



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Tuesday 22nd December 2020 (13:00pm)

Attendees: Mr Zaheer Kadri (London Borough of Hounslow) and Mr T Costin (Thames Water)

LB Hounslow Observation

Thames Water Action / Response

Storm Water Storage Tanks (SWST)

Tank 1A – Tank 3B were all approx. over 50% full. All Amajets were in operation.

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

Tank 6A – Tank 6B were both approx. 50% full and returning. Amajets were not in operation at time of inspection.

Tank 7A – Tank 8B were all approx. 50% full. All Amajets were in operation.

Storm Feed Channel - The level of effluent in both feed channels was approx. 25% along its entire length and murky. No fatty deposits observed.

Complaints

As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.

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

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

The Council received no complaints by email from MRAG.

Odour Monitors

The odour readouts (H₂S) for all monitors that were providing data on 22/12/2020 at the time of the inspection are below.

Monitor 1	0.000	ppm	13:30pm
Monitor 2	0.000	ppm	13:30pm
Monitor 3	0.000	ppm	13:30pm
Monitor 4	0.000	ppm	13:30pm
Monitor 5	0.005	ppm	13:30pm
Monitor 6	0.000	ppm	13:30pm
Monitor 7	0.004	ppm	13:30pm
Monitor 8	0.004	ppm	13:30pm
Monitor 9	0.004	ppm	13:30pm
Monitor 10	0.000	ppm	13:30pm
Monitor 11	0.000	ppm	13:30pm
Monitor 12	0.000	ppm	13:30pm
Monitor 13	0.003	ppm	13:30pm
Wind Speed	0.210	mph	13:30pm
Wind Direction	18.343		13:30pm

Odour Log (Thames)

Wednesday 16th December 2020

DAY SHIFT

Temp. Blank.
Weather. Blank.
Odour Readings. Blank.
Time: Blank
Observations / Customer Complaint. Blank.
Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cool.
Weather. Overcast night.
Odour Readings.
OM2 faulty. No faults reported with other monitors.
Time: 05:30.
Observations / Customer Complaint.
OM2 - No odour issues found or reported.
Operational issues / causes observed. Blank.

Thursday 17th December 2020

DAY SHIFT

Temp. Cool.
Weather. Sunny.
Odour Readings. All in operation , No faults reported.
Time: 17:30.
Observations / Customer Complaint. No odour issues found or reported.
Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cool.
Weather. Overcast night.
Odour Readings. OM2 faulty. All other monitors – No faults reported.
Time: 05:30.
Observations / Customer Complaint. No odour issues found or reported.
Operational issues / causes observed. Blank.

Friday 18th December 2020

DAY SHIFT

Temp. Cool.
Weather. Rain with sunny spells.

Odour Readings. All in operation. No faults reported.

Time: 17:30.

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

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All in operation, No faults reported.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Saturday 19th December 2020

DAY SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All in operation . No faults reported.

Time: 17:30.

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

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All in operation, No faults reported.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Sunday 20th December 2020

DAY SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All in operation No faults reported.

Time: 17:30.

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

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Blank.

Weather. Blank.

Odour Readings. Blank.

Time: Blank.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. Blank.

Monday 21st December 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy.

Odour Readings. No faults reported.

Time: 17:30.

Observations / Customer Complaint. OM8 spiked to 0.016ppm between 10:27-10:44.

Operational issues / causes observed. No odour issues on site/ ABLE contractors on site calibrating monitors.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. No faults reported.

Time: 05:00.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Tuesday 22nd December 2020

DAY SHIFT

Temp. Blank.

Weather. Blank.

Odour Readings. Blank.

Time: Blank.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Blank.

Weather. Blank.

Odour Readings. Blank.

Time: Blank.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. 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					
16/12/2020	117	824	595	1536	1088	2624
18/12/2020	117	824	740	1681	912	2593
21/12/2020	117	824	740	1681	912	2593

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 has been an average of 14 imports of sludge per day. Deliveries made on the 16th, 18th and 21st of December 2020.

No.5 Pumping Station

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

Sludge Import Area

It was noted that the condition around the sludge import area was much improved and noticeably cleaner than on previous visits.

TW were advised they are frequently hosing this area down.

As LBH note, this has not been required in the last week.

Raw Sludge Screening House

The large roller shutter door of the Raw Sludge Screening building was closed at the time of the inspection.

Digesters

Digesters 1-4 Out of use (permanent).

Thames advised of a long term project currently initiated to bring these units back into service that will require significant investment.

Digester 5 was in service and had a thick seal that was approx. 3ft below coping stone.

Digester 6 was out of service

Digester 7 was in service and had a low wet seal that was bubbling off minimal amounts of gas. There were signs of previous spillage.

Digester 8 was in service and had a very wet seal that was bubbling off minimal amounts of gas.

Digester 9 was in service and had a very wet seal that was 3ft below the coping stones.

Digesters 10 & 11 were both in service and had very wet seals that were bubbling off minimal amounts of gas.

It was also noted that the sludge level of both digesters was very high, in some places at the same level as the coping stones.

Digester 12 was in service and had a very wet seal that was bubbling off minimal amounts of gas.

It was also noted that the sludge level was high, approx. same level as coping stones.

Digester 13 was in service and had a very wet seal that was bubbling off minimal amounts of gas.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digester 14 was in service and had a thick sludgy seal approx. 2ft below coping stones. There were signs of previous spillage.

Digester 15 was out of service.

Digester 16 was in service and had a very wet seal. There were signs of previous spillage. Level of effluent was high approx. 1ft below coping stone

Digester 17 was in service and had a thick seal that was approx. 2ft below coping stones.

Digesters 18 & 19 were both out of service.

Digester 20 was in service and had a very wet seal that was bubbling off minimal amounts of gas approx. 2ft below coping stones.

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.

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).

PST 76 is currently out of service.

All remaining tanks were in operation at the time of the inspection.

Skips

East side grit house there were NO skips . One large Biffa enclosed Bulk carrier was at this location.

In the Sludge Import area there was a 12 yard skip which was covered.

On the service road next to the raw sludge screening building was a closed 12 yard skip.

On the West side grit house there was one closed BIFFA bulk carrier and one open bulk carrier.

East Side Screen House

The first set of screen house doors were open 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 free flowing and clear.

The far side channel nearest the road was clogged along approx. 80% of its length, there were visibly crusty areas and a number of weeds were growing out of it.

West side primary settlement tanks (PST)

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

PST's 9, 10 and 11 were all in service and had relatively fat free surfaces.
Circular PST 12 is currently out of service.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 10 streams are currently operational.

Section 106 agreement

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

West Side Aeration Lanes

All lanes appeared to be free flowing with the internal dividing walls being visible again. However it was noted that a thick fluffy foam is again starting to build up across the entire tanks surface area.

Most of the sprinklers were back in operation and floating debris had been removed.

The mixed liquor feed channel serving the aeration lanes of E-Battery was free flowing along its entire length, although thick foam appeared to be starting to build up by lane 22.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works and everything appeared to be in a good tidy order.

Odour Control Unit (OCU) performance monitoring: 22/12/2020

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	Blank	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	0.2	Unknown
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	Blank	Unknown	Unknown

Sludge reception outlet	Blank	0.8	Unknown
Thickening plant inlet	Blank	Unknown	Unknown
Thickening plant outlet	1.011 1.009 0.008	0.6	Yes
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	No
Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	Yes
Transfer PS inlet	1.126 1.113 1.096	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Tuesday 15 th December 2020 (13:00pm)	
Attendees: Mr I Inman (London Borough of Hounslow) and Mr T Costin (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A was approx. 50% full. No Amajets were in operation.</p> <p>Tank 1B was approx. 50% full. No Amajets were in operation.</p> <p>Tank 2A was approx. 50% full and returning. Amajets 1, 2 and 3 were in operation.</p> <p>Tank 2B was approx. 50% full and returning. Amajets 1, 2 and 3 were in operation.</p> <p>Tank 3A was approx. 50% full and returning. Amajets 1 and 2 were in operation.</p> <p>Tank 3B was approx. 50% full and returning. Amajets 1, 2 and 3 were in operation.</p> <p>Tanks 4A, 4B, 5A & 5B All tanks are covered and odour controlled. Unable to gauge condition as lighting system still not working.</p>	<div style="border: 1px solid black; padding: 10px;"><p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p></div>

Tank 6A was approx. 30% full.

No Amajets in operation. It was noted that there were floating solids at the hopper end of the tank.

Tank 6B was approx. 30% full.

No Amajets were in operation.

Tank 7A was approx. 35% full and returning.

Amajets 1, 2 and 3 were in operation.

Tank 7B was approx. 35% full and returning.

Amajets 1, 2 and 3 were in operation.

Tank 8A was approx. 35% full.

No Amajets were in operation.

Tank 8B was approx. 35% full.

No Amajets were in operation.

Storm Feed Channel - The level of effluent in both feed channels was approx. 25% along its entire length.

Complaints

The inspecting officer was unable to check for complaints in the preceding week prior to the inspection.

Odour Monitors

The odour readouts (H₂S) for all monitors that were providing data on 15/12/2020 at the time of the inspection are below.

Monitor 1	0.003	ppm	14:30pm
Monitor 2	-0.005	ppm	14:30pm
Monitor 3	0.000	ppm	14:30pm
Monitor 4	0.000	ppm	14:30pm
Monitor 5	0.005	ppm	14:30pm
Monitor 6	0.004	ppm	14:30pm
Monitor 7	0.007	ppm	14:30pm
Monitor 8	0.007	ppm	14:30pm
Monitor 9	0.005	ppm	14:30pm
Monitor 10	0.000	ppm	14:30pm
Monitor 11	0.004	ppm	14:30pm
Monitor 12	0.004	ppm	14:30pm
Monitor 13	0.007	ppm	14:30pm
Wind Speed	10.319	mph	14:30pm
Wind Direction	178.046		14:30pm

Odour Log (Thames)

Wednesday 9th December 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy w/sunny spells.

Odour Readings. OM2 faulty.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cold.

Weather. Clear night.

Odour Readings. OM2 faulty.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank

Thursday 10th December 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy w/sunny spells.

Odour Readings. OM2 faulty.

Time: 17:30.

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

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. OM2 faulty.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Friday 11th December 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy.

Odour Readings. OM2 faulty.

Time: 17:30.

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

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. OM2 faulty.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank

Saturday 12th December 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy w/sunny spells.

Odour Readings. OM2 faulty.

Time: 17:30.

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

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. OM2 faulty.

Time: 05:30.

Observations / Customer Complaint. OM5 0.017ppm 00:21-00:36, 0.021ppm 22:21-22:37.

Operational issues / causes observed. No odours in location.

Sunday 13th December 2020

DAY SHIFT

Temp. Cold.

Weather. Rain.

Odour Readings. OM2 faulty.

Time: 17:30.

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

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. OM2 faulty.

Time: 05:30.

Observations / Customer Complaint. OM6 0.022ppm 23:52-00:07.

Operational issues / causes observed. No odours in area.

Monday 14th December 2020

DAY SHIFT

Temp. Blank.

Weather. Sunny w/patchy clouds.

Odour Readings. OM2 faulty.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Blank.

Weather. Overcast night.

Odour Readings. OM2 faulty.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Tuesday 15th December 2020

DAY SHIFT

Temp. Blank.

Weather. Rain w/sunny spells.

Odour Readings. OM2 faulty.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cold.

Weather. Clear night.

Odour Readings. OM2 faulty.

Time: 05:30.

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

Operational issues / causes observed. Blank.

Sludge Dip Records

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m ³					
OMP limit	500					
09/12/2020	117	473	595	1185	1240	2425
11/12/2020	117	679	595	1391	912	2303
14/12/2020	0	1012	1073	2085	304	2389

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 has been an average of 9 imports of sludge per day.

No.5 Pumping Station

The doors of No.5 pumping station were open at the time of the inspection due to a tanker being on site and undertaking pumping work.

Sludge Import Area

It was noted that the condition around the sludge import area was much improved and noticeably cleaner than on previous visits.

TW were advised they are frequently hosing this area down.

Raw Sludge Screening House

As LBH note, this has not been required in the last week.

The large roller shutter door of the Raw Sludge Screening building was closed at the time of the inspection.

Digesters

Digesters 1-4 Out of use (permanent).

Thames advised of a long term project currently initiated to bring these units back into service that will require significant investment.

Digesters 5 & 6 were both in service but had very wet seals that were bubbling off minimal amounts of gas.

Digester 7 was in service and had a very wet seal that was bubbling off minimal amounts of gas.

Digester 8 was in service and had a very wet seal that was bubbling off minimal amounts of gas.
It was also noted that the sludge level was high, approx. 5" from the top of the coping stone.

Digester 9 was in service and had a very wet seal that was bubbling off minimal amounts of gas.

Digesters 10 & 11 were both in service and all had very wet seals that were bubbling off minimal amounts of gas.
It was also noted that the sludge level of both digesters was very high, approx. 2" from the top of the coping stones.

Digester 12 was in service and had a very wet seal that was bubbling off minimal amounts of gas.
It was also noted that the sludge level was high, approx. 6" from the top of the coping stone.

Digester 13 was in service and had a very wet seal that was bubbling off minimal amounts of gas.

Digester 14 was in service and sludge was spilling over the coping

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

stones, Thames took immediate action to draw down the sludge level.

Digester 15 was out of service.

Digester 16 was in service and had a very wet seal that was bubbling off minimal amounts of gas. Both the bell height and seal level were very high.

Digester 17 was in service and had a very wet seal that was bubbling off minimal amounts of gas.

Digesters 18 & 19 were both out of service.

Digester 20 was in service and had a very wet seal that was bubbling off minimal amounts of gas.

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.

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).

PST 76 is currently out of service.

All remaining tanks were in operation at the time of the inspection.

Skips

On the East side there was one empty 40yds closed bulk carrier.

In the Sludge Import area there were two 8yds open skips, both of which contained rag and other debris, both were covered.

On the service road next to the raw sludge screening building was a closed 14yds skip.

On the West side there was one empty 40yds closed bulk carrier and one 20yds open bulk carrier that was empty.

East Side Screen House

The first set of screen house doors were open 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 free flowing and clear.

The far side channel was clogged along approx. 65% of its length, there were visibly crusty areas and a number of weeds were growing out of it.

West side primary settlement tanks (PST)

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

Circular PST 12 is currently out of service.
PST's 9, 10 and 11 were all in service and had relatively fat free surfaces.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 9 streams are currently operational.

Section 106 agreement

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

D-battery Aeration Lanes (old)

4 lanes of D19 are currently out of service due to ongoing maintenance work. No issues were evident.

West Side Aeration Lanes

All lanes appeared to be free flowing, with the internal dividing walls being visible again. However it was noted that a thick fluffy foam is again starting to build up across the entire tanks surface area.

Most of the sprinklers were back in operation and floating debris had been removed.

The mixed liquor feed channel serving the aeration lanes of E-Battery was free flowing along its entire length, although thick foam appeared to be starting to build up by lane 22.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works and everything appeared to be in a good tidy order.

Odour Control Unit (OCU) performance monitoring: 15/12/2020

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	Blank	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	0.2	Unknown
East OCU	0.00	0.05	Yes

	0.00 0.00		
West inlet OCU	0.00 0.00 0.00	0.05	Yes
Sludge reception inlet	Blank	Unknown	Unknown
Sludge reception outlet	Blank	0.8	Unknown
Thickening plant inlet	Blank	Unknown	Unknown
Thickening plant outlet	0.075 0.071 0.058	0.6	Yes
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	No
Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	Yes
Transfer PS inlet	0.114 0.109 0.105	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Tuesday 24th November 2020 (10:30am)

Attendees: Mr Z.Kadri (London Borough of Hounslow) & Tom Costin (Thames Water)

LB Hounslow Observation

Thames Water Action / Response

Storm Water Storage Tanks (SWST)

Tank 1A was empty and had a clean surface. Hoppers 1 and 3 needed draining down- some fatty deposits on the surface of the hoppers.

Tank 1B was empty however there was effluent at the hopper end of the tank with fatty deposits across the surface. Hoppers 1, 2 and 3 needed draining down.

Tank 2A was empty and had a clean surface. Hoppers 1, 2 and 3 had all been drained down.

Tank 2B was clean and empty. Hoppers 1, 2 and 3 had all drained down earlier.

Tank 3A was clean and empty- Hoppers 1, 2 and 3 had low levels of effluent under 25%.

As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.

Tank 3B was empty however there were areas of the tank which had sludgy gritty surface. Hoppers 1, 2 and 3 needed draining down.

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. Hoppers 1 and 2 needed draining down and Hopper 3 was clear of effluent and had been drawn down.

Tank 6B – was empty however the Hopper end was submerged with effluent which had a thick fatty surface. Hopper 1, 2 and 3 needed draining down.

Tank 7A and Tank 7B both Tanks needed to be flushed – there was grit in some places across the surface. Hoppers 1, 2 and 3 (Shallow hoppers) in both tanks needed draining down.

Tank 8A was clean however the hopper end was submerged with effluent. Hoppers 1, 2 and 3 all needed draining down.

Tank 8B had a layer of thick sludge across the Tank which needed flushing down. Hoppers 1, 2 and 3 needed draining down (effluent in hoppers black and murky).

All the Amajets are in operational condition.

Feed Channel - The effluent in both feed channels was murky and black in colour along its entire length (bottomed out in places). Some deposits of fat across the surface but No odours witnessed.

Complaints

The Council received one telephone complaint on Sunday 22nd of November 2020 at approximately 16:25 from the Mogden Lane area. The Officer on duty responded and called the complainant back at 16:45. Subsequently a monitoring visit to the area was made at 17:30-17:45. The results of this were that average level of H₂S was 0.012ppm & 0.004ppm and the subjective assessment confirmed that the level of odour was not excessive but noticeable in the wind. The Flare reference for this complaint is A07848.

The Trends for the day were inaccessible at time of inspection.

Odour Monitors

The odour readouts (H₂S) for all monitors that were providing data at the time of the inspection are below:

Monitor 1	0.007	ppm	10:30a m
Monitor 2	0.004	ppm	10:30a m
Monitor 3	0.000	ppm	10:30a m
Monitor 4	0.005	ppm	10:30a m
Monitor 5	0.004	ppm	10:30a m
Monitor 6	0.004	ppm	10:30a m
Monitor 7	0.006	ppm	10:30a m
Monitor 8	0.006	ppm	10:30a m
Monitor 9	0.006	ppm	10:30a m

Monitor 10	0.003	ppm	10:30a m		
Monitor 11	0.005	ppm	10:30a m		
Monitor 12	0.007	ppm	10:30a m		
Monitor 13	0.006	ppm	10:30a m		
Wind Direction	176.421	Deg	10:30a m		
Wind Speed	4.844	mph	10:30a m		

Odour Log (Thames)

Wednesday 18th November 2020

DAY SHIFT

Temp. Cool.

Weather. Rain with sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.

No odour issues.

Operational issues / causes observed.

Storm Tanks returning.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cold.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

No odour issues found or reported.

Operational issues / causes observed.

Storm Tanks Dregs returning.

Actions Taken. Blank.

Thursday 19th November 2020

DAY SHIFT

Temp. Cool.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.

No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cold.

Weather. Clear Night.

Odour Readings. All OMU's in use.

Time: 05:30.

Observations / Customer Complaint.

OM7 spiked to 0.016ppm at 20:07-21:07.

Operational issues / causes observed.

No odours identified.

Actions Taken. Blank.

Friday 20th November 2020

DAY SHIFT

Temp. Cold.

Weather. Sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.

No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Overcast Night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

OM5 spiked to 0.019ppm Max at 18:49-19:05 but under 15 minute duration.

Operational issues / causes observed. Blank.

Actions taken. Blank.

Saturday 21st November 2020

DAY SHIFT

Temp. Cool.

Weather. Patchy with Clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.

No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Overcast Night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

OM13 spiked at 03:40-04:40 0.016ppm Max.

OM8 spiked at 04:20-04:40 Max 0.021ppm.

Operational issues / causes observed.

Odour present in the air around PAS streams but unable to determine source.

Actions Taken. Blank.

Sunday 22nd November 2020

DAY SHIFT

Temp. Cool.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.

OM4 spiked to 0.017ppm between 16:35-16:51.

Operational issues / causes observed.

Engine exhaust.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cold.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Monday 23rd November 2020

DAY SHIFT

Temp. Cool.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.

No odour issues found or reported.

Operational issues / causes observed. No operational issues.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cold.

Weather. Clear Night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Tuesday 24th November 2020

DAY SHIFT

Temp. Cool.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.

No issues found or reported.

Operational issues / causes observed. Blank.

Action Taken. Blank.

NIGHT SHIFT

Temp. Cool.
Weather. Clear Night.
Odour Readings. All OMU's in operation.
Time: 05:30.
Observations / Customer Complaint.
 No odours found.
Operational issues / causes observed.
 No odours found and reported.
Actions Taken. Blank

Sludge Dip Records

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3	All units in m ³		
OMP limit	500					
18/11/2020	117	534	595	1246	608	1854
20/11/2020	117	389	740	1246	1240	2486
23/11/2020	117	824	595	1536	1088	2624

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 has been an average of 8 imports of sludge daily. 3 over the last week made on the 18/11/2020 , 20/11/2020 and 23/11/2020.

As LBH note, this has not been required in the last week.

Raw Sludge Screening House

The large roller shutter door of the Raw Sludge Screening building was closed at the time of the inspection.

Digesters

Digesters 1-4 Out of use (permanent).

Thames advised of a long term project currently initiated to bring these units back into service that will require significant investment.

Digester 5 was in service and had a high sloppy/sludgy seal. Signs of previous spillage around coping stones.

Digester 6 was in service and had a high sloppy seal. Signs of previous spillage around coping stones. Good seal all round.

Digester 7 was in service and had a low wet sloppy seal (sludgy). Thick and lumpy in areas. Good seal all round.

Digester 8 was in service and had a high wet sloppy seal. Signs of previous spillage around coping stones.

Digester 9 was in service and had a wet sloppy seal. There was evidence of previous spillage.

Digester 10 was in service and had a high wet seal. No evidence of previous spillage on coping stones but the channels and walkways needed a sweep.

Digester 11 was in service and had a high wet seal all round. No evidence of spillages on coping stones.

Digester 12 was in service and had a low wet seal all round. No evidence of previous spillages.

Digester 13 was in service and had low wet seal all round. No evidence of previous spillages.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.

The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digester 14 was in service and had a high wet seal which was gassing in places. No evidence of previous sludge spillage, clean coping stones. Overall good seal.

Digester 15 is currently out of service.

Digester 16 was in service and had a low sloppy seal. Coping stone looked clean no sign of previous spillage.

Digester 17 was in service and had a had a low thick sloppy seal which was bubbling in places. Coping stone looked clean, no sign of previous spillage.

Digester 18 is currently out of service.

Digester 19 is currently out of service.

Digester 20 was in service and had a high wet seal. No evidence of previous sludge spillage, clean coping stones.

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).

PST 76 had been drained down for maintenance. All remaining PSTs had relatively fat free and clear surfaces. The hoses were in operation at time of inspection.

Skips

There were no skips observed at the Screening House.
There were no skips observed at the East Side Grit House.
There were no skips observed at the West Side Grit House.

East Side Screen House

The doors at the Screening House were open due to contractors working on site changing the conveyor system- contractors needed ventilation. TW Advised to keep doors closed.

Return Activated Sludge Channel

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was free flowing and clear.

The far side channel was partly clogged throughout much of its length.

West side primary settlement tanks (PST)

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

Circular PST's 9, 10 and 12 were all in service, PST 11 was out of service. All PST's had relatively fat free surfaces. PST 11 drained down as works taking place on the sludge pump.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 9 streams out of twelve are currently operational.

Section 106 agreement

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

West Side Aeration Lanes (New)

All lanes are now much improved and appeared to be free flowing, with the internal dividing walls being visible again.

The sprinkler systems were in operation and floating debris had been removed.

The mixed liquor feed channel serving aeration lanes 22 to 25 of E-Battery was clear and free flowing. Part of the channel was heavily blocked full of rag.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring:
24/11/2020

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	Blank	Unknown	Unknown
Main pumping station outlet	0.00ppm 0.00ppm 0.00ppm	0.2	Unknown
East OCU	0.00ppm 0.00ppm 0.00ppm	0.05	Yes
West inlet OCU	0.00ppm 0.00ppm 0.00ppm	0.05	Yes
Sludge reception inlet	Blank	Unknown	Unknown
Sludge reception outlet	Blank	0.8	Unknown
Thickening plant inlet	Blank	Unknown	Unknown
Thickening plant outlet	1.09ppm 0.89ppm 0.71ppm Ave: 0.89ppm	0.6	Yes
New West inlet (OCU 11)	0.00ppm 0.00ppm 0.00ppm	0.5	No
Pasteurisation (OCU 12)	0.00ppm 0.00ppm 0.00ppm	0.5	Yes
Transfer PS inlet	45.10ppm 40.05ppm 38.95ppm	Unknown	Unknown

	Ave: 41.36pp m			
Transfer PS outlet	0.00ppm 0.00ppm 0.00ppm	0.6	Yes	



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Tuesday 17 th November 2020 (13:00pm)	
Attendees: Mr I Inman (London Borough of Hounslow) and Mr T Costin (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A was approx. 75% full. No Amajets were in operation.</p> <p>Tank 1B was approx. 75% full. No Amajets were in operation.</p> <p>Tank 2A was approx. 75% full and returning. Amajets 1, 2 and 3 were all in operation.</p> <p>Tank 2B was approx. 75% full and returning. Amajets 1 and 2 were in operation.</p> <p>Tank 3A was approx. 75% full and returning. Amajets 1, 2 and 3 were all in operation.</p> <p>Tank 3B was approx. 75% full and returning. Amajets 1, 2 and 3 were all in operation.</p> <p>Tanks 4A, 4B, 5A & 5B All tanks are covered and odour controlled. Unable to gauge condition as lighting system still not working.</p>	<div style="border: 1px solid black; padding: 10px;"><p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p></div>

Tank 6A was approx. 75% full and returning.
Amajets 1, 2 and 3 were all in operation.

Tank 6B was approx. 75% full and returning.
Amajets 2 and 3 were in operation.

Tank 7A was approx. 75% full and returning.
Amajets 2 and 3 were in operation.

Tank 7B was approx. 75% full and returning.
Amajets 2 and 3 were in operation.

Tank 8A was approx. 75% full and returning.
Amajets 1, 2 and 3 were all in operation.

Tank 8B was approx. 75% full and returning.
Amajets 1, 2 and 3 were all in operation.

Storm Feed Channel - The level of effluent in both feed channels was approx. 25% along its entire length.

Complaints

The Council received no complaints in the preceding week.

Odour Monitors

The odour readouts (H₂S) for all monitors that were providing data on 17/11/2020 at the time of the inspection are below.

Monitor 1	0.010	ppm	13:55pm
Monitor 2	0.004	ppm	13.55pm
Monitor 3	0.000	ppm	13.55pm
Monitor 4	0.007	ppm	13.55pm
Monitor 5	0.005	ppm	13.55pm
Monitor 6	0.004	ppm	13.55pm
Monitor 7	0.008	ppm	13.55pm
Monitor 8	0.003	ppm	13.55pm
Monitor 9	0.008	ppm	13.55pm
Monitor 10	0.003	ppm	13.55pm
Monitor 11	0.007	ppm	13.55pm
Monitor 12	0.007	ppm	13.55pm
Monitor 13	0.007	ppm	13.55pm
Wind Speed	10.016	mph	13.55pm
Wind Direction	226.501		13.55pm

Odour Log (Thames)

Wednesday 11th November 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank

Thursday 12th November 2020

DAY SHIFT

Temp. Warm.

Weather. Cloudy w/sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

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

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Friday 13th November 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy w/sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in use.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank

Saturday 14th November 2020

DAY SHIFT

Temp. Cool.

Weather. Rain w/sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Sunday 15th November 2020

DAY SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM13 0.017 5:11-6:12.

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Monday 16th November 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy w/sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

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

Operational issues / causes observed. Storm tanks full.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM8 0.015ppm 19:13-20:11.

Operational issues / causes observed. No odour identified.

Tuesday 17th November 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM5 spiked at 15:20-15:34 0.021ppm but <15 mins duration.

Operational issues / causes observed.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Storm tanks returning.

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					
11/11/2020	117	122	595	834	760	1594
13/11/2020	117	806	595	1518	304	1822
16/11/2020	117	473	885	1475	152	1627

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 has been an average of 8 imports of sludge per day.

No.5 Pumping Station

The doors of No.5 pumping station were closed at the time of the inspection and no odour was noticeable.

Sludge Import Area

It was noted that the condition around the sludge import area was much improved and noticeably cleaner than on previous visits.

TW were advised they are frequently hosing this area down.

Raw Sludge Screening House

As LBH note, this has not been required in the last week.

The large roller shutter door of the Raw Sludge Screening building was closed at the time of the inspection.

Digesters

Digesters 1-4 Out of use (permanent).

Thames advised of a long term project currently initiated to bring these units back into service that will require significant investment.

Digesters 5 & 6 were both in service but had very wet seals that were bubbling off minimal amounts of gas.

It was noted that both digesters had very high sludge levels (almost to the top of the coping stones).

Digester 7 was in service and had a very wet seal that was bubbling off minimal amounts of gas.

It was noted that there was evidence of a spill around part of the digester.

Digesters 8 & 9 were both in service and had a very wet seal that was bubbling off minimal amounts of gas.

It was noted that both digesters had very high sludge levels (almost to the top of the coping stones).

Digesters 10, 11, 12 and 13 were all in service and all had very wet seals that were bubbling off minimal amounts of gas.

Digester 14 was in service and had a very wet seal that was bubbling minimal amounts of gas.

It was also noted that the sludge level was very high (almost to the top of the coping stone).

Digester 15 was out of service.

Digesters 16 & 17 were both in service and had a very wet seal that was bubbling off minimal amounts of gas.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digesters 18 & 19 were both out of service.

Digester 20 was in service and had a very wet seal that was bubbling off minimal amounts of gas.

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.

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).

PST 76 is currently out of service.

All remaining tanks were in operation at the time of the inspection.

Skips

On the East side there was one empty 40yds closed bulk carrier.

In the Sludge Import area there were two 8yds open skips, both of which contained rag and other debris, both were covered.

On the service road next to the raw sludge screening building was a closed 14yds skip.

On the West side there was one 20yds open bulk carrier that was empty.

East Side Screen House

The doors at both ends of 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 free flowing and clear.

The far side channel was clogged along approx. 75% of its length, there were visibly crusty areas and a number of weeds were growing out of it.

West side primary settlement tanks (PST)

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

Circular PST 12 is currently out of service.
PST's 9, 10 and 11 were all in service and had relatively fat free surfaces apart from PST 10, where just under 25% in front of the sweeper arm was covered in fatty scum.

It was also noted that doors to PST 14 and 15 were open at the time of the inspection, TW advised this is due to ongoing maintenance within the tanks.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 9 streams are currently operational.

Section 106 agreement

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

D-battery Aeration Lanes (old)

4 lanes of D19 were out of service due to ongoing maintenance. No

issues were evident.

West Side Aeration Lanes

All lanes are now much improved and appeared to be free flowing, with the internal dividing walls being visible again.

Most of the sprinklers were back in operation and floating debris had been removed.

The mixed liquor feed channel serving the aeration lanes of E-Battery was free flowing along its entire length.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works and everything appeared to be in a good tidy order.

Odour Control Unit (OCU) performance monitoring: 17/11/2020

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	Blank	Unknown	Unknown
Main pumping station outlet	3.59 0.00 0.00	0.2	Unknown
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	Blank	Unknown	Unknown
Sludge reception outlet	Blank	0.8	Unknown
Thickening plant inlet	Blank	Unknown	Unknown
Thickening plant outlet	0.00	0.6	Yes

	0.00 0.00			
New West inlet (OCU 11)	3.37 3.11 0.00	0.5	No	
Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	Yes	
Transfer PS inlet	0.199 0.206 0.203	Unknown	Unknown	
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes	



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 10 th November 2020	
Attendees: Mr Steven Maunders and Mr Dan Grady (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A – Tank empty - approximately 5% of tank covered by grit – requires further flushing – Hoppers 1 & 3 approx. 85% full, Hopper 2 approx. 20% full – requires draining/over-pumping.</p> <p>Tank 1B – Tank empty - approximately 25% of tank covered by grit – requires further flushing – Hopper 1 full, Hoppers 2 & 3 approx. 20% full – requires draining/over-pumping.</p> <p>Tank 2A – Tank empty and flushed clean – Hoppers 1, 2 & 3 approx. 25% full – requires draining/over-pumping.</p> <p>Tank 2B – Tank empty – recently returned - approximately 55% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 85% full – requires draining/over-pumping.</p> <p>Tank 3A – Tank empty - approximately 20% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 35% full.</p> <p>Tank 3B – Tank empty – recently returned – approximately 90% of</p>	<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 90% full – requires draining/over-pumping.

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

Tank 6A – Tank empty - approximately 20% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 35% full – requires draining/over-pumping

Tank 6B – Tank empty – recently returned – 100% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 30% full – requires draining/over-pumping.

Tank 7A - Tank full – Amajets in use.

Tank 7B – Tank full – Amajets in use.

Tank 8A – Tank empty and flushed clean – Hoppers 1, 2 & 3 full – tank back-filling - requires draining/over-pumping.

Tank 8B – Tank empty – recently returned - Hoppers 1, 2 & 3 full – tank back-filling - requires draining/over-pumping.

Feed Channel - The level of effluent in both feed channels was approximately 20% capacity - no local odours.

Complaints

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

The Council directly 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 monitors which were providing data at time of inspection:

Monitor 1	.005	ppm	13:29
Monitor 2	.000	ppm	13:29
Monitor 3	.000	ppm	13:29
Monitor 4	.003	ppm	13:29
Monitor 5	.003	ppm	13:29
Monitor 6	.000	ppm	13:29
Monitor 7	.005	ppm	13:29
Monitor 8	.006	ppm	13:29
Monitor 9	.006	ppm	13:29
Monitor 10	.000	ppm	13:29
Monitor 11	.004	ppm	13:29
Monitor 12	.005	ppm	13:29
Monitor 13	.004	ppm	13:29
Wind Speed	1.4	mph	13:29
Wind Direction	182°		

Odour Log (Thames):

Wednesday 4th November 2020:

AM – Sunny with patch Clouds.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Clear Night.

All OMU's in use.

Observations/Complaints: "No odour issues found or reported."

Operational Issues/Causes: None noted.

Actions: None noted.

Thursday 5th November 2020:

AM – Sunny.

All OMU's in use.

Observations/Complaints: "No odour issues found or reported."

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Clear Night.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

Friday 6th November 2020:

AM – Cloudy with Sunny spells.

All OMU's in use.

Observations/Complaints: "No odour issues found or reported."

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Clear Night.

All OMU's in use.

Observations/Complaints: "No odour issues found or reported."

Operational Issues/Causes: None noted.

Actions: None noted.

Saturday 7th November 2020:

AM – Rain with Sunny spells.

All OMU's in use.

Observations/Complaints: "No odour issues found or reported."

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Clear Night.

All OMU's in use.

Observations/Complaints: "OM2 spike to 0.015 for less than 13 mins."

