



**Mogden Sewage Treatment Works**

**TW Site Inspection**

**Date of inspection: 11<sup>th</sup> April 2019**

**Attendees:** Mr Zaheer Kadri (LBH) with Mr Channi Varsani (Thames Water)

**LB Hounslow Observation**

**Thames Water Action / Response**

**Storm Water Storage Tanks (SWST)**

**Tank 1A** was empty and had dry residue on the tank floor at the hopper end. Hopper 1, 2, and 3 needed draining down.

**Tank 1B** was empty and had dry residue on the tank floor at the hopper end. Hopper 1 was full and needed draining down. Hoppers 2 and 3 were empty.

**Tank 2A** was empty and had dry residue on the tank floor at the hopper end. Hopper 1, 2, and 3 were empty.

**Tank 2B** was empty and had dry residue on the tank floor at the hopper end. Hopper 1, 2, and 3 all needed draining down.

**Tank 3A** was empty and had dry residue on the tank floor at the hopper end. Hopper 1, 2, and 3 were all empty.

**Tank 3B** was empty and had dry residue on the tank floor at the hopper end. Hopper 1, 2, and 3 were all empty.

**Tanks 4A, 4B, 5A & 5B** which are covered and odour controlled were all empty - unable to gauge condition as lighting system still not working.

**Tank 6A** was empty with some residual grit. Hoppers 1, 2 & 3 were all full and needed draining down.

**Tank 6B** was empty with some residual grit. Hoppers 1, 2 & 3 were all empty.

**Tank 7A** was empty. Hoppers 1, 2 & 3 (shallow hoppers) all needed draining down.

**Tank 7B** was empty. Hoppers 1, 2 & 3 (shallow hoppers) all needed draining down.

**Tank 8A** was empty and hoppers 1, 2 & 3 were all empty.

**Tank 8B** was empty and hoppers 1, 2 & 3 were all empty

**Amajets**- No reports of any faults with amajets. All in working order.

**Feed Channel** - The level of effluent in both feed channels was low – almost bottomed out in places. Dark and murky throughout the channel– no local odours.

### **Complaints**

**The Council received no complaints by telephone in the preceding week.**

**The Council received one complaint by email in the preceding week.**

On the 9<sup>th</sup> of April 2019 at approx 18:37 an email was received by the Council from the Arnold Crescent area of Isleworth TW7. The Duty Officer was unable to corresponded with the complainant as no contact details were left in the email. Our Ref for this complaint is logged as 982729.

**The Council received no complaints by email from MRAG.**

**Thames Water controller advised that they had received no direct complaints in the preceding week.**

**Odour Monitors**

The odour readouts (H<sub>2</sub>S) for all of the monitors, which were providing data at time of inspection:

Monitor 1	0.007	ppm	12:12
Monitor 2	0.010	ppm	12:12
Monitor 3	0.000	ppm	12:12
Monitor 4	0.007	ppm	12:12
Monitor 5	0.003	ppm	12:12
Monitor 6	0.007	ppm	12:12
Monitor 7	0.009	ppm	12:12
Monitor 8	0.008	ppm	12:12
Monitor 9	0.000	ppm	12:12
Monitor 10	0.006	ppm	12:12
Monitor 11	0.008	ppm	12:12
Monitor 12	0.009	ppm	12:12
Monitor 13	0.009	ppm	12:12
Wind Speed	8.797	mph	12:12
Wind Direction	98.195	Deg	12:12

**Odour Log (Thames) - Photocopies of log entries taken**

**Thursday 4<sup>th</sup> April 2019**

**AM** – Cool / Sunny with patchy clouds.

All OMU's in use.

**Time:** 17:30.

**Observations/Complaints:** OM2 spiked to 0.018ppm at 08:36.

OM8 spiked to 0.017ppm at 8:20 to 09:19.  
OM3 spiked to 0.027ppm MAX at 05:06 to 07:06.  
and again to 0.022ppm at 07:21-08:05.

**Operational Issues/Causes:** No obvious source identified.

**Actions:** None noted.

**PM** – Cool clear night.

All OMU's in use.

**Time:** 05:30.

**Observations/Complaints:** OM No.2 stopped trending at 04:35, OM No.3 spiked at 05:07- current time max 0.023ppm, OM No.8 spiked at 20:35 to 2134 max 0.020ppm.

