February 2014

SFG3430 V2

West Bengal Pollution Board (WBPCB)

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |

in association with **KADAM, Witteveen+Bosand Tauw**

Dhapa Dumpsite

Environmental and

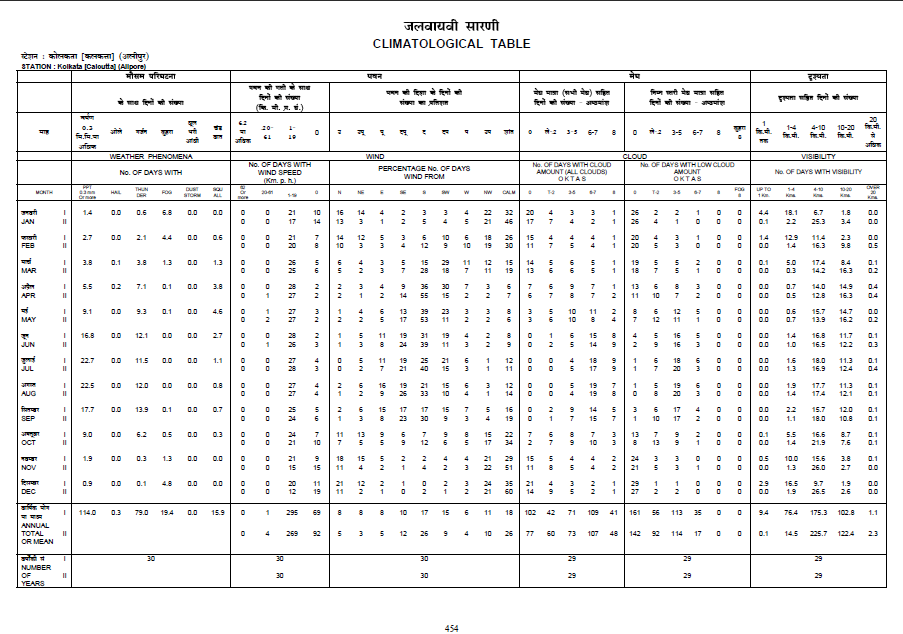
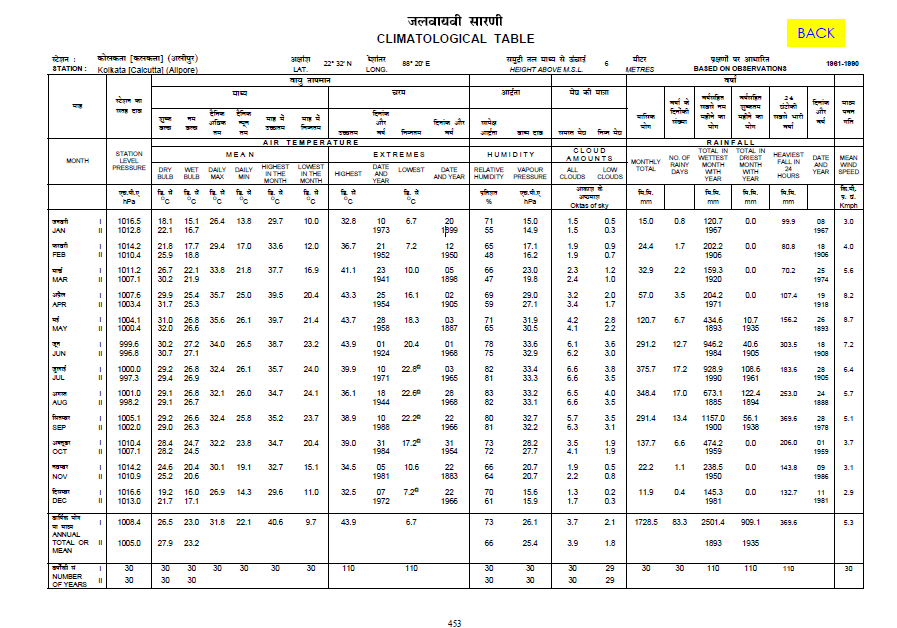
Social Assessment

