



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Thursday 9 th September 2019 (12:04 pm)	
Attendees: Mr L Phillips (London Borough of Hounslow) and Mr D 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. All hoppers drained down to lowest point.</p> <p>Tank 1B was empty and clean. Hoppers 1 & 2 were both approx 50% full and require draining. Hopper 3 had been drained down to its lowest point.</p> <p>Tank 2A was empty and clean slight grit build up at end of tank located by the hoppers. All hoppers drained to lowest point.</p> <p>Tank 2B was empty and clean. All hoppers were all approx 25% full and required draining down.</p> <p>Tank 3A was empty and clean. Hoppers 1 & 2 were approx 25% full and required draining down. Hopper 3 had been drained down to its lowest point.</p> <p>Tank 3B was empty however slight grit build up at the end of the tank located by the hoppers. Hoppers 1, 2 & 3 were all approx 50% full and required draining down.</p>	

Tanks 4A, 4B, 5A & 5B All tanks are covered and odour controlled. Unable to gauge condition as lighting system still not working.

Tank 6A was empty and clean. All hoppers drained down to lowest point.

Tank 6B was empty and clean. All hoppers were full and required draining.

Tank 7A was dirty with grit and sludge at rear of tank located by the hoppers. All Hoppers (shallow hoppers) were all full of grit and black sludge that required cleaning. No odour detected at time of inspection.

Tank 7B was dirty with grit and sludge across 25% of the tanks surface at the hopper end. Hoppers 1, 2 & 3 (shallow hoppers) were all full of grit and black sludge that required cleaning. Tanker onsite dealing with tank during inspection.

Tank 8A was empty and clean all hoppers were full and required draining.

Tank 8B was empty and clean all hoppers were full and required draining.

Feed Channel - The level of effluent in both feed channels was low along its entire length.

Thames advised of planned works to replace all of the hopper valves to prevent back flow of effluent, Scheduled to begin towards the end of April and lasting approx 3 months.

They are still also awaiting parts in order to bring the wash water pump system back into operation.

Complaints

The Council received one complaint by telephone in the preceding week.

On 1st September 2019 at approximately 16:50 a telephone call was received from a resident of Mogden Lane which is located to the (East side of the works) to report about odour emanating from Mogden sewage works.

The out of hour's duty officer called the complainant back at 17:45 however no response. The Officer left a message on mobile answer service advising that the Council had attempted to make contact. Officer called Comp back at 17:56 Comp advised that the odour is bad today. Agreed to have Officer visit to undertake odour assessment.

The duty Officer visited at 18:48 and undertook both a subjective assessment and measurements with a Jerome monitor. The results of this were that average level of H₂S was 0.00ppm H₂S and the subjective assessment confirmed that the level of odour was not causing a nuisance. The complaint was investigated during the weekly site inspection on 05th of September 2019. Odour monitor 1 is the closest to the area in question. The odour traces for 1st September were all below the 0.015ppm threshold on this date.). There is no conclusive source of odour for this day, with all traces being below the 0.015ppm. It has not been possible to identify the source of odour complained of on this occasion.

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

A resident e-mailed the Council on the 02nd September 2019 to advise that there was a very strong odour from the Summerwood Road area Isleworth. The complaint was investigated during the weekly site inspection on 05th of September 2019. The odour traces for 02nd September were all below the 0.015ppm threshold on this date.). There is no conclusive source of odour for this day, with all traces being below the 0.015ppm. It has not been possible to identify the source of odour complained of on this occasion.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at time of inspection: Thursday 5th September 2019 at 12:06.

Monitor 1	0.003	ppm	12:06
Monitor 2	0.005	ppm	12:06
Monitor 3	0.000	ppm	12:06
Monitor 4	0.004	ppm	12:06
Monitor 5	0.004	ppm	12:06
Monitor 6	0.005	ppm	12:07
Monitor 7	0.004	ppm	12:07
Monitor 8	0.004	ppm	12:07
Monitor 9	0.005	ppm	12:07
Monitor 10	0.000	ppm	12:07
Monitor 11	0.000	ppm	12:07
Monitor 12	0.005	ppm	12:07
Monitor 13	No data	ppm	12:07
Wind Speed	8.893	mph	12:07
Wind Direction	253.163	°	12:07

Odour Log (Thames)

Thursday 29th August 2019

AM

Temp: Warm.

