**Mogden Sewage Treatment Works**

**TW Site Inspection**

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| **Date of inspection:** Tuesday 03rd May 2022 (13:00am) | |
| **Attendees:** Mr L Phillips (London Borough of Hounslow) and Caitlin Simmonds (Thames Water) | |
| **LB Hounslow Observation** | **Thames Water Action / Response** |
| **Storm Water Storage Tanks (SWST)**  **Tank 1A -** Was empty and clean slight grit in tank hopper end. All hoppers were all full and needed draining down.  **Tank 1B -** Was empty clean. Hoppers 1 & 3 were full of effluent hopper 2 was drained to its lowest point.  **Tank 2A** - Was empty clean however hoppers 1 & 2 were ½ full of effluent hopper 3 was drained to its lowest point.  **Tank 2B -** Was empty top end of tank had crust build up with grit. All hoppers were full of effluent.  **Tank 3A -** Was empty 50% of tank was covered with a crusty surface tank needs flushing. All hoppers were full of effluent and need draining.  **Tank 3B** **-** Was empty half of tank covered in dry crust. All hoppers full and required draining.  **Storm Feed Channel** - The level of effluent in this feed channels were minimal and bottomed out in places. The remaining effluent looked murky.  **Tanks 4A, 4B, 5A & 5B** All tanks are covered, and odour controlled. I was able to gauge the conditions which demonstrated the tanks as being full and in use.  **Tank 6A -** Was empty clean. All hoppers were all full of effluent and need draining.  **Tank 6B -** Was empty clean. All hoppers were all full of effluent and need draining.  **Tank 7A -** Was returning and the amajets were in operation.  **Tank 7B -** Was empty hopper end of tank part filled and needs flushing. All hoppers full and need draining.  **Tank 8A -** Was empty clean. All hoppers were full and needed draining.  **Tank 8B -** Was empty clean slight grit in tank. All hoppers were full and needed draining.  **Storm Feed Channel** - The level of effluent in both feed channels was minimal and bottomed out in places in places the effluent looked murky and muddy.  **Complaints**  The Council received no complaints in the preceding week. |  |
| **Odour Monitors**  The odour readouts (H2S) for all monitors that were providing data on 03rd of May 2022 at approx. 13.06 are below.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Monitor 1 | 0.000 | ppm |  | 13:06 | | Monitor 2 | 0.001 | ppm |  | 13:06 | | Monitor 3 | 0.006 | ppm |  | 13:06 | | Monitor 4 | 0.006 | ppm |  | 13:06 | | Monitor 5 | 0.005 | ppm |  | 13:06 | | Monitor 6 | -0.005 | ppm |  | 13:06 | | Monitor 7 | 0.000 | ppm |  | 13:06 | | Monitor 8 | 0.004 | ppm |  | 13:06 | | Monitor 9 | 0.004 | ppm |  | 13:06 | | Monitor 10 | 0.005 | ppm |  | 13:06 | | Monitor 11 | -0.025 | ppm |  | 13:06 | | Monitor 12 | 0.005 | ppm |  | 13:06 | | Monitor 13 | 0.007 | ppm |  | 13:06 | | Wind Speed | 7.899 | mph |  | 13:06 | | Wind Direction | 342.187 | Deg |  | 13:06 | |  |
| **Odour Log**  **Thursday 28th April 2022**  **DAY SHIFT**  **Temp.** Cool.  **Weather.** Cloudy.  **Odour Readings.** All OMU’s in operation apart from 11.  **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 apart from 11.  **Time:** 05:30.  **Observations / Customer Complaint.**  OM3 0.021 1:23 – 1:38 0.019 22:24 – 22:38.  OM13 0.016 19:17 – 19:33.  OM5 0.018 18:21 – 19:21.  **Operational issues / causes observed.**  West inlet area checked okay.  Some odours from PAS.  **Actions Taken.** Blank.  **Friday 29th April 2022**  **DAY SHIFT**  **Temp.** Cool.  **Weather.** Cloudy.  **Odour Readings.** All OMU’s in operation apart from 11.  **Time:** 17:30.  **Observations / Customer Complaint.**  No odour issues found or reported.  **Operational issues / causes observed**. Blank.  **Actions Taken.** Blank.  **NIGHT SHIFT**  **Temp.** Cold.  **Weather.** Clear night.  **Odour Readings.** All OMU’s in operation apart from 11.  **Time:** 05:30.  **Observations / Customer Complaint.**  OM10 0.016 1:20 – 1:34.  **Operational issues / causes observed.**  Digesters gassing off.  **Actions Taken.** Blank  **Saturday 30th May 2022**  **DAY SHIFT**  **Temp.** Warm.  **Weather.** Sunny.  **Odour Readings.** All OMU’s in operation apart from 11.  **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.** Overcast night.  **Odour Readings.** All OMU’s in operation part from 11.  **Time:** 05:30.  **Observations / Customer Complaint.**  No odour issues.  **Operational issues / causes observed.**  Blank.  **Actions Taken.** Blank.  **Sunday 1st May 2022**  **DAY SHIFT**  **Temp.** Warm.  **Weather.** Patchy rain.  **Odour Readings.** All OMU’s in operation apart from 11.  **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.** Patchy rain.  **Odour Readings.