

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Thursday 12 th September 2019 (12:00)	
Attendees: Mr Zaheer Kadri (LBH) and Mr David Chowings (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A was empty and clean however some dry grit / residue on the surface of the Tank (Hopper end). Hoppers 1, 2, and 3 had all been drained down.</p> <p>Tank 1B was empty and clean however some dry grit / residue on the surface of the Tank (Hopper end). Hopper 1 and 3 had been drained down and hopper 2 was 2/3 full and needed draining down.</p> <p>Tank 2A was empty and clean however some dry grit / residue on the surface of the Tank (Hopper end). Hopper 1 needed draining down however Hopper 2 and 3 were clear.</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 had all been drained down.</p>	

Tank 3A was empty and clean however some dry grit / residue on the surface of the Tank (Hopper end). Hoppers 1, 2 and 3 had all been drained down

Tank 3B was empty and clean however some dry grit / residue on the surface of the Tank (Hopper end). Hoppers 1, 2, and 3 were all drained down. Hopper 1 has had a blockage since last week. No odours apparent.

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. Hoppers 1, 2, and 3 were all drained down to the bottom and were very low level.

Tank 6B was empty and clean. Hoppers 1, 2, and 3 were all drained down to the bottom and were very low level.

Tank 7A was empty and clean however thick sludgy residue on the surface near the hopper end. Shallow hoppers 1, 2 and 3 were full and needed draining down.

Tank 7B was empty and clean however thick sludgy residue on the surface near the hopper end. Shallow hoppers 1, 2 and 3 were full and needed draining down.

Tank 8A was empty and clean. Hoppers 1, 2, and 3 were all drained down to the bottom and were very low level.

Tank 8B was empty and clean. Hoppers 1, 2, and 3 needed draining down.

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 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	0.003	ppm	12:00
Monitor 2	0.008	ppm	12:00
Monitor 3	0.000	ppm	12:00
Monitor 4	0.003	ppm	12:00
Monitor 5	0.000	ppm	12:00
Monitor 6	0.004	ppm	12:00
Monitor 7	0.003	ppm	12:00

Monitor 8	0.004	ppm	12:00
Monitor 9	0.000	ppm	12:00
Monitor 10	0.000	ppm	12:00
Monitor 11	0.000	ppm	12:00
Monitor 12	0.004	ppm	12:00
Monitor 13	0.000	ppm	12:00
Wind Speed	8.566	mph	12:00
Wind Direction	221.908	Deg	12:00

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

Thursday 5th September 2019

AM – Warm and Cloudy.

All OMU's in use.

Time: 17:30.

Observations/Complaints: No odour trend throughout the day.

Operational Issues/Causes: No odours.

Actions: None noted.

PM – Cool overcast night.

All OMU's in use.

Time: 05:30.

Observations/Complaints. OM 5 spiked at 04:40-04:57 max spike 0.021ppm and again at 22:12-22:25 trend spiked to 0.020ppm.

Operational Issues/Causes: No odours found.

Actions: None noted.

Friday 6th September 2019

AM – Warm cloudy with Sunny spells.

All OMU's in use.

Time: 17:30.

Observations/Complaints: OM3 spiked to 0.050ppm max. Duration of spike was less than 15 minute.

Operational Issues/Causes: No odour issues reported.

Actions: None noted.

PM – None noted.

All OMU's in use.

Time: 05:30.

Observations/Complaints: No issues.

Operational Issues/Causes: None noted.

Actions: None noted.

Saturday 7th September 2019

AM – Warm cloudy with Sunny spells.

All OMU's in use.

Time: 17:30.

Observations/Complaints. None noted.

Operational Issues/Causes: No odour issues.

Actions: None noted.

PM – None noted.

All OMU's in use.

Time:05:30.

Observations/Complaints. No odour issues.

Operational Issues/Causes: No odour identified.

Actions: None Noted.

Sunday 8th September 2019

AM – Warm and cloudy.

All OMU's in use.

Time: 17:30.

Observations/Complaints. No odour issues.

Operational Issues/Causes: None Noted.

Actions: None Noted.

PM – None Noted.

All OMU's in use.

Time: None Noted.

Observations/Complaints. None Noted.

