



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 9 th May 2019 (12:00)	
Attendees: Mr Zaheer Kadri (LBH), Mrs C Gilzean (LBH) with Mr Channi Varsani (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A was empty and had dry residue on the tank floor at the hopper end. Hopper 1, 2, and 3 had all been drained down.</p> <p>Tank 1B was empty and had dry residue on the tank floor at the hopper end. Hopper 1, 2, and 3 had all been drained down.</p> <p>Tank 2A was 30% full of effluent due to recent rain fall. Tanks were returning and all Amajets in operation.</p> <p>Tank 2B was 30% full of effluent due to recent rain fall. Tanks were returning and all Amajets in operation.</p> <p>Tank 3A was empty and had dry residue on the tank floor at the hopper end. Hopper's 1 and 2 were empty however hopper 3 needed draining down.</p> <p>Tank 3B was empty and had dry residue on the tank floor at the hopper end. Hopper 1, 2, and 3 all needed draining down.</p>	

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 50% full of effluent due to recent rain fall. Tanks were returning and all Amajets in operation.

Tank 6B was 50% full of effluent due to recent rain fall. Tanks were returning and all Amajets in operation.

Tank 7A was 50% full of effluent due to recent rain fall. Tanks were returning and all Amajets in operation.

Tank 7B was 50% full of effluent due to recent rain fall. Tanks were returning and all Amajets in operation.

Tank 8A was 30% full of effluent due to recent rain fall. Tanks were returning and all Amajets in operation.

Tank 8B was 30% full of effluent due to recent rain fall. Tanks were returning and all Amajets in operation.

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 one (1) complaint by telephone in the preceding week.

On the 7th of May 2019 at approx 18:18 a telephone call was received via the Mogden Duty line from the Weavers Close area of Isleworth TW7 6ET regarding alleged odour nuisance from TWSW. The complainant was contacted by the Duty Officer at approx 18:18 who confirmed that the odour was still lingering in the air. Subsequently a visit was made at approx 19:08 and a subjective assessment of the odour in the area

made. One assessment was taken outside the complainants property and the other on Oak Lane TW7. At both points there was no signs of any excessive odours.

On the day of inspection the Trends for the odour incident were inspected and Odour Monitor 2 at the time of incident measured at 0.010ppm. No reason was given for the spike however it is possible the odour stemmed from the screening house. The odour logs for the evening also confirmed a spike in the trends however no reason was noted by TW. Our Ref for this complaint is logged as 983693.

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	0.005	ppm	12:15
Monitor 2	0.005	ppm	12:15
Monitor 3	0.000	ppm	12:15
Monitor 4	0.003	ppm	12:15
Monitor 5	0.004	ppm	12:15
Monitor 6	0.004	ppm	12:15
Monitor 7	0.006	ppm	12:15
Monitor 8	0.007	ppm	12:15
Monitor 9	0.005	ppm	12:15
Monitor 10	0.006	ppm	12:15
Monitor 11	0.007	ppm	12:15

Monitor 12	0.007	ppm	12:15
Monitor 13	0.006	ppm	12:15
Wind Speed	4.086	mph	12:15
Wind Direction	250.619	Deg	12:15

Odour Log (Thames) - Photocopies of log entries taken

Thursday 2nd May 2019

AM – Warm / Sunny.

All OMU's in use.

Time: 17:31.

Observations/Complaints: No issues.

Operational Issues/Causes: No issues.

Actions: None noted.

PM – Cool / Overcast night.

All OMU's in use.

Time: 05:30.

Observations/Complaints:

OM4 spiked at 2238-2251 <15 mins duration max 0.015ppm, OM8

spiked at 1852-1904 <15 mins duration max 0.016ppm.

Operational Issues/Causes: No issues.

Actions: None noted.

Friday 3rd May 2019

AM – Warm / Cloudy with sunny spells.

All OMU's in use.

Time: 17:30.

Observations/Complaints: No issues.

Operational Issues/Causes: No issues.

Actions: None noted.

PM – Cool / Overcast night.

All OMU's in use.

Time: 05:30

Observations/Complaints: OM3 0.022ppm 05:08-05:23.

