><td><pql <pql<="" td=""><td>ar Pot</td><td>11 0.0055</td><td>₽ ₽</td></pql></td></pql></td></pql>	940 J	110 444	4 82	29	82	3.5	0.41	<₽QL	< Pol	<pql 0.<="" td=""><td>0.010 &lt;5</td><td><pql <pql<="" td=""><td>ar Pot</td><td>11 0.0055</td><td>₽ ₽</td></pql></td></pql>	0.010 <5	<pql <pql<="" td=""><td>ar Pot</td><td>11 0.0055</td><td>₽ ₽</td></pql>	ar Pot	11 0.0055	₽ ₽
EW-HMMh-D-(PTW- 1)	7.08	24.0	59.7	91.1	382	1.8	<pol< td=""><td></td><td>0.23 &lt;1</td><td><pql 2<="" td=""><td></td><td>3.8 3.05</td><td>5 77</td><td>14</td><td>8.3</td><td>3.9</td><td>0.24</td><td>^PQt</td><td>PQL</td><td>PΩL</td><td>0.012 &lt;</td><td><pql <pql<="" td=""><td>or Pol</td><td>IL 0.016</td><td>Å</td></pql></td></pql></td></pol<>		0.23 <1	<pql 2<="" td=""><td></td><td>3.8 3.05</td><td>5 77</td><td>14</td><td>8.3</td><td>3.9</td><td>0.24</td><td>^PQt</td><td>PQL</td><td>PΩL</td><td>0.012 &lt;</td><td><pql <pql<="" td=""><td>or Pol</td><td>IL 0.016</td><td>Å</td></pql></td></pql>		3.8 3.05	5 77	14	8.3	3.9	0.24	^PQt	PQL	PΩL	0.012 <	<pql <pql<="" td=""><td>or Pol</td><td>IL 0.016</td><td>Å</td></pql>	or Pol	IL 0.016	Å
EW-HKRD-CPTW-2)	7.32	24.5	77.4	114	495	0.91	0.35 鱶	<b>*</b> 8.1% 0		<₽QL	26 3.	3.6 426	3 92	21	6.1	2.7	0.26	<pql< td=""><td><pql <<="" td=""><td><pol 0.<="" td=""><td>0.018 0.</td><td>0.047 <pql< td=""><td>or ≮Pol</td><td>IL 0.015</td><td>₽QL</td></pql<></td></pol></td></pql></td></pql<>	<pql <<="" td=""><td><pol 0.<="" td=""><td>0.018 0.</td><td>0.047 <pql< td=""><td>or ≮Pol</td><td>IL 0.015</td><td>₽QL</td></pql<></td></pol></td></pql>	<pol 0.<="" td=""><td>0.018 0.</td><td>0.047 <pql< td=""><td>or ≮Pol</td><td>IL 0.015</td><td>₽QL</td></pql<></td></pol>	0.018 0.	0.047 <pql< td=""><td>or ≮Pol</td><td>IL 0.015</td><td>₽QL</td></pql<>	or ≮Pol	IL 0.015	₽QL
EW-HSSHD-(PTW-1)	6.99	23.9	93.0	147	595	0.83	<pql td="" ∰<=""><td></td><td>20.62 X</td><td><pql 0<="" td=""><td>0.67 5.</td><td>5.7 509</td><td>9 110</td><td>33</td><td>29</td><td>3.3</td><td>0.44</td><td><pql< td=""><td><pql 0.<="" td=""><td>0.0081 &lt;₽</td><td>₽GL</td><td>&lt;₽QL <pql< td=""><td>QL 0.0061</td><td>81 0.0087</td><td>Å.</td></pql<></td></pql></td></pql<></td></pql></td></pql>		20.62 X	<pql 0<="" td=""><td>0.67 5.</td><td>5.7 509</td><td>9 110</td><td>33</td><td>29</td><td>3.3</td><td>0.44</td><td><pql< td=""><td><pql 0.<="" td=""><td>0.0081 &lt;₽</td><td>₽GL</td><td>&lt;₽QL <pql< td=""><td>QL 0.0061</td><td>81 0.0087</td><td>Å.</td></pql<></td></pql></td></pql<></td></pql>	0.67 5.	5.7 509	9 110	33	29	3.3	0.44	<pql< td=""><td><pql 0.<="" td=""><td>0.0081 &lt;₽</td><td>₽GL</td><td>&lt;₽QL <pql< td=""><td>QL 0.0061</td><td>81 0.0087</td><td>Å.</td></pql<></td></pql></td></pql<>	<pql 0.<="" td=""><td>0.0081 &lt;₽</td><td>₽GL</td><td>&lt;₽QL <pql< td=""><td>QL 0.0061</td><td>81 0.0087</td><td>Å.</td></pql<></td></pql>	0.0081 <₽	₽GL	<₽QL <pql< td=""><td>QL 0.0061</td><td>81 0.0087</td><td>Å.</td></pql<>	QL 0.0061	81 0.0087	Å.
								ă	Excess of WHO guideline	to guidelir	g		Eccess	Eccess of Bangladesh Standard	esh Standa	E	1998 E	occess of b	oth Bangla	desh Stan	dard and	Excess of both Bangladesh Standard and WHO guideline	eline		
							C	(The value	es were	determ	ined as	exceedir	values were determined as exceeding the standards before rounding off	ndards l	before r	Sunding	3		•			•			
							•		1				p												

Table 5.5.7 Results of Baseline Survey (Existing Well) -

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Analyte	Hd	femperature	Temperature Conductivity Hardness	Hardness	ŝ	Nitrate	Nitrite A	Ammonium Di	Dissoftwed Min S	Sulfate p	Disadved Fe Chloride	hloride B	Bicarbonate C	Calcium Me	Magnestum So	Sodium Pot	Potassium Fluc	Fluoride Cadmium	um Total Cr	Cr Copper	er Cyanide	de Lead	Mercury	v Nickel	Zinc	8
Method	pH meter	Thermo meter	Conductivity meter		Standard Standard	SP	SP	SP	FAAS	SP	FAAS	SP TI	Titration	FAAS F	FAAS F	FAAS F.	FAAS S	SP Extractio	tio Extractio AS n/ FAAS	ctio Extractio AS n/ FAAS	as SP	Extractio n/ FAAS	o Extractio S n/ FAAS	o Extractio	Extractio n/ FAAS	Titration
Practical Quantitation Limit	0	0 Deg C	0.02	<u> 6.5</u>	0.13	0.2	0.02	. 0.1	0.08	5	0.2	0.6	20	0.5 (	0.05 (	0.05	0.1 0	0.1 0.0015	15 0.025	25 0.005	10.01	0.005	0.001	0.005	0.005	20
Unit		Deg C	mS/m	mg CaCO <sub>3</sub> AL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L C	mg caco <sub>s</sub> /L	mg/L n	u _/6m	u J/Gu	mg/L m	mg/L mg/L	r mg/L	√L mg∕L	L mg/L	L mg/L	-T/Gm	mg/L	mg/L	тgЛ
Sample No	Hq	Temp	EC	Hardness	SOT	°ON	NO2	NH4	Mn	s04	Fe	c	HCO	Ga	Mg	Na	K I	F Cd	Շ	Cr.	CN	Pb	BH	Ni	۳Z	COD
BS-CDB4-EW-006	6.95	23.9	79.3	122	508	23	30	<pql< td=""><td></td><td>&lt;₽QL</td><td>λų</td><td>33</td><td>455</td><td>110</td><td>20</td><td>16</td><td>5.8 0.</td><td>0.53 <pql< td=""><td>r ∳oL</td><td>JL 0.032</td><td>2 0.016</td><td>6 0.0060</td><td>&lt; PQL</td><td>0.020</td><td>PQL</td><td>≺PQL</td></pql<></td></pql<>		<₽QL	λų	33	455	110	20	16	5.8 0.	0.53 <pql< td=""><td>r ∳oL</td><td>JL 0.032</td><td>2 0.016</td><td>6 0.0060</td><td>&lt; PQL</td><td>0.020</td><td>PQL</td><td>≺PQL</td></pql<>	r ∳oL	JL 0.032	2 0.016	6 0.0060	< PQL	0.020	PQL	≺PQL
BS-CDB4-EW-050	7.04	24.5	58.2	119	372	2.3	L Garage			<₽QL	24	4.6	376	97	22	16	4.3 0.	0.41 <pql< td=""><td>L 0.066</td><td>6 0.012</td><td>2 <pql< td=""><td>L 0.0092</td><td><pot< td=""><td>PQL</td><td>&lt;₽QL</td><td>PQL</td></pot<></td></pql<></td></pql<>	L 0.066	6 0.012	2 <pql< td=""><td>L 0.0092</td><td><pot< td=""><td>PQL</td><td>&lt;₽QL</td><td>PQL</td></pot<></td></pql<>	L 0.0092	<pot< td=""><td>PQL</td><td>&lt;₽QL</td><td>PQL</td></pot<>	PQL	<₽QL	PQL
BS-CDBd-EW-060	7.15	25.3	63.0	116	403	PoL	₽oĽ		i u	14	2.5	9.5	394	94	23	6.5	2.5 0.	0.42 <pql< td=""><td>L <pql< td=""><td>JL <pol< td=""><td>kr <poll< td=""><td>L <pal< td=""><td>-POL</td><td><pql< td=""><td>Por</td><td>&lt;₽QL</td></pql<></td></pal<></td></poll<></td></pol<></td></pql<></td></pql<>	L <pql< td=""><td>JL <pol< td=""><td>kr <poll< td=""><td>L <pal< td=""><td>-POL</td><td><pql< td=""><td>Por</td><td>&lt;₽QL</td></pql<></td></pal<></td></poll<></td></pol<></td></pql<>	JL <pol< td=""><td>kr <poll< td=""><td>L <pal< td=""><td>-POL</td><td><pql< td=""><td>Por</td><td>&lt;₽QL</td></pql<></td></pal<></td></poll<></td></pol<>	kr <poll< td=""><td>L <pal< td=""><td>-POL</td><td><pql< td=""><td>Por</td><td>&lt;₽QL</td></pql<></td></pal<></td></poll<>	L <pal< td=""><td>-POL</td><td><pql< td=""><td>Por</td><td>&lt;₽QL</td></pql<></td></pal<>	-POL	<pql< td=""><td>Por</td><td>&lt;₽QL</td></pql<>	Por	<₽QL
BS-CDBd-EW-115	7.15	24.3	49.6	126	317	12	1.7	<₽QL	0.29	₽ġ	1.0	25	350	110	20	14	3.4 0.	0.34 <pql< td=""><td>ר אסר</td><td>JL <pql< td=""><td>IL <pql< td=""><td>L 0.014</td><td>SPQL</td><td>0.0068</td><td>PQL</td><td>≺bQL</td></pql<></td></pql<></td></pql<>	ר אסר	JL <pql< td=""><td>IL <pql< td=""><td>L 0.014</td><td>SPQL</td><td>0.0068</td><td>PQL</td><td>≺bQL</td></pql<></td></pql<>	IL <pql< td=""><td>L 0.014</td><td>SPQL</td><td>0.0068</td><td>PQL</td><td>≺bQL</td></pql<>	L 0.014	SPQL	0.0068	PQL	≺bQL
BS-CDBd-EW-168	60'.2	24.3	52.2	98.5	334	<del>1</del> 6	2.7		100	PQL	0.1	1.3	350	85	13	6.7	2.0 0.	0.57 <pql< td=""><td>r ⊲PQL</td><td>SL <pql< td=""><td>IL 0.010</td><td>PQL 0</td><td>₽g</td><td>Pol</td><td>₽aL</td><td>PQL</td></pql<></td></pql<>	r ⊲PQL	SL <pql< td=""><td>IL 0.010</td><td>PQL 0</td><td>₽g</td><td>Pol</td><td>₽aL</td><td>PQL</td></pql<>	IL 0.010	PQL 0	₽g	Pol	₽aL	PQL
BS-JDCc-EW-044	10.7	23.1	76.8	155	492	÷	0.27	25	0.40	-PQL	2.6	1.7	512	120 -	33	11	3.4 0.	0.22 <pql< td=""><td>T <pql< td=""><td>r <pql< td=""><td>tL 0.012</td><td>2 4PQL</td><td>Pal</td><td>PQL</td><td>₽a</td><td><pql< td=""></pql<></td></pql<></td></pql<></td></pql<>	T <pql< td=""><td>r <pql< td=""><td>tL 0.012</td><td>2 4PQL</td><td>Pal</td><td>PQL</td><td>₽a</td><td><pql< td=""></pql<></td></pql<></td></pql<>	r <pql< td=""><td>tL 0.012</td><td>2 4PQL</td><td>Pal</td><td>PQL</td><td>₽a</td><td><pql< td=""></pql<></td></pql<>	tL 0.012	2 4PQL	Pal	PQL	₽a	<pql< td=""></pql<>
BS-JDCc-EW-060	7.08	23.7	74.4	128	476	APQL	<pql< td=""><td>04 1</td><td>0.18</td><td><pql -<="" td=""><td>6,8</td><td>37</td><td>420</td><td>100</td><td>28</td><td>14</td><td>3.9 0.</td><td>0.40 <pql< td=""><td>L 0.054</td><td>4 0.016</td><td>6 <pql< td=""><td>L 0.014</td><td>₹₽ØΓ</td><td>0.029</td><td><pal< td=""><td>≺PQL</td></pal<></td></pql<></td></pql<></td></pql></td></pql<>	04 1	0.18	<pql -<="" td=""><td>6,8</td><td>37</td><td>420</td><td>100</td><td>28</td><td>14</td><td>3.9 0.</td><td>0.40 <pql< td=""><td>L 0.054</td><td>4 0.016</td><td>6 <pql< td=""><td>L 0.014</td><td>₹₽ØΓ</td><td>0.029</td><td><pal< td=""><td>≺PQL</td></pal<></td></pql<></td></pql<></td></pql>	6,8	37	420	100	28	14	3.9 0.	0.40 <pql< td=""><td>L 0.054</td><td>4 0.016</td><td>6 <pql< td=""><td>L 0.014</td><td>₹₽ØΓ</td><td>0.029</td><td><pal< td=""><td>≺PQL</td></pal<></td></pql<></td></pql<>	L 0.054	4 0.016	6 <pql< td=""><td>L 0.014</td><td>₹₽ØΓ</td><td>0.029</td><td><pal< td=""><td>≺PQL</td></pal<></td></pql<>	L 0.014	₹₽ØΓ	0.029	<pal< td=""><td>≺PQL</td></pal<>	≺PQL
BS-JDCc-EW-091	6.92	23.7	74.7	119	478	<pql< td=""><td><pol 2<="" td=""><td>20</td><td><pql< td=""><td><pql< td=""><td>0.48</td><td>4.8</td><td>455</td><td>68</td><td>30</td><td>16</td><td>2.6 0.</td><td>0.30 <pql< td=""><td>L <pql< td=""><td>NL <pql< td=""><td>ίL ⊲PQL</td><td>L <pql< td=""><td>&lt;₽QL</td><td>&lt;₽QL</td><td>&lt;₽QL</td><td>39</td></pql<></td></pql<></td></pql<></td></pql<></td></pql<></td></pql<></td></pol></td></pql<>	<pol 2<="" td=""><td>20</td><td><pql< td=""><td><pql< td=""><td>0.48</td><td>4.8</td><td>455</td><td>68</td><td>30</td><td>16</td><td>2.6 0.</td><td>0.30 <pql< td=""><td>L <pql< td=""><td>NL <pql< td=""><td>ίL ⊲PQL</td><td>L <pql< td=""><td>&lt;₽QL</td><td>&lt;₽QL</td><td>&lt;₽QL</td><td>39</td></pql<></td></pql<></td></pql<></td></pql<></td></pql<></td></pql<></td></pol>	20	<pql< td=""><td><pql< td=""><td>0.48</td><td>4.8</td><td>455</td><td>68</td><td>30</td><td>16</td><td>2.6 0.</td><td>0.30 <pql< td=""><td>L <pql< td=""><td>NL <pql< td=""><td>ίL ⊲PQL</td><td>L <pql< td=""><td>&lt;₽QL</td><td>&lt;₽QL</td><td>&lt;₽QL</td><td>39</td></pql<></td></pql<></td></pql<></td></pql<></td></pql<></td></pql<>	<pql< td=""><td>0.48</td><td>4.8</td><td>455</td><td>68</td><td>30</td><td>16</td><td>2.6 0.</td><td>0.30 <pql< td=""><td>L <pql< td=""><td>NL <pql< td=""><td>ίL ⊲PQL</td><td>L <pql< td=""><td>&lt;₽QL</td><td>&lt;₽QL</td><td>&lt;₽QL</td><td>39</td></pql<></td></pql<></td></pql<></td></pql<></td></pql<>	0.48	4.8	455	68	30	16	2.6 0.	0.30 <pql< td=""><td>L <pql< td=""><td>NL <pql< td=""><td>ίL ⊲PQL</td><td>L <pql< td=""><td>&lt;₽QL</td><td>&lt;₽QL</td><td>&lt;₽QL</td><td>39</td></pql<></td></pql<></td></pql<></td></pql<>	L <pql< td=""><td>NL <pql< td=""><td>ίL ⊲PQL</td><td>L <pql< td=""><td>&lt;₽QL</td><td>&lt;₽QL</td><td>&lt;₽QL</td><td>39</td></pql<></td></pql<></td></pql<>	NL <pql< td=""><td>ίL ⊲PQL</td><td>L <pql< td=""><td>&lt;₽QL</td><td>&lt;₽QL</td><td>&lt;₽QL</td><td>39</td></pql<></td></pql<>	ίL ⊲PQL	L <pql< td=""><td>&lt;₽QL</td><td>&lt;₽QL</td><td>&lt;₽QL</td><td>39</td></pql<>	<₽QL	<₽QL	<₽QL	39
BS-JDCc-EW-092	7.29	24.2	64.5	117	413	0.26	<pol 4<="" td=""><td>20</td><td><pol< td=""><td>≮PQL</td><td>0.44</td><td>1.7</td><td>411</td><td>94</td><td>23</td><td>12</td><td>1.2 0.</td><td>0.32 <pql< td=""><td>L <pql< td=""><td>NL <pql< td=""><td>IL <pql< td=""><td>L ≼PQL</td><td>&lt;₽QL</td><td>PQL</td><td>PQL</td><td>39</td></pql<></td></pql<></td></pql<></td></pql<></td></pol<></td></pol>	20	<pol< td=""><td>≮PQL</td><td>0.44</td><td>1.7</td><td>411</td><td>94</td><td>23</td><td>12</td><td>1.2 0.</td><td>0.32 <pql< td=""><td>L <pql< td=""><td>NL <pql< td=""><td>IL <pql< td=""><td>L ≼PQL</td><td>&lt;₽QL</td><td>PQL</td><td>PQL</td><td>39</td></pql<></td></pql<></td></pql<></td></pql<></td></pol<>	≮PQL	0.44	1.7	411	94	23	12	1.2 0.	0.32 <pql< td=""><td>L <pql< td=""><td>NL <pql< td=""><td>IL <pql< td=""><td>L ≼PQL</td><td>&lt;₽QL</td><td>PQL</td><td>PQL</td><td>39</td></pql<></td></pql<></td></pql<></td></pql<>	L <pql< td=""><td>NL <pql< td=""><td>IL <pql< td=""><td>L ≼PQL</td><td>&lt;₽QL</td><td>PQL</td><td>PQL</td><td>39</td></pql<></td></pql<></td></pql<>	NL <pql< td=""><td>IL <pql< td=""><td>L ≼PQL</td><td>&lt;₽QL</td><td>PQL</td><td>PQL</td><td>39</td></pql<></td></pql<>	IL <pql< td=""><td>L ≼PQL</td><td>&lt;₽QL</td><td>PQL</td><td>PQL</td><td>39</td></pql<>	L ≼PQL	<₽QL	PQL	PQL	39
BS-JDCc-EW-093	70.T	23.5	73.8	138	472	₽aL	<pol< td=""><td><del>к</del>т 3<sup>8</sup></td><td><pql< td=""><td><pql< td=""><td>0.31</td><td>1.3</td><td>473</td><td>110</td><td>26</td><td>15</td><td>3.9 <p< td=""><td><pql <pql<="" td=""><td>r <pαl< td=""><td>ar <pql< td=""><td>IL 0.014</td><td>4 <pql< td=""><td><pql< td=""><td>&lt;₽QL</td><td><pql< td=""><td>66</td></pql<></td></pql<></td></pql<></td></pql<></td></pαl<></td></pql></td></p<></td></pql<></td></pql<></td></pol<>	<del>к</del> т 3 <sup>8</sup>	<pql< td=""><td><pql< td=""><td>0.31</td><td>1.3</td><td>473</td><td>110</td><td>26</td><td>15</td><td>3.9 <p< td=""><td><pql <pql<="" td=""><td>r <pαl< td=""><td>ar <pql< td=""><td>IL 0.014</td><td>4 <pql< td=""><td><pql< td=""><td>&lt;₽QL</td><td><pql< td=""><td>66</td></pql<></td></pql<></td></pql<></td></pql<></td></pαl<></td></pql></td></p<></td></pql<></td></pql<>	<pql< td=""><td>0.31</td><td>1.3</td><td>473</td><td>110</td><td>26</td><td>15</td><td>3.9 <p< td=""><td><pql <pql<="" td=""><td>r <pαl< td=""><td>ar <pql< td=""><td>IL 0.014</td><td>4 <pql< td=""><td><pql< td=""><td>&lt;₽QL</td><td><pql< td=""><td>66</td></pql<></td></pql<></td></pql<></td></pql<></td></pαl<></td></pql></td></p<></td></pql<>	0.31	1.3	473	110	26	15	3.9 <p< td=""><td><pql <pql<="" td=""><td>r <pαl< td=""><td>ar <pql< td=""><td>IL 0.014</td><td>4 <pql< td=""><td><pql< td=""><td>&lt;₽QL</td><td><pql< td=""><td>66</td></pql<></td></pql<></td></pql<></td></pql<></td></pαl<></td></pql></td></p<>	<pql <pql<="" td=""><td>r <pαl< td=""><td>ar <pql< td=""><td>IL 0.014</td><td>4 <pql< td=""><td><pql< td=""><td>&lt;₽QL</td><td><pql< td=""><td>66</td></pql<></td></pql<></td></pql<></td></pql<></td></pαl<></td></pql>	r <pαl< td=""><td>ar <pql< td=""><td>IL 0.014</td><td>4 <pql< td=""><td><pql< td=""><td>&lt;₽QL</td><td><pql< td=""><td>66</td></pql<></td></pql<></td></pql<></td></pql<></td></pαl<>	ar <pql< td=""><td>IL 0.014</td><td>4 <pql< td=""><td><pql< td=""><td>&lt;₽QL</td><td><pql< td=""><td>66</td></pql<></td></pql<></td></pql<></td></pql<>	IL 0.014	4 <pql< td=""><td><pql< td=""><td>&lt;₽QL</td><td><pql< td=""><td>66</td></pql<></td></pql<></td></pql<>	<pql< td=""><td>&lt;₽QL</td><td><pql< td=""><td>66</td></pql<></td></pql<>	<₽QL	<pql< td=""><td>66</td></pql<>	66
BS-JSRb-EW-001	7.26	24.9	251	122	- (CD) -	<pql< td=""><td><pol< td=""><td></td><td><pre></pre></td><td><pql< td=""><td>0.73</td><td>320</td><td>595</td><td>8</td><td>42</td><td>3510</td><td>3.8 0.</td><td>0.38 <pql< td=""><td>r <pql< td=""><td>iL <pql< td=""><td>IT <pql< td=""><td>L ⊲PQL</td><td><pql< td=""><td>0.022</td><td><pql< td=""><td>44</td></pql<></td></pql<></td></pql<></td></pql<></td></pql<></td></pql<></td></pql<></td></pol<></td></pql<>	<pol< td=""><td></td><td><pre></pre></td><td><pql< td=""><td>0.73</td><td>320</td><td>595</td><td>8</td><td>42</td><td>3510</td><td>3.8 0.</td><td>0.38 <pql< td=""><td>r <pql< td=""><td>iL <pql< td=""><td>IT <pql< td=""><td>L ⊲PQL</td><td><pql< td=""><td>0.022</td><td><pql< td=""><td>44</td></pql<></td></pql<></td></pql<></td></pql<></td></pql<></td></pql<></td></pql<></td></pol<>		<pre></pre>	<pql< td=""><td>0.73</td><td>320</td><td>595</td><td>8</td><td>42</td><td>3510</td><td>3.8 0.</td><td>0.38 <pql< td=""><td>r <pql< td=""><td>iL <pql< td=""><td>IT <pql< td=""><td>L ⊲PQL</td><td><pql< td=""><td>0.022</td><td><pql< td=""><td>44</td></pql<></td></pql<></td></pql<></td></pql<></td></pql<></td></pql<></td></pql<>	0.73	320	595	8	42	3510	3.8 0.	0.38 <pql< td=""><td>r <pql< td=""><td>iL <pql< td=""><td>IT <pql< td=""><td>L ⊲PQL</td><td><pql< td=""><td>0.022</td><td><pql< td=""><td>44</td></pql<></td></pql<></td></pql<></td></pql<></td></pql<></td></pql<>	r <pql< td=""><td>iL <pql< td=""><td>IT <pql< td=""><td>L ⊲PQL</td><td><pql< td=""><td>0.022</td><td><pql< td=""><td>44</td></pql<></td></pql<></td></pql<></td></pql<></td></pql<>	iL <pql< td=""><td>IT <pql< td=""><td>L ⊲PQL</td><td><pql< td=""><td>0.022</td><td><pql< td=""><td>44</td></pql<></td></pql<></td></pql<></td></pql<>	IT <pql< td=""><td>L ⊲PQL</td><td><pql< td=""><td>0.022</td><td><pql< td=""><td>44</td></pql<></td></pql<></td></pql<>	L ⊲PQL	<pql< td=""><td>0.022</td><td><pql< td=""><td>44</td></pql<></td></pql<>	0.022	<pql< td=""><td>44</td></pql<>	44
BS-JSRb-EW-012	60.7	25.3	247	153	16.00	PQL	Pol	200	<pol .<="" td=""><td><pql< td=""><td>2.</td><td>540</td><td>510</td><td>110</td><td>47</td><td>EEE</td><td>8.2 0.3</td><td>0.37 <pql< td=""><td>T <pql< td=""><td>JC <pql< td=""><td>tr <pql< td=""><td>r ⊲Pol</td><td>SPQL</td><td>0.0069</td><td>0.0051</td><td>-bq∟</td></pql<></td></pql<></td></pql<></td></pql<></td></pql<></td></pol>	<pql< td=""><td>2.</td><td>540</td><td>510</td><td>110</td><td>47</td><td>EEE</td><td>8.2 0.3</td><td>0.37 <pql< td=""><td>T <pql< td=""><td>JC <pql< td=""><td>tr <pql< td=""><td>r ⊲Pol</td><td>SPQL</td><td>0.0069</td><td>0.0051</td><td>-bq∟</td></pql<></td></pql<></td></pql<></td></pql<></td></pql<>	2.	540	510	110	47	EEE	8.2 0.3	0.37 <pql< td=""><td>T <pql< td=""><td>JC <pql< td=""><td>tr <pql< td=""><td>r ⊲Pol</td><td>SPQL</td><td>0.0069</td><td>0.0051</td><td>-bq∟</td></pql<></td></pql<></td></pql<></td></pql<>	T <pql< td=""><td>JC <pql< td=""><td>tr <pql< td=""><td>r ⊲Pol</td><td>SPQL</td><td>0.0069</td><td>0.0051</td><td>-bq∟</td></pql<></td></pql<></td></pql<>	JC <pql< td=""><td>tr <pql< td=""><td>r ⊲Pol</td><td>SPQL</td><td>0.0069</td><td>0.0051</td><td>-bq∟</td></pql<></td></pql<>	tr <pql< td=""><td>r ⊲Pol</td><td>SPQL</td><td>0.0069</td><td>0.0051</td><td>-bq∟</td></pql<>	r ⊲Pol	SPQL	0.0069	0.0051	-bq∟
BS-JSRb-EW-026	7.01	23.0	246	117	(670)	<₽QL	PQL	Stor 1	<pql< td=""><td>&lt;₽QL</td><td>2.5</td><td>370</td><td>608</td><td>5</td><td>38</td><td>200 J</td><td>6.5 0.</td><td>0.59 <pql< td=""><td>T <pql< td=""><td>1L 0.0056</td><td>56 <pql< td=""><td>L ⊲PQL</td><td>₹₽ØΓ</td><td>0.016</td><td>&lt;₽QL</td><td>PQL</td></pql<></td></pql<></td></pql<></td></pql<>	<₽QL	2.5	370	608	5	38	200 J	6.5 0.	0.59 <pql< td=""><td>T <pql< td=""><td>1L 0.0056</td><td>56 <pql< td=""><td>L ⊲PQL</td><td>₹₽ØΓ</td><td>0.016</td><td>&lt;₽QL</td><td>PQL</td></pql<></td></pql<></td></pql<>	T <pql< td=""><td>1L 0.0056</td><td>56 <pql< td=""><td>L ⊲PQL</td><td>₹₽ØΓ</td><td>0.016</td><td>&lt;₽QL</td><td>PQL</td></pql<></td></pql<>	1L 0.0056	56 <pql< td=""><td>L ⊲PQL</td><td>₹₽ØΓ</td><td>0.016</td><td>&lt;₽QL</td><td>PQL</td></pql<>	L ⊲PQL	₹₽ØΓ	0.016	<₽QL	PQL
BS-JSRb-EW-035	6.87	24.1	199	155	918d	PQL	-Por	17. A	-PQL	<₽QL	31	300	757	110	42	200	6.3 0.	0.41 <pql< td=""><td>L <pql< td=""><td>lL ⊲PQL</td><td>IL <pql< td=""><td>L <pql< td=""><td>₽QL</td><td>0.010</td><td>₽GL</td><td>PQL</td></pql<></td></pql<></td></pql<></td></pql<>	L <pql< td=""><td>lL ⊲PQL</td><td>IL <pql< td=""><td>L <pql< td=""><td>₽QL</td><td>0.010</td><td>₽GL</td><td>PQL</td></pql<></td></pql<></td></pql<>	lL ⊲PQL	IL <pql< td=""><td>L <pql< td=""><td>₽QL</td><td>0.010</td><td>₽GL</td><td>PQL</td></pql<></td></pql<>	L <pql< td=""><td>₽QL</td><td>0.010</td><td>₽GL</td><td>PQL</td></pql<>	₽QL	0.010	₽GL	PQL
BS-JSRb-EW-048	7.28	25.3	267	135	004015	≮PQL	<pql 8<="" td=""><td>182 BA</td><td>&lt;₽QL</td><td>6.6</td><td>48</td><td>490</td><td>569</td><td>93</td><td>42</td><td>&lt;500</td><td>7.7 0.3</td><td>0.33 <pql< td=""><td>r ⊲PQL</td><td>IL <pqi< td=""><td>IL <pql< td=""><td>L <pql< td=""><td>₽dL</td><td>0.016</td><td><pql< td=""><td><pql< td=""></pql<></td></pql<></td></pql<></td></pql<></td></pqi<></td></pql<></td></pql>	182 BA	<₽QL	6.6	48	490	569	93	42	<500	7.7 0.3	0.33 <pql< td=""><td>r ⊲PQL</td><td>IL <pqi< td=""><td>IL <pql< td=""><td>L <pql< td=""><td>₽dL</td><td>0.016</td><td><pql< td=""><td><pql< td=""></pql<></td></pql<></td></pql<></td></pql<></td></pqi<></td></pql<>	r ⊲PQL	IL <pqi< td=""><td>IL <pql< td=""><td>L <pql< td=""><td>₽dL</td><td>0.016</td><td><pql< td=""><td><pql< td=""></pql<></td></pql<></td></pql<></td></pql<></td></pqi<>	IL <pql< td=""><td>L <pql< td=""><td>₽dL</td><td>0.016</td><td><pql< td=""><td><pql< td=""></pql<></td></pql<></td></pql<></td></pql<>	L <pql< td=""><td>₽dL</td><td>0.016</td><td><pql< td=""><td><pql< td=""></pql<></td></pql<></td></pql<>	₽dL	0.016	<pql< td=""><td><pql< td=""></pql<></td></pql<>	<pql< td=""></pql<>
								ш	Excess of WHO guideline	VHO guide	eline		ű	Excess of Bangladesh Standard	Ingladesh	Standard		Exces	s of both	Banglade	sh Standai	Excess of both Bangladesh Standard and WHO guideline	O guidelin	6		