Operational Issues/Causes: None noted.

Actions: None noted.

Sunday 8th November 2020:

AM – Cloudy.

All OMU's in use.

Observations/Complaints: "No odour issues found or reported."

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Rain.

All OMU's in use.

Observations/Complaints: "OM10 0.025 @ 01:53 to 02:19."

Operational Issues/Causes: "Area checked around monitor – no obvious odours detected."

Actions: None noted.

Monday 9th November 2020:

AM – Rain with Sunny spells.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Rain.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

Tuesday 10th November 2020:

AM – Cloudy with Sunny spells.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Clear Night.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

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					
04/11/2020	117	412	595	1124	912	2036
06/11/2020	0	534	740	1274	1905	3179
09/11/2020	117	722	885	1724	760	2484

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. 6” below coping stones – seal weak and bubbling – evidence of previous spill requiring anti-foam and clean-up.

Digester 6 - In use – seal level approx. 6” below coping stones – seal weak and bubbling – evidence of previous spill requiring anti-foam and clean-up.

Digester 7 - In use – seal level approx. 6” below coping stones – seal

As LBH note, this has not been required in the last week.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

weak and bubbling – Bell height high requiring draw down of Biogas.

Digester 8 - In use – seal level approx. 1ft below coping stones - seal weak and bubbling – Bell height high requiring draw down of Biogas.

Digester 9 - In use – seal level approx. 18” below coping stones – seal weak and bubbling.

Digester 10 - In use – seal level approx. 2ft below coping stones - seal weak and bubbling – Bell height high requiring draw down of Biogas.

Digester 11 - In use – seal level approx. 1ft below coping stones – seal weak and bubbling.

Digester 12 - In use – seal level approx. 3ft below coping stones – seal weak and bubbling.

Digester 13 - In use – seal level approx. 1ft below coping stones - seal weak and bubbling vigorously – evidence of previous spill requiring anti-foam and clean-up.

Digester 14 – In use – seal level approx. 2ft below coping stones - seal weak and bubbling – Bell height high requiring draw down of Biogas.

Digester 15 - Out of use – empty and clean – contractor on site undertaking maintenance.

Digester 16 - In use – seal level approx. 1ft below coping stones - seal weak and bubbling.

Digester 17 - In use – seal level approx. 18” below coping stones – seal weak and bubbling.

Digester 18 - Out of use.

Digester 19 - In use – seal level approx. 18” below coping stones – seal weak and bubbling.

Digester 20 - In use – seal level approx. 2ft below coping stones – seal weak and bubbling.

GENERAL

Sludge Screening House

All doors closed at the time of inspection.

Imported Sludge

Average of ten (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).

Skips

1x 12 yard skip containing general waste in Service Road at rear of Sludge Screen House.

1x enclosed container skip (empty) by circular PST's

East Side Raw Sludge Screen House

Doors closed at time of inspection.

West Side Aeration Lanes (Old)

Battery C aeration feed channel 100% obstructed in one channel (left) – requires jetting (TW advise that there is continuing flow below surface).

West side primary settlement tanks (PST)

Rectangular PSTs – no issues

Circular PST's 9, & 11 in use, Numbers 10 & 12 drained down.

Pasteurisation Plant

Nine streams running.

New Works (West Side)

Feed Channel for Aeration Lanes completely clear.

“Fluffy” coverage across surface and quantity of material bypassing screener has reduced.

Odour Control Unit (OCU) performance monitoring – 09/11/20

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	0.2	Yes
East OCU	0.195 0.138 42.33	0.05	No
West inlet OCU	1.693 1.077 1.063	0.05	No
Sludge reception inlet	No data	Unknown	Unknown
Sludge reception outlet	No data	0.8	Unknown

Thickening plant inlet	No data	Unknown	Unknown
Thickening plant outlet	4.57 106.2 3.92	0.6	No
Transfer PS inlet	4.517 4.050 3.545	Unknown	Unknown
Transfer PS outlet	4.09 0.00 0.00	0.5	No
New West inlet (OCU11)	1.910 1.341 0.169	0.5	No
Pasteurisation Plant (OCU12)	1.031 1.029 7.77	0.5	No



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Tuesday 27th October 2020 (12:00am)

Attendees: Mr Z.Kadri (London Borough of Hounslow) & Dan Grady (Thames Water)

LB Hounslow Observation

Thames Water Action / Response

Storm Water Storage Tanks (SWST)

Tank 1A was empty and clean. Hoppers 1 and 3 needed draining down. Hopper 2 was empty. All Amajets are in good working condition.

Tank 1B was empty and clean. Hoppers 1 and 3 were all drained down however Hopper 2 contained effluent.

Tank 2A was empty and clean. Hoppers 1, 2 and 3 were all drained down in the morning and clear.

Tank 2B was empty however had in areas large deposits of grit and sludge. TW advised that cleaning manually would cause odour but they would be flushing the tank out later. Hoppers 1, 2 and 3 were all empty and drained down. Amajets had recently been repaired and in good working condition.

As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.

Tank 3A was empty and clean however slight grit across the surface at hopper end. Hopper 1 was full and needed draining down, Hoppers 2 and 3 were all clear of effluent.

Tank 3B was empty and clean however slight sludgy grit at Hopper end. Hoppers 1, 2 and 3 were all full and required draining down.

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. Hoppers 1, 2 and 3 were all drained down.

Tank 6B was empty and clean. Hoppers 1, 2 and 3 were all drained down.

Tank 7A surface had a substantial amount of sludgy grit across the surface near the Hopper end. TW advised that the Tank would be cleaned. Hoppers 1, 2 and 3 were all full and required draining down. (shallow hoppers).

Tank 7B surface had a substantial amount of sludgy grit across the surface near the Hopper end. TW advised that the Tank would be cleaned. Hoppers 1, 2 and 3 were all full and required draining down. (shallow hoppers).

Tank 8A was empty and clean. Hoppers 1, 2 and 3 were all full and required draining down.

Tank 8B was empty and clean. Hoppers 1, 2 and 3 were all full and required draining down.

Feed Channel - The level of effluent in both feed channels was low and bottomed out in some places. The effluent was murky along its entire length. Some deposits of fat across the surface. No odours witnessed.

Complaints

The Council received NO complaints by telephone / Email in the preceding week.

Odour Monitors

The odour readouts (H₂S) for all monitors that were providing data at the time of the inspection are below:

Monitor 1	0.005	ppm	13:19p m
Monitor 2	0.005	ppm	13:19p m
Monitor 3	0.000	ppm	13:19p m
Monitor 4	0.004	ppm	13:19p m
Monitor 5	0.004	ppm	13:19p m
Monitor 6	0.000	ppm	13:19p m
Monitor 7	0.004	ppm	13:19p m
Monitor 8	0.006	ppm	13:19p m
Monitor 9	0.003	ppm	13:19p m
Monitor 10	0.004	ppm	13:19p m
Monitor 11	0.000	ppm	13:19p m

Monitor 12	0.000	ppm	13:19p m
Monitor 13	0.004	ppm	13:19p m
Wind Direction	288.234	Deg	13:19p m
Wind Speed	3.291	mph	13:19p m

Odour Log (Thames)

Wednesday 23rd September 2020

DAY SHIFT

Temp. Rainy.

Weather. Sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.

OM3 spiked at 0:021ppm at 07:19-07:35.

Operational issues / causes observed.

No12 Rag skip changed around this time.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Blank.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

No odour issues found or reported.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Thursday 24th September 2020

DAY SHIFT

Temp. Blank.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.

OM2 0.019ppm at 13:11-13:24.

Operational issues / causes observed.

East Inlet being washed down after combi washer spill.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Overcast Night.

Weather. Blank.

Odour Readings. All OMU's in use.

Time: 05:30.

Observations / Customer Complaint.

No issues found or reported.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Friday 25th September 2020

DAY SHIFT

Temp. Blank.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.

No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Clear Night.

Weather. Blank.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

OM3 spiked at 19:50-20:05 maximum Peak 0.038ppm.

Operational issues / causes observed.

Smell of PAS sludge.

Actions taken. Blank.

Saturday 26th September 2020

DAY SHIFT

Temp. Blank.

Weather. Sunny w/patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.

No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Blank.

Weather. Clear Night.

Odour Readings. All OMU's in operation.

Time: 07:12.

Observations / Customer Complaint.

No odour issues found or reported.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Sunday 27th September 2020

DAY SHIFT

Temp. Blank.

Weather. Cloudy.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No dour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Blank.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

No dour issues.

Operational issues / causes observed. Blank

Actions Taken. Blank.

Monday 28th September 2020

DAY SHIFT

Temp. Blank.

Weather. Sunny w/patchy.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.

OM3 0.019ppm 14:35-14:51

Operational issues / causes observed. No odours detected.

OCU11 discharging odour.

Actions Taken. Blank

NIGHT SHIFT

Temp. Blank.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

OM2 spiked at 01:11-01:40 22:54 max 0.021ppm.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Tuesday 29th September 2020**DAY SHIFT**

Temp. Blank.

Weather. Sunny with patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.

No issues found or reported.

Operational issues / causes observed. Blank.

Action Taken. Blank.

NIGHT SHIFT

Temp. Blank.

Weather. Clear Night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

OM2 spiked at 19:25- all night max 0.063ppm.

Operational issues / causes observed. No operational issues.

Actions Taken.

East Inlet hosed down , Site checked odours coming from PAS area but nothing adverse.

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					
23/09/2020	0	534	244	778	1121	1899
25/09/2020	0	412	305	717	1425	2142
28/09/2020	0	389	305	694	608	1302

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 has been an average of 7 imports of sludge daily. 3 over the last week made on the 23/09/2020, 25/09/2020 and 28/09/2020 .

Raw Sludge Screening House

As LBH note, this has not been required in the last week.

The large roller shutter door of the Raw Sludge Screening building was closed at the time of the inspection.

Digesters

Digesters 1-4 Out of use (permanent).

Thames advised of a long term project currently initiated to bring these units back into service that will require significant investment.

Digester 5 was in service and had a high wet sloppy seal. Signs of previous spillage around coping stones.

Digester 6 was in service and had a high wet sloppy seal. Signs of previous spillage around coping stones.

Digester 7 is currently out of service.

Digester 8 was in service and had a high wet sloppy seal. Signs of previous spillage around coping stones.

Digester 9 was in service and had a good wet sloppy seal. There was evidence of previous spillage and TW reminded to sweep up the crust around Digester 5, 6, 7, 8, 9 and their respective walkways/channels.

Digesters 10, 11 & 12 were all in service and had High thick sludgy seals.

Digester 13 was in service and had a low wet seal gassing in places. Signs of previous spillage around coping stones.

Digester 14 was in service and had a low wet thick seal. No evidence of previous sludge spillage – clean coping stones. Overall good seal

Digester 15 is currently out of service.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digester 16 was in service and spilling over / gassing at time of inspection. There was a broken seal in one side of the digester which was allowing a substantial amount of effluent to escape.

Digester 17 was in service and had a had a low thick sludgy seal. No evidence of previous sludge spillage – clean coping stones. Overall good low seal.

Digester 18 is currently out of service.

Digester 19 is currently out of service.

Digester 20 was in service and had a had a low thick sludgy seal. No evidence of previous sludge spillage – clean coping stones. Overall good low seal.

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 the tanks were operating as normal and had a relatively fat free and clear surface. The hoses were in operation.

Skips

There was one 16yard skip which was empty and uncovered at the Screening House – No odours were detected.

There were NO skips at the East Side Grit House

There were NO skips at the West Side Grit House

East Side Screen House

A set of doors at the screening house building were open due to maintenance taking place. The doors were open to allow ventilation whilst contactors were working. No odours detected at the time of inspection.

Return Activated Sludge Channel

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was free flowing and clear.

The far side channel was partly clogged throughout much of its length, the surface was visibly crusty in areas and had weeds growing out of it. This was due to be manually unclogged by contractors

West side primary settlement tanks (PST)

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

Circular PST's 9, 10 and 12 were all in service except PST 11 this was out of service. All PST's had relatively fat free surfaces

however some algae growth across the surface. No odours detected

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 9 streams out of twelve are currently operational.

Section 106 agreement

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

West Side Aeration Lanes (New)

All lanes are now much improved and appeared to be free flowing, with the internal dividing walls being visible again.

The sprinkler systems were in operation and floating debris had been removed.

The mixed liquor feed channel serving aeration lanes 22 to 25 of E-Battery was partially clogged with thick dark sludge. TW will be unclogging this channel.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring:
24/09/2020

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	Blank	Unknown	Unknown
Main pumping station outlet	Blank	0.2	Unknown
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	Blank	Unknown	Unknown
Sludge reception outlet	Blank	0.8	Unknown
Thickening plant inlet	Blank	Unknown	Unknown
Thickening plant outlet	0.00 0.00 0.00	0.6	Yes
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	No
Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	Yes
Transfer PS inlet	0.126 0,000 0.000 Ave: 0.024	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Tuesday 20 th September 2020 (12:30pm)	
Attendees: Mr I Inman (London Borough of Hounslow) and Mr T Costin (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. Hoppers 1, 2 and 3 were all empty having just be drained/pumped out.</p> <p>Tank 1B was empty and clean. Hoppers 1, 2 and 3 were all full and were about to be pumped out.</p> <p>Tank 2A was empty and clean. Hopper 1 was approx. 50% full, hopper 2 was approx. 33% full and hopper 3 was approx. 25% full, all required pumping out.</p> <p>Tank 2B was empty and relatively clean except for a large area of dry grit on the left hand side of the tank. Hopper 1 was approx. 50% full, hoppers 2 and 3 were both approx. 70% full, all required pumping out.</p> <p>Tank 3A was empty and relatively clean. Hopper 1 was approx. 25% full, hoppers 2 and 3 were both approx. 30% full, all required pumping out.</p> <p>Tank 3B was empty and relatively clean, but had areas of dry grit at</p>	<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

the top and along the left hand side of the tank.
Hoppers 1, and 3 were all approx. 75% full and required pumping out.

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.
Hoppers 1 and 2 were both approx. 25% full, hopper 3 was approx. 70% full, all require pumping out.

Tank 6B was empty and relatively clean but had areas of dry grit at both the top end and left hand side of the tank.
Hopper 1 and 3 were both full, hopper 2 was approx. 70% full. All required pumping out.

Tank 7A had filthy thick grey sludge covering approx. 85% of the tank surface, overflowing from the hoppers.
Hoppers 1, 2 and 3 (shallow hoppers) were all full and overflowing into the tank.

Tank 7B had grit and sludge covering the bottom end of the tank (approx. 25%).
Hoppers 1, 2 and 3 (shallow hoppers) were all full and required cleaning.

Tank 8A was empty and clean.
Hoppers 1, 2 and 3 were all full and required pumping out.

Tank 8B had black inky liquid across 50% of the tanks surface, overflowing from the hoppers.
Hoppers 1, 2 and 3 were all full and required pumping out.

Storm Feed Channel - The level of effluent in both feed channels was relatively low along its entire length. Over pumping from the hoppers into storm feed channel was taking place that gave rise to strong offensive odour.

Complaints

The Council received 3 complaints in the preceding week.

On 14th October at 10:16am an on-line web complaint was received from a resident of Whitton Dene, Isleworth

The historic odour monitor trends for the time around the complaint on 14th October showed no excessive H2S readings above 0.008ppm.

On 15th October at 13:06pm an on-line web complaint was received from resident of Whitton Dene, Isleworth (ref: A06281).

At 18:33pm the same resident logged a further on-line web complaint (ref: A06309).

The historic odour monitor trends for the time around the complaints on 15th October showed OM2 spiking between 0.010-0.012ppm from 13:30pm until approx. 14:30pm.

OM2 again spiked between 17:00-21:20pm but no readings were above 0.009ppm.

Only OM8 showed one other spike of 0.009ppm between 18:15-18:35pm.

Odour Monitors

The odour readouts (H₂S) for all monitors that were providing data on 20/10/2020 at the time of the inspection are below.

Monitor 1	0.007	ppm	12.30pm
Monitor 2	0.009	ppm	12.30pm
Monitor 3	0.000	ppm	12.30pm
Monitor 4	0.006	ppm	12.30pm
Monitor 5	0.009	ppm	12.30pm
Monitor 6	0.004	ppm	12.30pm
Monitor 7	0.006	ppm	12.30pm
Monitor 8	0.006	ppm	12.30pm
Monitor 9	0.006	ppm	12.30pm
Monitor 10	0.006	ppm	12.30pm
Monitor 11	0.004	ppm	12.30pm
Monitor 12	0.006	ppm	12.30pm
Monitor 13	0.006	ppm	12.30pm

Wind Speed	10.700	mph	12.30pm
Wind Direction	192.370		12.30pm

Odour Log (Thames)

Wednesday 14th October 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank

Thursday 15th October 2020

DAY SHIFT

Temp. Cool.

Weather. Rain w/sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:12.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Friday 16th October 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy night.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in use.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank

Saturday 17th October 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy w/sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: 05:30.

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

Operational issues / causes observed. Blank.

Sunday 18th October 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy w/sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM2 spiked through the night but each spike less than 15 mins.

Operational issues / causes observed. Area round east inlet checked, no obvious odours found, area washed down.

Monday 19th October 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy w/sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM3 @ 08:37 till 08:51 Max 0.046ppm.

Operational issues / causes observed. No odours found.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Tuesday 20th October 2020

DAY SHIFT

Temp. Warm.

Weather. Sunny w/patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Sludge Dip Records

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m ³					
OMP limit	500					
14/10/2020	39	267	473	779	1920	2699
16/10/2020	0	679	305	984	1088	2072
16/10/2020	0	328	305	633	608	1241

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 has been an average of 8 imports of sludge per day.

No.5 Pumping Station

The doors of No.5 pumping station were open at the time of the inspection although odour did not appear present.

Sludge Import Area

It was noted that the condition around the sludge import area has improved.

Although the previous tank leak has been resolved the area surrounding the skips requires regular cleaning.

TW were advised they are frequently hosing this area down.

As LBH note, this has not been required in the last week.

Raw Sludge Screening House

The large roller shutter door of the Raw Sludge Screening building was closed at the time of the inspection.

Digesters

Digesters 1-4 Out of use (permanent).

Thames advised of a long term project currently initiated to bring these units back into service that will require significant investment.

Digesters 5 and 6 were both in service and had good dry seals. Dry crust from a previous spill was still present and required clearing up.

Digester 7 was being bought back into service.

Digester 8 was in service and had a very wet seal that was bubbling off gas. It was noted the bell was very high.

Digester 9 was in service and had a very wet seal that was bubbling off gas.

Digester 10 was in service and had a very wet seal that was bubbling off gas. It was noted the bell was very high.

Digesters 11, 12, 13 and 14 were all in service but had wet sloppy seals and were all bubbling off gas. Dry crust of previous spills were still present around these digesters and required clearing up.

Digester 15 was out of service.

Digester 16 was in service and had a very wet seal that was bubbling off gas.

Digester 17 was in service and had a relatively good dry seal.

Digesters 18 and 19 were both out of service.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digester 20 was in service and had a very wet seal that was bubbling of gas.

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.

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.

Skips

On the East side there was one 12yds open skip that was empty and one 40yds closed bulk carrier that was also empty

In the Sludge Import area there were two 8yds open skips, both of which contained rag and other debris, both were only part covered.

On the service road next to the raw sludge screening building was a closed 14yds open skip.

On the West side there was one 20yds open bulk carrier that was empty.

East Side Screen House

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

Return Activated Sludge Channel

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was free flowing and clear.
The far side channel was partially clogged along approx. 50% of its length, was visibly crusty in areas and had weeds growing out of it.

West side primary settlement tanks (PST)

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

Circular PST 12 is currently out of service.
PST's 9, 10 and 11 were all in service and had fat free surfaces.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 9 streams are currently operational.

Section 106 agreement

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

D-battery Aeration Lanes (old)

4 lanes of D19 were out of service due to ongoing maintenance. No issues were evident.

West Side Aeration Lanes

All lanes are now much improved and appeared to be free flowing, with the internal dividing walls being visible again.
Most of the sprinklers were back in operation and floating debris had been removed.

The mixed liquor feed channel serving aeration lane 25 of E-Battery was only partially clogged but no other issues were evident.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works and everything appeared to be in a good tidy order.

Odour Control Unit (OCU) performance monitoring: 20/10/2020

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	Blank	Unknown	Unknown
Main pumping station outlet	23.66 11.09 7.55	0.2	Unknown
East OCU	4.03 3.93 3.83	0.05	Yes
West inlet OCU	0.00 0.00 0.00	0.05	Yes
Sludge reception inlet	Blank	Unknown	Unknown
Sludge reception outlet	Blank	0.8	Unknown
Thickening plant inlet	Blank	Unknown	Unknown
Thickening plant outlet	21.80 11.78 20.47	0.6	Yes
New West inlet (OCU 11)	32.64 27.86 25.62	0.5	No
Pasteurisation (OCU 12)	10.38 8.34 7.37	0.5	Yes
Transfer PS inlet	97.61 81.11	Unknown	Unknown

	72.51			
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes	



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 13 th October 2020	
Attendees: Mr Steven Maunders and Mr Tom Costin (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A – Tank empty - approximately 5% of tank covered by grit – requires further flushing – Hoppers 1, 2 & 3 approx. 95% full – requires draining/over-pumping.</p> <p>Tank 1B – Tank empty - approximately 15% of tank covered by grit – requires further flushing – Hoppers 1, 2 & 3 full – requires draining/over-pumping.</p> <p>Tank 2A – Tank empty and flushed - approximately 15% of tank covered by grit – requires further flushing – Hoppers 1, 2 & 3 approx. 25% full – requires draining/over-pumping.</p> <p>Tank 2B – Tank empty – recently returned - approximately 85% of tank covered by grit/sludge – requires further flushing – Hopper 1 approx. 25% full, Hoppers 2 & 3 approx. 85% full – requires draining/over-pumping.</p> <p>Tank 3A – Tank empty - approximately 20% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 35% full.</p>	<div style="border: 1px solid black; padding: 10px;"><p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p></div>

Tank 3B – Tank empty – recently returned – approximately 90% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 90% full – requires draining/over-pumping.

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

Tank 6A – Tank empty - approximately 10% of tank covered by grit/sludge – requires further flushing – Hopper 1 full, Hoppers 2 & 3 approx. 35% full – requires draining/over-pumping

Tank 6B – Tank empty – recently returned – approximately 85% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 80% full – requires draining/over-pumping.

Tank 7A - Tank empty – recently returned - approximately 60% of tank covered by grit/sludge – requires further flushing - Hoppers 1, 2 & 3 full – requires draining/over-pumping.

Tank 7B – Tank empty – recently returned – approximately 75% of tank covered by grit/sludge – requires further flushing. Hoppers 1, 2 & 3 full – requires draining/over-pumping.

Tank 8A – Tank empty and flushed clean – Hoppers 1, 2 & 3 full – requires draining/over-pumping.

Tank 8B – Tank empty – recently returned - approximately 80% of tank still covered with grit/sludge – requires further flushing. Hoppers 1, 2 & 3 full – requires draining/over-pumping.

Feed Channel - The level of effluent in both feed channels was approximately 20% capacity - no local odours.

Complaints

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

The Council directly 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 monitors which were providing data at time of inspection:

Monitor 1	.004	ppm	13:19
Monitor 2	.005	ppm	13:19
Monitor 3	.000	ppm	13:19
Monitor 4	.004	ppm	13:19
Monitor 5	.004	ppm	13:19
Monitor 6	.000	ppm	13:19
Monitor 7	.003	ppm	13:19
Monitor 8	.004	ppm	13:19
Monitor 9	.000	ppm	13:19
Monitor 10	.004	ppm	13:19
Monitor 11	.000	ppm	13:19
Monitor 12	.004	ppm	13:19
Monitor 13	.004	ppm	13:19
Wind Speed	6.1	mph	13:19
Wind Direction	335°		

Odour Log (Thames):

Wednesday 7th October 2020:

AM – Warm – Cloudy with Sunny Spells.

All OMU's in use.

Observations/Complaints: "No odour issues found or reported."

Operational Issues/Causes: "Returning Storm Tanks."

Actions: None noted.

PM – Cool - Rain.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: "Storm Tanks returning."

Actions: None noted.

Thursday 8th October 2020:

AM – Cool - Rain.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: "Storm Tanks returning."

Actions: None noted.

PM – Cold - Clear Night.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: "Storm Tanks returning."

Actions: None noted.

Friday 9th October 2020:

AM – Cool – Rain with Sunny spells.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: "Storm Tanks returning."

Actions: None noted.

PM – Cold - Clear Night.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

Saturday 10th October 2020:

AM – Cool – Rain with Sunny spells?

All OMU's in use.

Observations/Complaints: "OM 0.019ppm 12:49-13:05."

Operational Issues/Causes: "Storm Tanks returning."

Actions: None noted.

PM – Cool - Overcast Night.

All OMU's in use.

Observations/Complaints: "OM3 spiked at 03:37-03:50 but <15 mins duration max 0.017ppm."

Operational Issues/Causes: None noted.

Actions: None noted.

Sunday 11th October 2020:

AM – Cool - Sunny with Patchy Clouds.

All OMU's in use.

Observations/Complaints: "OM5 0.047 from 16:10 to 16:25."

Operational Issues/Causes: "Odour from PAS."

Actions: None noted.

PM – Cold - Clear Night.

All OMU's in use.

Observations/Complaints: "OM2 spiked at 00:12 – 00:27 max 0.024ppm."

Operational Issues/Causes: "No odours found."

Actions: "East Inlet and surrounds checked."

Monday 12th October 2020:

AM – Cool - Rain.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Cool - Rain.

All OMU's in use.

Observations/Complaints: "No odour issues found or reported."

Operational Issues/Causes: None noted.

Actions: None noted.

Tuesday 13th October 2020:

AM – Cool - Rain.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Cool - Rain.

All OMU's in use.

Observations/Complaints: None noted.

Operational Issues/Causes: None noted.

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					
07/10/20	39	824	595	1458	1440	2898
09/10/20	0	867	595	1462	1112	2574
12/10/20	0	412	305	717	1088	1805

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 – seal level approx. 1ft below coping stones – seal weak and bubbling – evidence of previous spill requiring anti-foam and clean-up.

Digester 7 – Out of use – currently being brought back into service.

As LBH note, this has not been required in the last week.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.

The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digester 8 - In use – seal level approx. 1ft below coping stones - seal weak and bubbling – – Bell height high requiring draw down of Biogas.

Digester 9 - In use – seal level approx. 2ft below coping stones – good seal – evidence of previous spill requiring anti-foam and clean-up.

Digester 10 - In use – seal level approx. 3ft below coping stones - seal weak and bubbling – evidence of previous spill requiring anti-foam and clean-up.

Digester 11 - In use – seal level approx. 2ft below coping stones – good seal – evidence of previous spill requiring anti-foam and clean-up.

Digester 12 - In use – seal level approx. 3ft below coping stones – good seal – evidence of previous spill requiring anti-foam and clean-up.

Digester 13 - In use – seal level approx. 3ft below coping stones - seal weak and bubbling – evidence of previous spill requiring anti-foam and clean-up.

Digester 14 – In use – seal level approx. 1ft below coping stones - seal weak and bubbling – noticeably gassing.

Digester 15 - Out of use – empty and clean – contractor on site undertaking maintenance.

Digester 16 - In use – seal level approx. 2ft below coping stones - seal blown – ongoing vigorous spill requiring anti-foam and clean-up.

Digester 17 - In use – seal level approx. 18” below coping stones – good seal.

Digester 18 - Out of use.

Digester 19 - Out of use.

Digester 20 - In use – seal level approx. 2ft below coping stones – seal weak and bubbling.

GENERAL

Sludge Screening House

All doors closed at the time of inspection.

Imported Sludge

Average of seven (7) 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).

Skips

1x 12 yard skip containing general waste and 1x enclosed container skip (empty) in Service Road at rear of Screen House.

East Side Raw Sludge Screen House

Doors closed at time of inspection.

West Side Aeration Lanes (Old)

Battery C aeration feed channel 100% obstructed in one channel (left) – requires jetting (TW advise that there is continuing flow below surface).

West side primary settlement tanks (PST)

Rectangular PSTs – no issues

Circular PST's 9, 10 & 11 in use, Number 12 drained down.

Pasteurisation Plant

Eight streams running.

New Works (West Side)

Feed Channel for Aeration Lanes 21-24 approximately 50% blocked – requires jetting.

“Fluffy” coverage across surface and quantity of material bypassing screener has reduced.

Odour Control Unit (OCU) performance monitoring – 07/10/20

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	6.10 5.18 4.83	0.2	No
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	Unknown
Thickening plant inlet	No data	Unknown	Unknown
Thickening plant outlet	0.00 0.00	0.6	Yes

	0.00			
Transfer PS inlet	No data	Unknown	Unknown	
Transfer PS outlet	85.97 80.48 78.60	0.5	No	
New West inlet (OCU11)	4.23 3.78 3.38	0.5	No	
Pasteurisation Plant (OCU12)	0.00 0.00 0.00	0.5	Yes	



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Tuesday 29th September 2020 (13:00am)

Attendees: Mr Z.Kadri (London Borough of Hounslow), Mr Tom Costin (Thames Water) and Dan (Thames Water)

LB Hounslow Observation

Thames Water Action / Response

Storm Water Storage Tanks (SWST)

Tank 1A was empty and clean. Hoppers 1 and 3 needed draining down. Hopper 2 was empty. All Amajets are in good working condition.

Tank 1B was empty and clean. Hoppers 1 and 3 were all drained down however Hopper 2 contained effluent.

Tank 2A was empty and clean. Hoppers 1, 2 and 3 were all drained down in the morning and clear.

Tank 2B was empty however had in areas large deposits of grit and sludge. TW advised that cleaning manually would cause odour but they would be flushing the tank out later. Hoppers 1, 2 and 3 were all empty and drained down. Amajets had recently been repaired and in good working condition.

As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.

Tank 3A was empty and clean however slight grit across the surface at hopper end. Hopper 1 was full and needed draining down, however Hoppers 2 and 3 were all clear of effluent.

Tank 3B was empty and clean however slight sludgy grit at Hopper end. Hoppers 1, 2 and 3 were all full and required draining down.

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. Hoppers 1, 2 and 3 were all drained down.

Tank 6B was empty and clean. Hoppers 1, 2 and 3 were all drained down.

Tank 7A surface had a substantial amount of sludgy grit across the surface near the Hopper end. TW advised that the Tank would be cleaned. Hoppers 1, 2 and 3 were all full and required draining down. (shallow hoppers).

Tank 7B surface had a substantial amount of sludgy grit across the surface near the Hopper end. TW advised that the Tank would be cleaned. Hoppers 1, 2 and 3 were all full and required draining down. (shallow hoppers).

Tank 8A was empty and clean. Hoppers 1, 2 and 3 were all full and required draining down.

Tank 8B was empty and clean. Hoppers 1, 2 and 3 were all full and required draining down.

Feed Channel - The level of effluent in both feed channels was low and bottomed out in some places. The effluent was murky along its entire length. Some deposits of fat across the surface. No odours witnessed.

Complaints

The Council received NO complaints by telephone / Email in the preceding week.

Odour Monitors

The odour readouts (H₂S) for all monitors that were providing data at the time of the inspection are below:

Monitor 1	0.005	ppm	13:19p m
Monitor 2	0.005	ppm	13:19p m
Monitor 3	0.000	ppm	13:19p m
Monitor 4	0.004	ppm	13:19p m
Monitor 5	0.004	ppm	13:19p m
Monitor 6	0.000	ppm	13:19p m
Monitor 7	0.004	ppm	13:19p m
Monitor 8	0.006	ppm	13:19p m
Monitor 9	0.003	ppm	13:19p m
Monitor 10	0.004	ppm	13:19p m

Monitor 11	0.000	ppm	13:19p m
Monitor 12	0.000	ppm	13:19p m
Monitor 13	0.004	ppm	13:19p m
Wind Direction	288.234	Deg	13:19p m
Wind Speed	3.291	mph	13:19p m

Odour Log (Thames)

Wednesday 23rd September 2020

DAY SHIFT

Temp. Rainy.

Weather. Sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.

OM3 spiked at 0:021ppm at 07:19-07:35.

Operational issues / causes observed.

No12 Rag skip changed around this time.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Blank.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

No odour issues found or reported.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Thursday 24th September 2020

DAY SHIFT

Temp. Blank.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.

OM2 0.019ppm at 13:11-13:24.

Operational issues / causes observed.

East Inlet being washed down after combi washer spill.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Overcast Night.

Weather. Blank.

Odour Readings. All OMU's in use.

Time: 05:30.

Observations / Customer Complaint.

No issues found or reported.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Friday 25th September 2020

DAY SHIFT

Temp. Blank.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.

No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Clear Night.

Weather. Blank.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

OM3 spiked at 19:50-20:05 maximum Peak 0.038ppm.

Operational issues / causes observed.

Smell of PAS sludge.

Actions taken. Blank.

Saturday 26th September 2020

DAY SHIFT

Temp. Blank.

Weather. Sunny w/patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.

No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Blank.

Weather. Clear Night.

Odour Readings. All OMU's in operation.

Time: 07:12.

Observations / Customer Complaint.

No odour issues found or reported.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Sunday 27th September 2020

DAY SHIFT

Temp. Blank.

Weather. Cloudy.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No dour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Blank.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

No dour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Monday 28th September 2020

DAY SHIFT

Temp. Blank.

Weather. Sunny w/patchy.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.

OM3 0.019ppm 14:35-14:51.

Operational issues / causes observed. No odours detected.

OCU11 discharging odour.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Blank.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

OM2 spiked at 01:11-01:40 22:54 max 0.021ppm.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Tuesday 29th September 2020**DAY SHIFT**

Temp. Blank.

Weather. Sunny with patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.

No issues found or reported.

Operational issues / causes observed. Blank.

Action Taken. Blank.

NIGHT SHIFT

Temp. Blank.

Weather. Clear Night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

OM2 spiked at 19:25- all night max 0.063ppm.

Operational issues / causes observed. No operational issues.

Actions Taken.

East Inlet hosed down , Site checked odours coming from PAS area but nothing adverse.

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					
23/09/2020	0	534	244	778	1121	1899
25/09/2020	0	412	305	717	1425	2142
28/09/2020	0	389	305	694	608	1302

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 has been an average of 7 imports of sludge daily, 3 over the last week made on the 23/09/2020, 25/09/2020 and 28/09/2020 .

Raw Sludge Screening House

As LBH note, this has not been required in the last week.

The large roller shutter door of the Raw Sludge Screening building was closed at the time of the inspection.

Digesters

Digesters 1-4 Out of use (permanent).

Thames advised of a long term project currently initiated to bring these units back into service that will require significant investment.

Digester 5 was in service and had a high wet sloppy seal. Signs of previous spillage around coping stones.

Digester 6 was in service and had a high wet sloppy seal. Signs of previous spillage around coping stones.

Digester 7 is currently out of service.

Digester 8 was in service and had a high wet sloppy seal. Signs of previous spillage around coping stones.

Digester 9 was in service and had a good wet sloppy seal . There was evidence of previous spillage and TW reminded to sweep up the crust around Digester 5, 6, 7, 8, 9 and their respective walkways/channels.

