### Mogden Sewage Treatment Works

### TW Site Inspection

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| **Date of inspection:**  20 December 2022 | |
| **Attendees:** Kumail Haider (L.B. Hounslow) and Miss Emma McDonald (Thames Water) | |
| **LB Hounslow Observation** | **Thames Water Action / Response** |
| **Storm Water Storage Tanks (SWST)**  **Tank 1A** – Tank empty clean. However, all hoopers full and require draining.    **Tank 1B** – Tank empty around 40% of tank covered in grit and sludge. Tank needs further flushing. All hoppers full and require draining.  **Tank 2A** – Tank 40% full in process of being returned to works – All Amajets in use.  **Tank 2B** – Tank 40% full in process of being returned to works – All Amajets in use.  **Tank 3A** – Tank 50% full in process of being returned to works – All Amajets in use.  **Tank 3B** – Tank 50% full in process of being returned to works – All Amajets in use.  **Tanks 4A, 4B, 5A & 5B** are covered, and odour controlled, were all in use - unable to measure condition as lighting system still not working.  **Tank 6A** – Tank 40% full in process of being returned to works – All Amajets in use.  **Tank 6B** – Tank 40% full in process of being returned to works – All Amajets in use.  **Tank 7A** – Tank 40% full in process of being returned to works – All Amajets in use.  **Tank 7B** – Tank 40% full in process of being returned to works – All Amajets in use.  **Tank 8A** – Tank empty around 40% of tank covered in grit and sludge. Tank needs further flushing. All hoppers full and require draining.  **Tank 8B** – Tank empty around 50% of tank covered in grit and sludge. Tank needs further flushing. All hoppers full and require draining.  **Feed Channel** - The level of effluent in both feed channels was approximately 30% capacity. Sludge Dip Records  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | **Date** | **West**  **PSTs 1** | **West**  **PSTs**  **2** | **West**  **PSTs**  **3** | **West**  **Total** | **East PSTs** | **Grand Total** | | **All units in m3** | | | | | | | **OMP limit** | **500** |  |  | | | | | 16/12/2022 | 0 | 636 | 267 | 903 | 936 | 1839 | | 19/12/2022 | 817 | 1091 | 122 | 2030 | 1064 | 3094 | |  |
| **Complaints**  The Council received no complaints by email from MRAG in the preceding week.  Thames Water controller advised that they had received no direct complaints in the preceding week.  The Council directly received no complaints by email in the preceding week.  The Council received **0 online** complaints and **1 out of hour** calls during the preceding week.   * OM4: 3.32 ppb * OM9: 0.06 ppb * OM10: 3.04 ppb * OM11: 4.66 ppb * Wind direction: north-easterly * Wind speed: 2.01 m/s   **Odour Monitors**  The odour readouts (H2S) for all monitors which were providing data at time of inspection:   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Monitor 1 | 0.000 | ppm |  | 09.59 | | Monitor 2 | 0.002 | ppm |  |  | | Monitor 3 | 0.005 | ppm |  |  | | Monitor 4 | 0.005 | ppm |  |  | | Monitor 5 | 0.000 | ppm |  |  | | Monitor 6 | 0.004 | ppm |  |  | | Monitor 7 | 0.004 | ppm |  |  | | Monitor 8 | 0.006 | ppm |  |  | | Monitor 9 | 0.008 | ppm |  |  | | Monitor 10 | 0.006 | ppm |  |  | | Monitor 11 | 0.005 | ppm |  |  | | Monitor 12 | 0.004 | ppm |  |  | | Monitor 13 | 0.000 | ppm |  |  | | Wind Speed | 2.1 | m/s |  |  | | Wind Direction | North East |  |  |  |   \*Scada was down at the time of inspection. |  |
