



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Thursday 18 th July 2019 (12:08)	
Attendees: Mr Leroy Phillips (LBH), Mr Manzoor Hussain (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A Was empty clean however slight grit build up at the end of tank located at the (Hopper end). Hoppers 1, 2 and 3 all full and require draining.</p> <p>Tank 1B Was empty and clean however some dry grit build up on the surface of the Tank (Hopper end). Hoppers 1, 2, and 3 require draining hoppers 1/3 full.</p> <p>Tank 2A Was empty and clean however some dry grit build up on the surface of the Tank (Hopper end). Hoppers 1, 2, and 3 require draining Hoppers 1/3 full.</p> <p>Tank 2B was empty and clean however some dry grit / residue on the surface of the Tank (Hopper end). Hoppers 1, 2, and 3 require draining hoppers 1/3 full.</p> <p>Tank 3A Was empty and clean however some dry grit build up on the surface of the Tank (Hopper end). Hoppers 1, 2, and 3 require draining hoppers 2/3 full.</p>	

Tank 3B Was empty and clean all hoppers drained down to their lowest point.

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 and clean Hopper 1 full required draining hoppers 2, and 3 drained to lowest point.

Tank 6B Was empty and clean. Hoppers all drained to lowest point.

Tank 7A was empty and clean. Hopper 1 and 2 were full however Hopper 3 was empty and had been drained down,

Tank 7B Was empty and clean. Hopper 1 and 2 were full however Hopper 3 was empty and had been drained down.

Tank 8A Was empty and clean. Hoppers 1, 2 and 3 all full and require draining.

Tank 8B Was empty and clean however Hoppers 1, 2, and 3 full and require draining.

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

Feed Channel - The level of effluent in both feed channels was low at the time of inspection. No local odours rags, fats or solids. .

Complaints

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

The Council received no complaints by email in the preceding week.

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 (H₂S) for all of the monitors, which were providing data at time of inspection:

Monitor 1	0.004	ppm	13:00
Monitor 2	0.007	ppm	13:00
Monitor 3	0.000	ppm	13:01
Monitor 4	0.005	ppm	13:01
Monitor 5	0.000	ppm	13:01
Monitor 6	0.003	ppm	13:01
Monitor 7	0.003	ppm	13:01
Monitor 8	0.000	ppm	13:01
Monitor 9	0.004	ppm	13:01
Monitor 10	0.004	ppm	13:02
Monitor 11	0.003	ppm	13:02
Monitor 12	0.004	ppm	13:02
Monitor 13	0.004	ppm	13:02
Wind Speed	3.465	mph	13:02
Wind Direction	171.731	Deg	13:02

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

Thursday 11th July 2019

AM

Temp: Warm.

Weather: Sunny.

All OMU's in use.

Time: 17:30.

Observations/Complaints: None noted.
Operational Issues/Causes: No odour issues. Nothing of note on trends.
Actions: None noted.
PM
Temp: Nothing noted.
Weather: Nothing noted.
All OMU's in use.
Time: Nothing noted.
Observations/Complaints. None noted.
No issues.
Operational Issues/Causes: None noted.
Actions: None noted.

Friday 12th July 2019

AM

Temp: Hot

Weather: Sunny.

All OMU's in use.

Time: 17:30.

Observations/Complaints: None noted.

Operational Issues/Causes: No odour issues.

Actions: None noted.

PM

Temp: Warm.

Weather: Clear night.

All OMU's in use.

Time: 20:00.

Observations/Complaints: Customer complaint from WOC.

Operational Issues/Causes: No odour spikes on site. Site OCU'S all running.

Actions: Site checked no abnormal odours found.

Saturday 13th July 2019

AM

Temp: Warm

Weather: Sunny W/ Patchy clouds.

All OMU's in use.

Time: 17:30.

Observations/Complaints: None noted.

Operational Issues/Causes: No odour issues.

Actions: None noted.

PM

Temp: Warm.

Weather: Cloudy.

All OMU's in use.

Time: 18:00

Observations/Complaints: Customer complaint.

Operational Issues/Causes: Checked digester area and E batt FST area nothing of note found. No odour spikes on trends. OM2 spiked to 0.022ppm at 21:30 less than 15 minutes.

Actions: Tech 1 done odour patrol around complaint couldn't smell any odours.

Sunday 14th July 2019

AM

Temp: Warm.

Weather: Sunny w/ Patchy Clouds.

All OMU's in use.

Time: None noted.

Observations/Complaints: None noted.

Operational Issues/Causes: No odour issues.

Actions: None Noted.

PM

Temp: Cool.

Weather: Cloudy.

All OMU's in use.

Time: 05:30.

Observations/Complaints: None noted.

Operational Issues/Causes: No odour issues. OM5 spiked to 0.021ppm at 20:39 less than 15 minutes.