Digesters 10, 11 & 12 were all in service and had High thick sludgy seals.

Digesters 13 was in service and had a low wet seal gassing in places. Signs of previous spillage around coping stones.

Digesters 14 was in service and had a low wet thick seal. No evidence of previous sludge spillage – clean coping stones. Overall good seal.

Digester 15 is currently out of service.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use

Digester 16 was in service and spilling over/gassing at time of inspection. There was a broken seal in one side of the digester which was allowing a substantial amount of effluent to escape.

Digester 17 was in service and had a had a low thick sludgy seal. No evidence of previous sludge spillage – clean coping stones. Overall good low seal.

Digester 18 is currently out of service.

Digesters 19 is currently out of service.

Digester 20 was in service and had a had a low thick sludgy seal. No evidence of previous sludge spillage – clean coping stones. Overall good low seal.

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 the tanks were operating as normal and had a relatively fat free and clear surface. The hoses were in operation.

Skips

There was one 16yard skip which was empty and uncovered at the Screening House – No odour was detected.

There were NO skips at the East Side Grit House.

There were NO skips at the West Side Grit House.

East Side Screen House

A set of doors at the screening house building were open due to maintenance taking place. The doors were open to allow ventilation whilst contactors were working. No odour detected at the time of inspection.

Return Activated Sludge Channel

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was free flowing and clear.

The far side channel was partly clogged throughout much of its length, the surface was visibly crusty in areas and had weeds growing out of it. This was due to be manually unclogged by contractors.

West side primary settlement tanks (PST)

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

Circular PST's 9, 10 and 12 were all in service except PST 11 this was out of service. All PST's had relatively fat free surfaces

however some algae growth across the surface. No odours detected.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 9 streams out of twelve are currently operational.

Section 106 agreement

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

West Side Aeration Lanes (New)

All lanes are now much improved and appeared to be free flowing, with the internal dividing walls being visible again.

The sprinkler systems were in operation and floating debris had been removed.

The mixed liquor feed channel serving aeration lanes 22 to 25 of E-Battery was partially clogged with thick dark sludge. TW will be unclogging this channel.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring:
24/09/2020

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	Blank	Unknown	Unknown
Main pumping station outlet	Blank	0.2	Unknown
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	Blank	Unknown	Unknown
Sludge reception outlet	Blank	0.8	Unknown
Thickening plant inlet	Blank	Unknown	Unknown
Thickening plant outlet	0.00 0.00 0.00	0.6	Yes
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	No
Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	Yes
Transfer PS inlet	0.126 0,000 0.000 Ave: 0.024	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 22 nd September 2020	
Attendees: Mr Steven Maunders and Mr Tom Costin (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A – Tank empty - approximately 5% of tank covered by grit – requires further flushing – Hoppers 1 & 3 approx. 60% full, Hopper 2 approx. 10% full – requires draining/over-pumping.</p> <p>Tank 1B – Tank empty - approximately 25% of tank covered by grit – requires further flushing – Hoppers 1, 2 & 3 approx. 20% full – requires draining/over-pumping.</p> <p>Tank 2A – Tank empty and flushed clean – Hoppers 1, 2 & 3 approx. 25% full – requires draining/over-pumping.</p> <p>Tank 2B – Tank empty – recently returned - approximately 75% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 25% full.</p> <p>Tank 3A – Tank empty - approximately 50% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 25% full.</p> <p>Tank 3B – Tank empty – recently returned - 100% of tank covered by</p>	<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 40% full – requires draining/over-pumping.

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

Tank 6A – Tank empty - approximately 15% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 25% full – requires draining/over-pumping.

Tank 6B – Tank empty – recently returned - 75% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 20% full – requires draining/over-pumping.

Tank 7A - Tank empty – recently returned 80% of tank covered by grit/sludge – requires further flushing - Hoppers 1, 2 & 3 full – requires draining/over-pumping.

Tank 7B – Tank empty – 60% of tank covered by grit/sludge – requires further flushing. Hoppers 1, 2 & 3 empty.

Tank 8A – Tank empty and flushed clean – Hoppers 1 & 3 approx. 60% full, Hopper 2 approx. 80% – requires draining/over-pumping.

Tank 8B – Tank empty – approximately 40% of tank still covered with grit/sludge – requires further flushing. Hoppers 1, 2 & 3 approx. 25% full – requires draining/over-pumping.

Feed Channel - The level of effluent in both feed channels was approx. 25% capacity - no local odours.

Complaints

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

The Council directly 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 monitors which were providing data at time of inspection:

Monitor 1	.006	ppm	13:15
Monitor 2	.007	ppm	13:15
Monitor 3	.000	ppm	13:15
Monitor 4	.006	ppm	13:15
Monitor 5	.005	ppm	13:15
Monitor 6	.005	ppm	13:15
Monitor 7	.007	ppm	13:15
Monitor 8	.005	ppm	13:15
Monitor 9	.007	ppm	13:15
Monitor 10	.008	ppm	13:15
Monitor 11	.000	ppm	13:15
Monitor 12	.005	ppm	13:15
Monitor 13	.005	ppm	13:15
Wind Speed	1.8	mph	13:15
Wind Direction	214°		

Odour Log (Thames):

Wednesday 16th September 2020:

AM – Sunny with Patchy Clouds.

All OMU's in use.

Observations/Complaints: "No odour spikes".

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Clear Night.

All OMU's in use.

Observations/Complaints: "No odour issues found or reported".

Operational Issues/Causes: None noted.

Actions: "East Inlet washed down.

Thursday 17th September 2020:

AM – Warm and Sunny.

All OMU's in use.

Observations/Complaints: "No odour issues".

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Cool Overcast Night.

All OMU's in use.

Observations/Complaints: "OM10 spiked at 02:40 – 03:36 max 0.015ppm".

Operational Issues/Causes: "Digester No.16 blowing seal, only 2 CHP's available".

Actions: None noted.

Friday 18th September 2020:

AM – Warm and Sunny.

All OMU's in use.

Observations/Complaints: "No odour issues".

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Cool Clear Night.

All OMU's in use.

Observations/Complaints: "OM10 03:10 – 03:24".

Operational Issues/Causes: None noted.

Actions: "West Inlet checked.

Saturday 19th September 2020:

AM – Warm and Sunny.

All OMU's in use.

Observations/Complaints: "No odour issues found or reported".

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Cool Overcast Night.

All OMU's in use.

Observations/Complaints: "No odour issues".

Operational Issues/Causes: None noted.

Actions: None noted.

Sunday 20th September 2020:

AM – Warm and Sunny with Patchy Clouds.

All OMU's in use.

Observations/Complaints: "No odour issues found or reported".

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Cool Overcast Night.

All OMU's in use.

Observations/Complaints: "OM5 0.022 23:09 – 23:24, OM10 0.017 23:54 – 00:53".

Operational Issues/Causes: "Digester 16 blowing seal. Flare running".

Actions: None noted.

Monday 21st September 2020:

AM – Warm and Sunny with Patchy Clouds.

All OMU's in use.

Observations/Complaints: "No odour issues found or reported".

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Cool Clear Night.

All OMU's in use.

Observations/Complaints: "OM2 0.022 01:53 – 02:11, Multiple spikes between 17:40 – 00:26, 0.016 – 0.083 max peak".

Operational Issues/Causes: "Area checked. No obvious source".

Actions: "Area hosed down".

Tuesday 22nd September 2020:

AM – Warm and Cloudy with Sunny Spells.

All OMU's in use.

Observations/Complaints: "OM2 peak at 0.025ppm Between 07:00 – 07:25".

Operational Issues/Causes: "No.1 rag skip being changed".

Actions: None noted.

PM – Warm Overcast Night.

All OMU's in use.

Observations/Complaints: "No odour issues found or reported".

Operational Issues/Causes: None noted.

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					
18/09/20	0	412	305	717	2898	3615
21/09/20	88	389	244	721	1929	2650

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. 18” below coping stones – good seal.

Digester 6 - In use – seal level approx. 1ft below coping stones – seal weak and bubbling – evidence of previous spill requiring anti-foam and clean-up.

Digester 7 – Out of use – empty and clean – contractor on site undertaking maintenance.

Digester 8 - In use – seal level approx. 1ft below coping stones - seal weak and bubbling – evidence of previous spill requiring anti-foam and clean-up.

Digester 9 - In use – seal level approx. 2ft below coping stones – good seal – evidence of previous spill requiring anti-foam and clean-up.

Digester 10 - In use – seal level approx. 3ft below coping stones - seal weak and bubbling – evidence of previous spill requiring anti-foam and clean-up.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digester 11 - In use – seal level approx. 2ft below coping stones – good seal – evidence of previous spill requiring anti-foam and clean-up.

Digester 12 - In use – seal level approx. 3ft below coping stones – good seal – evidence of previous spill requiring anti-foam and clean-up.

Digester 13 - In use – seal level approx. 2ft below coping stones - seal weak and bubbling – evidence of previous spill requiring anti-foam and clean-up.

Digester 14 – In use – seal level approx. 3ft below coping stones - seal weak and bubbling.

Digester 15 - Out of use – empty and clean – contractor on site undertaking maintenance.

Digester 16 - In use – seal level approx. 3ft below coping stones - seal weak and bubbling – ongoing vigorous spill requiring anti-foam and clean-up.

Digester 17 - In use – seal level approx. 4ft below coping stones – good seal.

Digester 18 - Out of use – empty and clean – contractor on site undertaking maintenance.

Digester 19 - Out of use – requires draining.

Digester 20 - In use – seal level approx. 6ft below coping stones – seal weak and bubbling.

GENERAL

Sludge Screening House

All doors closed at the time of inspection.

Imported Sludge

Average of seven (7) 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).

Skips

1x 12 yard skip containing general waste and 1x enclosed container skip (empty) in Service Road at rear of Screen House.

1x enclosed 8 yard skip containing general waste in Service Road adjacent to Raw Sludge Screen House.

East Side Raw Sludge Screen House

Doors closed at time of inspection.

West Side Aeration Lanes (Old)

Battery C aeration feed channel 100% obstructed in one channel (left) – requires jetting (TW advise that there is continuing flow below surface).

Pasteurisation Plant

Seven streams running.

West side primary settlement tanks (PST)

Rectangular PSTs – no issues.

Circular PST's 9, 10 & 11 in use, Number 12 drained down.

New Works (West Side)

Feed Channel for Aeration Lanes 21-24 approximately 25% blocked – requires jetting.

“Fluffy” coverage across surface and quantity of material bypassing screener has reduced.

Odour Control Unit (OCU) performance monitoring – No data

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	No data	0.2	Unknown
East OCU	No data	0.05	Unknown
West inlet OCU	No data	0.05	Unknown
Sludge reception inlet	No data	Unknown	Unknown
Sludge reception outlet	No data	0.8	Unknown
Thickening plant inlet	No data	Unknown	Unknown
Thickening plant outlet	No data	0.6	Unknown
Transfer PS inlet	No data	Unknown	Unknown
Transfer PS outlet	No data	0.5	Unknown
New West inlet (OCU11)	No data	0.5	Unknown
Pasteurisation Plant (OCU12)	No data	0.5	Unknown



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Thursday 17 th September 2020 (1:00pm)	
Attendees: Mr I Inman (London Borough of Hounslow) and Mr T Costin (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. Hopper 1 was approx. 25% full, hopper 2 was drawn down and hopper 3 was approx. 50% full.</p> <p>Tank 1B was empty and clean. Hoppers 1 and 3 were both <25% full, hopper 2 was drawn down.</p> <p>Tank 2A was empty and clean. Hoppers 1 and 3 were both approx. 25% full, hopper 2 was drawn down.</p> <p>Tank 2B was empty and relatively clean except for a large area of dry grit at the top end of the tank. Hopper 1 was approx. 30% full, hoppers 2 and 3 were both <25% full.</p> <p>Tank 3A was empty and relatively clean but had grit at the bottom end of the tank. Hopper 1 was approx. <25% full, hoppers 2 and 3 were both drawn down.</p>	<div style="border: 1px solid black; padding: 10px;"><p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p></div>

Tank 3B was empty and relatively clean but had areas of dry grit at both the top and bottom end of the tank.
Hoppers 1 and 3 were both <25% full, hopper 2 was drawn down.

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.
Hoppers 1 and 2 were both approx. 25% full, hopper 3 was approx. 70% full, all require draining down.

Tank 6B was empty and relatively clean but had areas of dry grit at both the top and middle of the tank.
Hopper 1, 2 and 3 all contained black inky liquid and required cleaning.

Tank 7A had empty but had dry grit across the bottom half of the tanks surface.
Hoppers 1, 2 and 3 (shallow hoppers) were all full of stagnant water and overflowing, all require cleaning.

Tank 7B was empty and relatively clean except for an area of dry grit at the bottom end of the tank.
Hoppers 1, 2 and 3 (shallow hoppers) all had dark liquid and grit in them and require cleaning.

Tank 8A was empty and clean.
Hoppers 1, 2 and 3 were all approx. 30% full.

Tank 8B was empty and clean.
Hoppers 1, 2 and 3 were all <25% full.

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

Complaints

The Council received 3 complaints in the preceding week.

On 15th September at 7:03am a complaint was received from a non-

Hounslow resident from Seaton Road, Twickenham (ref: A04834).
 On 16th September at 8:07am a complaint was received from a non-Hounslow resident from Chase Gardens, Twickenham (ref: A04923).
 On 16th September at 14:55pm a complaint was received from a resident of Whitton Dene, Isleworth (ref: A04965).

The historic odour monitor trends for the time before, during and after the complaints showed the following elevated odour level.

On 15th September OM3 peaked to 0.018ppm between 03:40-03:50am before dropping to 0.013ppm between 04:20-04:40.

OM2 peaked from 0.003ppm at 07:10am to 0.030ppm until 07:23am, then dropped to 0.016ppm until 07:40am, before dropping further down to 0.005ppm.

The remainder of the odour monitors showed no readings above 0.008ppm during this period.

OM8 spiked at 19:42pm to 0.015ppm until 20:35pm. A further spike occurred (0.015ppm) between 22:10-22:38pm.

On 16th September OM9 spiked between 00:10-00:20am to 0.016ppm.

Then at 05:50am OM9 spiked again to 0.012ppm until 06:12am.

One further spike occurred on OM9 between 07:12-07:52am to 0.012ppm.

Odour Monitors

The odour readouts (H₂S) for all monitors that were providing data at the time of the inspection are below.

Monitor 1	0.005	ppm	12.34pm
Monitor 2	0.007	ppm	12.34pm
Monitor 3	0.003	ppm	12.34pm
Monitor 4	0.004	ppm	12.34pm
Monitor 5	0.003	ppm	12.34pm
Monitor 6	0.004	ppm	12.34pm
Monitor 7	0.005	ppm	12.34pm
Monitor 8	0.003	ppm	12.34pm
Monitor 9	0.003	ppm	12.34pm
Monitor 10	0.006	ppm	12.34pm

Monitor 11	0.006	ppm	12.34pm
Monitor 12	0.005	ppm	12.34pm
Monitor 13	0.004	ppm	12.34pm
Wind Speed	39.105	mph	12.34pm
Wind Direction	7.661		12.34pm

Odour Log (Thames)

Thursday 10th September 2020

DAY SHIFT

Temp. Warm.

Weather. Sunny w/patchy cloud.

Odour Readings. All OMU's in operation.

Time: 17:30.

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

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM2 0.019ppm 23:24-23:38. 0.029ppm 00:38-00:54am. 0.017ppm 01:24-01:54am. 0.020ppm 02:08-03:08am.

OM5 0.016ppm 03:23-03:38am.

Operational issues / causes observed. Area checked no source found

Actions Taken. East inlet area hosed down, OCU11 high ppb output.

Friday 11th September 2020

DAY SHIFT

Temp. Warm.

Weather. Cloudy w/sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 spiked at 06:38-07:23, max 0.020ppm.

OM5 spiked at 09:10-09:22am, max 0.019ppm.

OM3 spiked at 13:18-13:34pm. Max 0.048ppm.

Operational issues / causes observed. Smell of thickening pasteurised sludge in the air but no obvious source found.

Actions Taken. Blank

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in use.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank

Actions Taken. Blank.

Saturday 12th September 2020

DAY SHIFT

Temp. Warm.

Weather. Sunny w/patchy cloud.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM3 spiked at 09:33-949am, max 0.054ppm. 09:33-09:49, max 0.025ppm.16:03-16:18pm, max 0.021ppm.

Operational issues / causes observed. OCU No.11 stack reading out of range >0.5ppm.

Actions Taken. Logged and reported.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues

Operational issues / causes observed. Blank.

Actions taken. Blank.

Sunday 13th September 2020

DAY SHIFT

Temp. Warm.

Weather. Sunny w/patchy cloud.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 spiked at 16:39-16:53pm but <15 mins duration, max 0.016ppm and at 17:10-17:23 <15mins duration, max 0.017ppm.

Operational issues / causes observed. No obvious sources of odour found.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM2 showing odours all shift, max 0.049ppm.

Operational issues / causes observed. East inlet and MPS checked.

Actions Taken. Area around skips and washpactors washed down. No abnormal smells found.

Monday 14th September 2020**DAY SHIFT**

Temp. Hot.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 0.033ppm 16:23-16:39.

Operational issues / causes observed. Area checked no sources found.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM10 at 03:40-03:50, max 0.019ppm.

Operational issues / causes observed. Digester 16 gas leaking around seal
Actions Taken. Dome pulled down.

Tuesday 15th September 2020

DAY SHIFT

Temp. Hot.

Weather. Sunny w/patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 0.030ppm 07:08-07:38.

Operational issues / causes observed. Area checked no source discovered.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM2 spiked at 19:54-20:09, max 0.018ppm.

Operational issues / causes observed. No odours detected in vicinity.

Actions Taken. East inlet hosed down.

Wednesday 16th September 2020

DAY SHIFT

Temp. Hot.

Weather. Sunny w/patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour spikes.

Operational issues / causes observed. Blank.

Action Taken. Blank.

NIGHT SHIFT

Temp. Warm.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

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

Operational issues / causes observed. Blank

Actions Taken. Blank.

Sludge Dip Records

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m ³					
OMP limit	500					
11/09/2020	0	61	305	366	2241	2607
14/09/2020	0	244	122	366	1440	1806
16/09/2020	12.0 ?	11.0 ?	4.0 ?	27.7 ? 244*	14.5 ? 456*	12.2 ? 700*

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.

? Totals entered as X.XX format (e.g. 2.75, 4.0, 3.75, 3.5 ?).

* Total entered on Thames Water paperwork.

Imported Sludge

No average sludge import totals entered on Thames Water paperwork for the last week?

No.5 Pumping Station

The doors of No.5 pumping station were open at the time of the inspection although odour did not appear present.

Sludge Import Area

It was noted that the sludge import area was still in a very poor condition.

As LBH note, this has not been required in the last

Although the tank leak has been resolved the area surrounding the skips is in a poor state and requires cleaning.
TW were advised they are frequently hosing this area down.

Raw Sludge Screening House

The large roller shutter door of the Raw Sludge Screening building was closed at the time of the inspection.

Digesters

Digesters 1-4 Out of use (permanent).

Thames advised of a long term project currently initiated to bring these units back into service that will require significant investment.

Digester 5 was in service but had a wet sloppy seal and was bubbling off gas.

Dry crust/evidence of last week's spill when anti foam pumps failed was still present and required clearing up.

Digester 6 was in service but had a wet sloppy seal and was bubbling off gas.

Dry crust/evidence of last week's spill when anti foam pumps failed was still present and required clearing up between digester 6 and 8.

Digester 7 is currently out of service.

Digesters 8, 9, 10, 11, 12, 13 and 14 were all in service but had wet sloppy seals and were all bubbling off gas.

Dry crust/evidence of last week's spills when anti foam pumps failed was still present around these digesters and required clearing up.

Digester 15 was out of service.

Digester 16 was in service and had a high bell, it was also spitting and bubbling that required gas to be drawn off and cleaning.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digester 17 was in service and had a fairly good dry seal.

Digesters 18 and 19 were both out of service.

Digester 20 was in service and had a very wet seal that was bubbling of gas.

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.

Skips

On the East side there was one 12yds open skip that was empty and one 40yds closed bulk carrier that was also empty

In the Sludge Import area there were two 8yds open skips, both of which contained rag and other debris, both were only part covered.

On the service road next to the raw sludge screening building was an 8yds open skip that was approx. 50% full of rag and only partially covered.

On the West side there was one 20yds open bulk carrier that was empty.

Skips containing rag and grit are routinely covered.
General waste and empty skips which are not odorous may be uncovered.

East Side Screen House

The doors at both ends of the screen house building were open at the time of the inspection for no apparent reason.

This matter is to be taken up with Thames water management.

Return Activated Sludge Channel

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was free flowing and clear.

The far side channel was partially clogged along approx. 40% of its length, was visibly crusty in areas and had weeds growing out of it.

West side primary settlement tanks (PST)

Rectangular PSTs are now covered and odour controlled.

TW advised no issues.

Circular PST 12 is currently out of service.

PST's 9, 10 and 11 were all in service and had relatively fat free surfaces.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 9 streams are currently operational.

Section 106 agreement

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

West Side Aeration Lanes (New)

All lanes are now much improved and appeared to be free flowing, with the internal dividing walls being visible again.
Most of the sprinklers were back in operation and floating debris had been removed.

The mixed liquor feed channel serving the first 2 lanes of aeration lane 25 of E-Battery was partially clogged but no other issues were evident.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring: 15/09/2020

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	Blank	Unknown	Unknown
Main pumping station outlet	Blank	0.2	Unknown
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	Blank	Unknown	Unknown
Sludge reception outlet	Blank	0.8	Unknown
Thickening plant inlet	Blank	Unknown	Unknown
Thickening plant outlet	0.00 0.00 0.00	0.6	Yes
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	No
Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	Yes

Transfer PS inlet	0.00 0.00 0.00	Unknown	Unknown	
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes	



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Wednesday 2nd September 2020 (12:00am)

Attendees: Mr Z. Kadri (London Borough of Hounslow) and Mr Tom Costin (Thames Water)

LB Hounslow Observation

Thames Water Action / Response

Storm Water Storage Tanks (SWST)

Tank 1A was empty and clean. Hoppers 1 and 2 were empty however Hopper 3 was full and required draining down.

Tank 1B was empty and clean. Hoppers 1, 2 and 3 were all drained down in the morning and clear.

Tank 2A was empty and clean. Hoppers 1, 2 and 3 were all drained down in the morning and clear.

Tank 2B was empty and clean however sludgy grit observed at the River end of the tank. Hoppers 1, 2 and 3 were all full and required draining down.

Tank 3A was empty and clean however slight grit across the surface at hopper end. Hoppers 1, 2 and 3 were all clear of effluent.

As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.

Tank 3B was empty and clean however slight sludgy grit at Hopper end. Hoppers 1, 2 and 3 were all full and required draining down.

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. Hoppers 1, 2 and 3 were all 20 % full of effluent.

Tank 6B was empty and clean- There was work taking place on the Amajets by contractors. Hoppers 1 and 2 were empty however Hopper 3 required draining down.

Tank 7A surface had a substantial amount of sludgy grit across the surface near the Hopper end. TW advised that the Tank would be cleaned. Hoppers 1, 2 and 3 were all full and required draining down. (shallow hoppers).

Tank 7B was empty and clean however slight grit across the surface at hopper end. Hoppers 1, 2 and 3 were all full and required draining down. (shallow hoppers).

Tank 8A was empty and clean. Hoppers 1, 2 and 3 were all full but at the time of inspection they were being pumped out manually.

Tank 8B was empty and clean. Hoppers 1, 2 and 3 were all full and next in line to be over pumped after Tank 8A completed.

Feed Channel - The level of effluent in both feed channels was low and bottomed out in some places. The effluent was murky along its entire length. Some deposits of fat across the surface. No odours witnessed.

Complaints

The Council received NO complaints by telephone / Email in the preceding week.

Odour Monitors

The odour readouts (H₂S) for all monitors that were providing data at the time of the inspection are below:

Monitor 1	0.004	ppm	12.11p m
Monitor 2	0.000	ppm	12.11p m
Monitor 3	0.000	ppm	12.11p m
Monitor 4	0.004	ppm	12.11p m
Monitor 5	0.004	ppm	12.11p m
Monitor 6	0.008	ppm	12.11p m
Monitor 7	0.005	ppm	12.11p m
Monitor 8	0.004	ppm	12.11p m
Monitor 9	0.007	ppm	12.11p m
Monitor 10	0.007	ppm	12.11p m
Monitor 11	0.003	ppm	12.11p m
Monitor 12	0.005	ppm	12.11p m
Monitor 13	0.004	ppm	12.11p m

Wind Speed	253.509	mph	12.11p m
Wind Direction	8.721		12.11p m

Odour Log (Thames)

Thursday 27th August 2020

DAY SHIFT

Temp. Cool.

Weather. Rain with sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 spiked at 15:24-15:54 maximum 0.038ppm.

Operational issues / causes observed. Area checked no source of odour detected.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear Night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Friday 28th August 2020

DAY SHIFT

Temp. Cool .

Weather. Rain with Sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in use.

Time: 05:30.

Observations / Customer Complaint. No issues found or reported.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Saturday 29th August 2020

DAY SHIFT

Temp. Cool.

Weather. Rain with sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Overcast Night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

OM1 spiked at 20:30-20:48 maximum 0.028ppm.

Operational issues / causes observed. Storm Tanks retuning.

Actions taken. Blank.

Sunday 30th August 2020

DAY SHIFT

Temp. Cool.

Weather. Sunny w/patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.
Weather. Overcast Night.
Odour Readings. All OMU's in operation.
Time: 05:30.
Observations / Customer Complaint. No odour issues found or reported.
Operational issues / causes observed. Blank.
Actions Taken. Blank.

Monday 31st August 2020

DAY SHIFT

Temp. Warm.
Weather. Cloudy with Sunny Spells.
Odour Readings. All OMU's in operation.
Time: 17:30.
Observations / Customer Complaint. No dour issues.
Operational issues / causes observed. Blank.
Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.
Weather. Clear night.
Odour Readings. All OMU's in operation.
Time: 05:30.
Observations / Customer Complaint. OM2 spiked at 00:10-00:24 to 0.029ppm Max <15 minute duration.
Operational issues / causes observed. Blank.
Actions Taken. Blank.

Tuesday 1st September 2020

DAY SHIFT

Temp. Warm.
Weather. Sunny w/patchy.
Odour Readings. All OMU's in operation.
Time: 17:30.
Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Overcast Night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

OM2 spiked at 22:38- 22:54 max 0.039ppm.

OM2 spiked at 00:39- 00:54 max 0.02ppm.

Operational issues / causes observed. Area dried and cleaned

No odours detected.

Actions Taken. Blank.

Wednesday 2nd September 2020

DAY SHIFT

Temp. Warm.

Weather. Cloudy with sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No issues found or reported.

Operational issues / causes observed. Blank.

Action Taken. Blank.

NIGHT SHIFT

Temp. Warm.

Weather. Overcast Night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM9 spiked at 23:28-00:38 max 0.019ppm.

Operational issues / causes observed. None.

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					
28/08/2020	0	244	450	694	1609	2303
02/09/2020	205	679	244	1128	2598	3726

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 has been an average of 12 imports of sludge daily (2 per week) over the last week.

Raw Sludge Screening House

The large roller shutter door of the Raw Sludge Screening building was closed at the time of the inspection.

As LBH note, this has not been required in the last week

Digesters

Digesters 1-4 Out of use (permanent).

Thames advised of a long term project currently initiated to bring these units back into service that will require significant investment.

Digester 5 was in service and had a wet sludgy seal. Surface was bubbling in places. No evidence of previous sludge spillage – clean coping stones. Overall good low seal.

Digester 6 was in service and had a wet sludgy seal. Surface was bubbling in places. No evidence of previous sludge spillage – clean coping stones. Overall good low seal.

Digester 7 is currently out of service.

Digester 8 was in service and had a low wet seal. No evidence of previous sludge spillage – clean coping stones. Overall good seal.

Digester 9 was in service and had a good wet seal . There was evidence of previous spillage and TW reminded to sweep up the crust around part of Digester.

Digesters 10, 11, 12 and 13 were all in service and had low wet seals. No sign of sludge spillage. Good low seal.

Digester 14 was in service and had a low wet seal. No evidence of previous sludge spillage – clean coping stones. Overall good seal.

Digester 15 is currently out of service.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digester 16 was in service and had a wet seal. No sign of sludge spillage. Good low seal. There was sign of previous spillage on the coping stones all dried up that needed sweeping.

Digester 17 was in service and had a wet sloppy seal. No evidence of previous sludge spillage – clean coping stones. Overall good low seal.

Digester 18 was out of service.

Digester 19 was out of service.

Digester 20 was in service and had a wet sloppy seal. No sign of sludge spillage. Good low seal.

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).

The weirs were being cleaned manually by TW staff. All tanks were operational at the time of the inspection. Algae growth on top of the surfaces of all the Tanks. Sprinklers were in operation.

Skips

There were NO skips at the Screening House.
There were NO skips at the East Side Grit House.
There were NO skips at the West Side Grit House.

East Side Screen House

The doors at one end of the screen house building was open due to one of the screens being pumped/cleaned out - Contractors were on site.

Return Activated Sludge Channel

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was free flowing and clear.

The far side channel was partly clogged throughout much of its length, the surface was visibly crusty in areas and had weeds growing out of it.

West side primary settlement tanks (PST)

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

Circular PST's 9, 10 and 12 were all in service except PST 11 this was out of service. All PST's had relatively fat free surfaces however some algae growth across the surface. No odours detected.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 9 streams out of twelve are currently operational.

Section 106 agreement

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

West Side Aeration Lanes (New)

All lanes are now much improved and appeared to be free flowing, with the internal dividing walls being visible again.

The sprinkler systems were in operation and floating debris had been removed.

The mixed liquor feed channel serving aeration lanes 22 to 25 of E-Battery was partially clogged with thick dark sludge. TW will be unclogging this channel.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

**Odour Control Unit (OCU) performance monitoring:
03/09/2020**

Plant	Reading (ppm)	Action Level (ppm)	Compliant
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Main pumping station inlet	Blank	Unknown	Unknown
Main pumping station outlet	Blank	0.2	Unknown
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	Blank	Unknown	Unknown
Sludge reception outlet	Blank	0.8	Unknown
Thickening plant inlet	Blank	Unknown	Unknown
Thickening plant outlet	0.00 0.00 0.00	0.6	Yes
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	No
Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	Yes
Transfer PS inlet	1.837 1.429 1.240 Ave: 3.67	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes



Mogden Sewage Treatment Works

TW Site Inspection

<p>Date of inspection: Wednesday 26th August 2020 (12:00am)</p>	
<p>Attendees: Mr I Inman (London Borough of Hounslow) and Mr T Costin (Thames Water)</p>	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A was empty and clean. Hoppers 1 and 3 were both approx 50%, hopper 2 was approx 25% full, all require draining down.</p> <p>Tank 1B was empty and clean. Hopper 1 was full, hopper 2 was approx 25% full and hopper 3 was approx 50% full, 2 and 3 were all approx 50% full, all required draining down.</p> <p>Tank 2A was empty and clean. Hoppers 1, 2 and 3 were all approx 25% full and required draining down.</p> <p>Tank 2B was empty and clean except for large areas of dry grit at the top end of the tank. Hoppers 1, 2 and 3 were all full and partially overflowing into the tank, all require draining down.</p> <p>Tank 3A was empty and clean but had grit along the right hand side of the tank.</p>	<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

Hopper 1 was approx 50% full, hoppers 2 and 3 were both approx 30% full, all require draining down.

Tank 3B had grit and surface sludge across most of the tanks surface and was noticeably odorous.

Hoppers 1, 3 and 3 were all approx 70% full and require draining down.

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.

Hoppers 1 and 3 were both approx 75% full, hopper 2 was approx 30% full, all require draining down.

Tank 6B was empty and clean.

Hopper 1 was approx 50% fill, hopper 2 was approx 30% full and hopper 3 was approx 75% full, all require draining down.

Tank 7A had odorous sludge across at least 30% of the tanks surface.

Hoppers 1, 2 and 3 (shallow hoppers) were all full of stagnant water and overflowing, all require cleaning.

Tank 7B was empty and clean except for an area of dry grit at the top end of the tank.

Hoppers 1, 2 and 3 (shallow hoppers) were all full of stagnant water and overflowing, all require cleaning.

Tank 8A was empty and clean.

Hoppers 1, 2 and 3 were all full of stagnant green algae water and require draining down.

TW advised all 3 hoppers are currently blocked.

Tank 8B was empty and clean.

Hoppers 1, 2 and 3 were all full of stagnant green algae water and require draining down.

TW advised all 3 hoppers are currently blocked.

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

Complaints

The Council received 3 complaints by the on-line web form in the preceding week.

All three complaints were received on 21/08/2020 between 22:00-22:12, and were from 3 individual residents at 'Dominion Court', London Road, Isleworth (logged under reference no's: A03603, A03629 and A03631).

However, due to the location of the complainants it is thought that these complaints were made in error and relate to another odour source.

The historic odour monitor trends for the time before, during and after receipt of the complaints showed no abnormalities or excessive H₂S readings.

Odour Monitors

The odour readouts (H₂S) for all monitors that were providing data at the time of the inspection are below.

Monitor 1	0.004	ppm	11.51am
Monitor 2	0.006	ppm	11.51am
Monitor 3	0.000	ppm	11.51am
Monitor 4	0.004	ppm	11.51am
Monitor 5	0.003	ppm	11.51am
Monitor 6	0.004	ppm	11.51am
Monitor 7	0.000	ppm	11.51am
Monitor 8	0.003	ppm	11.51am
Monitor 9	0.005	ppm	11.51am
Monitor 10	0.004	ppm	11.51am
Monitor 11	0.005	ppm	11.51am
Monitor 12	0.003	ppm	11.51am
Monitor 13	0.000	ppm	11.51am
Wind Speed	285.652	mph	11.51am
Wind Direction	11.759		11.51am

Odour Log (Thames)

Thursday 20th August 2020

DAY SHIFT

Temp.

Weather. Sunny w/patchy cloud.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 0.023ppm 10:38-10:54.

Operational issues / causes observed. Inlet checked, no odour detected.

Actions Taken. Blank.

NIGHT SHIFT

Temp.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM2 showing odours all shift.

Operational issues / causes observed. Some odours coming from PST11.

Actions Taken. East inlet washed down. PST11 needs cleaning up.

Friday 21st August 2020

DAY SHIFT

Temp.

Weather. Sunny w/patchy cloud.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM3 0.039ppm 8:39-8:55.

OM2 0.021ppm 17:22-17:37.

Operational issues / causes observed. PST 15-16 being pumped out. Inlet checked, no odour detected.

Actions Taken. Blank

NIGHT SHIFT

Temp.

Weather. Clear night.

Odour Readings. All OMU's in use.

Time: 05:30.

Observations / Customer Complaint. OM3 0.039ppm 00:54-01:09.
00'73ppm 01:24-01:40.

OM2 0.022ppm 01:52-02:07.

Operational issues / causes observed. PST 15 & 16 over pump running to empty tanks after back filling. OCU11 discharging 313ppb odour from stack.

Actions Taken. Inlet area washed down.