** All OMU’s in operation apart from 11.  **Time:** 05:30.  **Observations / Customer Complaint.**  OM4 0.016 19:23 – 19:36.  **Operational issues / causes observed.**  Some odours from PAS.  **Actions taken.** Blank.  **Monday 2nd May 2022**  **DAY SHIFT**  **Temp.** Warm  **Weather.** Sunny W/ Patchy clouds.  **Odour Readings.** All OMU’s in operation apart from 11.  **Time:** 17:30.  **Observations / Customer Complaint.**  No odour issues  **Operational issues / causes observed.** Blank  **Actions taken.** Blank  **NIGHT SHIFT**  **Temp.** Cool.  **Weather.** Overcast night.  **Odour Readings.** All OMU’s in operation apart from 11.  **Time:** 05:30.  **Observations / Customer Complaint.**  No odour issues.  **Operational issues / causes observed.** Blank  **Actions taken.** Blank.  **Tuesday 3rd May 2022**  **DAY SHIFT**  **Temp.** Warm.  **Weather.** Sunny W/ Patch clouds.  **Odour Readings.** All OMU’s in operation apart from 11.  **Time:** 17:30.  **Observations / Customer Complaint.**  No odour issues.  **Operational issues / causes observed.** Blank  **Actions taken.** Blank.  **NIGHT SHIFT**  **Temp.** Cool.  **Weather.** Overcast night.  **Odour Readings.** All OMU’s in operation apart from 11.  **Time:** 05:30.  **Observations / Customer Complaint.**  OM3 spiked to 0.021ppm 19:40 – 20:40.  **Operational issues / causes observed.**  Area checked around monitor no obvious odours.  **Actions Taken.** Blank.  **Wednesday 4th May 2022**  **DAY SHIFT**  **Temp.** Warm.  **Weather.** Sunny W/ Patchy clouds.  **Odour Readings.** All OMU’s in operation apart from 11.  **Time:** 17:30.  **Observations / Customer Complaint.**  OM3 0.022ppm 12:24 – 12:39.  **Operational issues / causes observed.**  No odour detected in area west inlet checked.  **Actions taken.** Blank.  **NIGHT SHIFT**  **Temp.** Cool.  **Weather.** Patchy rain.  **Odour Readings.** All OMU’s in operation apart from 11.  **Time:** 05:30.  **Observations / Customer Complaint.**  No odour issues found or reported.  **Operational issues / causes observed.** Blank.  **Actions Taken.** Blank. |  |
| **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** |  |  | | | | | 02/05/2022 | 0 | 2380 | 1406 | 3786 | 2385 | 6171 |   There are no limits for the East side primary settlement tanks as these are covered and odour controlled. Thames is required by the terms of the abatement notice agreed in 2005 to notify LBH on the next working day of any such exceedance and notify LBH within three working days of any appropriate remedial measure taken.  **Imported Sludge**  There have been an average of 5 **imports** of sludge per day in the preceding week. This was reported on the 11th May 2022.  **No.5 Pumping Station (West Side)**  The doors of No.5 pumping station were closed at the time of inspection.  **Sludge Import Area**  It was noted that the condition around the sludge import area was much improved and noticeably clean. No odours witnessed.  **Raw Sludge Screening Building (West Side)**  The large roller shutter doors of the Raw Sludge Screening building were closed at the time of the inspection.  **Digesters on the 3rd May 2022**  **Digesters** **1-4** Out of use (permanent).  Thames advised of a long term project currently initiated to bring these units back into service that will require significant investment.  **Digester 5** **Out of service.**  **Digester 6** was in service weak sloppy seal – No evidence of recent spillage.  **Digester 7** was in service and had a weak sloppy seal. There was no sign of recent spillage.  **Digester 8** was in service and had a weak sloppy seal. There was no sign of recent spillage.  **Digester 9** was in service and had a weak sloppy seal. There was no sign of recent spillage.  **Digester 10** was in service and had a weak sloppy seal. There was no sign of recent spillage.  **Digester 11** was in service and had a weak sloppy seal. There was no sign of recent spillage.  **Digester 12** was in service and had a weak sloppy seal. There was no sign of recent spillage.  **Digester 13** was in service and had a weak sloppy seal. There was no sign of recent spillage.  **Digester 14** was in service and had a weak sloppy seal. There was no sign of recent spillage.  **Digester 15** **Out of service.**  **Digester 16** was in service and had a weak sloppy seal. There were signs of previous spillage dried and crusty around coping stones needs cleaning up.  **Digester 17** was in service and had a weak sloppy seal. There was no sign of recent spillage.  **Digester 18 Out of service.**  **Digester 19** was in service and had a weak sloppy seal. There was no sign of recent spillage.  **Digester 20** was in service and had a weak sloppy seal. There was no sign of recent spillage.  Anti-foaming agent is in use, which TW advised was also being applied manually to all operational digesters. |  |