(The values were determined as exceeding the standards before rounding off)

Table 5.5.8 Results of Baseline Survey (Pond)

Analyte	Ha	Temperature	Conductivity Hardness	Hardness	SQL	Nitrate	Nitrite	Ammonitum Di	Dissolved Mar	Sulfate	theorem Fe Chloride	loride Bicarbonate	onete Calcium	utt Magnestum	m Sodium	m Potasshum	m Fluoride		Cadmium Total Cr	Copper	Cyanide	Lead M	Mercury N	Nickel Z	Zinc	G
Method	pH meter	Thermo meter	Conductivity meter	Standard Standard	Standard	sP	SP	SP	FAAS	с В	FAAS	SP Titration	tion FAAS	S FAAS	S FAAS	S FAAS	S SP	Extractio n/ FAAS	Extractio n/ FAAS	Extractio n/ FAAS	<u>в</u>	Edmactio E	Extractio Ex n/ FAAS n/	Extractio Extr n/ FAAS n/ F	Extractio Trtr n/ FAAS	Trtration
Practical Quantitation Limit	•	0 Deg C	0.02	0.5	0.13	0.2	0.02	0.1	0.08	5	0.2	0.6 20	0 0.5	0.05	0.05	0.1	6.	0.0015	0.025	0.005	0.01					50
Unit		Deg C	mS/m	caco <sub>A</sub> L	mg/L	mg/L	mg/L	mg/L	ng/L	n9/L	u J/Gu	mg/L caco <sub>3</sub> 1	0,1 mg/	r mg/	V <sup>g</sup> w .	Тбш .	Ъ ш6Г	mg/L	трл	Ч <sup>в</sup> ш	₩ U0	ng/L r	u 1/6m	u D M B M	mg/L m	mg/L
Sample No	Hđ	Temp	EC	Hardness	SQL	<sup>\$</sup> ON	NO2	NH,	ĥ	so,	æ	CI HCO3	បី ភូ	BM	£	×	u.	3	5	S	N	8	P	N N	0 รู	G
BS-CDB4-P-01	7.54	23.7	23.8	39.4	152	PoL	PQL	0.45	<pql< th=""><th>₽QL</th><th>PQL</th><th>7.5 140</th><th>33</th><th>7.5</th><th><del>г</del></th><th>6.5</th><th>0.35</th><th><pql< th=""><th>₽QL</th><th>Å</th><th>0.029</th><th>, ₽QL</th><th>v ₽0</th><th>₽ d</th><th>₽ ₽</th><th>₽gL</th></pql<></th></pql<>	₽QL	PQL	7.5 140	33	7.5	<del>г</del>	6.5	0.35	<pql< th=""><th>₽QL</th><th>Å</th><th>0.029</th><th>, ₽QL</th><th>v ₽0</th><th>₽ d</th><th>₽ ₽</th><th>₽gL</th></pql<>	₽QL	Å	0.029	, ₽QL	v ₽0	₽ d	₽ ₽	₽gL
BS-CDB4-P-02	7.10	23.4	11.1	19.9	71.1	PoL			-POL	- PQL	PQL	4.1 67.8	.8 17	2.9	2.7	5.1	0.33	<pql< th=""><th>₽QL</th><th>₽</th><th>0.033</th><th>PQ.</th><th>&gt; ₽0T</th><th>₽0L ₽</th><th>-PQL -F</th><th>PQL</th></pql<>	₽QL	₽	0.033	PQ.	> ₽0T	₽0L ₽	-PQL -F	PQL
BS-JDCe-P-01	7.36	23.6	35.0	28.5	224	42		14.8	<₽QL	7.4	<₽QL	7.5' 184	14 25	14	24	4.3	20	<pql< th=""><th>₽QL</th><th>₽</th><th>0.018</th><th>v 104 V</th><th>× ₽g</th><th>4PQL ►</th><th>₽OL</th><th>₽GL</th></pql<>	₽QL	₽	0.018	v 104 V	× ₽g	4PQL ►	₽OL	₽GL
BS-IDCc-P-02	7.39	23.9	15.8	34.2	101	2.8	0.020	1.1	0.10	- ►PQL	spot	3.5 87.5	.5 34	0.20	4.1	12	1.4	<pql< th=""><th>PQL</th><th>Å</th><th>0.046</th><th>• ₽g</th><th>× ₽dL</th><th><pql <₽<="" th=""><th><pql th="" ≤<=""><th>PQL</th></pql></th></pql></th></pql<>	PQL	Å	0.046	• ₽g	× ₽dL	<pql <₽<="" th=""><th><pql th="" ≤<=""><th>PQL</th></pql></th></pql>	<pql th="" ≤<=""><th>PQL</th></pql>	PQL
BS-IDCc-P-03	7.05	23.7	25.0	34.5	160	18	12	2.26	0.16	7.3	₽QL	5.0 123	33	2.0	7.4	2.0	3.6	<pql< th=""><th>PaL</th><th>0.0070</th><th>0.052</th><th>₽dL</th><th>POL 0.</th><th>0.0056 <f< th=""><th>S POL</th><th>65</th></f<></th></pql<>	PaL	0.0070	0.052	₽dL	POL 0.	0.0056 <f< th=""><th>S POL</th><th>65</th></f<>	S POL	65
BS-JDCc-P-04	7.41	23.8	38.9	16.6	249	0.82	0.030	0.82	• <₽QL	<pql <<="" th=""><th>PQL</th><th>2.3 219</th><th>9 7</th><th>5 5</th><th>સ</th><th>7.0</th><th>0.63</th><th><pql< th=""><th>PQL</th><th>₽QL</th><th>0.029</th><th>• ⊳bot</th><th><pql 0.<="" th=""><th>0.0054 <p< th=""><th>-POL</th><th>18</th></p<></th></pql></th></pql<></th></pql>	PQL	2.3 219	9 7	5 5	સ	7.0	0.63	<pql< th=""><th>PQL</th><th>₽QL</th><th>0.029</th><th>• ⊳bot</th><th><pql 0.<="" th=""><th>0.0054 <p< th=""><th>-POL</th><th>18</th></p<></th></pql></th></pql<>	PQL	₽QL	0.029	• ⊳bot	<pql 0.<="" th=""><th>0.0054 <p< th=""><th>-POL</th><th>18</th></p<></th></pql>	0.0054 <p< th=""><th>-POL</th><th>18</th></p<>	-POL	18
BS-JDCc-P-05	7.47	24.2	30.3	23.4	19 1	1.8	0.10	0.18	960.0	₽ġĹ	₽ġ	3.9 175	5 20	5	8.2	1.7	0.26	₽QL	ÅQL	₽ ₽	0.019	≁ ∽boir	× ₽0Г	r Pol	bqL	78
BS-JSRb-P-01	7.72	24.1	30.0	24.9	192	1.2	<₽QL	0.20	->DCL	6.9	<₽QL	11 131	1 20	4.8	8	6.0	0.34	PQL	-PQL	₽ġ	₽ġ	• ₽0	> ≁PQL	<pql 0.0<="" th=""><th>0.0077 <f< th=""><th>₽a∟</th></f<></th></pql>	0.0077 <f< th=""><th>₽a∟</th></f<>	₽a∟
BS-JSRb-P-02	7.32	22.4	32.8	39.6	210	≺PQL	₽QL	0.41	₽GL	PQL	₽QL	8.4 156	99 99	9.7	8	4.5	0.49	<pql< th=""><th>PQL</th><th>Po Po</th><th>0.029</th><th>0.011</th><th><pql 0.<="" th=""><th>0.0 0600.0</th><th>0.0033</th><th>8</th></pql></th></pql<>	PQL	Po Po	0.029	0.011	<pql 0.<="" th=""><th>0.0 0600.0</th><th>0.0033</th><th>8</th></pql>	0.0 0600.0	0.0033	8
BS-JSRb-P-03	7.88	24.3	37.2	34.8	238	10d>	<₽QL	0.21	₽QĽ	7.1	PQL	28 144	4 27	7.8	8	22	0.34	₽QL	PQL	₽ Por	0.013	<ul> <li>PQL</li> </ul>	× ⊳0L	<pql 0.0<="" th=""><th>0.011 4</th><th>₽g</th></pql>	0.011 4	₽g
BS-JSRb-P-04	7.95	23.9	35.7	45.0	228	0.80	0.070	0.68	4oL	Å L	₽QĽ	24 144	4 3	4	3	9.7	0.31	<pql< td=""><td>PQL</td><td>PQL</td><td>₽QĽ</td><td>^ ≻or</td><td>× ₽0</td><td>₽ ₽QL</td><td>₽ ₽</td><td>₽d</td></pql<>	PQL	PQL	₽QĽ	^ ≻or	× ₽0	₽ ₽QL	₽ ₽	₽d
BS-JSRb-P-05	7.30	23.7	48.4	41.0	310	≮PQL	₽QL	0.30	¢ΩΓ	7.4	<₽QL	52 136	30	= ·	<del>.</del>	4.0	0.44	<pql< td=""><td><pql< td=""><td>₽œ</td><td>0.013</td><td>, ₽QĽ</td><td>PQL 0.</td><td>0.0059 <p< td=""><td><pql td="" €<=""><td>₽o⊑</td></pql></td></p<></td></pql<></td></pql<>	<pql< td=""><td>₽œ</td><td>0.013</td><td>, ₽QĽ</td><td>PQL 0.</td><td>0.0059 <p< td=""><td><pql td="" €<=""><td>₽o⊑</td></pql></td></p<></td></pql<>	₽œ	0.013	, ₽QĽ	PQL 0.	0.0059 <p< td=""><td><pql td="" €<=""><td>₽o⊑</td></pql></td></p<>	<pql td="" €<=""><td>₽o⊑</td></pql>	₽o⊑
BS-JSRb-P-06	7.80	23.5	96.6	75.0	618	0.31	<₽QL	0.51	<₽QL	- 6.7	<₽QL	5.6 256	6 55	7.3	8	4	6.13	<pql< td=""><td><pql< td=""><td>PQL</td><td>0.014</td><td><pre> • • • • • • • • • • • • • • • • • • •</pre></td><td><pql <<="" td=""><td><pql <₽<="" td=""><td>₽ PQI</td><td>₽ġ</td></pql></td></pql></td></pql<></td></pql<>	<pql< td=""><td>PQL</td><td>0.014</td><td><pre> • • • • • • • • • • • • • • • • • • •</pre></td><td><pql <<="" td=""><td><pql <₽<="" td=""><td>₽ PQI</td><td>₽ġ</td></pql></td></pql></td></pql<>	PQL	0.014	<pre> • • • • • • • • • • • • • • • • • • •</pre>	<pql <<="" td=""><td><pql <₽<="" td=""><td>₽ PQI</td><td>₽ġ</td></pql></td></pql>	<pql <₽<="" td=""><td>₽ PQI</td><td>₽ġ</td></pql>	₽ PQI	₽ġ
BS-JSRb-P-07	7.80	23.1	35.8	43.8	229	1.4	<₽QL	0.78	< POL	< PQL	<pql< td=""><td>24 152</td><td>2 31</td><td>7.2</td><td>15</td><td>8</td><td>0.27</td><td><pql< td=""><td>PQL</td><td>₽ġ</td><td>₽ġ</td><td>• ₽gL</td><td>× ₽0Г</td><td>PQL P</td><td>₽QL</td><td>₽ġ</td></pql<></td></pql<>	24 152	2 31	7.2	15	8	0.27	<pql< td=""><td>PQL</td><td>₽ġ</td><td>₽ġ</td><td>• ₽gL</td><td>× ₽0Г</td><td>PQL P</td><td>₽QL</td><td>₽ġ</td></pql<>	PQL	₽ġ	₽ġ	• ₽gL	× ₽0Г	PQL P	₽QL	₽ġ
BS-JSRb-P-08	7.40	23.0	57.2	36.7	366	<pql< td=""><td>≮PQL</td><td>1.1</td><td><pql< td=""><td>6.1</td><td>&lt;₽QL</td><td>59 184</td><td>H 28</td><td>11</td><td>\$</td><td>48</td><td>228</td><td><pql< td=""><td>PQL</td><td>₽aL</td><td>0.013</td><td>≁ ⊅or</td><td><pql 0.<="" td=""><td>0.0079 <p< td=""><td>-PQL F</td><td>₽G</td></p<></td></pql></td></pql<></td></pql<></td></pql<>	≮PQL	1.1	<pql< td=""><td>6.1</td><td>&lt;₽QL</td><td>59 184</td><td>H 28</td><td>11</td><td>\$</td><td>48</td><td>228</td><td><pql< td=""><td>PQL</td><td>₽aL</td><td>0.013</td><td>≁ ⊅or</td><td><pql 0.<="" td=""><td>0.0079 <p< td=""><td>-PQL F</td><td>₽G</td></p<></td></pql></td></pql<></td></pql<>	6.1	<₽QL	59 184	H 28	11	\$	48	228	<pql< td=""><td>PQL</td><td>₽aL</td><td>0.013</td><td>≁ ⊅or</td><td><pql 0.<="" td=""><td>0.0079 <p< td=""><td>-PQL F</td><td>₽G</td></p<></td></pql></td></pql<>	PQL	₽aL	0.013	≁ ⊅or	<pql 0.<="" td=""><td>0.0079 <p< td=""><td>-PQL F</td><td>₽G</td></p<></td></pql>	0.0079 <p< td=""><td>-PQL F</td><td>₽G</td></p<>	-PQL F	₽G
BS-JSRb-P-09	7.50	22.7	48.8	48.3	312	<₽QL	<₽QL	0.34	<₽QL	6.8	≮PQL	59 192	2 37	12	<u></u> я	7.6	0.31	<pql< td=""><td>PQL</td><td>₽aL</td><td>₽OL</td><td>¢ ¢0r</td><td>PQL 0.</td><td>0.0062 <p< td=""><td>₽QL</td><td>₽QL</td></p<></td></pql<>	PQL	₽aL	₽OL	¢ ¢0r	PQL 0.	0.0062 <p< td=""><td>₽QL</td><td>₽QL</td></p<>	₽QL	₽QL
BS-JSRb-P-10	7.70	23.1	64.8	63.6	415	0.23	PQL	0.33	₹₽QL	₽QL	₽QL	97 208	8 47	17	₹¥	7.4	0.33	PQL	Pol	Å	₽of	, ₽QL	× ₽ U	<pql <₽<="" td=""><td>PQL</td><td>₽QL</td></pql>	PQL	₽QL
BS-JSRb-P-11	7.56	23.7	29.0	36.1	186	<₽QL	<pql< td=""><td>0.44</td><td>0.086</td><td>&lt;₽QL</td><td><pql< td=""><td>2.9 140</td><td>0 30</td><td>5.9</td><td>11</td><td>5.9</td><td>0.30</td><td><pql< td=""><td>PQL</td><td>₽QL</td><td>0.018</td><td>₽ ₽</td><td>× ₽0L</td><td><pql <p<="" td=""><td>4 ₽0L</td><td>PQL</td></pql></td></pql<></td></pql<></td></pql<>	0.44	0.086	<₽QL	<pql< td=""><td>2.9 140</td><td>0 30</td><td>5.9</td><td>11</td><td>5.9</td><td>0.30</td><td><pql< td=""><td>PQL</td><td>₽QL</td><td>0.018</td><td>₽ ₽</td><td>× ₽0L</td><td><pql <p<="" td=""><td>4 ₽0L</td><td>PQL</td></pql></td></pql<></td></pql<>	2.9 140	0 30	5.9	11	5.9	0.30	<pql< td=""><td>PQL</td><td>₽QL</td><td>0.018</td><td>₽ ₽</td><td>× ₽0L</td><td><pql <p<="" td=""><td>4 ₽0L</td><td>PQL</td></pql></td></pql<>	PQL	₽QL	0.018	₽ ₽	× ₽0L	<pql <p<="" td=""><td>4 ₽0L</td><td>PQL</td></pql>	4 ₽0L	PQL
BS-JSRb-P-12	7.57	23.7	45.7	27.8	292	≤PQL	₽QL	0.36	rPQL	5.8	<pql< td=""><td>25 175</td><td>5 24</td><td>4.3</td><td>29</td><td>62</td><td>0.47</td><td><pql< td=""><td>₽aL</td><td>&lt;₽QL</td><td>0.036</td><td>₹PQL</td><td>× ≁PQL</td><td><pal <₽<="" td=""><td><pql< td=""><td>18</td></pql<></td></pal></td></pql<></td></pql<>	25 175	5 24	4.3	29	62	0.47	<pql< td=""><td>₽aL</td><td>&lt;₽QL</td><td>0.036</td><td>₹PQL</td><td>× ≁PQL</td><td><pal <₽<="" td=""><td><pql< td=""><td>18</td></pql<></td></pal></td></pql<>	₽aL	<₽QL	0.036	₹PQL	× ≁PQL	<pal <₽<="" td=""><td><pql< td=""><td>18</td></pql<></td></pal>	<pql< td=""><td>18</td></pql<>	18
BS-JSRb-P-13	7.43	23.4	29.7	44.0	190	3.8		0.25	<pql< td=""><td>6.8</td><td>&lt;₽QL</td><td>4.3 158</td><td>34</td><td>9.9</td><td>6.9</td><td>6.3</td><td>0.39</td><td>≺PQL</td><td>₽gL</td><td>PQL</td><td>PQL</td><td>&lt;₽QL</td><td>, ₽QL</td><td><pa∟< td=""><td><pol f<="" td=""><td>Рог Ч</td></pol></td></pa∟<></td></pql<>	6.8	<₽QL	4.3 158	34	9.9	6.9	6.3	0.39	≺PQL	₽gL	PQL	PQL	<₽QL	, ₽QL	<pa∟< td=""><td><pol f<="" td=""><td>Рог Ч</td></pol></td></pa∟<>	<pol f<="" td=""><td>Рог Ч</td></pol>	Рог Ч
BS-JSRb-P-14	6.97	24.3	40.8	41.5	261	9		0.19	¢ ₽0	₽ġ	PQL	36 140	32	8.6	32	5.0	0.49	< PQL	≺PQL	<pql< td=""><td>0.017</td><td><pql <<="" td=""><td><pql 0.<="" td=""><td>0.0056 <p< td=""><td>S Pol</td><td>g</td></p<></td></pql></td></pql></td></pql<>	0.017	<pql <<="" td=""><td><pql 0.<="" td=""><td>0.0056 <p< td=""><td>S Pol</td><td>g</td></p<></td></pql></td></pql>	<pql 0.<="" td=""><td>0.0056 <p< td=""><td>S Pol</td><td>g</td></p<></td></pql>	0.0056 <p< td=""><td>S Pol</td><td>g</td></p<>	S Pol	g
BS-JSRb-P-15	7.61	24.2	48.5	25.8	310	2.4	0.10	0.45	< PQL	-PQL	<₽QL	39 171	1 19	6.4	41	2.4	0.48	₽QL	₽GL	<pql< td=""><td>PQL</td><td><ul> <li>PQL</li> </ul></td><td><pql 0.<="" td=""><td>0.0081 <p< td=""><td>POL</td><td>g</td></p<></td></pql></td></pql<>	PQL	<ul> <li>PQL</li> </ul>	<pql 0.<="" td=""><td>0.0081 <p< td=""><td>POL</td><td>g</td></p<></td></pql>	0.0081 <p< td=""><td>POL</td><td>g</td></p<>	POL	g
BS-JSRb-P-16	7.57	22.5	25.4	37.5	163	13	0.95	0.59	<ul> <li>PQL</li> </ul>	<pql <<="" td=""><td>&lt;₽QL</td><td>4.8 140</td><td>90 30</td><td>7.0</td><td>1</td><td>3.5</td><td>1.1</td><td>₽QL</td><td>PQL</td><td><pql< td=""><td>0.015</td><td>* ⊳bor</td><td>~ ₽0L</td><td><pal <₽<="" td=""><td>4PQL ≤PQL</td><td>d</td></pal></td></pql<></td></pql>	<₽QL	4.8 140	90 30	7.0	1	3.5	1.1	₽QL	PQL	<pql< td=""><td>0.015</td><td>* ⊳bor</td><td>~ ₽0L</td><td><pal <₽<="" td=""><td>4PQL ≤PQL</td><td>d</td></pal></td></pql<>	0.015	* ⊳bor	~ ₽0L	<pal <₽<="" td=""><td>4PQL ≤PQL</td><td>d</td></pal>	4PQL ≤PQL	d
BS-JSRb-P-17	7.02	22.4	44.5	35.8	285	2.0	0.27	0.23	<₽QL	5.8	<₽QL	26 158	8 26	9.4	¥.	2.4	15 A	<pql< td=""><td>≤PQL</td><td>&lt;₽QL</td><td>0.031</td><td><pql <<="" td=""><td>-&gt; PQL</td><td><pol <p<="" td=""><td>4PQL</td><td>78</td></pol></td></pql></td></pql<>	≤PQL	<₽QL	0.031	<pql <<="" td=""><td>-&gt; PQL</td><td><pol <p<="" td=""><td>4PQL</td><td>78</td></pol></td></pql>	-> PQL	<pol <p<="" td=""><td>4PQL</td><td>78</td></pol>	4PQL	78
BS-JSRb-P-18	7.40	22.6	55.2	57.0	353	4.6	0.64	0.25	<₽QL	8.0	≮PQĽ	38 223	3 40	17	37	<del>6</del>	0.50	₽QL	₽ØF	PQL	<pql <<="" td=""><td><pql< td=""><td>4PQL 0.</td><td>0.0061 <p< td=""><td>≮PQL</td><td>55</td></p<></td></pql<></td></pql>	<pql< td=""><td>4PQL 0.</td><td>0.0061 <p< td=""><td>≮PQL</td><td>55</td></p<></td></pql<>	4PQL 0.	0.0061 <p< td=""><td>≮PQL</td><td>55</td></p<>	≮PQL	55
BS-JSRb-P-19	7.17	21.9	23.2	38.6	148	7.1	0.72	0.38	₽QL	7.7	<₽QL	2.8 122	2 36	2.5	5.7	7.0	0.59	<pql< td=""><td><pql< td=""><td>&lt;₽QL</td><td>0.034</td><td><pql< td=""><td>e AdL</td><td>0.0051 <p< td=""><td>₽OL</td><td>78</td></p<></td></pql<></td></pql<></td></pql<>	<pql< td=""><td>&lt;₽QL</td><td>0.034</td><td><pql< td=""><td>e AdL</td><td>0.0051 <p< td=""><td>₽OL</td><td>78</td></p<></td></pql<></td></pql<>	<₽QL	0.034	<pql< td=""><td>e AdL</td><td>0.0051 <p< td=""><td>₽OL</td><td>78</td></p<></td></pql<>	e AdL	0.0051 <p< td=""><td>₽OL</td><td>78</td></p<>	₽OL	78
BS-JSRb-P-20	7.42	22.7	43.9	20.3	281	1.5	0.11	γβ	<pql< td=""><td>&lt; PQL &lt;</td><td><pqt< td=""><td>25 210</td><td>0 14</td><td>9</td><td>8</td><td>5.3</td><td>0.36</td><td>≺PQL</td><td><pql< td=""><td>PQL</td><td>₽ot</td><td><pql< td=""><td><pgl 0.<="" td=""><td>0.0080 <p< td=""><td><pql <₽<="" td=""><td>&lt;₽QL</td></pql></td></p<></td></pgl></td></pql<></td></pql<></td></pqt<></td></pql<>	< PQL <	<pqt< td=""><td>25 210</td><td>0 14</td><td>9</td><td>8</td><td>5.3</td><td>0.36</td><td>≺PQL</td><td><pql< td=""><td>PQL</td><td>₽ot</td><td><pql< td=""><td><pgl 0.<="" td=""><td>0.0080 <p< td=""><td><pql <₽<="" td=""><td>&lt;₽QL</td></pql></td></p<></td></pgl></td></pql<></td></pql<></td></pqt<>	25 210	0 14	9	8	5.3	0.36	≺PQL	<pql< td=""><td>PQL</td><td>₽ot</td><td><pql< td=""><td><pgl 0.<="" td=""><td>0.0080 <p< td=""><td><pql <₽<="" td=""><td>&lt;₽QL</td></pql></td></p<></td></pgl></td></pql<></td></pql<>	PQL	₽ot	<pql< td=""><td><pgl 0.<="" td=""><td>0.0080 <p< td=""><td><pql <₽<="" td=""><td>&lt;₽QL</td></pql></td></p<></td></pgl></td></pql<>	<pgl 0.<="" td=""><td>0.0080 <p< td=""><td><pql <₽<="" td=""><td>&lt;₽QL</td></pql></td></p<></td></pgl>	0.0080 <p< td=""><td><pql <₽<="" td=""><td>&lt;₽QL</td></pql></td></p<>	<pql <₽<="" td=""><td>&lt;₽QL</td></pql>	<₽QL
				1					Excess of WHO guideline	'HO guide	je N		Excess	Excess of Bangladesh Standard	desh Star	dard		Excess of	f both Bany	jladesh S	tandard an	Excess of both Bangladesh Standard and WHO guideline	ideline			
								(The valt	ues wen	e deten	nined a:	values were determined as exceeding the standards before rounding off)	ng the st	andards	before	roundi	(filo gr	•								

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 Table 5.5.9 Summarized results of Observation Wells and holes in Pourshava exceeding Bangladesh standard and

 WHO guideline (1/12)

Practical Quantitation Limit	0.02	0.1	0.08	0.2	0.5	0.05	0.05	0.005	0.005
WHO Guideline	3	1.5	0.5	0.3	-	-	200	0.01	0.02
Bangladesh Standard	1	0.5	0.1	1	75	35	200	0.05	0.1
Parameter	NO2	NH4	Mn	Fe	Ca	Mg	Na	Pb	Ni
Minimum (mg/l)	<0.02	<0.1	<0.08	0.77	67	3.0	10	<0.005	<0.005
Maximum (mg/l)/	0.16	1.1	0.87	16	130	29	23	<0.005	0.0057
thmetic Avarage assuming (PQL)data has ROL value (mg/l)/	0.034	0.39	0.36	4.5	114	23	16	<0.005	0.0051
oren Chimino-Avares Cressumines (PQL-data- hers PQL-values (ma/))	0.025	0.30	0.26	2.7	111	20	15	<0.005	0.0051
Pumping lest:	0/2	2/2	1/2	1/2	2/2	0/2	0/2	0/2	0/2
lo. of samples above G Standard / No. ofMonitoring Total samples	0/8	0/8	· 6/8	8/8	7/8	0/8	0/8	0/8	0/8
Total	0/10	2/10	7/10	9/10	9/10	0/10	0/10	0/10	0/10
No of samples	0/2	0/2	0/2	2/2	-	-	0/2	0/2	0/2
	0/8	0/8	2/8	8/8	-	-	0/8	0/8	0/8
Totel Semples Totel	0/10	0/10	2/10	10/10	_	-	0/10	· 0/10	0/10