Saturday 22nd August 2020

DAY SHIFT

Temp.

Weather. Sunny w/patchy cloud.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM3 0.041ppm 15:38-15:54.
0.016ppm 12:09-12:24. 0.046ppm 10:38-10:54.

OM2 0.053ppm 09:21-09:38.

Operational issues / causes observed. PST 15-16 being pumped out.

Inlet checked, no odour detected.

Actions Taken. Inlet hosed down.

NIGHT SHIFT

Temp.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM2 one spike 0.016ppm <15 minutes.

OM3 0.025ppm 03:40-05:10.

Operational issues / causes observed. OCU11 discharging 0.425ppm from stack.

Actions taken. West inlet checked. Nothing out of the ordinary found.

Sunday 23rd August 2020

DAY SHIFT

Temp.

Weather. Sunny w/patchy cloud.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM3 0.025ppm 06:38-06:55.
0.016ppm 08:40-08:54. 0.017ppm 09:10-09:24. 0.021ppm 09:38-09:54.
0.034ppm 10:08-10:40.

Operational issues / causes observed. Area checked, no source found.

Actions Taken. Blank.

NIGHT SHIFT

Temp.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM3 0.052ppm 18:39-18:55.
0.021ppm 19:56-20:10. 0.029ppm 21:25-21:40. 0.035ppm 22:38-22:55.

Operational issues / causes observed. E-battery inlet skips wet therefore area washed down. OCU11 discharging 0.470ppm from stack.

Actions Taken. Blank.

Monday 24th August 2020

DAY SHIFT

Temp.

Weather. Sunny w/patchy cloud.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM3 spiked at 09:20-09:39
max 0.021ppm. 10:10-10:38 max 0.023ppm. 11:23-11:40 max
0.027ppm.12:38-12:57 max 0.024ppm.

OM3 17:07-17:20 max 0.037ppm.

OM6 16:36-16:52 max 0.020ppm.

Operational issues / causes observed. No obvious odour sources found.

Actions Taken. Area clean.

NIGHT SHIFT

Temp.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM2 0.049ppm 18:23-19:07.

Operational issues / causes observed. Blank.

Actions Taken. Inlets checked, heavy rain.

Tuesday 25th August 2020

DAY SHIFT

Temp.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. Heavy rain AM.

Operational issues / causes observed. No odour issues found or reported.

Actions Taken. Blank.

NIGHT SHIFT

Temp.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM3 0.016ppm 17:54-18:08.

0.036ppm 19:23-19:39. 0.040ppm 20:23-20:39. 0.044ppm 21:08-21:24.

0.086ppm 2:23-2:39. 0.033PPM 2:53-3:09. 0.049ppm 3:23-3:39.

0.025ppm 5:08-5:23. 0.079ppm 5:38-5:54.

Operational issues / causes observed. Area checked no source of odour found. OCU11 high ppb output 530.

Actions Taken. Blank.

Wednesday 26th August 2020

DAY SHIFT

Temp.

Weather. Cloudy w/sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM3 spiked at 07:40-08:08

max 0.019ppm. 09:09-09:45 max 0.024ppm. 10:38-10:54 max

0.029ppm. 13:25-13:40 max 0.030ppm.

Operational issues / causes observed. Area checked no source of odour detected.

Action Taken. Site wide calibration of odour monitors carried out today by Able.

NIGHT SHIFT

Temp.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank

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					
21/08/2020	0	244	122	366	1449 1159*	1815
24/08/2020	817	824	244	1885	1929	3814
26/08/2020	0	244	0	244	2570	2814

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.

* **Incorrect total entered on Thames Water paperwork.**

Imported Sludge

There has been an average of 15 imports of sludge daily over the last week.

No.5 Pumping Station

The doors of No.5 pumping station were open at the time of the inspection, some odour was present.

Sludge Import Area

It was noted that the sludge import area was still in a very poor condition.

Although the tank leak has been resolved the area surrounding the

LBH notified

skips is in a poor state and requires cleaning.
TW were advised they are frequently hosing this area down.

Raw Sludge Screening House

The large roller shutter door of the Raw Sludge Screening building was closed at the time of the inspection.

Digesters

Digesters 1-4 Out of use (permanent).

Thames advised of a long term project currently initiated to bring these units back into service that will require significant investment.

Digester 5 was in service but had a wet sloppy seal and was bubbling off gas.

Digester 6 was in service but had a wet sloppy seal and was bubbling off gas.

Digester 7 is currently out of service.

Digesters 8, 9, 10, 11, 12, 13 and 14 were all in service but had wet sloppy seals and were all bubbling off gas.

Digester 15 was out of service.

Digesters 16 and 17 were both in service and had very wet seals (virtually no seal at all) and were bubbling of gas.

Digesters 18 and 19 were both out of service.

Digester 20 was in service and had a very wet seal (virtually no seal at all) that was bubbling of gas.

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 appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

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.

Skips

On the East side there was one 12yds open skip that was empty and one 40yds closed bulk carrier that was also empty

In the Sludge Import area there were two 8yds open skips, both of which contained rag and other debris, both were only part covered.

On the service road next to the raw sludge screening building was an 8yds open skip that was approx 50% full of rag and only partially covered.

On the West side there was one 20yds open bulk carrier that was empty.

East Side Screen House

The doors at both ends of the screen house building were closed.

Return Activated Sludge Channel

The nearside RAS channel (which runs in the ground between FST's

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

61-64 & 65-67) was free flowing and clear.
The far side channel was partially clogged along approx 30% of its length, was visibly crusty in areas and had weeds growing out of it.

West side primary settlement tanks (PST)

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

Circular PST 12 is currently out of service.
PST's 9, 10 and 11 were all in service and had relatively fat free surfaces.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 7 streams are currently operational.

Section 106 agreement

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

West Side Aeration Lanes (New)

All lanes are now much improved and appeared to be free flowing, with the internal dividing walls being visible again.
Most of the sprinklers were back in operation and floating debris had been removed.

The mixed liquor feed channel serving aeration lane 25 of E-Battery was partly clogged in one area.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring: 25/08/2020

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	Blank	Unknown	Unknown
Main pumping station outlet	Blank	0.2	Unknown
East OCU	0.00	0.05	Yes
	0.00		
	0.00		
West inlet OCU	0.00	0.05	Yes
	0.00		
	0.00		
Sludge reception inlet	Blank	Unknown	Unknown
Sludge reception outlet	Blank	0.8	Unknown
Thickening plant inlet	Blank	Unknown	Unknown
Thickening plant outlet	0.00	0.6	Yes
	0.00		
	0.00		
New West inlet (OCU 11)	0.00	0.5	No
	0.00		
	0.00		
Pasteurisation (OCU 12)	0.00	0.5	Yes
	0.00		
	0.00		
Transfer PS inlet	3.80	Unknown	Unknown
	3.04		
	2.85		
Transfer PS outlet	0.00	0.6	Yes
	0.00		
	0.00		



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 19 th August 2020	
Attendees: Mr Steven Maunders and Miss Charlotte Page (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A – Tank empty - approximately 10% of tank covered by grit – requires further flushing – Hopper 1 approx. 95% full, Hoppers 2 & 3 approx. 85% full – requires draining/over-pumping.</p> <p>Tank 1B – Tank empty - approximately 20% of tank covered by grit – requires further flushing – Hopper 1 approx. 80% full, Hoppers 2 & 3 approx. 60% full – requires draining/over-pumping.</p> <p>Tank 2A – Tank empty - approximately 10% of tank covered by grit – requires further flushing – Hoppers 1 approx. 80% full, Hoppers 2 & 3 approx. 60% full – requires draining/over-pumping.</p> <p>Tank 2B – Tank empty – approximately 60% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 50% full.</p> <p>Tank 3A – Tank empty – approximately 10% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 25% full.</p>	<div style="border: 1px solid black; padding: 10px;"><p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p></div>

Tank 3B – Tank empty – recently returned - 100% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 full – requires draining/over-pumping.

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

Tank 6A – Tank empty - approximately 15% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 85% full – requires draining/over-pumping.

Tank 6B – Tank empty – recently returned - 100% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 full – requires draining/over-pumping.

Tank 7A - Tank empty – recently returned 85% of tank covered by grit/sludge – requires further flushing - Hoppers 1, 2 & 3 full – requires draining/over-pumping.

Tank 7B – Tank empty – recently returned – 100% of tank covered by grit/sludge – requires further flushing. Hoppers 1, 2 & 3 full – requires draining/over-pumping.

Tank 8A – Tank empty - approximately 20% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 full – requires draining/over-pumping.

Tank 8B – Tank empty – approximately 10% of tank still covered with grit/sludge – requires further flushing. Hoppers 1, 2 & 3 full – requires draining/over-pumping.

Feed Channel - The level of effluent in both feed channels was approx. 40% capacity - no local odours.

Complaints

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

The Council directly 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 monitors which were providing data at time of inspection:

Monitor 1	.000	ppm	13:15
Monitor 2	.010	ppm	13:15
Monitor 3	.000	ppm	13:15
Monitor 4	.000	ppm	13:15
Monitor 5	.000	ppm	13:15
Monitor 6	.000	ppm	13:15
Monitor 7	.000	ppm	13:15
Monitor 8	.000	ppm	13:15
Monitor 9	.000	ppm	13:15
Monitor 10	.003	ppm	13:15
Monitor 11	.000	ppm	13:15
Monitor 12	.000	ppm	13:15
Monitor 13	.000	ppm	13:15
Wind Speed	5.6	mph	13:15
Wind Direction	123.5°		

Odour Log (Thames):

Thursday 20th August 2020:

AM – Sunny with Patchy Clouds.

All OMU's in use.

Observations/Complaints: "OM2 0.023 10:38 – 10:54".

Operational Issues/Causes: "Inlet checked. No odour detected".

Actions: None noted.

PM – Clear Night.

All OMU's in use.

Observations/Complaints: "OM2 showing odours all shift".

Operational Issues/Causes: "Some odours coming from PST11".

Actions: "East Inlet washed down. PST11 needs cleaning up".

Friday 21st August 2020:

AM – Sunny with Patchy Cloud.

All OMU's in use.

Observations/Complaints: "OM3 0.039 08:39 – 08:55. OM2 0.021 17:22 – 17:37".

Operational Issues/Causes: "PST 15-16 being pumped out. Inlet checked. No odour detected".

Actions: None noted.

PM – Clear Night.

All OMU's in use.

Observations/Complaints: "OM3 0.039ppm 00:54 – 01:09. 00.73ppm 01:24-01:40. OM2 0.022ppm 01:52 – 02:07".

Operational Issues/Causes: "PST 15 & 16 over pump running to empty tank after back-filling. OCU11 discharging 313ppb odour from stack".

Actions: "Inlet area washed down".

Saturday 22nd August 2020:

AM – Sunny with Patchy Clouds.

All OMU's in use.

Observations/Complaints: "OM3 0.041 15:38 – 15:54. 0.016 12:09 – 12:24. 0.046 10:38 – 10:54. OM2 0.053 09:21 – 09:38".

Operational Issues/Causes: "PST 15-16 being pumped out. Inlet checked. No odour detected".

Actions: "Inlet hosed down".

PM – Clear Night.

All OMU's in use.

Observations/Complaints: "OM2 one spike 0.016ppm < 15 minutes.

OM3 0.025ppm 03:40 – 05:10”.

Operational Issues/Causes: “OCU11 discharging 0.425ppm from stack”.

Actions: “West Inlet checked. Nothing out of the ordinary found”.

Sunday 23rd August 2020:

AM – Sunny with Patchy Clouds.

All OMU’s in use.

Observations/Complaints: “OM3 0.025 06:38 – 06:55. 0.016 08:40 – 08:54. 0.017 09:10 – 09:24. 0.021 09:38 – 09:54. 0.034 10:08 – 10:40.”

Operational Issues/Causes: “Area checked, no source found”.

Actions: None noted.

PM – Clear Night.

All OMU’s in use.

Observations/Complaints: “OM3 0.052 18:39 – 18:55. 0.021 19:56 – 20:10. 0.028 21:25 – 21:40. 0.035 22:38 – 22:52”.

Operational Issues/Causes: “E Battery Inlet skips wet therefore area washed down. OCU11 discharging 0.470ppm from stack”.

Actions: None noted.

Monday 24th August 2020:

AM – Sunny with Patchy Clouds.

All OMU’s in use.

Observations/Complaints: “OM3 spiked at 09:20 – 09:39 max 0.021ppm, 10:10 – 10:39 max 0.023ppm, 11:23 – 11:40 max 0.027ppm, 12:38 – 12:57 max 0.024ppm OM2 17:07-17:20 max 0.037ppm. OM6 16:36 – 16:52 max 0.020ppm”.

Operational Issues/Causes: “No obvious odour sources found”.

Actions: None noted.

PM – Rain.

All OMU’s in use.

Observations/Complaints: “OM2 0.049ppm 18:23 – 19:07”.

Operational Issues/Causes: “Inlets checked. Heavy rain”.

Actions: None noted.

Tuesday 25th August 2020:

AM – Rain.

All OMU's in use.

Observations/Complaints: "Heavy rain AM".

Operational Issues/Causes: "No odour issues found or reported".

Actions: None noted.

PM – Overcast Night.

All OMU's in use.

Observations/Complaints: "OM3 0.016 17:54 – 18:08, 0.026 19:23 – 19:39, 0.040 20:23 – 20:38, 0.044 21:08 – 21:24, 0.086 02:23 – 02:39, 0.033 02:52 – 03:09, 0.048 03:23 – 03:39, 0.025 05:08 – 05:23, 0.079 05:38 – 05:54".

Operational Issues/Causes: "Area checked. No source of odour found. OCU11 high ppb output 530".

Actions: None noted.

Wednesday 26th August 2020:

AM – Cloudy with Sunny Spells.

All OMU's in use.

Observations/Complaints: "OM3 spiked at 07:40 – 08:08 max 0.018ppm, 09:09 – 09:45 max 0.024ppm, 10:38 – 10:54 max 0.028ppm, 13:25 – 13:40 max 0.030ppm".

Operational Issues/Causes: "Area checked. No source of odour detected".

Actions: "Site wide calibration of odour monitors carried out today by ABLE".

PM – Clear Night.

All OMU's in use.

Observations/Complaints: "No odour issues".

Operational Issues/Causes: None noted.

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					
No data	No data	No data	No data	No data	No data	No data
No data	No data	No data	No data	No data	No data	No data
No data	No data	No data	No data	No data	No data	No data

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. 2ft below coping stones – good seal – evidence of dry spill requiring clean-up.

Digester 6 - In use – seal level approx. 1ft below coping stones – seal weak and bubbling – evidence of dry spill requiring clean-up.

Digester 7 – Out of use – empty and clean – contractor on site undertaking maintenance.

Digester 8 - In use – seal level approx. 18” below coping stones - seal weak and bubbling – ongoing spill requiring anti-foam and clean-up.

Digester 9 - In use – seal level approx. 18” below coping stones - seal weak and bubbling – ongoing spill requiring anti-foam and clean-up.

Digester 10 - In use – seal level approx. 18” below coping stones -

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.

The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

seal weak and bubbling - Bell height high requiring draw down of Biogas.

Digester 11 - In use – seal level approx. 1ft below coping stones – seal weak and bubbling.

Digester 12 - In use – seal level approx. 2ft below coping stones - seal weak and bubbling.

Digester 13 - In use – seal level approx. 3ft below coping stones - seal weak and bubbling – Bell height high requiring draw down of Biogas.

Digester 14 – Coming back into Service.

Digester 15 - Out of use – empty and clean – contractor on site undertaking maintenance.

Digester 16 - In use – seal level approx. 6” below coping stones - seal weak and bubbling – ongoing spill requiring anti-foam and clean-up. Bell height high requiring draw down of Biogas.

Digester 17 - In use – seal level approx. 18” below coping stones - seal weak and bubbling.

Digester 18 - Out of use – empty and clean – contractor on site undertaking maintenance.

Digester 19 - Out of use – requires draining.

Digester 20 - In use – seal level approx. 3ft below coping stones – seal weak and bubbling.

GENERAL

Sludge Screening House

All doors open at the time of inspection – contractors on site working on screens.

Imported Sludge

Unknown.

Final Settlement Tanks East Side of Works

The 8 circular tanks previously used as PSTs are now being used as final tanks (71-78).

Skips

1x 12 yard & 1x 8 yard skip containing general waste and 1x enclosed container skip (empty) in Service Road at rear of Screen House.

1x 8 yard skip containing general waste in Service Road adjacent to Raw Sludge Screen House.

1x empty open container skip by West Side PST's.

East Side Raw Sludge Screen House

Doors closed at time of inspection.

West Side Aeration Lanes (Old)

Battery C aeration feed channel 100% obstructed in one channel (left) – requires jetting (TW advise that there is continuing flow below surface).

Pasteurisation Plant

Unknown.

West side primary settlement tanks (PST)

Rectangular PSTs – no issues.

Circular PST's 9, 10 & 11 in use, Number 12 drained down.

New Works (West Side)

Feed Channel for Aeration Lanes 21-24 approximately 50% blocked – requires jetting.

“Fluffy” coverage across surface has again begun to build up significantly, also quantity of material bypassing screener.

Odour Control Unit (OCU) performance monitoring – No data

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	No data	0.2	Unknown
East OCU	No data	0.05	Unknown
West inlet OCU	No data	0.05	Unknown
Sludge reception inlet	No data	Unknown	Unknown
Sludge reception outlet	No data	0.8	Unknown
Thickening plant inlet	No data	Unknown	Unknown
Thickening plant outlet	No data	0.6	Unknown
Transfer PS inlet	No data	Unknown	Unknown
Transfer PS outlet	No data	0.5	Unknown
New West inlet (OCU11)	No data	0.5	Unknown
Pasteurisation Plant (OCU12)	No data	0.5	Unknown



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Wednesday 5th August 2020 (12:00am)

Attendees: Mr Z.Kadri (London Borough of Hounslow) and Ms C Page (Thames Water)

LB Hounslow Observation

Thames Water Action / Response

Storm Water Storage Tanks (SWST)

Tank 1A was empty and clean however slight grit across the surface at hopper end. Hoppers 1, 2 and 3 were all full and required draining down. Effluent back filling through cracks - observed

Tank 1B was empty and clean however slight grit across the surface at hopper end. Hoppers 1, 2 and 3 were all full and required draining down.

Tank 2A was empty and clean however slight grit across the surface at hopper end. Hoppers 1, 2 and 3 were all full and required draining down.

Tank 2B was empty and clean however slight grit across the surface at hopper end. Hoppers 1, 2 and 3 were all full and required draining down.

Tank 3A was empty and clean however slight grit across the surface at hopper end. Hoppers 1, 2 and 3 were all full and required draining down.

Tank 3B was empty and clean however slight grit across the surface at hopper end. Hoppers 1, 2 and 3 were all full and required draining down.

As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.

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 however slight grit across the surface at hopper end. Hoppers 1, 2 and 3 were all full and required draining down.

Tank 6B was empty and clean however slight grit across the surface at hopper end. Hoppers 1, 2 and 3 were all full and required draining down.

Tank 7A was empty and clean however slight grit across the surface at hopper end. Hoppers 1, 2 and 3 were all full and required draining down. (shallow hoppers).

Tank 7B was empty and clean however slight grit across the surface at hopper end. Hoppers 1, 2 and 3 were all full and required draining down. (shallow hoppers).

Tank 8A was empty and clean. Hoppers 1, 2 and 3 were all full of stagnant green algae water and require draining down. TW advised all 3 hoppers are currently blocked.

Tank 8B was empty and clean. Hoppers 1, 2 and 3 were all full of stagnant green algae water and require draining down. TW advised all 3 hoppers are currently blocked.

Feed Channel - The level of effluent in both feed channels was low and murky along its entire length. Some deposits of fat across the surface

Complaints

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

On the 2nd of August 2020 at approx. 14:30 a complaint was received via the Council's call centre from a resident of Steele Road, Isleworth (ref: A02536). The complainant confirmed at 14:59 that that the strong odour was apparent. A monitoring visit was made by the on call duty officer at 15:36 to undertake an odour assessment and H2S reading. There was

no nuisance witnessed by the attending officer and the H2S levels were reading at 0.00ppm between 15:36pm - 16:07pm.

I was unable to gain access to historic monitoring trends for the time stated in the complaint as two out of the four monitors were out of operation.

Odour Monitors

The odour readouts (H₂S) for all monitors that were providing data at the time of the inspection are below:

Monitor 1	0.000	ppm	12.11pm
Monitor 2	0.004	ppm	12.11pm
Monitor 3	0.000	ppm	12.11pm
Monitor 4	0.000	ppm	12.11pm
Monitor 5	0.000	ppm	12.11pm
Monitor 6	0.004	ppm	12.11pm
Monitor 7	0.000	ppm	12.11pm
Monitor 8	0.000	ppm	12.11pm
Monitor 9	0.003	ppm	12.11pm
Monitor 10	0.004	ppm	12.11pm
Monitor 11	0.000	ppm	12.11pm
Monitor 12	0.000	ppm	12.11pm
Monitor 13	0.000	ppm	12.11pm
Wind Speed	207.761	mph	12.11pm
Wind Direction	13.361		12.11pm

Odour Log (Thames)

Thursday 30th July 2020

DAY SHIFT

Temp. Hot

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 spiked at 10:50-11:07 maximum 0.030ppm.

Operational issues / causes observed. East inlet area has skip juice present around the skip.

Actions Taken. Area around skips hosed down.

NIGHT SHIFT

Temp. Warm.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM5 spiked at 23:37- 00:07 maximum 0.023ppm.

Operational issues / causes observed. Odour detected from PAS stream area.

Actions Taken. Confirmed no sludge spill in the area and the OCU12 is running.

Friday 31st July 2020

DAY SHIFT

Temp. Very Hot

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 spiked at 11:07-11:22 maximum 0.034ppm.

Operational issues / causes observed. No odours detected.

Actions Taken. North FSTs No 76/78 having surface sludge broken up around this time but unlikely to be source of odour spike.

NIGHT SHIFT

Temp. Hot.

Weather. Clear night.

Odour Readings. All OMU's in use.

Time: 05:30.

Observations / Customer Complaint. OM2 spiked at 02:23-02:36 maximum 0.06ppm.

Operational issues / causes observed. No obvious odours found.

Actions Taken. Blank.

Saturday 1st of August 2020

DAY SHIFT

Temp. Warm.

Weather. Sunny w/ Patchy clouds .

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM3 multiple spikes:

@ 06:50-07:07 0.038ppm max

@ 08:37- 08:52 0.023ppm max

@ 09:37-09:52 0.018ppm max

@ 13:05- 13:22 0.023ppm max

@ 12:37-12:52 0.024ppm max

Operational issues / causes observed. Checked area around monitors and immediate vicinity. No obvious odour source found. OCU11 chemical dosing out of range.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Warm.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM3 spiking all shift max 0.1ppm.

Operational issues / causes observed. OCU11 outlet showing high

Actions taken. Area checked No odours found

Sunday 2nd August 2020

DAY SHIFT

Temp. Warm.

Weather. Sunny w/patchy.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM3 spiked at 09:55-10:08 max 0.039ppm.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM3 spiked at 20:54-21:08 maximum 0.017ppm.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Monday 3rd August 2020

DAY SHIFT

Temp. Hot.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint.

No dour issues

Operational issues / causes observed. Blank

Actions Taken. Blank

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM3 spiked max 0.018ppm <15 minute duration.

Operational issues / causes observed. OCU11 discharging odour from stack 475ppb – chemical dosing out of range.

Actions Taken. Blank.

Tuesday 4th of August 2020

DAY SHIFT

Temp. Hot

Weather. Sunny w/patchy.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM3 spiked at 13:23-13:36 max 0.025ppm.

OM3 spiked at 10:53- 11:06 max 0.024ppm.
OM2 spiked at 11:06- 11:23 max 0.049ppm.
Operational issues / causes observed. OCU11 high ppb output.

Actions Taken. Blank

NIGHT SHIFT

Temp. Warm.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM2 spiked at 21:05- 21:23 max 0.045ppm.

Operational issues / causes observed. East inlet and immediate vicinity checked, no obvious source of spike found.

Actions Taken. Blank.

Wednesday 5th August 2020

DAY SHIFT

Temp. Hot.

Weather. Sunny w/patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 spiked at 13:52 – 14:07 max 0.017ppm.

OM2 spiked at 12:22 – 12:52 max 0.020ppm.

OM2 spiked at 09:22 – 10:07 max 0.036ppm.

Operational issues / causes observed. East inlet checked , no source found.

Action Taken. Blank.

NIGHT SHIFT

Temp. Warm

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint.

OM3 spiked at 20:08-20:23 max 0.035ppm

OM3 spiked at 23:40-00:10 max 0.083ppm

OM3 spiked at 01:35-01:53 max 0.041ppm

Operational issues / causes observed. OCU11 stack outlet 520ppb (exceeding trigger level value). Chemical dosing out of range.

Actions Taken. Reported to Site Management.	
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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					
31/07/2020	0	577	244	821	2257	3078
03/08/2020	88	366	-	454	2257	2711
05/08/2020	0	206	305	511	1937	2448

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 has been an average of 19 imports of sludge daily (3 per week) over the last week. TW assisting South region and using excess sludge imports to thicken current sludge stock.

Raw Sludge Screening House

The large roller shutter door of the Raw Sludge Screening building was closed at the time of the inspection.

Digesters

Digesters 1-4 Out of use (permanent).

Thames advised of a long term project currently initiated to bring these units back into service that will require significant investment.

As LBH note, this has not been required in the last week.

Digester 5 was in service and had a wet seal. No evidence of previous sludge spillage – clean coping stones. Overall good seal.

Digester 6 was in service and had a wet seal. No evidence of previous sludge spillage – clean coping stones. Overall good seal.

Digester 7 is currently out of service.

Digester 8 was in service and had a wet seal. No evidence of previous sludge spillage – clean coping stones. Overall good seal.

Digester 9 was in service and had a good wet seal. There was evidence of previous spillage and TW reminded to sweep up the crust around part of Digester.

Digesters 10, 11, 12 and 13 were all in service and had good dry (crusty) seals. No sign of sludge spillage. Good low seal.

Digester 14 is currently out of service.

Digester 15 is currently out of service.

Digester 16 was in service and had a wet seal. No sign of sludge spillage. Good low seal.

Digester 17 was in service and had a wet seal. No sign of sludge spillage. Good low seal.

Digester 18 was out of service.

Digesters 19 and 20 were both in service and had wet seals. No sign of sludge spillage. Good low seal.

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.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

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/ large amounts of algae growth on top of the surface. Sprinklers were in operation.

Skips

There were NO skips at the Screening House.

There was 1 x 16 yard skip which was empty – located at the East side grit yard

East Side Screen House

The doors at both ends of the screen house building were open due to a fire alarm contractors on site.

Return Activated Sludge Channel

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was free flowing and clear.

The far side channel was partly clogged throughout much of its length, the surface was visibly crusty in areas and had weeds growing out of it.

West side primary settlement tanks (PST)

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

Circular PST's 9, 10 and 12 were all in service except PST 11 this was out of service. All PST's had relatively fat free surfaces however some algae growth across the surface. No odours detected

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 9 streams out of twelve are currently operational.

Section 106 agreement

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

West Side Aeration Lanes (New)

All lanes are now much improved and appeared to be free flowing, with the internal dividing walls being visible again.

The sprinkler systems were in operation and floating debris had been removed.

The mixed liquor feed channel serving aeration lanes 22 to 25 of E-Battery was partially clogged with thick dark scum.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring: 04/08/2020

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

Main pumping station outlet	Blank	0.2	Unknown
East OCU	0.00	0.05	Yes
	0.00		
	0.00		
West inlet OCU	0.00	0.05	Yes
	0.00		
	0.00		
Sludge reception inlet	Blank	Unknown	Unknown
Sludge reception outlet	Blank	0.8	Unknown
Thickening plant inlet	Blank	Unknown	Unknown
Thickening plant outlet	0.00	0.6	Yes
	0.00		
	0.00		
New West inlet (OCU 11)	3.89	0.5	No
	3.70		
	3.40		
	Ave:3.66		
Pasteurisation (OCU 12)	0.00	0.5	Yes
	0.00		
	0.00		
Transfer PS inlet	5.71	Unknown	Unknown
	4.67		
	4.19		
	Ave:4.85		
Transfer PS outlet	0.00	0.6	Yes
	0.00		
	0.00		



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Wednesday 29 th July 2020 (12:00am)	
Attendees: Mr I Inman (London Borough of Hounslow) and Ms C Page (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. Hoppers 1, 2 and 3 were all approx 40% full and require draining down.</p> <p>Tank 1B was empty and clean. Hoppers 1, 2 and 3 were all approx 50% full of stagnant water and required draining down.</p> <p>Tank 2A was empty and clean. Hoppers 1 and 2 were approx 25% full and required draining down, hopper 3 was empty.</p> <p>Tank 2B was empty and clean except for large areas of dry grit at the top end of the tank. Hoppers 1, 2 and 3 were all approx >25% full and require draining down.</p> <p>Tank 3A was empty and clean. Hoppers 1, 2 and 3 were all approx 30% full and require draining down.</p> <p>Tank 3B was empty and clean.</p>	<div style="border: 1px solid black; padding: 10px;"><p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p></div>

Hoppers 1 and 3 were both approx 30% full and require draining down, hopper 2 was empty.

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.

Hoppers 1, 2 and 3 were all approx 30% full, all require draining down.

Tank 6B was empty and clean.

Hoppers 1, 2 and 3 were all approx 25% full, all require draining down.

Tank 7A was empty and clean.

Hoppers 1, 2 and 3 (shallow hoppers) were all full of stagnant green water and require cleaning.

Tank 7B was empty and clean.

Hoppers 1, 2 and 3 (shallow hoppers) were all full of stagnant green water and require cleaning.

Tank 8A was empty and clean.

Hoppers 1, 2 and 3 were all full of stagnant green algae water and require draining down.

TW advised all 3 hoppers are currently blocked.

Tank 8B was empty and clean.

Hoppers 1, 2 and 3 were all full of stagnant green algae water and require draining down.

TW advised all 3 hoppers are currently blocked.

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

Complaints

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

Odour Monitors

The odour readouts (H₂S) for all monitors that were providing data at the time of the inspection are below, except for OM1 which was flat lining.

Monitor 1	-----	ppm	12.06pm
Monitor 2	0.000	ppm	12.06pm
Monitor 3	0.000	ppm	12.06pm
Monitor 4	0.004	ppm	12.06pm
Monitor 5	0.000	ppm	12.06pm
Monitor 6	0.003	ppm	12.06pm
Monitor 7	0.000	ppm	12.06pm
Monitor 8	0.000	ppm	12.06pm
Monitor 9	0.000	ppm	12.06pm
Monitor 10	0.003	ppm	12.06pm
Monitor 11	0.000	ppm	12.06pm
Monitor 12	0.000	ppm	12.06pm
Monitor 13	0.000	ppm	12.06pm
Wind Speed	220.360	mph	12.06pm
Wind Direction	3.425		12.06pm

Odour Log (Thames)

Thursday 23rd July 2020

DAY SHIFT

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.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:00.

Observations / Customer Complaint. OM3 spiking 5 times last night for less than 15 mins. Customer complaint – Weavers Close reported at 17:45. OM2 spiked at 16:35-16:48pm. Wind direction was 197degrees (downwind) at 19:16hrs. South west at 10mph.

Operational issues / causes observed. East inlet checked by Aram. Area under skips was dry and Jeys fluid applied in last two days. Area good.

Actions Taken. Blank.

Friday 24th July 2020

DAY SHIFT

Temp. Warm.

Weather. Sunny w/patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM3 & 5 one spike each at 15:30pm and 16:50pm. Both <15minutes.

Operational issues / causes observed. Customer complaint received from Weavers Close.

Actions Taken. Wind direction to the South west. Inlet area checked.

NIGHT SHIFT

Temp. Warm.

Weather. Cloudy.

Odour Readings. All OMU's in use.

Time: 05:00.

Observations / Customer Complaint. No odour spikes.

Operational issues / causes observed. Liaised with Gayle about odour complaint, inlet east and west checked and washed down. No obvious odours from site.

Actions Taken. Blank.

Saturday 25th July 2020

DAY SHIFT

Temp. Warm.

Weather. Rain w/sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM5 0.025ppm 09:52-10:07am.

Operational issues / causes observed. PAS area occasional odour detected.

Actions Taken. Confirmed odour traps were topped up with water.

NIGHT SHIFT

Temp. Warm.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour spikes.

Operational issues / causes observed. Blank.

Actions taken. Blank.

Sunday 26th July 2020

DAY SHIFT

Temp. Warm.

Weather. Sunny w/patchy.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour problem.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. Blank

Actions Taken. Blank.

Monday 27th July 2020

DAY SHIFT

Temp. Warm.

Weather. Rain w/sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 spiked max 0.025ppm at 14:00 till 14:43.

Operational issues / causes observed. East inlet works checked. No odours found.

Actions Taken. Area clean.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Tuesday 28th July 2020

DAY SHIFT

Temp. Warm.

Weather. Sunny w/patchy.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM3 at 12:23 for less than 15min.

OM1 at 13:14 till 13:38, max 0.094ppm.

Operational issues / causes observed. PST's 15 & 16 pumped down. Storm tanks checked.

Actions Taken. Storm tanks 1& 2 need hosing down.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank

Actions Taken. Blank.

Wednesday 29th July 2020

DAY SHIFT

Temp. Warm.

Weather. Sunny w/patchy.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 spiked twice.

Operational issues / causes observed. East inlet works clean and no odours found.

Action Taken. Area washed down during day.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank

Actions Taken. Blank.

Sludge Dip Records

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m ³					
OMP limit	500					
24/07/2020	20	389	244	653	3900	4553
27/07/2020	59	389	389	837	2409	3246
29/07/2020	0	534	244	778	2257	3035

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 has been an average of 11 imports of sludge daily over the last week.

No.5 Pumping Station

The doors of No.5 pumping station were open at the time of the inspection, some odour was present.

Sludge Import Area

It was noted that the sludge import area was still in a very poor condition.

A tank leak is causing sludge to spill out across the surrounding area and skips.

TW were advised they are frequently hosing this area down.

As LBH note, this has not been required in the last week.

Raw Sludge Screening House

The large roller shutter door of the Raw Sludge Screening building was closed at the time of the inspection.

Digesters

Digesters 1-4 Out of use (permanent).

Thames advised of a long term project currently initiated to bring these units back into service that will require significant investment.

Digester 5 was in service but had a wet sloppy seal. There was also evidence of a very recent spill that required cleaning up.

Digester 6 was in service but had a wet sloppy seal.

Digester 7 is currently out of service.

Digester 8 was in service but had a wet sloppy seal. It was also noted that the bell was very high.

Digester 9 was in service but had a wet sloppy seal. There was also evidence of a very recent spill that required cleaning up between D9 & D11.

Digesters 10, 11, 12 and 13 were all in service but had wet sloppy seals.

Digesters 14 and 15 were both out of service.

Digester 16 was in service but had a wet sloppy seal that was bubbling off gas.

Digester 17 was in service and had a good dry seal.

Digester 18 was out of service.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digesters 19 and 20 were both in service and had a good dry seals.

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.

