

OPERATIONAL EVALUATION LEVEL (OEL) EXCEEDANCE NOTIFICATION FORM

Section I: System Information

PWS Name: Hazleton City Authority	PWSID #: 2408001
Contact Name: Rocco Mussoline	Phone #: 570-454-2401

Section II: OEL Exceedance Information*

Water Systems on quarterly monitoring must calculate the OEL for each location each quarter (qtr) as follows:

$$OEL = \frac{[(\text{result from 2 qtrs prior to current qtr}) + (\text{result from previous qtr}) + 2(\text{current qtr result})]}{4}$$

An OEL exceedance occurs if either the TTHM OEL value is > 0.080 mg/L **or** the HAA5 OEL value is > 0.060 mg/L.

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>DEP Sample Location ID# (3-digit # starting with "7")</td><td>703</td></tr> <tr><td>Sample Location Name</td><td>Advanced Auto Parts, 88 Susquehanna Blvd., Hazleton, PA 18202</td></tr> <tr><td>Sample Date (most recent quarterly sample)</td><td>11/20/2018</td></tr> <tr><td>Sample Received Date (date result received from lab)</td><td>09/05/2024</td></tr> <tr><td>Monitoring Period (Qtr)</td><td>3rd Quarter</td></tr> <tr><td>TTHM: Calculated OEL Value</td><td></td></tr> <tr><td>OEL Calculation: [() + () + 2()] / 4</td><td></td></tr> <tr><td>HAA5: Calculated OEL Value</td><td>0.0543</td></tr> <tr><td>OEL Calculation: [(0.0219) + (0.0491) + 2(0.0731)] / 4</td><td></td></tr> </table>	DEP Sample Location ID# (3-digit # starting with "7")	703	Sample Location Name	Advanced Auto Parts, 88 Susquehanna Blvd., Hazleton, PA 18202	Sample Date (most recent quarterly sample)	11/20/2018	Sample Received Date (date result received from lab)	09/05/2024	Monitoring Period (Qtr)	3 rd Quarter	TTHM: Calculated OEL Value		OEL Calculation: [() + () + 2()] / 4		HAA5: Calculated OEL Value	0.0543	OEL Calculation: [(0.0219) + (0.0491) + 2(0.0731)] / 4		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>DEP Sample Location ID# (3-digit # starting with "7")</td><td>700</td></tr> <tr><td>Sample Location Name</td><td>424 Butler Terrace Drive, Hazleton PA, 18201</td></tr> <tr><td>Sample Date (most recent quarterly sample)</td><td></td></tr> <tr><td>Sample Received Date (date result received from lab)</td><td>09/05/2024</td></tr> <tr><td>Monitoring Period (Qtr)</td><td>3rd Quarter</td></tr> <tr><td>TTHM: Calculated OEL Value</td><td></td></tr> <tr><td>OEL Calculation: [() + () + 2()] / 4</td><td></td></tr> <tr><td>HAA5: Calculated OEL Value</td><td>0.0709</td></tr> <tr><td>OEL Calculation: [(0.0252) + (0.0564) + 2(0.1010)] / 4</td><td></td></tr> </table>	DEP Sample Location ID# (3-digit # starting with "7")	700	Sample Location Name	424 Butler Terrace Drive, Hazleton PA, 18201	Sample Date (most recent quarterly sample)		Sample Received Date (date result received from lab)	09/05/2024	Monitoring Period (Qtr)	3rd Quarter	TTHM: Calculated OEL Value		OEL Calculation: [() + () + 2()] / 4		HAA5: Calculated OEL Value	0.0709	OEL Calculation: [(0.0252) + (0.0564) + 2(0.1010)] / 4	
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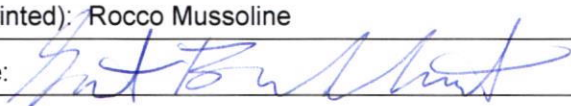
*Please use page 2 of this form to report additional OEL exceedances, if more than 2 locations exceeded the OEL during the quarter.

Section III: OEL Report Information

Are you requesting a limited scope evaluation? YES NO. If yes, please provide reason for OEL exceedance:

Due Date for OEL Report: 12/4/24 (i.e. 90 days from the sample received date)

Section IV: Verification

Responsible Official's Name (printed): Rocco Mussoline	
Responsible Official's Signature: 	Date: 11/13/24

NOTE:

The completed form must be submitted to DEP by the 10th of the month following the quarter in which the OEL exceedance occurs. For example, if an OEL exceedance occurs in the October 1 to December 31 quarter, this completed form must be received by DEP no later than January 10th. Mail all OEL Exceedance Notification Forms to your local DEP Office. A list of all DEP and County Health Department (CHD) Offices is included in the instructions.