| **GENERAL**  **Final Settlement Tanks East Side of Works**  The 8 circular tanks (71-78) were in operation apart from 71 at the time of the inspection. Tank 71 was out of service and was completely drained down and fenced off. The remainder of circular tanks had good clear surfaces. There was no evidence of fatty deposits on the surface. The hoses on the arms were all rotating and clearing off any remaining deposits. No odours or offensive odours witnessed.  \*\*Tank 71 out of service  **Skips**  **Skips on the East side:**  There was 1x 20yds open bulk carrier (uncovered) that was designated for grit however was empty at time of inspection. There was a sign stating the skip was designated for “Grit Only” .  There was 1x 20yds bulk skip (closed) which was either due to be collected or had just been delivered.  There was 1x 14yds skip designated for rag which was a closed skip with plastic large flaps which were closed at time of inspection. The skip had a sign reading “Rag Only”. The skip was full at the time of inspection.  There was 1x 14yds skip designated for general waste. The skip had a sign reading “General waste” and was filled with inert material . There was no cover for this skip.  **Skips on the West Side:**  There was 1x 14yds skip adjacent to the pasteurisation plant (West of the works) that was designated for Metals only- At time of inspection the skip was ½ full of inert material.  There was 1x 14yds skip adjacent to the Sludge Import area (West of the works) that was designated for rag only- At time of inspection the skip was ¼ full of rag and covered with a yellow tarpaulin. There was no sign or label that designated this skip for rag only. The skip contained minimal rag.  There was 1x 14yds skip adjacent to the raw sludge screening building (West of the works) that was designated for general waste only- At time of inspection the skip was ½ full and covered.  **East Side Screen House**  The doors at one end of the screen house were closed at the time of the inspection. All the blue doors including the metal shutter doors were closed. There were no issues or concerns raised in this area.  **Return Activated Sludge Channel**  The nearside RAS channel (which runs in the ground between FST’s 61-64 & 65-67) was free flowing and clear.  The far side channel nearest the service road was clogged along 80% of its length.  **West side primary settlement tanks (PST)**  Rectangular PSTs are now covered and odour controlled.  TW advised no issues.  Circular PST’s 9, 10 and 11 were all in use and had relatively fat free surfaces. Slight fatty deposits covered the surfaces of the PSTs but these were gradually being removed by the rotation arm.  No other issues were evident with these tanks.  Circular PST 12 is still out of service.  **Pasteurisation Plant**  The pasteurisation plant is in service. TW advised 8 streams were in operation.  **Section 106 agreement**  There have been no breaches of the s106 agreement in the last week.  **West Side Aeration Lanes**  The surface area of the mixed liquor feed channel serving the aeration lanes of E-Battery was free-flowing between lanes 22-25. All the lanes in E Battery were distinct and dividing walls were all visible. Sprinkler system in use in places.  **New Inlet Works (West Side)**  No issues appeared evident at the new inlet works and everything appeared to be in a good tidy order. No offensive odours noticed. |  |

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| **Odour Control Unit (OCU) performance monitoring: 05/05/2022**   |  |  |  |  | | --- | --- | --- | --- | | **Plant** | **Reading (ppm)** | **Action Level (ppm)** | **Compliant** | |  |  |  |  | |  |  |  |  | | Main pumping station inlet | Not provided | Unknown | Unknown | | Main pumping station outlet | 0.00ppm  0.00ppm  0.00ppm | 0.2 | Unknown | | East OCU | 0.00ppm  0.09ppm  0.06ppm | 0.05 | Yes | | West inlet OCU | 0.00ppm  0.00ppm  0.00ppm | 0.05 | Yes | | Sludge reception inlet | Not provided | Unknown | Unknown | | Sludge reception outlet | Not provided | 0.8 | Unknown | | Thickening plant inlet | Not provided | Unknown | Unknown | | Thickening plant outlet | 0.018ppm  0.21ppm  0.10ppm  **Ave:0.03ppm** | 0.6 | Yes | | New West inlet (OCU 11) | 0.22ppm  0.28ppm  0.24ppm  **Ave:0.08ppm** | 0.5 | No | | Pasteurization (OCU 12) | 0.33ppm  0.30ppm  0.24ppm  **Ave:0.09ppm** | 0.5 | Yes | | Transfer PS inlet | 28.77ppm  27.81ppm  25.02ppm  **Ave:20.80ppm** | Unknown | Unknown | | Transfer PS outlet | 0.00ppm  0.00ppm  0.00ppm | 0.6 | Yes | | GBT Plant OCU Outlet | 0.00ppm  0.00ppm  0.00ppm | Unknown | Unknown | |  |