Skips

In the Sludge Import area there were two 8yds open skips, both of which were covered.

On the service road next to the raw sludge screening building was an uncovered 8yds open skip that was approx 30% full of rag.

On the West side there was one 20yds open bulk carrier that was empty.

East Side Screen House

The doors at both ends of the screen house building were closed.

Return Activated Sludge Channel

The nearside RAS channel (which runs in the ground between FST's

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

61-64 & 65-67) was free flowing and clear.
The far side channel was partially clogged along approx 30% of its length, was visibly crusty in areas and had weeds growing out of it.

West side primary settlement tanks (PST)

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

Circular PST's 10 and 12 were both out of service.
PST's 9 and 12 were both in service and had relatively fat free surfaces.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 9 streams are currently operational.

Section 106 agreement

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

West Side Aeration Lanes (New)

All lanes are now much improved and appeared to be free flowing, with the internal dividing walls being visible again.
Most of the sprinklers were back in operation and floating debris had been removed.

The mixed liquor feed channel serving aeration lanes 22 to 25 of E-Battery was partly clogged with thick dark scum.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring: 28/07/2020

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	Blank	Unknown	Unknown
Main pumping station outlet	Blank	0.2	Unknown
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	Blank	Unknown	Unknown
Sludge reception outlet	Blank	0.8	Unknown
Thickening plant inlet	Blank	Unknown	Unknown
Thickening plant outlet	0.00 0.00 0.00	0.6	Yes
New West inlet (OCU 11)	4.17 3.56 3.46	0.5	No
Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	Yes
Transfer PS inlet	20.60 10.51 8.11	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 22 nd July 2020	
Attendees: Mr Steven Maunders and Miss Charlotte Page (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A – Tank empty - approximately 10% of tank covered by grit/sludge – requires further flushing – Hopper 1 approx. 60% full, Hopper 2 empty & Hopper 3 approx. 40% full – requires draining/over-pumping.</p> <p>Tank 1B – Tank empty - approximately 10% of tank covered by grit – requires further flushing – Hoppers 1, 2 & 3 approx. 50% full – requires draining/over-pumping.</p> <p>Tank 2A – Tank empty - approximately 10% of tank covered by grit – requires further flushing – Hoppers 1, 2 & 3 approx. 30% full – requires draining/over-pumping.</p> <p>Tank 2B – Tank empty – approximately 40% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 empty.</p> <p>Tank 3A – Tank empty – approximately 20% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 empty.</p> <p>Tank 3B – Tank empty – approximately 60% of tank covered by</p>	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: auto;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

grit/sludge – requires further flushing – Hoppers 1, 2 & 3 empty.

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

Tank 6A – Tank empty - approximately 25% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 20% full – requires draining/over-pumping

Tank 6B – Tank empty – approximately 35% of tank covered by grit/sludge – requires further flushing - Hoppers 1, 2 & 3 approximately 20% full - requires draining/over-pumping.

Tank 7A - Tank empty – recently returned 75% of tank covered by grit/sludge – requires further flushing - Hoppers 1, 2 & 3 empty.

Tank 7B – Tank empty – recently returned – 100% of tank covered by grit/sludge – requires further flushing. Hoppers 1, 2 & 3 empty.

Tank 8A – Tank empty - approximately 10% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 full – requires draining/over-pumping.

Tank 8B – Tank empty – approximately 25% of tank still covered with grit/sludge – requires further flushing. Hoppers 1, 2 & 3 full – requires draining/over-pumping.

Feed Channel - The level of effluent in both feed channels was low – no local odours.

Complaints

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

The Council directly 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 monitors which were providing data at time of inspection (OMU 1 & 2 Out of Service – Testing ongoing):

Monitor 1	Out of Service		12:15
Monitor 2	Out of Service		12:15
Monitor 3	000	ppm	12:15
Monitor 4	000	ppm	12:15
Monitor 5	000	ppm	12:15
Monitor 6	004	ppm	12:15
Monitor 7	003	ppm	12:15
Monitor 8	000	ppm	12:15
Monitor 9	000	ppm	12:15
Monitor 10	003	ppm	12:15
Monitor 11	000	ppm	12:15
Monitor 12	003	ppm	12:15
Monitor 13	000	ppm	12:15
Wind Speed	7.54	mph	12:15
Wind Direction	222°		

Odour Log (Thames):

Thursday 16th July 2020:

AM – Warm – Sunny with Patchy Clouds.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Warm – Overcast Night.

All OMU's in use.

Observations/Complaints: "No odour issues".

Operational Issues/Causes: None noted.

Actions: None noted.

Friday 19th June 2020:

AM – Warm – Sunny.

All OMU's in use.

Observations/Complaints: "No odour issues".

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Warm - Overcast Night.

All OMU's in use.

Observations/Complaints: "OM2 spiked at 05:24-06:00 max 0.035ppm".

Operational Issues/Causes: None noted.

Actions: None noted.

Saturday 18th July 2020:

AM – Warm – Sunny with Patchy Clouds.

All OMU's in use.

Observations/Complaints: "OM3 – 0.042 @ 09:07 – 09:22".

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Warm – Overcast Night.

All OMU's in use.

Observations/Complaints: "OM3 spiked at 18:35 – 18:50 max 0.020ppm & at 23:00 – 23:23 max 0.019ppm".

Operational Issues/Causes: "OM Nos 1, 2 and 4 not trending again".

Actions: "Reported defective Oms".

Sunday 19th July 2020:

AM – Warm – Overcast Night (?!).

All OMU's in use.

Observations/Complaints: "No odour issues".

Operational Issues/Causes: "OM Nos 1, 2 and 4 not trending again".

Actions: None noted.

PM – Hot – Sunny (?!).

All OMU's in use.

Observations/Complaints: "No odour issues".

Operational Issues/Causes: None noted.

Actions: None noted.

Monday 20th July 2020:

AM – Cool – Clear Night (?!).

All OMU's in use.

Observations/Complaints: "No odour issues".

Operational Issues/Causes: "OM No's 1, 2 and 4 not trending".

Actions: None noted.

PM – Hot – Sunny (?!).

All OMU's in use.

Observations/Complaints: "OM2 spiked from 14:00 till 15:00 0.05ppm".

Operational Issues/Causes: "Inlets checked nothing of note found or obvious odours. Pad washed down Jeyes Fluid put on pad".

Actions: None noted.

Tuesday 21st July 2020:

AM – Cool – Sunny with Patchy Clouds.

All OMU's in use.

Observations/Complaints: None noted.

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Cool – Sunny with Patchy Clouds (?!).

All OMU's in use.

Observations/Complaints: "No odour spikes".

Operational Issues/Causes: None noted.

Actions: None noted.

Wednesday 22nd July 2020:

AM – Hot – Sunny.

All OMU's in use.

Observations/Complaints: None noted.
Operational Issues/Causes: None noted.

Actions: None noted.

PM – Cool – Clear Night.

All OMU's in use.

Observations/Complaints: "No odour issues".

Operational Issues/Causes: None noted.

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					
17/07/20	39	267	473 (TW = 273)	779	1920	2699 (TW = 2499)
20/07/20	39	328	389	756	1920	2676 (TW = 12676)
22/07/20	80	679	389	1148	3563	4711

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. 2ft below coping stones – good seal.

Digester 6 - In use – seal level approx. 4ft below coping stones – seal

As LBH note, this has not been required in the last week.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

weak and bubbling.

Digester 7 – Out of use – empty and clean – contractor on site undertaking maintenance.

Digester 8. - In use – seal level approx. 4ft below coping stones - seal weak and bubbling.

Digester 9 - In use – seal level approx. 1ft below coping stones – seal weak and bubbling.

Digester 10 - In use – seal level approx. 2ft below coping stones - seal weak and bubbling.

Digester 11 - In use – seal level approx. 1ft below coping stones – seal weak and bubbling.

Digester 12 – Out of use – empty and clean – contractor on site undertaking maintenance.

Digester 13 - In use – seal level approx. 1ft below coping stones – seal weak and bubbling.

Digester 14. - In use – seal level approx. 6” below coping stones - seal weak and bubbling – ongoing spill requiring anti-foam and clean-up. Bell height high requiring draw down of Biogas.

Digester 15 - Out of use – empty and clean – contractor on site undertaking maintenance.

Digester 16. - Out of use – empty and clean – contractor on site undertaking maintenance.

Digester 17 - In use – seal level approx. 2ft below coping stones - seal weak and bubbling.

Digester 18 - Out of use – empty and clean – contractor on site undertaking maintenance.

Digester 19 - Out of use – empty and clean – contractor on site

undertaking maintenance.

Digester 20 - In use – seal level approx. 3ft below coping stones – seal weak and bubbling.

GENERAL

Sludge Screening House

Roller shutter door approx. 1ft open - All other doors open at time of inspection – contractors on site working on screens.

Imported Sludge

An average of six imports reported 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).

Skips

2x partially filled small grit skip & 1x minis skip containing general waste by Sludge Screening House.

1x open container skip containing general waste in Service Road at rear of Raw Sludge Screen House.

1x empty open container skip by West Side PST's.

East Side Raw Sludge Screen House

Doors closed at time of inspection.

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

West Side Aeration Lanes (Old)

Battery C aeration feed channel 100% obstructed in one channel (left) – requires jetting (TW advise that there is continuing flow below surface).

Pasteurisation Plant

Pasteurisation plant = 9 streams running.

West side primary settlement tanks (PST)

Rectangular PSTs – no issues.

Circular PST's All in use.

New Works (West Side)

Feed Channel for Aeration Lanes 21-24 approximately 75% blocked – required jetting.

“Fluffy” coverage across surface has again begun to build up significantly, also quantity of material bypassing screener.

Odour Control Unit (OCU) performance monitoring – 22/07/20

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	No data	0.2	Unknown
East OCU	3.02 0.00 0.00	0.05	No

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	Unknown	
Thickening plant inlet	No data	Unknown	Unknown	
Thickening plant outlet	No data	0.6	Unknown	
Transfer PS inlet	No data	Unknown	Unknown	
Transfer PS outlet	0.00 0.00 0.00	0.5	Yes	
New West inlet (OCU 11)	5.28 4.57 4.45	0.5	No	
Pasteurisation Plant (OCU 12)	0.00 0.00 0.00	0.5	Yes	



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Wednesday 1 st July 2020 (12:00am)	
Attendees: Mr I Inman (London Borough of Hounslow) and Ms C Page (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. Hoppers 1 and 3 were all approx 40% full and require draining down, hopper 2 was empty.</p> <p>Tank 1B was empty and clean. Hoppers 1, 2 and 3 were all <25% full of fresh final effluent.</p> <p>Tank 2A was empty and clean. Hoppers 1 and 2 were approx 25% full, hopper 3 was completely full, all required draining down. TW advised hopper 3 was blocked.</p> <p>Tank 2B was empty and clean except for large areas of dry grit at the top end of the tank. Hopper 1 was completely full, hoppers 2 and 3 was approx 30% full, all require draining down. TW advised hopper 1 was blocked.</p> <p>Tank 3A was empty and clean. Hoppers 1, 2 and 3 were all approx 25% full and require draining down.</p>	<div style="border: 1px solid black; padding: 10px;"><p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p></div>

Tank 3B was empty and clean although dry surface grit was evident across parts of the tank floor.

Hoppers 1, 2 and 3 were all approx 45% full and require draining down.

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.

Hoppers 1, 2 and 3 were all approx 25% full, all require draining down.

Tank 6B was empty and clean although there was dry surface grit along the left side of the tank.

Hoppers 1 and 2 were approx 30% full, hopper 3 was 50% full, all require draining down.

Tank 7A was empty and clean although dry surface grit was evident across parts of the tank floor.

Hoppers 1, 2 and 3 (shallow hoppers) were all full of stagnant green water and require cleaning.

Tank 7B was empty but almost the entire surface area of the tank floor was covered with dry sludge.

Hoppers 1, 2 and 3 (shallow hoppers) were all full of stagnant green water and require cleaning.

Tank 8A was empty and clean.

Hoppers 1, 2 and 3 were all full and require draining down.

TW advised all 3 hoppers are currently blocked. It was noted that odour was present.

Tank 8B was empty and clean.

Hoppers 1, 2 and 3 were all full and require draining down.

TW advised all 3 hoppers are currently blocked.

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

A number of the storm tank hoppers were deemed to be in a poor state and offensive odour was present.

Thames were advised that this area of the works needs urgent attention.

Complaints

The Council has received 6 complaints by email in the preceding week.

On 24th June a resident of Runnymede Road, Twickenham emailed the Council at 0.25am to complain of odour (logged under ref: A00188).

On 25th June a resident of Ellerdine Road, Hounslow emailed the Council at 10:15am and again at 10:24am to complain of odour (logged under ref: A00222 and A00252).

On 25th June a resident of Central Avenue, Hounslow emailed the Council at 16:30pm to complain of odour (logged under ref: A00265).

On 25th June a resident of Hall Road, Hounslow emailed the Council at 19:24pm to complain of odour (logged under ref: A00317).

On 25th June a resident of Whitton Road, Hounslow emailed the Council to complain of odour (logged under ref: A00295).

The historic monitoring trends provide the following information:

On 24/06/2020:

OM3 spiked at 0.099ppm between 05:30-05:48am.

OM2 spiked at 0.014ppm between 12:42-13:00pm.

On 25/06/2020:

OM3 spiked at 0.027ppm between 00:15-00:31am, then 0.032ppm between 00:32-00:48am, then 0.031ppm between 01:33-01:48am, then 0.037ppm between 02:03-02:45am.

OM2 spiked at 0.025ppm between 05:50-06:12am, then 0.011ppm between 07:10-07:28am, then 0.013ppm at 09:14am.

On 26/06/2020:

OM5 spiked at 0.023ppm between 00:48-01:50am.

OM3 spiked at 0.032ppm between 02:45-03:03am.

OM4 spiked at 0.020ppm between 04:05-04:17am.

TW advised of a possible bio gas main shutdown last week and a local pumping station blockage on the network that may have added to the problem.

Odour Monitors

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

Monitor 1	0.000	ppm	12.00pm
Monitor 2	0.004	ppm	12.00pm
Monitor 3	0.000	ppm	12.00pm
Monitor 4	0.000	ppm	12.00pm
Monitor 5	-0.003	ppm	12.00pm
Monitor 6	0.000	ppm	12.00pm
Monitor 7	0.004	ppm	12.00pm
Monitor 8	0.000	ppm	12.00pm
Monitor 9	0.003	ppm	12.00pm
Monitor 10	0.000	ppm	12.00pm
Monitor 11	0.000	ppm	12.00pm
Monitor 12	0.000	ppm	12.00pm
Monitor 13	0.000	ppm	12.00pm
Wind Speed	11.157	mph	12.00pm
Wind Direction	264.745		12.00pm

Odour Log (Thames)

Wednesday 24th June 2020

DAY SHIFT

Temp. Very hot.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 0.015ppm 12:47-12:57 <15mins.

OM3 0.098ppm 5:31-5:49.

Operational issues / causes observed. Areas in vicinity of OM3 checked but no sources of odour found.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Warm.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:00.

Observations / Customer Complaint. OM3 spiked on and off between 00:15-02:15, max 0.037ppm

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Thursday 25th June 2020

DAY SHIFT

Temp. Very hot.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour problem.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Warm.

Weather. Clear night.

Odour Readings. All OMU's in use.

Time: 05:00.

Observations / Customer Complaint. OM3 spiked at 02:47-03:02, max 0.032ppm.

OM9 spiked at 04:30-04:45, max 0.022ppm.

Operational issues / causes observed. Area checked No: 16 Digester gassing off (OM9), waste gas burner failed to start in auto.

Actions Taken. Manually intervened and burnt down digester bell heights to 24.5m

Friday 26th June 2020

DAY SHIFT

Temp. Very hot.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Warm.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM2 0.030ppm 03:04-03:49.

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

Actions taken. Blank.

Saturday 27th June 2020

DAY SHIFT

Temp. Hot.

Weather. Rain w/sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour problem.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM3 0.030ppm 1:47-2:03.

Operational issues / causes observed. Area checked no source found.

Actions Taken. Blank.

Sunday 28th June 2020

DAY SHIFT

Temp. Warm.

Weather. Rain w/sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 spiked to 0.046ppm at 08:30, less than 15 minutes.

Operational issues / causes observed. Odour complaint from Weavers Close reported but wind direction going wrong way, East inlet works checked and washed down.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Monday 29th June 2020

DAY SHIFT

Temp. Cool.

Weather. Sunny w/patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 0.023ppm at 07:37-07:59, and 0.029ppm at 09:39 for less than 15 mins.

OM3 0.021ppm at 16:48-17:03.

Operational issues / causes observed. East inlet and OCU11.

Actions Taken. Blank

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM3 0.020ppm 19:33-19:48,

0.020ppm 22:03-22:18.

Operational issues / causes observed. OCU11 high ppb output due to chemical dosing off.

Actions Taken. Blank.

Tuesday 30th June 2020

DAY SHIFT

Temp. Blank.

Weather. Blank.

Odour Readings. All OMU's in operation.

Time: Blank.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. Blank.

Action Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank

Actions Taken. Blank.

Sludge Dip Records

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m³					
OMP limit	500					
26/06/2020	0	473	183	656	2072	2728
29/06/2020	39	328	183	550	1920	2470
01/07/2020	0	412	661	1073	2418	3491

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 has been an average of 10 imports of sludge daily over the last week.

No.5 Pumping Station

The doors and windows of No.5 pumping station were open at the time of the inspection and strong offensive odour was present.

Sludge Import Area

It was noted that the sludge import area was in a very poor condition. A tank leak had occurred and sludge had spilled out across the surrounding area and around the skips. Small insects were visible in large numbers and odour was present. TW were advised this needed to be addressed urgently.

As LBH note, this has not been required in the last week.

Raw Sludge Screening House

The large roller shutter door of the Raw Sludge Screening building was closed at the time of the inspection.

Digesters

Digesters 1-4 Out of use (permanent).

Thames advised of a long term project currently initiated to bring these units back into service that will require significant investment.

Digesters 5 and 6 were both in service but had wet sloppy seals.

Digester 7 was out of service.

Digesters 8, 9 and 10 were all in service but had wet sloppy seals.

Digesters 11, 12 and 13 were all in service but had wet seals that were all bubbling off gas.

Digesters 14 and 15 were both out of service.

Digester 16 was in service but had a very high bell and was bubbling spitting heavily.

TW contacted the controller during the inspection so gas could be drawn off.

Digester 17 was in service but had a wet sloppy seal.

Digester 18 was out of service.

Digester 19 was in service but had wet sloppy seal.

Digester 20 was in service and had a good dry seal.

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 appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

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.

Skips

On the East side there was one 20yds open bulk carrier that contained general inert rubbish and had been on site for a number of months. TW were requested to arrange its removal ASAP.

In the Sludge Import area was a part covered 8yds open skip that contained general rubbish and a very small amount of grit.

On the service road next to the raw sludge screening building was an uncovered 8yds open skip that was approx 30% full of rag.

On the West side there was one 20yds open bulk carrier that was empty.

East Side Screen House

The doors at both ends of the screen house building were propped open at the time of the inspection.

TW advised this was due to a fire alarm issue and a job had been raised with their contractor. TW confirmed all screens were in operation.

Skips containing rag and grit are routinely covered.
General waste and empty skips which are not odorous may be uncovered.

Return Activated Sludge Channel

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was free flowing and clear.

The far side channel was partially clogged along approx 30% of its length, was visibly crusty in areas and had weeds growing out of it.

West side primary settlement tanks (PST)

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

Circular PST 10 was out of service.

PST's 9, 11 and 12 were all in use and had relatively fat free surfaces but with some floating debris. PST12 also had a large area of green algae across part of its surface.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 10 streams are currently operational.

Section 106 agreement

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

West Side Aeration Lanes (New)

All lanes are now much improved and appeared to be free flowing, with the internal dividing walls being visible again.

However, a number of the sprinklers were clogged with pondweed and floating debris was present around these areas.

The mixed liquor feed channel serving aeration lanes 22 to 25 of E-Battery was clogged with thick dark scum (appearing black in places) and floating debris.

TW were advised they should consider using a tanker crew to undertake a clearance of all clogged areas.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring: 00/00/2020

TW advised no OCU data was available for the previous week, which was an oversight on their part and assured it would not happen again.

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet		Unknown	Unknown
Main pumping station outlet		0.2	Yes
East OCU		0.05	Yes
West inlet OCU		0.05	Yes
Sludge reception inlet		Unknown	Unknown
Sludge reception outlet		0.8	Yes
Thickening plant inlet		O/S	O/S
Thickening plant outlet		O/S	O/S
Transfer PS inlet		Unknown	Unknown
Transfer PS outlet		0.6	Yes
New West inlet (OCU 11)		0.5	Yes
Pasteurisation (OCU 12)		0.5	Yes



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 24 th June 2020	
Attendees: Mr Steven Maunders and Miss Charlotte Page (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A – Tank empty - approximately 10% of tank covered by grit/sludge – requires further flushing – Hopper 1 approx. 40% full – requires draining/over-pumping, Hopper 2 empty & Hopper 3 approx. 60% full – requires draining/over-pumping.</p> <p>Tank 1B – Tank empty - approximately 15% of tank covered by grit – requires further flushing – Hoppers 1, 2 & 3 full – requires draining/over-pumping.</p> <p>Tank 2A – Tank empty - approximately 10% of tank covered by grit – requires further flushing – Hoppers 1 & 2 approx. 30% full, Hopper 3 full – requires draining/over-pumping.</p> <p>Tank 2B – Tank empty – approximately 70% of tank covered by grit/sludge – requires further flushing – Hopper 1 full, Hoppers 2 & 3 approx. 50% full – requires draining/over-pumping.</p> <p>Tank 3A – Tank empty – approximately 20% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 30% full – requires draining/over-pumping.</p>	<div style="border: 1px solid black; padding: 10px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning</p> </div>

Tank 3B – Tank empty – approximately 80% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 70% full – requires draining/over-pumping.

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 – Tank empty - approximately 20% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 35% full – requires draining/over-pumping

Tank 6B – Tank empty – approximately 25% of tank covered by grit/sludge – requires further flushing - Hoppers 1, 2 & 3 approximately 60% full - requires draining/over-pumping.

Tank 7A - Tank empty – recently returned 90% of tank covered by grit/sludge – requires further flushing - Hoppers 1, 2 & 3 full - requires draining/over-pumping.

Tank 7B – Tank empty – recently returned – 100% of tank covered by grit/sludge – requires further flushing. Hoppers 1, 2 & 3 100% full – requires draining/over-pumping.

Tank 8A – Tank empty - approximately 10% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 full – requires draining/over-pumping.

Tank 8B – Tank empty – approximately 20% of tank still covered with grit/sludge – requires further flushing. Hoppers 1, 2 & 3 approx. 95% full – requires draining/over-pumping.

Feed Channel - The level of effluent in both feed channels was low – almost bottomed out - no local odours.

Complaints

The Council directly received no complaints by telephone in the

preceding week.

The Council directly 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	003	ppm	12:58
Monitor 2	015	ppm	12:58
Monitor 3	000	ppm	12:58
Monitor 4	000	ppm	12:58
Monitor 5	003	ppm	12:58
Monitor 6	006	ppm	12:58
Monitor 7	006	ppm	12:58
Monitor 8	004	ppm	12:58
Monitor 9	007	ppm	12:58
Monitor 10	000	ppm	12:58
Monitor 11	000	ppm	12:58
Monitor 12	005	ppm	12:58
Monitor 13	006	ppm	12:58
Wind Speed	7.5	mph	12:58
Wind Direction	82°		

Odour Log (Thames):

Thursday 18th June 2020:

AM – Cool – Cloudy/Sunny Spells.

All OMU's in use.

Observations/Complaints: "No odour issues".

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Cool – Clear Night.

All OMU's in use.

Observations/Complaints: "No odour issues".

Operational Issues/Causes: None noted.

Actions: None noted.

Friday 19th June 2020:

AM – Warm – Cloudy with Sunny Spells.

All OMU's in use.

Observations/Complaints: "OM2 spiked at 08:30-08:55 max 0.048ppm, OM5 spiked at 08:50-09:00 max 0.026ppm but < 15 mins duration".

Operational Issues/Causes: "Returning Storm Tanks".

Actions: None noted.

PM – Clear Night.

All OMU's in use.

Observations/Complaints: "No odour issues".

Operational Issues/Causes: None noted.

Actions: None noted.

Saturday 20th June 2020:

AM – Warm – Sunny with Patchy Clouds.

All OMU's in use.

Observations/Complaints: "OM2 spiked at 07:50 – 08:25 max 0.040ppm".

Operational Issues/Causes: "Returning Storm Tanks & pumping out dregs from PST's 5 & 6".

Actions: None noted.

PM – Cool – Overcast Night.

All OMU's in use.

Observations/Complaints: "OM2 spiking @ 22:30 max 0.025, OM2 @ 00:00 – 00:39 max 0.039ppm".

Operational Issues/Causes: "Storm Tank 7B needs cleaning – Job raised".

Actions: None noted.

Sunday 21st June 2020:

AM – Warm – Sunny with Patchy Clouds.

All OMU's in use.

Observations/Complaints: "OM2 0.020 09:08-09:25, 0.023 09:55-10:05, 0.020 10:42-10:47".

Operational Issues/Causes: "Storm Tank 7B requires cleaning".

Actions: None noted.

PM – Cool – Clear Night.

All OMU's in use.

Observations/Complaints: "OM5 spiked multiple times between 02:00-05:06 max 0.043ppm, OM8 spiked between 23:26-00:24 & 22:56-23:12 & 21:26-21:42 max".

Operational Issues/Causes: "Odour seems to be coming from Pasteurisation area.

Actions: "Asked Pasteurisation Tech1 to check around area for source of odour, area checked & hosed down".

Monday 22nd June 2020:

AM – Hot – Sunny with Patchy Clouds.

All OMU's in use.

Observations/Complaints: "OM2 0.046 10:45-11:11 & 0.029 05:29-05:52."

Operational Issues/Causes: "Inlet Area checked – No abnormalities".

Actions: None noted.

PM – Warm – Clear Night.

All OMU's in use.

Observations/Complaints: "OM5 spiked at 19:20-19:34 but < 15 mins duration max 0.015ppm. OM3 spiked at 03:15-03:35 max 0.103ppm."

Operational Issues/Causes: "Strong odours from PAS area lower road".

Actions: None noted.

Tuesday 23rd June 2020:

AM – Very Hot – Sunny.

All OMU's in use.

Observations/Complaints: "OM2 0.035 09:07-09:29 & 0.032 09:41-10:21 & 0.029 13:22-13:44".

Operational Issues/Causes: "Flare running and boilers on gas due to shut down. Inlet Area checked – no abnormalities".

Actions: None noted.

PM – Warm – Overcast Night.

All OMU's in use.

Observations/Complaints: "OM2 spiked at 20:48-21:10 max 0.025ppm".

Operational Issues/Causes: "East Inlet and surrounding area checked - no odours found".

Actions: None noted.

Wednesday 24th June 2020:

AM – Very Hot – Sunny.

All OMU's in use.

Observations/Complaints: "OM2 0.015 12:47-12:57 <15 mins".

Operational Issues/Causes: "Areas in vicinity of OM3 checked but no sources of odour found".

Actions: None noted.

PM – Warm – Clear Night.

All OMU's in use.

Observations/Complaints: "OM3 spiked on and off between 00:15-02:15 max 0.037ppm".

Operational Issues/Causes: None noted.

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					
19/06/20	0	267	206	473	1920	2393
22/06/20	0	206	661	867	1753	2620
24/06/20	0	328	328	656	1920	2576

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. 6" below coping stones - good seal.

Digester 6 - In use - seal level approx. 2ft below coping stones - seal weak and bubbling - dry spill requiring clean-up.

Digester 7 - Out of use - empty and clean - contractor on site undertaking maintenance.

As LBH note, this has not been required in the last week.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digester 8 - In use - seal level approx. 3ft below coping stones - seal weak and bubbling. Bell height high requiring draw down of Biogas.

Digester 9 - In use - seal level approx. 2ft below coping stones - good seal.

Digester 10 - In use - seal level approx. 4ft below coping stones - seal weak and bubbling - ongoing spill requiring anti-foam and clean-up. Bell height high requiring draw down of Biogas.

Digester 11 - In use - seal level approx. 5ft below surface of coping stones - seal weak and bubbling.

Digester 12 - In use - seal level approx. 4ft below surface of coping stones - seal weak and bubbling.

Digester 13 - In use - seal level approx. 18" below coping stones - seal weak and bubbling.

Digester 14 - Out of use - empty and clean - contractor on site undertaking maintenance.

Digester 15 - Out of use - empty and clean - contractor on site undertaking maintenance.

Digester 16 - In use - seal level approx. 3ft below coping stones - seal weak and bubbling - Bell height high requiring draw down of Biogas.

Digester 17 - In use - seal level approx. 2ft below coping stones - seal weak and bubbling.

Digester 18 - Out of use - empty and clean - contractor on site undertaking maintenance.

Digester 19 - In use - seal level approx. 3ft below coping stones - seal weak and bubbling - Bell height high requiring draw down of Biogas.

Digester 20 - In use - seal level approx. 3ft below coping stones - good seal. Bell height high requiring draw down of Biogas.

GENERAL

Sludge Screening House

Roller shutter door approx. 1ft open - All other doors open at time of inspection – contractors on site working on screens.

Imported Sludge

No imports reported 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).

Skips

1x partially filled small grit skip & 1x minis skip containing general waste by Sludge Screening House.

1x open container skip containing general waste & 1x enclosed 8 yard skip containing rag in Service Road at rear of Screen House.

1x empty open container skip by West Side PST's.

Pasteurisation Plant

Pasteurisation plant = 10 streams running.

East Side Raw Sludge Screen House

Doors closed at time of inspection.

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

West Side Aeration Lanes (Old)

Battery C aeration feed channel 80% obstructed in one channel (left) – requires jetting.

West side primary settlement tanks (PST)

Rectangular PSTs – no issues.

Circular PST's 10, 11 & 12 in use. Tank 9 currently being brought back into service.

New Works (West Side)

Feed Channel for Aeration Lanes 21-24 approximately 75% blocked – required jetting.

“Fluffy” coverage across surface has again begun to build up significantly, also quantity of material bypassing screener.

Odour Control Unit (OCU) performance monitoring – No data

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	No data	Unknown	Unknown
Main pumping station outlet	No data	0.2	Unknown
East OCU	No data	0.05	Unknown
West inlet OCU	No data	0.05	Unknown
Sludge reception inlet	No data	Unknown	Unknown
Sludge reception outlet	No data	0.8	Unknown
Thickening plant inlet	No data	Unknown	Unknown
Thickening plant outlet	No data	0.6	Unknown

Transfer PS inlet	No data	Unknown	Unknown	
Transfer PS outlet	No data	0.5	Unknown	
New West inlet (OCU 11)	No data	0.5	Unknown	
Pasteurisation Plant (OCU 12)	No data	0.5	Unknown	



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 10 th June 2020	
Attendees: Mr Steven Maunders and Miss Charlotte Page (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A – Tank empty – approx. 10% of tank covered by dried grit – requires further flushing – Hoppers 1, 2 & 3 full of effluent water.</p> <p>Tank 1B – Tank empty – approx. 10% of tank covered by grit – requires further flushing – Hoppers 1, 2 & 3 full of effluent water surcharging back to Tank (return valve issue).</p> <p>Tank 2A – Tank empty – approx. 10% of tank covered by grit – requires further flushing – Hoppers 1 & 2 approx. 20% full, Hopper 3 full of effluent water.</p> <p>Tank 2B – Tank empty – approx. 20% of tank covered by grit – requires further flushing – Hopper 1 full, Hoppers 2 & 3 approx. 30% full of effluent water.</p> <p>Tank 3A – Tank empty and flushed clean – Hoppers 1, 2 & 3 approx. 50% full.</p> <p>Tank 3B - Tank empty – approx. 40% of tank covered by grit – requires further flushing – Hoppers 1, 2 & 3 full of effluent water.</p>	<div style="border: 1px solid black; padding: 10px;"><p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p></div>

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

Tank 6A – Tank empty – approx. 20% of tank covered by grit – requires further flushing – Hoppers 1 & 3 approx. 90% full, Hopper 2 30% full of effluent water.

Tank 6B – Tank empty – approx. 50% of tank covered by grit – requires further flushing – Hoppers 1 & 2 approx. 80% full, Hopper 3 90% full of effluent water.

Tank 7A – Tank empty – recently returned - approx. 85% of tank covered by grit and sludge – requires further flushing – Hoppers 1, 2 & 3 full – requires draining/over-pumping.

Tank 7B – Tank empty – recently returned - 100% of tank covered by grit and sludge – requires further flushing – Hoppers 1, 2 & 3 empty.

Tank 8A – Tank empty – approx. 20% of tank covered by grit – requires further flushing – Hoppers 1, 2 & full of effluent water.

Tank 8B – Tank empty – approx. 15% of tank covered by grit – requires further flushing – Hoppers 1, 2 & 3 approx. 75% full of effluent water.

Feed Channel - Both feed channels low – approx. 10% - no local odours.

Complaints

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

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

The Council received no complaints by email from MRAG.

<p><i>Thames Water controller advised that they had received no direct complaints in the preceding week.</i></p>	
<p><u>Odour Monitors</u></p> <p>No data available for any contemporary or historical odour data as entire system down whilst undergoing "Microsoft updates".</p>	
<p><u>Odour Log (Thames):</u></p> <p>No data provided.</p>	

Sludge Dip Records

No data provided.

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. 2ft below coping stones – seal weak and bubbling.

Digester 6 - In use – seal level approx. 2ft below coping stones – seal weak and bubbling.

Digester 7 – Out of use – empty and clean – contractor on site undertaking maintenance

Digester 8 - In use – seal level approx. 18” below coping stones - seal weak and bubbling – Bell height high requiring draw down of Biogas.

Digester 9 - In use – seal level approx. 18” below coping stones - seal weak and bubbling.

Digester 10 - In use – seal level approx. 2ft below coping stones - seal weak and bubbling – Bell height high requiring draw down of Biogas.

Digester 11 - In use – seal level approx. 1ft below coping stones – seal weak and bubbling.

Digester 12 - In use – seal level approx. 2ft below coping stones - seal weak and bubbling.

Digester 13 - In use – seal level approx. 6” below coping stones - seal weak and bubbling.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digester 14 – Out of use – empty and clean – contractor on site undertaking maintenance.

Digester 15 - Out of use – empty and clean – contractor on site undertaking maintenance.

Digester 16 - In use – seal level approx. 1ft below coping stones – seal weak and bubbling – ongoing spill requiring clean-up and anti-foam – Bell height high requiring draw down of Biogas

Digester 17 - In use – seal level approx. 2ft below coping stones - seal weak and bubbling.

Digester 18 - Out of use – empty and clean – contractor on site undertaking maintenance

Digester 19 - In use – seal approx. 3ft below coping stones – seal weak and bubbling.

Digester 20 - In use – seal level approx. 3ft below coping stones – seal weak and bubbling.

GENERAL

Sludge Screening House

All doors open at time of inspection.

Imported Sludge

No data provided.

Final Settlement Tanks East Side of Works

The 8 circular tanks previously used as PSTs are now being used as final tanks (71-78).