Reporting for Additional OEL Exceedances (at 3 - 8 sampling locations)*

DEP Sample Location ID# (3-digit # starting with "7")	701	DEP Sample Location ID# (3-digit # starting with "7")	
Sample Location Name	Jeddo Stars 1933 SR 940 Freeland, PA 18224	Sample Location Name	
Sample Date (most recent quarterly sample)		Sample Date (most recent quarterly sample)	
Sample Received Date (date result received from lab)	09/05/2024	Sample Received Date (date result received from lab)	
Monitoring Period (Qtr)	3rd Quarter	Monitoring Period (Qtr)	
TTHM: Calculated OEL Value		TTHM: Calculated OEL Value	
OEL Calculation: [() + () + 2()] / 4		OEL Calculation: [() + () + 2()] / 4	
HAA5: Calculated OEL Value	0.0630	HAA5: Calculated OEL Value	
OEL Calculation: [(0.0232) + (0.0490) + 2(0.0899)] / 4		OEL Calculation: [() + () + 2()] / 4	
DEP Sample Location ID# (3-digit # starting with "7")		DEP Sample Location ID# (3-digit # starting with "7")	
Sample Location Name		Sample Location Name	
Sample Date (most recent quarterly sample)		Sample Date (most recent quarterly sample)	
Sample Received Date (date result received from lab)		Sample Received Date (date result received from lab)	
Monitoring Period (Qtr)		Monitoring Period (Qtr)	
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HAA5: Calculated OEL Value		HAA5: Calculated OEL Value	
OEL Calculation: [() + () + 2()] / 4		OEL Calculation: [() + () + 2()] / 4	

Operational Evaluation Reporting Form

I. GENERAL INFORMATION

A. Facility Information

Facility Name: Hazleton City Authority PWSID: 2408001
 Facility Address: 400 E Arthur Gardner Parkway
 City: Hazleton State: PA Zip: 18201

B. Report Prepared by:

(Print): Rocco Musselme Date prepared: 11/13/24
 (Signature): Rocco Musselme
 Contact Telephone Number: (570) 454-2401

II. MONITORING RESULTS

A. Provide the Compliance Monitoring Site(s) where the OEL was Exceeded.

Site 700, 424 Butler Terrace Drive, Hazle Township, PA, 18202
 Note: The site name or number should correspond to a site in your Stage 2 DBPR compliance monitoring plan.

B. Monitoring Results for the Site(s) Identified in II.A (include duplicate pages if there was more than one exceedance)

1. Check TTHM or HAA5 to indicate which result caused the OEL exceedance. TTHM HAA5

2. Enter your results for TTHM or HAA5 (whichever you checked above).

	Quarter			Operational Evaluation Value
	Results from Two Quarters Ago	Prior Quarter's Results	Current Quarter	
	A	B	C	$D = (A+B+(2*C))/4$
Date sample was collected	<u>2/20/24</u>	<u>5/20/24</u>	<u>8/21/24</u>	
TTHM (mg/L)				
HAA5 (mg/L)	<u>0.0252</u>	<u>0.0564</u>	<u>0.1010</u>	<u>0.0709</u>

Note: The operational evaluation value is calculated by summing the two previous quarters of TTHM or HAA5 values plus twice the current quarter value, divided by four. If the value exceeds 0.080 mg/L for TTHM or 0.060 mg/L for HAA5, an OEL exceedance has occurred.

C. Has an OEL exceedance occurred at this location in the past? Yes No

If NO, proceed to item D. If YES, when did exceedance occur?

Was the cause determined for the previous exceedance(s)? Yes No

Are the previous evaluations/determinations applicable to the current OEL exceedance? Yes No

Operational Evaluation Reporting Form

I. GENERAL INFORMATION

A. Facility Information

Facility Name: Hazleton City Authority PWSID: 2408001
 Facility Address: 400 E. Arthur Gardner Parkway
 City: Hazleton State: PA Zip: 18201

B. Report Prepared by:

(Print): Rocco Mussoline Date prepared: 11/13/24
 (Signature): Rocco Mussoline
 Contact Telephone Number: (570) 454-2401

II. MONITORING RESULTS

A. Provide the Compliance Monitoring Site(s) where the OEL was Exceeded.

Site 701, Jeddo Stars Lane, 1933 State Route 940, Freeland, PA 18224
 Note: The site name or number should correspond to a site in your Stage 2 DBPR compliance monitoring plan.

B. Monitoring Results for the Site(s) Identified in II.A (include duplicate pages if there was more than one exceedance)

1. Check TTHM or HAA5 to indicate which result caused the OEL exceedance. TTHM HAA5

2. Enter your results for TTHM or HAA5 (whichever you checked above).

	Quarter ¹			Operational Evaluation Value
	Results from Two Quarters Ago	Prior Quarter's Results	Current Quarter	
	A	B	C	$D = (A+B+(2*C))/4$
Date sample was collected	<u>2/20/24</u>	<u>5/20/24</u>	<u>8/21/24</u>	
TTHM (mg/L)				
HAA5 (mg/L)	<u>0.0232</u>	<u>0.0490</u>	<u>0.0899</u>	<u>0.063</u>

Note: The operational evaluation value is calculated by summing the two previous quarters of TTHM or HAA5 values plus twice the current quarter value, divided by four. If the value exceeds 0.080 mg/L for TTHM or 0.060 mg/L for HAA5, an OEL exceedance has occurred.

C. Has an OEL exceedance occurred at this location in the past? Yes No

If NO, proceed to item D. If YES, when did exceedance occur?