Actions: None noted.

Monday 15th of July 2019

AM

Temp: Warm.

Weather: Sunny W / Patchy Clouds.

All OMU's in use.

Time: 17:30.

Observations/Complaints. None noted.

Operational Issues/Causes: No odour issues.

Actions: None noted.

PM

Temp: Warm.

Weather: Overcast.

All OMU's in use.

Time: 05:30.

Observations/Complaints. None noted.

Operational Issues/Causes: OM2 spiked to max 0.022ppm 23:08 – 23:33.

Actions: East inlets area check no obvious odours detected.

Tuesday 16th July 2019

AM

Temp: Hot.

Weather: Sunny.

All OMU's in use.

Time: 17:30.

Observations/Complaints: Nothing noted.

Operational Issues/Causes: No odour issues.

Actions: none noted.

PM

Temp: Warm.

Weather: Overcast.

All OMU's in use.

Time: 05:44.

Observations/Complaints: OM2 0.020ppm 21.32-22.10, 0.019ppm 00.36-00.53, 0.018ppm 02.08-02.17, OM5 0.020ppm 21.54-22.09, 0.021ppm 23.24-23.39.

Operational Issues/Causes: Conducted site walk round. East inlet occasional strong smell of odour. Confirmed all doors were closed and covers sealed.

Actions: None noted.

Wednesday 17th July 2019

AM

Temp: Warm.

Weather: Sunny W/ Patchy Clouds.

All OMU's in use.

Time: 17:30.

Observations/Complaints: OM5 - 0.018 - 08.40 - 08.54, OM2 0.015 - 12.29 - 12.50, OM8 - 0.016 - 16.22 - 16.34.

Operational Issues/Causes OM5 and 8 less than 15 mins.

Actions: None noted.

PM

Temp: Warm.

Weather: Clear night.

All OMU's in use.

Time: 05:30.

Observations/Complaints: OM2 0.028ppm 20.16-20.35, OM5 0.018ppm 02.09-02.23, 0.019ppm 02.39-02.54.

Operational Issues/Causes: Odour spikes investigate. Unable to identify any odour or a potential source of odour.

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 ³					
OMP limit	500					
15/07/19	0	0	244	244	608	852
16/07/19	166	581	534	1281	760	2041
17/07/19	40	824	244	1108	912	2020

The sludge stock levels for the West side circular primary settlement tank 1 were **compliant** with the OMP trigger level (500m³) 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 – weak seal – no evidence of spill.

Digester 6 - in use – good seal level approx. 1ft below coping stones. Weak seal. No evidence of spill.

Digester 7 - in use – seal level approx. 1ft below coping stones. Weak sloppy seal. No evidence of spill.

Digester 8 - in use – seal level approx. 1ft below coping stones. Weak sloppy seal.

Digester 9 - in use – seal level approx. 1ft below surface of coping stones. Weak seal. No evidence of recent spill.

Digester 10 - in use – seal level approx. 1ft below surface of coping stones. Weak seal. No evidence of spill.

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 – weak seal. No evidence of spill.

Digester 13 - in use – seal level approx. 1ft below coping stones – weak seal. No evidence of spill.

Digester 14 - out of use.

Digester 15 - out of use.

Digester 16 - out of use.

Digester 17 - in use – seal level approx. 1ft below coping stones. Good seal crusty. No evidence of spill.

Digester 18 - in use – seal level approx. 1ft below coping stones. Weak seal.

Digester 19 - in use – seal level approx. 1ft below coping stones. Weak seal. No evidence of a spill.

Digester 20 - in use – seal level approx. 1ft below coping stones. Weak seal. No evidence of spill.

No odour 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 at time of inspection.

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 no issues to report.

Skips

No Skips located on at the East side screening House.
3x Large bulk loaders (open carriers) at the East side grit House they were empty and uncovered.
No odour detected.
No Skips present at the West Side gritting house.

East Side Raw Sludge Screen House

Doors closed at time of inspection.

West side primary settlement tanks (PST)

Rectangular PSTs – No issues noticed at time of inspection

Circular PST's 9, 10 and 12 all in use and all hoses were in operation. Circular PST number 11 had been drained down and out of service. No odours noted during observation.

Pasteurisation Plant

Pasteurisation plant had six streams that were out of service. All remaining pasteurisation plant in service 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.

New Works (West Side)

Feed Channel for Aeration Lanes 21-24 free flowing no obstructions or odours.

The “Fluffy” coverage (obscured internal dividing walls within tank) that had been observed on previous visits had lightened in texture revealing the dividing walls within the tank. There were no concerning odours around this area.

Odour Control Unit (OCU) performance monitoring – (15th July 2019)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.01 0.01 0.01 Ave: 0.01	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	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 Ave: 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