Skips

1x partially filled small grit skips by Sludge Screening House.

Pasteurisation Plant

No data provided.

East Side Raw Sludge Screen House

Doors closed at time of inspection.

West Side Aeration Lanes (Old)

Battery C aeration feed channel 75% obstructed in one channel (right)
– requires jetting.

West side primary settlement tanks (PST)

Rectangular PSTs – no issues

Circular PST's 10, 11 & 12 in use. Tank 9 currently being brought back into service.

New Works (West Side)

Feed Channel for Aeration Lanes 21-24 approximately 50% blocked – requires jetting.

“Fluffy” coverage across surface has again begun to significantly build up and thicken; also significant quantity of material bypassing screener.



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Wednesday 3 rd June 2020 (12:00am)	
Attendees: Mr I Inman (London Borough of Hounslow) and Ms C Page (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. Hoppers 1, 2 and 3 were all approx 75% full of fresh final effluent and required draining down.</p> <p>Tank 1B was empty and clean. Hoppers 1, 2 and 3 were all completely full of fresh final effluent and required draining down. TW advised all 3 hoppers are currently blocked.</p> <p>Tank 2A was empty and clean. Hoppers 1 and 2 was approx 25% full, hopper 3 was completely full and all required draining down. TW advised hopper 3 was blocked</p> <p>Tank 2B was empty and clean. Hopper 1 was completely full, hopper 2 was approx 30% full and hopper 3 was approx 50% full, all required draining down. TW advised hopper 1 was blocked</p> <p>Tank 3A was empty and clean although dry surface grit was evident</p>	<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

across part of the tank.
Hoppers 1 and 2 were approx 30% full, hopper 3 was approx 20% full, all required draining down.

Tank 3B was empty and clean although dry surface grit was evident across part of the tank.

Hoppers 1, 2 and 3 were all approx 75% full and required draining down.

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.

Hoppers 1, 2 and 3 were all approx 25% full, all required draining down.

Tank 6B was empty and clean although there was dry surface grit along the left side of the tank.

Hoppers 1, 2 and 3 were all 25% full, all required draining down.

Tank 7A was nearly full and being back-filled with final effluent to flush the tank.

Tank 7B was empty although there was dry surface grit across almost the entire tank surface.

Hoppers 1, 2 and 3 (shallow hoppers) were all full of green algae water and required cleaning.

Tank 8A was clean and empty.

Hoppers 1, 2 and 3 were all full and overflowing, all required draining down.

TW advised all 3 hoppers are currently blocked. It was noted that odour was present.

Tank 8B was clean and empty.

Hoppers 1, 2 and 3 were all full and overflowing with green algae water, all required draining down.

TW advised all 3 hoppers are currently blocked.

Feed Channel - The level of effluent in both feed channels was low

along its entire length.

A number of the storm tank hoppers were deemed to be in a poor state and offensive odour was present.

Thames were advised that this area of the works needs urgent attention.

Complaints

The Council has received no complaints by email or telephone calls to the Emergency Telephone Operator 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	0.00	ppm	13.50pm
Monitor 2	0.06	ppm	13.50pm
Monitor 3	0.00	ppm	13.50pm
Monitor 4	0.00	ppm	13.50pm
Monitor 5	0.03	ppm	13.50pm
Monitor 6	0.03	ppm	13.50pm
Monitor 7	0.04	ppm	13.50pm
Monitor 8	0.00	ppm	13.50pm
Monitor 9	0.09	ppm	13.50pm
Monitor 10	0.08	ppm	13.50pm
Monitor 11	0.08	ppm	13.50pm
Monitor 12	0.03	ppm	13.50pm
Monitor 13	0.03	ppm	13.50pm
Wind Speed	2.341	mph	13.50pm
Wind Direction	52.517		13.50pm

Odour Log (Thames)

Wednesday 27th May 2020

DAY SHIFT

Temp. Hot.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 18:00.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Warm.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM3 showing odour from 00:00 till. Max 0.041ppm on and off.

Operational issues / causes observed. Area skips hosed down / normal odours found for inlet area.

Actions Taken. Blank.

Thursday 28th May 2020

DAY SHIFT

Temp. Hot.

Weather. Sunny w/patchy.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Warm.

Weather. Overcast night.

Odour Readings. All OMU's in use.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Friday 29th May 2020

DAY SHIFT

Temp. Very hoy.

Weather. Sunny w/patchy.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Warm.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank

Actions taken. Blank.

Saturday 30th May 2020

DAY SHIFT

Temp. Hot.

Weather. Sunny w/patchy.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 0.0104ppm 13:45-14:11.

Operational issues / causes observed. No source found at east inlet.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Sunday 31st May 2020

DAY SHIFT

Temp. Hot.

Weather. Sunny w/patchy.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Monday 1st June 2020**DAY SHIFT**

Temp. Hot.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

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

Operational issues / causes observed. Blank.

Actions Taken. Blank

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Tuesday 2nd June 2020**DAY SHIFT**

Temp. Very hot.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

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

Operational issues / causes observed. Blank.

Action Taken. Area around skips washed down, Borger sump needs cleaning.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM4 0.068ppm 23:23-00:58.

OM2 0.036ppm 00:11-01:11, 0.021ppm 01:47-02:11, 0.069ppm 22:59-23:26.

OM5 0.024ppm 1:03-1.35, 0.021ppm 02:19-3:04, 0.035ppm 23:03-00:44.

OM9 0.046ppm 21:43-00:14.

OM8 0.033ppm 22:54-00:10.

OM7 0.019ppm 23:30-00:15.

Operational issues / causes observed. Digester 16 gassing off.

No odour source found on site.

East inlet hosed down.

Digester 16 gassing off again, high dome bell heights, flare running.

Actions Taken. Blank.

Wednesday 3rd June 2020

DAY SHIFT

Temp. Hot.

Weather. Rain w/sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM5 0.015max 05:36-06:33.

Operational issues / causes observed. No odours found.

Action Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. PS5 sludge spill hosed down, needs further cleaning.

Actions Taken. Blank.

Sludge Dip Records

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m ³					
OMP limit	500					
29/05/2020	0	473	534	1007	1609	2616
01/06/2020	0	183	183	366	608	974
03/06/2020	0	328	267	595	456	1051

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 has been an average of 10 imports of sludge daily over the last week.

No.5 Pumping Station

The doors and windows of No.5 pumping station were open at the time of the inspection and strong offensive odour was present.

Raw Sludge Screening House

The large roller shutter door of the Raw Sludge Screening building was closed at the time of the inspection.

Digesters

As LBH note, this has not been required in the last week.

Digesters 1-4 Out of use (permanent).
Thames advised of a long term project currently initiated to bring these units back into service that will require significant investment.

Digesters 5 and 6 was both in service and had a good dry seals.

Digester 7 was out of service.

Digesters 8, 9 and 10 were all in service but had wet sloppy seals that were all bubbling off gas.

Digester 11 was in service and had a good dry seal.

Digester 13 was in service but had a wet sloppy seal.

Digesters 14 and 15 were both out of service.

Digester 16 was in service but had a wet sloppy seal that was bubbling off gas.

Digester 17 was in service and had a good dry seal.

Digester 18 was out of service.

Digester 19 was in service but had wet sloppy seal.

Digester 20 was in service and had a good dry seal.

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.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

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.

It was noted that tank 76 was covered in green algae but no odour was present.

Skips

There was an empty 8yds skip by the Sludge Import area.

On the East side there was one 20yds open bulk carrier that contained general inert rubbish and had been on site for a number of months. TW were requested to arrange its removal.

Also present was a 14yds open skip that contained building waste from ongoing construction work in the area.

On the service road leading to the storm tanks was a 20yds open bulk carrier that was full of soil from ongoing works at the site.

In the Sludge Import area was a part covered 8yds open skip that contained general rubbish and a very small amount of grit.

On the service road next to the raw sludge screening building was an uncovered 8yds open skip that was approx 30% full of rag.

On the West side there was one 20yds open bulk carrier that was empty.

East Side Screen House

The doors at both ends of the screen house building were propped open at the time of the inspection due to ongoing internal works. TW advised all screens were in operation.

Return Activated Sludge Channel

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was free flowing and clear.
The far side channel was partially clogged along approx 30% of its length and visibly crusty in areas.

West side primary settlement tanks (PST)

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

Circular PST 10 was out of service. PST's 9, 11 and 12 were all in use and had relatively fat free surfaces but with some floating debris.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 10 streams are currently operational.

Section 106 agreement

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

West Side Aeration Lanes (New)

All lanes are now much improved and appeared to be free flowing, with the internal dividing walls being visible again.

Nearly all of the sprinklers appeared to now be back in operation.

The mixed liquor feed channel serving aeration lanes 25 and part of 24 of E-Battery was clogged with thick dark scum (appearing black in places) and floating debris. Odour was noticeable in this area of the works.

TW were advised that they should consider using a tanker crew to undertake a clearance of all clogged areas.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring: 02/06/2020

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.03 0.04 0.05	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	0.2	Yes
East OCU	0.01 0.01 0.01	0.05	Yes
West inlet OCU	0.00 0.00 0.00	0.05	Yes
Sludge reception inlet	Blank	Unknown	Unknown
Sludge reception outlet	Blank	0.8	Yes
Thickening plant inlet	Blank	O/S	O/S
Thickening plant outlet	0.00 0.00 0.00	O/S	O/S
Transfer PS inlet	Blank	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
Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	Yes



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Thursday 21 st May 2020 (13:24pm)	
Attendees: Mr L Phillips (London Borough of Hounslow) and Ms R Denny (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. Hoppers 1, 2 and 3 were all drained down to lowest point no odours detected.</p> <p>Tank 1B was empty and clean. Hoppers 1, 2 and 3 were all drained down to lowest point no odours detected.</p> <p>Tank 2A was empty and clean. Hoppers 1, 2 and 3 were all drained down to lowest point no odours detected.</p> <p>Tank 2B was empty and clean. Hoppers 1, 2 and 3 were all drained down to lowest point no odours detected.</p> <p>Tank 3A was empty and clean. Hoppers 1, 2 and 3 were all drained down to lowest point no odours detected.</p> <p>Tank 3B was empty and clean. Hoppers 1, 2 and 3 were all drained down to lowest point no odours detected.</p> <p>Tanks 4A, 4B, 5A & 5B All tanks are covered and odour controlled. Unable to gauge condition as lighting system still not working.</p>	<div style="border: 1px solid black; padding: 10px;"><p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p></div>

Tank 6A was empty and clean. Hoppers 1, 2 and 3 were all drained down to lowest point no odours detected.

Tank 6B was empty and clean slight grit located at the hopper end of the tank. All hoppers drained to lowest point no odours detected.

Tank 7A was empty and clean Hoppers 1, 2 and 3 (shallow hoppers) were all full and overflowing which required cleaning.

Tank 7B was empty and clean Hoppers 1, 2 and 3 (shallow hoppers) were all full and overflowing which required cleaning.

Tank 8A was clean and empty.

Hoppers 1, 2 and 3 were all full and overflowing, all required draining down.

TW advised all 3 hoppers are currently blocked.

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

TW advised all 3 hoppers are currently blocked.

Feed Channel - The level of effluent in both feed channels was low along its entire length. However, there was thick scum and sludge on the surface along large sections of the channel.

All storm tank hoppers and the storm channel were deemed to be in a poor state no odour detected.

Complaints

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

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

The Council received no complaints by email from MRAG.

Odour Monitors

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

Monitor 1	0.00	ppm	14:13
Monitor 2	00.04	ppm	14:13
Monitor 3	00.0	ppm	14:14
Monitor 4	0.004	ppm	14:14
Monitor 5	0.00	ppm	14:15
Monitor 6	0.004	ppm	14:15
Monitor 7	0.005	ppm	14:15
Monitor 8	0.00	ppm	14:15
Monitor 9	0.006	ppm	14:15
Monitor 10	0.008	ppm	14:15
Monitor 11	0.008	ppm	14:17
Monitor 12	0.003	ppm	14:18
Monitor 13	0.006	ppm	14:18
Wind Speed	284.022	mph	
Wind Direction	7.963		

Odour Log (Thames)

Thursday 14th of May 2020:

DAY SHIFT:

Temp: Cold.

Weather: Sunny W patchy clouds.

Odour Readings: All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint: OM2 0.018 at 16:56 to end of shift OM2 0.015.

Operational issues / causes observed: Blank.

Actions Taken: Blank.

NIGHT SHIFT:**Temp:** Cold.**Weather:** Clear night.**Odour Readings:** All OMU's in operation.**Time:** 05:30.**Observations / Customer Complaint:** OM2 spiked at 05:15 – 05:40 max 0.10, OM3 spiked at 18:00 – 18:15 max 0.033ppm, OM7 spiked at 03:00 – 03:15 max 0.023ppm, OM9 spiked at 01:13 – 01:29 max 0.022ppm.**Operational issues / causes observed:** Final effluent culvert diverted to storm tanks whilst eight 20 install new penstocks in channel for LTAM project. Digester no 16 gassing off.**Actions Taken:** Blank.**Friday 15th of May 2020:****DAY SHIFT:****Temp:** Warm.**Weather:** Sunny W patchy clouds.**Odour Readings:** All OMU's in operation.**Time:** 17:30.**Observations / Customer Complaint:** OM2 spiked to max of 0.023ppm from 15:12 to 16:10.**Operational issues / causes observed:** East inlet area checked nothing of note to report and no obvious odours detected area washed down around skips and washpactors.**Actions Taken:** Blank.**NIGHT SHIFT :****Temp:** Cold.**Weather:** Clear night.**Odour Readings:** All OMU's in use.**Time:** 05:30.**Observations / Customer Complaint:** OM3 0.020 21:16 – 21:30 OM9 0.023 23:57 – 00:58 0.016 21:28 – 22:58 0.017 19:28 – 19:42.**Operational issues / causes observed:** Area checked no issues found digester 16 gassing off.**Actions Taken:** Blank.**Saturday 16th of May 2020:**

DAY SHIFT:**Temp:** Blank.**Weather:** Blank.**Odour Readings:** All OMU's in operation.**Time:** Blank.**Observations / Customer Complaint:** Blank.**Operational issues / causes observed:** Blank.**Actions Taken:** Blank.**NIGHT SHIFT:****Temp.** Cool.**Weather:** Clear night.**Odour Readings:** All OMU's in operation.**Time:** 05:30.**Observations / Customer Complaint:** OM2 0.019 22:25 - 22:40, OM8 0.018 – 22:09 – 22:23, OM4 0.016 21:54 – 22:09, 0.020 22:09 – 22:24, OM9 0.020 21:12 - 21:28 0.021 21:41 – 22:12, OM5 0.021 22::02 – 23:17 0.023 2:32 – 03:03 01027 – 04:17 – 04:33.**Operational issues / causes observed:** Digester 16 gassing off odour from PAS no spills detected.**Actions taken:** Blank.**Sunday 17th of May 2020:****DAY SHIFT:****Temp:** Warm.**Weather:** Sunny W patchy clouds.**Odour Readings:** All OMU's in operation.**Time:** 17:30.**Observations / Customer Complaint:** Blank.**Operational issues / causes observed:** No odour issues.**Actions Taken:** Blank.**NIGHT SHIFT:****Temp:** Cool.**Weather:** Clear night.**Odour Readings:** All OMU's in operation.**Time:** 05:30.**Observations / Customer Complaint:** OM7 0.015 23:14 – 00:14 OM8 0.017 19:08 – 19:23. Customer complainant 19:50 91 Mogden Lane.**Operational issues / causes observed:** No source found small spill from overflow in PAS area hosed down.

Actions Taken: Site check carried out.

Monday 18th of May 2020:

DAY SHIFT:

Temp: Warm.

Weather: Sunny.

Odour Readings: All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour spikes.

Operational issues / causes observed: Blank.

Actions Taken: Blank.

NIGHT SHIFT:

Temp: Cool.

Weather: Clear night.

Odour Readings: All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint: OM8 0.028 20:22 –N 20:41
0.016 19:24 – 19:38.

Operational issues / causes observed: No source found tankers
dropping off imported sludge overnight.

Actions Taken: Blank.

Tuesday 19th of May 2020:

DAY SHIFT:

Temp: Warm.

Weather. Sunny.

Odour Readings: All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint: One spike from OM8 for less
than 12 minutes.

Operational issues / causes observed: Blank.

Actions Taken: Blank.

NIGHT SHIFT:

Temp: Warm.

Weather: Clear night.

Odour Readings: All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint: OM9 spiked to 0.017ppm 00:40

– 01:43 OM5 spiked to 0.020ppm 01:33 – 02:03.

Operational issues / causes observed: Area checked no abnormal odours detected.

Actions Taken: Blank.

Wednesday 20th of May 2020:

DAY SHIFT:

Temp: Blank.

Weather: Blank.

Odour Readings: All OMU's in operation.

Time: Blank.

Observations / Customer Complaint: Blank.

Operational issues / causes observed: Blank.

Action Taken: Blank.

NIGHT SHIFT:

Temp: Warm.

Weather: Clear night.

Odour Readings: All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint: OM9 spiked to 0.028ppm 02:27

– 02:59 OM4 spiked to max 0.043ppm 02:37 – 03:08.

Operational issues / causes observed: No source found.

Actions Taken: Blank.

Sludge Dip Records

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m ³					
OMP limit	500					
15/05/2020	0	328	473	801	632	1433
18/05/2020	0	183	473	656	1112	1768
20/05/2020	0	806	412	1218	3423	4641

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 has been an average of 9 imports of sludge daily over the last week.

No.5 Pumping Station

The doors and windows of No.5 pumping station were closed at the time of the inspection but no odour was present.

Raw Sludge Screening House

The large roller shutter door of the Raw Sludge Screening building was closed at the time of the inspection.

Digesters

As LBH note, this has not been required in the last week.

Digesters 1-4 Out of use (permanent).

Thames advised of a long term project currently initiated to bring these units back into service that will require significant investment.

Digester 5 Was in use had weak sloppy seal no evidence of sludge spill.

Digester 6 Was in use had weak sloppy seal no evidence of sludge spill.

Digester 7 was out of service.

Digester 8 Was in use had weak sloppy seal no evidence of sludge spill.

Digester 9 Was in use had weak sloppy seal no evidence of sludge spill.

Digester 10 Was in use had weak sloppy seal no evidence of sludge spill.

Digester 11 Was in use had weak sloppy seal no evidence of sludge spill.

Digester 12 Was in use had weak sloppy seal no evidence of sludge spill.

Digester 13 Was in use had weak sloppy seal no evidence of sludge spill.

Digester 14 out of service.

Digester 15 out of service.

Digesters 16 Was in use had weak sloppy seal no evidence of sludge spill.

Digester 17 Was in use good seal.

Digester 18 was out of service.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digesters 19 Was in use had weak sloppy seal no evidence of sludge spill.

Digester 20 Was in use had weak sloppy seal no evidence of sludge spill.

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 report on.

Skips

On the East side x1 20yd skip covered with trampoline contained general inert rubbish.

On the West side there was one 20yds bulk skip covered it was empty The carrier was very odourous and uncovered, a tarpaulin was on the floor next to it.

East Side Screen House

The doors to the screen house building were all closed at the time of the inspection. TW advised all screens were in operation.

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

Return Activated Sludge Channel

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was free flowing and clear.

The far side channel was partially clogged along approx 30% of its length and visibly crusty in areas.

West side primary settlement tanks (PST)

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

Circular PST 10 was out of service. PST's 9, 11 and 12 were all in use no issues to report on.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 10 streams are currently operational.

Section 106 agreement

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

West Side Aeration Lanes (New)

Noted that the general condition of all lanes were in a very poor state and all lanes had very thick scum and this had developed across all of the aeration lane surfaces that was thick enough to obscure nearly all of the internal dividing walls.

All of the sprinklers appeared to be out of operation and floating debris was clogging these areas of the lanes.

The mixed liquor feed channel serving aeration lanes 25 and part of 24

of E-Battery was clogged with thick scum and floating debris. No odour detected.

TW were advised that they should consider using a tanker crew to undertake a clearance of all clogged areas.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring: 20/05/2020

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	Blank	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	0.00 0.00 0.00	Unknown	Unknown
Sludge reception outlet	0.00 0.00 0.00	0.8	Yes
Thickening plant inlet	Blank	O/S	O/S
Thickening plant outlet	Blank	O/S	O/S
Transfer PS inlet	N/A	N/A	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	
Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	Yes	



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Thursday 7 th May 2020 (13:00pm)	
Attendees: Mr I Inman (London Borough of Hounslow) and Ms R Denny (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. Hoppers 1, 2 and 3 were all approx 25% of stagnant fluid with a thick crust, all required draining down.</p> <p>Tank 1B was empty and clean. Hoppers 1, 2 and 3 were all full of stagnant fluid and required draining down. TW advised all 3 hoppers are currently blocked.</p> <p>Tank 2A was empty and clean. Hopper 1 was approx 25% full, hopper 2 was approx 50% full and hopper 3 was full, all required draining down. TW advised hopper 3 was blocked</p> <p>Tank 2B was empty and clean although there were areas of dry grit across the tanks surface. Hopper 1 was full, hopper 2 was approx 50% full and hopper 3 was approx 25% full, all required draining down. TW advised hopper 1 was blocked</p>	<div style="border: 1px solid black; padding: 10px;"><p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning</p></div>

Tank 3A was empty and clean.

Hopper 1 was approx 50% full, hoppers 2 and 3 were approx 25% full, all required draining down.

Tank 3B was empty and clean although there was dry grit at both the top and bottom end of the tank.

Hoppers 1, 2 and 3 were all approx 75% full and required draining down.

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.

Hopper 1 was approx 75% full, hopper 2 was approx 25% full and hopper 3 was approx 50% full, all required draining down.

Tank 6B was empty and clean although there was dry grit at the hopper end of the tank.

Hoppers 1 and 2 were both 75% full, hopper 3 was completely full, all required draining down.

Tank 7A was empty and clean although there was dry grit in the middle section of the tank.

Hoppers 1, 2 and 3 (shallow hoppers) were all full and overflowing which required cleaning.

Tank 7B was empty although there was dry crusty debris across the entire area of the tank.

Hoppers 1, 2 and 3 (shallow hoppers) were all full and required cleaning.

Tank 8A was clean and empty.

Hoppers 1, 2 and 3 were all full and overflowing, all required draining down.

TW advised all 3 hoppers are currently blocked.

Tank 8B was clean and empty.

Hoppers 1, 2 and 3 were all full and overflowing, all required draining down.

TW advised all 3 hoppers are currently blocked.

Feed Channel - The level of effluent in both feed channels was low along its entire length. However, there was thick scum and sludge on the surface along large sections of the channel.

All storm tank hoppers and the storm channel were deemed to be in a poor state and offensive odour was present. Thames were advised that this area of the works needs urgent attention.

Complaints

The Council has received 2 complaints by Email (1 from MRAG) in the preceding week.

On 6th May at 16:01pm an Email complaint was received from a resident of Harvesters Close, Isleworth (ref: 997558), complaining of a disgusting smell from morning till night every day.

On 8th May at 13:16pm an Email complaint was received from MRAG, The email stated odour had been bad over the last week, stating a number of issues relating to site management and housekeeping.

Unfortunately due to the control room being closed to non-essential staff during the current Covid-19 situation the inspecting officer was unable to check the historic monitor trends at the time of the complaint.

Tanker cleans out the channel on a weekly basis

Odour Monitors

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

Unable to obtain odour monitor readouts due to the control room being closed to non-essential staff during the current Covid-19 situation.

Monitor 1		ppm	
Monitor 2		ppm	
Monitor 3		ppm	
Monitor 4		ppm	
Monitor 5		ppm	
Monitor 6		ppm	
Monitor 7		ppm	
Monitor 8		ppm	
Monitor 9		ppm	
Monitor 10		ppm	
Monitor 11		ppm	
Monitor 12		ppm	
Monitor 13		ppm	
Wind Speed		mph	
Wind Direction			

Odour Log (Thames)

Thursday 23rd April 2020

DAY SHIFT

Temp. Warm.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM9 small spike for less than 8 minutes of 0.05ppm.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM2 0.018ppm 1:54-2:09.

OM6 0.020ppm 23:30-00:30.

OM9 0.027ppm 21:40-22:41.

Operational issues / causes observed. Odour in PAS area-no spills

found,
Digester 16 gassing off.
Actions Taken. Blank.

Friday 24th April 2020

DAY SHIFT

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.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in use.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Saturday 25th April 2020

DAY SHIFT

Temp. Warm.

Weather. Sunny.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 0.015ppm at 16:57-17:23.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM2 spiked at 19:30-19:50
max 0.031ppm & at 00:40-01:20 0.018ppm.

OM7 spiked at 20:40-20:57 max 0.020ppm.
Operational issues / causes observed. No obvious causes of odour found.
Actions taken. East inlet area hosed down.

Sunday 26th April 2020

DAY SHIFT

Temp. Warm.

Weather. Sunny with patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. Multiple spikes from OM2 and OM6, mainly short duration and max 0.034ppm.

Operational issues / causes observed. PAS area checked.

Actions Taken. PAS stream water traps checked and topped up as required.

East inlet area hosed down.

Monday 27th April 2020

DAY SHIFT

Temp. Warm.

Weather. Cloudy with sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: 05:30.

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

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Tuesday 28th April 2020

DAY SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM4 0.021ppm 12:52-13:07.

OM8 0.018ppm 12:53-13:09.

Operational issues / causes observed. No source of odour found.

Actions Taken. Blank

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Wednesday 29th April 2020

DAY SHIFT

Temp. Warm.

Weather. Rain with sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 peaked to 0.055ppm at 10:00, spiking from 08:30-10:10.

Operational issues / causes observed. Blank.

Action Taken. Area around skips washed down, Borger sump needs cleaning.

NIGHT SHIFT

Temp. Blank.

Weather. Rain with sunny spells.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM2 peaked 0.048ppm at 21:06-21:23.

OM2 peaked at 0.034ppm at 22:15-22:54.

Operational issues / causes observed. No source of odour found.

Actions Taken. Blank.

Sludge Dip Records

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m ³					
OMP limit	500					
27/04/2020	0	581	534	1115	3900 7800*	5015 8915*
29/04/2020	205	412	1223	1840	5770	7610

* incorrect totals entered on Thames Water paperwork.

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 has been an average of 12 imports of sludge daily over the last week.

No.5 Pumping Station

The doors and windows of No.5 pumping station were closed at the time of the inspection but no odour was present.

Raw Sludge Screening House

The large roller shutter door of the Raw Sludge Screening building was closed at the time of the inspection.

As LBH note, this has not been required in the last week.

Digesters

Digesters 1-4 Out of use (permanent).

Thames advised of a long term project currently initiated to bring these units back into service that will require significant investment.

Digester 5 was in use and had a good dry seal.

Digester 6 was in use but had a wet sloppy seal that was bubbling off gas.

Digester 7 was out of service.

Digesters 8, 9, 10, 11, 12 and 13 were all in use but had wet sloppy seals that were all bubbling off gas.

Digesters 14 and 15 were both out of service.

Digesters 16 and 17 were both in use but had wet sloppy seals that were bubbling off gas.

Digester 18 was out of service.

Digesters 19 & 20 were both in use but had wet sloppy seals that were bubbling off.

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.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

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.

Skips

On the East side there was one 20yds open bulk carrier that contained general inert rubbish.

On the service road next to the raw sludge screening building was a 10yds open skip that was approx 30% full, which contained rag and general rubbish. The skip was uncovered and its tarpauling was on the floor next to it.

On the West side there was one 20yds open bulk carrier that was full of grit. The carrier was very odourous and uncovered, a tarpaulin was on the floor next to it.

East Side Screen House

The doors to the screen house building were all closed at the time of the inspection. TW advised all screens were in operation.

Return Activated Sludge Channel

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was free flowing and clear.

The far side channel was partially clogged along approx 30% of its length and visibly crusty in areas.

West side primary settlement tanks (PST)

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

Circular PST 10 was out of service. PST's 9, 11 and 12 were all in use and had relatively fat free surfaces but with some floating debris.

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 10 streams are currently operational.

Section 106 agreement

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

West Side Aeration Lanes (New)

All lanes were in a very poor condition and very thick scum has developed across all of the aeration lane surfaces that was thick enough to obscure nearly all of the internal dividing walls.

Nearly all of the sprinklers appeared to be out of operation and floating debris was clogging these areas of the lanes.

The mixed liquor feed channel serving aeration lanes 25 and part of 24 of E-Battery was clogged with thick scum and floating debris. Unusually odour was very noticeable in this area of the works.

TW were advised that they should consider using a tanker crew to undertake a clearance of all clogged areas.

New Inlet Works (West Side)

No issues appeared evident at the new inlet works.

Odour Control Unit (OCU) performance monitoring: 28/04/2020

Plant	Reading (ppm)	Action Level (ppm)	Compliant
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Main pumping station inlet	Blank	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	0.00 0.00 0.00	Unknown	Unknown
Sludge reception outlet	0.00 0.00 0.00	0.8	Yes
Thickening plant inlet	Blank	O/S	O/S
Thickening plant outlet	0.00 0.00 0.00	O/S	O/S
Transfer PS inlet	Blank	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
Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	Yes



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Wednesday 11 th March 2020 (12:00pm)	
Attendees: Mr I Inman (London Borough of Hounslow) and Ms C Page (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Weather</u></p> <p>Dry and bright with broken cloud cover.</p> <p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A was >75% full. Amajets 1, 2 & 3 were in operation.</p> <p>Tank 1B was >75% full. Amajets 1, 2 & 3 were in operation.</p> <p>Tank 2A was >75% full. Amajets 1, 2 & 3 were in operation.</p> <p>Tank 2B was >75% full. Amajets 1 & 2 were in operation.</p> <p>Tank 3A was >75% full. Amajets 1, 2 & 3 were in operation.</p>	<div style="border: 1px solid black; padding: 10px;"><p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p></div>

Tank 3B was >75% full.
Amajets 1, 2 & 3 were in operation.

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 >75% full.
Amajets 1, 2 & 3 were in operation.

Tank 6B was >75% full.
Amajets 1, 2 & 3 were in operation.

Tank 7A was >75% full.
Amajets 1, 2 & 3 were in operation.

Tank 7B was >75% full.
Only Amajet 1 was in operation.

Tank 8A was 50% full and filling.
Amajets 1, 2 & 3 were in operation.

Tank 8B was 50% full and filling.
Amajets 1, 2 & 3 were in operation.

Storm Feed Channel - The channel was 80% full.

Thames advised of planned works to replace all of the hopper valves to prevent back flow of effluent.

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

Complaints

The Council has received 1 complaint by email in the preceding week.

On 6th March at 20:04pm a complaint was received from a non-Hounslow resident (South Western Road, ref: 994734).

The historic monitoring trends showed no excessive readings at the time the complaint was received.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at time of inspection: Wednesday 11th March 2020 at 11:19.

Monitor 1	0.010	ppm	11:19
Monitor 2	0.009	ppm	11:19
Monitor 3	0.000	ppm	11:19
Monitor 4	0.005	ppm	11:19
Monitor 5	0.006	ppm	11:19
Monitor 6	0.007	ppm	11:19
Monitor 7	0.006	ppm	11:19
Monitor 8	0.005	ppm	11:19
Monitor 9	0.006	ppm	11:19
Monitor 10	0.006	ppm	11:19
Monitor 11	0.009	ppm	11:19
Monitor 12	0.008	ppm	11:19
Monitor 13	0.006	ppm	11:19
Wind Speed	7.959	mph	11:19
Wind Direction	235.872	°	11:19

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

Thursday 5th March 2020

DAY SHIFT

Temp. Cool.

Weather. Rain w / sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues

Operational issues / causes observed. Blank

Actions Taken. Blank.

NIGHT SHIFT

Temp. Blank.

Weather. Blank.

Odour Readings. All OMU's in operation.

Time: Blank.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Friday 6th March 2020

DAY SHIFT

Temp. Cold.

Weather. Cloudy w / sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour spikes.

Odour complaint from resident.

Operational issues / causes observed. Site walk around undertaken north through south, no odour identified. Storm tanks going to river which may be a cause of odour, odour suppressant being used on southern edge of storm tanks as part of our routine practise when we storm to river.

Actions Taken. Site odour walk around undertaken. Odour suppressant is being applied as part of routine practise when the storm tanks are going to river.

NIGHT SHIFT

Temp. Cool.

Weather. Rain w / sunny spells.

Odour Readings. All OMU's in use.

Time: 05:30.

Observations / Customer Complaint. OM9 0.04ppm 21:02-22:07.

OM10 0.017ppm 22:59-23:58.

OM1 23:52-00:21.

Operational issues / causes observed. No odour identified after site walk around. Storm tanks still going to river. Digester area no spills and bell height low.

Actions Taken. Blank.

Saturday 7th March 2020

DAY SHIFT

Temp. Cool.

Weather. Sunny w / patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 0.028 spike 05:36-05:46.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM3 0.02ppm 22:41-22:56;
0.027ppm 23:11-23:26.

Operational issues / causes observed. No odour identified.

Actions taken. Blank.

Sunday 8th March 2020

DAY SHIFT

Temp. Cool.

Weather. Rain w / sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour spikes.

Operational issues / causes observed. Storm tanks filling.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM10 0.01ppm 22:04-23:08.

Operational issues / causes observed. Storm tanks discharging to river.

Actions Taken. Confirmed east OCU is running correctly.

Monday 9th March 2020

DAY SHIFT

Temp. Cool.

Weather. Rain w / sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

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

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank

Actions Taken. Blank.

Tuesday 10th March 2020

DAY SHIFT

Temp. Cool.

Weather. Rain w / sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM6 0.019ppm 23:54-00:10.

Operational issues / causes observed. No odour source found.

Actions Taken. Blank.

Wednesday 11th March 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy w / sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM13 spiked at 07:30-08:30, max 0.016ppm.

OM1 spiked at 13:00-13:28, max 0.021ppm.

Operational issues / causes observed. Storm tanks almost full.

Action Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM10 0.0196ppm 20:52-20:54.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Sludge Dip Records

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m ³					
OMP limit	500					
06/03/2020	0	806	389	1195	3226	4421
11/03/2020	0	516	1223	1739	1592	3331

* incorrect totals entered on TW paperwork.

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 has been approximately 77 imports of sludge in the preceding week (approx 11 per day).

No.5 Pumping Station

The doors of No.5 pumping station were open at the time of the inspection due to ongoing maintenance within the building but no odour was noticeable.

Raw Sludge Screening House

The large roller shutter door of the Raw Sludge Screening building was open at the time of the inspection for no apparent reason and one 40yds bulk container was inside.

As LBH note, this has not been required in the last week.

Digesters

Digesters 1-4 Out of use (permanent). Thames advised of a long term project currently initiated to bring these units back into service that will require significant investment.

Digesters 5 & 6: Both were in service and had wet sloppy seals that was bubbling off small amounts of gas.

Digester 7: Out of service.

Digesters 8, 9, 10 & 11: All were in service and had wet sloppy seals that were bubbling off small amounts of gas.

Digester 12: In service and had a fluffy seal. There was evidence of a recent spill that required cleaning up.

Digester 13: In service and had wet sloppy seals that were bubbling off small amounts of gas.

Digesters 14 & 15: Both were out of service.