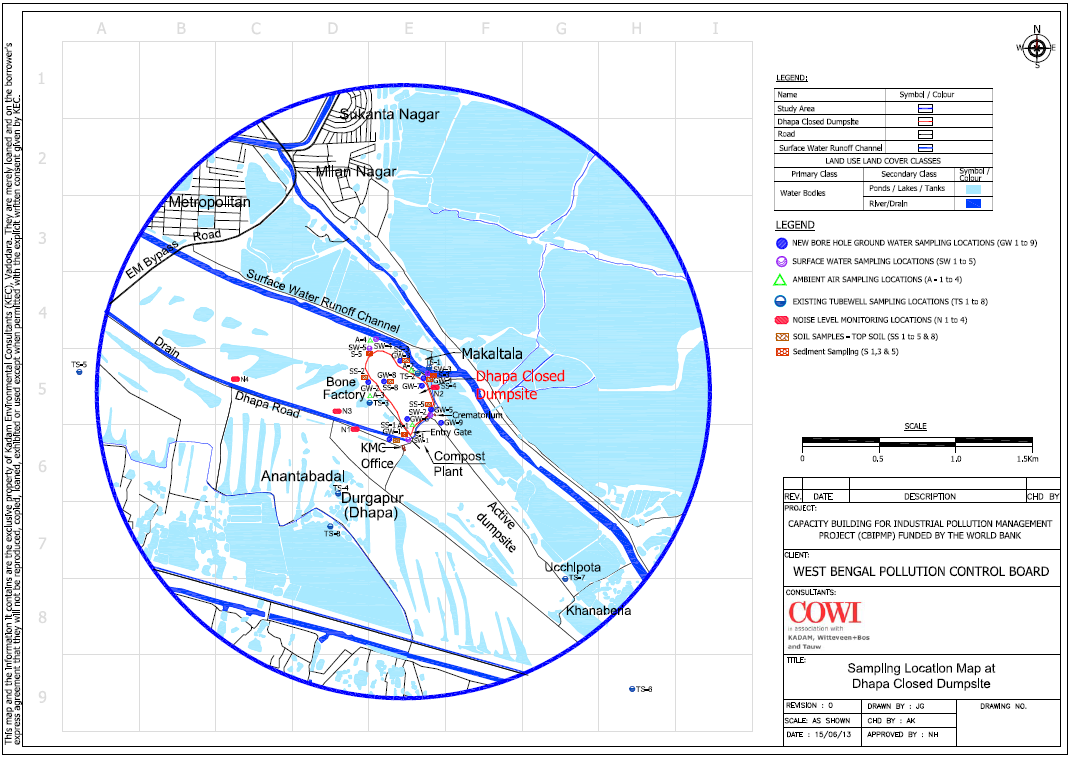
Report

APPENDIx

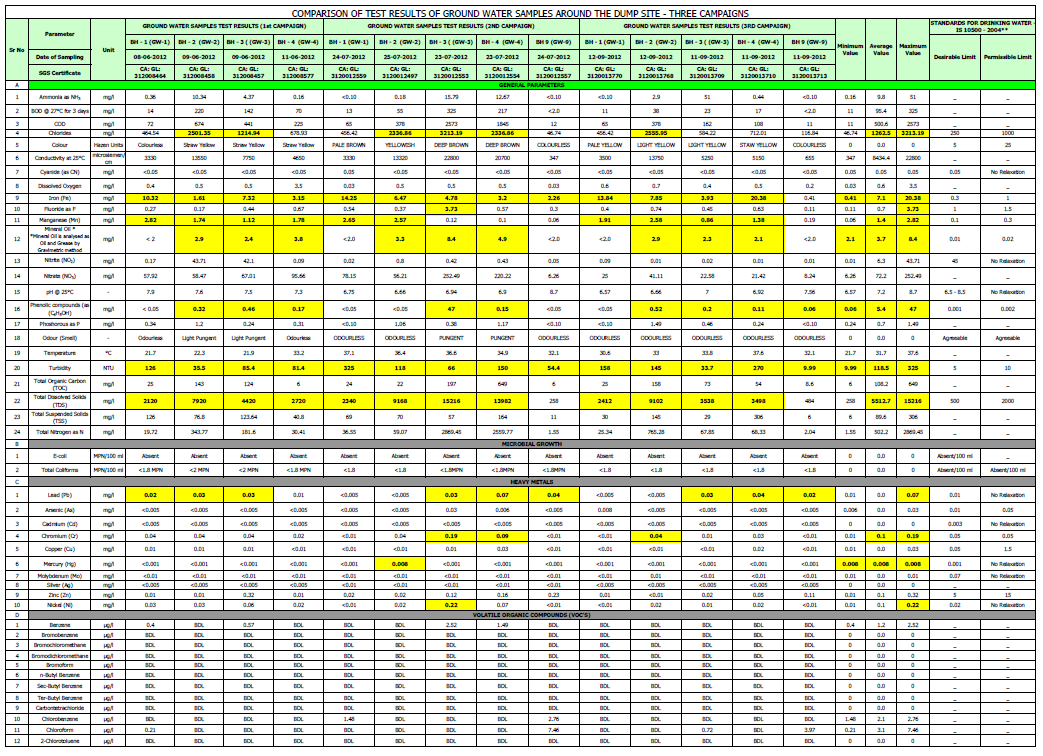
**FINAL REPORT**

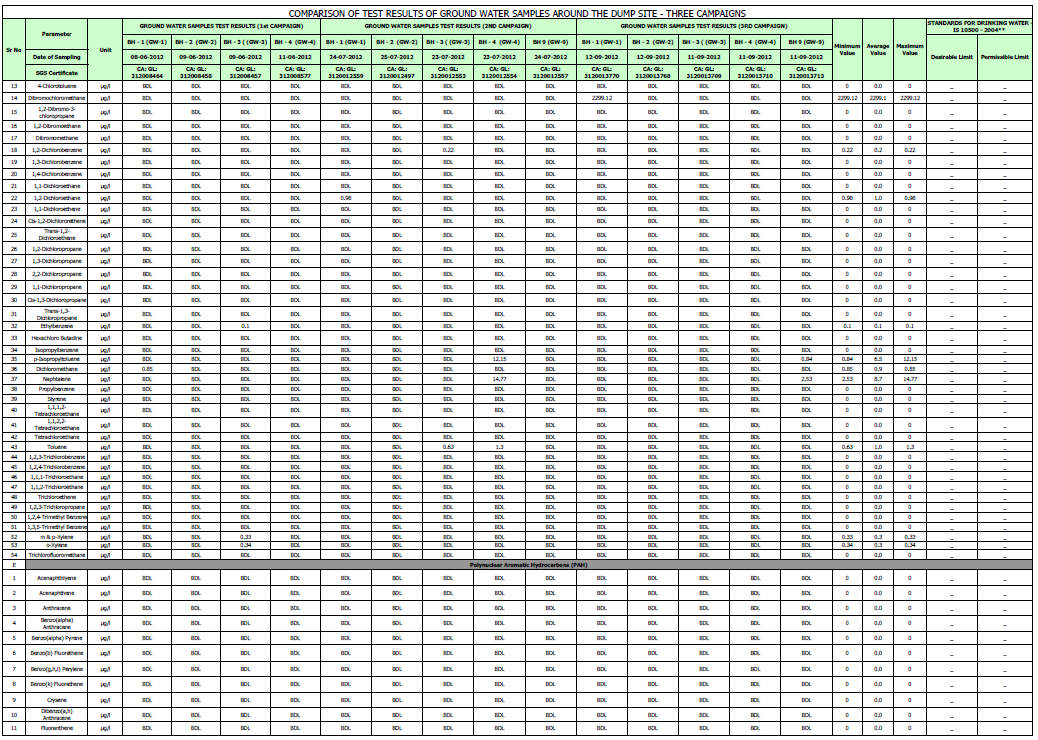
**Appendix 1: Climatological Tables**

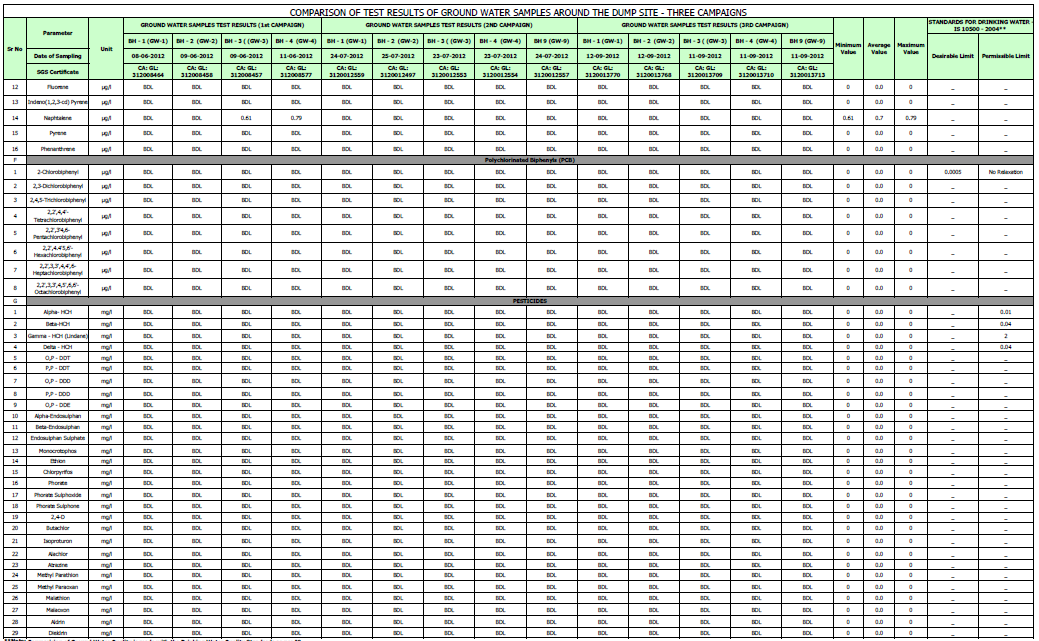


ANNEXURE-II

ANNEXURE-III







ANNEXURE-IV

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| COMPARISON OF TEST RESULTS OF GROUND WATER (LEACHATE) SAMPLES - THREE CAMPAIGNS | | | | | | | | | | | | | | | | | | | | |
| **Sr No** | **Parameter** | **Unit** | **GROUND WATER SAMPLES (LEACHATE) TEST RESULTS (1ST CAMPAIGN)** | | | | **GROUND WATER (LEACHATE) SAMPLES TEST RESULTS (2ND CAMPAIGN)** | | | | **GROUND WATER (LEACHATE) SAMPLES TEST RESULTS (3RD CAMPAIGN)** | | | | **Minimum**  **Value** | **Average**  **Value** | **Maximum**  **Value** | **STANDARDS FOR LEACHATES DISPOSAL AS PER MSW RULES (Inland Surface Waters)** | **STANDARDS FOR DRINKING WATER - IS 10500 - 2004\*\*** | |
| **BH - 5 (GW-5)** | **BH - 6 (GW-6)** | **BH - 7 (GW-7)** | **BH - 8 (GW-8)** | **BH - 5 (GW-5)** | **BH - 6 (GW-6)** | **BH - 7 (GW-7)** | **BH - 8 (GW-8)** | **BH - 5 (GW-5)** | **BH - 6 (GW-6)** | **BH - 7 (GW-7)** | **BH - 8 (GW-8)** | **Desirable**  **Limit** | **Permissible**  **Limit** |
| **Date of Sampling** | **09-06-2012** | **11-06-2012** | **11-06-2012** | **15-06-2012** | **23-07-2012** | **24-07-2012** | **23-07-2012** | **25-07-2012** | **11-09-2012** | **12-09-2012** | **11-09-2012** | **12-09-2012** |
| **SGS Certificate** | **CA: GL:**  **312008456** | **CA: GL:**  **312008579** | **CA: GL:**  **312008578** | **CA: GL:**  **312008951** | **CA: GL:**  **3120012556** | **CA: GL:**  **3120012558** | **CA: GL:**  **3120012555** | **CA: GL:**  **3120012496** | **CA: GL:**  **3120013712** | **CA: GL:**  **3120013769** | **CA: GL:**  **3120013711** | **CA: GL:**  **3120013767** |
| A | **GENERAL PARAMETERS** | | | | | | | | | | | | | | | | | | | |
| 1 | Ammonia as NH3 | mg/l | 47.98 | 17.59 | 37.32 | 53.31 | 0.77 | 13.95 | <0.10 | 115.57 | 28.46 | 24.23 | 25.7 | 16.89 | 0.77 | 34.7 | 115.57 | - | \_ | \_ |
| 2 | BOD @ 27°C for 3 days | mg/l | **1535** | **800** | **1225** | **1270** | **42** | **170** | 29 | **233** | **383** | **383** | **238** | **125** | 29 | **536.1** | **1535** | 30 | \_ | \_ |
| 3 | COD | mg/l | **2941** | **2157** | **2941** | **3762** | **233** | **1408** | 155 | **1893** | **2486** | **1847** | **1441** | **968** | 155 | **1852.7** | **3762** | 250 | \_ | \_ |
| 4 | Chlorides | mg/l | **3930.7** | **2680.02** | **3216.02** | **2590.69** | **803.3** | **2300.35** | 766.78 | **1752.65** | **3468.78** | **2647.23** | **2008.24** | **1460.54** | **766.78** | **2302.1** | **3930.7** | 1000 | 250 | 1000 |
| 5 | Colour | Hazen Units | Yellowish Brown | Dark Yellowish Brown | Dark Yellowish Brown | Dark Yellowish Brown | YELLOWISH | GREYISH BROWN | LIGHT GREEN | YELLOWISH BROWN | BROWNISH YELLOW | BROWNISH | BROWNISH YELLOW | BROWNISH YELLOW | - | - | - | - | 5 | 25 |
| 6 | Conductivity at 25°C | microsiemen/  cm | 22500 | 19650 | 23800 | 28000 | 5850 | 18250 | 4900 | 19860 | 23100 | 19700 | 16800 | 12600 | 4900 | 17917.5 | 28000 | - | \_ | \_ |
| 7 | Cyanide (as CN) | mg/l | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | 0 | 0.0 | 0 | 0.2 | 0.05 | No Relaxation |
| 8 | Dissolved Oxygen | mg/l | 0.5 | 3.9 | 4.2 | 0.4 | 0.5 | 0.02 | 0.5 | 0.5 | 0.3 | 0.4 | 0.7 | 0.2 | 0.02 | 1.0 | 4.2 | - | \_ | \_ |
| 9 | Iron (Fe) | mg/l | **8.32** | **8.62** | **5.38** | **41.6** | **2.59** | **14.59** | **22.66** | **4.88** | **12.28** | **69.2** | **11.46** | **2.21** | **2.21** | **17.0** | **69.2** | - | 0.3 | 1 |
| 10 | Fluoride as F | mg/l | **4.52** | 0.6 | 1.08 | **1.84** | 0.51 | 0.51 | 0.64 | 1.07 | **4.52** | 0.86 | 0.75 | **1.67** | 0.51 | 1.5 | **4.52** | 2 | 1 | 1.5 |
| 11 | Manganese (Mn) | mg/l | 0.32 | **0.34** | 0.27 | **1.18** | **0.8** | **0.52** | 0.97 | 0.13 | 0.15 | **2.21** | **0.33** | 0.19 | 0.13 | 0.6 | **2.21** | - | 0.1 | 0.3 |
| 12 | Mineral Oil \*  \*Mineral Oil is analysed as Oil and Grease by Gravimetric method | mg/l | 6.2 | **5** | **7.2** | <2.0 | **3** | **4** | **2.6** | **5.6** | **6.4** | **4.8** | **4.2** | **3.4** | **2.6** | **4.8** | **7.2** | - | 0.01 | 0.02 |
| 13 | Nitrite (NO2) | mg/l | 0.47 | 0.45 | 0.65 | 0.73 | 0.77 | 0.23 | 0.5 | 0.32 | 0.04 | 0.03 | 0.03 | 0.02 | 0.02 | 0.4 | 0.77 | - | 45 | No Relaxation |
| 14 | Nitrate (NO3) | mg/l | 172.79 | 108.97 | 140.73 | 182.16 | 56.58 | 126.15 | 34.6 | 192.66 | 244.95 | 102.94 | 167.76 | 110.12 | 34.6 | 136.7 | 244.95 | - | \_ | \_ |
| 15 | pH @ 25°C | - | 7.7 | 7.47 | 7.9 | 7.3 | 7.06 | 6.95 | 7.16 | 7.41 | 7.16 | 6.98 | 7.2 | 6.97 | 6.95 | 7.3 | 7.9 | 5.5 - 9 | 6.5 - 8.5 | No Relaxation |
| 16 | Phenolic compounds (as  (C6H5OH) | mg/l | 0.08 | <0.05 | **0.18** | <0.05 | **0.24** | **0.07** | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | **0.07** | **0.1** | **0.24** | 1 | 0.001 | 0.002 |
| 17 | Phoshorous as P | mg/l | 0.19 | 2.78 | 2.1 | 0.66 | 0.13 | <0.10 | <0.10 | 1.61 | 1.79 | 5.01 | 5.65 | 3.73 | 0.13 | 2.4 | 5.65 | - | \_ | \_ |
| 18 | Odour (Smell) | - | Pungent | Pungent | Pungent | Pungent | ODOUR LESS | PUNGENT | ODOUR LESS | PUNGENT | PUNGENT | PUNGENT | PUNGENT | PUNGENT | - | 0.0 | - | - | Agreeable | Agreeable |
| 19 | Temperature | °C | 22.1 | 32.7 | 37.1 | 34.4 | 34.1 | 36.4 | 40.4 | 40.5 | 33.8 | 31.2 | 38.9 | 40.1 | 22.1 | 35.1 | 40.5 | - | \_ | \_ |
| 20 | Turbidity | NTU | **82** | **235** | **57.2** | **165** | **37.6** | **540** | **680** | **82.4** | **20.2** | **540** | **196** | **22.2** | **20.2** | **221.5** | **680** | - | 5 | 10 |
| 21 | Total Organic Carbon  (TOC) | mg/l | 946 | 547 | 946 | 532 | 91 | 493 | 52 | 800 | 1047 | 553 | 581 | 407 | 52 | 582.9 | 1047 | - | \_ | \_ |
| 22 | Total Dissolved Solids  (TDS) | mg/l | **14120** | **15970** | **14960** | **21520** | **3894** | **12464** | **3420** | **13782** | **15214** | **12994** | **11106** | **8360** | **3420** | **12317.0** | **21520** | 2100 | 500 | 2000 |
| 23 | Total Suspended Solids  (TSS) | mg/l | **67.6** | 60 | 36.8 | **110** | 78 | **1700** | **876** | 85 | 40 | **2375** | **249** | 24 | **24** | **475.1** | **2375** | 100 | \_ | \_ |
| 24 | Total Nitrogen as N | mg/l | **1158.71** | **799.65** | **578.57** | **3012.19** | **118.85** | **2462.87** | 9.83 | **5393.6** | **2308.19** | **3032.13** | **2033.72** | **2156.8** | **9.83** | **1922.1** | **5393.6** | 100 | \_ | \_ |
| B | **MICROBIAL GROWTH** | | | | | | | | | | | | | | | | | | | |
| 1 | E-coli | MPN/100 ml | Absent | Absent | Absent | Absent | Absent | Absent | Absent | Absent | Absent | Absent | Absent | Absent | 0 | 0.0 | 0 | - | Absent/100 ml | \_ |
| 2 | Total Coliforms | MPN/100 ml | <2MPN | <1.8 MPN | <1.8 MPN | <1.8 MPN | <1.8MPN | <1.8MPN | <1.8MPN | <1.8 | <1.8 | <1.8 | <1.8 | <1.8 | 0 | 0.0 | 0 | - | Absent/100 ml | Absent/100 ml |
| C | **HEAVY METALS** | | | | | | | | | | | | | | | | | | | |
| 1 | Lead (Pb) | mg/l | 0.06 | 0.06 | 0.03 | **0.25** | <0.005 | 0.09 | 0.05 | 0.02 | 0.07 | **0.5** | 0.08 | <0.005 | 0.02 | **0.1** | **0.5** | 0.1 | 0.01 | No Relaxation |
| 2 | Arsenic (As) | mg/l | 0.04 | <0.005 | <0.005 | 0.023 | <0.005 | <0.005 | <0.005 | 0.02 | 0.05 | <0.005 | 0.02 | <0.005 | 0.02 | 0.0 | 0.05 | 0.2 | 0.01 | 0.05 |