Was the cause determined for the previous exceedance(s)? Yes No

Are the previous evaluations/determinations applicable to the current OEL exceedance? Yes No

Operational Evaluation Reporting Form

I. GENERAL INFORMATION

A. Facility Information

Facility Name: Hazleton City Authority PWSID: 2408001
 Facility Address: 400 E. Arthur Gardner Parkway
 City: Hazleton State: PA Zip: 18201

B. Report Prepared by:

(Print): Rocco Mussoline Date prepared: 11/13/24
 (Signature): Rocco Mussoline
 Contact Telephone Number: (570) 454-2401

II. MONITORING RESULTS

A. Provide the Compliance Monitoring Site(s) where the OEL was Exceeded.

Site 703, Advanced Auto Parts, Route 93, West Hazleton PA, 18202
 Note: The site name or number should correspond to a site in your Stage 2 DBPR compliance monitoring plan.

B. Monitoring Results for the Site(s) Identified in II.A (include duplicate pages if there was more than one exceedance)

1. Check TTHM or HAA5 to indicate which result caused the OEL exceedance. TTHM HAA5

2. Enter your results for TTHM or HAA5 (whichever you checked above).

	Quarter			Operational Evaluation Value
	Results from Two Quarters Ago	Prior Quarter's Results	Current Quarter	
	A	B	C	$D = (A+B+(2*C))/4$
Date sample was collected	<u>2/20/24</u>	<u>5/20/24</u>	<u>8/21/24</u>	
TTHM (mg/L)				
HAA5 (mg/L)	<u>0.0219</u>	<u>0.0491</u>	<u>0.0731</u>	<u>0.0543</u>

Note: The operational evaluation value is calculated by summing the two previous quarters of TTHM or HAA5 values plus twice the current quarter value, divided by four. If the value exceeds 0.080 mg/L for TTHM or 0.060 mg/L for HAA5, an OEL exceedance has occurred.

C. Has an OEL exceedance occurred at this location in the past? Yes No

If NO, proceed to item D. If YES, when did exceedance occur?

Was the cause determined for the previous exceedance(s)? Yes No

Are the previous evaluations/determinations applicable to the current OEL exceedance? Yes No

III. OPERATIONAL EVALUATION FINDINGS

A. Did the State allow you to limit the scope of the operational evaluation? Yes No
If NO, proceed to item B. If YES, attach written correspondence from the State.

B. Did the **distribution system** cause or contribute to your OEL exceedance(s)? Yes No
 Possibly
If NO, proceed to item C. If YES or POSSIBLY, explain (attach additional pages if necessary):

C. Did the **treatment** system cause or contribute to your OEL exceedance(s)? Yes No
 Possibly
If NO, proceed to item D. If YES or POSSIBLY, explain (attach additional pages if necessary):

D. Did **source water quality** cause or contribute to your OEL exceedance(s)? Yes No
 Possibly
If NO, proceed to item E. If YES or POSSIBLY, explain (attach additional pages if necessary):

It is believed that higher than normal organics were present in plant source water that contributed to the OEL exceedance. Rainfall at the time the sample had to be taken was higher and heavier than normal.

E. Attach all supporting operational or other data that support the determination of the cause(s) of your OEL exceedance(s).

F. If you are unable to determine the cause(s) of the OEL exceedance(s), list the steps that you can use to better identify the cause(s) in the future (attach additional pages if necessary):

Toe Analysis at Sources and Plant, Plant process and treatment for THM's and HAA5's at the water treatment plant

G. List steps that could be considered to minimize future OEL exceedances (attach additional pages if necessary)

H. Total **Number of Pages** Submitted, Including Attachments and Checklists: 23

TTHM and HAA5 Sample Collection and Handling Checklist

Facility Name: Hazleton City Authority

Checklist Completed by: Recco Mussoline

Date:

- | Yes | No | |
|-------------------------------------|--------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Did you obtain appropriate sample collection vials provided from the laboratory? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Did the sample vials contain the proper preservative and dechlorinating agents? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Was each vial labeled using waterproof labels and indelible ink? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Did each vial contain the following information on the label? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Unique sample ID |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | System name |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Sample location |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Sample date and time |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Analysis required, if not already on label |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Did you remove the aerator from the tap if there was one present? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Did you open the water tap and allow the system to flush until the water temperature had stabilized (usually about 3-5 minutes)? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Did you adjust the flow so that no air bubbles were visually detected in the flowing stream? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Did you slowly fill the sample vial almost to the top without overflowing? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Were you careful not to rinse out any of the preservative/dechlorinating agent during this process? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | After the bottle was filled, did you invert it three or four times to mix the sample with the preservative and dechlorinating agents? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | If you collected a TTHM sample that requires acidification, did you: |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Let the sample set for about 1 minute, allowing the dechlorinating chemical to take effect? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Carefully open the vial and adjust the pH of the TTHM sample to < 2 by adding approximately 4 drops of hydrochloric acid for every 40 mL of sample (amount of acid needed will depend on buffering capacity of sample)? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Recap the vial, and invert three or four times? |