Weather: Sunny W/ Patchy clouds.

Odour Readings: All ODU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed: Blank.

Actions Taken: Blank.

PM

Temp: Cool.

Weather: Clear night.

Odour Readings: All ODU's in operation.

Time: 05:30.

Observations / Customer Complaint: OM5 0.016ppm >15 minutes.

Operational issues / causes observed: No odour issues.
Actions Taken: Blank.

Friday 30th August 2019

AM

Temp: Warm.

Weather: Sunny w/ Patchy clouds.

Odour Readings: All OMU's in operation.

Time: 09:05.

Observations / Customer Complaint: OM2 spiked at 09:05 – 09:25 max 0.024ppm and at 12:08 – 12:21 but >15 mins duration max 0.025ppm.

Operational issues / causes observed: Rag skip changed at east inlet.

Actions Taken: Area hosed down on completion.

PM

Temp: Warm.

Weather: Clear night.

Odour Readings: All OMU's in use.

Time: 05:00.

Observations / Customer Complaint: OM2 spiking all night very still night 0.038ppm was highest spike.

Operational issues / causes observed: East and old west checked.

Actions Taken: Inlets hosed down.

Saturday 31ST August 2019

AM

Temp: Warm.

Weather: Cloudy w/Sunny spells.

Odour Readings: All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint: OM5 spiked at 09:36 – 09:49 >15 mins duration max 0.028ppm.

Operational issues / causes observed: Blank.

Actions Taken: Blank.

PM:

Temp: Warm.

Weather: Clear night.

Odour Readings: All OMU's in operation.

Time: 05:00.

Observations / Customer Complaint: OM8 spiked at 23:53 – n00:04 max 0.021.

Operational issues / causes observed: No odours found.

Actions taken: Blank.

Sunday 01st September 2019

AM

Temp: Warm.

Weather: Sunny w/ Patchy Clouds.

Odour Readings: All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint: OM3 spiked at 12:50 – 13:04 >15minutes duration

Operational issues / causes observed: Nothing obvious found when in area but OCU 11 requires some checks and maintenance.

Actions Taken: Blank.

PM

Temp: Cool.

Weather: Clear night.

Odour Readings: All OMU's in operation.

Time: 05:00.

Observations / Customer Complaint: No odour issues.

Operational issues / causes observed: Blank.

Actions Taken: Blank.

Observations / Customer Complaint: No other odour issues found or reported.

Monday 02nd September 2019

AM

Temp: Warm.

Weather: Sunny w/ Patchy clouds.

Odour Readings: All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint: OM3 0.030 16:50 – 17:06.

Operational issues / causes observed: No source discovered.

Actions Taken: Blank.

PM

Temp: Cool.

Weather: Overcast night.

Odour Readings: All OMU's in operation.

Time: 05:00.

Observations / Customer Complaint: OM3 spiked twice 0.06 at 18:50 and 0.043 at 00:06 both times less than 15 minutes.

Operational issues / causes observed. OCU11 Recirculation pumps tripping on rest.

Actions Taken: No odour found.

Tuesday 03rd September 2019

AM

Temp: Warm.

Weather: Sunny W/Patchy Clouds.

Odour Readings: All OMU's in operation.

Time: 17:20.

Observations / Customer Complaint: OM3 0.040 07:35 – 07:51
0.025 9:19 – 09:35 0.034 11:04 – 11:21 0.020 14:06 – 14:20.

Operational issues / causes observed: OCU 11High ppb exhausting needs attention.

Actions Taken: Blank

PM

Temp: Cool.

Weather: Clear night.

Odour Readings: All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint: OM2 0.015ppm at 11:30-00:17.

Operational issues / causes observed: East inlet area checked, no odours found.

Actions Taken: Blank.

Wednesday 4th September 2019

AM

Temp: Warm.

Weather: Sunny.

Odour Readings: All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint: No odour issues.

Operational issues / causes observed: Blank.

Action Taken: Blank.

PM

Temp: Cool.

Weather: Clear night.