| **Odour Log (Thames):**  **Wednesday 14 December 2022**  **DAY SHIFT**  **Temp.** Freezing.  **Weather.** Cloudy.  **Odour Readings.** All OMU’s in operation.  **Time:** 17:30.  **Observations / Customer Complaint.**  No odour issues found or reported.  **Operational issues / causes observed**. Blank.  **Actions Taken.** Blank.  **NIGHT SHIFT**  **Temp.** Freezing.  **Weather** Clear Night.  **Odour Readings.** All OMU’s in operation.  **Time:** 05:30.  **Observations / Customer Complaint.**  No odour issues.  **Operational issues / causes observed.** Blank.  **Actions Taken.** Blank.  **Thursday 15 December 2022**  **DAY SHIFT**  **Temp.** Freezing.  **Weather.** Sunny.  **Odour Readings.** All OMU’s in operation.  **Time:** 17:30.  **Observations / Customer Complaint.**  No odour issues.  **Operational issues / causes observed.** Blank.  **Actions Taken.** Blank.  **NIGHT SHIFT**  **Temp.** Freezing.  **Weather.** Clear night.  **Odour Readings.** All OMU’s in operation.  **Time:** 05:30.  **Observations / Customer Complaint.**  OM10 0.016 00.22-00.40.  **Operational issues / causes observed.** Blank  **Actions Taken.** Blank.  **Friday 16 December 2022**  **DAY SHIFT**  **Temp.** Freezing.  **Weather.** Sunny.  **Odour Readings.** All OMU’s in operation.  **Time:** 17:30.  **Observations / Customer Complaint.**  OM5 16.48-17.01 .022ppm.  **Operational issues / causes observed.** Vent on main drive for low level sewer  **Actions taken.** Blank.  **NIGHT SHIFT**  **Temp.** Freezing.  **Weather.** Clear Night.  **Odour Readings.** All OMU’s in operation.  **Time:** 05:30.  **Observations / Customer Complaint.**  Multiple spikes on OM5 18.45019.15, 19.30-20.05,22.50-00.01, 01.15-02.15 max 0.025ppm. OM3 spiked at 04.15-04.32 max  **Operational issues / causes observed.** Pasteurisation type odour in the air, no obvious source found, OCU11 poor performance.  **Actions taken.** Blank.  **Saturday 17 December 2022**  **DAY SHIFT**  **Temp.** Freezing.  **Weather.** Cloudy.  **Odour Readings.** All OMU’s in operation.  **Time:** 17:30.  **Observations / Customer Complaint.**  OM3 0.019ppm 16.47-17.00  **Operational issues / causes observed.** OCU11 poor performance.  **Actions taken.** Blank.  **NIGHT SHIFT**  **Temp.** Freezing.  **Weather.** Clear Night.  **Odour Readings.** All OMU’s in operation.  **Time:** 05:30.  **Observations / Customer Complaint.**  OM3 spiked at 19.15-19.55 & 21.30-22.30 max 0.027ppm  **Operational issues / causes observed.** OCU11 poor performance.  **Actions taken.** Blank.  **Sunday 18 December 2022**  **DAY SHIFT**  **Temp.** Freezing.  **Weather.** Rain.  **Odour Readings.** All OMU’s in operation.  **Time:** 17:30.  **Observations / Customer Complaint.**  No odour issues found or reported.  **Operational issues / causes observed.** Blank.  **Actions taken.** Blank.  **NIGHT SHIFT**  **Temp.** Cool.  **Weather.** Rain.  **Odour Readings.** All OMU’s in operation.  **Time:** 05:30.  **Observations / Customer Complaint.**  No odour issues found or reported.  **Operational issues / causes observed.**  Filling Storm Tanks  **Actions Taken.** Blank.  **Monday 19 December 2022**  **DAY SHIFT**  **Temp.** Cool.  **Weather.** Patchy Rain.  **Odour Readings.** All OMU’s in operation.  **Time:** 17:30.  **Observations / Customer Complaint.**  No odour issues found or reported.  **Operational issues / causes observed.**  No odour issues found or reported.  **Actions taken.** Blank.  **NIGHT SHIFT**  **Temp.** Cool.  **Weather.** Rain.  **Odour Readings.** All OMU’s in operation.  **Time:** 05:30.  **Observations / Customer Complaint.**  No odour issues found or reported.  **Operational issues / causes observed.**  Blank  **Actions Taken.** Blank.  **Tuesday 20 December 2022**  **DAY SHIFT**  **Temp.** Cool.  **Weather.** Sunny.  **Odour Readings.** All OMU’s in operation.  **Time:** 17:30.  **Observations / Customer Complaint.**  No odour issues found or reported.  **Operational issues / causes observed.**  Blank  **Actions taken.** Blank.  **NIGHT SHIFT**  **Temp.** Cool.  **Weather.** Clear night.  **Odour Readings.** All OMU’s in operation.  **Time:** 05:30.  **Observations / Customer Complaint.**  No odour issues found or reported.  **Operational issues / causes observed.**  Storm tanks returning  **Actions Taken.** Blank. |  |