| 3 | Cadmium (Cd) | mg/l | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0 | 0.0 | 0 | 2 | 0.003 | No Relaxation |
| 4 | Chromium (Cr) | mg/l | **0.25** | **0.23** | 0.28 | **1.17** | 0.03 | 0.2 | 0.03 | **0.18** | **0.31** | **0.59** | **0.27** | 0.05 | 0.03 | **0.3** | **1.17** | 2 | 0.05 | 0.05 |
| 5 | Copper (Cu) | mg/l | 0.01 | 0.04 | 0.02 | 0.11 | <0.01 | 0.08 | 0.02 | 0.02 | 0.02 | 0.41 | 0.04 | <0.01 | 0.01 | 0.1 | 0.41 | 3 | 0.05 | 1.5 |
| 6 | Mercury (Hg) | mg/l | <0.001 | <0.001 | <0.001 | <0.005 | <0.001 | <0.001 | <0.001 | **0.02** | <0.001 | <0.001 | <0.001 | <0.001 | **0.02** | **0.0** | **0.02** | 0.01 | 0.001 | No Relaxation |
| 7 | Molybdenum (Mo) | mg/l | 0.01 | <0.01 | <0.01 | 0.02 | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <0.01 | 0.01 | 0.0 | 0.02 | - | 0.07 | No Relaxation |
| 8 | Silver (Ag) | mg/l | <0.005 | <0.005 | <0.005 | 1.56 | <0.01 | <0.01 | <0.01 | <0.01 | <0.005 | <0.005 | <0.005 | <0.005 | 1.56 | 1.6 | 1.56 | - | \_ | \_ |
| 9 | Zinc (Zn) | mg/l | 0.11 | 0.13 | 0.17 | 0.46 | 0.02 | 0.23 | 0.05 | 0.11 | 0.15 | 1.03 | 0.17 | 0.01 | 0.01 | 0.2 | 1.03 | 5 | 5 | 15 |
| 10 | Nickel (Ni) | mg/l | 0.28 | 0.13 | 0.16 | 0.88 | 0.03 | 0.11 | 0.02 | 0.2 | 0.35 | 0.21 | 0.15 | 0.07 | 0.02 | 0.2 | 0.88 | 3 | 0.02 | No Relaxation |
| D | **VOLATILE ORGANIC COMPOUNDS (VOC'S)** | | | | | | | | | | | | | | | | | | | |
| 1 | Benzene | µg/l | BDL | 2.8 | 0.75 | 3.43 | BDL | 7.93 | BDL | BDL | 3.13 | 12.78 | 2.58 | 2.26 | 0.75 | 4.5 | 12.78 | - | \_ | \_ |
| 2 | Bromobenzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 3 | Bromochloromethane | µg/l | BDL | BDL | 0.28 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.28 | 0.3 | 0.28 | - | \_ | \_ |
| 4 | Bromodichloromethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 329.72 | BDL | BDL | BDL | 329.72 | 329.7 | 329.72 | - | \_ | \_ |
| 5 | Bromoform | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 6 | n-Butyl Benzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 7 | Sec-Butyl Benzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 8 | Ter-Butyl Benzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 9 | Carbontetrachloride | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sr No** | **Parameter** | **Unit** | **GROUND WATER SAMPLES (LEACHATE) TEST RESULTS (1ST CAMPAIGN)** | | | | **GROUND WATER (LEACHATE) SAMPLES TEST RESULTS (2ND CAMPAIGN)** | | | | **GROUND WATER (LEACHATE) SAMPLES TEST RESULTS (3RD CAMPAIGN)** | | | | **Minimum**  **Value** | **Average**  **Value** | **Maximum**  **Value** | **STANDARDS FOR LEACHATES DISPOSAL AS PER MSW RULES (Inland Surface Waters)** | **STANDARDS FOR DRINKING WATER - IS 10500 - 2004\*\*** | |
| **BH - 5 (GW-5)** | **BH - 6 (GW-6)** | **BH - 7 (GW-7)** | **BH - 8 (GW-8)** | **BH - 5 (GW-5)** | **BH - 6 (GW-6)** | **BH - 7 (GW-7)** | **BH - 8 (GW-8)** | **BH - 5 (GW-5)** | **BH - 6 (GW-6)** | **BH - 7 (GW-7)** | **BH - 8 (GW-8)** | **Desirable**  **Limit** | **Permissible**  **Limit** |
| **Date of Sampling** | **09-06-2012** | **11-06-2012** | **11-06-2012** | **15-06-2012** | **23-07-2012** | **24-07-2012** | **23-07-2012** | **25-07-2012** | **11-09-2012** | **12-09-2012** | **11-09-2012** | **12-09-2012** |
| **SGS Certificate** | **CA: GL:**  **312008456** | **CA: GL:**  **312008579** | **CA: GL:**  **312008578** | **CA: GL:**  **312008951** | **CA: GL:**  **3120012556** | **CA: GL:**  **3120012558** | **CA: GL:**  **3120012555** | **CA: GL:**  **3120012496** | **CA: GL:**  **3120013712** | **CA: GL:**  **3120013769** | **CA: GL:**  **3120013711** | **CA: GL:**  **3120013767** |
| A | **GENERAL PARAMETERS** | | | | | | | | | | | | | | | | | | | |
| 10 | Chlorobenzene | µg/l | BDL | BDL | BDL | 0.76 | BDL | 1.25 | BDL | BDL | BDL | BDL | BDL | BDL | 0.76 | 1.0 | 1.25 | - | \_ | \_ |
| 11 | Chloroform | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 12 | 2-Chlorotoluene | µg/l | BDL | 0.72 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.72 | 0.7 | 0.72 | - | \_ | \_ |
| 13 | 4-Chlorotoluene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 14 | Dibromochloromethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 15 | 1,2-Dibromo-3- chloropropane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 16 | 1,2-Dibromoethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 17 | Dibromomethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 18 | 1,2-Dichlorobenzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 19 | 1,3-Dichlorobenzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 20 | 1,4-Dichlorobenzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 21 | 1,1-Dichloroethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 22 | 1,2-Dichloroethane | µg/l | BDL | BDL | BDL | BDL | BDL | 0.2 | BDL | BDL | BDL | BDL | BDL | BDL | 0.2 | 0.2 | 0.2 | - | \_ | \_ |
| 23 | 1,1-Dichloroethene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 24 | Cis-1,2-Dichlororethene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 25 | Trans-1,2-Dichloroethene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 26 | 1,2-Dichloropropane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 27 | 1,3-Dichloropropane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 28 | 2,2-Dichloropropane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 29 | 1,1-Dichloropropane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 30 | Cis-1,3-Dichloropropane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 31 | Trans-1,3- Dichloropropane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 32 | Ethylbenzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.96 | 1.11 | 1.36 | 1.28 | 0.96 | 1.2 | 1.36 | - | \_ | \_ |
| 33 | Hexachloro Butadine | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 34 | Isopropylbenzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 35 | p-Isopropyltoluene | µg/l | BDL | BDL | BDL | BDL | BDL | 1.61 | 1.07 | BDL | 8.55 | 2.58 | BDL | 0.96 | 0.96 | 3.0 | 8.55 | - | \_ | \_ |
| 36 | Dichloromethane | µg/l | 2.1 | BDL | BDL | 95.6 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 2.1 | 48.9 | 95.6 | - | \_ | \_ |
| 37 | Naphtalene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 7.02 | BDL | 13.52 | BDL | 7.02 | 10.3 | 13.52 | - | \_ | \_ |
| 38 | Propylbenzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 39 | Styrene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 7.94 | BDL | BDL | 7.94 | 7.9 | 7.94 | - | \_ | \_ |
| 40 | 1,1,1,2-  Tetrachloroethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 41 | 1,1,2,2- Tetrachloroethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 42 | Tetrachloroethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 43 | Toluene | µg/l | BDL | 3.22 | BDL | 2.45 | BDL | BDL | BDL | BDL | 0.9 | BDL | 1.89 | 0.36 | 0.36 | 1.8 | 3.22 | - | \_ | \_ |
| 44 | 1,2,3-Trichlorobenzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 45 | 1,2,4-Trichlorobenzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.29 | BDL | 0.29 | 0.3 | 0.29 | - | \_ | \_ |