TTHM and HAA5 Sample Collection and Handling Checklist	
	Yes <input type="checkbox"/> No <input type="checkbox"/>
Did you invert the vial and tap it to check for air bubbles?	<input checked="" type="checkbox"/> <input type="checkbox"/>
If bubbles were detected, did you carefully open the vial and add more sample water using the cap to achieve a headspace-free sample? Note that air bubbles would more likely lead to a lower level of THMs or HAAs.	<input type="checkbox"/> <input checked="" type="checkbox"/>
Did you immediately cool the samples to 4°C by placing them in a cooler with frozen refrigerant packs or ice, or in a refrigerator? Samples should be maintained at this temperature during shipping to the laboratory.	<input checked="" type="checkbox"/> <input type="checkbox"/>
Did you complete the Sample Chain of Custody provided by the laboratory and include it with the sample shipment?	<input type="checkbox"/> <input checked="" type="checkbox"/>
Was the sample holding time of 14 days exceeded?	<input checked="" type="checkbox"/> <input type="checkbox"/>
Was the extract holding time exceeded?	<input checked="" type="checkbox"/> <input type="checkbox"/>
EPA Method 551.1: 14 days at a temperature less than -10°C EPA Method 552.1: 48 hours at 4°C or less EPA Method 552.2: 7 days at 4°C or 14 days at a temperature less than -10°C EPA Method 552.3: 21 days for MTBE extraction solvent at -10°C or less OR 28 days for TAME extraction solvent at -10°C or less Standard Method 6251 B: 21 days at -11°C	<input checked="" type="checkbox"/> <input type="checkbox"/>
Did the laboratory invalidate the sample?	<input checked="" type="checkbox"/> <input type="checkbox"/>
Notes/Comments	

Distribution System Evaluation Checklist

Page 1 of 2

System Name: Hazleton City Authority
Checklist Completed by: Rocco Mussalino Date: 11/13/24

A. Do you have disinfectant residual or temperature data for the monitoring location where you experienced the OEL exceedance? Yes No

If NO, proceed to item B. If YES, answer the following questions for the period in which an OEL exceedance occurred:

Yes No

Was the water temperature higher than normal for that time of the year at that location?

Was the disinfectant residual lower than normal for that time of the year at that location?

Was the disinfectant residual higher than normal for that time of the year at that location?

B. Do you have maintenance records available for the time period just prior to the OEL exceedance? Yes No

If NO, proceed to item C. If YES, answer the following questions:

Yes No

Did any line breaks or replacements occur in the vicinity of the exceedance?

Were any storage tanks or reservoirs taken off-line and cleaned?

Did flushing or other hydraulic disturbances (e.g., fires) occur in the vicinity of the exceedance?

Were any valves operated in the vicinity of the OEL exceedances?

C. If your system is metered, do you have access to historical records showing water use at individual service connections? Yes No

If NO, proceed to item D. If YES, was overall water use in your system unusually low, indicating higher than normal water age? Yes No

D. Do you have high-volume customers in your system (e.g., an industrial processing plant)? Yes No

If NO, proceed to item E. If YES, was there a change in water use by a high-volume customer? Yes No

E. Is there a finished water storage facility hydraulically upstream from the monitoring location where you experienced the OEL exceedance? Yes No

If NO, proceed to item F. If YES, review storage facility operations and water quality data to answer the following questions for the period in which the OEL exceedance occurred:

Yes No

Was a disinfectant residual detected in the stored water or at the tank outlet?

Do you know of any mixing problems with the tank or reservoir?

Does the facility operate in "last in-first out" mode?

Was the tank or reservoir drawn down more than usual prior to OEL exceedance, indicating a possible discharge of stagnant water?

Was there a change in water level fluctuations that would have resulted in increased water age within the tank or reservoir?

Distribution System Evaluation Checklist

F. Does your system practice booster chlorination? Yes No
If NO, proceed to item G. If YES, was there an increase in booster chlorination feed rates? Yes No

G. Did you have customer complaints in the vicinity of the OEL exceedance? Yes No
If NO, proceed to item H. If YES, explain.

H. Did concern about complying with a rule other than Stage 2 DBPR, such as the Lead and Copper rule, the TCR, or any other rule constrain your options to reduce the DBP levels at this site? For example, are you limited by the need to maintain a detectable disinfectant residual in your ability to control DBP levels in the distribution system? Yes No
If NO, proceed to item I. If YES, explain below and consult EPA's *Simultaneous Compliance Guidance Manual* for alternative compliance approaches.

Chlorine residuals at the filtration plant must be maintained at a somewhat higher level in order to have a chlorine residual at the end of the distribution system.

I. Conclusion

Did the distribution system cause or contribute to the OEL exceedance(s)? Yes No
 Possibly

If NO, proceed to evaluations of treatment systems and source water. If YES or POSSIBLY, explain below.

Source Water Evaluation Checklist

NO DATA AVAILABLE

System Name: Hazleton City Authority
Checklist Completed by: Rocco Mussoline

Date: 11/13/24

A. Do you have source water temperature data? Yes No

If NO, proceed to item B. If YES, was the source water temperature high? Yes No

If NO, proceed to item B. If YES, answer the following questions for the time period prior to the OEL exceedance.

Yes No

- Was the raw water storage time longer than usual?
- Did you place another water source on-line?
- Were river/reservoir flow rates lower than usual? If yes, indicate the location of lower flow rates and the anticipated impact on the OEL exceedance.
- Did point or non-point sources in the watershed contribute to the OEL exceedance?