| **Digesters**  **Digesters 1-4** – Out of use (permanent).  **Digester 5** – In use – seal level approx. 2ft below coping stones - Seal weak and bubbling.  **Digester 6** – In use – seal level approx. 1.5 ft below coping stones - Seal weak and bubbling.  **Digester 7** - In use – seal level approx. 2ft below coping stones - Seal weak bubbling and historic spillage over coping stones  **Digester 8** - In use – seal level approx. 3ft below coping stones - Seal weak and bubbling.  **Digester 9** - In use – seal level approx. 2ft below coping stones - Seal weak and bubbling.  **Digester 10** - In use – seal level approx. 3ft below coping stones - Seal weak, bubbling and bell high  **Digester 11** - In use – seal level approx. 1ft below coping stones - Seal weak and bubbling.  **Digester 12** - In use – seal level approx. 2ft below coping stones - Seal weak and bubbling  **Digester 13** - In use – seal level approx. 3ft below coping stones - Seal good.  **Digester 14** – Out of use.  **Digester 15** – Out of use.  **Digester 16** – Out of use.  **Digester 17** - In use – seal level approx. 2ft below coping stones - Seal weak and bubbling.  **Digester 18** – In use – seal level approx. 1.5ft below coping stones - Seal weak bubbling.  **Digester 19** – In use – seal level approx. 3ft below coping stones - Seal weak and bubbling.  **Digester 20** - In use – seal level approx. 3ft below coping stones - Seal weak and bubbling. |  |
| **GENERAL**  **Sludge Screening House**  1x (pedestrian) door open at time of inspection. Roller shutter currently missing and awaiting replacement following damage – opening has been screened temporarily.  **Imported Sludge**  Blank. Final Settlement Tanks East Side of Works The 8 circular tanks previously used as PSTs are now being used as final tanks (71-78) – no issues..  **East Side Raw Sludge Screen House**  Doors open at time of inspection, contractors working  **West Side Aeration Lanes (Old)**  Battery C aeration feed channel 100% obstructed in one channel (left) – requires jetting (TW advise that there is continuing flow below surface).  **West side primary settlement tanks (PST)**  Rectangular PSTs – no issues  Circular PST’s 9, 10 & 11 in use – no issues. Number 12 drained down.  **New Works (West Side) Battery E**  No issues.  **Pasteurisation Plant**  Streams 1, 2, 6, 10 and 11 out of service.  **Skips**  2x small (blue) skips – rear of sludge screen house both empty.  1x open container grit skip (empty) uncovered (tarpaulin pulled back) and 1x 10-Yard Rag skip (covered) at rear of Sludge Screening House.  1x open 8-Yard skip (scrap metal) in Service Road by Pasteurisation Plant.  1x 8-Yard skips – Rag (covered) by Sludge Area.  1x 10-Yard enclosed General Waste skip in Service Road at rear of East Raw Sludge Screening House.  1x open container General Waste skip in Service Road at rear of Pasteurisation Plant.  2 x grit skips uncovered by entrance to Digester Area. |  |

**Odour Control Unit (OCU) performance monitoring: 20/12/2022**

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| **Plant** | **Reading (ppm)** | **Action Level (ppm)** | **Compliant** |
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|  |  |  |  |
| Main pumping station inlet | Not done by TW due to resource issues | Unknown | Unknown |
| Main pumping station outlet |  |  |  |
| East OCU |  |  |  |
| West inlet |  |  |  |
| Sludge reception inlet |  |  |  |
| Sludge reception outlet |  |  |  |
| Thickening plant inlet |  |  |  |
| Thickening plant outlet |  |  |  |
| New West inlet (OCU 11) |  |  |  |
| Pasteurization (OCU 12) |  |  |  |
| Transfer PS inlet |  |  |  |
| Transfer PS outlet |  |  |  |
| GBT Plant OCU Outlet |  |  |  |