| 46 | 1,1,1-Trichloroethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 47 | 1,1,2-Trichloroethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 48 | Trichloroethene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 49 | 1,2,3-Trichloropropane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 50 | 1,2,4-Trimethyl Benzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.46 | BDL | 0.46 | 0.5 | 0.46 | - | \_ | \_ |
| 51 | 1,3,5-Trimethyl Benzene | µg/l | BDL | BDL | 0.1 | BDL | BDL | BDL | BDL | BDL | BDL | 0.42 | BDL | BDL | 0.1 | 0.3 | 0.42 | - | \_ | \_ |
| 52 | m & p-Xylene | µg/l | 0.14 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 2.23 | BDL | BDL | 0.14 | 1.2 | 2.23 | - | \_ | \_ |
| 53 | o-Xylene | µg/l | 0.26 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.54 | 1.13 | 0.26 | 0.6 | 1.13 | - | \_ | \_ |
| 54 | Trichlorofluoromethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| E | **Polynuclear Aromatic Hydrocarbons (PAH)** | | | | | | | | | | | | | | | | | | | |
| 1 | Acenaphthlyene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 2 | Acenaphthene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 3 | Anthracene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 4 | Benzo(alpha) Anthracene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 5 | Benzo(alpha) Pyrene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 6 | Benzo(b) Fluorathene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 7 | Benzo(g,h,i) Perylene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 8 | Benzo(k) Fluorathene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sr No** | **Parameter** | **Unit** | **GROUND WATER SAMPLES (LEACHATE) TEST RESULTS (1ST CAMPAIGN)** | | | | **GROUND WATER (LEACHATE) SAMPLES TEST RESULTS (2ND CAMPAIGN)** | | | | **GROUND WATER (LEACHATE) SAMPLES TEST RESULTS (3RD CAMPAIGN)** | | | | **Minimum**  **Value** | **Average**  **Value** | **Maximum**  **Value** | **STANDARDS FOR LEACHATES DISPOSAL AS PER MSW RULES (Inland Surface Waters)** | **STANDARDS FOR DRINKING WATER - IS 10500 - 2004\*\*** | |
| **BH - 5 (GW-5)** | **BH - 6 (GW-6)** | **BH - 7 (GW-7)** | **BH - 8 (GW-8)** | **BH - 5 (GW-5)** | **BH - 6 (GW-6)** | **BH - 7 (GW-7)** | **BH - 8 (GW-8)** | **BH - 5 (GW-5)** | **BH - 6 (GW-6)** | **BH - 7 (GW-7)** | **BH - 8 (GW-8)** | **Desirable**  **Limit** | **Permissible**  **Limit** |
| **Date of Sampling** | **09-06-2012** | **11-06-2012** | **11-06-2012** | **15-06-2012** | **23-07-2012** | **24-07-2012** | **23-07-2012** | **25-07-2012** | **11-09-2012** | **12-09-2012** | **11-09-2012** | **12-09-2012** |
| **SGS Certificate** | **CA: GL:**  **312008456** | **CA: GL:**  **312008579** | **CA: GL:**  **312008578** | **CA: GL:**  **312008951** | **CA: GL:**  **3120012556** | **CA: GL:**  **3120012558** | **CA: GL:**  **3120012555** | **CA: GL:**  **3120012496** | **CA: GL:**  **3120013712** | **CA: GL:**  **3120013769** | **CA: GL:**  **3120013711** | **CA: GL:**  **3120013767** |
| A | **GENERAL PARAMETERS** | | | | | | | | | | | | | | | | | | | |
| 9 | Crysene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 10 | Dibenzo(a,h) Anthracene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 11 | Fluoranthene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 12 | Fluorene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 13 | Indeno(1,2,3-cd) Pyrene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 14 | Naphtalene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 15 | Pyrene | µg/l | BDL | BDL | BDL | 0.59 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.59 | 0.6 | 0.59 | - | \_ | \_ |
| 16 | Phenanthrene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| F | **Polychlorinated Biphenyls (PCB)** | | | | | | | | | | | | | | | | | | | |
| 1 | 2-Chlorobiphenyl | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | 0.0005 | No Relaxation |
| 2 | 2,3-Dichlorobiphenyl | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 3 | 2,4,5-Trichlorobiphenyl | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 4 | 2,2',4,4'- Tetrachlorobiphenyl | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 5 | 2,2',3'4,6- Pentachlorobiphenyl | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 6 | 2,2',4.4'5,6'- Hexachlorobiphenyl | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 7 | 2,2',3,3',4,4',6- Heptachlorobiphenyl | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| 8 | 2,2',3,3',4,5',6,6'- Octachlorobiphenyl | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | \_ |
| G | **PESTICIDES** | | | | | | | | | | | | | | | | | | | |
| 1 | Alpha- HCH | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | - | \_ | 0.01 |
| 2 | Beta-HCH | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 1.0 | 0 | - | \_ | 0.04 |
| 3 | Gamma - HCH (Lindane) | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 2.0 | 0 | - | \_ | 2 |
| 4 | Delta - HCH | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 3.0 | 0 | - | \_ | 0.04 |
| 5 | O,P - DDT | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 4.0 | 0 | - | \_ | \_ |
| 6 | P,P - DDT | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 5.0 | 0 | - | \_ | \_ |
| 7 | O,P - DDD | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 6.0 | 0 | - | \_ | \_ |
| 8 | P,P - DDD | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 7.0 | 0 | - | \_ | \_ |
| 9 | O,P - DDE | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 8.0 | 0 | - | \_ | \_ |
| 10 | Alpha-Endosulphan | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 9.0 | 0 | - | \_ | \_ |
| 11 | Beta-Endosulphan | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 10.0 | 0 | - | \_ | \_ |
| 12 | Endosulphan Sulphate | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 11.0 | 0 | - | \_ | \_ |
| 13 | Monocrotophos | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 12.0 | 0 | - | \_ | \_ |
| 14 | Ethion | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 13.0 | 0 | - | \_ | \_ |
| 15 | Chlorpyrifos | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 14.0 | 0 | - | \_ | \_ |
| 16 | Phorate | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 15.0 | 0 | - | \_ | \_ |
| 17 | Phorate Sulphoxide | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 16.0 | 0 | - | \_ | \_ |
| 18 | Phorate Sulphone | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 17.0 | 0 | - | \_ | \_ |
| 19 | 2,4-D | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 18.0 | 0 | - | \_ | \_ |
| 20 | Butachlor | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 19.0 | 0 | - | \_ | \_ |
| 21 | Isoproturon | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 20.0 | 0 | - | \_ | \_ |
| 22 | Alachlor | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 21.0 | 0 | - | \_ | \_ |
| 23 | Atrazine | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 22.0 | 0 | - | \_ | \_ |
| 24 | Methyl Parathion | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 23.0 | 0 | - | \_ | \_ |
| 25 | Methyl Paraoxan | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 24.0 | 0 | - | \_ | \_ |
| 26 | Malathion | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 25.0 | 0 | - | \_ | \_ |
| 27 | Malaoxon | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 26.0 | 0 | - | \_ | \_ |
| 28 | Aldrin | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 27.0 | 0 | - | \_ | \_ |
| 29 | Dieldrin | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 28.0 | 0 | - | \_ | \_ |