**Operational Issues/Causes:** OM No.2 reported and checked other areas mentioned. Odour on OM NO.8 appeared to be coming from Pasteurisation but has now stopped.

**Actions:** None noted.

#### **Friday 5<sup>th</sup> April 2019**

**AM** – Cool Cloudy with sunny spells.

All OMU's in use.

**Time:** 17:30.

**Observations/Complaints:** OM3 spiked to 0.023ppm (stopped spiking at 06:21)

**Operational Issues/Causes:** no obvious source found

**Actions:** None noted.

**PM** – cool clear night

All OMU's in use.

**Time:** 05:30

**Observations/Complaints:**

OM5 spiked to 0.021ppm at 19.09 to 20.09

**Operational Issues/Causes:**

Area checked. Unable to identify source of odour.

**Actions:** None noted.

#### **Saturday 6<sup>th</sup> April 2019**

**AM** – Cool sunny with patchy clouds

All OMU's in use.

**Time:** 05:30.

**Observations/Complaints:** OM3 spiked to 0.022ppm at 05:06 to 05:51.

**Operational Issues/Causes:** No obvious source identified.

**Actions:** None noted.

**PM** – Cool clear night.

All OMU's in use.

**Time:** 17:30.

**Observations/Complaints:** OM10 0.016ppm 21.23-21.37.

**Operational Issues/Causes:** Digester bell height high. Flare stack tripping.

**Actions:** None Noted.

### **Sunday 7<sup>th</sup> April 2019**

**AM** – Cool- cloudy with sunny spells.

All OMU's in use.

**Time:** 17:30.

**Observations/Complaints:** OM3 spiked at 0.024ppm max at 05:06 to 05:50.

**Operational Issues/Causes:** No obvious source identified.

**Actions:** None Noted.

**PM** – Cool clear night.

All OMU's in use.

**Time:** 05:30.

**Observations/Complaints:** OM10 spiked to 0.015ppm at 01.24 to 01.38 and again to 0.016ppm at 04.37-end of shift.

**Operational Issues/Causes:** Area checked no odour detected. Digester bell height low 24meters.

**Actions:** None noted.

### **Monday 8<sup>th</sup> April 2019**

**AM** – Cool rain with sunny spells.

All OMU's in use.

**Time:** 17:30.

**Observations/Complaints:** OM NO.8 Spiked at 10:50 to 11:19 max 0.026 ppm.

**Operational Issues/Causes:** Pasteurised sludge odour detected in air around river crossing.

**Actions:** Reported.

**PM** – Cool with rain.

All OMU's in use.

**Time:** 05:30.

**Observations/Complaints:** OM5 spiked to 0.019ppm at 21.23 to 22.23  
OM8 spiked to 0.015ppm at 21.51 to 22.49.

**Operational Issues/Causes:** Area checked. PAS area odour detected.  
Sludge imports being received overnight.

**Actions:** None noted.

### **Tuesday 9<sup>th</sup> April 2019**

**AM** – Warm Cloudy with sunny spells.

All OMU's in use.

**Time:** 17:30.

**Observations/Complaints:** No odour issues.

**Operational Issues/Causes:** none noted.

**Actions:** none noted.

**PM** – Cold clear night.

All OMU's in use.

**Time:** 05:30.

**Observations/Complaints:** No odour issues.

**Operational Issues/Causes:** None noted.

**Actions:** None noted.

### **Wednesday 10<sup>th</sup> April 2019**

**AM** – Warm, Sunny with patchy clouds.

All OMU's in use.

**Time:** 17:30.

**Observations/Complaints:** No odour issues.

**Operational Issues/Causes:** None noted.

**Actions:** None noted.

**PM** – Cold clear night.

All OMU's in use.

**Time:** 06:00.

**Observations/Complaints:** OM2 Breaks in trends?

OM7 spiked to 0.019ppm at 21:39 to 22:38.

OM8 spiked to 0.019ppm at 21:05 to 22:05.

**Operational Issues/Causes:** None found or reported.

**Actions:** None noted.

### Sludge Dip Records

Date	West PSTs 1	West PSTs 2	West PSTs 3	West Total	East PSTs	Grand Total
	All units in m <sup>3</sup>					
OMP limit	500					
08/04/19	20	1491	394	1905	3572	5477
09/04/19	0	1491	642	2133	2755	4888
10/04/19	20	1181	581	1782	4228	6010

The sludge stock levels for the West side circular primary settlement tank 1 were **compliant** with the OMP trigger level (500m<sup>3</sup>) for all of the dates for which data has been provided.