### Table 5.5.9 Summarized results of Observation Wells and holes in Pourshava exceeding Bangladesh standard and WHO guideline (2/12)

### Ch-1-4

Practical Quantitation Limit	0.02	0.1	0.08	0.2	0.5	0.05	0.05	0.005	0.005
WHO Guideline	3	1.5	0.5	0.3	-	-	200	0.01	0.02
Bangladesh Standard	1	0.5	0.1	1	75	35	200	0.05	0.1
Parameter	NO <sub>2</sub>	NH₄	Mn	Fe	Ca	Mg	Na	Pb	Ni
et a second Minimum (me4)	<0.02	0.24	0.090	2.1	74	26	22	<0.005	0.005
Maximum (mg/l)	<0.02	0.47	0.40	6.9	120	28	58	<0.005	0.0095
Arithmetic Avarage assuming <pql<sup>1data has PQL<sup>1</sup>value (mg/l)</pql<sup>	<0.02	0.39	0.26	3.8	105	27	41	<0.005	0.0068
Logarithming Avarage assuming (POL data) has POL value (mg/l)	<0.02	0.37	0.22	3.2	102	27	38	<0.005	0.0066
Nor of samples above	0/3	0/3	2/3	3/3	2/3	0/3	0/3	0/3	0/3
Nor or semplos above BC Stendend / No. or North semplos	-	-	-	-	-	-	-	-	-
	0/3	0/3	2/3	3/3	2/3	0/3	0/3	0/3	0/3
No. Of samples.	0/3	0/3	0/3	´3/3	-	-	0/3	0/3	0/3
Elbove WHO // Monitoring Control Monitoring	-	-	-	-	-	-	-	-	-
Tiotal samples	0/3	0/3	0/3	3/3	-	-	0/3	0/3	0/3

 Table 5.5.9
 Summarized results of Observation Wells and holes in Pourshava exceeding Bangladesh standard and

 WHO guideline (3/12)

Practical Quant	litation Limit	0.02	0.1	0.08	0.2	0.5	0.05	0.05	0.005	0.005
WHO Gui	deline	3	1.5	0.5	0.3	-		200	0.01	0.02
Bangladesh	Standard	1	0.5	0.1	1	75	35	200	0.05	0.1
Param	ətər	NO2	NH₄	Mn	Fe	Ca	Mg	Na	Pb	Ni
Minimum	(mg/l)	<0.02	<0.1	<0.08	<0.2	14	21	11	<0.005	<0.005
Maximum	(mg/l)	0.28	1.2	0.34	9.7	96	33	24	<0.005	0.0088
Arithmetic Avarage assu PQL value		0.053	0.27	0.12	3.8	64	26	14	<0.005	0.0055
Logarithminc Avarage a	ssuming (PQL data ue (mg/l)	0.028	0.18	0.10	1.9	56	26	14	<0.005	0.0054
	Pumping Test	0/1	0/1	1/1	1/1	1/1	0/1	0/1	0/1	0/1
No. of samples above BG Standard / No. of Total samples	Monitoring	0/7	1/7	1/7	4/7	2/7	0/7	0/7	<0.005 <0.005 0/1 0/7 0/8	0/7
	Total	0/8	1/8	2/8	5/8	3/8	0/8	0/8	0/8	0/8
No. of samples	Pumping Test	0/1	0/1	0/1	1/1	-	-	0/1	0/1	0/1
above WHO	A Monitoring 🕶	0/7	0/7	0/7	6/7	-	-	0/7	0/7 0 <sup>/</sup> 7	0/7
Total samples.	Tótal	0/8	0/8	0/8	7/8	-	-	0/8	0/8	0/8

### Table 5.5.9 Summarized results of Observation Wells and holes in Pourshava exceeding Bangladesh standard and WHO guideline (4/12)

Ch	24
UN	-2-4

Practical Quantitation Limit	0.02	0.1	0.08	0.2	0.5	0.05	0.05	0.005	0.005
WHO Guideline	3	1.5	0.5	0.3	-	-	200	0.01	0.02
Bangladesh Standard	1	0.5	0.1	1	75	35	200	0.05	0.1
Parameter	NO2	NH₄	Mn	Fe	Ca	Mg	Na	Pb	Ni
Minimum (mg/l)	<0.02	<0.1	0.081	2.2	82	22	19	<0.005	0.0059
.Maximum (mg/l)	0.25	<0.1	0.19	5.1	90	22	37	0.0054	0.0064
Arithmetic Avarage assuming <pql data="" has<="" td=""><td>0.13</td><td>0.10</td><td>0.14</td><td>3.6</td><td>87</td><td>22</td><td>27</td><td>0.0051</td><td>0.0062</td></pql>	0.13	0.10	0.14	3.6	87	22	27	0.0051	0.0062
Logarithminc Avarage assuming (PQL data	0.084	0.10	0.13	3.4	87	22	26	0.0051	0.0062
Norof, samples above	0/3	0/3	2/3	3/3	3/3	0/3	0/3	0/3	0/3
BG Standard / No. of Total samples	-	-	-	-	-	-	-	-	-
Total	0/3	0/3	2/3	3/3	3/3	0/3	0/3	0/3	0/3
Notof samples's Pumping lests	0/3	0/3	0/3	3/3	-	-	0/3	0/3	0/3
t above WHO Guideliner No- or	-	-	-	-	-	-	-	-	-
	0/3	0/3	0/3	3/3	-	- `	0/3	0/3	0/3

 Table 5.5.9 Summarized results of Observation Wells and holes in Pourshava exceeding Bangladesh standard and WHO guideline (5/12)

Practical Quantitation Limit	0.02	0.1	0.08	0.2	0.5	0.05	0.05	0.005	0.005
WHO Guideline	3	1.5	0.5	0.3	-	-	200	0.01	0.02
Bangladesh Standard	1	0.5	0.1	1	75	35	200	0.05	0.1
Parameter	NO2	NH <sub>4</sub>	Mn	Fə	Ca	Mg	Na	Pb	Ni
s & second (Minimum (mg/l)) Ali	<0.02	. <0.1	_<0.08	2.6	43	24	14	<0.005	<0.005
Maximum (mg/l)	<0.02	0.17	0.35	18	110	42	36	0.011	0.0063
Arithmetic Avarage assuming <pql :<br="" data="">has PQL value (mg/l) as a set</pql>	<0.02	0.11	0.17	9.8	82	35	23	0.0059	0.0051
to entitime Average essenting (PO) state	<0.02	0.11	0.15	8.0	78	34	21	0.0056	0.0051
No. of samples above BG	0/2	0/2	1/2	2/2	2/2	2/2	0/2	0/2	0/2
Standard / No <sup>*</sup> of Total samples	0/7	0/7	4/7	7/7	5/7	4/7	0/7	0/7	0/7
Total.	0/9	0/9	5/9	9/9	7/9	6/9	0/9	0/9	0/9
No. of samples above	0/2	0/2	0/2	2/2	-	-	0/2	1/2	0/2
WHO Guideline / No. of Monitorine	0/7	0/7	0/7	7/7	-	-	0/7	0/7	0/7
Total samples	0/9	0/9	0/9	9/9	_	-	0/9	1/9	0/9

Table 5.5.9 Summarized results of Observation Wells and holes in Pourshava exceeding Bangladesh standard and
WHO guideline (6/12)

Practical Quantitation Limit	0.02	0.1	0.08	0.2	0.5	0.05	0.05	0.005	0.005
WHO Guideline	3	1.5	0.5	0.3	- ·	-	200	0.01	0.02
Bangladesh Standard	1	0.5	0.1	1	75	35	200	0.05	0.1
Parameter	NO2	NH₄	Mn	Fe	Ca	Mg	Na	Pb	Ni
Mataya (1174/1)	<0.02	<0.1	<0.08	2.3	99	38	11	<0.005	0.0057
Vextoren (m?/l)	<0.02	0.13	0.089	3.6	100	38	13	0.013	0.0092
Arithmetic Avarage assuming (POL data) has POL value (mg/l)	<0.02	0.11	0.083	2.8	99	38	13	0.0077	0.0072
Logarithming Avarage assuming KP0L data has POL value (mg/l)	<0.02	0.11	0.083	2.7	99	38	13	0.0069	0.0071
Bunging Test	0/3	0/3	0/3	3/3	3/3	3/3	0/3	0/3	0/3
No. of samples above BG Standard // No. of Trotal Standard // No. of Trotal Standard // No. of Trotal	-	-	-	-	-	-	-	-	-
Totel	0/3	0/3	0/3	3/3	3/3	3/3	0/3	0/3	0/3
Nor olisamples eboys	0/3	0/3	0/3	3/3	-	-	0/3	1/3	0/3
WHO:Guideline//No.of Monitoring	-	-	-	-	-	-	-	-	-
Total	0/3	0/3	0/3	3/3	-	-	0/3	1/3	0/3

 Table 5.5.9 Summarized results of Observation Wells and holes in Pourshava exceeding Bangladesh standard and

 WHO guideline (7/12)

 Jh-2

JN-2										
Practical Quantit	ation Limit	0.02	0.1	0.08	0.2	0.5	0.05	0.05	0.005	0.005
WHO Guid	eline	3	1.5	0.5	0.3	-	-	200	0.01	0.02
Bangladesh S	tandard	1	0.5	0.1	1	75	35	200	0.05	0.1
Paramet	ter	NO2	NH <sub>4</sub>	Mn	Fe	Ca	Mg	Na	Pb	Ni
Minimum (n	ng/l)	<0.02	<0.1	<0.08	<0.2	26	23	14	<0.005	<0.005
Maximum (r	ng/l)	0.100	0.18	0.12	9.2	98	39	21	0.0068	<0.005
Arithmetic Avarage asso Thas POL value	(mg/l)	0.030	0.12	0.089	3.0	56	33	16	0.0052	<0.005
Logarithminc Avarage as has PQLivalue	suming <pql data<br="">(mg/l)</pql>	0.024	0.12	0.088	1.5	48	33	16	0.0052	<0.005
No. of samples above BG Standard / No.of. Total	Pumping Test	0/2	0/2	0/2	2/2	2/2	2/2	0/2	0/2	. 0/2
Standard / No tof Total samples	Monitoring	0/6	0/6	1/6	3/6	1/6	3/6	0/6	0/6	0/6
	Total	0/8	0/8	1/8	5/8	3/8	5/8	0/8	0/8	. 0/8
No. of samples above	Pumping Test	0/2	0/2	0/2	2/2	-	-	0/2	0/2	0/2
WHO Guideline / No. of	Monitoring	0/6	0/6	0/6	5/6 ,	-	-	0/6	0/6	0/6
Total samples	Total	0/8	0/8	0/8	7/8	-	-	0/8	0/8	0/8

### Table 5.5.9 Summarized results of Observation Wells and holes in Pourshava exceeding Bangladesh standard and WHO guideline (8/12) Jh-2-4

<b>Practical Quantitation Li</b>	mit	0.02	0.1	0.08	0.2	0.5	0.05	0.05	0.005	0.005
WHO Guideline		3	1.5	0.5	0.3	-	-	200	0.01	0.02
Bangladesh Standard	1	1	0.5	0.1	1	75	35	200	0.05	0.1
Parameter		NO <sub>2</sub>	NH <sub>4</sub>	Mn	Fe	Ca	Mg	Na	Pb	Ni
Minimumi(mg/I) A	100 Contract 20 19 19	<0.02	<0.1	<0.08	0.47	25	29	22	<0.005	<0.005
4		0.26	0.11	0.72	3.0	90	31	48	0.012	<0.005
Arithmetic Avarage assuming <p has PQL value (mg/l)</p 		0.18	0.10	0.39	1. <del>9</del>	66	30	35	0.0072	<0.005
Logarithmine Avarage assuming < has PQL value (mg/l)	PQL data	0.11	0.10	0.28	1.5	_ 57	30	34	0.0066	. <0.005
Pumpi	ing Test	0/3	0/3	2/3	2/3	2/3	0/3	0/3	0/3	0/3
No. of samples above BG Standard (No. of Tota) Samples	itoring	-	-	-	-	-	-	-	-	-
	otalist	0/3	0/3	2/3	2/3	2/3	0/3	0/3	0/3	0/3
No: of samples above	ing Test	0/3	0/3	1/3	3/3	-	-	0/3	1/3	0/3
	itoring	-	-	-	-	-	-	-	-	-
	otal	0/3	0/3	1/3	3/3	-	-	0/3	1/3	0/3

 Table 5.5.9 Summarized results of Observation Wells and holes in Pourshava exceeding Bangladesh standard and WHO guideline (9/12)

Practical Quan	titation Limit	0.02	0.1	0:08	0.2	0.5	0.05	0.05	0.005	0.005
WHO Gui	deline	3	1.5	0.5	0.3	-	-	200	0.01	0.02
Bangladesh	Standard	1	0.5	0.1	1	75	35	200	0.05	0.1
Param		NO <sub>2</sub>	NH₄	Mn	Fe	Ca	Mg	Na	Pb	Ni
Minimum	(mg//)	<0.02	<0.1	0.13	0.66	65	21	51	<0.005	<0.005
2Maximum	(mg∕l)	<0.02	0.28	1.2	13	84	33	66	<0.005	0.0071
Arithmetic Avarage as	suming <b>KPQL</b> data	<0.02	0.16	0.66	7.5	77	28	56	<0.005	0.0053
Logarithmine Avarage data has PQL	/alue (mg/l)	<0.02	0.15	0.53	5.8	77	27	56	<0.005	0.0053
en se an	Pumping Test	0/2	0/2	2/2	1/2	2/2	0/2	0/2	0/2	0/2
No. of samples above BG Standard / No. of Total samples	Monitoring	0/5	0/5	5/5	5/5	3/5	0/5	0/5	0/5	0/5
<b>(4k</b> )	Total .	0/7	0/7	7/7	6/7	5/7	0/7	0/7	0/7	0/7
No. of samples above WH©	Pumping Test	0/2	0/2	0/2	2/2	-	-	0/2	0/2	0/2
Guideline / Not of	Montorina	0/5	0/5	5/5	5/5	-	-	0/5	0/5	0/5
<b>Total s</b> amples	াত্রনা	0/7	0/7	5/7	7/7	-	-	0/7	0/7	0/7

### Table 5.5.9 Summarized results of Observation Wells and holes in Pourshava exceeding Bangladesh standard and WHO guideline (10/12)

Practical Quant	itation Limit	0.02	0.1	0.08	0.2	0.5	0.05	0.05	0.005	0.005
WHO Gui	deline	3	1.5	0.5	0.3	-	-	200	0.01	0.02
Bangladesh	Standard	1	0.5	0.1	1	75	35	200	0.05	0.1
Paramo	ətər	NO2	NH₄	Mn	Fe	Ca	Mg	Na	Pb	Ni
Minimum	(me/1)	<0.02	0.11	<0.08	<0.2	9.76	16.14	64.79	<0.005	<0.005
Maximum		<0.02	0.14	1.3	4.7	80	21	83	<0.005	<0.005
	ie (mg/l)	<0.02	0.13	0.68	2.7	56	19	71	<0.005	<0.005
Logarithminc, Avarage assuming < PQL & data has PQL value (mg/l)		<0.02	0.13	0.41	1.4	40	19	71	<0.005	<0.005
No of samples above	Runping Desc.	0/3	0/3	2/3	2/3	2/3	0/3	0/3	0/3	0/3
iner orsemptes above BE Stement / No. of Potel semplos	Monitorine	-	-	-	· _	-	-	-	-	-
<u> </u>	Total	0/3	0/3	2/3	2/3	2/3	0/3	0/3	0/3	0/3
	Pumping Test	0/3	0/3	2/3	2/3	-	-	0/3	0/3	0/3
eliove WHO Evitelitie/No. of	Monftonlar	-	_	-	-	-	-	-	-	-
হোল্লেন্ড প্ৰাৰ্থনি	Total	0/3	0/3	2/3	2/3	-	-	0/3	0/3	0/3

Table 5.5.9 Summarized results of Observation Wells and holes in Pourshava	exceeding Bangladesh standard
and WHO guideline (11/12)	-
	•

Js-2				_				•		
Practical Quant	titation Limit	0.02	0.1	0.08	0.2	0.5	0.05	0.05	0.005	0.005
WHO Gui	deline	3	1.5	0.5	0.3	-	-	200	0.01	0.02 ·
Bangladesh	Standard	1	0.5	0.1	1	75	35	200	0.05	0.1
Param	ətər	NO <sub>2</sub>	NH₄	Mn	Fe	' Ca	Mg	Na	Pb	Ni
Minimum	(mg/l)	<0.02	<0.1	0.13	0.86	67	23	67	<0.005	<0.005
Maximum	(mg/l)	0.31	0.38	2.3	15	82	36	80	<0.005	<0.005
Antomene Avalage as Anton PQL val	ue (mg/l)	0.068	0.22	0.79	8.4	75	29	77	<0.005	<0.005
Logarithminc, Avarage, assuming <pql data has PQL value (mg/))</pql 		0.032	0.18	0.55	5.8	75	29.	77	<0.005	<0.005
	Pumping Test	0/2	0/2	2/2	1/2	0/2	0/2	0/2	0/2	0/2
No. of samples above BG Standard / No. of Total samples	Monitoring	0/4	0/4	4/4	4/4	3/4	1/4	0/4	0/4	0/4
	Total	0/6	0/6	6/6	5/6	3/6	1/6	0/6	0/6	0/6
No. of samples	Pumping Test	0/2	0/2	0/2	2/2	-	-	0/2	0/2	0/2
above WHO Guideline / No. of	Monitoring	0/4	0/4	4/4	4/4	-	-	0/4	0/4	0/4
Total samples	.Total :	0/6	0/6	4/6	6/6 ·		-	0/6	0/6	0/6

Table 5.5.9 Summarized results of Observation Wells and holes in Pourshava exceeding Bangladesh standard
and WHO guideline (12/12)

Practical Quan	itation Limit	0.02	0.1	0.08	0.2	0.5	0.05	0.05	0.005	0.005
WHO Gui	deline	3	1.5	0.5	0.3	-	-	200	0.01	0.02
Bangladesh	Standard	1	0.5	0.1	1	75	35	200	0.05	0.1
Param	eter	NO <sub>2</sub>	NH₄	Mn	Fe	Ca	Mg	Na	Pb	Ni
Minimum	(mg/l)	<0.02	<0.1	0.19	2.0	43	22	77	<0.005	<0.005
Maximum	(mg/l)	0.040	<0.1	0.29	3.4	70	23	160	<0.005	0.012
Arithmetic Avarage as	suming <pql data<br="">ue (mg/l)</pql>	0.027	<0.1	0.22	2.7	59	23	106	<0.005	0.0072
Logarithminc Avarag	alue (mg/l)	0.025	<0.1	0.22	2.7	58	23	100	<0.005	0.0066
<b>BRACKS</b>	Pumping Test *	0/3	0/3	3/3	3/3	0/3	0/3	0/3	0/3	0/3
No. of samples above BG Standard / No. of Total samples		-	-	-	-	-	-	-	-	-
	Total	0/3	0/3	3/3	3/3	0/3	0/3	0/3	0/3	0/3
Noxof samples	Pumping Test	0/3	0/3	0/3	3/3	-	-	0/3	0/3	0/3
	Noniconic.	-	-	-	-	-	-	-	-	-
Guideline//No. of Totalisamples	and a lotal and	0/3	0/3	0/3	3/3	-	-	0/3	0/3	0/3

Table 5.5.10 Sum	narized results of Observation Wells and holes In Model Rural Areas exceeding Bangladesh
standard and WHO	) guideline (1/3)
Ch-CB	

n-CB										
Practical Quant	itation Limit	0.02	0.1	0.08	0.2	0.5	0.05	0.05	0.005	0.005
WHO Gui	deline	3	1.5	0.5	0.3	-	-	200	0.01	0.02
Bangladesh	Standard	1	0.5	0.1	1	75	35	200	0.05	0.1
Parame	əter	NO <sub>2</sub>	NH₄	Mn	Fe	Ca	Mg	Na	Pb	NI
Minimum (	mg/])	<0.02	0.72	<0.08	0.79	35	23	14	<0.005	<0.005
Maximum	(mg/l)	<0.02	1.8	0.51	15	110	43	27	<0.005	0.012
Arithmetic:Avarage as		<0.02	1.2	0.28	4.9	85	30	20	<0.005	0.0062
Logarithmine: Avarage assuming < PQL - Constant as PQL value (mg/l)		<0.02	1.1	0.22	3.4	80	29	19	<0.005	0.0059
susations the second	Pumping Test	-	_	-	-	-	-	-	-	-
No. of samples above BG Standard / No. of		0/7	7/7	5/7	6/7	5/7	1/7	0/7	0/7	0/7
Total samples	Tótál 🚛	0/7	7/7	5/7	6/7	5/7	1/7	0/7	0/7	_ 0/7
No. of samples	Pumping Test		-	-	1	-	-	-	-	-
above WIH© Guideline //No_of	Monitoring	0/7	1/7	1/7	7/7	-	-	0/7	0/7	0/7
<b>Sa Toleks</b> amples	(iota)	0/7	1/7	1/7	7/7	-	-	0/7	0/7	0/7

Table 5.5.10 Summarized results of Observation Wells and holes in Model	Rural Areas exceeding Bangladesh
standard and WHO guideline (2/3)	

Jh-CB								•	
Practical Quantitation Limit	0.02	0.1	0.08	0.2	0.5	0.05	0.05	0.005	0.005
WHO Guideline	3	1.5	0.5	0.3	-	-	200	0.01	0.02
Bangladesh Standard	1	0.5	0.1	1	75	35	200	0.05	0.1
Parameter	NO2	NH₄	Mn	Fe	Ca	Mg	Na	Pb	Ni
. k	<0.02	<0.1	<0.08	0.20	4.3	1.5	19	<0.005	<0.005
Maximum (mg/l)	<0.02	1.6	0.28	5.3	130	29	200	<0.005	0.010
Arithmetic Avarage assuming (PQL) data has PQL Value (mg/l)	<0.02	0.95	0.15	2.6	95	22	62	<0.005	0.0060
Logarithmine Avarage/assuming KPQLs data-has PQL-value((mg/l)	<0.02	0.62	0.14	2.0	68	16	41	<0.005	0.0058
Rumping Trest	-	-	-	-	-	-	-	-	-
No officiandas above BC Standard / No officianda Montoring	0/7	5/7	5/7	6/7	5/7	0/7	1/7	0/7	0/7
Total	0/7	5/7	5/7	6/7	5/7	0/7	1/7	0/7	0/7
(No. citisamples (No. citisamples (No. citisamples (No. citisamples (No. citisamples (No. citisample))))))))))))))))))))))))))))))))))))	-	-	-	-	-	-	-	-	-
	0/7	2/7	0/7	6/7	-		1/7	0/7	0/7
ি তিবেয়া প্রহালকার্যন্ত বিবেয়া	0/7	2/7	0/7	6/7	-	-	1/7	0/7	0/7

Table 5.5.10 Summarized results of Observation Wells and holes in Model Rural Areas exceeding Bangladeshstandard and WHO guideline (3/3)Js-CB

JS-CB										
Practical Quant	itation Limit	0.02	0.1	0.08	0.2	0.5	0.05	0.05	0.005	0.005
WHO Gui	deline	3	1.5	0.5	0.3	-	-	200	0.01	0.02
Bangladesh	Standard	1	0.5	0.1	1	75	35	200	0.05	0.1
Parame	eter	NO2 ·	NH4	Mn	Fe	Ca	Mg	Na	Pb	NI
Minimum	(mg/l)	<0.02	<0.1	<0.08	<0.2	20	14	86	<0.005	<0.005
Maximum	(mg/l)	2.2	1.1	0.20	0.70	27	17	140	<0.005	0.037
Arithmetic Avarage as has PQL value	suming <pql;data ue (mg/l) {</pql;data 	0.78	0.36	0.10	0.33	24	16	103	<0.005	0.011
/ Logarithmine Avarage	Logarithmine Avarage, assuming (PQL data has PQL value (mg/l)		0.22	0.094	. 0.30	24	16	102	<0.005	0.0075
	Pumping Test	-	-	-	-	-	-	-	-	-
No. of samples above BG Standard / No. of Total samples	Monitoring	2/7	2/7	1/7	0/7	0/7	0/7	0/7	0/7	0/7
rota sampica	Total	2/7	2/7	1/7	0/7	0/7	0/7	0/7	0/7	0/7
No of samples	Pumping Test	-	-	-	-	-	-	-	-	-
above WHO	Monitoring	0/7	0/7	0/7	3/7	-	-	0/7	0/7	1/7
Total samples	Total	0/7	0/7	0/7	3/7	-	-	0/7	0/7	1/7

Practicat Cuantitation         0         0 Deg/c         0.02         0.13         0.20         0.03         0.05         0.0	I adie 5.5.11 Results of Improved Wells exceeding Bangladesn standard and WHU guideline	anu vyno guidei									
Wrond cutative         :	0.13 0.2 0.02 0.1 0.08 5	20	0.05 0.05	0.1 0.1	0.0015	0.025	0.005 0.	0.01 0.005	0.001	0.005	0.005
Bandpatteric Standard         6.5-9.5 $\cdot$ $\cdot$ $200-500$ $100$ $1$ $000$ $1$ $000$ $75$ $33$ $33$ $1$ $100$ $1$ $100$ $10$ $100$ $17$ $330$ $11$ $100$ $100$ $75$ $336$ $330$ $110$ $100$ $100$ $17$ $200$ $100$ <	50 3 1.5 0.5 250	•	- 200	- 1.5	0.003	•	2	0.07 0.01	0.001	0.02	۳ ۳
Parameter         pH         Temp         EC         barrenes         TDS         NO4         NO4         NO4         SO4         Fe         CI         HCO4         Ca         M6           Matrix         679         3.0         47.3         256 $9.02$ $9.01$ $9.06$ $56$ $9.02$ $9.01$ $9.06$ $56$ $30$ $67$ $30$ $66$ Matrix         734         734         734         734         734         734         736         73 <th>1000 10 1 0.5 0.1</th> <th>600</th> <th>35 200</th> <th>12 1</th> <th>0.005</th> <th>0.05</th> <th>-</th> <th>0.1 0.05</th> <th>0.05</th> <th>0.1</th> <th>5 S</th>	1000 10 1 0.5 0.1	600	35 200	12 1	0.005	0.05	-	0.1 0.05	0.05	0.1	5 S
	TDS NO3 NH4 Mn SO4	HCO	Mg Na	H K	8	Ⴆ	0 70	PP CN	BH	Ņ	Zn Zn
Maximum (Tega)         746         31.3         64.9         164         6.5         6.4         6.46         6.5         6.4         13         6.17         130         130         301	256 <0.2 <0.02 <0.1 <0.08 <5	296	16 6.8	2.8 0.15	<0.0015	<0.025	<0.005 <0	<0.01 <0.005	<0.001	<0.005	<0.005
Control Contrecontecteo Contrelative Control Control Control Control Control Co	608 3.8 2.5 8.4 0.46 <5	557		8.6 0.49	<0.0015	₫.025	0.015 0.0	0.025 0.015	<0.001	0.010	0.176
Opposition         Opposition         Total	399 1.0 0.33 2.1 0.17 <5	396		4.6 0.34	<0.0015	<0.025	0.0054 0.0	0.012 0.0057	<0.001	0.0057	0.030
Other reserves         Other r	389 0.51 0.047 1.1 0.14 <5	366		4.4 0.32	<0.0015	<0.025 (	0.0052 0.012	12 0.0055	<0.001	0.0055	0.012
Matrix Sector         Matritexecor         Matrix Sector         Matrix Se	0112 0112 3112 8112 12112 0112	0/12 0/12	0/12 0/12	0/12 0/12	0/12	0/12	0/12 0/	0/12 0/12	0/12	0/12	0/12 0/12
Harris         Constrained         012         -         012         013         013         014         014         013         013         014         013 <t< th=""><th>012 012 012 1212 712 012</th><td>0/12 0/12</td><td>0/12 0/12</td><td>0/12 0/12</td><td>0/12</td><td>0/12</td><td>0/12 0/</td><td>0/12 0/12</td><td>0/12</td><td>0/12</td><td>0/12 4/12</td></t<>	012 012 012 1212 712 012	0/12 0/12	0/12 0/12	0/12 0/12	0/12	0/12	0/12 0/	0/12 0/12	0/12	0/12	0/12 4/12
Activity         Contraction         Order         -         -         Order         Order         Carden         Order         Carden         Order         Carden	0112 012 312 8/12 4/12 0/12	0/12	0/12 0/12	0/12 0/12	0/12	0/12	0/12 0/	0/12 0/12	0/12	0/12	0/12 1/12
Constraints         - <th< th=""><th>0/36 0/36 6/36 28/36 23/36 0/36</th><td>0/36</td><td>0/36 0/36</td><td>0/36 0/36</td><td>0/36</td><td>0/36</td><td>0/36 0/</td><td>0/36 0/36</td><td>0/36</td><td>0/36</td><td>0/36 5/36</td></th<>	0/36 0/36 6/36 28/36 23/36 0/36	0/36	0/36 0/36	0/36 0/36	0/36	0/36	0/36 0/	0/36 0/36	0/36	0/36	0/36 5/36
amplet above WHO is remarked. The first Novol Joint is remarked. Samplet Novol Joint is reserved. Samplet Novol Joint Novol Joint is reserved. Samplet Novol Joint Novol J	0/12 0/12 6/12 0/12 0/12	0/12 -	- 0/12	- 0/12	0/12	•	0/12 0/	0/12 1/12	0/12	0/12	0/12
stampes 10 10 10 10 10 10 10 10 10 10 10 10 10	0/12 0/12 8/12 0/12 0/12	0/12 -	- 012	- 0/12	8	•	0/12 0/	0/12 0/12	0/12	0/12	0/12
	0/12 0/12 6/12 0/12 0/12	١	- 0/12	- 0/12	0/12	-	0/12 0/	0/12 1/12	0/12	0/12	0/12
	0/36 0/36 20/36 0/38 0/35	•	- 0/36	- 0/36	0/36	•	0/36 0/	0/36 2/36	0/36	0/36	0/36