B. Do you have data that characterizes organic matter in your source water (e.g., TOC, DOC, SUVA, color, THM formation potential)? Yes No

If NO, proceed to item C. If YES, were these values higher than normal? Yes No

If NO, proceed to item C. If YES, answer the following questions for the time period prior to the OEL exceedance.

Yes No

- Did heavy rainfall or snowmelt occur in the watershed?
- Did you place another water source on-line?
- Did lake or reservoir turnover occur?
- Did point or non-point sources in the watershed contribute to the OEL exceedance?
- Did an algal bloom occur in the source water?
- If algal blooms were present, were appropriate algae control measures employed (e.g. addition of copper sulfate)?
- Did a taste and odor incident occur?

C. Do you have source water bromide data? Yes No

If NO, proceed to item D. If YES, were the bromide levels higher or lower than normal? Yes No

If NO, proceed to item D. If YES, answer the following questions for the time period prior to the OEL exceedance.

Yes No

- Has saltwater intrusion occurred?
- Are you experiencing a long-term drought?
- Did heavy rainfall or snowmelt occur in the watershed?
- Did you place another water source on-line?
- Are you aware of any industrial spills in the watershed?

Source Water Evaluation Checklist

D. Do you have source water turbidity or particle count data? Yes No

If NO, proceed to item E. If YES, were the turbidity values or particle counts higher than normal? Yes No

If NO, proceed to item E. If YES, answer the following questions for the time period prior to the OEL exceedance.

Yes No

- Did lake or reservoir turnover occur?
- Did heavy rainfall or snowmelt occur in the watershed?
- Did logging, fires, or landslides occur in the watershed?
- Were river/reservoir flow rates higher than normal?

E. Do you have source water pH or alkalinity data? Yes No

If NO, proceed to item F. If YES, was the pH or alkalinity different from normal values? Yes No

If NO, proceed to item F. If YES, answer the following questions for the time period prior to the OEL exceedance.

Yes No

- Was there an algal bloom in the source water?
- If algal blooms were present, were algae control measures employed?
- Did heavy rainfall or snowmelt occur in the watershed?
- Has the PWS experienced diurnal pH changes in source water?

F. Conclusion

Did source water quality factors contribute to your OEL exceedance? Yes No
 Possibly

If YES or POSSIBLY, explain below.

Extremely heavy Rain storms occurred prior to the time TTHM and HAA5 Samples were to be sampled. The increase in turbidity we believe contributed to the increase in organic activity. Because of this increase in turbidity this may have contributed to changes in the level of precursors resulting in higher levels of disinfection byproducts. It is also believed that during this time period our main reservoir, Dreck Creek, turned over.

Treatment Process Evaluation Checklist

NO DATA AVAILABLE

Facility Name: Hazleton City Authority

Checklist Completed by: Rocco Mussoline

Date: 11/13/24

A. Review finished water data for the time period prior to the OEL exceedance(s) and compare to historical finished water data using the following questions:

- Were DBP precursors (TOC, DOC, SUVA, bromide, etc.) higher than normal? Yes No
- Was finished water pH higher or lower than normal? Yes No
- Was the finished water temperature higher than normal? Yes No
- Was finished water turbidity higher than normal? Yes No
- Was the disinfectant concentration leaving the plant(s) higher than normal? Yes No
- Were finished water TTHM/HAA5 levels higher than normal? Not Sampled Yes No
- Were operational and water quality data available to the system operator for effective decision making? Yes No

B. Does the treatment process include predisinfection? Yes No

If NO, proceed to item C. If YES, answer the following questions for the period in which an OEL exceedance occurred:

- | Yes | No | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Was disinfected raw water stored for an unusually long time? |
| <input type="checkbox"/> | <input type="checkbox"/> | Were treatment plant flows lower than normal? |
| <input type="checkbox"/> | <input type="checkbox"/> | Were treatment plant flows equally distributed among different trains? |
| <input type="checkbox"/> | <input type="checkbox"/> | Were water temperatures high or warmer than usual? |
| <input type="checkbox"/> | <input type="checkbox"/> | Were chlorine feed rates outside the normal range? |
| <input type="checkbox"/> | <input type="checkbox"/> | Was a disinfectant residual present in the treatment train following predisinfection? |
| <input type="checkbox"/> | <input type="checkbox"/> | Were online instruments utilized for process control? |
| <input type="checkbox"/> | <input type="checkbox"/> | Did you switch to free chlorine as the oxidant? |
| <input type="checkbox"/> | <input type="checkbox"/> | Was there a recent change (or addition) of pre-oxidant? |
| <input type="checkbox"/> | <input type="checkbox"/> | Did you change the location of the predisinfection application? |

C. Does your treatment process include presedimentation? Yes No

If NO, proceed to item D. If YES, answer the following questions for the period in which an OEL exceedance occurred:

- | Yes | No | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Were flows low? |
| <input type="checkbox"/> | <input type="checkbox"/> | Were flows high? |
| <input type="checkbox"/> | <input type="checkbox"/> | Were online instruments utilized for process control? |
| <input type="checkbox"/> | <input type="checkbox"/> | Was sludge removed from the presedimentation basin? |
| <input type="checkbox"/> | <input type="checkbox"/> | Was sludge allowed to accumulate for an excessively long time? |
| <input type="checkbox"/> | <input type="checkbox"/> | Do you add a coagulant to your presedimentation basin? |
| <input type="checkbox"/> | <input type="checkbox"/> | Was there a problem with the coagulant feed? |