**\*\*Note: " - " Data not available**

**ANNEXURE-V**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| COMPARISON OF TEST RESULTS OF GROUND WATER (TUBEWELL) SAMPLES | | | | | | | | | | | | | | | | |
| **Sr No** | **Parameter** | **Unit** | **GROUND WATER (EXISTING TUBEWELLS) SAMPLES TEST RESULTS (2ND CAMPAIGN)** | | | | | | **ADDITIONAL EXISTING WELLS IN STUDY AREA** | | | **Minimum**  **Value** | **Average**  **Value** | **Maximum**  **Value** | **STANDARDS FOR DRINKING WATER - IS 10500 - 2004\*\*** | |
| **Existing Borehole at Martinpara (TS**  **6)** | **Existing**  **Borehole at**  **-Malaktala Village**  **(TS-1)** | **Existing Borehole at Dump Site near**  **Makaltala Village**  **(TS-2)** | **Existing**  **Borehole AT Bone Factory (TS**  **3)** | **Existing Borehole at Durgapur (TS-**  **4)** | **Existing Borehole at ITC Sonar Bangla (TS-5)** | **Existing Borewell at Uchhupota** | **Existing Borewell at Khanaberia** | **Existing Borewell at Anantabadal** | **Desirable**  **Limit** | **Permissible**  **Limit** |
| **Date of Sampling** | **10-07-2012** | **10-07-2012** | **10-07-2012** | **10-07-2012** | **10-07-2012** | **24-07-2012** | **15-06-2013** | **15-06-2013** | **15-06-2013** |
| **SGS Certificate** | **CA: GL:**  **3120012502** | **CA: GL:**  **3120012498** | **CA: GL:**  **3120012499** | **CA: GL:**  **3120012500** | **CA: GL:**  **3120012501** | **CA: GL:**  **3120012560** | **KG-13-**  **004569.001** | **KG-13-**  **004569.002** | **KG-13-**  **004569.003** |
| A | **GENERAL PARAMETERS** | | | | | | | | | | | | | | | |
| 1 | Ammonia as NH3 | mg/l | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | 0.21 | 0.14 | 0.28 | 0.14 | 0.0 | 0 | \_ | \_ |
| 2 | BOD @ 27°C for 3 days | mg/l | <2.0 | <2.0 | 2 | <2.0 | <2.0 | <2.0 | 1.1 | 0.7 | 1 | 0.7 | 1.2 | 2 | \_ | \_ |
| 3 | COD | mg/l | 14 | 10 | 16 | <5.0 | 8 | 8 | 5.12 | 3.42 | 5.12 | 3.42 | 8.7 | 16 | \_ | \_ |
| 4 | Chlorides | mg/l | 419.91 | 456.42 | 429.03 | 438.16 | 438.16 | 419.91 | 374.46 | 392.29 | 481.45 | 374.46 | 427.8 | 481.45 | 250 | 1000 |
| 5 | Colour | Hazen Units | COLOURLESS | COLOURLESS | COLOURLESS | COLOURLESS | COLOURLESS | COLOURLESS | **40** | 5 | 15 | 5 | 20.0 | 40 | 5 | 25 |
| 6 | Conductivity at 25°C | microsiemen/  cm | 1810 | 1914 | 1887 | 1980 | 1996 | 1724 | 1804 | 1823 | 2120 | 1724 | 1895.3 | 2120 | \_ | \_ |
| 7 | Cyanide (as CN) | mg/l | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | 0 | 0.0 | 0 | 0.05 | No Relaxation |
| 8 | Dissolved Oxygen | mg/l | 0.9 | 0.7 | 0.3 | 0.5 | 1.2 | 1.9 | 0.9 | 0.8 | 0.8 | 0.3 | 0.9 | 1.9 | \_ | \_ |
| 9 | Iron (Fe) | mg/l | **1.02** | **1.62** | 0.9 | 0.05 | 0.08 | 0.25 | 2.7155 | 0.1171 | 0.285 | 0.05 | 0.8 | 2.7155 | 0.3 | 1 |
| 10 | Fluoride as F | mg/l | 0.36 | 0.36 | 0.33 | 0.36 | 0.37 | 0.4 | 0.53 | 0.23 | 0.39 | 0.23 | 0.4 | 0.53 | 1 | 1.5 |
| 11 | Manganese (Mn) | mg/l | 0.22 | **0.38** | 0.29 | **0.39** | <0.18 | 0.3 | 0.2178 | 0.3751 | 0.3658 | 0.2178 | 0.3 | 0.39 | 0.1 | 0.3 |
| 12 | Mineral Oil \*  \*Mineral Oil is analysed as  Oil and Grease by  Gravimetric method | mg/l | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | 0 | 0.0 | 0 | 0.01 | 0.02 |
| 13 | Nitrite (NO2) | mg/l | 0.01 | 0.02 | 0.02 | 0.01 | 0.01 | 0.09 | 0.13 | 0.1 | 0.12 | 0.01 | 0.1 | 0.13 | 45 | No Relaxation |
| 14 | Nitrate (NO3) | mg/l | 1.65 | 1.06 | 1.31 | 0.69 | 1.35 | 0.73 | 0.05 | 0.04 | 0.01 | 0.01 | 0.8 | 1.65 | \_ | \_ |
| 15 | pH @ 25°C | - | 7.02 | 6.99 | 7.04 | 7.1 | 7.16 | 7.02 | 6.24 | 6.13 | 6.22 | 6.13 | 6.8 | 7.16 | 6.5 - 8.5 | No Relaxation |
| 16 | Phenolic compounds (as  (C6H5OH) | mg/l | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | 0 | 0.0 | 0 | 0.001 | 0.002 |
| 17 | Phoshorous as P | mg/l | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | <0.10 | 0 | 0.0 | 0 | \_ | \_ |
| 18 | Odour (Smell) | - | ODOURLESS | ODOURLESS | ODOURLESS | ODOURLESS | ODOURLESS | ODOURLESS | ODOURLESS | ODOURLESS | ODOURLESS | 0 | 0.0 | 0 | Agreeable | Agreeable |
| 19 | Temperature | °C | 33.7 | 29.8 | 35.8 | 37.4 | 36.4 | 30.2 | 29.1 | 28.8 | 28.9 | 28.8 | 32.2 | 37.4 | \_ | \_ |
| 20 | Turbidity | NTU | 1.3 | **24.8** | **13.5** | 0.02 | 9.99 | 4.12 | **94.2** | 2.75 | 7.14 | 0.02 | 17.5 | 94.2 | 5 | 10 |
| 21 | Total Organic Carbon  (TOC) | mg/l | 1.46 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | 3 | < 0.5 | < 0.5 | < 0.5 | 1.46 | 2.2 | 3 | \_ | \_ |
| 22 | Total Dissolved Solids  (TDS) | mg/l | 1268 | 1478 | 1460 | 1524 | 1536 | 1328 | 1176 | 1184 | 1384 | 1176 | 1370.9 | 1536 | 500 | 2000 |
| 23 | Total Suspended Solids  (TSS) | mg/l | <5 | <5 | <5 | <5 | <5 | <5 | 11.04 | 2.36 | 4.84 | 2.36 | 6.1 | 11.04 | \_ | \_ |
| 24 | Total Nitrogen as N | mg/l | 0.53 | 0.4 | 0.46 | 0.32 | 0.45 | 0.31 | 0.9 | 0.49 | 0.74 | 0.31 | 0.5 | 0.9 | \_ | \_ |
| B | **MICROBIAL GROWTH** | | | | | | | | | | | | | | | |
| 1 | E-coli | MPN/100 ml | Absent | Absent | Absent | Absent | Absent | Absent | <1.8 | <1.8 | <1.8 | 0 | 0.0 | 0 | Absent/100 ml | \_ |
| 2 | Total Coliforms | MPN/100 ml | < 2 | 23 | < 2 | 7.8 | < 2 | <1.8MPN | 9.2 | 350 | <1.8 | 7.8 | 97.5 | 350 | Absent/100 ml | Absent/100 ml |
| C | **HEAVY METALS** | | | | | | | | | | | | | | | |
| 1 | Lead (Pb) | mg/l | <0.005 | <0.005 | <0.005 | **0.02** | <0.005 | <0.005 | <0.005 | 0.0068 | 0.0054 | 0.0054 | 0.0 | 0.02 | 0.01 | No Relaxation |
| 2 | Arsenic (As) | mg/l | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0 | 0.0 | 0 | 0.01 | 0.05 |