Table 5.5.12 Results of Existing wells exceeding Bang	s of E	xistiı	N Bu	'ells e:	KCeel	ding (	Bang		sh sta	indar	đan	HM P	ng O	adesh standard and WHO guideline	Je												
1 - Charles Practical Quantitation Limit 2010	•	0 Deg C	0.02	0.5	0.13	0.2	0.02	0.1	0.08	s	0.2	0.6	20	0.5	0.05	0.05	0.1	0.1	0.0015	0.025	0.005	0.01	0.005	0.001	0.005 0	0.005	20
WHO Guideline	•	•	·	•	1000	50	3	1.5	0.5	250	0.3	250	•	•	•	200		1.5	0.003		2	0.07	0.01	0.001	0.02	3	,
Bangladesh Standard	6.5-8.5	-	•	200-500	1000	10	F	0.5	0.1	400	1	600	600	75	35	200	12	-	0.005	0.05	-	0.1	0.05	0.05	0.1	5	4
Parameter	Ha	Temp	EC	Hardness	SQL	50N	NO <sub>2</sub>	ΫHŇ	Mn	so,	Fe	Ū	HCO.	ß	ВМ	Na	¥	L.	8	ັບ	ŋ	CN CN	qd	ВH	ž	ុ ភ	8
A STATE OF A COMMUNICATION OF A STATE OF A ST	6.20	23.9	26.6	48.1	170	<0.2	<0.02	<0.1	<0.08	¥	40.2	0.71	200	13	6.1	1.5	0.81	0.20	<0.0015	<0.025	<0.005	<0.01	<0.005	<0.001	<0.005 <	<0.005	Ş
and the second	8.30 11	39.92	258	193	1650	180	4.2	20	1.5	46	7	570	720	160	45	400	8.9	1.7	0.0079	0.22	0.0086	0.018	0.047	<0.001	0.069	0.10	8
Ammeric Average securing spottage its	7.06	24.8	82	113	525	4.5	0.39	5.0	0.50	7.6	2.0	39	402	89	24	45	2.9	0.53	0.0021	0.069	0.0051	0.011	0.0078	40.001	0.014 0	0.014 2	25.5
Logarithmine Average survive stellage	20.7 2	24.8	76.6	103	488	0.64	0.055	1.6	0.39	6.2	1.3	11	392	z	33.	21	2.6	0.47	0.0018	0.046	0.0051	0.011	0.0063	<0.001 C	0.0087 0.	0.0088	22.7
A GALLER   GLUNELLER	1/30	,	•	0030	2/30	3/30	5/30	02/6	25/30	0/30	13/30	06/0	1/30	23/30	2/30	1/30	0/30	4/30	5/30	21/30	0/30	05/0	0(30	0/30	0(30	0(30	4/30
Schräftig ANG, OF OCT DAY SECON	0/30		1	0/30	2/30	0(30	2/30	30/30	30/30	0(30	26/30	0/30	1/30	24/30	1/30	2/30	0(30 -	3/30	0(30	0(30	0(30	0/30	020	0/30	0(30	0/30	5/30
	0,60	-	<u>.</u>	0/80	4/60	3/60	7/60	39/60	55/60	0/60	39/60	0/60	2/60	47/60	3/60	3/60	0/60	7/60	5/60	21/60	0/60	0%0	0,60	09/0	0,60	0/60	9/60
	ı İX	,	,	•	2/30	1/30	3/30	06/2	10/30	06/0	23/30	1/30	•	,	•	1/30	,	0(30	8/30		05/0	0(30	4/30	0(30	14/30 (	06/0	
VONDALINDE A COLEVATED (3V) SETTED		•	•	•	2/30	020	1/30	30/30	13/30	0/30	28/30	1/30		•		2/30	·	1/30	0/30		0/30	06/0	6/30	0/30	0/30	0(30	
For the second se		,			4/60	1/60	4/60	37/60	23/60	0900	52/60	2/60	•	•	•	3/60		1/60	6/60		0,60	0,60	10/60	09/0	14/60 (	0/60	

Table 5.5.13 Results of Existing Wells in Model Rural Areas exceeding Bangladesh standard and WHO guideline

3		4	COD	R	4	25	24	0/5	3/5	1/5	4/15		 : • !	•	
0.005	•	5	ង	<0.005	0.0051	0.0050	Ó.0050	0/5	g	SS	0/15	0/5	0/5	0/5	0/15
0.005	0.02	0.1	ŝ	<0.005	0.029	0.011	0.0087	0/5	92	0/5	0/15	1/5	1/5	1/5	3/15
0.001	0.001	0.05	Нg	<0.001	<0.001	<0.001	<0.001	0/5	015 015	0/2 ·	0/15	0/5	0/5	62	0/15
0.005	0.01	0.05	Pb	<0.005	0.014	0.0066	0:0060	0/5	62	0/5	0/15	1/5	15	05	2/15
0.01	0.07	0.1	CN	<0.01	0.016	0.011	0.011	0/5	G/5	0/5	0/15	0/5	0/5	8/2	0/15
0.005	2	1	Сu	<0.005	0.032	0.0080	0.0065	0/5	0/5	0/5	0/15	0/5	0/5	0/5	0/15
0.025	•	0.05	ç	<0.025	0.066	0.030	0.028	1/5	1/5	0/5	2/15	•	,		
0.0015	0.003	0.005	8	<0.0015	<0.0015	<0.0015	<0.0015	0/5	02	0/5	0/15	0/5	0/5	0/5	0/15
0.1	1.5	1	F	<0.1	0.59	0.38	0.35	0/5	0/5	0/5	0/15	0/5	0/5	, 0/5	0/15
0.1	•	12	×	1.2	8.2	4.4	3.9	0/5	0/5	0/5	0/15	•	,	•	-
0.05	200	200	Na	6.5	410	120	36	0/5	0/5	5/5	51/5	0/5	0/5	5/5	5/15
0.05	•	35	BW	13	47	30	28	0/5	0/5	5/5	5/15	•	•		•
0.5	1.	75	Ga	61	120	96	88	5/5	5/5	5/5	15/15	•	•	-	•
8	•	600	HCO,	350	757	482	471	0/5	0/5	2/5	2/15	•	,	-	•
9.0	250	600	ច	1.3	540	140	23	0/5	0/5	0/5	0/15	0/5	0/5	5/5	5/15
07	0.3	•	Fe	0.31	8.2	. 2.2	1.5	3/5	<b>7</b> 2	4/5	9/15	5/5	5/5	5/5	15/15
ŝ	250	400	so,	<5	14	5.7	5.4	0/5	0/S	0/5	0/15	0/5	0/5	0/5	0/15
0.08	0.5	0.1	Mn	<0.08	1.1	0.36	0.20	. 5/2	52	0/5	7/15	4/5	0/2	0/5	4/15
0.1	1.5	0.5	NH4	€0.1	27	4.4	1.5	1/5	5/5	5/5	11/15	. 1/5	5/2	5/5	11/15
0.02		1	NO2	<0.02	4.0	0.84	060.0	4/5	0/5	0/5	4/15	275	0/2	0/5	2/15
2	33	10	NO	<0.2	23	4.4	0.75	3/5	1/5	0/5	4/15	0/2	0/2	0/5	0/15
0.13	<u>8</u>	1000	son a	317	1710	800	649	0/2	0/2	5/2	5/15	0/5	0/5	5/5	5/15
0.5	•	200-500	Hardness	98.5	155	128	127	0/5	S	0/2	0/15	•	•	•	•
0.02		ŀ	EC	49.6	267	125	101	•	•	•	•		'	-	
O Deg C	•		Temp	23.0	25.3	24.2	24.2		•	•	•	•	,	•	•
•		6.5-8.5	Hd	6.87	7.29	7.08	2.08	0/2	SS	ß	0/15	1	•	•	-
Practical Quantitation Limit	WHO Guideline	Bangladesh Standard	Parameter					Gurn nue	oloisemples above BG	suppose of the second second second second second second second second second second second second second second		Carne Statistica	sol samples above WHO acihenarcank		

Table 5.5.14. Results of Dond Water in the Model Rural Areas exceeding Bandladesh standard and WHO guideline

			þ	. 0		-	_	57	
50	•	4	00 C0	5 20	82	34	53	10/27	۱ 
0.005	3	5	ភ	<0.005	0.011	0.0055	0.0054	0/27	0/27
0.005	0.02	0.1	ĩ	<0.005	0:0090	0.0057	0.0056	0/27	0/27
0.001	0.001	0.05	Bн	<0.001	<0.001	<0.001	<0.001	0/27	0/27
0.005	0.01	<b>50</b> .0	qd	<0.005	110.0	0:0052	0.0051	0/27	1/27
0.01	0.07	0.1	CN	<0.01	0.052	0.020	0.018	0/27	0/27
0.005	2	ł	Cu	<b>\$00.0</b> 5	0/00.0	0.0051	0.0051	0/27	0/27
0.025	•	0.05	ŗ	<0.025	<0.025	<0.025	<0.025	0/27	•
0.0015	0.003	0.005	cd	<0.0015	<0.0015	<0.0015	<0.0015	0/27	0/27
0.1	1.5	۱	Ľ	0.26	3.6	0.83	0.59	7127	5/27
0.1	-	12	ĸ	2.0	62	12	1.1	5/27	1
0.05	200	200	Na	2.7	46	24	19	0/27	0/27
0.05	-	35	BM	0.20	17	9.0	7.1	0/27	ı
,0.5	-	75	ß	14	55	29	28	0/27	ı
20	-	600	HCO	67.8	256	161	155	0/27	ı
0.6	250	600	C	2.3	67	22	13	0/27	0/27
0.2	0.3	١	Fe	<0.2	<0.2	<0.2	<0.2	0/27	0/27
5	250	400	so.	۶	8.0	6.0	5.9	0/27	0/27
0.08	0.5	0.1	Mn	<0.08	0.16	0.085	0.084	2127	0/27
0.1	1.5	0.5	*HN	<0.1	4.8	0.68	0.44	9/27	2/27
0.02	3	1	ZON	<0.02	6.6	0.64	0.084	3/27	2/27
0.2	50	10	"ON	<0.2	42	4.5	1.1	4/27	0/27
0.13	1000	1000	SOT	71.1	618	250	229	0/27	0/27
0.5	•	200-500	Hardness	16.6	75.0	37.5	35.4	0/27	,
0.02	•	-	EC	11.1	96.6	39.0	35.7		1
0 Deg C	•	'	Тетр	21.9	24.3	23.4	<b>2</b> 3.4		,
o,	•	6.5-8.5	Ħ	6.97	7,95	7.46	7.48	0/27	,
Practical Quantitation Limit	WHO Guideline	Bangladesh Standard	Parameter		(hunding)	'norsANTEDELECTIONS SECTEMEN Sectores Contractores Sectores Sec	າທີ່ການກອງບານເຊິ່ງເປັນເຊິ່ງ (ກອງການ ເມື່ອງເຊິ່ງ (ກອງການເຊິ່ງ (ກອງການເຊິ່ງ (ກອງການ	៨៖ ហារីយនិយាខិចនា ក្រភូមិ ស្មែរី ព្រឹងផ្លូវ	oter maler, above Will of etrats movillo

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5-245

Deep wells (300m in depth) – Explanation of samples containing general water quality parameters Table 5.5.15(1/2)

### exceeding standard values

Samples taken from deep groundwater observation holes/wells in Pourashava and deep groundwater observation holes in model villages

Ŀ					No of camples	
	ltem	Standard value (mg/l)	llue (mg/l)	Remarks	exceeding the standard	Conditions of occurrence
	ĊN	Bangladesh	-	•The Bangladesh value is lower than the WHO value. •The WHO quideline value is based on health	2	Sporadically found in observation holes of model village in Jessore.
	202	OHW	ო	impact	0	
		Bangladesh	0.5	• The Bangladesh value is lower than the WHO value.	17	Continually found in observation holes of model villages in Jhenaidah and
	NH <sup>3</sup>	OHM	(1.5)	not been set. The standard (1.5mg/l) is based on a level that is likely to give rise to complaints due to taste, odor, etc.	3	Sporadically found in other observation wells/holes.
	. W	Bangladesh	0.1	<ul> <li>The Bangladesh value is lower than the WHO value.</li> <li>The WHO guideline value of 0.5mg/l is a</li> </ul>	50	Sporadically found in observation holes of the model villages in Chuadanga. Continually found in other observation
		ОНМ	0.5	health- based value; a standard of 0.1mg/l has been set based on a level likely to give rise to complaints due to taste, odor , etc.	15	wells/holes.
	, c	Bangladesh	-		67	Continually found in all observation wells/holes
	U -	ОНМ	(0.3)	to taste, odor, etc.	79	
l						

The WHO guideline values placed in "()" are levels likely to give rise to complaints due to taste, odor, etc. The others are health-based guideline values. Deep wells (300m in depth) - Explanation of samples containing general water quality parameters exceeding standard values Table 5.5.15(2/2)

Samples taken from deep groundwater observation holes/wells in Pourashava and deep groundwater observation holes in model villages

	Standard value (mg/l) Bangladesh 75 WHO - Bangladesh 35 WHO -	alue (mg/l) 75  35 	Remarks •A WHO guideline value based on health has not been set. •A WHO guideline value based on health has not been set.	No. of samples exceeding the standard 52 - 16 -	Conditions of occurrence Continually found in all observation wells/holes. Distributed in concentration areas in observation wells of Jhenaidah.
	Bangladesh WHO	200	•A WHO guideline value based on health has not been set.	-	Only found in one sample from an observation hole in a model village in Jhenaidah.
ang V	Bangladesh WHO	0.05 0.01	<ul> <li>The Bangladesh standard is higher than the WHO value</li> <li>A WHO guideline value based on health has been set.</li> </ul>	о к	Sporadic.
gne   >	Bangladesh WHO	0.1 0.02	<ul> <li>The Bangladesh standard is higher than the WHO value</li> <li>A WHO guideline value based on health has been set.</li> </ul>	0 +	Only found in one sample from an observation hole in a model village in Jessore.
	Bangladesh WHO	4 -	•A WHO guideline value based on health has not been set.	13	Sporadic.

Deep wells (300m in depth) – Explanation of samples containing general water quality parameters exceeding standard values Table 5.5.16

Samples taken from deep groundwater observation holes/wells in Pourashava and deep groundwater observation holes in model villages

Item	Presumed method of treatment	Remarks
NO2	None in particular.	• Exceeds the Bangladesh standard but is less than 3mg/l, impact on human body is small
NH₃	None in particular.	No impact on the human body
Ŵ	Coagulating sedimentation by oxidizing agent (Cl <sub>2</sub> , KMnO₄) and filtering	<ul> <li>Considering water quality conditions in Bangladesh, it would be difficult to find groundwater sources with Mn levels less than 0.1mg/l.</li> <li>Removal of Mn is difficult. Removal by aeration without chemicals is less effective than for Fe</li> <li>The previously mentioned method could meet the standard of 0.5mg/l, but is economically and operationally difficult.</li> </ul>
а Ц	Aeration filtration	<ul> <li>There are many observation holes that continually exceed the Bangladesh standard but they do not impact health.</li> <li>With the previously mentioned method, many water sources are thought to be able to achieve iron levels of 1mg/l.</li> </ul>
Ca	Coagulating sedimentation by alkali treatment	<ul> <li>There are many observation holes that continually exceed the Bangladesh standard but they do not impact health.</li> <li>The previously mentioned treatment method would be economically and operationally difficult</li> </ul>
Mg	Coagulating sedimentation by alkali treatment	<ul> <li>There are observation wells in concentrated areas that exceed the Bangladesh standard but they do not impact health</li> <li>The previously mentioned treatment method would be economically and operationally difficult</li> </ul>
Na	None in particular.	-It is thought that complaints about the taste will arise but there is no impact on health.
q	Coagulating filtration	<ul> <li>Although levels slightly exceed the WHO value, they are not over the Bangladesh standard.</li> <li>Because of the low concentration, complete removal by treatment is difficult.</li> </ul>
ÏZ	Coagulation filtration	<ul> <li>Although levels slightly exceed the WHO value, they are not over the Bangladesh standard.</li> <li>Because of the low concentration, complete removal by treatment is difficult.</li> </ul>
COD	Biological treatment + nitrification and denitrification	•The high COD concentrations are because groundwater in Bangladesh is in a highly reducing state.

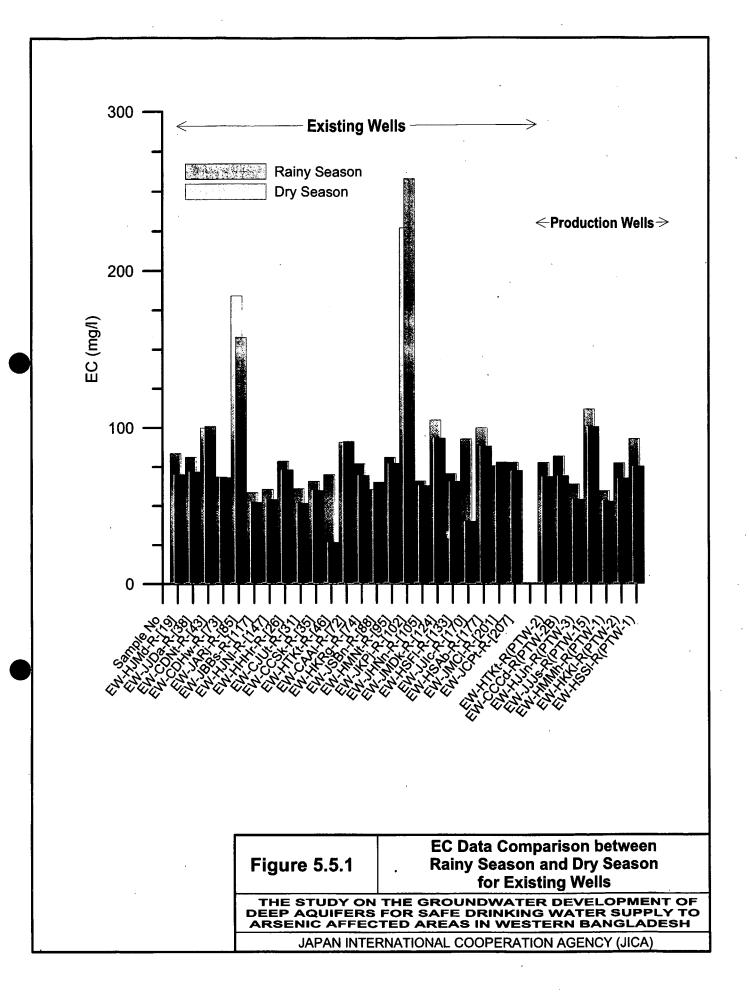
Table 5.5.17 Results of Observation Holes (Re-analysis)

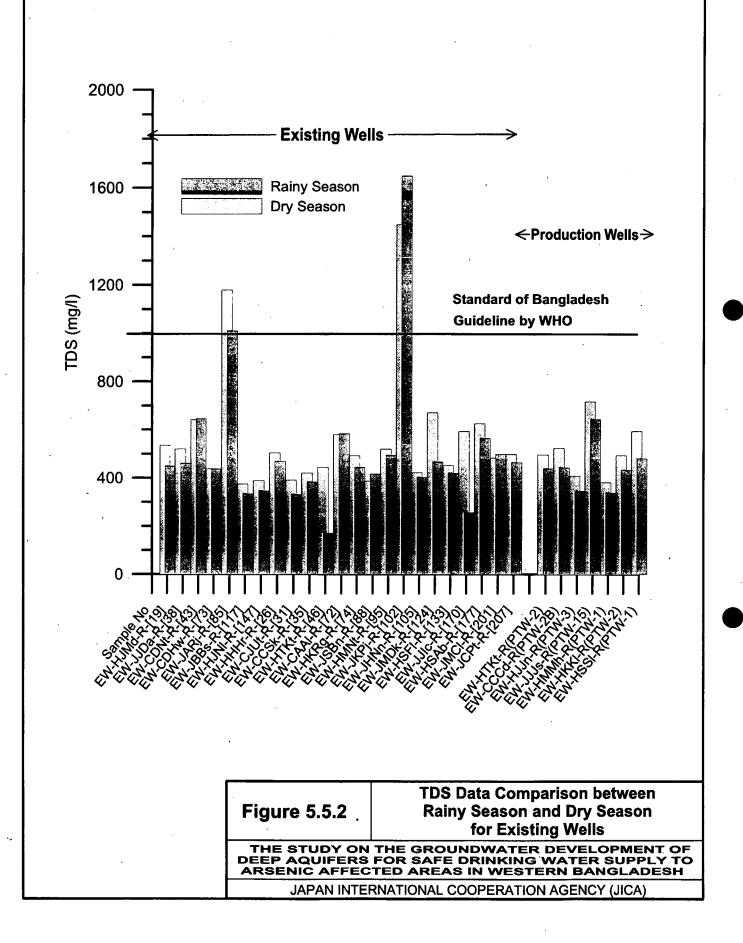
Sample No	Date	EC (mS/m)	Ηq	ORP(Eh) Temp(°C)	Temp(°C)
OH-JS1-4	15-Sep-02	8'89	7.14	2'82	26.2
#7251HO	15-Sep-02	90.2	7.16	4.17	26.3
CB-JSRb	16-Sep-02	66.1	7.47	94.4	26.3
OHJH24	13-Sep-02	\$' <b>7</b> 3	6.89	111	26.1
OH-CH1-4	14-Sep-02	87.2	7.14	70.5	26.2
OH-CH2-4	14-Sep-02	3.57	7.16	95.59	26.2
CB-CDBd	13-Sep-02	90.4	7.35	124	26.3

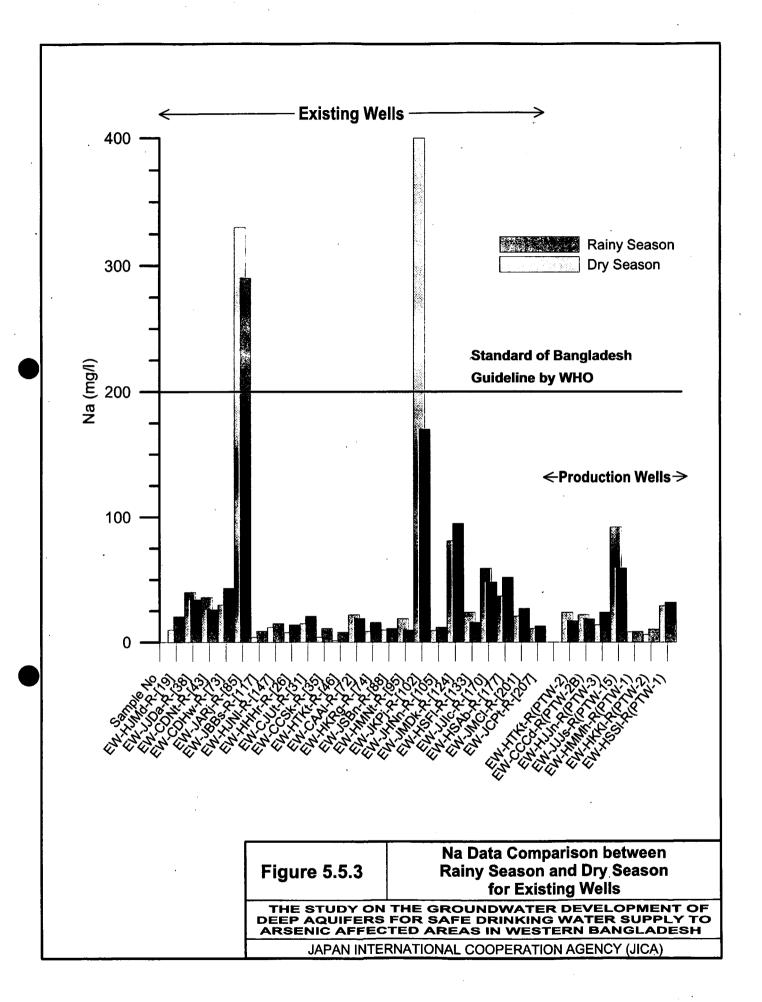
Analyte	Ha	Temperature	Temperature Conductivity Hardness	Hardness	TDS	Nitrate	Nitrita	Amortum	Disserted III	Suffette De	suchard P. C.	hioride Bi	icarbonate C	Described in Childride Bicarbonate Calcium Magnestum Sodium Potassium Fluoride Cadmium Total Cr	agnestum 5	odium P.	testion Fi	toride Cad	mtum Tot	al Cr Col	Copper Cyamide	ide Lead	d Mercury	y Nickel	Zinc	80	\$
Method	pH meter	Thermo meter	ConductMity	Standard	Standard Standard	ß	g	Q	FAAS	2	FAAS T	Titration	Ľ	FAAS F	FAAS	FAAS F	FAAS	SP	FAAS FA	FAAS FA	FAAS SP	FAAS	S FAS	5 FAAS	FAAS	Titration	FAAS
Practical Quantitation Limit			-	-	10	0.1	0.1	0.1	0.1	-	62	5	0.5	0.5	0.5	0.5	0.5 0	0.05 0.0	0.005 0.(	0.02 0.01	0.01	1 0.01	1 0.0005	5 0.06	0.01	R	0.001
Cat		Deg C	mS/m	mg CaCO <sub>J</sub> A	mg/L	mg/L	шgЛ	тgл	mg/L	mg/L	mg/L r	mg/L c	caco <sub>3</sub> 1	ug/L	Чđш	ug/L	ш Шауг	ug/L mg/L	у торг	ug/L mg/L	mg/L mg/L	ъ Бе ц	Ъ ш г	Лбш	л6 ш	тgл	шðГ
Sample No	Hđ	Тетр	EC	Hardness	TDS	NO,	NO2	NH4	-FW	so,	ę	U	+CO3	ũ	βŴ	Na	¥	с г	0 73	ა ა	Cu	đ	£	Z	ន	8	\$
OH-US1-4	7.4	22.5	81.9	310	470	Tod>	-PQL	-10d>	0.40	₽Ŏ	ŝi.	7.3	520	ŝ	32	ş	5.0	0.1 ₽	4 ₽0	4 AQL	<pol>Pol</pol>	k Por R	₽G	₽G	0.01	•	0.002
OH-IS2-4	7.3	22.5	81.9	300	510	₽QL	PQL	₽ØГ	0.30	Å	26	37	473	57	59	88	4.8	0.18 <p< td=""><td>POL P</td><td>4 ≁PQL</td><td>-POL -POL</td><td>d Ag R</td><td>₽ġ</td><td>₽G</td><td>0.02</td><td>~</td><td>. 0.002</td></p<>	POL P	4 ≁PQL	-POL -POL	d Ag R	₽ġ	₽G	0.02	~	. 0.002
CB-JSRb	7.8	22.5	62.3	140	320	PQL	1.7	<pql< td=""><td>₽qL</td><td>PQL</td><td>≤P`QL</td><td>18</td><td>360</td><td>R</td><td>ĸ</td><td>9</td><td>3.3</td><td>0.15 &lt;₽</td><td>4 ⊳or</td><td><pql <₽<="" td=""><td>4PQL 4PQL</td><td>¥ For</td><td>₽ ₽ L</td><td>₽G</td><td>0.02</td><td>s</td><td>₫</td></pql></td></pql<>	₽qL	PQL	≤P`QL	18	360	R	ĸ	9	3.3	0.15 <₽	4 ⊳or	<pql <₽<="" td=""><td>4PQL 4PQL</td><td>¥ For</td><td>₽ ₽ L</td><td>₽G</td><td>0.02</td><td>s</td><td>₫</td></pql>	4PQL 4PQL	¥ For	₽ ₽ L	₽G	0.02	s	₫
OH-JH2-4	7.1	525	75.8	420	450	PQL	PQL	d sod>	000	2	હ્યુ	1.4	463	8	32	ę	4.3	0.15 AP	POL	<pol <pol<="" td=""><td>or ≮Pol</td><td>₽0 F</td><td>L ₽</td><td>₽GL</td><td>0.05</td><td>ğ</td><td>0.011</td></pol>	or ≮Pol	₽0 F	L ₽	₽GL	0.05	ğ	0.011
OH-CH1-4	7.3	525	78.0	390	450	₽QL	PQL	0.2	OEO.	PQL	ŝk)	6.0	488	81	32	<b>8</b>	4.8	0.10 A	POL P	<pql <pql<="" td=""><td>or <pol< td=""><td>k Por Por</td><td>₽ ₽ ₽</td><td>₽</td><td>0.01</td><td>6</td><td>0.011</td></pol<></td></pql>	or <pol< td=""><td>k Por Por</td><td>₽ ₽ ₽</td><td>₽</td><td>0.01</td><td>6</td><td>0.011</td></pol<>	k Por Por	₽ ₽ ₽	₽	0.01	6	0.011
OH-CH2-4	7.4	525	72.6	380	430	₽GL	₽QL	0.1	0.30	Å	2.5.	42	454	7	8	15	4.5	spor ⊳	<pol <p<="" td=""><td>₽ ₽</td><td>40L 4POL</td><td>Ъ Б ц</td><td>L 4PQL</td><td>₽d</td><td>0.0 29</td><td></td><td>0.002</td></pol>	₽ ₽	40L 4POL	Ъ Б ц	L 4PQL	₽d	0.0 29		0.002
CB-CDBd	72	27.5	81.4	380	490	₽QL	PQL	0.4	₽Q	PoL	E.	12	20 20	ß	8	17	₹ 73	∳ ∳G	₽ġ	<pql <pql<="" td=""><td>or 4por</td><td>₽ ₽ ₽</td><td>₽ġ</td><td>PQL</td><td>0.18</td><td>₽</td><td>0.001</td></pql>	or 4por	₽ ₽ ₽	₽ġ	PQL	0.18	₽	0.001
			•					r (The val	Excess of WHO guideline Excess of Bangladesh Standard standard standard standard subjects of the standards before rounding off)	Ho guide 9 detern	line hined as	excee	ding the	Excess of Bangladesh Standard ie standards before rour	angladest. Irds bef	Standard	ding of	E	xss of both	Banglad	sh Standa	nd and W	Extended and the standard and WHO guideline of the standard and WHO guideline of the standard and WHO guideline of the standard standard and WHO guideline of the standard s				