Digester 16: In service and was bubbling and spitting. It was also noted that the digester bell was very high and gas needed to be drawn off.

Digester 17: In service and had wet sloppy seals that were bubbling off small amounts of gas.

Digester 18: Out of service.

Digesters 19 & 20: Both were in service and had wet sloppy seals that were bubbling off gas.

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 appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use

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 and no issues were evident.

Skips

On the East side there was one 20yds open bulk carrier that was approx 70% full of general non-inert rubbish.

On the service road next to raw sludge screening building was an 8yds open skip that was less than 15% full and contained rag, the tarpaulin had been removed to fill the skip.

On the West side there was one 20yds open bulk carrier that was virtually empty and one 40yds closed bulk container that was also 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 and free flowing following repair of the main air-line.

West Side Aeration Lanes (Old)

No issues.

Skips containing rag and grit are routinely covered.
General waste and empty skips which are not odorous may be uncovered.

West side primary settlement tanks (PST)

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

Circular PST's 9, 11 & 12 were all in service and had relatively fat free surfaces.

Although PST 10 is currently out of service the tank was full due to flow issues between the PST's.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 9 streams are currently in service (1, 5 & 12 are out of service).

Section 106 agreement

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

West Side Aeration Lanes (New)

A very thick scum has again developed across all of the aeration lane surfaces that was thick enough to obscure some of the internal dividing walls.

Although nearly all of the sprinklers appeared to be in operation floating debris was clogging these areas of the lanes.

The mixed liquor feed channel serving aeration lanes 25 and part of 24 of E-Battery was clogged with thick scum and floating debris. However, no odour was noticeable.

New Inlet Works (West Side)

Unit 13 is currently out of service due to ongoing maintenance.

Odour Control Unit (OCU) performance monitoring: 10/03/2020

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	Not in use	Unknown	Unknown
Main pumping station outlet	Not in use	0.2	Yes
East OCU	0.01 0.01 0.01	0.05	No
West inlet OCU	0.00 0.00 0.00	0.05	Yes
Sludge reception inlet	Blank	Unknown	Unknown
Sludge reception outlet	Blank	0.8	Yes
Thickening plant inlet	Blank	0.5	Yes
Thickening plant outlet	Blank	0.6	Yes
Transfer PS inlet	Blank	Unknown	Unknown
Transfer PS outlet	0.01 0.01 0.01	0.6	Yes
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	Yes
Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	Yes



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Monday 2nd March 2020 (12:00pm)

Attendees: Mr I Inman (London Borough of Hounslow) and Mr L Channon (Thames Water)

LB Hounslow Observation

Thames Water Action / Response

Weather

Dry and bright with broken cloud cover.

Storm Water Storage Tanks (SWST)

Tank 1A was completely full.
No Amajets in operation.

Tank 1B was completely full.
No Amajets in operation.

Tank 2A was completely full.
No Amajets in operation.

Tank 2B was completely full.
No Amajets in operation.

Tank 3A was completely full.
All amajets were in operation.

As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.

Tank 3B was completely full.
All amajets were in operation.

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 completely full.
No Amajets in operation.

Tank 6B was completely full.
No Amajets in operation.

Tank 7A was completely full.
No Amajets in operation.

Tank 7B was completely full.
No Amajets in operation.

Tank 8A was completely full.
No Amajets in operation.

Tank 8B was completely full.
No Amajets in operation.

Storm Feed Channel - The channel was 80% full.

Thames advised of planned works to replace all of the hopper valves to prevent back flow of effluent.

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

Complaints

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

On 28th February at 9:42am a complaint was received via the Council's

call centre from a resident of Hall Road, Isleworth (ref: 994384).
 The historic monitoring trends showed all monitors were below 0.009ppm around the time of the complaint (09:00-11:00am), except for OM2.
 OM2 peaked from 0.010ppm to 0.040ppm at 07:35am before dropping off to 0.010ppm again at 07:40am; it then spike to 0.012ppm at 09:38am and again spiked to 0.014ppm at 10:22am before dropping back to 0.010ppm.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at time of inspection: Monday 2nd March 2020 at 12:12.

Monitor 1	0.009	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	0.006	ppm	12:12
Monitor 6	0.006	ppm	12:12
Monitor 7	0.006	ppm	12:12
Monitor 8	0.005	ppm	12:12
Monitor 9	0.008	ppm	12:12
Monitor 10	0.008	ppm	12:12
Monitor 11	0.007	ppm	12:12
Monitor 12	0.007	ppm	12:12
Monitor 13	0.006	ppm	12:12
Wind Speed	5.727	mph	12:12
Wind Direction	261.381	°	12:12

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

Thursday 20th February 2020
DAY SHIFT

Temp. Cold.

Weather. Rain w / sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues

Operational issues / causes observed. Blank

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues found or reported.

Actions Taken. Blank.

Friday 21st February 2020

DAY SHIFT

Temp. Cold.

Weather. Cloudy w / sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cold.

Weather. Clear night.

Odour Readings. All OMU's in use.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Saturday 22nd February 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Storm tanks returning.

Actions taken. Blank.

Sunday 23rd February 2020**DAY SHIFT**

Temp. Cool.

Weather. Rain w / sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM1 0.024ppm 12:30-13:00.

Operational issues / causes observed. Storm tanks returning, 3B flushed and returning.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. Blank

Operational issues / causes observed. No odour issues found or reported.

Actions Taken. Blank.

Monday 24th February 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM5 spiked at 04:38-04:54
max 0.020ppm.

Operational issues / causes observed. Area checked found 'PAS'
odour in air.

Actions Taken. PAS water traps checked / topped up.

Tuesday 25th February 2020

DAY SHIFT

Temp. Cool.

Weather. Rain w / sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 0.015ppm at 07:22-08:06,
max 0.071ppm.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cold.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Wednesday 26th February 2020

DAY SHIFT

Temp. Cold.

Weather. Sunny w / patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 spiked at 10:07-10:35 max 0.101ppm.

OM8 spiked at 16:50-17:04 max 0.018ppm.

Operational issues / causes observed. No odour source found.

Action Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM2 spiked to max 0.049ppm between 01:21-

Operational issues / causes observed. Area checked no obvious odours detected.

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					
21/02/2020	39	516	412	967	2224	3191
24/02/2020	205	516	412	1133	2376 *2224	3509 *3357
26/02/2020	833	722	661	2216	3032	5248

*** incorrect totals entered on TW paperwork.**

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 has been approximately 49 imports of sludge in the preceding week (approx 7 per day).

No.5 Pumping Station

The doors of No.5 pumping station were open at the time of the inspection due to ongoing maintenance within the building. Strong odour was clearly noticeable outside the building on the wind.

Raw Sludge Screening House

The large roller shutter door of the Raw Sludge Screening building was open at the time of the inspection and one 40yds bulk container was

inside.

A pile of debris that had previously formed at the end of the conveyor belt has now been cleared.

Digesters

Digesters 1-4 Out of use (permanent). Thames advised of a long term project currently initiated to bring these units back into service that will require significant investment.

Digester 5: In service and had a wet sloppy seal that was bubbling off small amounts of gas

Digester 6: In service and had a wet sloppy seal that was bubbling off small amounts of gas. There had also been a recent spill over the top of the coping stone.

Digester 7: Out of service.

Digesters 8, 9, 10 & 11: All were in service and had wet sloppy seals that were bubbling off small amounts of gas.

Digesters 12 & 13: Both were in service and had wet sloppy seals that were bubbling off small amounts of gas. There was also evidence of recent spills of both digesters which had gone over the top of the coping stones.

Digesters 14 & 15: Both were out of service.

Digesters 16 & 17: Both were in service and had wet sloppy seals that were bubbling off small amounts of gas.

Digester 18: Out of service.

Digesters 19 & 20: Both were in service and had wet sloppy seals that were bubbling off gas.

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 appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use

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 and no issues were evident.

Skips

On the East side there was one closed 14yds skip that was empty and one 20yds open bulk carrier that was approx 70% full of general non-inert rubbish.

On the service road next to raw sludge screening building was an 8yds open skip that was less than 15% full and contained rag, the tarpaulin had been removed to fill the skip.

On the West side there was one 20yds open bulk carrier that was empty and one 40yds closed bulk container that was also 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 and free flowing following repair of the main air-line.

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

West Side Aeration Lanes (Old)

No issues.

West side primary settlement tanks (PST)

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

Circular PST's 9, 11 & 12 were all in service and had relatively fat free surfaces.

Although PST 10 is currently out of service the tank was full due to flow issues between the PST's.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 9 streams are currently in service (1, 5 & 12 are out of service).

Section 106 agreement

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

West Side Aeration Lanes (New)

A very thick scum has again developed across all of the aeration lane surfaces that was thick enough to obscure some of the internal dividing walls.

Although nearly all of the sprinklers appeared to be in operation floating debris was clogging these areas of the lanes.

The mixed liquor feed channel serving aeration lanes 25 and part of 24 of E-Battery was clogged with thick scum and floating debris. However, no odour was noticeable.

New Inlet Works (West Side)

No issues.

Odour Control Unit (OCU) performance monitoring: 24/02/2020

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.04 0.04 0.04	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	0.04 0.03 0.03	0.05	Yes
Sludge reception inlet	Blank	Unknown	Unknown
Sludge reception outlet	Blank	0.8	Yes
Thickening plant inlet	Blank	0.5	Yes
Thickening plant outlet	Blank	0.6	Yes
Transfer PS inlet	Blank	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
Pasteurisation (OCU 12)	0.01 0.01 0.01	0.5	Yes



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Thursday 20th February 2020 (12:00pm)

Attendees: Mr I Inman (London Borough of Hounslow) and Mr D Chowings (Thames Water)

LB Hounslow Observation

Thames Water Action / Response

Weather

Light rain and full cloud cover at start, very heavy rain by the end of inspection.

Storm Water Storage Tanks (SWST)

Tank 1A was completely full.
All amajets were in operation.

Tank 1B was completely full.
All amajets were in operation.

Tank 2A was completely full.
All amajets were in operation.

Tank 2B was completely full.
Amajets 1 & 2 were in operation.

Tank 3A was completely full.
All amajets were in operation.

As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.

Tank 3B was completely full.
All amajets were in operation.

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 completely full.
All amajets were in operation.

Tank 6B was completely full.
All amajets were in operation.

Tank 7A was completely full.
All amajets were in operation.

Tank 7B was completely full.
Only amajet 1 was in operation.

Tank 8A was completely full.
All amajets were in operation.

Tank 8B was completely full.
Amajets 1 & 2 were in operation.

Storm Feed Channel - The channel was 60% full.

Thames advised of planned works to replace all of the hopper valves to prevent back flow of effluent.

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

Complaints

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

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at time of inspection: Thursday 20th February 2020 at 12:20.

Monitor 1	0.009	ppm	12:20
Monitor 2	0.010	ppm	12:20
Monitor 3	0.000	ppm	12:20
Monitor 4	0.003	ppm	12:20
Monitor 5	0.007	ppm	12:20
Monitor 6	0.008	ppm	12:20
Monitor 7	0.006	ppm	12:20
Monitor 8	0.000	ppm	12:20
Monitor 9	0.009	ppm	12:20
Monitor 10	0.009	ppm	12:20
Monitor 11	0.007	ppm	12:20
Monitor 12	0.007	ppm	12:20
Monitor 13	0.008	ppm	12:20
Wind Speed	13.214	mph	12:20
Wind Direction	194.582	°	12:20

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

Thursday 13th February 2020

DAY SHIFT

Temp. Cold.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 00:00.

Observations / Customer Complaint. OM1 spiked at 12:35-13:08 max 0.021ppm.

OM2 spiked at 16:39-17:01 max 0.029ppm.

OM8 spiked at 13:44-14:00 max 0.016 but <15 min duration.

Operational issues / causes observed. Storm tanks full and storming to river.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM2 0.020ppm 23:27-00:10.

Operational issues / causes observed. No odour discovered when checking east inlet area.

Actions Taken. Blank.

Friday 14th February 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy w/sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 spiked at 07:20-07:50 max 0.104ppm.

Operational issues / causes observed. East side rag skip hosed down.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cold.

Weather. Overcast night.

Odour Readings. All OMU's in use.

Time: 05:25.

Observations / Customer Complaint. OM2 0.046 spike 03:16-04:02.

OM9 0.020ppm 23:04-00:04.

Operational issues / causes observed. No odour discovered when checking area.

Actions Taken. Blank.

Saturday 15th February 2020

DAY SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 spiked at 10:20-10:35 max 0.043ppm but <15 min duration.

Operational issues / causes observed. Emptying storm tanks AM.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Storm tanks.

Actions taken. Blank.

Sunday 16th February 2020

DAY SHIFT

Temp. Cool.

Weather. Storms.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 spiked at 12:30-13:30 max 0.105ppm.

Operational issues / causes observed. Very high flows being treated, storm tanks full and storming to river.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM5 0.017ppm 17:37-18:37.

OM1 0.017ppm 20:17-20:35.

Operational issues / causes observed. Storm tanks full, wearing to river.

Actions Taken. Blank.

Monday 17th February 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy w / sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 0.030ppm 10:24-10:46.

Operational issues / causes observed. Area checked no source found.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues found or reported.

Actions Taken. Blank.

Tuesday 18th February 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy w / sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM3 0.068ppm 11:08-11:24.

OM1 0.020ppm 11:14-11:56; 0.016ppm 10:05-10:09.

OM5 0.017ppm 08:38-08:53.

Operational issues / causes observed. Area checked, no source found. Storm tanks filling.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM1 spiked at 18:58-19:36, max 0.022ppm; 23:20-23:30 max 0.020ppm; 23:33-23:40 max 0.016ppm.

OM8 spiked at 03:30-03:44 max 0.018ppm.

Operational issues / causes observed. Storm tanks full and storming to river.

Actions Taken. Blank.

Wednesday 19th February 2020

DAY SHIFT

Temp. Cool.

Weather. Rain w / sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM1 0.019ppm 08:36-08:49.

OM2 0.016ppm 09:35-09:48.

Operational issues / causes observed. Blank.

Action Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. Blank.

Operational issues / causes observed. No odour issues found or reported.

Actions Taken. Blank.

Sludge Dip Records

Date	West PSTs	West PSTs	West PSTs	West Total	East PSTs	Grand Total
	1	2	3			
	All units in m ³					
OMP limit	500					
14/02/2020	0	267	473	740	2089	2829
17/02/2020	0	516	206	722	1896	2618
19/02/2020	0	661	61	722	1568	2290

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

Not confirmed on weekly paperwork.

No.5 Pumping Station

The doors of No.5 pumping station was open at the time of the inspection although no odour was evident.

Raw Sludge Screening House

The large roller shutter door of the Raw Sludge Screening building was open at the time of the inspection and one 40yds bulk container was inside.

A pile of debris had formed at the end of the conveyor belt and was in the process of being cleared.

As LBH note, this has not been required in the last week.

Digesters

Digesters 1-4 Out of use (permanent). Thames advised of a long term project currently initiated to bring these units back into service that will require significant investment.

Digester 5: In service and had a wet sloppy seal that was bubbling off small amounts of gas

Digester 6: In service and had a wet sloppy seal that was bubbling off small amounts of gas. There had also been a recent spill over the top of the coping stone.

Digester 7: Out of service.

Digesters 8 & 9: Both were in service and had wet sloppy seals that were bubbling off small amounts of gas.

Digester 10: In service and had a wet sloppy seal that was bubbling off small amounts of gas. It was noted that the sludge level was high at nearly at the top on the coping stone.

Digesters 11 & 12: Both were in service and had wet sloppy seals that were bubbling off small amounts of gas.

Digester 13: In service and had a wet sloppy seal that was bubbling off small amounts of gas.

There had also been a significant spill covering a large area around the tank. Due to the weather (heavy rain) it was difficult to tell whether this had been partly cleared up or was being washed away by the rain fall?

Digesters 14 & 15: Both were out of service.

Digesters 16 & 17: Both were in service and had wet sloppy seals that were bubbling off small amounts of gas.

Digester 18: Out of service.

Digesters 19 & 20: Both were in service and had wet sloppy seals that were bubbling off gas.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

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.

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 and no issues were evident.

Skips

On the East side there were two 8yds open skips, both of which were full and contained general non-inert rubbish.

Also present was one closed 14yds skip that was empty and one 20yds open bulk carrier that was approx 35% full of general non-inert rubbish.

In the area next to STW 1A there was an open 14yds skip that was full and contained scrap metal.

On the service road next to raw sludge screening building was an 8yds open skip that was full and contained rag and other waste, this was part covered with a tarpaulin.

On the West side there was one 20yds open bulk carrier that contained a very small amount of rag (>5%) and rain water.

East Side Screen House

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

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

Return Activated Sludge Channel

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was clear and free flowing following repair to the main air line.

West Side Aeration Lanes (Old)

No issues.

West side primary settlement tanks (PST)

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

Circular PST's 9, 11 & 12 were all in service and had fat free surfaces.

PST 10 was out of service and the outer overflow channel was being over pumped at the time of the inspection.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 9 streams are currently in service (1, 5 & 12 are out of service).

Section 106 agreement

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

West Side Aeration Lanes (New)

A very thick scum has again developed across all of the aeration lane surfaces that was thick enough to obscure most of the internal dividing walls.

Although nearly all of the sprinklers appeared to be in operation

floating debris was clogging these areas of the lanes.

The mixed liquor feed channel serving aeration lanes 25 & part of 24 of E-Battery was clogged with thick scum and floating debris. However, no odour was noticeable.

New Inlet Works (West Side)

No issues.

Odour Control Unit (OCU) performance monitoring: 18/02/2020

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.03 0.02 0.03	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	Blank	Unknown	Unknown
Sludge reception outlet	Blank	0.8	Yes
Thickening plant inlet	Blank	0.5	Yes
Thickening plant outlet	0.04 0.04 0.02	0.6	Yes
Transfer PS inlet	Blank	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	
Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	Yes	



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 13 th February 2020	
Attendees: Mr Phillips and Miss Charlotte Page (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A – Was in use completely full. All amajets were in operation.</p> <p>Tank 1B – Was in use completely full. All amajets were in operation.</p> <p>Tank 2A – Was in use completely full. All amajets were in operation.</p> <p>Tank 2B – Was in use completely full. All amajets were in operation.</p> <p>Tank 3A – Was in use completely full. All amajets were in operation.</p> <p>Tank 3B – Was in use completely full. All amajets were in operation.</p> <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.</p> <p>Tank 6A – Was in use completely full. All amajets were in operation.</p> <p>Tank 6B – Was in use completely full. All amajets were in operation.</p>	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: auto;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

Tank 7A – Was in use completely full. All amajets were in operation.

Tank 7B – Was in use completely full. All amajets were in operation.

Tank 8A – Was in use completely full. All amajets were in operation.

Tank 8B – Was in use completely full. All amajets were in operation.

Feed Channel - The level of effluent in both feed channels was approximately 50% - no local odours.

Complaints

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

The Council directly 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	0.010	ppm	12:32
Monitor 2	0.008	ppm	12:32
Monitor 3	0.000	ppm	12:32
Monitor 4	0.004	ppm	12:32
Monitor 5	0.007	ppm	12:32
Monitor 6	0.006	ppm	12:32

Monitor 7	0.006	ppm	12:32
Monitor 8	0.007	ppm	12:32
Monitor 9	0.009	ppm	12:32
Monitor 10	0.009	ppm	12:33
Monitor 11	0.005	ppm	12:33
Monitor 12	0.007	ppm	12:33
Monitor 13	0.006	ppm	12:33
Wind Speed	0.325	mph	1
Wind Direction	233	deg	14:05

Odour Log (Thames):

Thursday 6th February 2020:

AM

Temp: Cool.

Weather: Cloudy W/ Sunny spells.

All OMU's in use.

Time: 17:30.

Observations/Complaints: OM2 0.105ppm 11:07 11:34; OM10 0.018ppm 12:39 – 12:54.

Operational Issues/Causes: Area checked no odour detected. Confirmed doors/ hatches are closed in screen house.

Actions: None noted.

PM

Temp: Freezing.

Weather: Clear night.

All OMU's in use.

Time: 05:30.

Observations/Complaints: OM9 0.02 at 22:36 23:35.

Operational Issues/Causes: Area checked no source discovered.

Actions: None noted.

Friday 7th January 2020:

AM

Temp: Cold.

Weather: Cloudy W/ Sunny spells.

All OMU's in use.

Time: 17:30.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

PM

Temp: Cool.

Weather: Overcast Night.

All OMU's in use.

Time: 05:30.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

Saturday 8th February 2020:

AM

Temp: Cool.

Weather: Sunny W/ patch clouds.

All OMU's in use.

Time: 17:30.

Observations/Complaints: "OM5 0.019PPM 07:52 – 08:07; OM2 0.039PPM 10:38 – 11:01.

Operational Issues/Causes: Area checked no odour detected.

Actions: None noted.

PM

Temp: Cool.

Weather: Cloudy.

All OMU's in use.

Time: 05:30.

Observations/Complaints: No odour issues.

Operational Issues/Causes: "No odour identified.

Actions: None noted.

Sunday 9th February 2020:

AM

Temp: Cool.

Weather: Storms.

All OMU's in use.

Time: 17:30.

Observations/Complaints: "OM2 0.026ppm 08:54 – 09:14.

Operational Issues/Causes: No odour identified.

Actions: None noted.

PM

Temp: Cool.

Weather: Storms.

All OMU's in use.

Time: 05:30.

Observations/Complaints: No odour issues.

Operational Issues/Causes: None noted.

Actions: None noted.

Monday 10th February 2020:

AM

Temp: Cold.

Weather: Sunny W/ patch Clouds.

All OMU's in use.

Time: 17:30.

Observations/Complaints: No odour issues.

Operational Issues/Causes: None noted.

Actions: None noted.

PM

Temp: Cool.

Weather: Overcast Night.

All OMU's in use.

Time: 05:20.

Observations/Complaints: No odour issues.

Operational Issues/Causes: None Noted.

Actions: None noted.

Tuesday 11th February 2020:

AM

Temp: Cold.

Weather: Sunny W/ Patch Clouds.

All OMU's in use.

Time: 17:30.

Observations/Complaints: OM2 0.013 at 16:42 – 17:16.
Operational Issues/Causes: No odour identified.
Actions: None noted.
PM
Temp: Cold.
Weather: Clear Night.
All OMU's in use.
Time: 05:30.
Observations/Complaints: OM6 0.018ppm 22:37 – 23:37.
Operational Issues/Causes: Occasional odour detected from PAS area no spills identified and no streams venting from.
Actions: None noted.

Wednesday 12th February 2020:

AM
Temp: Cold
Weather – Sunny.
All OMU's in use.
Time: 17:20.
Observations/Complaints: No odour issues
Operational Issues/Causes: None noted.
Actions: None noted.
PM
Temp: Cool.
Weather: Rain.
All OMU's in use.
Time: 05:30
Observations/Complaints: OM2 0.104ppm 19:28- 20:04.
Operational Issues/Causes: No odour identified.
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					
07/02/2020	20	473	534	1027	3041	4068
10/02/2020	20	267	412	699	4562	5261
12/02/2020	0	516	661	1177	3054	4231

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 - weak seal no evidence of spill.

Digester 6 - In use - weak seal no evidence of spill.

Digester 7 - Out of use - empty and clean - contractor on site undertaking maintenance

Digester 8 - In use - weak seal no evidence of spill.

As LBH note, this has not been required in the last week.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.
The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digester 9 - In use - weak seal no evidence of spill.

Digester 10 - In use - weak seal no evidence of spill.

Digester 11 - In use - weak seal no evidence of spill.

Digester 12 - In use - weak seal no evidence of spill.

Digester 13 - In use - weak seal no evidence of spill.

Digester 14 - Out of use - empty and clean - contractor on site undertaking maintenance.

Digester 15 - Out of use - empty and clean - contractor on site undertaking maintenance.

Digester 16 - In use - weak seal no evidence of spill. Gassing slightly.

Digester 17 - In use - weak seal no evidence of spill.

Digester 18 - Out of use - empty and clean - contractor on site undertaking maintenance

Digester 19 - In use - weak seal no evidence of spill.

Digester 20 - In use - weak seal no evidence of spill.

GENERAL

Sludge Screening House

All doors closed at time of inspection.

Imported Sludge

Approx. 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).

Skips

1x 16 yard partially filled small grit skips by Sludge Screening House.

1x enclosed container skips containing rag awaiting collection by West Side PST's.

Pasteurisation Plant

Pasteurisation plant 9 streams running.

East Side Raw Sludge Screen House

Doors closed at time of inspection.

West Side Aeration Lanes (Old)

Clear no issues to report.

West side primary settlement tanks (PST)

Rectangular PSTs – no issues

Circular PST's 10, 11 & 12 in use. Tank 9 currently being brought back into service.

New Works (West Side)

Feed Channel for Aeration Lanes 21-24 approximately clear throughout.

“Fluffy” coverage across surface has again begun to build up, also significant quantity of material bypassing screener.

Odour Control Unit (OCU) performance monitoring – (13/02/20)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.00 0.00 0.00	Unknown	Unknown
Main pumping station outlet	0.000 0.000 0.000 (converted from ppb figures provided)	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	0.00 0.00 0.00	Unknown	Unknown
Sludge reception outlet	0.00 0.00 0.00	0.8	Yes
Thickening plant inlet	No data	Unknown	Unknown

Thickening plant outlet	0.212 0.269 0.257 0.246 (converted from ppb figures provided)	0.6	Yes	
Transfer PS inlet	0.00 0.00 0.00	Unknown	Unknown	
Transfer PS outlet	0.00 0.00 0.00	0.5	Yes	
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	Yes	
Pasteurisation Plant (OCU 12)	0.00 0.00 0.00	0.5	Yes	



Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 6 th February 2020	
Attendees: Mr Steven Maunders and Miss Charlotte Page (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A – Tank empty and flushed clean – Hoppers 1 approx. 40% full – requires draining/over-pumping, Hoppers 2 & 3 empty.</p> <p>Tank 1B – Tank empty - approximately 15% of tank covered by grit/sludge – requires further flushing – Hoppers 1 & 3 empty, Hopper 2 approx. 50% full – requires draining/over-pumping.</p> <p>Tank 2A – Tank empty - approximately 25% of tank covered by grit/sludge – requires further flushing – Hoppers 1 & 2 empty, Hopper 3 full – requires draining/over-pumping.</p> <p>Tank 2B – Tank empty – recently returned 100% of tank covered by grit/sludge – requires further flushing – Hopper 1 approx. 50% full, Hoppers 2 & 3 approx. 20% full – requires draining/over-pumping.</p> <p>Tank 3A – Tank empty and flushed clean – Hoppers 1, 2 & 3 approx. 10% full – requires draining/over-pumping.</p> <p>Tank 3B – Tank empty – recently returned 100% of tank covered by</p>	<div style="border: 1px solid black; padding: 10px;"><p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p></div>

grit/sludge – requires further flushing – Hoppers 1 & 3 approx. 40% full, Hopper 2 approx. 60% full – requires draining/over-pumping.

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 – Tank empty - approximately 30% of tank covered by grit/sludge – requires further flushing – Hoppers 1 & 3 approx. 95% full, Hopper 2 approx. 40% full – requires draining/over-pumping

Tank 6B – Tank empty – recently returned 100% of tank covered by grit/sludge – requires further flushing - Hoppers 1, 2 & 3 approximately 60% full - requires draining/over-pumping.

Tank 7A – Tank empty – recently returned – approximately 25% of tank covered by grit/sludge – requires further flushing. Hoppers 1, 2 & 3 full – requires draining/over-pumping.

Tank 7B – Tank empty – recently returned 100% of tank covered by grit/sludge – requires further flushing - Hoppers 1, 2 & 3 full - requires draining/over-pumping.

Tank 8A – Tank empty - approximately 50% of tank covered by grit/sludge – requires further flushing – Hoppers 1 & 3 full, Hopper 2 approx. 90% full – requires draining/over-pumping.

Tank 8B – Tank recently returned 80% of tank still covered with grit/sludge – requires further flushing. Hoppers 1 & 2 full, Hopper 3 approx. 80% full – requires draining/over-pumping.

Feed Channel - The level of effluent in both feed channels was approximately 50% - no local odours.

Complaints

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

The Council directly 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	009	ppm	14:05
Monitor 2	011	ppm	14:05
Monitor 3	005	ppm	14:05
Monitor 4	005	ppm	14:05
Monitor 5	016	ppm	14:05
Monitor 6	015	ppm	14:05
Monitor 7	006	ppm	14:05
Monitor 8	006	ppm	14:05
Monitor 9	008	ppm	14:05
Monitor 10	009	ppm	14:05
Monitor 11	006	ppm	14:05
Monitor 12	006	ppm	14:05
Monitor 13	004	ppm	14:05
Wind Speed	0.204	mph	14:05
Wind Direction	270		14:05

Odour Log (Thames):

Thursday 30th January 2020:

AM – Cool – Rain with Sunny Spells.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Cool – Clear Night.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

Friday 31st January 2020:

AM – Cool – Cloudy.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Cool – Rain.

All OMU's in use.

Observations/Complaints: "No odour issues found or reported."

Operational Issues/Causes: None noted.

Actions: None noted.

Saturday 1st February 2020:

AM – Cool – Cloudy.

All OMU's in use.

Observations/Complaints: "OM5 0.020 07:06-07:21."

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Cool – Rain.

All OMU's in use.

Observations/Complaints: "OM5 spiked at 23:52-00:07 max 0.024ppm. OM2 spiked at 04:17-04:33 max 0.035ppm."

Operational Issues/Causes: "Area checked no sources of odour detected."

Actions: None noted.

Sunday 2nd February 2020:

AM – Cool – Cloudy with Sunny spells.

All OMU's in use.

Observations/Complaints: "OM1 0.019 15:30-15:55. OM5 0.017 17:36 - ongoing."

Operational Issues/Causes: "Area checked no source discovered."

Actions: None noted.

PM – Cool – Overcast Night.

All OMU's in use.

Observations/Complaints: "OM5 spiked at 18:07-18:21 but <15 mins duration - max 0.018ppm."

Operational Issues/Causes: None noted.

Actions: None noted.

Monday 3rd February 2020:

AM – Cool – Cloudy.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Cold – Clear Night.

All OMU's in use.

Observations/Complaints: "OM2 spiked at 22:20-13:35 max 0.065ppm and OM8 spiked at 18:13-18:30 max 0.021ppm."

Operational Issues/Causes: "Areas checked, no obvious cause of odour."

Actions: None noted.

Tuesday 4th February 2020:

AM – Cold – Cloudy with Sunny spells.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Cool – Clear Night.

All OMU's in use.

Observations/Complaints: "OM1 spiked to 0.021 for less than 15 min."

Operational Issues/Causes: "Area checked no source discovered."

Actions: None noted.

Wednesday 5th February 2020:

AM – Cool – Sunny with Patch Clouds.

All OMU's in use.

Observations/Complaints: "No odour issues.

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Freezing – Clear Night.

All OMU's in use.

Observations/Complaints: "OM2 0.015 @ 19:50-20:19."

Operational Issues/Causes: "Area checked no source discovered."

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					
31/01/20	0	267	618	885	3235	4120
03/02/20	0	516	661	1177	2528	3705
05/02/20	0	661	534	1195	3706	4901

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. 6” below coping stones – seal weak and bubbling.

Digester 6 - In use – seal level approx. 3ft below coping stones – seal weak and bubbling – ongoing spill requiring anti-foam and clean-up.

Digester 7 – Out of use – empty and clean – contractor on site undertaking maintenance

As LBH note, this has not been required in the last week.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digester 8 - In use – seal level approx. 18” below coping stones - seal weak and bubbling. Bell height high requiring draw down of Biogas.

Digester 9 - In use – seal level approx. 1ft below coping stones - seal weak and bubbling.

Digester 10 - In use – seal level approx. 1ft below coping stones - seal weak and bubbling – ongoing spill requiring anti-foam and clean-up. Bell height high requiring draw down of Biogas.

Digester 11 - In use – seal level approx. 2ft below surface of coping stones – seal weak and bubbling.

Digester 12 - In use – seal blown at surface and ongoing spill requiring anti-foam and clean-up. Bell height high requiring draw down of Biogas.

Digester 13 - In use – seal level approx. 1ft below coping stones – seal weak and bubbling.

Digester 14. – Out of use – empty and clean – contractor on site undertaking maintenance.

Digester 15 - Out of use – empty and clean – contractor on site undertaking maintenance.

Digester 16 - In use – seal level approx. 1ft below coping stones – seal weak and bubbling – Bell height high requiring draw down of Biogas

Digester 17 - In use – seal level approx. 2ft below coping stones - seal weak and bubbling.

Digester 18 - Out of use – empty and clean – contractor on site undertaking maintenance

Digester 19 - In use – seal blown at surface and ongoing spill requiring anti-foam and clean-up. Bell height high requiring draw down of Biogas.

Digester 20 - In use – seal level approx. 3ft below coping stones – seal weak and bubbling. Bell height high requiring draw down of Biogas

GENERAL

Sludge Screening House

Roller shutter door approx. 1ft open - All other doors closed at time of inspection.

Imported Sludge

Approx. 8 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).

Skips

1x partially filled small grit skips by Sludge Screening House.

2x enclosed container skips containing rag awaiting collection by West Side PST's.

Pasteurisation Plant

Pasteurisation plant 9 streams running.

East Side Raw Sludge Screen House

Doors open at time of inspection – works ongoing to clear spillage within screening house.

West Side Aeration Lanes (Old)

Battery C aeration feed channel 100% obstructed in one channel (left)
– requires jetting.

West side primary settlement tanks (PST)

Rectangular PSTs – no issues

Circular PST's 10, 11 & 12 in use. Tank 9 currently being brought back into service.

New Works (West Side)

Feed Channel for Aeration Lanes 21-24 approximately 50% blocked – required jetting.

“Fluffy” coverage across surface has again begun to build up, also significant quantity of material bypassing screener.

Tanker cleans out the channel on a weekly basis

Odour Control Unit (OCU) performance monitoring – (05/02/20)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.00 0.00 0.00	Unknown	Unknown
Main pumping station outlet	0.007 0.006 0.005 (converted from ppb figures provided)	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	0.00 0.00 0.00	Unknown	Unknown	
Sludge reception outlet	0.00 0.00 0.00	0.8	Yes	
Thickening plant inlet	No data	Unknown	Unknown	
Thickening plant outlet	0.003 0.003 0.003 (converted from ppb figures provided)	0.6	Yes	
Transfer PS inlet	0.010 0.009 0.008	Unknown	Unknown	
Transfer PS outlet	0.000 0.000 0.000	0.5	Yes	
New West inlet (OCU 11)	0.003 0.003 0.003	0.5	Yes	
Pasteurisation Plant (OCU 12)	0.00 0.00 0.00	0.5	Yes	

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Thursday 23 rd January 2020 (12:00pm)	
Attendees: Mr Z Kadri (London Borough of Hounslow) and Ms C Page (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Weather</u></p> <p>Mild with slight cloud at the time of the inspection.</p> <p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A was empty however had just been returned hence there was some sludge deposits on the surface of the tank. There were no reported issues with the Amajets 1, 2 & 3.</p> <p>Tank 1B was empty however had just been returned hence there was some sludge deposits on the surface of the tank. There were no reported issues with the Amajets 1, 2 & 3.</p> <p>Tank 2A was empty however had just been returned hence there was some sludge deposits on the surface of the tank. There were no reported issues with the Amajets 1, 2 & 3, all were in operation.</p>	<div style="border: 1px solid black; padding: 5px;"><p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or</p></div>

Tank 2B was empty however had just been returned hence there was some sludge deposits on the surface of the tank. There were no reported issues with the Amajets 1, 2 & 3.