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| COMPARISON OF TEST RESULTS OF GROUND WATER (TUBEWELL) SAMPLES | | | | | | | | | | | | | | | | |
| **Sr No** | **Parameter** | **Unit** | **GROUND WATER (EXISTING TUBEWELLS) SAMPLES TEST RESULTS (2ND CAMPAIGN)** | | | | | | **ADDITIONAL EXISTING WELLS IN STUDY AREA** | | | **Minimum**  **Value** | **Average**  **Value** | **Maximum**  **Value** | **STANDARDS FOR DRINKING WATER - IS 10500 - 2004\*\*** | |
| **Existing Borehole at Martinpara (TS**  **6)** | **Existing**  **Borehole at**  **-Malaktala Village**  **(TS-1)** | **Existing Borehole at Dump Site near**  **Makaltala Village**  **(TS-2)** | **Existing**  **Borehole AT Bone Factory (TS**  **3)** | **Existing Borehole at Durgapur (TS-**  **4)** | **Existing Borehole at ITC Sonar Bangla (TS-5)** | **Existing Borewell at Uchhupota** | **Existing Borewell at Khanaberia** | **Existing Borewell at Anantabadal** | **Desirable**  **Limit** | **Permissible**  **Limit** |
| **Date of Sampling** | **10-07-2012** | **10-07-2012** | **10-07-2012** | **10-07-2012** | **10-07-2012** | **24-07-2012** | **15-06-2013** | **15-06-2013** | **15-06-2013** |
| **SGS Certificate** | **CA: GL:**  **3120012502** | **CA: GL:**  **3120012498** | **CA: GL:**  **3120012499** | **CA: GL:**  **3120012500** | **CA: GL:**  **3120012501** | **CA: GL:**  **3120012560** | **KG-13-**  **004569.001** | **KG-13-**  **004569.002** | **KG-13-**  **004569.003** |
| 3 | Cadmium (Cd) | mg/l | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0 | 0.0 | 0 | 0.003 | No Relaxation |
| 4 | Chromium (Cr) | mg/l | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0 | 0.0 | 0 | 0.05 | 0.05 |
| 5 | Copper (Cu) | mg/l | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0 | 0.0 | 0 | 0.05 | 1.5 |
| 6 | Mercury (Hg) | mg/l | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0 | 0.0 | 0 | 0.001 | No Relaxation |
| 7 | Molybdenum (Mo) | mg/l | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0 | 0.0 | 0 | 0.07 | No Relaxation |
| 8 | Silver (Ag) | mg/l | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0 | 0.0 | 0 | \_ | \_ |
| 9 | Zinc (Zn) | mg/l | 0.01 | 0.83 | 0.7 | 0.03 | 4.29 | <0.01 | 1.0298 | 2.5268 | 4.9098 | 0.01 | 1.8 | 4.9098 | 5 | 15 |
| 10 | Nickel (Ni) | mg/l | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0 | 0.0 | 0 | 0.02 | No Relaxation |
| D | **VOLATILE ORGANIC COMPOUNDS (VOC'S)** | | | | | | | | | | | | | | | |
| 1 | Benzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 2 | Bromobenzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 3 | Bromochloromethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 4 | Bromodichloromethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 5 | Bromoform | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 6 | n-Butyl Benzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 7 | Sec-Butyl Benzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 8 | Ter-Butyl Benzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 9 | Carbontetrachloride | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 10 | Chlorobenzene | µg/l | BDL | BDL | BDL | BDL | BDL | 0.84 | BDL | BDL | BDL | 0.84 | 0.8 | 0.84 | \_ | \_ |
| 11 | Chloroform | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 12 | 2-Chlorotoluene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 13 | 4-Chlorotoluene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 14 | Dibromochloromethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 15 | 1,2-Dibromo-3-  chloropropane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 16 | 1,2-Dibromoethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 17 | Dibromomethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 18 | 1,2-Dichlorobenzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 19 | 1,3-Dichlorobenzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 20 | 1,4-Dichlorobenzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 21 | 1,1-Dichloroethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 22 | 1,2-Dichloroethane | µg/l | BDL | BDL | BDL | BDL | BDL | 0.57 | BDL | BDL | BDL | 0.57 | 0.6 | 0.57 | \_ | \_ |
| 23 | 1,1-Dichloroethene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 24 | Cis-1,2-Dichlororethene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 25 | Trans-1,2-  Dichloroethene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 26 | 1,2-Dichloropropane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 27 | 1,3-Dichloropropane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 28 | 2,2-Dichloropropane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 29 | 1,1-Dichloropropane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 30 | Cis-1,3-Dichloropropane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 31 | Trans-1,3-  Dichloropropane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 32 | Ethylbenzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 33 | Hexachloro Butadine | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 34 | Isopropylbenzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 35 | p-Isopropyltoluene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 36 | Dichloromethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 37 | Naphtalene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 38 | Propylbenzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 39 | Styrene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 40 | 1,1,1,2-  Tetrachloroethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |

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| COMPARISON OF TEST RESULTS OF GROUND WATER (TUBEWELL) SAMPLES | | | | | | | | | | | | | | | | |
| **Sr No** | **Parameter** | **Unit** | **GROUND WATER (EXISTING TUBEWELLS) SAMPLES TEST RESULTS (2ND CAMPAIGN)** | | | | | | **ADDITIONAL EXISTING WELLS IN STUDY AREA** | | | **Minimum**  **Value** | **Average**  **Value** | **Maximum**  **Value** | **STANDARDS FOR DRINKING WATER - IS 10500 - 2004\*\*** | |
| **Existing Borehole at Martinpara (TS**  **6)** | **Existing**  **Borehole at**  **-Malaktala Village**  **(TS-1)** | **Existing Borehole at Dump Site near**  **Makaltala Village**  **(TS-2)** | **Existing**  **Borehole AT Bone Factory (TS**  **3)** | **Existing Borehole at Durgapur (TS-**  **4)** | **Existing Borehole at ITC Sonar Bangla (TS-5)** | **Existing Borewell at Uchhupota** | **Existing Borewell at Khanaberia** | **Existing Borewell at Anantabadal** | **Desirable**  **Limit** | **Permissible**  **Limit** |
| **Date of Sampling** | **10-07-2012** | **10-07-2012** | **10-07-2012** | **10-07-2012** | **10-07-2012** | **24-07-2012** | **15-06-2013** | **15-06-2013** | **15-06-2013** |
| **SGS Certificate** | **CA: GL:**  **3120012502** | **CA: GL:**  **3120012498** | **CA: GL:**  **3120012499** | **CA: GL:**  **3120012500** | **CA: GL:**  **3120012501** | **CA: GL:**  **3120012560** | **KG-13-**  **004569.001** | **KG-13-**  **004569.002** | **KG-13-**  **004569.003** |
| 41 | 1,1,2,2-  Tetrachloroethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 42 | Tetrachloroethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 43 | Toluene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 44 | 1,2,3-Trichlorobenzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 45 | 1,2,4-Trichlorobenzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 46 | 1,1,1-Trichloroethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 47 | 1,1,2-Trichloroethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 48 | Trichloroethene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 49 | 1,2,3-Trichloropropane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 50 | 1,2,4-Trimethyl Benzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 51 | 1,3,5-Trimethyl Benzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 52 | m & p-Xylene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 53 | o-Xylene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 54 | Trichlorofluoromethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| E | **Polynuclear Aromatic Hydrocarbons (PAH)** | | | | | | | | | | | | | | | |
| 1 | Acenaphthlyene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 2 | Acenaphthene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 3 | Anthracene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 4 | Benzo(alpha)  Anthracene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 5 | Benzo(alpha) Pyrene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 6 | Benzo(b) Fluorathene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 7 | Benzo(g,h,i) Perylene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 8 | Benzo(k) Fluorathene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 9 | Crysene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 10 | Dibenzo(a,h)  Anthracene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 11 | Fluoranthene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 12 | Fluorene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 13 | Indeno(1,2,3-cd) Pyrene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 14 | Naphtalene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 15 | Pyrene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 16 | Phenanthrene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| F | **Polychlorinated Biphenyls (PCB)** | | | | | | | | | | | | | | | |
| 1 | 2-Chlorobiphenyl | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | 0.0005 | No Relaxation |
| 2 | 2,3-Dichlorobiphenyl | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 3 | 2,4,5-Trichlorobiphenyl | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 4 | 2,2',4,4'-  Tetrachlorobiphenyl | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 5 | 2,2',3'4,6-  Pentachlorobiphenyl | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 6 | 2,2',4.4'5,6'-  Hexachlorobiphenyl | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 7 | 2,2',3,3',4,4',6-  Heptachlorobiphenyl | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 8 | 2,2',3,3',4,5',6,6'-  Octachlorobiphenyl | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| G | **PESTICIDES** | | | | | | | | | | | | | | | |
| 1 | Alpha- HCH | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | 0.01 |
| 2 | Beta-HCH | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | 0.04 |
| 3 | Gamma - HCH (Lindane) | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | 2 |
| 4 | Delta - HCH | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | 0.04 |
| 5 | O,P - DDT | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 6 | P,P - DDT | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |

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| COMPARISON OF TEST RESULTS OF GROUND WATER (TUBEWELL) SAMPLES | | | | | | | | | | | | | | | | |
| **Sr No** | **Parameter** | **Unit** | **GROUND WATER (EXISTING TUBEWELLS) SAMPLES TEST RESULTS (2ND CAMPAIGN)** | | | | | | **ADDITIONAL EXISTING WELLS IN STUDY AREA** | | | **Minimum**  **Value** | **Average**  **Value** | **Maximum**  **Value** | **STANDARDS FOR DRINKING WATER - IS 10500 - 2004\*\*** | |
| **Existing Borehole at Martinpara (TS**  **6)** | **Existing**  **Borehole at**  **-Malaktala Village**  **(TS-1)** | **Existing Borehole at Dump Site near**  **Makaltala Village**  **(TS-2)** | **Existing**  **Borehole AT Bone Factory (TS**  **3)** | **Existing Borehole at Durgapur (TS-**  **4)** | **Existing Borehole at ITC Sonar Bangla (TS-5)** | **Existing Borewell at Uchhupota** | **Existing Borewell at Khanaberia** | **Existing Borewell at Anantabadal** | **Desirable**  **Limit** | **Permissible**  **Limit** |
| **Date of Sampling** | **10-07-2012** | **10-07-2012** | **10-07-2012** | **10-07-2012** | **10-07-2012** | **24-07-2012** | **15-06-2013** | **15-06-2013** | **15-06-2013** |
| **SGS Certificate** | **CA: GL:**  **3120012502** | **CA: GL:**  **3120012498** | **CA: GL:**  **3120012499** | **CA: GL:**  **3120012500** | **CA: GL:**  **3120012501** | **CA: GL:**  **3120012560** | **KG-13-**  **004569.001** | **KG-13-**  **004569.002** | **KG-13-**  **004569.003** |
| 7 | O,P - DDD | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 8 | P,P - DDD | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 9 | O,P - DDE | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 10 | Alpha-Endosulphan | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 11 | Beta-Endosulphan | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 12 | Endosulphan Sulphate | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 13 | Monocrotophos | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 14 | Ethion | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 15 | Chlorpyrifos | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 16 | Phorate | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 17 | Phorate Sulphoxide | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 18 | Phorate Sulphone | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 19 | 2,4-D | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 20 | Butachlor | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 21 | Isoproturon | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 22 | Alachlor | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 23 | Atrazine | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 24 | Methyl Parathion | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 25 | Methyl Paraoxan | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 26 | Malathion | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 27 | Malaoxon | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 28 | Aldrin | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |
| 29 | Dieldrin | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0 | \_ | \_ |