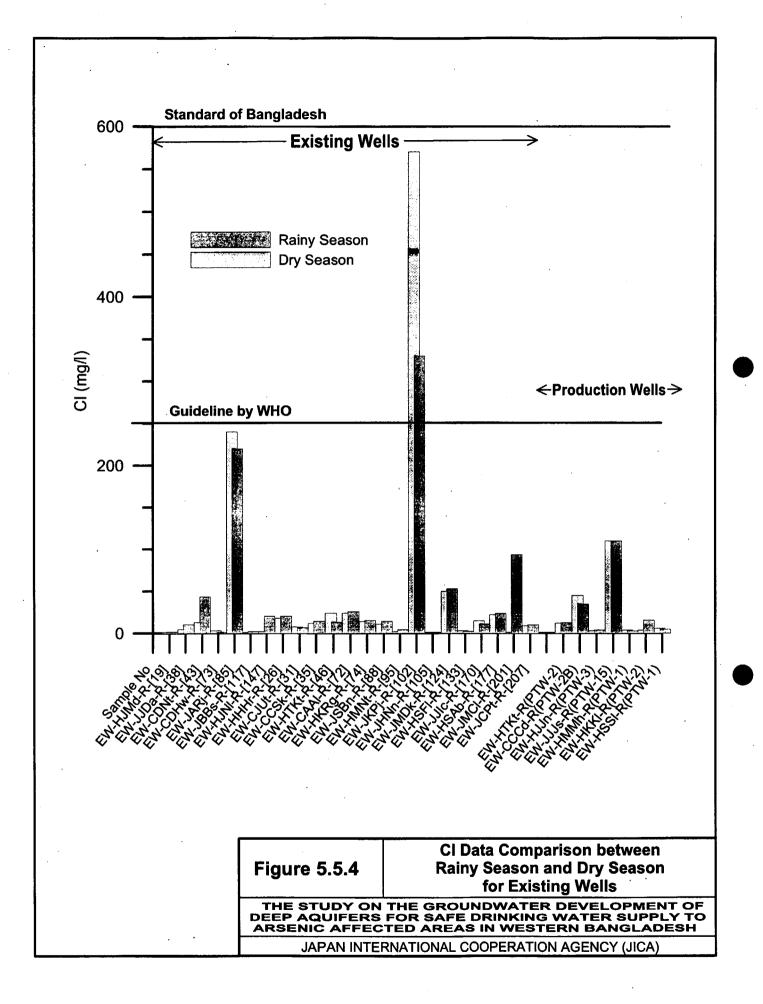
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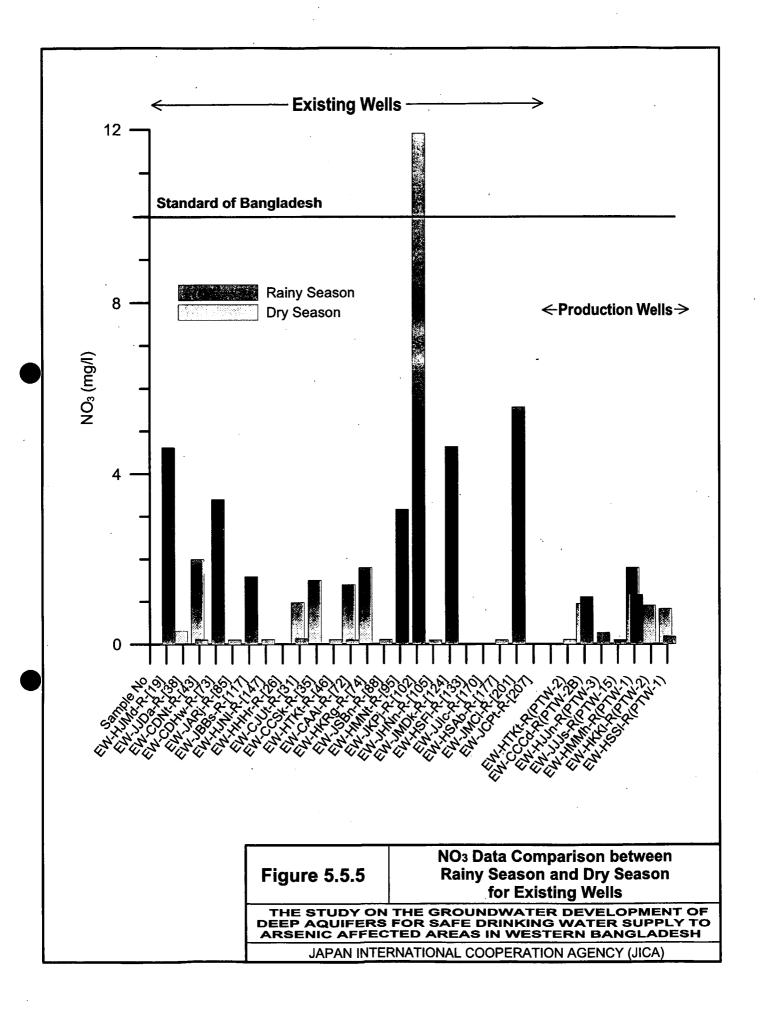
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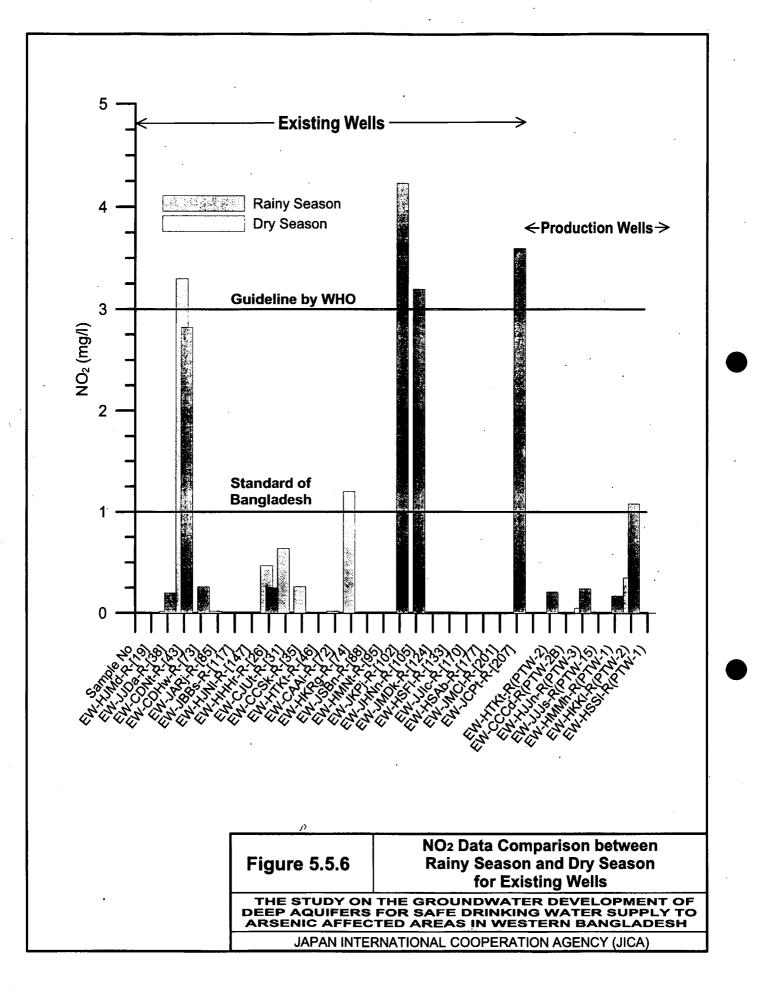