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.

### Digesters

**Digesters 1-4** – Out of use (permanent) – noticeable quantity of water accumulated to the brim of these tanks which is thick with algae – requires draining. Long term project currently initiated to bring these units back into service – will require significant investment.

**Digester 5** - in use – seal level approx. 1ft below coping stones – good seal – evidence of recent spill – requires anti-foam and clean-up.

**Digester 6** - in use – good seal level approx. 1ft below coping stones.

**Digester 7** - in use – seal level approx. 2ft below coping stones – seal weak and bubbling - Ongoing spitting/spill – requires anti-foam and clean-up.

**Digester 8** – in use –good seal level approx. 1ft below coping stones.

**Digester 9** - in use – seal level approx. 1ft below surface of coping stones – good seal.

**Digester 10** – in use – seal level approx. 1ft below surface of coping stones.

**Digester 11** - in use – seal level approx. 1ft below surface of coping stones – seal weak and bubbling.

**Digester 12** - in use – seal level approx. 1ft below coping stones – good seal.

**Digester 13** - in use – seal level approx. 1ft below coping stones – good seal.

**Digester 14** - out of use – empty and clean.

**Digester 15** - out of use – empty and clean.

**Digester 16** - out of use – empty and clean.

**Digester 17** - in use – seal level approx. 1ft below coping stones – seal crusty.

**Digester 18** - in use – seal level approx. 2ft below coping stones – seal weak and slightly bubbling.

**Digester 19** - in use – seal level approx. 1ft below coping stones – good seal.

**Digester 20** - in use – seal level approx. 1ft below coping stones – good seal.

No Odours in the area observed at times of inspection

**GENERAL**



### **Sludge Screening House**

All doors closed at time of inspection however aware that on previous visits these doors have been left open to avoid condensation build up – TW advised that doors being left open to create air flow is a Management decision to improve internal working environment for staff – odour monitors deployed in vicinity to determine whether local odours increase as a consequence. No odours observed.

### **Imported Sludge**

Estimated average of 10 imports daily for preceding seven days.

### **Final Settlement Tanks East Side of Works**

The 8 circular tanks previously used as PSTs are now being used as final tanks (71-78). All jets and hoses were in operation and no excessive build-up of algae.

### **Skips**

No Skips present at the screening House- All clear.  
No Skips present at the East side grit House- All clear.  
No odour detected.

### **East Side Raw Sludge Screen House**

Doors closed at time of inspection.

### **West side primary settlement tanks (PST)**

Rectangular PSTs – no issues

Circular PST's 9, 10, 11 & 12 all in use. Currently installing trial of odour control "mistors" on Tank 10 – pipe installed around tank top tail with nozzle sprays at regular intervals which can be utilised to create a plume of deodoriser (same as current mobile units on site) – intention to roll this out to all "odorous areas" on site if proves effective during trial period – initial testing has proven successful to date – trial ongoing. At time of inspection these mistors were not in operation. No Odours observed.

**Pasteurisation Plant**

Pasteurisation plant 1/4/8/9 currently out of service - All remaining pasteurisation plant in service and fully operational.

**West Side Aeration Lanes (Old)**

Battery C aeration feed channel approximately 90% clear of any obstruction- effluent is flowing with ease NO rags or build up noticed. Kelvac (Contractors) on site at time of inspection.

**New Works (West Side)**

Feed Channel for Aeration Lanes 21-24 free flowing no obstructions or odours. Kelvac on site at time of inspection.

"Fluffy" coverage across surface returned across 100% of tank – thickened up so as to obscure internal dividing walls within tank.

**Odour Control Unit (OCU) performance monitoring – (8<sup>th</sup> April 2019)**

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.03 0.03 0.04	Unknown	Unknown

Main pumping station outlet	0.02 0.02 0.02	0.2	Yes
East OCU	0.00 0.00 0.00	0.05	Yes
West inlet OCU	0.00 0.00 0.00	0.05	Yes
Sludge reception inlet	No data	Unknown	Unknown
Sludge reception outlet	No data	0.8	Yes
Thickening plant inlet	No data	Unknown	Unknown
Thickening plant outlet	0.00 0.00 0.00	0.6	Yes
Transfer PS inlet	No Data	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	Yes
OCU 12 (Pasteurisation Plant)	0.00 0.00 0.00	0.5	Yes