**\*\*Note: Comparision of Ground Water Quality is made with the Drinking Water Quality Standards as per IS 10500**

**" - " Data not available**

**Exceeding Limits**

ANNEXURE-VI

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | COMPARISON OF TEST RESULTS OF SURFACE WATER SAMPLES - 3 CAMPAIGNS | | | | | | | | | | | | | | | | | | | | | |
|  | **Sr No** | **Parameter** | **Unit** | **SURFACE WATER SAMPLES TEST RESULTS (1ST CAMPAIGN)** | | | | | **SURFACE WATER SAMPLES TEST RESULTS (2ND CAMPAIGN)** | | | | | **SURFACE WATER SAMPLES TEST RESULTS (3RD CAMPAIGN)** | | | | | **Minimum**  **Value** | **Average**  **Value** | **Maximum**  **Value** | **GENERAL STANDARDS FOR DISCHARGE OF POLLUTANTS TO INLAND SURFACE WATERS (CPCB) \*\*** |
| **SW - 1** | **SW - 2** | **SW - 3** | **SW - 4** | **SW - 5** | **SW - 1** | **SW - 2** | **SW - 3** | **SW - 4** | **SW - 5** | **SW - 1** | **SW - 2** | **SW - 3** | **SW - 4** | **SW - 5** |
| **Date of Sampling** | **06-12-2012** | **06-12-2012** | **06-12-2012** | **06-12-2012** | **06-12-2012** | **11-07-2012** | **11-07-2012** | **11-07-2012** | **11-07-2012** | **11-07-2012** | **07-09-2012** | **07-09-2012** | **07-09-2012** | **07-09-2012** | **07-09-2012** |
| **SGS Certificate** | **CA: GL:**  **3120008580** | **CA: GL:**  **3120008613** | **CA: GL:**  **3120008581** | **CA: GL:**  **3120008610** | **CA: GL:**  **3120008612** | **CA: GL:**  **3120012470** | **CA: GL:**  **3120012471** | **CA: GL:**  **3120012473** | **CA: GL:**  **3120012475** | **CA: GL:**  **3120012474** | **CA: GL:**  **3120013413** | **CA: GL:**  **3120013414** | **CA: GL:**  **3120013415** | **CA: GL:**  **3120013416** | **CA: GL:**  **3120013417** |
|  | A | **GENERAL PARAMETERS** | | | | | | | | | | | | | | | | | | | | |
| 1 | Ammonia as NH3 | mg/l | 1.87 | **12.26** | <0.10 | <0.10 | **2239.1** | < 0.1 | **5.87** | 1.3 | **110.31** | 1.93 | <0.10 | **8.81** | **6.61** | 0.81 | **24.24** | 0.81 | **219.4** | **2239.1** | 5 |
| 2 | BOD @ 27°C for 3 days | mg/l | **53** | **525** | 29 | **37** | **14000** | 4 | 38 | 4.5 | **750** | 12 | 3.2 | **77** | **68** | 21 | **1100** | 3.2 | **1114.8** | **14000.0** | 30 |
| 3 | COD | mg/l | 186 | **1520** | 118 | 147 | **22549** | 34 | 184 | 36 | **3009** | 57 | 29 | **423** | **410** | 110 | **2702** | 29 | **2100.9** | **22549.0** | 250 |
| 4 | Chlorides | mg/l | 607.47 | 1429.34 | 117.92 | 110.77 | 1786.68 | 525.29 | 766.78 | 182.57 | 1862.19 | 135.1 | 387.04 | 547.7 | 547.7 | 146.05 | 1825.68 | 110.77 | 731.9 | 1862.2 | \_ |
| 5 | Colour | Hazen Units | LIGHT PALE YELLOW | DARK YELLOW | COLOUR LESS | COLOURLESS | DARK YELLOW BROWN | COLOURLESS | YELLOWISH | COLOURLESS | BROWNISH YELLOW | COLOURLESS | COLOURLESS | PALE YELLOW | PALE YELLOW | COLOURLESS | BROWNISH | 0 | 0.0 | 0.0 | All efforts should be made to remove colour and unpleasant odour as  far as practicable |
| 6 | Conductivity at 25°C | microsiemen/  cm | 2420 | 8200 | 810 | 775 | 28200 | 2090 | 4040 | 1156 | 21700 | 895 | 1910 | 3450 | 3400 | 1240 | 12680 | 775 | 6197.7 | 28200.0 | \_ |
| 7 | Cyanide (as CN) | mg/l | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | 0.15 | 0.15 | 0.2 | 0.2 | 0.2 |
| 8 | Dissolved Oxygen | mg/l | 8.1 | 1.2 | 0.9 | 0.9 | 0.6 | 9.2 | 3.1 | 2.1 | 2.3 | 1.5 | 7.2 | 3.9 | 3.9 | 4.2 | 0.5 | 0.5 | 3.3 | 9.2 | \_ |
| 9 | Iron (Fe) | mg/l | 0.18 | **15.54** | 0.58 | 2.09 | 2.75 | 0.12 | 0.18 | 0.85 | 1.25 | 0.42 | 0.34 | **9.76** | 2.42 | **3.5** | 2.16 | 0.12 | 2.8 | **15.5** | 3 |
| 10 | Fluoride as F | mg/l | 0.21 | 0.47 | 0.19 | 0.19 | 0.83 | 0.32 | 0.44 | 0.31 | 0.68 | 0.29 | 0.23 | 0.35 | 0.25 | 0.22 | 0.27 | 0.19 | 0.4 | 0.8 | 2 |
| 11 | Manganese (Mn) | mg/l | 0.18 | 0.36 | 0.16 | 0.16 | 0.37 | 0.07 | 0.14 | 0.15 | 0.05 | 0.11 | 0.18 | 0.46 | 0.35 | 0.25 | 0.27 | 0.05 | 0.2 | 0.5 | 2 |
| 12 | Mineral Oil \*  \*Mineral Oil is analysed as Oil and Grease by Gravimetric method | mg/l | 3.6 | 6.4 | 2.8 | 3.2 | **55** | <2.0 | 2.9 | <2.0 | 9.6 | <2.0 | <2.0 | 3 | 3 | 2.1 | 7.5 | 2.1 | 9.0 | **55.0** | 10 |
| 13 | Nitrite (NO2) | mg/l | 3.67 | 181.53 | 11.47 | 4.47 | 0.57 | 0.76 | 0.1 | 0.45 | 0.41 | 0.71 | 2.36 | 0.01 | 0.25 | 0.03 | 0.03 | 0.01 | 13.8 | 181.5 | \_ |
| 14 | Nitrate (NO3) | mg/l | 9.07 | 6.31 | **25.46** | **68.69** | **119.76** | **12.28** | **108.46** | **23.03** | **212.66** | **28.43** | 2.61 | **70.78** | **65.56** | 2.59 | **130.76** | 2.59 | **59.1** | **212.7** | 10 |
| 15 | pH @ 25°C | - | 9.1 | 7.6 | 6.8 | 6.9 | **9.6** | 7.2 | 7.4 | 7.5 | 7.5 | 7.9 | 7.61 | 7.77 | 7.61 | 7.4 | 7.6 | 6.8 | 7.7 | **9.6** | 5.5 - 9.0 |
| 16 | Phenolic compounds (as  (C6H5OH) | mg/l | 0.05 | <0.05 | 0.11 | <0.05 | 0.11 | <0.05 | <0.05 | <0.05 | 0.11 | <0.05 | <0.05 | 0.19 | 0.22 | <0.05 | **1.21** | 0.05 | 0.3 | **1.2** | 1 |
| 17 | Phoshorous as P | mg/l | <0.10 | 0.15 | 0.12 | 0.22 | **5.27** | 0.19 | 0.8 | 0.69 | 1.78 | 0.86 | 0.76 | 1 | 1.63 | 0.94 | 1.76 | 0.12 | 1.2 | **5.3** | 5 |
| 18 | Odour (Smell) | - | Odourless | Pungent | Odourless | Odourless | Pungent | ODOURLESS | ODOURLESS | ODOURLESS | PUNGENT | ODOURLESS | ODOURLESS | PUNGENT | PUNGENT | PUNGENT | PUNGENT | 0 | 0.0 | 0.0 | All efforts should be made to remove colour and unpleasant odour as  far as practicable |
| 19 | Temperature | °C | 36.6 | 36.4 | 35.1 | 34.3 | 39.6 | 34.4 | 37.3 | 33.9 | 33.7 | 35.1 | 35.8 | 32.7 | 34 | 35.7 | 37.5 | 32.7 | 35.5 | 39.6 | Shall not exceed 5 °C  above the receiving water temperature |
| 20 | Turbidity | NTU | 9.56 | 39.5 | 7.26 | 28.5 | 640 | 4.2 | 13.7 | 9.9 | 410 | 33.2 | 7.54 | 50.6 | 50.6 | 48.2 | \_ | 4.2 | 96.6 | 640.0 | \_ |
| 21 | Total Organic Carbon  (TOC) | mg/l | 6 | 295 | 6 | 31 | 5736 | 18 | 15 | 15 | 904 | 12 | 12 | 88 | 118 | 22 | 824 | 6 | 540.1 | 5736.0 | \_ |
| 22 | Total Dissolved Solids  (TDS) | mg/l | 1632 | 5232 | 574 | 496 | 18812 | 1380 | 2652 | 792 | 14780 | 624 | 1350 | 2392 | 2348 | 902 | 8406 | 496 | 4158.1 | 18812.0 | \_ |
| 23 | Total Suspended Solids  (TSS) | mg/l | 27 | 67.2 | 16 | 12.8 | **2100** | <5 | 17 | 10 | **916** | 43 | 19 | **142** | 92 | **262** | **516** | 10 | **302.9** | **2100.0** | 100 |
| 24 | Total Nitrogen as N | mg/l | 7.55 | **449.02** | 28.45 | 18.79 | **2990.73** | 3.17 | **330.52** | 58.69 | **4446.22** | 37.58 | 1.49 | **204.98** | **226.56** | 39.9 | **785.54** | 1.49 | **641.9** | **4446.2** | 100 |
| B | **MICROBIAL GROWTH** | | | | | | | | | | | | | | | | | | | | |
| 1 | E-coli | MPN/100 ml | Absent | Absent | Absent | Absent | Absent | 21 | 48 | 6.8 | Absent | 4 | 70 | 110 | 48 | 94 | 32 | 4 | **48.2** | **110.0** | \_ |
| 2 | Total Coliforms | MPN/100 ml | 920 | 920 | 1600 | 1600 | 1600 | 920 | 1600 | 350 | 540 | 170 | 2200 | 2800 | 920 | 3500 | 1600 | 170 | **1416.0** | **3500.0** | \_ |
| C | **HEAVY METALS** | | | | | | | | | | | | | | | | | | | | |
| 1 | Lead (Pb) | mg/l | 0.01 | **0.35** | 0.01 | **0.02** | **0.03** | <0.005 | <0.005 | <0.005 | <0.005 | **0.02** | 0.01 | **0.15** | **0.07** | **0.04** | **0.05** | 0.01 | **0.1** | **0.4** | 0.01 |
| 2 | Arsenic (As) | mg/l | <0.005 | 0.02 | <0.005 | <0.005 | <0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | < 0.005 | <0.005 | <0.005 | <0.005 | 0.005 | 0.016 | 0.016 | 0.0 | 0.0 | 0.01 |
| 3 | Cadmium (Cd) | mg/l | <0.005 | 0.01 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.01 | 0.0 | 0.0 | 0.003 |
| 4 | Chromium (Cr) | mg/l | 0.02 | 5.7 | 0.02 | 0.06 | 0.16 | <0.01 | 0.02 | 0.01 | <0.01 | 0.61 | <0.01 | 0.18 | 0.12 | 0.06 | 0.97 | 0.01 | 0.7 | 5.7 | \_ |
| 5 | Copper (Cu) | mg/l | <0.01 | **0.56** | 0.01 | 0.03 | 0.02 | <0.01 | <0.01 | 0.01 | <0.01 | 0.03 | <0.01 | **0.14** | **0.08** | 0.04 | **0.15** | 0.01 | **0.1** | **0.6** | 0.05 |
| 6 | Mercury (Hg) | mg/l | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | 0 | 0.0 | 0.0 | 0.001 |
| 7 | Molybdenum (Mo) | mg/l | <0.01 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | 0.03 | 0.01 | 0.0 | 0.0 | 0.07 |
| 8 | Silver (Ag) | mg/l | <0.005 | 0.01 | <0.005 | <0.005 | <0.005 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.01 | 0.0 | 0.0 | \_ |
| 9 | Zinc (Zn) | mg/l | 0.02 | 3.44 | 0.04 | 0.09 | 0.08 | <0.01 | 0.02 | 0.14 | 0.05 | 0.2 | 0.03 | 0.31 | 0.13 | 0.12 | 0.3 | 0.02 | 0.4 | 3.4 | 5 |
| 10 | Nickel (Ni) | mg/l | 0.01 | **0.11** | 0.01 | 0.02 | **0.07** | <0.01 | 0.01 | <0.01 | <0.01 | 0.02 | <0.01 | **0.03** | 0.02 | 0.01 | **0.1** | 0.01 | 0.0 | **0.1** | 0.02 |
| D | **VOLATILE ORGANIC COMPOUNDS (VOC'S)** | | | | | | | | | | | | | | | | | | | | |
| 1 | Benzene | µg/l | BDL | 0.13 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.13 | 0.1 | 0.1 | \_ |
| 2 | Bromobenzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 3 | Bromochloromethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 4 | Bromodichloromethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 5 | Bromoform | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.3 | 0.3 | 0.3 | 0.3 | \_ |
| 6 | n-Butyl Benzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 7 | Sec-Butyl Benzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 8 | Ter-Butyl Benzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 9 | Carbontetrachloride | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 10 | Chlorobenzene | µg/l | BDL | BDL | BDL | BDL | 0.56 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.56 | 0.6 | 0.6 | \_ |
| 11 | Chloroform | µg/l | BDL | 1.17 | BDL | 1.67 | 0.51 | BDL | BDL | BDL | BDL | BDL | 0.45 | 0.76 | BDL | BDL | BDL | 0.45 | 0.9 | 1.7 | \_ |
| 12 | 2-Chlorotoluene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 13 | 4-Chlorotoluene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 14 | Dibromochloromethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 15 | 1,2-Dibromo-3-  chloropropane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 16 | 1,2-Dibromoethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 17 | Dibromomethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 18 | 1,2-Dichlorobenzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 19 | 1,3-Dichlorobenzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 20 | 1,4-Dichlorobenzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 21 | 1,1-Dichloroethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 22 | 1,2-Dichloroethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | 0.53 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.53 | 0.5 | 0.5 | \_ |
| 23 | 1,1-Dichloroethene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 24 | Cis-1,2-Dichlororethene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 25 | Trans-1,2-Dichloroethene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
|  | COMPARISON OF TEST RESULTS OF SURFACE WATER SAMPLES - 3 CAMPAIGNS | | | | | | | | | | | | | | | | | | | | | |
|  | **Sr No** | **Parameter** | **Unit** | **SURFACE WATER SAMPLES TEST RESULTS (1ST CAMPAIGN)** | | | | | **SURFACE WATER SAMPLES TEST RESULTS (2ND CAMPAIGN)** | | | | | **SURFACE WATER SAMPLES TEST RESULTS (3RD CAMPAIGN)** | | | | | **Minimum**  **Value** | **Average**  **Value** | **Maximum**  **Value** | **GENERAL STANDARDS FOR DISCHARGE OF POLLUTANTS TO INLAND SURFACE WATERS (CPCB) \*\*** |
| **SW - 1** | **SW - 2** | **SW - 3** | **SW - 4** | **SW - 5** | **SW - 1** | **SW - 2** | **SW - 3** | **SW - 4** | **SW - 5** | **SW - 1** | **SW - 2** | **SW - 3** | **SW - 4** | **SW - 5** |
| **Date of Sampling** | **06-12-2012** | **06-12-2012** | **06-12-2012** | **06-12-2012** | **06-12-2012** | **11-07-2012** | **11-07-2012** | **11-07-2012** | **11-07-2012** | **11-07-2012** | **07-09-2012** | **07-09-2012** | **07-09-2012** | **07-09-2012** | **07-09-2012** |
| **SGS Certificate** | **CA: GL:**  **3120008580** | **CA: GL:**  **3120008613** | **CA: GL:**  **3120008581** | **CA: GL:**  **3120008610** | **CA: GL:**  **3120008612** | **CA: GL:**  **3120012470** | **CA: GL:**  **3120012471** | **CA: GL:**  **3120012473** | **CA: GL:**  **3120012475** | **CA: GL:**  **3120012474** | **CA: GL:**  **3120013413** | **CA: GL:**  **3120013414** | **CA: GL:**  **3120013415** | **CA: GL:**  **3120013416** | **CA: GL:**  **3120013417** |
|  | 26 | 1,2-Dichloropropane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 27 | 1,3-Dichloropropane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 28 | 2,2-Dichloropropane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 29 | 1,1-Dichloropropane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 30 | Cis-1,3-Dichloropropane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 31 | Trans-1,3-  Dichloropropane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 32 | Ethylbenzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 33 | Hexachloro Butadine | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 34 | Isopropylbenzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 35 | p-Isopropyltoluene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 36 | Dichloromethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 3.66 | BDL | BDL | 3.66 | 3.7 | 3.7 | \_ |
| 37 | Naphtalene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 38 | Propylbenzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 39 | Styrene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 40 | 1,1,1,2-Tetrachloroethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 41 | 1,1,2,2-Tetrachloroethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 42 | Tetrachloroethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 43 | Toluene | µg/l | BDL | BDL | 2.78 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.13 | BDL | BDL | BDL | BDL | 0.13 | 1.5 | 2.8 | \_ |
| 44 | 1,2,3-Trichlorobenzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 45 | 1,2,4-Trichlorobenzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 46 | 1,1,1-Trichloroethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 47 | 1,1,2-Trichloroethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 48 | Trichloroethene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 49 | 1,2,3-Trichloropropane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 50 | 1,2,4-Trimethyl Benzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 51 | 1,3,5-Trimethyl Benzene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 52 | m & p-Xylene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 53 | o-Xylene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 54 | Trichlorofluoromethane | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| E | **Polynuclear Aromatic Hydrocarbons (PAH)** | | | | | | | | | | | | | | | | | | | | |
| 1 | Acenaphthlyene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 2 | Acenaphthene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 3 | Anthracene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 4 | Benzo(alpha) Anthracene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 5 | Benzo(alpha) Pyrene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 6 | Benzo(b) Fluorathene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 7 | Benzo(g,h,i) Perylene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 8 | Benzo(k) Fluorathene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 9 | Crysene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 10 | Dibenzo(a,h) Anthracene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 11 | Fluoranthene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 12 | Fluorene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 13 | Indeno(1,2,3-cd) Pyrene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 14 | Naphtalene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 15 | Pyrene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 16 | Phenanthrene | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| F | **Polychlorinated Biphenyls (PCB)** | | | | | | | | | | | | | | | | | | | | |
| 1 | 2-Chlorobipheny | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | 0.0005 |
| 2 | 2,3-Dichlorobiphenyl | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 3 | 2,4,5-Trichlorobipheny | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 4 | 2,2',4,4'-  Tetrachlorobiphenyl | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 5 | 2,2',3'4,6-  Pentachlorobiphenyl | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 6 | 2,2',4.4'5,6'-  Hexachlorobiphenyl | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 7 | 2,2',3,3',4,4',6-  Heptachlorobiphenyl | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 8 | 2,2',3,3',4,5',6,6'-  Octachlorobiphenyl | µg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| G | **PESTICIDES** | | | | | | | | | | | | | | | | | | | | |
| 1 | Alpha- HCH | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 2 | Beta-HCH | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 3 | Gamma - HCH (Lindane) | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 4 | Delta - HCH | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 5 | O,P - DDT | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 6 | P,P - DDT | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 7 | O,P - DDD | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 8 | P,P - DDD | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 9 | O,P - DDE | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 10 | Alpha-Endosulphan | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 11 | Beta-Endosulphan | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 12 | Endosulphan Sulphate | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 13 | Monocrotophos | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 14 | Ethion | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 15 | Chlorpyrifos | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 16 | Phorate | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00002 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00002 | 0.0 | 0.0 | \_ |
| 17 | Phorate Sulphoxide | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 18 | Phorate Sulphone | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 19 | 2,4-D | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 20 | Butachlor | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 21 | Isoproturon | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 22 | Alachlor | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 23 | Atrazine | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 24 | Methyl Parathion | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 25 | Methyl Paraoxan | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 26 | Malathion | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 27 | Malaoxon | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 28 | Aldrin | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |
| 29 | Dieldrin | mg/l | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0 | 0.0 | 0.0 | \_ |