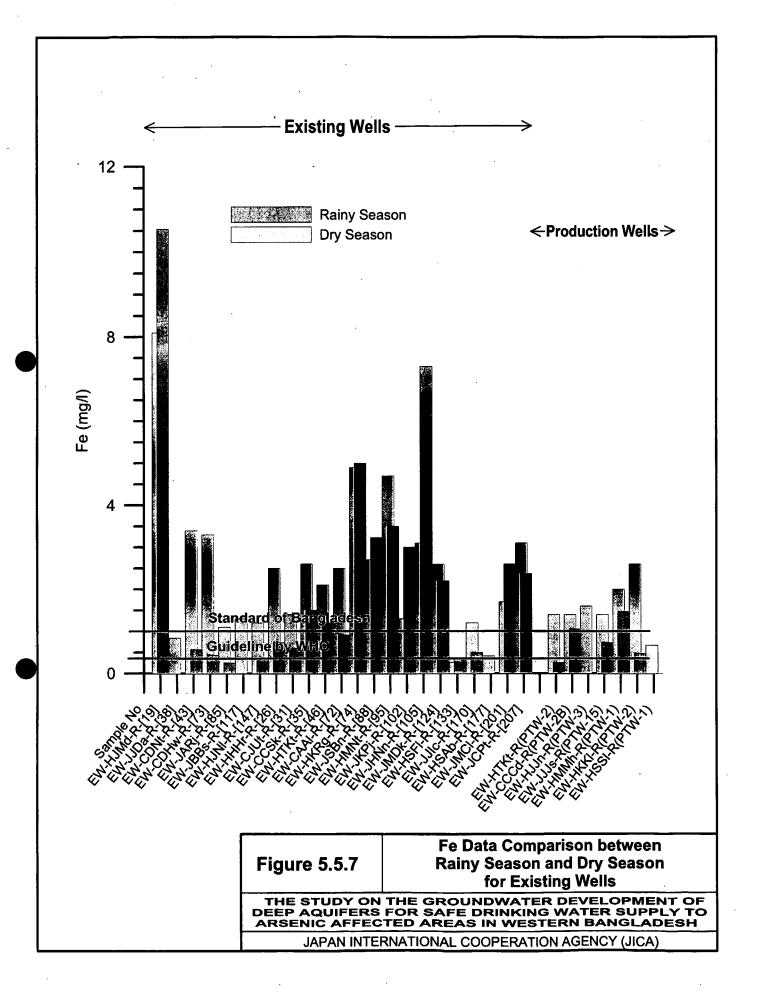


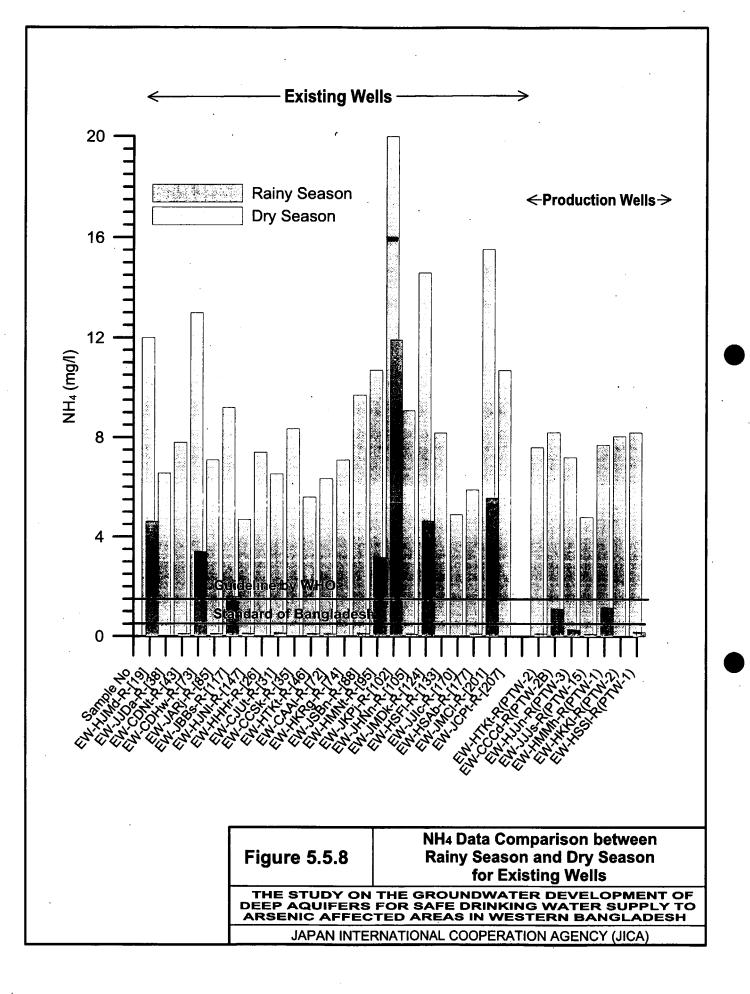


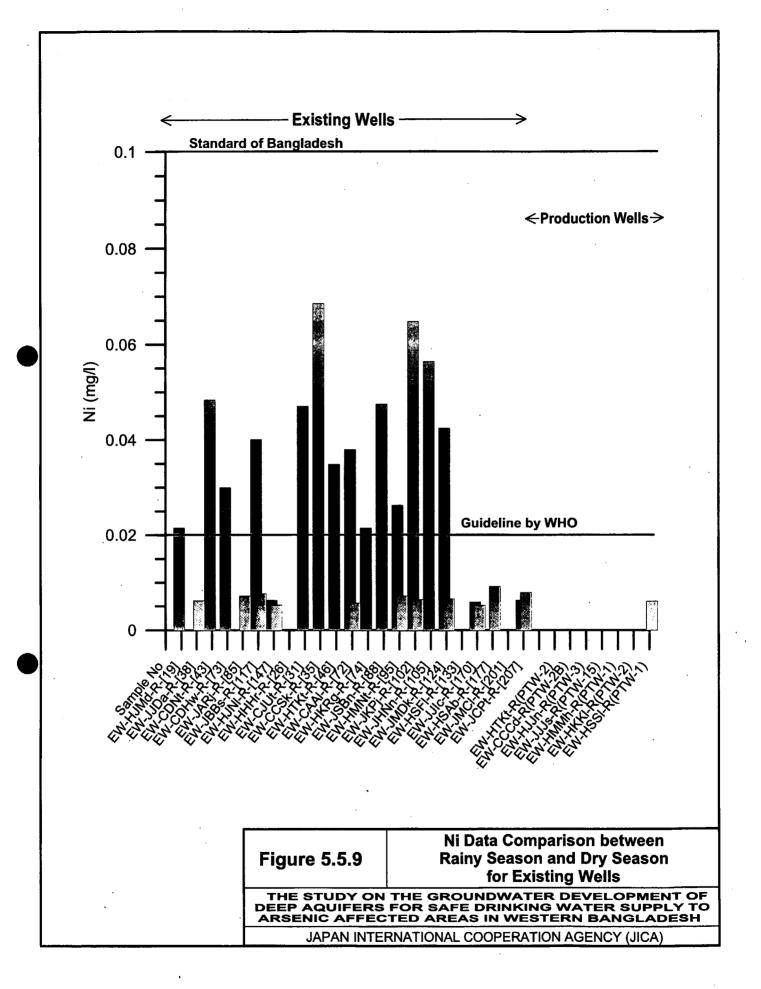


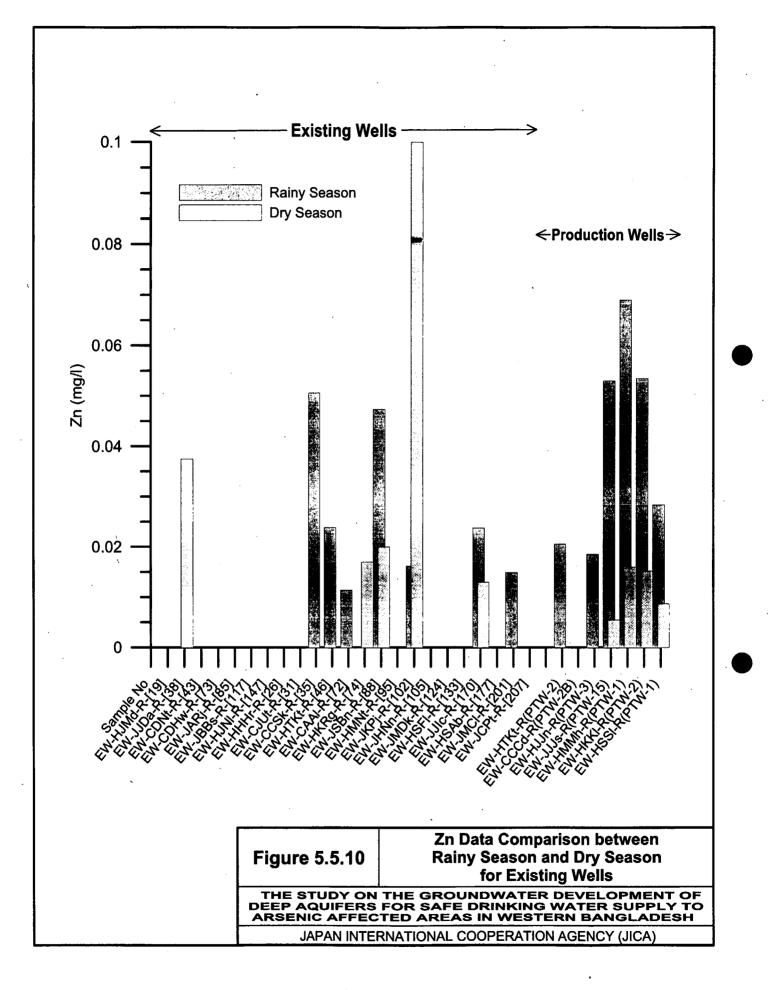


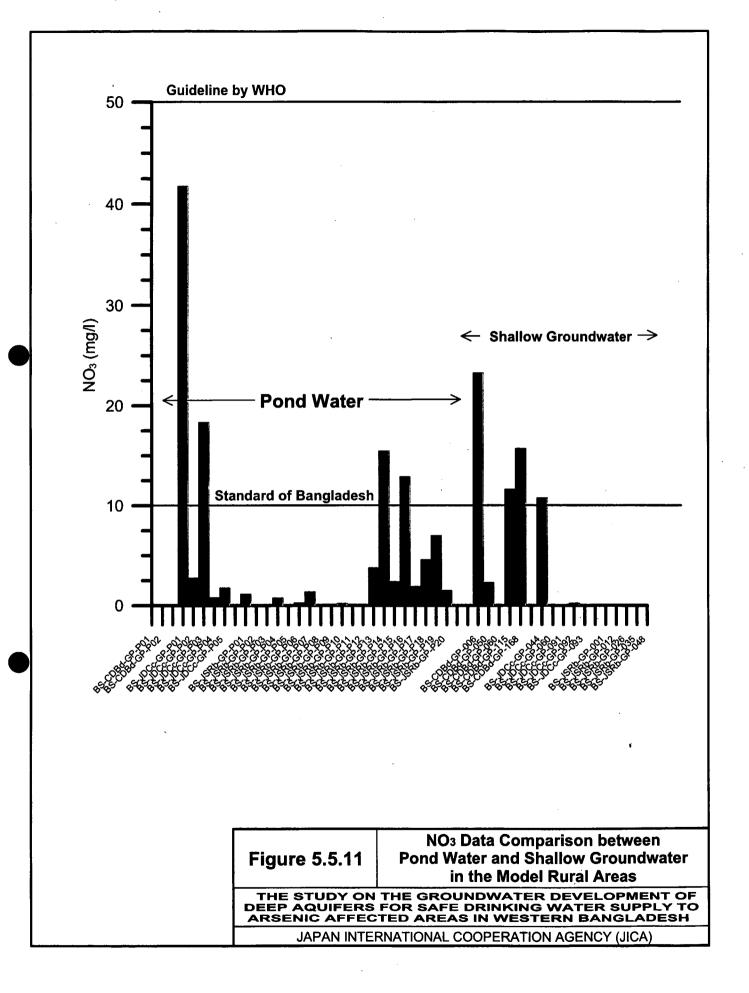


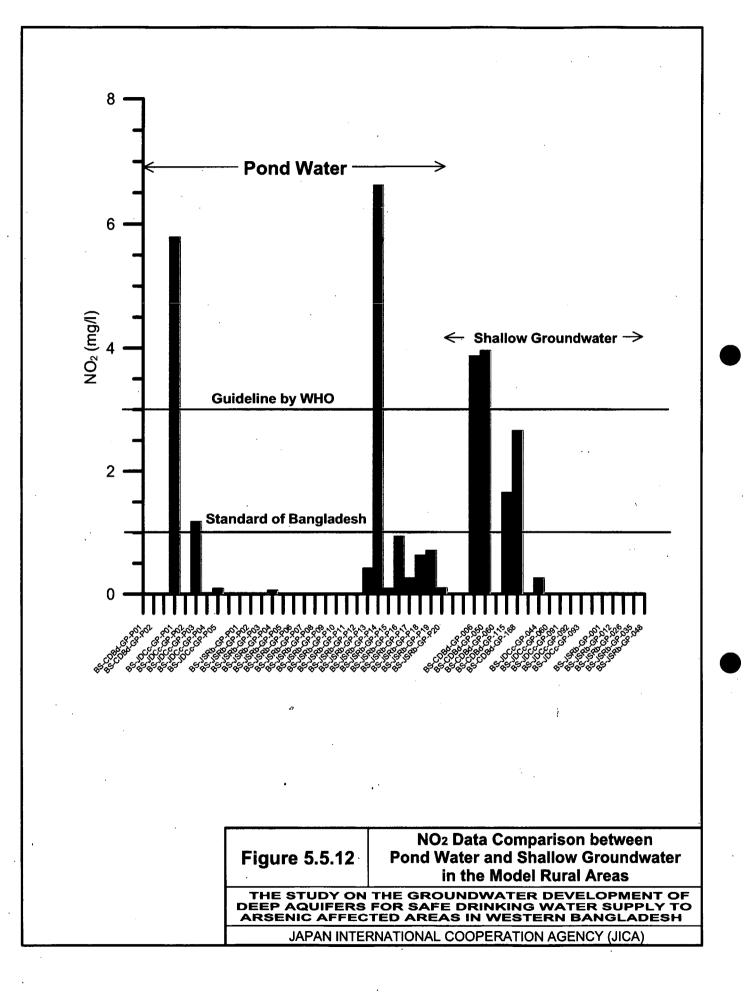


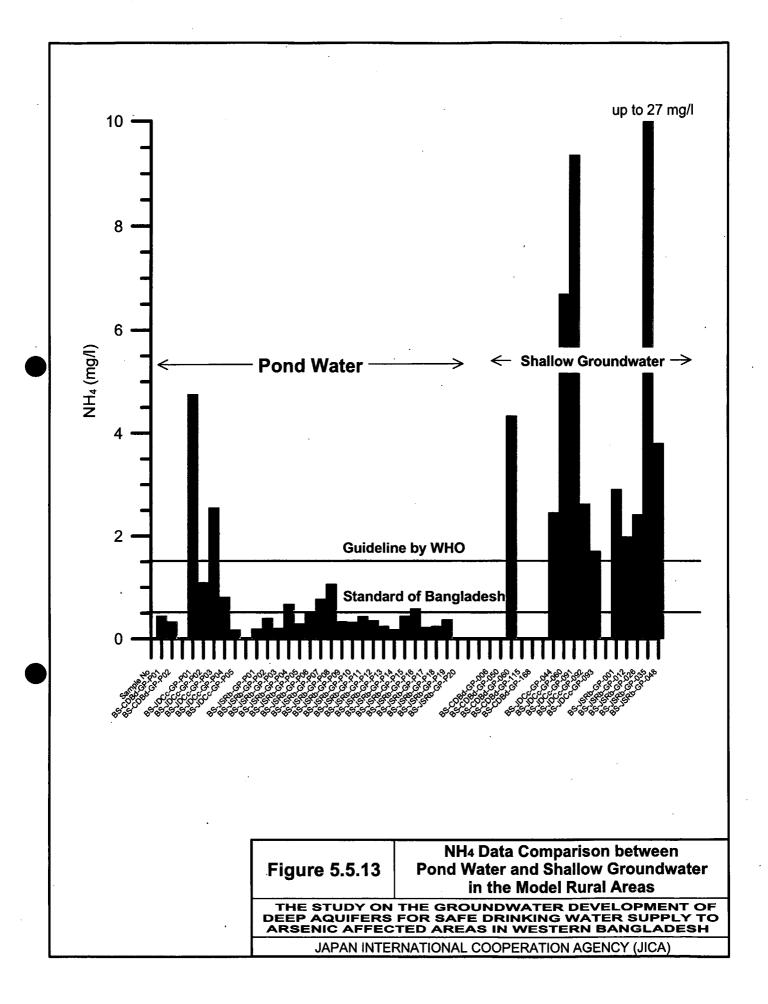


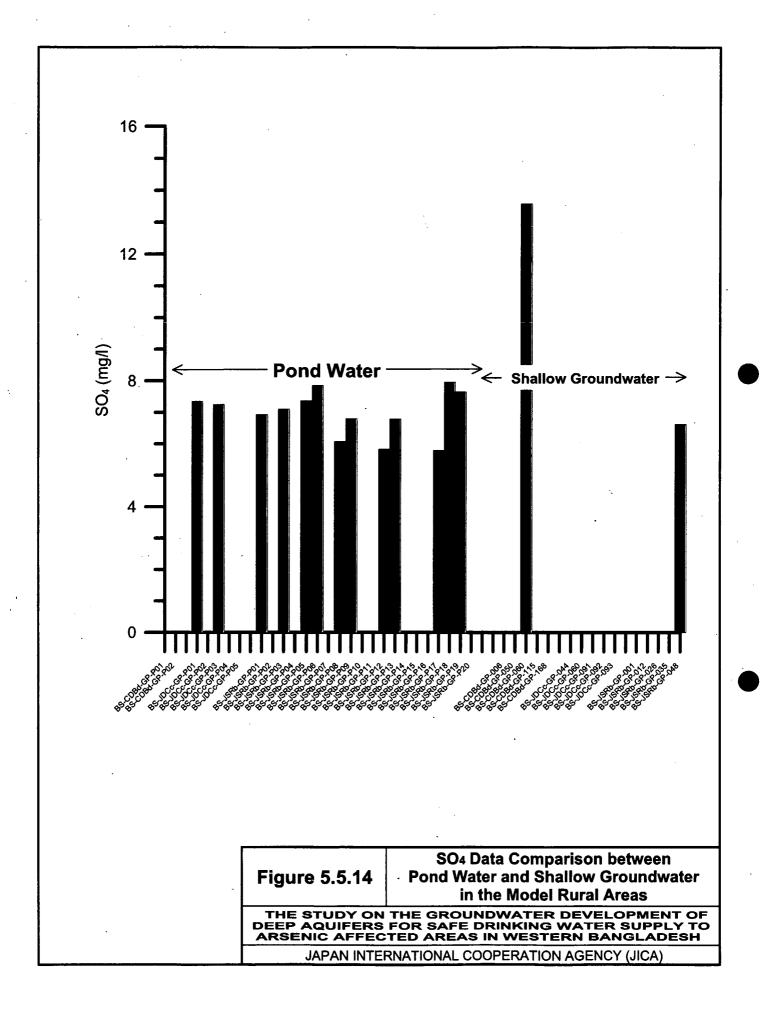


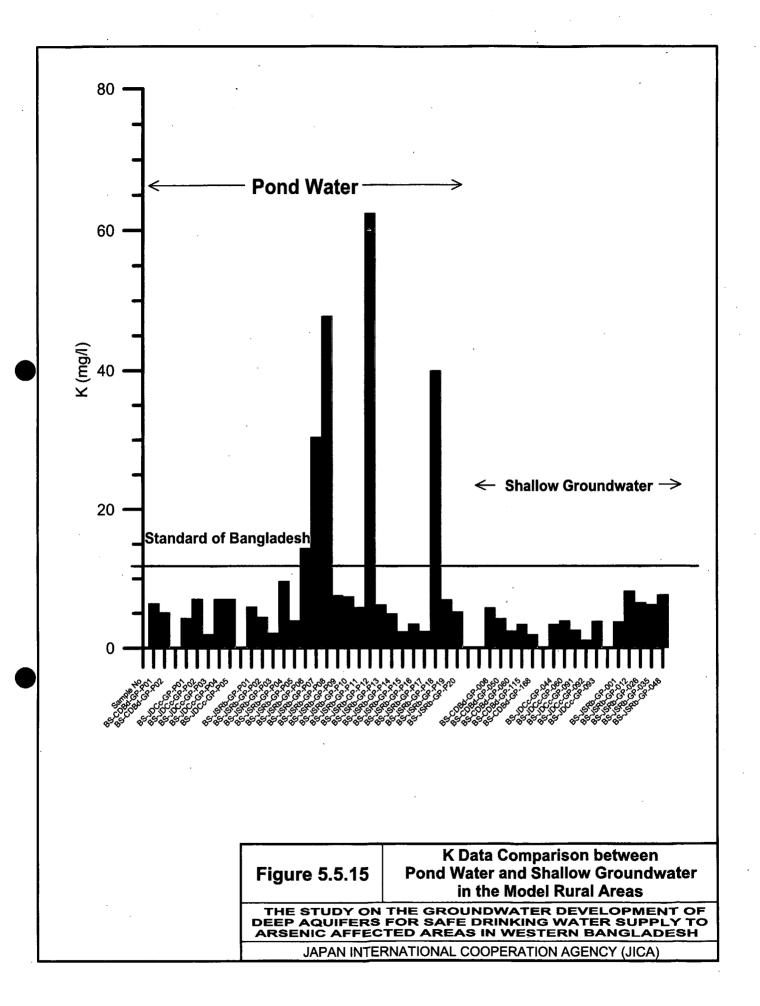


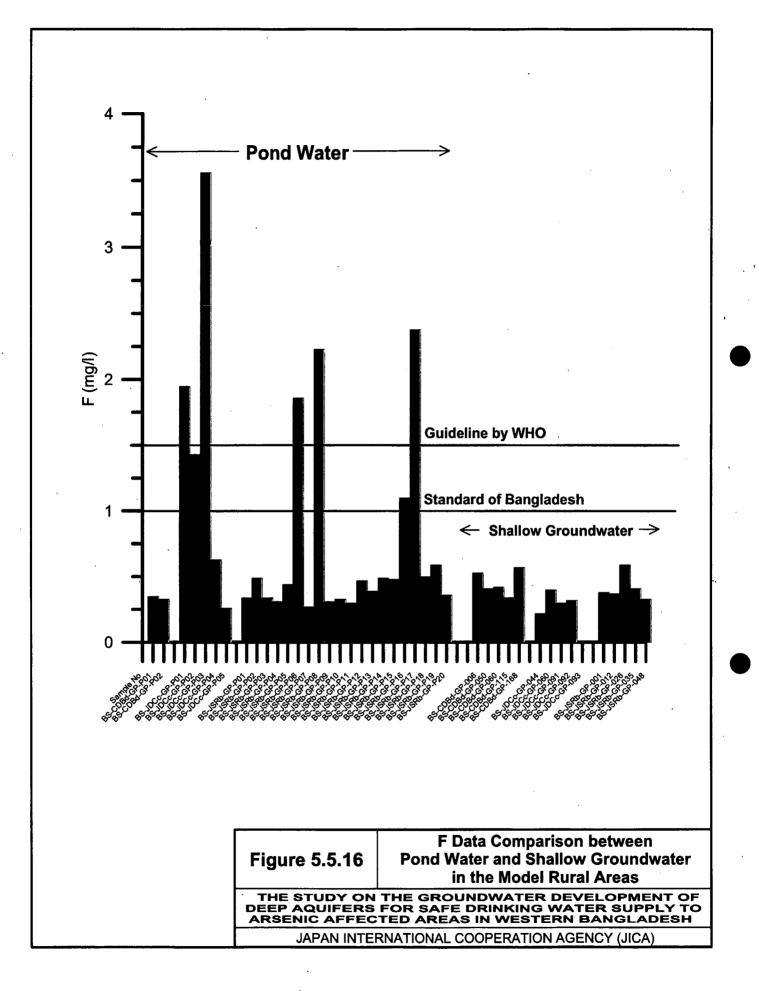


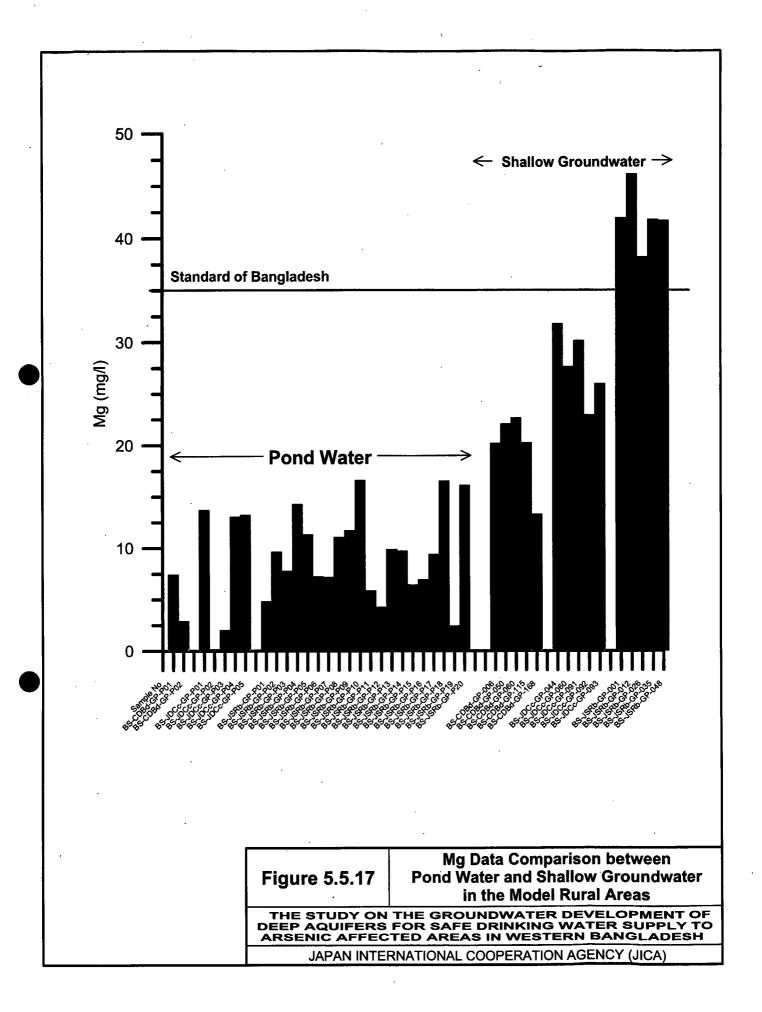


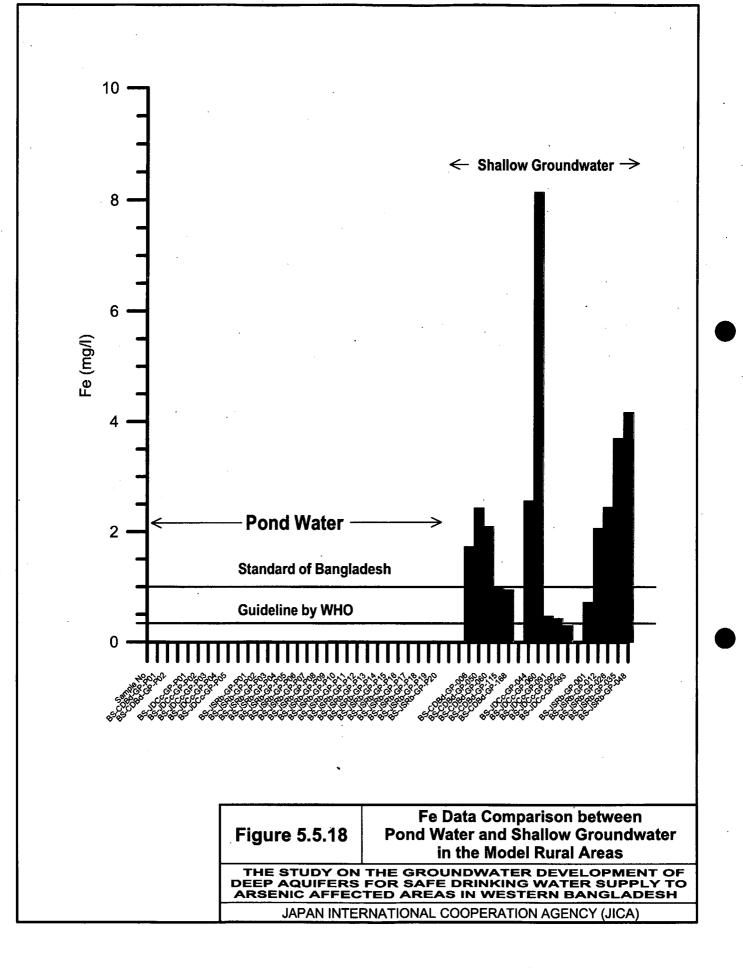


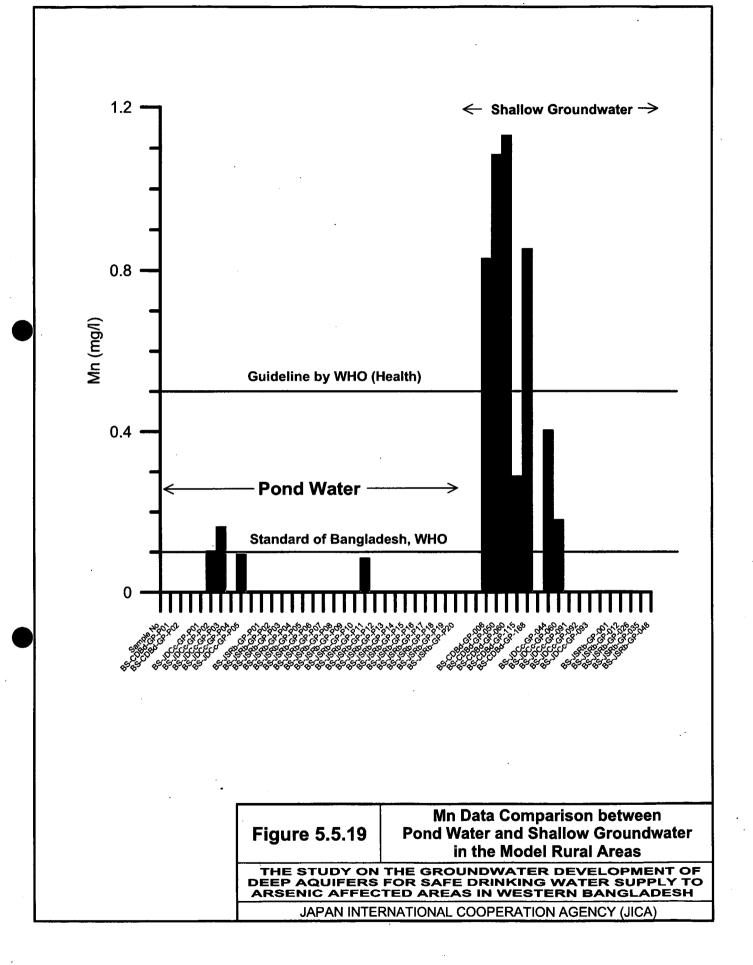


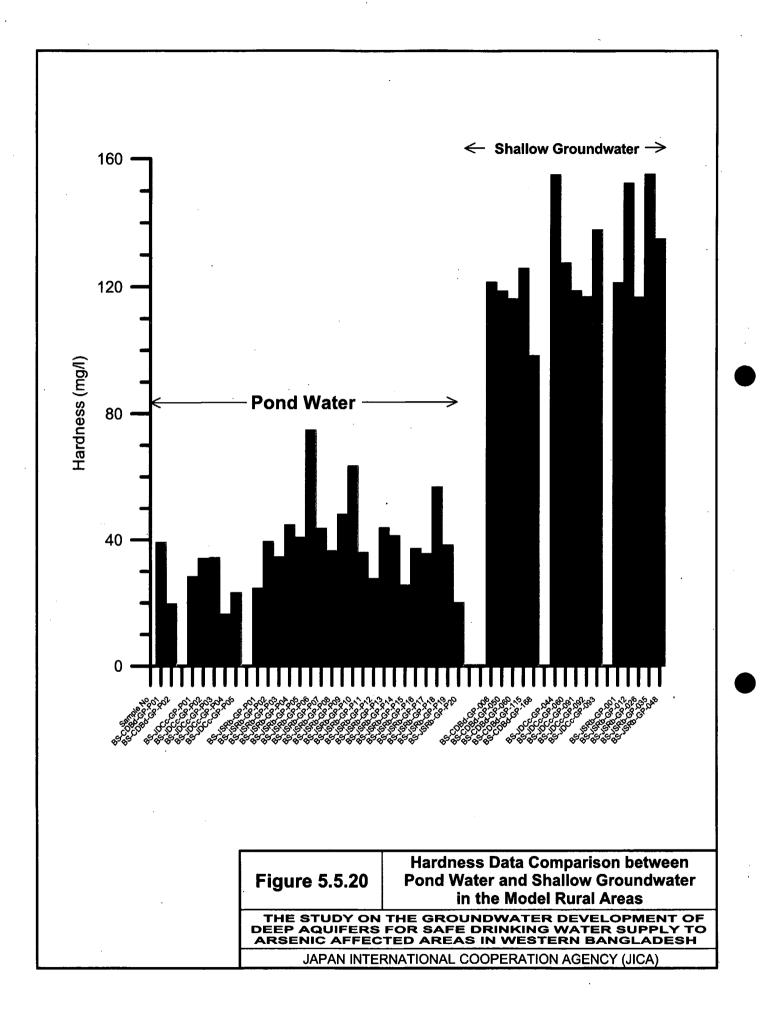


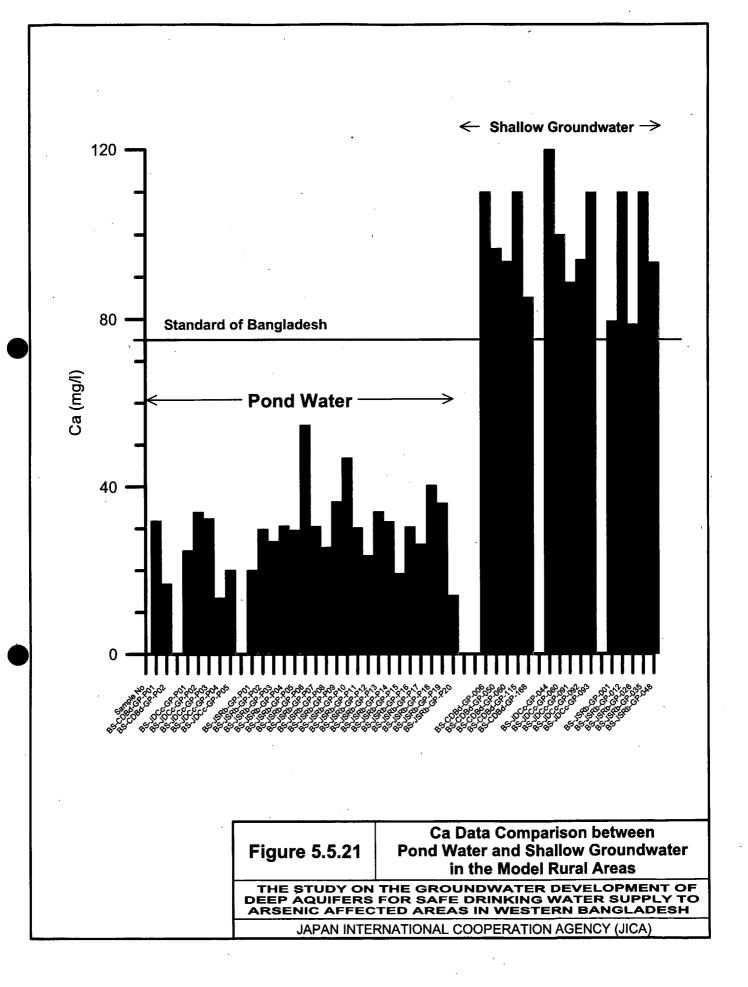


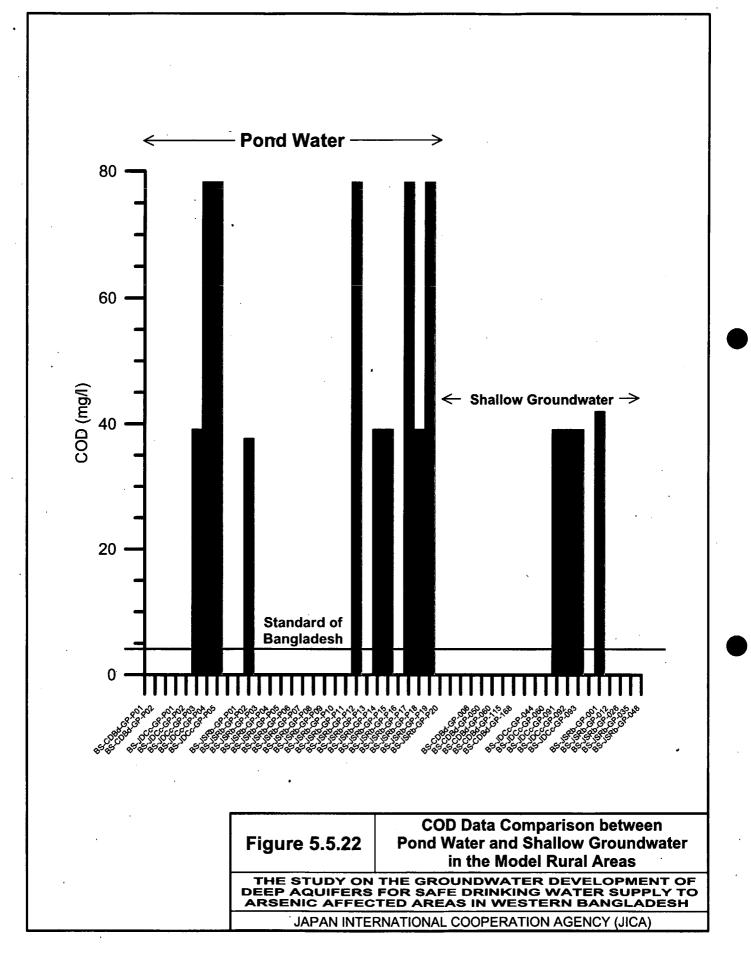


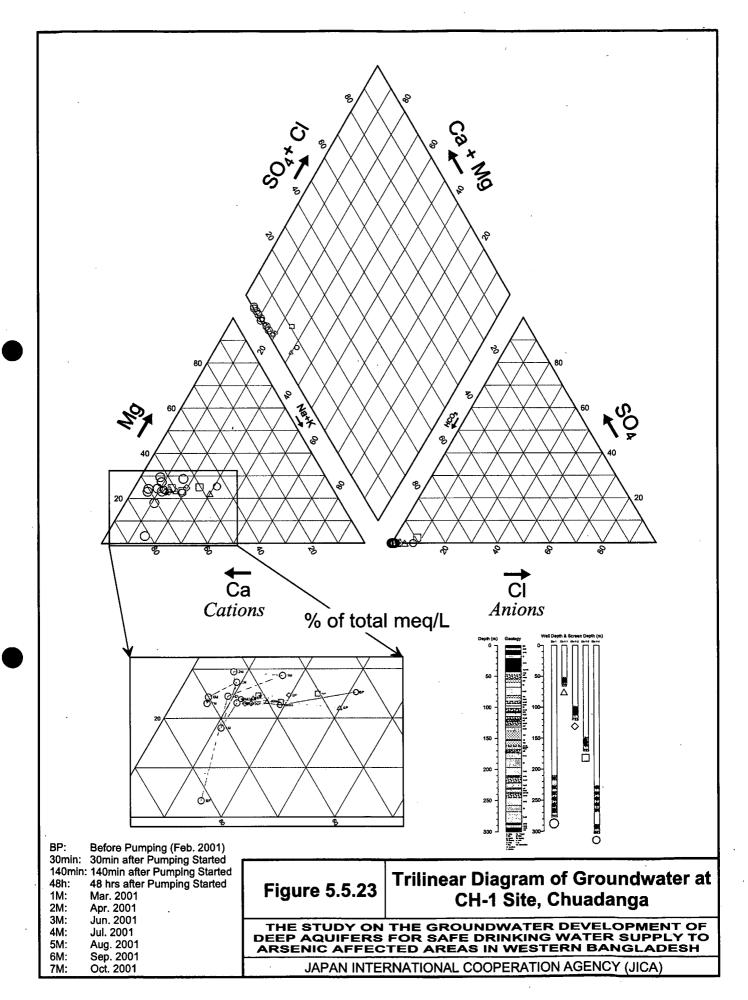


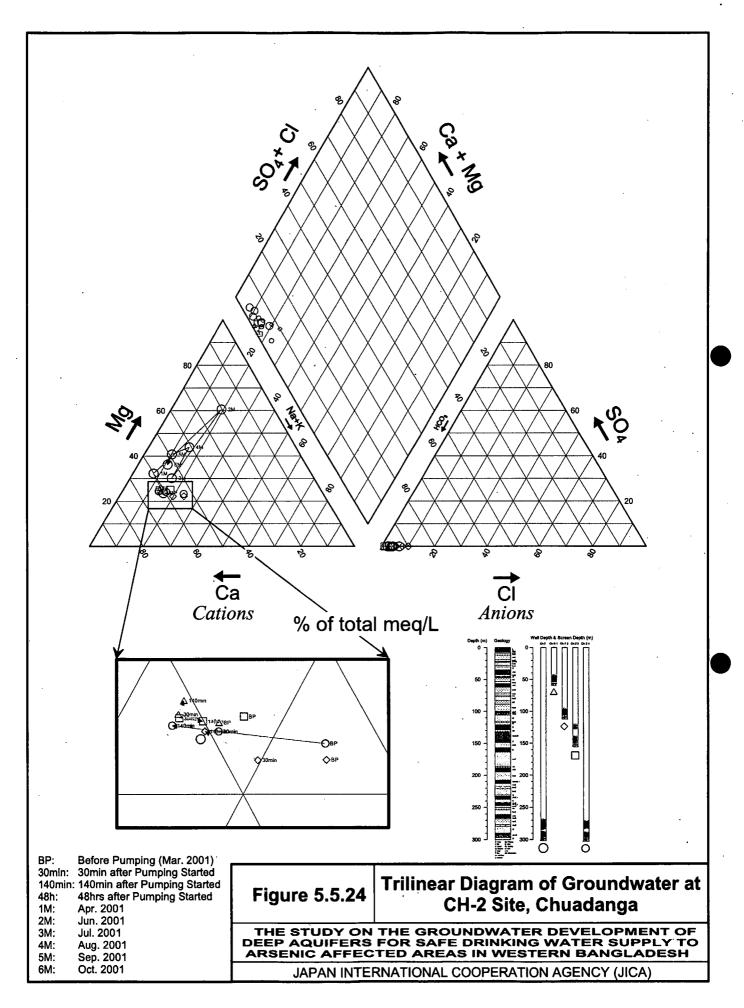