Treatment Process Evaluation Checklist

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D. Does your treatment process include coagulation and/or flocculation? Yes No

If NO, proceed to item E. If YES, answer the following questions for the period in which an OEL exceedance occurred:

- | Yes | No | |
|-------------------------------------|-------------------------------------|---|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Were there any feed pump failures or were feed pumps operating at improper feed rates? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Were chemical feed systems controlled by flow pacing? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Were there changes in coagulation practices or the feed point? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Did you change the type or manufacturer of the coagulant? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Do you suspect that the coagulant in use at the time of the OEL exceedance did not meet industry standards? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Did the pH or alkalinity change at the point of coagulant addition? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Were there broken or plugged mixers? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Were flow rates above the design rate or was there short-circuiting? |

E. Does your treatment process include sedimentation or clarification? Yes No

If NO, proceed to item F. If YES, answer the following questions for the period in which an OEL exceedance occurred:

- | Yes | No | |
|--------------------------|-------------------------------------|---|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Were there changes in plant flow rate that may have resulted in a decrease in settling time or carry-over of process solids? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Were settled water turbidities higher than normal? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Was there any disruption in the sludge blanket that may have resulted in carryover to the point of disinfection? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Was there any maintenance in the basin that may have stirred sludge from the bottom of the basin and caused it to carry over to the point of disinfectant addition? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Was sludge allowed to accumulate for an excessively long time or was there a malfunction in the sludge removal equipment? |

F. Does your treatment process include filtration? Yes No

If NO, proceed to item G. If YES, answer the following questions for the period in which an OEL exceedance occurred:

- | Yes | No | |
|-------------------------------------|-------------------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Was there an increase in individual or combined filter effluent turbidity or particle counts? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Was there an increase in turbidity or particle loading onto the filters? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Was there an increase in flow onto the filters or malfunction of the rate of flow controllers? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Were any filters taken off-line for an extended period of time that caused the other filters to operate near maximum design capacity and creating the conditions for possible breakthrough? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Were any filters operated beyond their normal filter run time? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Were there any unusual spikes in individual filter effluent turbidity (which may indicate particulate or colloidal TOC breakthrough) in the days leading to the excursion? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Were all filters run in a filter-to-waste mode during initial filter ripening? |
| <input type="checkbox"/> | <input type="checkbox"/> | If GAC filters are used, is it possible the adsorptive capacity of the GAC bed was reached before reactivation occurred (leave blank if not applicable)? |
| <input type="checkbox"/> | <input type="checkbox"/> | If biological filtration is used, were there any process upsets that may have resulted in the breakthrough of TOC (leave blank if not applicable)? |

G. Does your treatment process include primary disinfection by injecting chlorine prior to a clearwell? Yes No

If NO, proceed to item H. If YES, answer the following questions for the period in which an OEL exceedance occurred:

- | Yes | No | |
|--------------------------|-------------------------------------|--|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Was there a sudden increase in the amount of chlorine fed or an increase in the chlorine residual? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Was there an increase in clearwell holding time? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Was the plant shut down or were plant flows low? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Was there an increase in clearwell water temperature? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Did you switch to free chlorine recently as the primary disinfectant? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Was the inactivation of <i>Giardia</i> and/or viruses exceptionally high? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Was there a change in the mixing strategy (i.e. mixers not used, adjustment of tank level)? |

H. Does your plant recycle spent filter backwash or other streams? Yes No

If NO, proceed to item I. If YES, answer the following questions for the period in which an OEL exceedance occurred:

- | Yes | No | |
|--------------------------|-------------------------------------|---|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Did a change in the recycle stream quality contribute to increased DBP precursor loading that was not addressed by treatment plant processes? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Did a recycle event result in flows in excess of typical or design flows? |

Treatment Process Evaluation Checklist

I. Do you inject a disinfectant after your clearwell to maintain a distribution system residual? Yes No

If NO, proceed to item J. If YES, answer the following questions for the period in which an OEL exceedance occurred:

Yes No

- Yes No Was there a sudden increase in the amount of chlorine fed?
- Yes No Was there a switch from chloramines to free chlorine for a burnout period?
- Yes No If using chloramines, was the chlorine to ammonia ratio in the proper range?
- Yes No Was there a problem with either chlorine or ammonia mixing?

J. Did concern about complying with a rule other than Stage 2 DBPR, such as the Lead and Copper rule, the LT2ESWTR, or any other rule constrain your options to reduce the DBP levels at this site? For example, are you limited by other treatment targets/requirements in your ability to control precursors in coagulation/flocculation? Yes No

If NO, proceed to item K. If YES, explain below and consult EPA's *Simultaneous Compliance Guidance Manual* for alternative compliance approaches.

Chlorine residuals at the Hazleton City Authority Filtration plant must be maintained at a higher level in order to reach and maintain a residual at the end of our distribution system.