Tank 3A was empty however had just been returned hence there was some sludge deposits on the surface of the tank. There were no reported issues with the Amajets 1, 2 & 3.

Tank 3B was empty however had just been returned hence there was some sludge deposits on the surface of the tank. There were no reported issues with the Amajets 1, 2 & 3.

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 however had just been returned hence there was some sludge deposits on the surface of the tank. There were no reported issues with the Amajets 1, 2 & 3.

Tank 6B was empty however had just been returned hence there was some sludge deposits on the surface of the tank. There were no reported issues with the Amajets 1, 2 & 3.

Tank 7A was empty however had just been returned hence there was some sludge deposits on the surface of the tank. There were no reported issues with the Amajets 1, 2 & 3.

Tank 7B was empty however had just been returned hence there was some sludge deposits on the surface of the tank. There were No reported issues with the Amajets 1, 2 & 3.

Tank 8A was empty however had just been returned hence there was some sludge deposits on the surface of the tank. There were No reported issues with the Amajets 1, 2 & 3.

Tank 8B was empty however had just been returned hence there was some sludge deposits on the surface of the tank. There were no reported issues with the Amajets 1, 2 & 3.

Storm Feed Channel - The channel was 20% full - murky and dark effluent.

Thames advised of planned works to replace all of the hopper valves to prevent back flow of effluent.

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

Complaints

The Council has received 0 complaints by email or telephone in the preceding week.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at time of inspection: Thursday 23rd January 2020 at 12:38.

Monitor 1	0.006	ppm	12:38
Monitor 2	0.008	ppm	12:38
Monitor 3	0.005	ppm	12:38
Monitor 4	0.004	ppm	12:38
Monitor 5	0.004	ppm	12:38
Monitor 6	0.006	ppm	12:38
Monitor 7	0.005	ppm	12:38
Monitor 8	0.005	ppm	12:38

Monitor 9	0.007	ppm	12:38
Monitor 10	0.007	ppm	12:38
Monitor 11	0.006	ppm	12:38
Monitor 12	0.006	ppm	12:38
Monitor 13	0.005	ppm	12:38
Wind Speed	0.204	mph	12:38
Wind Direction	53.315	°	12:38

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

Thursday 16th January 2020

DAY SHIFT

Temp. Cool.

Weather. Rain

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM11 spiked at 01:44 - 02:43, max 0.016ppm.

Operational issues / causes observed. Area around digesters checked - no unusual smells or digesters gassing

Actions Taken. Blank

Friday 17th January 2020

DAY SHIFT

Temp. Cool.

Weather. Rain w/sunny spells

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. Operational issues / causes observed. No odours detected.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Freezing.

Weather. Clear night.

Odour Readings. All OMU's in use.

Time: 05:30.

Observations / Customer Complaint. No odour issues

Operational issues / causes observed. Actions Taken. Blank.

Saturday 18th January 2020**DAY SHIFT**

Temp. Cold

Weather. Sunny w/patchy clouds

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 & OM5 one spike each both less than 15 minutes long.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Freezing.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM1 spiked to 0.015ppm at 18:28 - 19:20.

Operational issues / causes observed. Blank.

Actions taken. Blank.

Sunday 19th January 2020

DAY SHIFT

Temp. Cold.

Weather. sunny w/patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 spiked to 0.033ppm at 13:19 - 14:20.

Operational issues / causes observed. Area checked for odours. East Inlet skip area washed down.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Freezing.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM2 max spike 0.019ppm at 00:44 - 01:10.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Monday 20th January 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy w/sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 0.060ppm at 10:16 - 11:35

Operational issues / causes observed. No odours detected.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Freezing.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM2 0.015ppm 23:06 - 23:50
peak of 0.073ppm.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Tuesday 21st January 2020

DAY SHIFT

Temp. Sunny.

Weather. Sunny w/patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 0.050ppm 09:10 - 10:03
And OM1 0.018 14:45 - 15:48.

Operational issues / causes observed. Area checked storm tanks
returning.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cold .

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

Wednesday 22nd January 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy w/sunny spells.

<p>Odour Readings. All OMU's in operation. Time: 17:30. Observations / Customer Complaint. No odour issues. Operational issues / causes observed. Blank. Action Taken. Blank.</p> <p>NIGHT SHIFT</p> <p>Temp. Cool. Weather. overcast night. Odour Readings. All OMU's in operation. Time: 05:30. Observations / Customer Complaint. No odour issues. Operational issues / causes observed. Blank. Actions Taken. Blank.</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					
17/01/2020	0	122	595	717	912	1629
20/01/2020	435	412	610	1457	2233	3690
22/01/2020	0	993	455	1448	6055	7503

***Incorrect total entered on Thames Water paperwork.**

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 63 imports of sludge over the last week (9 per day).

No.5 Pumping Station

The doors of No.5 pumping station was closed at the time of the inspection - no odour was evident.

Raw Sludge Screening House

As LBH note, this has not been required in the last week.

The large roller shutter door of the Raw Sludge Screening building was closed at the time of the inspection and there were NO skips in the vicinity .

Digesters

Digesters 1-4 Out of use (permanent). Thames advised of a long term project currently initiated to bring these units back into service that will require significant investment.

Digesters 5 & 6: Both were in service and had totally wet seals . There was traces of spillages on the coping stones.

Digester 7: Out of service.

Digester 8-12: All were in service and had totally wet seals that were bubbling off small amounts of gas. There was traces of previous spillages on the coping stones.

Digester 13: In service and had a very high wet seal level (just below the retaining coping stones) and was bubbling off gas.

Digesters 14 & 15: Both were out of service.

Digesters 16 & 17: Both were in service and had wet seals that were bubbling off small amounts of gas.

Digester 18: Out of service.

Digesters 19 & 20: Both were in service and had totally wet seals that were bubbling off some gas. There was traces of previous spillages on the coping stones.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

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.

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 and no issues were evident.

Skips

On the East side there were two 8yds open skips, both of which contained general inert material/rubbish. Both were full to the top and uncovered.

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

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 clogged along 60% of the near-side channel.

Tanker cleans out the channel on a weekly basis

West Side Aeration Lanes (Old)

No issues.

West side primary settlement tanks (PST)

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

Circular PST 9 was out of service at the time of the inspection.

Circular PST's 10, 11 & 12 had clean fat free surfaces.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 10 streams are currently in service.

Section 106 agreement

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

West Side Aeration Lanes (New)

A thick fluffy scum has again developed across all of the aeration lane surfaces that was thick enough to almost obscure all of the internal dividing walls. Nearly all of the sprinklers appeared to be in operation.

The mixed liquor feed channel serving aeration lanes 25 & 24 of E-Battery was again clogged with thick scum and surface debris. However, no odour was noticeable.

New Inlet Works (West Side)

Tanker cleans out the channel on a weekly basis

No issues.

Odour Control Unit (OCU) performance monitoring: 21/01/2020

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.01 0.01 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	No
West inlet OCU	0.00 0.00 0.00	0.05	Yes
Sludge reception inlet	Blank	Unknown	Unknown
Sludge reception outlet	Blank	0.8	Yes
Thickening plant inlet	Blank	0.5	Yes
Thickening plant outlet	0.01 0.02 0.01	0.6	Yes
Transfer PS inlet	Blank	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
Pasteurisation (OCU 12)	0.00	0.5	Yes

	0.00			
	0.00			



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Monday 20 th January 2020 (12:00pm)	
Attendees: Mr I Inman (London Borough of Hounslow) and Mr C Rumsey (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Weather</u></p> <p>Dry with clear blue sky at the time of the inspection.</p> <p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A was approx 50% full and returning. Amajets 1, 2 & 3 were in operation.</p> <p>Tank 1B was approx 50% full and returning. Amajets 1, 2 & 3 were in operation.</p> <p>Tank 2A was approx 50% full and returning. Amajets 1, 2 & 3 were in operation.</p> <p>Tank 2B was approx 50% full and returning. Amajets 1 & 2 were in operation.</p> <p>Tank 3A was approx 50% full and returning. Amajets 1, 2 & 3 were in operation.</p>	<div style="border: 1px solid black; padding: 10px;"><p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p></div>

Tank 3B was approx 50% full and returning.
Amajets 1, 2 & 3 were in operation.

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 approx 50% full and returning.
Amajets 1, 2 & 3 were in operation.

Tank 6B was approx 50% full and returning.
Amajets 1, 2 & 3 were in operation.

Tank 7A was approx 50% full and returning.
Amajets 1, 2 & 3 were in operation.

Tank 7B was approx 50% full and returning.
Amajets 1 & 2 were in operation.

Tank 8A was approx 50% full and returning.
Amajets 1, 2 & 3 were in operation.

Tank 8B was approx 50% full and returning.
Amajets 1, 2 & 3 were in operation.

Storm Feed Channel - The channel was 40% full.

Thames advised of planned works to replace all of the hopper valves to prevent back flow of effluent.

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

Complaints

The Council has received 2 complaints by email in the preceding week.

On 10th January an email complaints was received at 16:08pm from a

resident of Percy Road, Isleworth (ref: 992574).
 At 17:53pm a further email complaint was received from a resident of Church Road, Isleworth (ref: 992680).
 The historic odour monitor trends showed no excessive odour readings at the time of the complaint's. All readings were below 0.010ppm except for OM7 which peaked at approx 17:10-17:40, max 0.013ppm.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at time of inspection: Monday 20th January 2020 at 12:17.

Monitor 1	0.007	ppm	12:17
Monitor 2	0.007	ppm	12:17
Monitor 3	0.006	ppm	12:17
Monitor 4	0.005	ppm	12:17
Monitor 5	0.003	ppm	12:17
Monitor 6	0.006	ppm	12:17
Monitor 7	0.006	ppm	12:17
Monitor 8	0.008	ppm	12:17
Monitor 9	0.010	ppm	12:17
Monitor 10	0.008	ppm	12:17
Monitor 11	0.007	ppm	12:17
Monitor 12	0.006	ppm	12:17
Monitor 13	0.006	ppm	12:17
Wind Speed	0.202	mph	12:17
Wind Direction	249.615	°	12:17

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

Thursday 9th January 2020

DAY SHIFT

Temp. Cold.

Weather. Rain w/sunny spells.

Odour Readings. All OMU's in operation.

Time: Blank.

Observations / Customer Complaint. OM13 spiked to 0.016ppm
09:00-10:00.

Operational issues / causes observed. Checked area around E batt
FST's no obvious odours, FST 83 being drained.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM2 spiked at 20:27-21:26,
max 0.016ppm.

Operational issues / causes observed. Blank.

Actions Taken. East inlet checked and hosed down for good measure.

Friday 10th January 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy w/sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM8 spiked to max 0.02ppm
10:12-10:44.

Operational issues / causes observed. No odours detected.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cold.

Weather. Clear night.

Odour Readings. All OMU's in use.

Time: 05:30.

Observations / Customer Complaint. OM5 0.017ppm 19:35-20:35.

Operational issues / causes observed. Area checked no source
found.

Actions Taken. Blank.

Saturday 11th January 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy w/sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cold.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM2 0.019ppm 22:01-22:09
<15 mins.

OM8 0.016ppm 20:58-21:40?

Operational issues / causes observed. Part of trend missing, no source found.

Actions taken. Blank.

Sunday 12th January 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy w/patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:23.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:20.

Observations / Customer Complaint. OM2 0.022ppm 23:31-23:48.

OM7 0.017ppm 3:18-4:18.

Operational issues / causes observed. Area checked no source found.

Actions Taken. Blank.

Monday 13th January 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 0.016ppm @ 07:49-08:31, peak at 0.0104.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM8 0.017ppm 21:29-22:27.

Operational issues / causes observed. Area checked no source found.

Actions Taken. Blank.

Tuesday 14th January 2020

DAY SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 0.104 @ 13:34-14:47.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.
Time: 05:30.
Observations / Customer Complaint. OM7 0.016ppm 18:41-19:41.
Operational issues / causes observed. Nothing of note found, storm tanks filling.
Actions Taken. Blank.

Wednesday 15th January 2020

DAY SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM1 0.015ppm 06:12-07:15.

OM6 0.02 08:14-08:28.

Operational issues / causes observed. Blank.

Action Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

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					
13/01/2020	39	993	581	1613	5061	6674
15/01/2020	0	412	322 328*	734	608 604*	1342 1344*

***Incorrect total entered on Thames Water paperwork.**

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 63 imports of sludge over the last week (9 per day).

No.5 Pumping Station

The doors of No.5 pumping station was open at the time of the inspection although no odour was evident.

Raw Sludge Screening House

The large roller shutter door of the Raw Sludge Screening building was open at the time of the inspection and two 40yds bulk containers were inside. However, a large pile of debris had formed at the end of the conveyor belt (in excess of 2 metres high) due to the bulk carried not being aligned.

As LBH note, this has not been required in the last week.

Digesters

Digesters 1-4 Out of use (permanent). Thames advised of a long term project currently initiated to bring these units back into service that will require significant investment.

Digesters 5 & 6: Both were in service and had totally wet seals that were bubbling off small amounts of gas.

Digester 7: Out of service.

Digester 8-12: All were in service and had totally wet seals that were bubbling off small amounts of gas.

Digester 13: In service and had a very high wet seal level (just below the retaining coping stones) and was bubbling off gas. There was also evidence of a small spill that required cleaning up.

Digesters 14 & 15: Both were out of service.

Digesters 16 & 17: Both were in service and had wet seals that were bubbling off small amounts of gas. The bell height of digester-16 was noted to be very high and digester-17 had evidence of a small spill that required cleaning up.

Digester 18: Out of service.

Digesters 19 & 20: Both were in service and had totally wet seals that were bubbling off gas.

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 appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

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 and no issues were evident.

Skips

On the East side there were two 8yds open skips, one of which contained general non-inert rubbish and one was approx 30% full of rag, which was only part covered with a tarpaulin and had weeds growing out of it.

Also present was one closed 14yds skip that was empty.

In the area next to STW 1A there was an open 14yds skip that contained scrap metal pumps.

On the service road next to raw sludge screening building was an 8yds open skip that contained rag and other waste, which was part covered with a tarpaulin.

On the West side there was one 40yds closed bulk carrier that was empty.

East Side Screen House

The doors to the screen house building were closed at the time of the inspection. However, TW were unable to confirm how many or which screens were in operation?

Return Activated Sludge Channel

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was clogged along 60% of the near-side channel.

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

West Side Aeration Lanes (Old)

No issues.

West side primary settlement tanks (PST)

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

Circular PST 9 was in service and had fat across 30% of the surface in front of the sweep arm.

Circular PST 10 was out of service and outer overflow channel was being over pumped at the time of the inspection.

Circular PST's 11 & 12 had clean fat free surfaces.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 9 streams are currently in service.

Section 106 agreement

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

West Side Aeration Lanes (New)

A thick fluffy scum has again developed across all of the aeration lane surfaces that was thick enough to almost obscure all of the internal dividing walls.

Nearly all of the sprinklers appeared to be in operation.

The mixed liquor feed channel serving aeration lanes 25 & 24 of E-

Battery was again clogged with thick scum and surface debris. However, no odour was noticeable.

New Inlet Works (West Side)

No issues.

Odour Control Unit (OCU) performance monitoring: 14/01/2020

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.01 0.02 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	No
West inlet OCU	0.00 0.00 0.00	0.05	Yes
Sludge reception inlet	Blank	Unknown	Unknown
Sludge reception outlet	Blank	0.8	Yes
Thickening plant inlet	Blank	0.5	Yes
Thickening plant outlet	0.01 0.01 0.01	0.6	Yes
Transfer PS inlet	Blank	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

Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	Yes	
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Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: 9 th January 2020	
Attendees: Mr Steven Maunders and Miss Charlotte Page (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A – Tank empty - approximately 50% of tank covered by grit/sludge – requires further flushing – Hoppers 1 & 2 approx. 20% full, Hopper 3 full – requires draining/over-pumping.</p> <p>Tank 1B – Tank empty - approximately 50% of tank covered by grit/sludge – requires further flushing – Hoppers 1, 2 & 3 full – requires draining/over-pumping.</p> <p>Tank 2A – Tank empty - approximately 10% of tank covered by grit/sludge – requires further flushing – Hoppers 1 & 2 approx. 15% full, Hopper 3 full – requires draining/over-pumping.</p> <p>Tank 2B – Tank empty – recently returned 100% of tank covered by grit/sludge – requires further flushing – Hopper 1 approx. 75% full, Hoppers 2 & 3 approx. 40% full – requires draining/over-pumping.</p> <p>Tank 3A – Tank empty and flushed clean – Hoppers 1, 2 & 3 approx. 25% full – requires draining/over-pumping.</p> <p>Tank 3B – Tank empty – recently returned 100% of tank covered by</p>	<div style="border: 1px solid black; padding: 10px;"> <p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p> </div>

grit/sludge – requires further flushing – Hoppers 1, 2 & 3 approx. 80% full – requires draining/over-pumping.

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 – Tank empty - approximately 20% of tank covered by grit/sludge – requires further flushing – Hoppers 1, & 3 approx. 60% full, Hopper 2 approx. 40% full – requires draining/over-pumping.

Tank 6B – Tank empty – recently returned 100% of tank covered by grit/sludge – requires further flushing - Hoppers 1, 2 & 3 approximately 40% full - requires draining/over-pumping.

Tank 7A – Tank empty – recently returned – approximately 30% of tank covered by grit/sludge – requires further flushing. Hoppers 1, 2 & 3 full – requires draining/over-pumping.

Tank 7B – Tank empty – recently returned 100% of tank covered by grit/sludge – requires further flushing - Hoppers 1, 2 & 3 full - requires draining/over-pumping.

Tank 8A – Tank empty - approximately 50% of tank covered by grit/sludge – requires further flushing – Hoppers 1 & 3 full, Hopper 2 approx. 90% full – requires draining/over-pumping.

Tank 8B – Tank recently returned 100% of tank still covered with grit/sludge – requires further flushing. Hoppers 1 & 2 full, Hopper 3 approx. 40% full – requires draining/over-pumping.

Feed Channel - The level of effluent in both feed channels was approximately 50% - no local odours.

Complaints

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

Tanker cleans out the channel on a weekly basis

The Council directly 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) were unavailable for all of the monitors due to a failure of the Computer Server at the time of the inspection:

Monitor 1	007	ppm	13:05
Monitor 2	007	ppm	13:05
Monitor 3	000	ppm	13:05
Monitor 4	006	ppm	13:05
Monitor 5	010	ppm	13:05
Monitor 6	010	ppm	13:05
Monitor 7	007	ppm	13:05
Monitor 8	007	ppm	13:05
Monitor 9	006	ppm	13:05
Monitor 10	008	ppm	13:05
Monitor 11	007	ppm	13:05
Monitor 12	009	ppm	13:05
Monitor 13	007	ppm	13:05
Wind Speed	3.1	mph	13:05
Wind Direction	234		13:05

Odour Log (Thames):

Thursday 2nd January 2020:

AM – Cool – Cloudy.

All OMU's in use.

Observations/Complaints: "OM2 spiked at 06:25-06:41 max 0.024ppm."

Operational Issues/Causes: "Rag skip change area hosed down on completion."

Actions: None noted.

PM – Cool – Clear Night.

All OMU's in use.

Observations/Complaints: "OM5 0.023ppm 18:35 – 19:35."

Operational Issues/Causes: "Area checked. Odour detected occasionally from PAS area. Nothing out of the ordinary. No sludge spills or vessels venting odour."

Actions: None noted.

Friday 3rd January 2020:

AM – Cool – Cloudy with Sunny Spells.

All OMU's in use.

Observations/Complaints: "OM4 spiked at 16:08 – 16:33 max 0.013ppm. OM8 spiked at 16:25 – 16:46, 16:56 – 17:15 & 17:40 – 17:55 max 0.031ppm."

Operational Issues/Causes: "PAS area to be checked as there is a PAS type odour in the wind blowing across site towards OM4 and OM8."

Actions: None noted.

PM – Cool – Clear Night.

All OMU's in use.

Observations/Complaints: "OM4 0.021 22:17–22:31, 0.020 22:47-23:01, 0.019 23:16-23:32, OM8 0.024 19:53-20:12, 0.020 20:54-21:10, 0.021 22:42-23:12."

Operational Issues/Causes: "Areas checked but no source found. PAS shift asked to check area."

Actions: None noted.

Saturday 4th January 2020:

AM – Cool – Cloudy with Sunny spells.

All OMU's in use.

Observations/Complaints: "OM2 spiked at 10:20-10:47 max 0.086ppm. OM5 spiked at 06:20-06:35, 06:50-07:04 and 07:20-07:37 max 0.022ppm. OM8 spiked at 13:28-13:41 max 0.016ppm."

Operational Issues/Causes: "East inlet skip odorous. Pasteurised sludge odour in the air."

Actions: "Area hosed down. PAS Tech checking around water seals on PAS stream vents and topped up one found to be low."

PM – Cool – Clear Night.

All OMU's in use.

Observations/Complaints: "OM5 0.017 13:20-13:35, 0.027 21:04-21:20 & 0.018 02:50-03:05. OM12 0.017 02:43-03:43. OM10 0.016 21:38-21:52."

Operational Issues/Causes: "Pasteurised sludge odour in the air. Areas checked no source found."

Actions: "PAS Tech checked area."

Sunday 5th January 2020:

AM – Cool – Cloudy with Sunny spells.

All OMU's in use.

Observations/Complaints: "OM5 spiked twice to max 0.021 but less than 15 mins @ 07:00."

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Cold – Overcast Night.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

Monday 6th January 2020:

AM – Cool – Cloudy with Sunny spells.

All OMU's in use.

Observations/Complaints: "OM5 0.017 12:50 – 13:04. OM6 0.017 15:43-16:43."

Operational Issues/Causes: "Area checked – no source found."

Actions: None noted.

PM – Cool – Overcast Night.

All OMU's in use.

Observations/Complaints: "OM2 spiked at 02:00-02:14 max 0.017ppm and at 04:18-04:57 max 0.021ppm. OM5 spiked at 13:34-13:43, 23:05-23:13, 23:34-23:42 & 01:50-02:05 max 0.028ppm."

Operational Issues/Causes: "Areas in vicinity of monitors checked but no obvious odour sources discovered."

Actions: "Logged."

Tuesday 7th January 2020:

AM – Cool – Cloudy with Sunny spells.

All OMU's in use.

Observations/Complaints: "OM5 0.020 07:34–07:50, 0.023 16:34-16:50."

Operational Issues/Causes: "Area checked no source found."

Actions: None noted.

PM – Cool – Overcast Night.

All OMU's in use.

Observations/Complaints: "OM5 0.013 02:35-02:50."

Operational Issues/Causes: None noted.

Actions: None noted.

Wednesday 8th January 2020:

AM – Cool – Cloudy with Sunny spells.

All OMU's in use.

Observations/Complaints: "No odour issues."

Operational Issues/Causes: None noted.

Actions: None noted.

PM – Cool – Overcast Night.

All OMU's in use.

Observations/Complaints: "OM2 spiked at 17:55-18:08 but <15 mins duration max 0.019ppm."

Operational Issues/Causes: None noted.

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					
03/01/2020	0	1012	206	1218	4563	5781
06/01/2020	0	61	513	574	5201 (TW figure 4901)	5775 (TW figure 5539)
08/01/2020	0	1199	267	1466	5719	7185

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. 3ft below coping stones – seal weak and bubbling.

Digester 6 - In use – seal level approx. 3ft below coping stones – seal weak and bubbling – evidence of recent dry spill requiring clean-up.

As LBH note, this has not been required in the last week.

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester. The area around the digesters is constantly monitored, washed down routinely. Anti-foaming system is in use.

Digester 7 – Out of use – empty and clean – contractor on site undertaking maintenance

Digester 8. - In use – seal level approx. 5ft below coping stones - seal weak and bubbling.

Digester 9 - In use – seal level approx. 3ft below coping stones - seal weak and bubbling.

Digester 10 - In use – seal level approx. 2ft below coping stones - seal weak and bubbling.

Digester 11 - In use – seal level approx. 2ft below surface of coping stones – evidence of recent dry spill requiring clean-up.

Digester 12 - In use – seal level approx. 4ft below coping stones - seal weak and bubbling.

Digester 13 - In use – seal level approx. 1ft below coping stones – seal weak and bubbling.

Digester 14. – Out of use – empty and clean – contractor on site undertaking maintenance.

Digester 15 - Out of use – empty and clean – contractor on site undertaking maintenance.

Digester 16. - In use – seal level approx. 18” below coping stones – seal weak and bubbling – Bell height high requiring draw down of Biogas

Digester 17 - In use – seal level approx. 2ft below coping stones - seal weak and bubbling, spitting vigorously– ongoing spill requiring anti-foam and clean-up. Bell height high requiring draw down of Biogas

Digester 18 - Out of use – empty and clean – contractor on site undertaking maintenance

Digester 19 - In use – seal level approx. 2ft below coping stones - seal

weak and bubbling, spitting vigorously– ongoing spill requiring anti-foam and clean-up. Bell height high requiring draw down of Biogas

Digester 20 - In use – seal level approx. 3ft below coping stones – seal weak and bubbling. Bell height high requiring draw down of Biogas

GENERAL

Sludge Screening House

Access door open at time of inspection – closed by CP - All other doors closed at time of inspection.

Imported Sludge

Approx. 9 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).

Skips

1x large open container skip (empty), 2x (8 yard) general waste skip & 1x enclosed skip (8 yard) located in Service Road by Storm Water Tanks.

1x partially filled small grit skips by Sludge Screening House.

Pasteurisation Plant

Pasteurisation plant 9 streams running.

East Side Raw Sludge Screen House

Doors closed at time of inspection.

West Side Aeration Lanes (Old)

Battery C aeration feed channel 100% obstructed in one channel – requires jetting.

Tanker cleans out the channel on a weekly basis

West side primary settlement tanks (PST)

Rectangular PSTs – no issues
Circular PST's 10, 11 & 12 in use. Tank 9 drained and out of use.

New Works (West Side)

Feed Channel for Aeration Lanes 21-24 approximately 50% blocked – required jetting.

“Fluffy” coverage across surface has again begun to build up, also significant quantity of material bypassing screener.

Odour Control Unit (OCU) performance monitoring – (07/01/20)

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.06 0.05 0.06	Unknown	Unknown
Main pumping station outlet	0.01 0.01 0.01	0.2	Yes
East OCU	0.00 0.00	0.05	Yes

	0.00			
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	0.01 0.01 0.01	0.6	Yes	
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	Yes	
Pasteurisation Plant (OCU 12)	0.00 0.00 0.00	0.5	Yes	

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Thursday 2 nd January 2020 (12:30)	
Attendees: Mr L Phillips (LBH) and Ms Charlotte Page (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 and all hoppers had been drained down to lowest point.</p> <p>Tank 1B Was empty and clean, slight grit build up at the end of the tank nearest to the hoppers. All hoppers full and required draining.</p> <p>Tank 2A Was empty and clean, all hoppers full and require draining. Slight grit build up at the end of the tank nearest the hoppers.</p> <p>Tank 2B Was empty and clean. All hoppers full and required draining down.</p> <p>Tank 3A Was empty and clean and all hoppers had been drained down to lowest point.</p> <p>Tank 3B Was empty and clean. All hoppers full and require draining.</p>	<div style="border: 1px solid black; padding: 10px;"><p>As per section 3.2 of the odour management plan and the East Side Storm Water Tanks and Hoppers Management Plan; every effort is made to ensure the storm tanks and hoppers are cleaned as soon as possible after use. To this end, the storm tanks are inspected at least twice a day and the condition of the hoppers / tanks is noted and prioritised for draining and/or cleaning.</p></div>

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, slight grit build up at the rear of the tank hoppers end. All hoppers full and require draining down.

Tank 6B Was empty and clean, slight grit build up at the rear of the tank hoppers end. All hoppers full and require draining.

Tank 7A Was empty and clean all hoppers full and require draining (Shallow hoppers).

Tank 7B was empty but sludge covered 80% of tank. All hoppers full tank requires flushing no odour detected.

Tank 8A Empty and clean all hoppers full and require draining down, no odour detected.

Tank 8B Empty and clean all hoppers full and require draining down, no odour detected.

Feed Channel - The level of effluent in both feed channels was at 20% high - in places it was murky with fatty deposits visible. Most of the channel was free flowing and odourless. 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	12:31
Monitor 2	0.005	ppm	12:31
Monitor 3	0.000	ppm	12:32
Monitor 4	0.003	ppm	12:31
Monitor 5	0.013	ppm	12:31
Monitor 6	0.008	ppm	12:31
Monitor 7	0.007	ppm	12:32
Monitor 8	0.006	ppm	12:32
Monitor 9	0.004	ppm	12:33
Monitor 10	0.005	ppm	12:33
Monitor 11	0.005	ppm	12:33
Monitor 12	0.007	ppm	12:33
Monitor 13	0.006	ppm	12:33
Wind Speed	8.338	mph	12:33
Wind Direction	202.553	Deg	12:33

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

Thursday 26th December 2019

AM

Temp: Cool.

Weather: Rain.

All OMU's in use.

Time: 17:30.

Observations/Complaints: No odour issues.

Operational Issues/Causes: None noted.

Actions: None noted.

PM

Temp: Cool

Weather: Overcast.

All OMU's in use.

Time: 05:30.

Observations/Complaints: OM5 – 0.016 from 18:05 – 18:34 OM8 – 0.015 from 22:27 – 23:26

Operational Issues/Causes: None noted.

Actions: None noted.

Friday 27th December 2019

AM

Temp: Cool

Weather: Sunny W / Patchy Clouds.

All OMU's in use.

Time: 17:30

Observations/Complaints: OM2 0.021ppm and OM 5 0.016ppm both spikes less than 15 minutes.

Operational Issues/Causes: None noted.

Actions: None noted.

PM

Temp: Cool

Weather: Cloudy.

All OMU's in use.

Time: 04:43.

Observations/Complaints: OM2 MAX 0.022ppm 04:43 to 05:02.

Operational Issues/Causes: Inlet area checked no obvious odours detected skip area washed down.

Actions: None noted.

Saturday 28st December 2019

AM

Temp: Cool.

Weather: Cloudy.

All OMU's in use.

Time: 17:30.

Observations/Complaints. No odour issues.

Operational Issues/Causes: None noted.

Actions: None noted.

PM

Temp: Cool.

Weather: Overcast night.

All OMU's in use.

Time: 05:30.

Observations/Complaints. No odour issues.

Operational Issues/Causes: None noted.

Actions: None Noted.

Sunday 29th December 2019

AM

Temp: Cool.

Weather: Sunny W / Patchy Clouds.

All OMU's in use.

Time: 17:30.

Observations/Complaints: OM2 0.017ppm 09:36- 09:54

Operational Issues/Causes: Area checked no odour detected.

Actions: None Noted.

PM

Temp: Cool.

Weather: Overcast night.

All OMU's in use.

Time: 05:30.

Observations/Complaints: No odour issues.

Operational Issues/Causes: None noted.

Actions: None noted.

Monday 30th December 2019

AM

Temp: Cold.

Weather: Sunny.

All OMU's in use.

Time: 17:30.

Observations/Complaints: OM5 0.015 AT 15:35 – 15:48.

Operational Issues/Causes: Area checked no odours detected.

Actions: None noted.

PM

Temp: Cold.

Weather: Clear night.

All OMU's in use.

Time: 05:30

Observations/Complaints: OM5 max 0.023ppm 18:30 – 19:00.

Operational Issues/Causes: Area around west of Powerhouse checked nothing of any note found.

Actions: None noted.

Tuesday 31st December 2019

AM

Temp: Cool.

Weather: Sunny W / Patchy Clouds.

All OMU's in use.

Time: 17:30.

Observations/Complaints: No odour issues.

Operational Issues/Causes: None noted.

Actions: none noted.

PM

Temp: Cold.

Weather: Clear night.

All OMU's in use.

Time: 05:30.

Observations/Complaints: No odour issues.

Operational Issues/Causes: None noted.

Actions: None noted.

Wednesday 01st December 2019

AM

Temp: Cool.

Weather: Cloudy.

All OMU's in use.

Time: 17:30.

Observations/Complaints: No odour issues.

Operational Issues/Causes: None noted.

Actions: None noted.

PM

Temp: Cool.

Weather: Clear night.

All OMU's in use.

Time: 05:30.

Observations/Complaints: No odour issues.

Operational Issues/Causes: None noted.

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					
27/12/2019	0	1012	450	1462	4860	6322
31/12/2019	0	1199	412	1611	4380	5991

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 - weak seal no evidence of spill.

Digester 6 - In use - weak seal no evidence of spill.

Digester 7 - Out of service.

As LBH note, this has not been required in the last week.

Digester 8 - In use - weak seal no evidence of spill.
Digester 9 - In use - weak seal no evidence of spill.
Digester 10 - In use - weak seal no evidence of spill.
Digester 11 - In use - weak seal no evidence of spill.
Digester 12 - in use - seal level approx. 1ft below coping stones - good seal.
Digester 13 - In use - good thick seal no evidence of spill.
Digester 14 - out of use.
Digester 15 - out of use.
Digester 16 - In use - weak seal no evidence of spill.
Digester 17 - In use - weak seal no evidence of spill.
Digester 18 - In use - weak seal no evidence of spill.
Digester 19 - In use - weak seal no evidence of spill.
Digester 20 - In use - weak seal no evidence of spill.
No odour in the area observed at times of inspection

The appearance of the seals can vary from tank to tank but has no bearing on their ability to contain the biogas within the digester.

GENERAL
Sludge Screening House

All doors closed at time of inspection no odours observed.

Imported Sludge

Imports were closed – No deliveries made.

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 on the East side screening House.
Eastside Grit House- 2 x 12 yard skips full with general waste / NO covers
No Skips on the West Side gritting house.
No odour detected at both locations.

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

Skips containing rag and grit are routinely covered. General waste and empty skips which are not odorous may be uncovered.

Circular PST 9 out of service. PST's 10, 11, and 12 were al in use all hoses were in operation. No Odours observed.

Pasteurisation Plant

Pasteurisation plant had ten streams in service fully operational.

West Side Aeration Lanes (Old)

Battery C aeration feed channel approximately 100% 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 – (NO RECORD AVAILABLE DUE TO CHRISTMAS)

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

	Ave: 0.01		
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 Ave: 0.00	Unknown	Unknown
Sludge reception outlet	0.00 0.00 0.00 Ave: 0.00	0.8	Unknown
Thickening plant inlet	No data	Unknown	Unknown
Thickening plant outlet	0.00 0.00 0.00 Ave: 0.01	0.6	Yes
Transfer PS inlet	0.00 0.00 0.00 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)	0.00	0.5	Yes

	0.00 0.00 Ave: 0.00			
OCU 12 (Pasteurisation Plant)	0.00 0.00 0.00 Ave: 0.00	0.5	Yes	