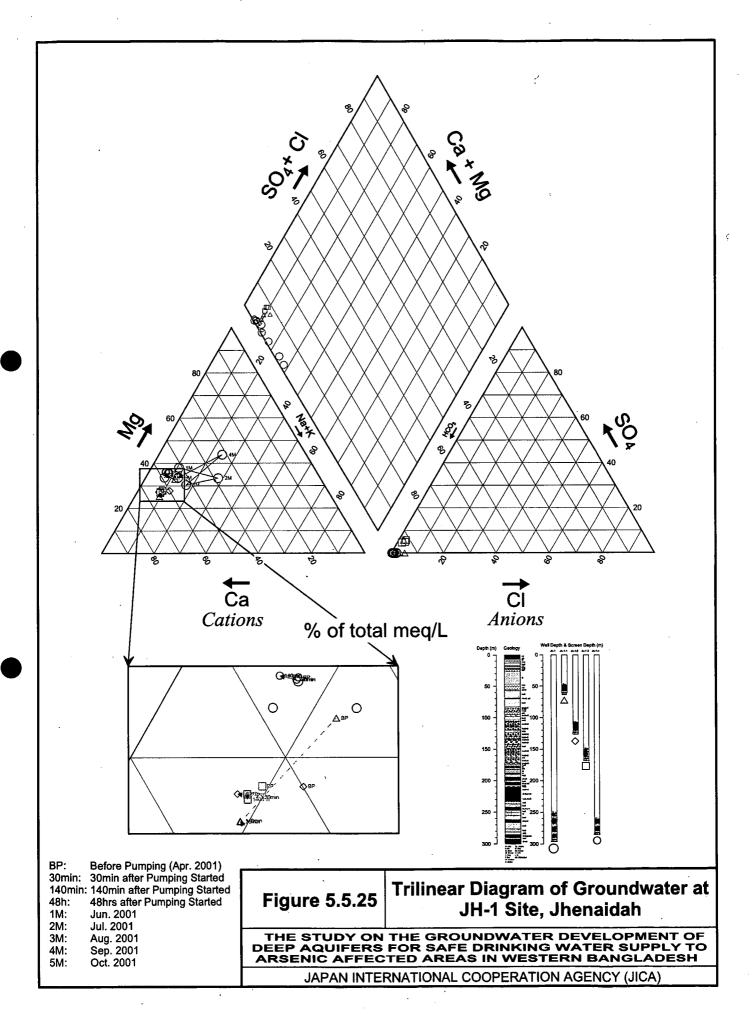


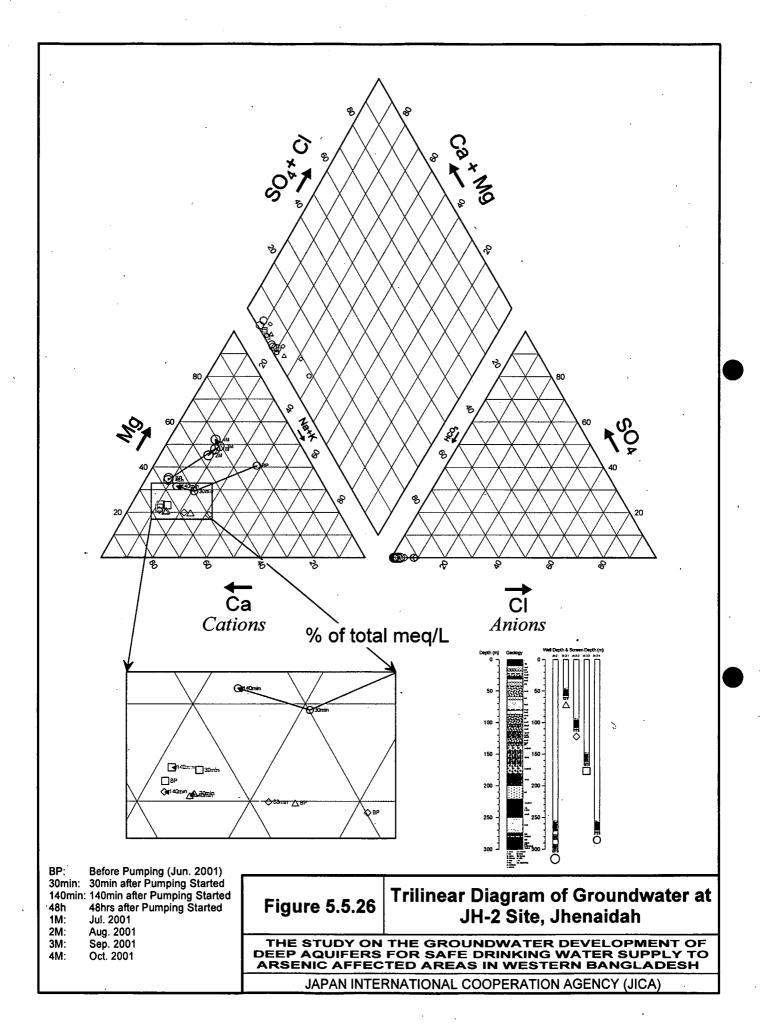


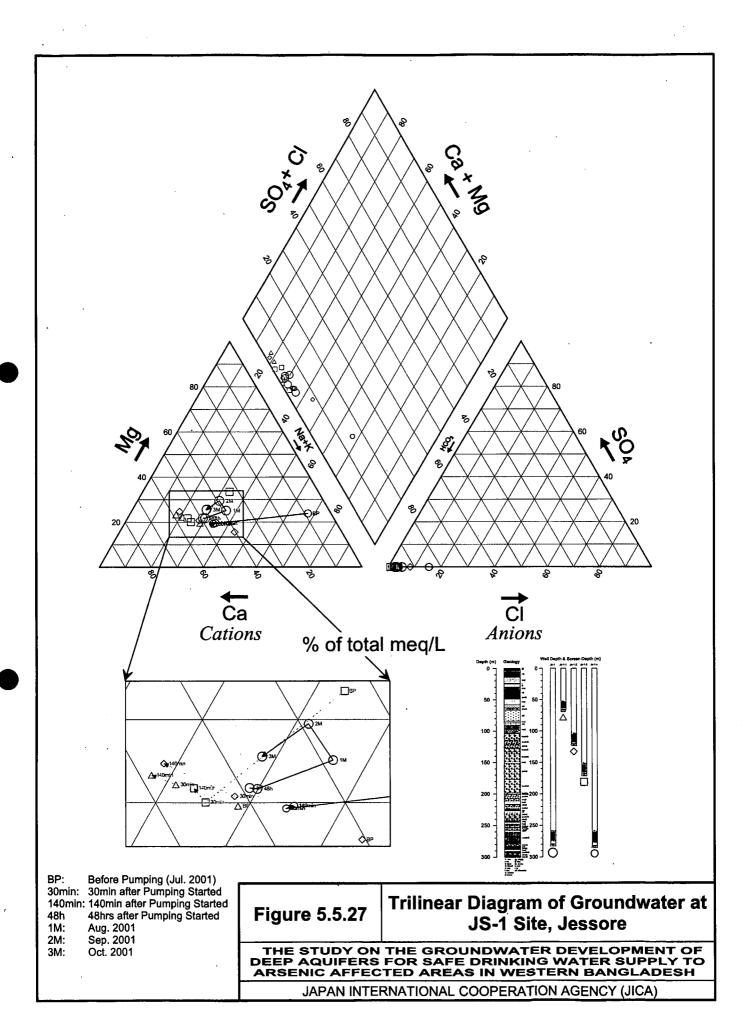


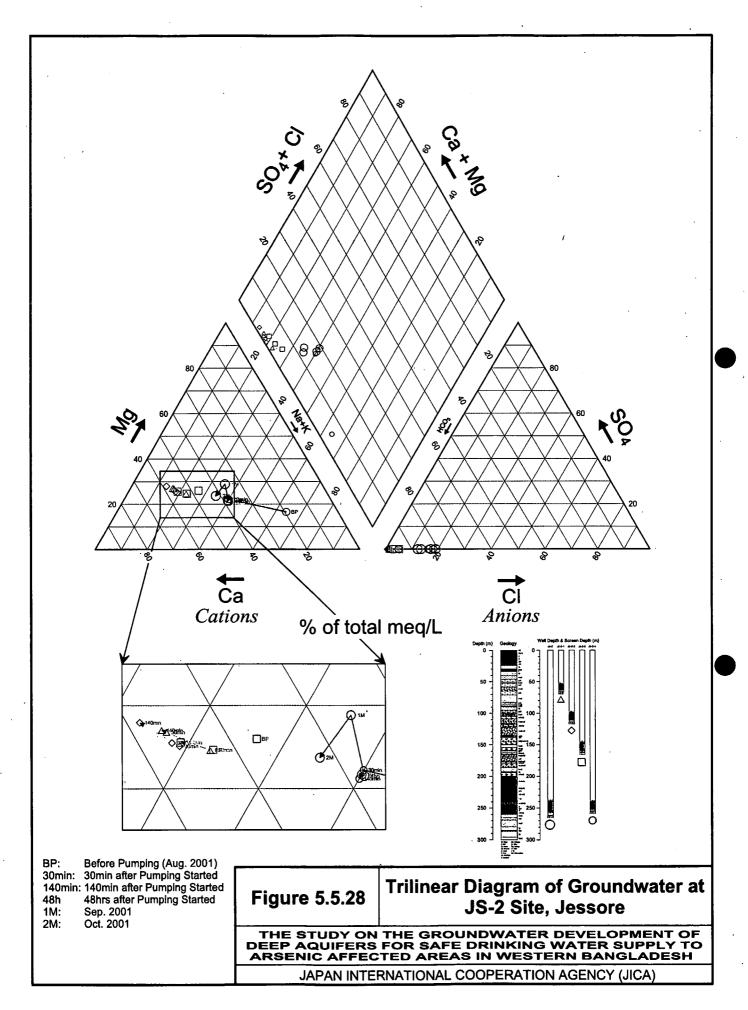


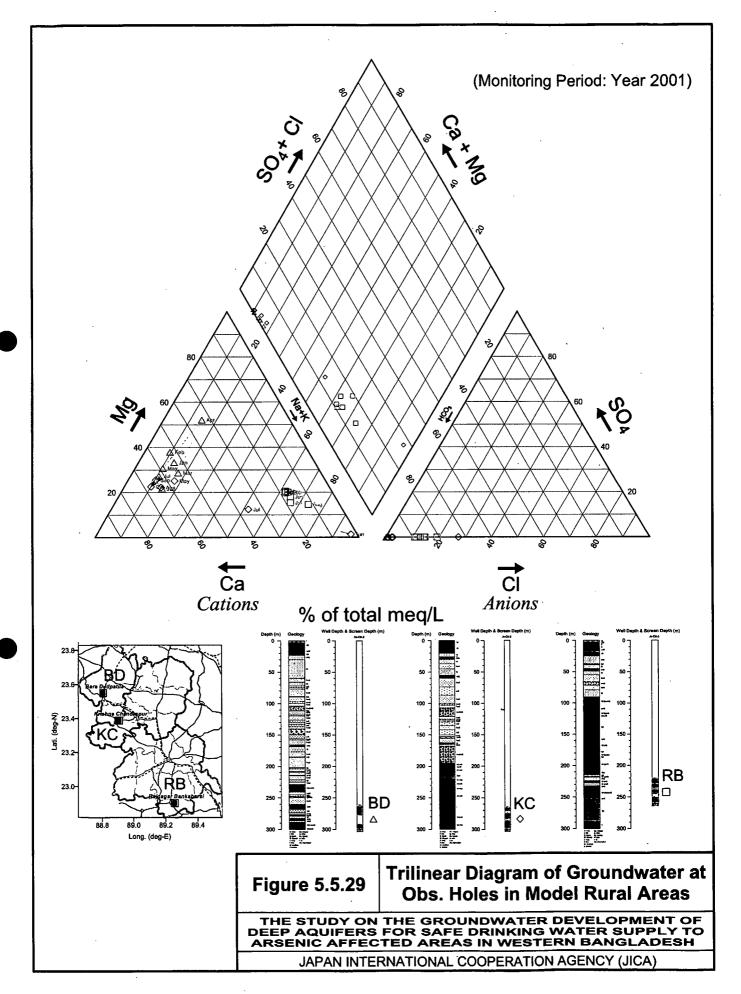


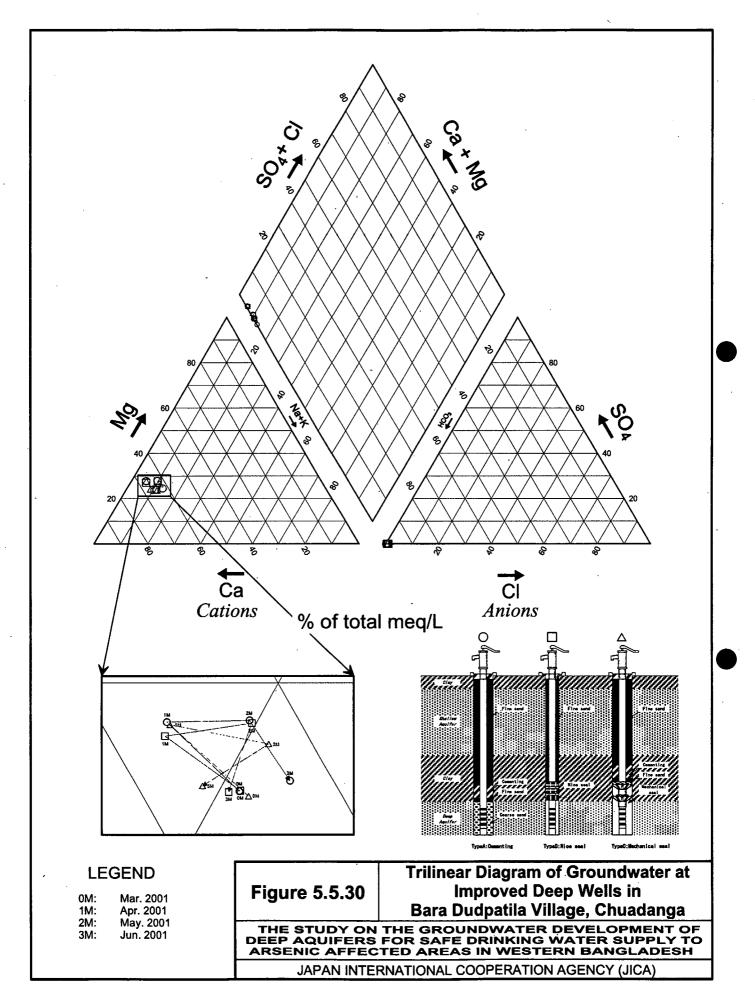


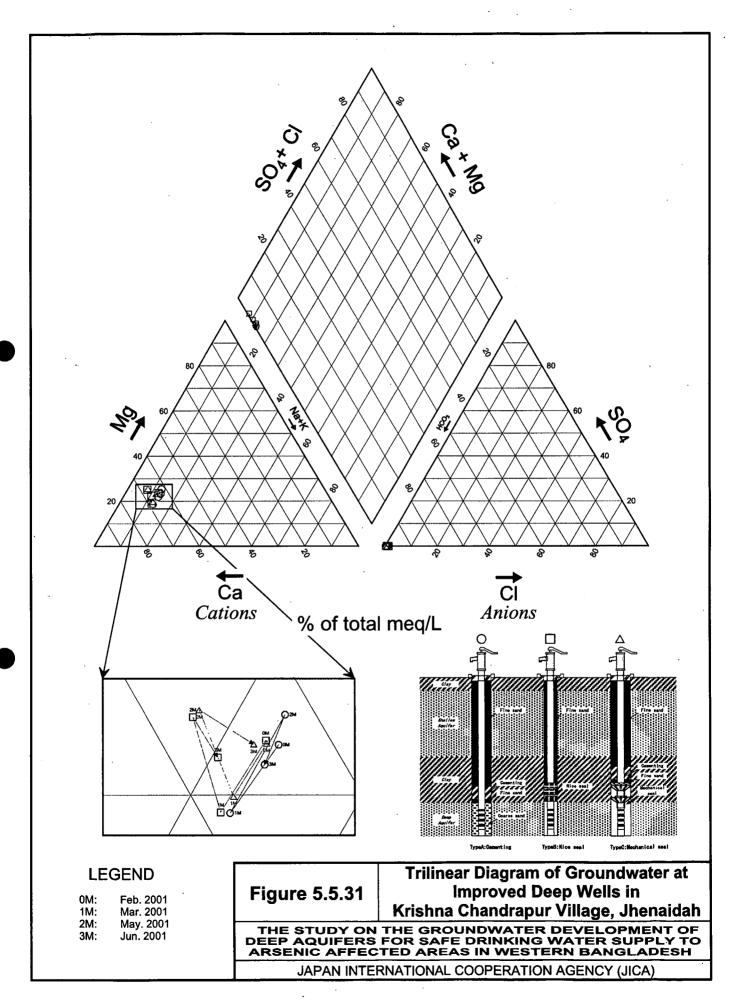


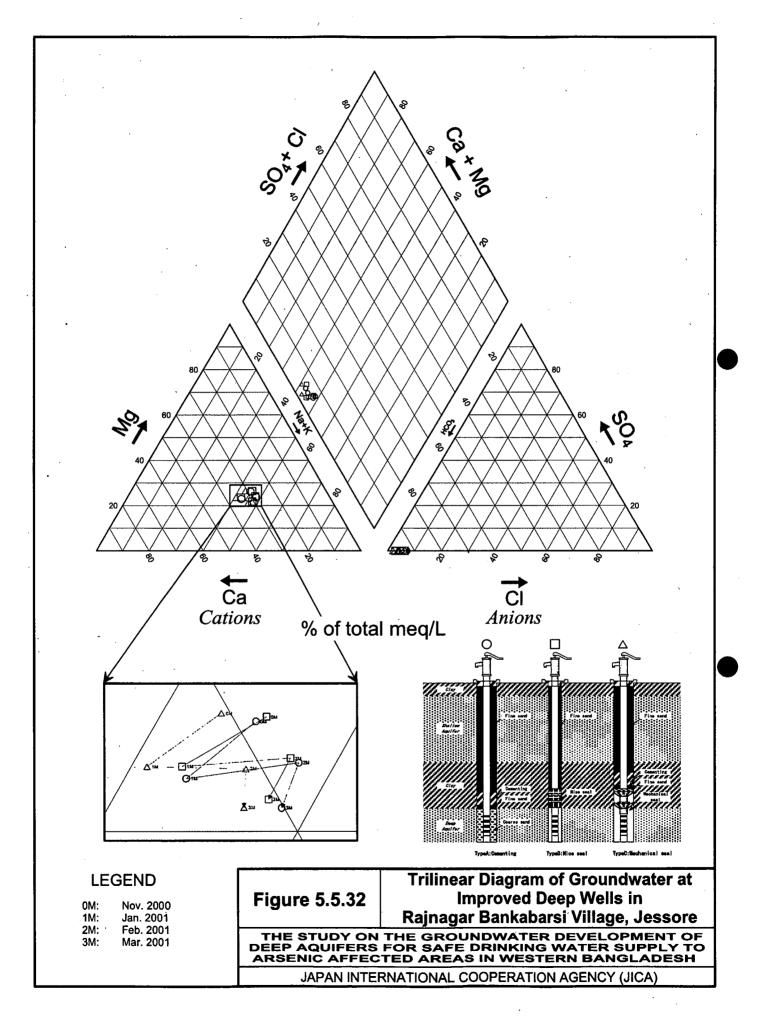


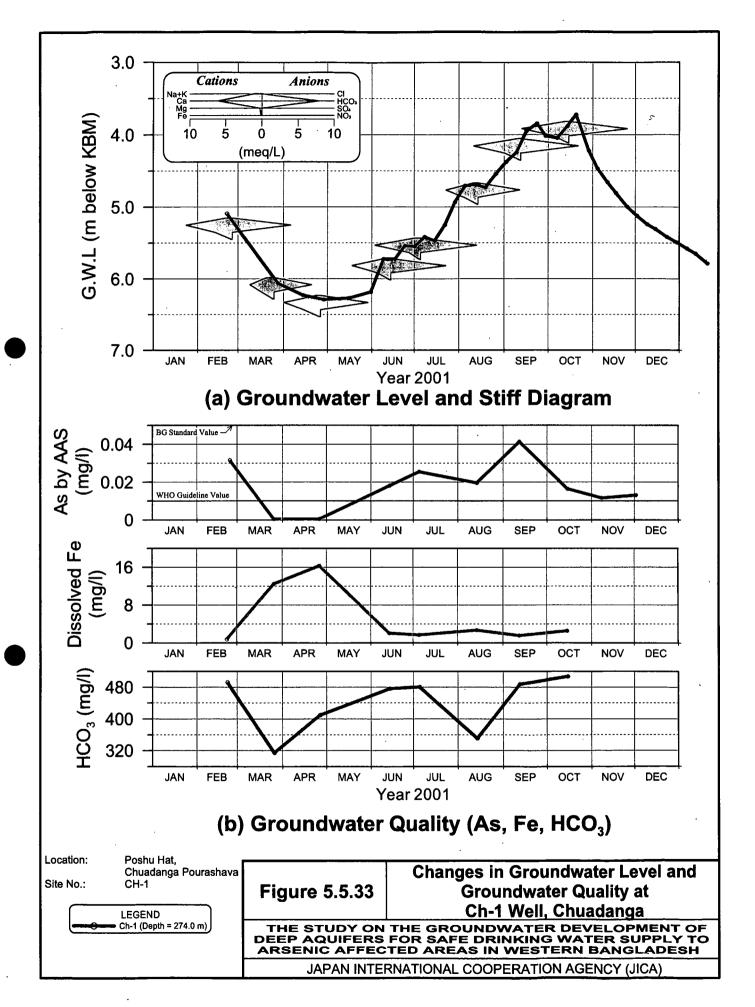


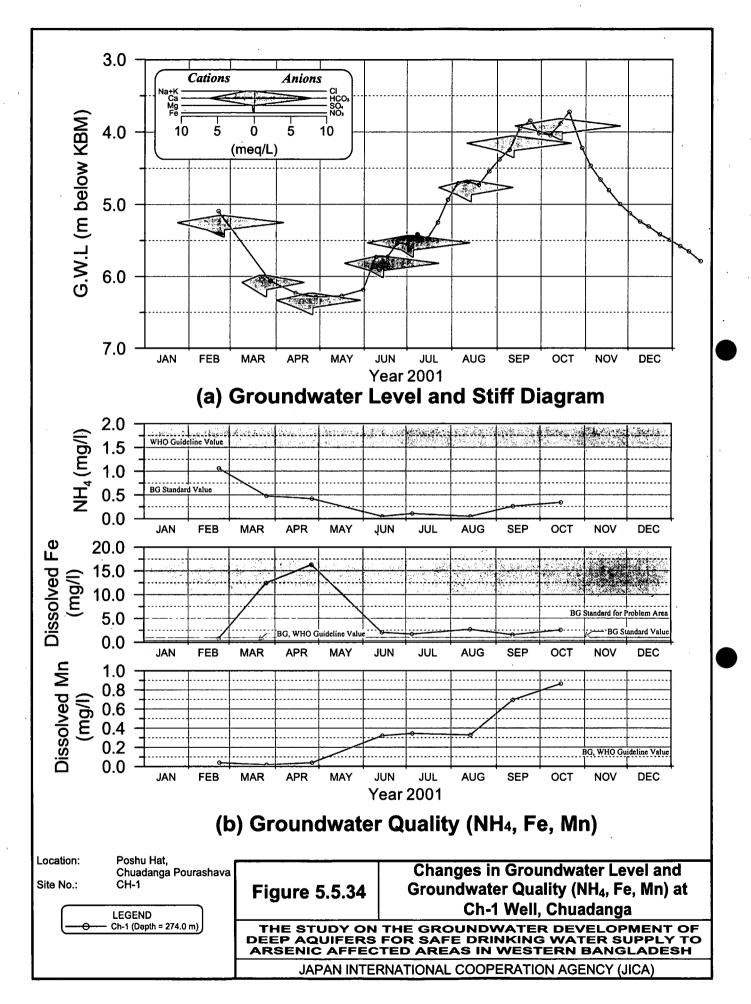


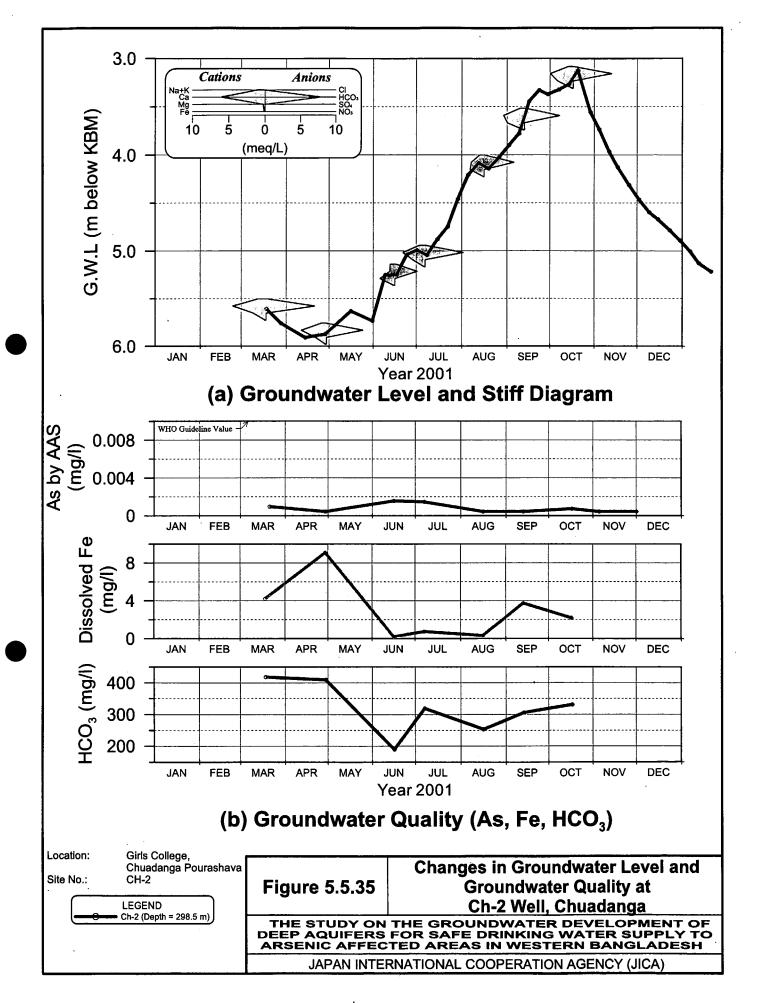




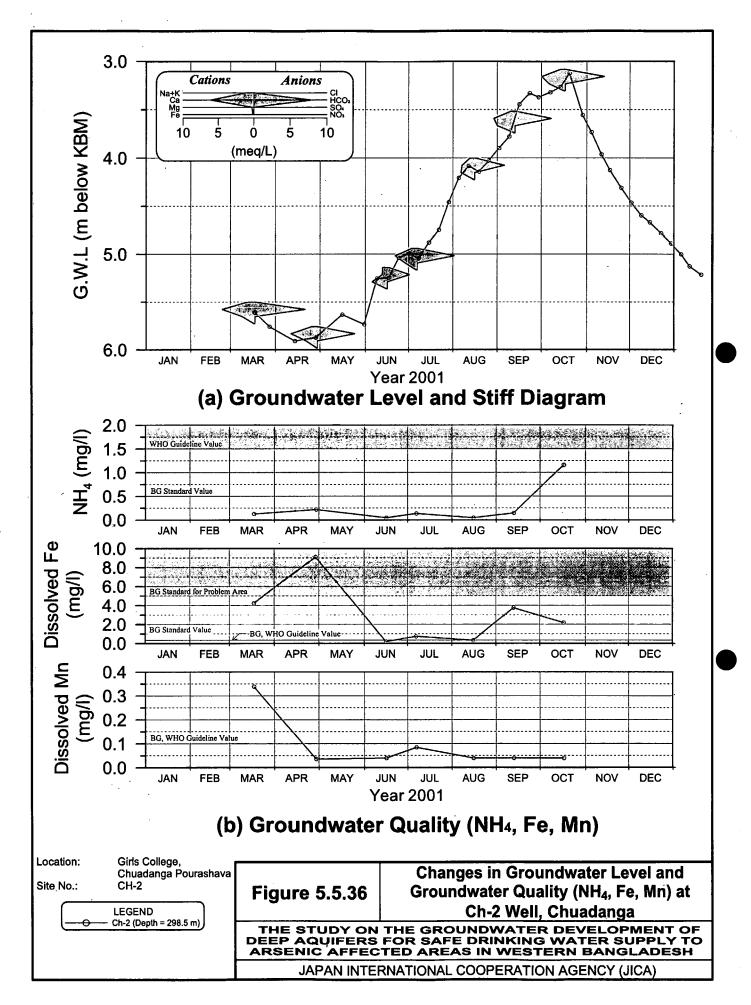




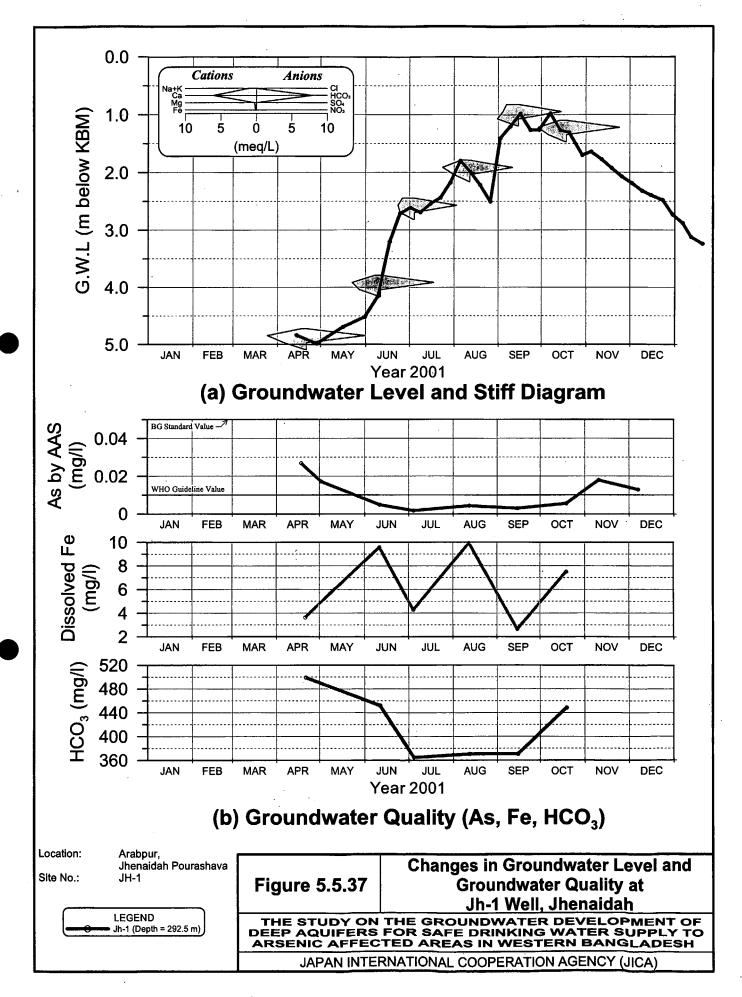


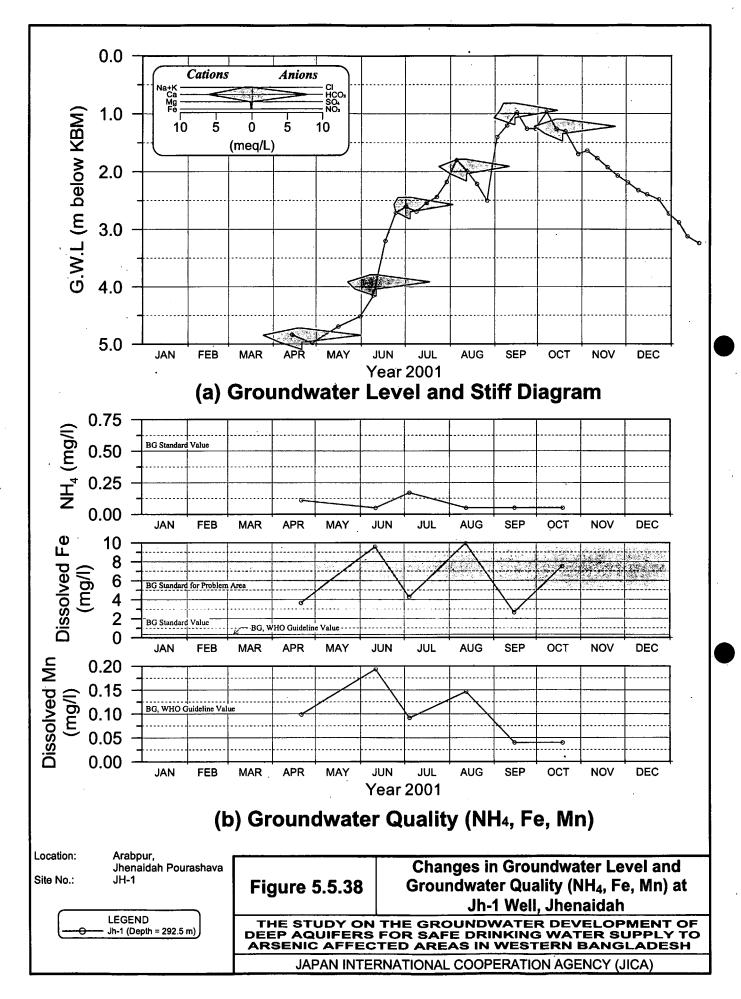


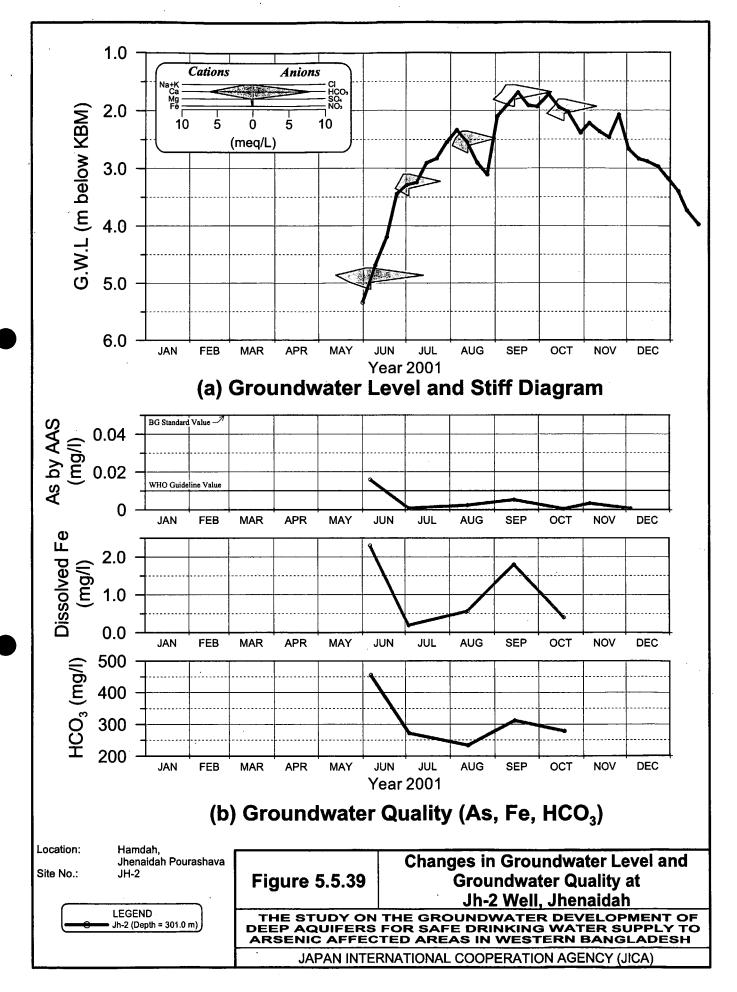
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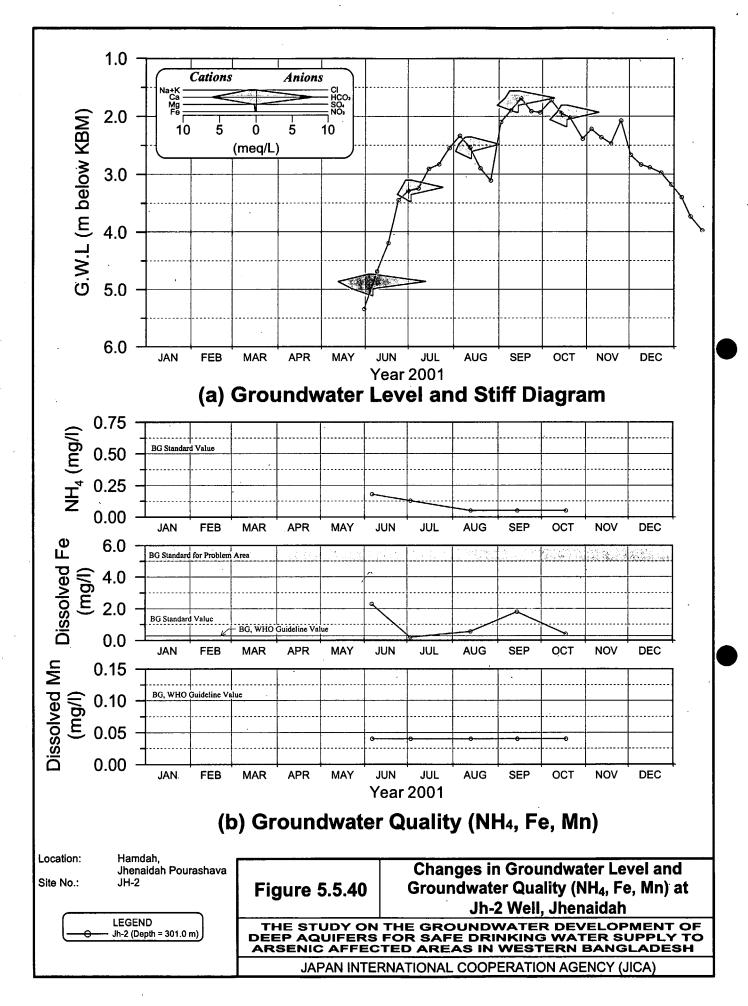