K. Conclusion

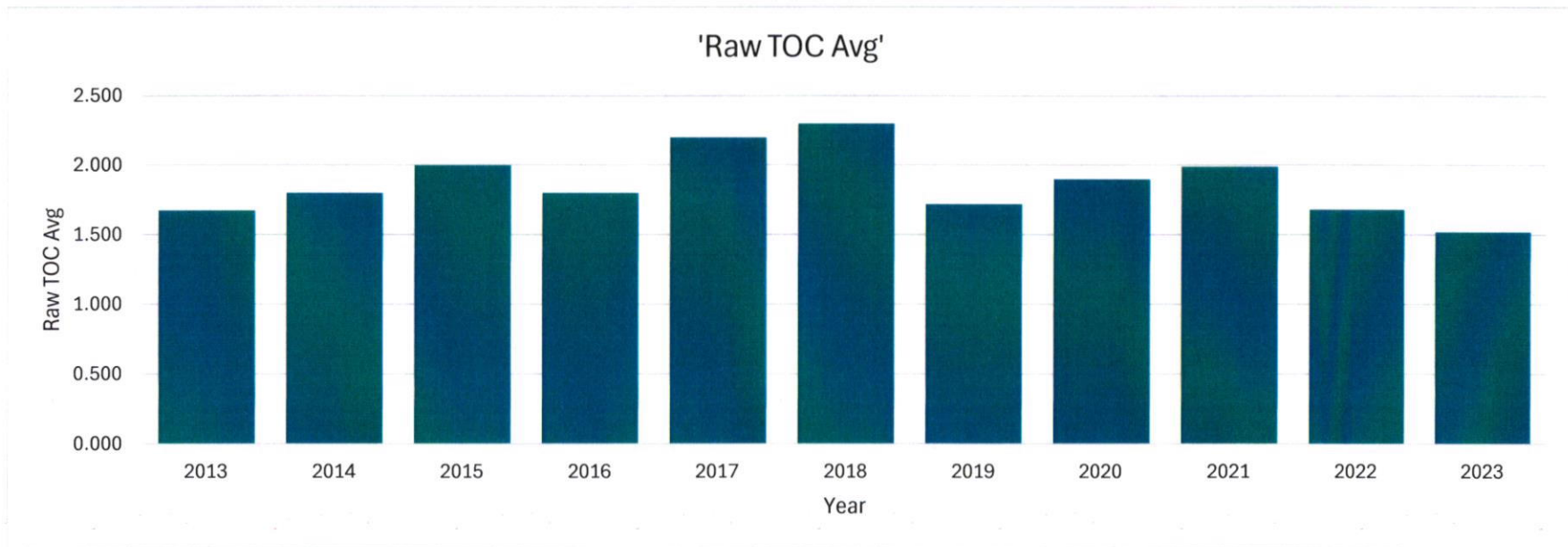
Did treatment factors and/or variations in the plant performance contribute to the OEL exceedance(s)?

- Yes No
 Possibly

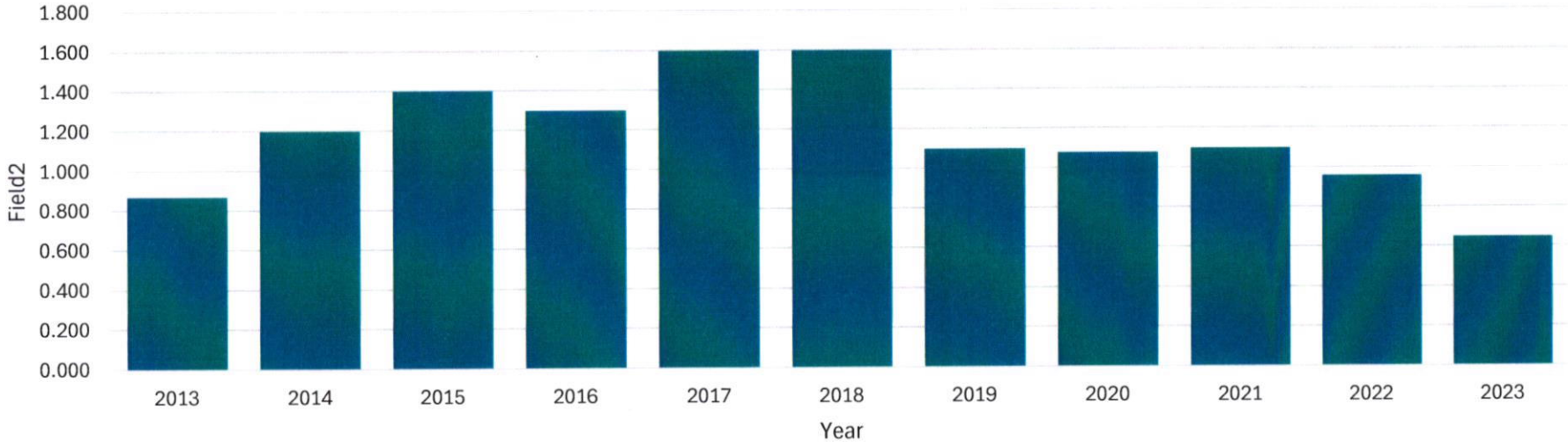
If YES or POSSIBLY, explain below.

The HCA maintains an adequate level of Sodium Chlorite to combat organic material. The current Sodium Chlorite feed pump is not currently flow passed. It is possible that the sudden influx of Turbidity contributed to the increase in HAA5 results. We are in the process of automating the Sodium Chlorite system, which will help prevent situations like this in the future.