Operational Issues/Causes: None Noted.

Actions: None noted.

Monday 9th September 2019

AM – None Noted.

All OMU's in use.

Time: None Noted.

Observations/Complaints. None Noted.

Operational Issues/Causes: none noted.

Actions: None.

PM – None Noted.

All OMU's in use.

Time: None Noted.

Observations/Complaints. None Noted.

Operational Issues/Causes: None.

Actions: No source identified.

Tuesday 10th September 2019

AM – warm and cloudy with sunny spells.

All OMU's in use.

Time: 17:30.

Observations/Complaints: No odour issues.

Operational Issues/Causes: No odours found.

Actions: none noted.

PM – Cool overcast night.

All OMU's in use.

Time: 05:30.

Observations/Complaints: No odour issues.

Operational Issues/Causes: None noted.

Actions: None noted.

Wednesday 11th September 2019

<p>AM – Sunny with patchy clouds. All OMU's in use. Time: 17:30. Observations/Complaints:OM3 spiked to 0.017ppm max at 10:36 and 10:50. OM3 spiked again at 13:21 to 0.082ppm max. (All spikes lasted less than 15 minute duration). Operational Issues/Causes: None noted. Actions: None noted.</p> <p>PM – Cool overcast night. All OMU's in use. Time: 05:30. Observations/Complaints: No odour issues. Operational Issues/Causes: None found or reported. Actions: None noted.</p>	
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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					
06/09/19	0	206	183	389	760	1149
09/09/19	0	61	450	511	1112	1623
11/09/19	0	267	183	450	1577	2027

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 - good seal..

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

Digester 7 – Out of service

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 - seal weak and watery.

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

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.

Digester 15 - out of use.

Digester 16 - in use - seal level approx. 1ft below coping stones - seal thick and crusty in places.

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

Digester 18 - out of use.

Digester 19 - in use - seal level approx. 2ft below coping stones - good thick seal.

<p>Digester 20 - in use - seal level approx. 1ft below coping stones - good seal.</p> <p>No odour in the area observed at times of inspection</p>	
<p><u>GENERAL</u></p> <p><u>Sludge Screening House</u></p> <p>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.</p> <p><u>Imported Sludge</u></p> <p>Estimated average of 10 imports daily for preceding week.</p> <p><u>Final Settlement Tanks East Side of Works</u></p> <p>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.</p> <p><u>Skips</u></p> <p>No Skips present at the East side screening House - All clear.</p>	

2 x 12yd skips were located at the East side grit House - These were empty and uncovered (used for general waste).

No Skips present at the West Side gritting 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 noticed at time of inspection

Circular PST's 9 and 10 were in use and all hoses were in operation.

Circular PST number 11 and 12 had been drained down and out of service. No Odours observed.

Pasteurisation Plant

Pasteurisation plant had three streams (8, 9 and 12) 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.

Contractors from unit pump working onsite changing valves and pumps.

New Works (West Side)

Feed Channel for Aeration Lanes 21-24 free flowing no obstructions or odours. The contractor Celvac now only attends intermittently or when needed.

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 (11th September 2019)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.00 0.00 0.00 Ave: 0.00	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00 Ave: 0.00	0.2	Yes
East OCU	0.00 0.00 0.00 Ave: 0.00	0.05	Yes
West inlet OCU	0.00 0.00 0.00 Ave: 0.00	0.05	Yes
Sludge reception inlet	0.00 0.00 0.00	Unknown	Unknown

	Ave: 0.00		
Sludge reception outlet	1.050ppb 36.09ppb 3.038ppb Ave: 0.00	0.8	Yes
Thickening plant inlet	0.00 0.00 0.00 Ave: 0.00	Unknown	Unknown
Thickening plant outlet	0.00 0.00 0.00 Ave: 0.00	0.6	Yes
Transfer PS inlet	0.138 0.136 0.123 Ave: 0.00	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00 Ave: 0.00	0.6	Yes
New West inlet (OCU 11)	1.14 5,73 4.13 Ave: 0.00	0.5	Yes
OCU 12 (Pasteurisation Plant)	0.00 0.00 0.00 Ave: 0.00	0.5	Yes