**Comparision of Surface Water Quality is made with the CPCB "GENERAL STANDARDS FOR DISCHARGE OF ENVIRONMENTAL POLLUTANTS PART-A : EFFLUENTS, Part (a): Discharge to**

**\*\*Note: Inland Surface Waters", as part of The Environment (Protection) Rules, 1986, [SCHEDULE – VI] (See rule 3A) " - " Data not available**

**Exceeding Limits**

ANNEXURE-VII

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **COMPARISON OF TEST RESULTS OF SOIL SAMPLES** | | | | | | | | | | | | | | | | | | | | | |
| **COMPARISON OF TEST RESULTS OF SURFACE SOIL / SEDIMENT SAMPLES** | | | | | | | | | | | | | | | | | | | | | |
|  |  | | **SURFACE SOIL / SEDIMENT SAMPLES TEST RESULTS (1ST CAMPAIGN)** | | | | | | | | | | **SOIL SAMPLES TEST RESULTS (2ND CAMPAIGN)** | | | |  |  |  |  | |
| **Sr No** | **Parameter** | **Unit** | **Surface Sediment Samples** | | | **Mixed Waste**  **Sample from BH -**  **6. 7 and 8** | **Soil Samples from Boreholes** | | | | | | **Surface Soil Samples** | | | | **Minimum**  **Value** | **Average**  **Value** | **Maximum**  **Value** | **Dutch Standards for Soil** | |
| **SW - 1** | **SW - 3** | **SW - 5** | **BH - 1** | **BH - 2** | **BH - 3** | **BH - 4** | **BH - 5** | **BH - 8** | **BH - 2** | **BH - 3** | **BH - 4** | **BH - 5** |
| **Date of Sampling** |  | **12-06-2012** | **12-06-2012** | **12-06-2012** | **12-06-2012** | **18-05-2012** | **26-05-2012** | **24-05-2012** | **22-05-2012** | **21-05-2012** | **13-06-2012** | **17-07-2012** | **17-07-2012** | **13-07-2012** | **17-07-2012** | **LIBV** | **THV** |
| **SGS Certificate** |  | **GG12-**  **006488.003 & CH:GL:**  **3110028779** | **GG12-**  **006488.002 & CH:GL:**  **3110028753** | **GG12-**  **006488.001 & CH:GL:**  **3110029721** | **GG12-**  **006967.001 & CH:GL:**  **3110029754** | **GG12-**  **005914.001 & CH:GL:**  **3110024811** | **GG12-**  **005988.001 & CH:GL:**  **3110025935** | **GG12-**  **005915.001 & CH:GL:**  **3110025569** | **GG12-**  **005914.002 & CH:GL:**  **3110024815** | **GG12-**  **005914.003 & CH:GL:**  **3110024816** | **GG12-**  **006594.001 & CH:GL:**  **3110029084** | **GG12-**  **007603.003 & CH:GL:**  **3110031918** | **GG12-**  **007603.002 & CH:GL:**  **3110031917** | **GG12-**  **007603.001 & CH:GL:**  **3110031915** | **GG12-**  **007603.004 & CH:GL:**  **3110031919** |
| **Depth of Sampling** |  | **0 - 0.2** | **0 - 0.2** | **0 - 0.2** | **0 - 0.3** | **7** | **6** | **5** | **6** | **7** | **31** | **0 - 0.1** | **0 - 0.1** | **0 - 0.1** | **0 - 0.1** |
| A | **GENERAL PARAMETERS** | | | | | | | | | | | | | | | | | | | | |
| 1 | Iron | mg/kg | 7008.15 | 4490.52 | 4728.45 | 702.62 | 11805.84 | 11497.45 | 10664.53 | 13123.07 | 14672.67 | 7761.22 | 7186.98 | 4384.52 | 11428.57 | 6844 | 702.62 | 8307.04 | 14672.67 | \_ | \_ |
| 2 | Moisture | % | 36.25 | 35.51 | 31.45 | 31.05 | 28 | 32.6 | 44.85 | 29 | 29 | 33.12 | 27.05 | 40.14 | 18.51 | 24.7 | 18.51 | 31.52 | 44.85 | \_ |  |
| 3 | Mineral Oil | mg/kg | 2.37 | BDL | BDL | BDL | BDL | BDL | 0.28 | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.28 | **1.33** | **2.37** | BDL | 1000 |
| 4 | Total Organic Carbon (TOC) | % | 3.57 | 3.07 | 2.68 | 3.23 | 0.54 | 1.6 | 1.75 | 0.71 | 0.69 | 0.81 | 2.41 | 8.98 | 1.8 | 1.04 | 0.54 | 2.35 | 8.98 | \_ | \_ |
| B | **HEAVY METALS** | | | | | | | | | | | | | | | | | | | | |
| 1 | Lead (Pb) | mg/lkg | 40.06 | **67.28** | 25.65 | 51.56 | 5.94 | 31.96 | **84.57** | 12.99 | 31.62 | 13.47 | **332.94** | **136** | **78.12** | **96.19** | 5.94 | **72.03** | **332.94** | 58.1 | 499 |
| 2 | Arsenic (As) | mg/lkg | 0.86 | 1.03 | 0.79 | 2.43 | 2.44 | **5.92** | 5.3 | 3.03 | 3.77 | 1.41 | 0.92 | 0.94 | 1.27 | 0.86 | 0.79 | 2.21 | **5.92** | 5.6 | 71 |
| 3 | Cadmium (Cd) | mg/lkg | **1.1** | **3.46** | 0.44 | 0.82 | <0.1 | <1 | 0.54 | <0.1 | 0.1 | <0.1 | 0.5 | **1.75** | **2.12** | **1.41** | 0.10 | **1.22** | **3.46** | 0.6 | 11 |
| 4 | Chromium (Cr) | mg/lkg | 19.81 | **200.72** | **37.19** | **82.38** | 10.62 | **24.38** | 2.31 | 13.45 | 21.65 | 7.69 | **469.83** | **109.68** | **100.32** | **90.58** | 2.31 | **85.04** | **469.83** | 23 | 191 |
| 5 | Copper (Cu) | mg/lkg | 33.25 | **44.58** | 21.16 | **48.83** | 9.23 | 50.25 | 13.78 | 19.37 | 27.5 | 13.4 | 107.7 | 173.83 | 71.02 | 70.06 | 9.23 | **50.28** | **173.83** | 38.9 | 174 |
| 6 | Mercury (Hg) | mg/lkg | 0.32 | 0.3 | 0.11 | 0.32 | <0.1 | <0.5 | **2.54** | 0.19 | <0.1 | 0.12 | 0.9 | 0.93 | 0.67 | 0.19 | 0.11 | 0.60 | **2.54** | 1.4 | 36 |
| 7 | Molybdenum (Mo) | mg/lkg | 0.15 | 0.25 | 0.13 | 0.5 | <0.1 | <1 | **0.71** | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.13 | **0.35** | **0.71** | 0.7 | 190 |
| 8 | Silver (Ag) | mg/lkg | 0.69 | < 0.1 | 0.18 | 0.56 | <0.1 | <1 | **4.14** | 0.17 | <0.1 | 0.17 | 1.77 | 0.9 | 1.2 | 1.12 | 0.17 | 1.09 | **4.14** | 2.4 | 15 |
| 9 | Tin (Sn) | mg/lkg | 0.63 | 1.09 | 0.37 | 1.4 | <0.1 | <1 | **3.13** | 0.17 | <0.1 | <0.1 | **3.91** | **3.61** | **2.39** | 0.77 | 0.17 | 1.75 | **3.91** | 1.9 | 985 |
| 10 | Zinc (Zn) | mg/kg | 98.29 | **221.21** | 80.99 | **137.52** | 14.52 | 70.77 | **190.48** | 21.11 | 43.02 | 37.55 | **443.10** | **370.16** | **203.16** | **144.38** | 14.52 | **148.30** | **443.10** | 130.6 | 705 |
| C | **Polynuclear Aromatic Hydrocarbons (PAH)** | | | | | | | | | | | | | | | | | | | | |
| 1 | Naphthalene | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | < 0.10 | < 0.10 | < 0.10 | < 0.10 | 0.00 | 0.00 | 0.00 | BDL | \_ |
| 2 | Acenaphthlyene | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | < 0.10 | < 0.10 | < 0.10 | < 0.10 | 0.00 | 0.00 | 0.00 | BDL | \_ |
| 3 | Acenaphthene | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | < 0.10 | < 0.10 | < 0.10 | < 0.10 | 0.00 | 0.00 | 0.00 | BDL | \_ |
| 4 | Fluorene | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | < 0.10 | < 0.10 | < 0.10 | < 0.10 | 0.00 | 0.00 | 0.00 | BDL | \_ |
| 5 | Phenanthrene | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | **1.57** | **0.13** | **0.47** | **0.10** | **0.10** | **0.57** | **1.57** | BDL | \_ |
| 6 | Anthracene | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | **0.56** | < 0.10 | **0.38** | < 0.10 | **0.38** | **0.47** | **0.56** | BDL | \_ |
| 7 | Fluoranthene | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | **2.70** | < 0.10 | **0.83** | **0.18** | **0.18** | **1.24** | **2.70** | BDL | \_ |
| 8 | Pyrene | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | **2.70** | < 0.10 | **0.83** | **0.18** | **0.18** | **1.24** | **2.70** | BDL | \_ |
| 9 | Benz (a) anthracene | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | **2.60** | < 0.10 | **0.81** | **0.25** | **0.25** | **1.22** | **2.60** | BDL | \_ |
| 10 | Chrysene | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | < 0.10 | < 0.10 | < 0.10 | < 0.10 | 0.00 | 0.00 | 0.00 | BDL | \_ |
| 11 | Benz (a) fluoranthene | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | **1.67** | **0.11** | **0.41** | **0.26** | **0.11** | **0.61** | **1.67** | BDL | \_ |
| 12 | Benz (k) fluoranthene | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | **1.67** | **0.11** | **0.41** | **0.26** | **0.11** | **0.61** | **1.67** | BDL | \_ |
| 13 | Benzo (a) pyrene | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | **4.18** | **0.31** | **1.31** | **0.50** | **0.31** | **1.58** | **4.18** | BDL | \_ |
| 14 | indeno (1.2.3 cd) pyrene | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | **1.19** | < 0.10 | **0.36** | **0.16** | **0.16** | **0.57** | **1.19** | BDL | \_ |
| 15 | Dibenz (ah) anthracene | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | < 0.10 | **0.42** | < 0.10 | **0.36** | **0.36** | **0.39** | **0.42** | BDL | \_ |
| 16 | Benzo (ghi) perylene | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | **1.19** | < 0.10 | **0.36** | **0.16** | **0.16** | **0.57** | **1.19** | BDL | \_ |
| D | **Polychlorinated Biphenyls (PCB)** | | | | | | | | | | | | | | | | | | | | |
| 1 | 2.4.4-Trichilrobyphenyl  (PCB28) | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 2 | 2.2'.5.5'- Terachlorobyphenyl  (PCB52) | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 3 | 2.2'.4.5.5'- Pentachlorobyphenyl (PCB101) | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 4 | 2.3'4.4.'5' - Pentachlorobiphenyl (PCB118) | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 5 | 2.2'3.'4.4.'5 - Hexachlorobiphenyl (PCB138) | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **COMPARISON OF TEST RESULTS OF SOIL SAMPLES** | | | | | | | | | | | | | | | | | | | | | |
| **COMPARISON OF TEST RESULTS OF SURFACE SOIL / SEDIMENT SAMPLES** | | | | | | | | | | | | | | | | | | | | | |
|  |  | | **SURFACE SOIL / SEDIMENT SAMPLES TEST RESULTS (1ST CAMPAIGN)** | | | | | | | | | | **SOIL SAMPLES TEST RESULTS (2ND CAMPAIGN)** | | | |  |  |  |  | |
| **Sr No** | **Parameter** | **Unit** | **Surface Sediment Samples** | | | **Mixed Waste**  **Sample from BH -**  **6. 7 and 8** | **Soil Samples from Boreholes** | | | | | | **Surface Soil Samples** | | | | **Minimum**  **Value** | **Average**  **Value** | **Maximum**  **Value** | **Dutch Standards for Soil** | |
| **SW - 1** | **SW - 3** | **SW - 5** | **BH - 1** | **BH - 2** | **BH - 3** | **BH - 4** | **BH - 5** | **BH - 8** | **BH - 2** | **BH - 3** | **BH - 4** | **BH - 5** |
| **Date of Sampling** |  | **12-06-2012** | **12-06-2012** | **12-06-2012** | **12-06-2012** | **18-05-2012** | **26-05-2012** | **24-05-2012** | **22-05-2012** | **21-05-2012** | **13-06-2012** | **17-07-2012** | **17-07-2012** | **13-07-2012** | **17-07-2012** | **LIBV** | **THV** |
| **SGS Certificate** |  | **GG12-**  **006488.003 & CH:GL:**  **3110028779** | **GG12-**  **006488.002 & CH:GL:**  **3110028753** | **GG12-**  **006488.001 & CH:GL:**  **3110029721** | **GG12-**  **006967.001 & CH:GL:**  **3110029754** | **GG12-**  **005914.001 & CH:GL:**  **3110024811** | **GG12-**  **005988.001 & CH:GL:**  **3110025935** | **GG12-**  **005915.001 & CH:GL:**  **3110025569** | **GG12-**  **005914.002 & CH:GL:**  **3110024815** | **GG12-**  **005914.003 & CH:GL:**  **3110024816** | **GG12-**  **006594.001 & CH:GL:**  **3110029084** | **GG12-**  **007603.003 & CH:GL:**  **3110031918** | **GG12-**  **007603.002 & CH:GL:**  **3110031917** | **GG12-**  **007603.001 & CH:GL:**  **3110031915** | **GG12-**  **007603.004 & CH:GL:**  **3110031919** |
| **Depth of Sampling** |  | **0 - 0.2** | **0 - 0.2** | **0 - 0.2** | **0 - 0.3** | **7** | **6** | **5** | **6** | **7** | **31** | **0 - 0.1** | **0 - 0.1** | **0 - 0.1** | **0 - 0.1** |
| 6 | 2.2'4.4.'5.5' - Hexachlorobiphenyl (PCB153) | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 7 | 2.2'3.'4.4.'5.5' - Hexachlorobiphenyl (PCB180) | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ |  |
| E | **PESTICIDES** | | | | | | | | | | | | | | | | | | | | |
| 1 | Monocrotophos | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 2 | Phorate | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 3 | Methyl Parathion | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 4 | Malathion | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 5 | Phorate Sulphoxide | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 6 | Phorate Sulphone | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 7 | Malaoxon | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 8 | Aldrin | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 9 | Dieldrin | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 10 | Butachlor | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 11 | Chlorpyrifos | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 12 | Atrazine | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 13 | Ethion | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 14 | Alachor | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 15 | 2.4 - D | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 16 | Isoproturon | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 17 | O.P-DDT | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 18 | P.P-DDT | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 19 | O.P.-DDE | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 20 | P.P.-DDE | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 21 | O.P-DDD | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 22 | P.P-DDD | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 23 | Alpha HCH | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 24 | Beta HCH | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 25 | Gama HCH(Lindane) | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 26 | Delta HCH | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 27 | Alpha -Endosulfan | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 28 | Beta-Endosulphan | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |
| 29 | Endosulfan sulphate | mg/kg | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | BDL | 0.00 | 0.00 | 0.00 | \_ | \_ |

**\*\*Note: Comparision of Soil Quality is made with the Dutch Standards for Soil**

**" - " Data not available**

Values above THV Limits

Values above LIBV and below THV