Operational Issues/Causes: None noted.

Actions: None noted.

Saturday 4th May 2019

AM – Warm / Rain with sunny spells.

All OMU's in use.

Time: 05:30.

Observations/Complaints: Blank.

Operational Issues/Causes: No odour issues.

Actions: None noted.

PM – Cool clear night.

All OMU's in use.

Time: 17:30.

Observations/Complaints: No odour issues.

Operational Issues/Causes: None noted.

Actions: None Noted.

Sunday 5th May 2019

AM – Warm / Sunny with patchy clouds.

All OMU's in use.

Time: 17:30.

Observations/Complaints: None.

Operational Issues/Causes: No obvious source identified.

Actions: None Noted.

PM – Cool clear night.

All OMU's in use.

Time: 05:30.

Observations/Complaints: None.

Operational Issues/Causes: None.

Actions: None noted.

Monday 6th May 2019

AM – Warm / Sunny with patchy clouds.

All OMU's in use.

Time: 17:30.

Observations/Complaints: OM3 - 0.022ppm @ 05:08 - ongoing.

Operational Issues/Causes: area checked-no obvious source found.

Actions: Reported.
PM – Cool clear night.
All OMU's in use.
Time: 05:30.
Observations/Complaints: OM8 - 0.022ppm @ 13.06-13.21.
Operational Issues/Causes: area checked - no obvious source found.
Actions: None noted.

Tuesday 7th May 2019

AM – Cool / Sunny with patchy clouds.
All OMU's in use.
Time: 17:30.
Observations/Complaints: OM2 0.015ppm @ 16.43 - 1700.
Operational Issues/Causes: No odours found.
Actions: none noted.
PM – Cool / Rain.
All OMU's in use.
Time: 05:30.
Observations/Complaints: No odour issues.
Operational Issues/Causes: None noted.
Actions: None noted.

Wednesday 8th May 2019

AM – Cool / Rain.
All OMU's in use.
Time: 17:30.
Observations/Complaints: No odour issues.
Operational Issues/Causes: None noted.
Actions: None noted.
PM – Cold / Rain.
All OMU's in use.
Time: 05:30.
Observations/Complaints: No odours reported.
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 ³					
OMP limit	500					
05/05/19	20	909	0	929	2081	3010
07/05/19	0	909	61	970	1088	2058
08/05/19	0	1097	183	1280	1592	2872

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 – 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. 1ft below coping stones. Seal was weak and bubbling.

<p>Digester 8 – in use – good seal level approx 1ft below coping stones.</p> <p>Digester 9 - in use – seal level approx. 1ft below surface of coping stones – good seal.</p> <p>Digester 10 – in use – seal level approx. 1ft below surface of coping stones.</p> <p>Digester 11 - in use – seal level approx. 1ft below surface of coping stones – seal weak and bubbling.</p> <p>Digester 12 - in use – seal level approx. 1ft below coping stones – good seal.</p> <p>Digester 13 - in use – seal level approx. 1ft below coping stones – good seal.</p> <p>Digester 14 - out of use.</p> <p>Digester 15 - out of use.</p> <p>Digester 16 - out of use.</p> <p>Digester 17 - in use – seal level approx. 1ft below coping stones – seal crusty.</p> <p>Digester 18 - in use – seal level approx. 2ft below coping stones – seal weak and slightly bubbling.</p> <p>Digester 19 - in use – seal level approx. 1ft below coping stones – good seal.</p> <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>	
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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.
2 Large bulk loaders (open carriers) were present at the East side grit House- These were uncovered and empty (used for general waste).
There was one 6yrd skip which had a tarpaulin cover.
No odour detected.
No Skips present at the West Side gritting house. - All clear.

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, 11 & 12 all in use and all hoses were in operation. TW had introduced a trial of odour control "mistlers" on Tank 10 – pipe installed around tank top tail with nozzle sprays at regular intervals which could be utilised to create a plume of deodoriser (same as current mobile units on site) – intention are 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 mistlers were not in operation. No Odours observed.

Pasteurisation Plant

Pasteurisation plant had six streams that were 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.

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 – (8th May 2019)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.00 0.00 0.00	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	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