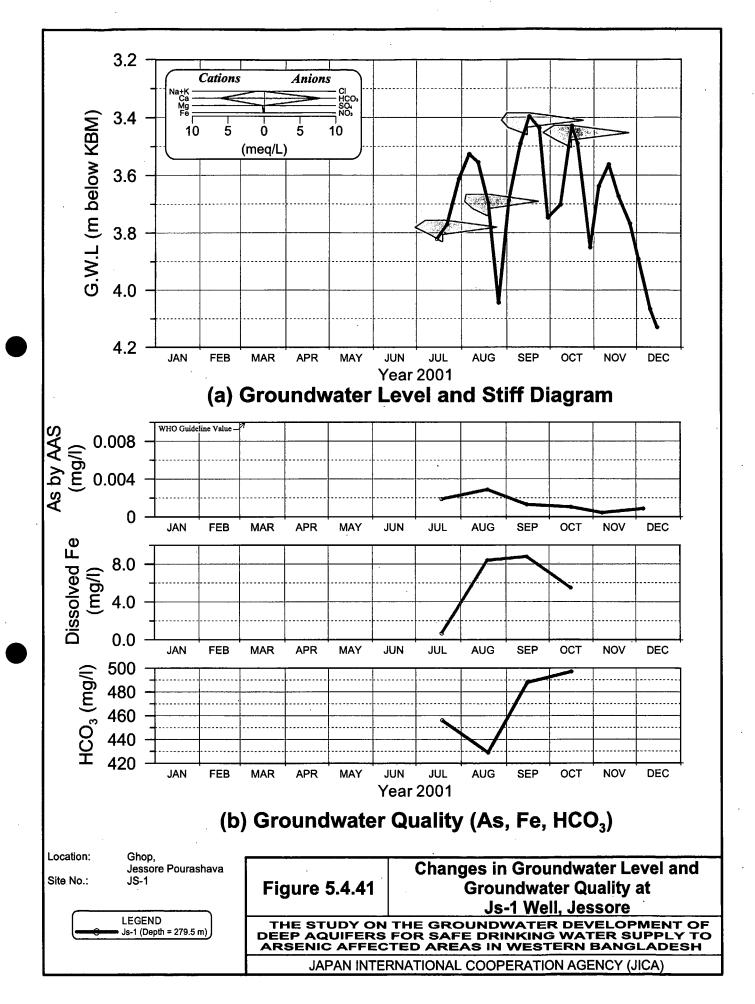
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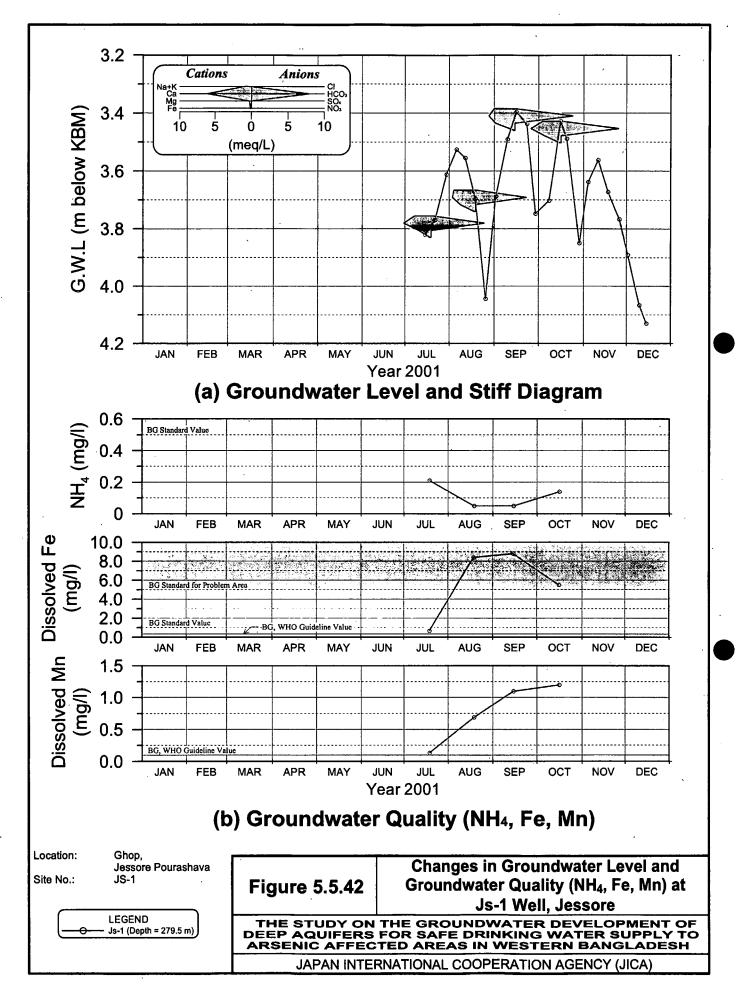


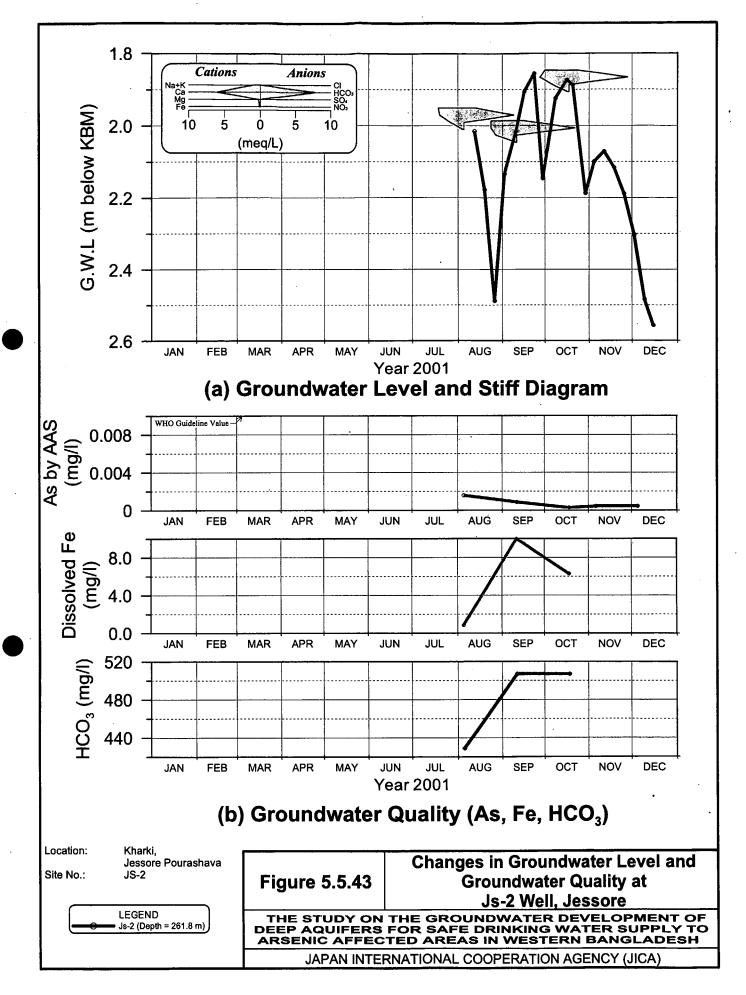


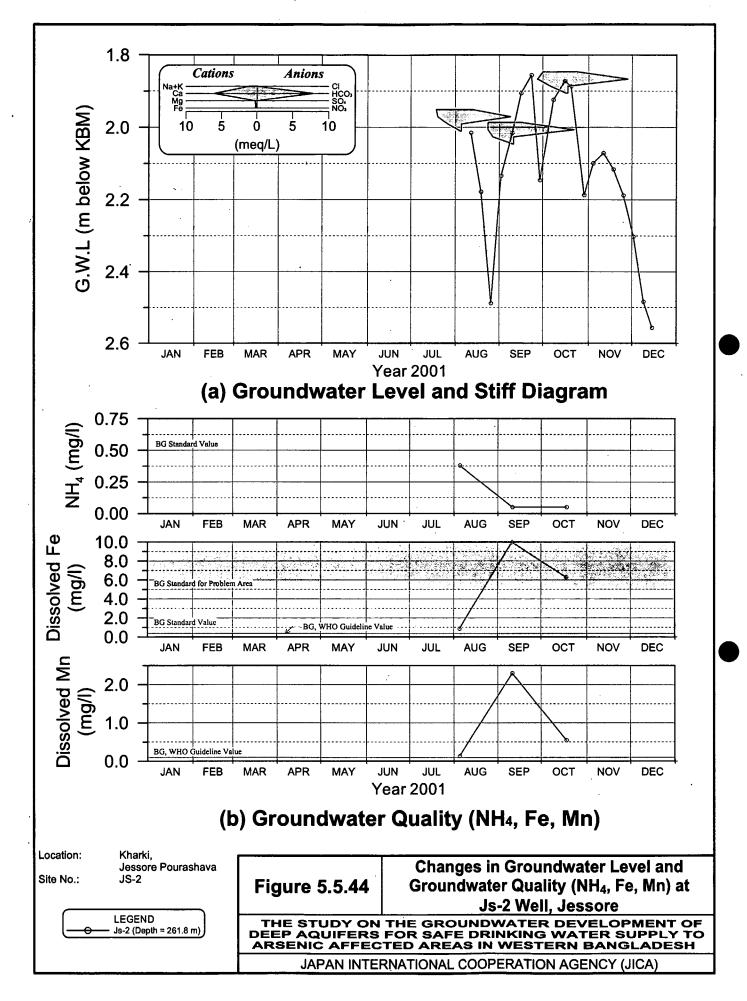


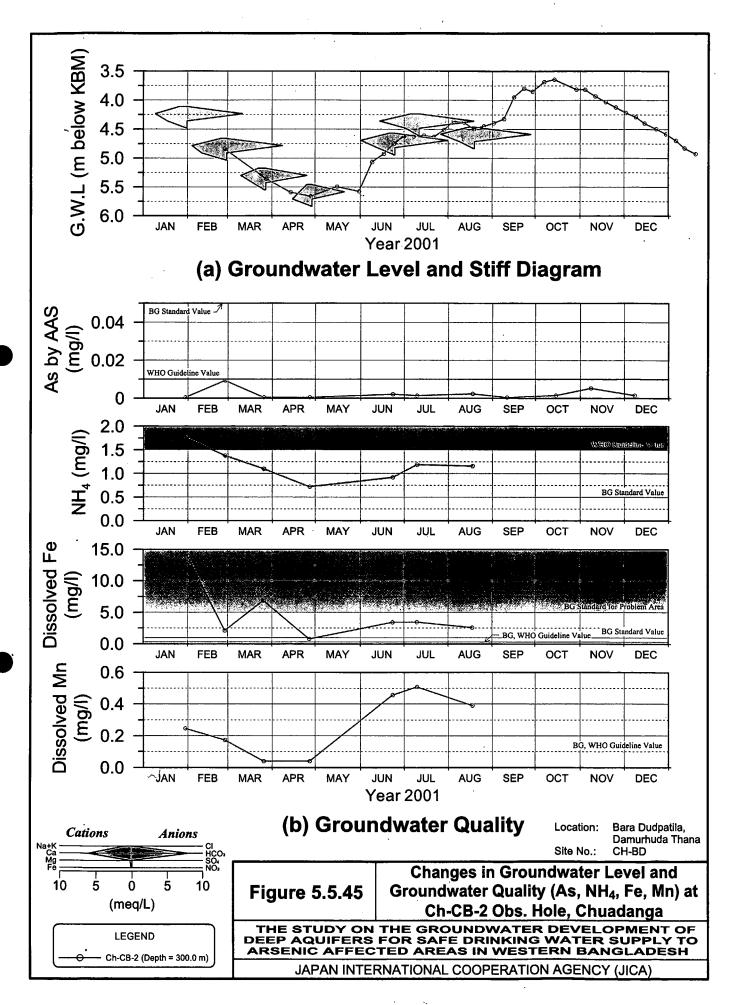




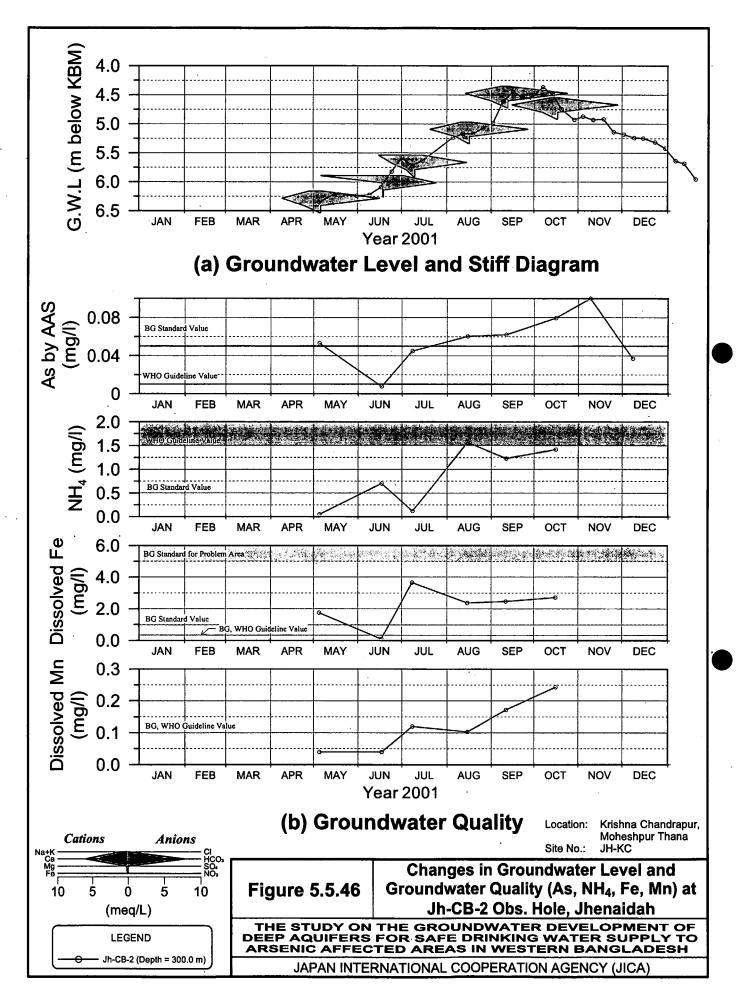


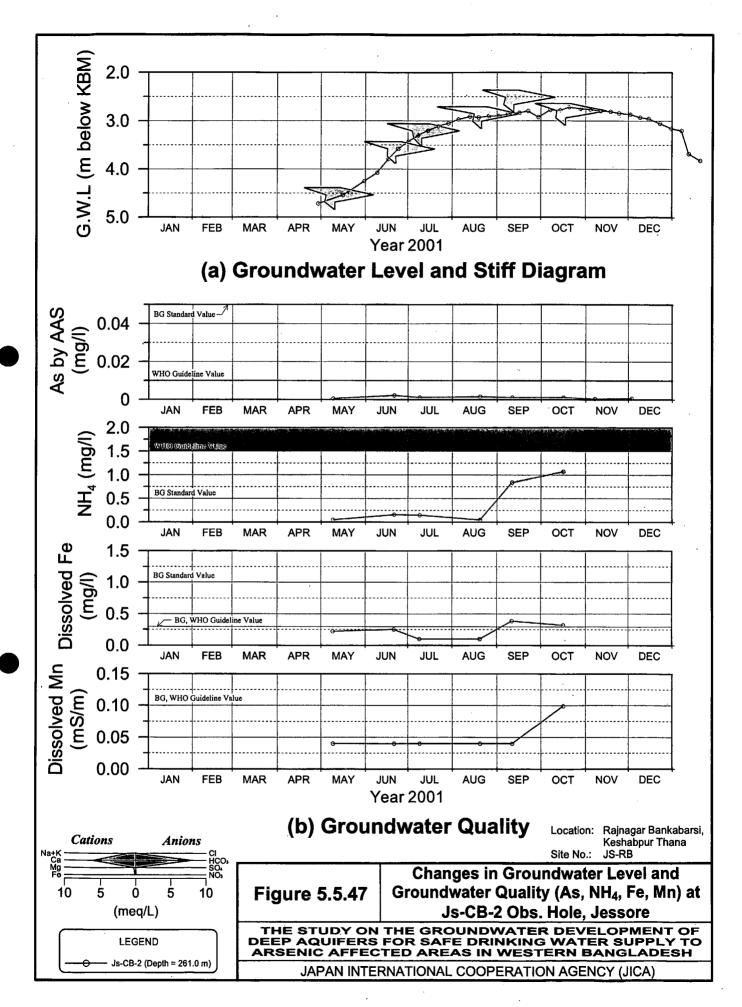




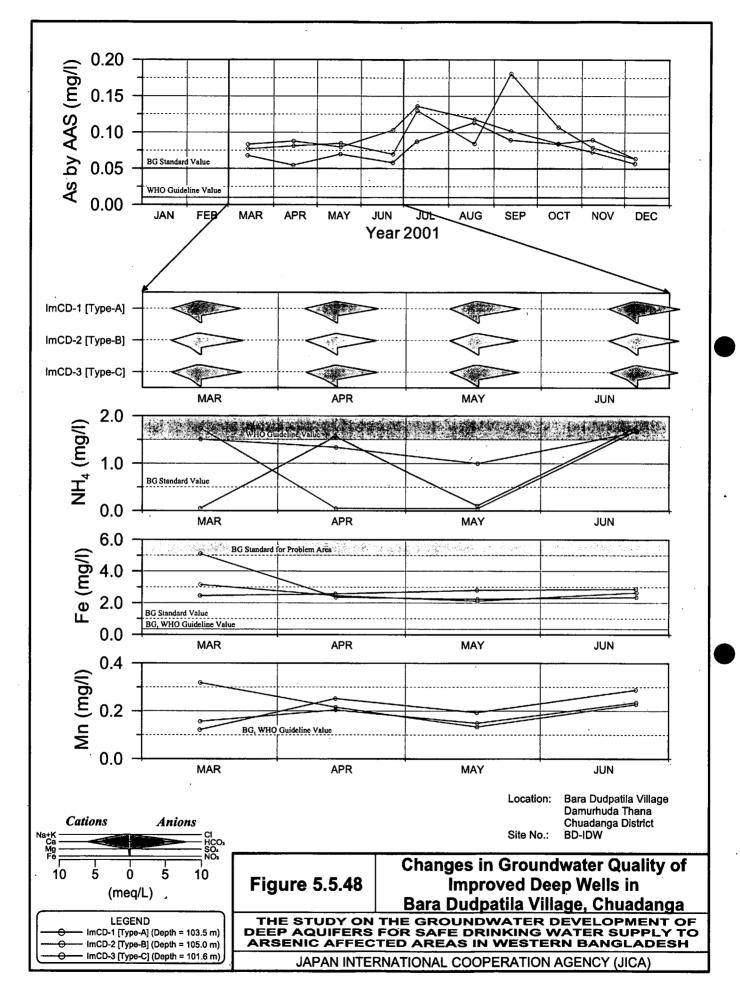


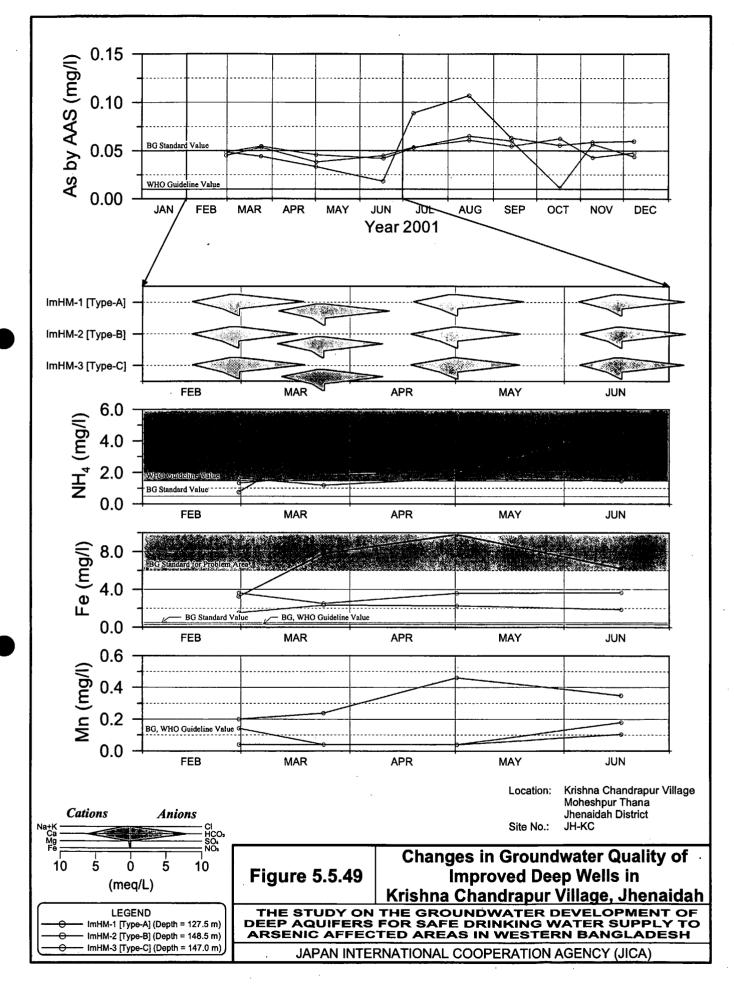
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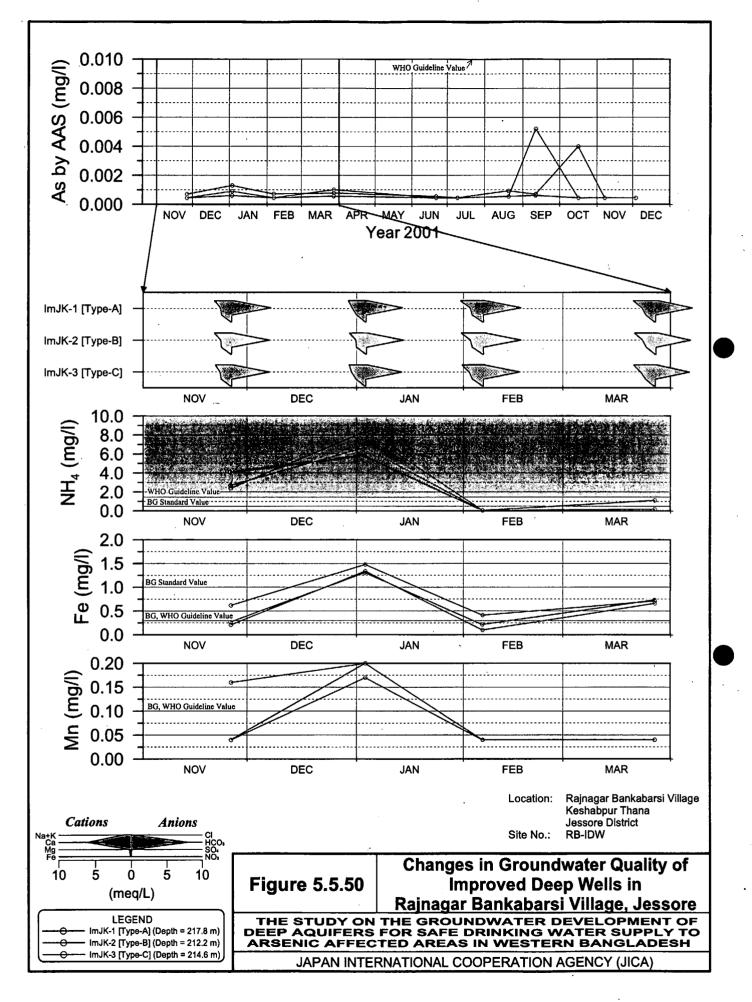


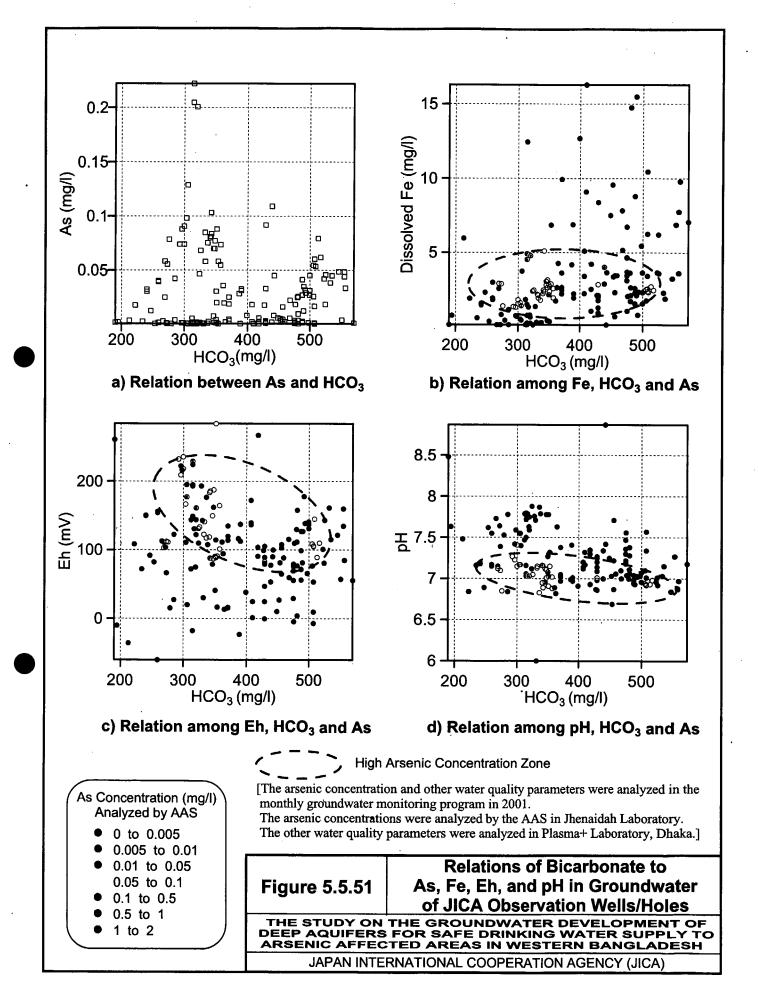


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