Odour Readings: All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint: OM2 0.015ppm at 19:50-20:27,
OM2 0.015 to 0.06ppm at 00:41-01:02.

Operational issues / causes observed: East inlet area checked, no
odours found.

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 m ³					
OMP limit	500					
30/08/2019	0	61	267	328	1416	1744
02/09/2019	0	206	305	511	608	1119
04/09/2019	0	0	0	0	1416	1416

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 30 imports of sludge over the last week (10 on Friday 30th September, 10 on Monday 2nd and 10 on Wednesday 4th October).

No.5 Pumping Station

The doors and windows of No.5 pumping station were closed at the time of the inspection.

Raw Sludge Screening House

The large roller shutter door of the Raw Sludge Screening building was open at the time of the inspection due to ongoing maintenance.

Digesters

Digesters 1-4 are permanently out of use.

Digesters 5 - Was in use and had a weak seal. No evidence of sludge spill.

Digester 6 - Was in use and had a weak seal. No evidence of sludge spill.

Digester 7 - Was out of service.

Digester 8 - Was in use and had a weak seal. No evidence of sludge spill.

Digester 9 - Was in use and had a weak seal. No evidence of sludge spill.

Digesters 10 - Was in use and had a weak seal. No evidence of sludge spill.

Digester 11 - Was in use and had a weak seal. No evidence of sludge spill.

Digester 12 - Was in use and had a weak seal. No evidence of sludge spill.

Digester 13 - Was in use had a weak seal. No evidence of sludge spill.

Digester 14 - Was out of service.

Digester 15 - Was out of service.

Digester 16 - Was out of service.

Digester 17- Was in use had a weak seal. No evidence of sludge spill.

Digester 18 - Was out of service.

Digester 19 - Was in use had a weak seal. No evidence of sludge spill.

Digester 20 - Was in use good seal. No evidence of sludge spill.

There was evidence of anti-foaming agent in use and TW advised that this is applied daily to all of the digesters that are operational.

The area around all digesters was much improved with no evidence of recent or historical sludge spills. Thames advised they have been actively undertaking regular clean-ups of this area of the works.

GENERAL

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 tanks were operational at the time of the inspection no issues to note in regards to conditions of PSTs. However green algae was evident across large areas of tanks 75, 76 & 78.

Skips

On the East side there was one 16yd skip empty. One bulk carrier covered contained general non-inert rubbish no dour detected.

On the West side there was one 16yd skip empty.

East Side Screen House

The doors to the screen house building were closed at the time of the inspection.

Return Activated Sludge Channel

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was clear as tanker onsite clearing blockage.

TW were advised this needed to be rectified to avoid potential insect problems.

West side primary settlement tanks (PST)

Rectangular PSTs are now covered and odour controlled. TW advised no issues.

Circular PSTs 9 & 12 were both out of service.

It was noted that PST10 had some scum across the tank surface approx. 25%. TW advised that the new odour suppression system around the perimeter of PST-10 is currently out of operation due to a faulty water main.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 3 streams (8, 9 & 10) were out of service.

Section 106 agreement

There have been no breaches of the s106 agreement in the last week.

West Side Aeration Lanes (New)

All of the aeration tanks were much improved. The tops of the internal dividing walls were clearly visible and liquid inside the tanks appeared free flowing.

All of the sprinklers appeared to be in operation.

The mixed liquor feed channel serving E-Battery was clear of debris and free flowing along its entire length.

New Inlet Works (West Side)

There appeared to be a problem with wash-pacter 13 that had no bulk contained attached.

Odour Control Unit (OCU) performance monitoring: 04/09/2019

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	No
West inlet OCU	0.00 0.00 0.00	0.05	Yes
Sludge reception inlet	0.00	Unknown	Unknown
Sludge reception outlet	0.00 0.00 0.00	0.8	Yes
Thickening plant inlet	O/S	O/S	O/S
Thickening plant outlet	O/S	O/S	O/S
Transfer PS inlet	Blank	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.04 0.01	0.6	Yes
New West inlet (OCU 11)	3.35 3.41 3.37 3.37	0.5	Yes

Pasteurisation (OCU 12)	0.03 0.01 0.02 0.02	0.5	Yes	
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