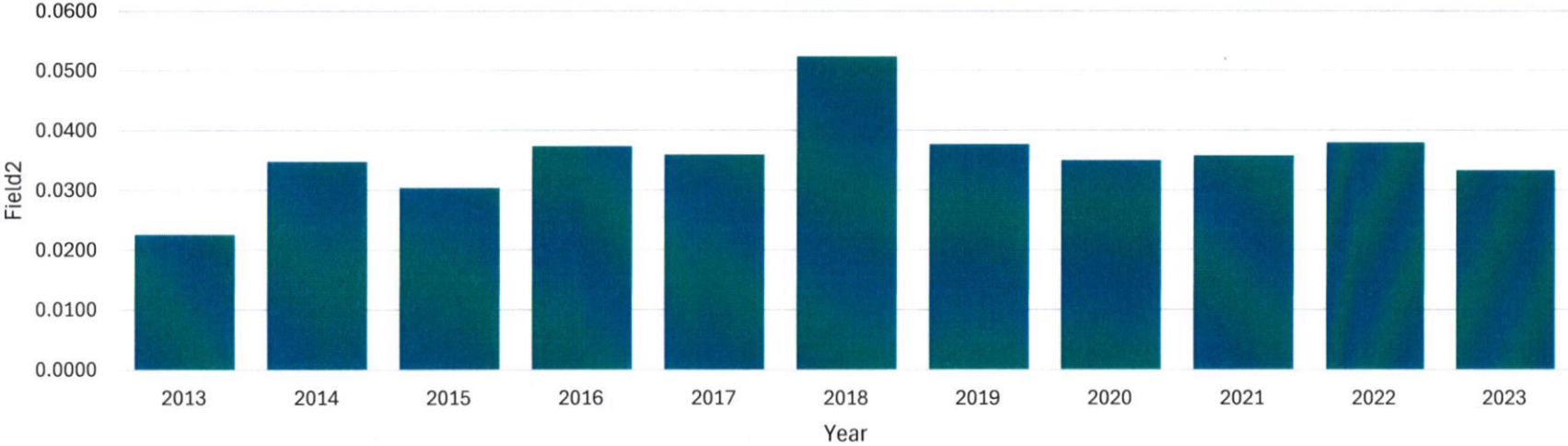
Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Raw TOC Avg	1.675	1.800	2.000	1.800	2.200	2.300	1.720	1.900	1.990	1.680	1.520
Finished TOC Avg	0.870	1.200	1.400	1.300	1.600	1.600	1.100	1.080	1.100	0.960	0.650
TTHM RAA	0.0226	0.0348	0.0304	0.0374	0.0360	0.0524	0.0377	0.0350	0.0358	0.0380	0.0333
HAA5 RRA	0.0295	0.0275	0.0250	0.0296	0.0466	0.0487	0.0221	0.0332	0.0267	0.0288	0.0372



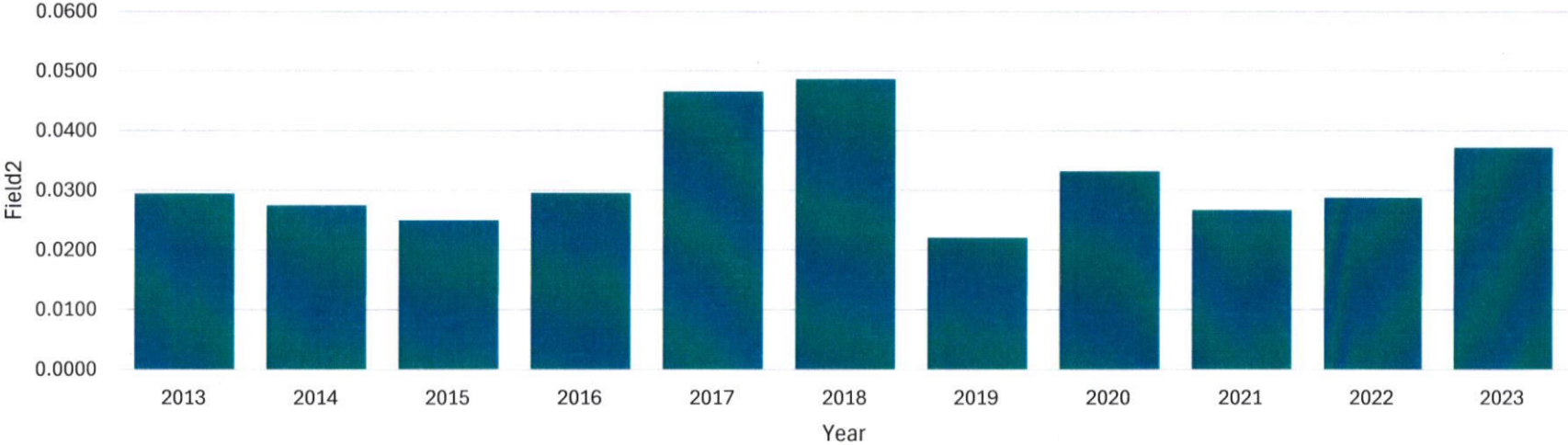
Finished Water TOC'



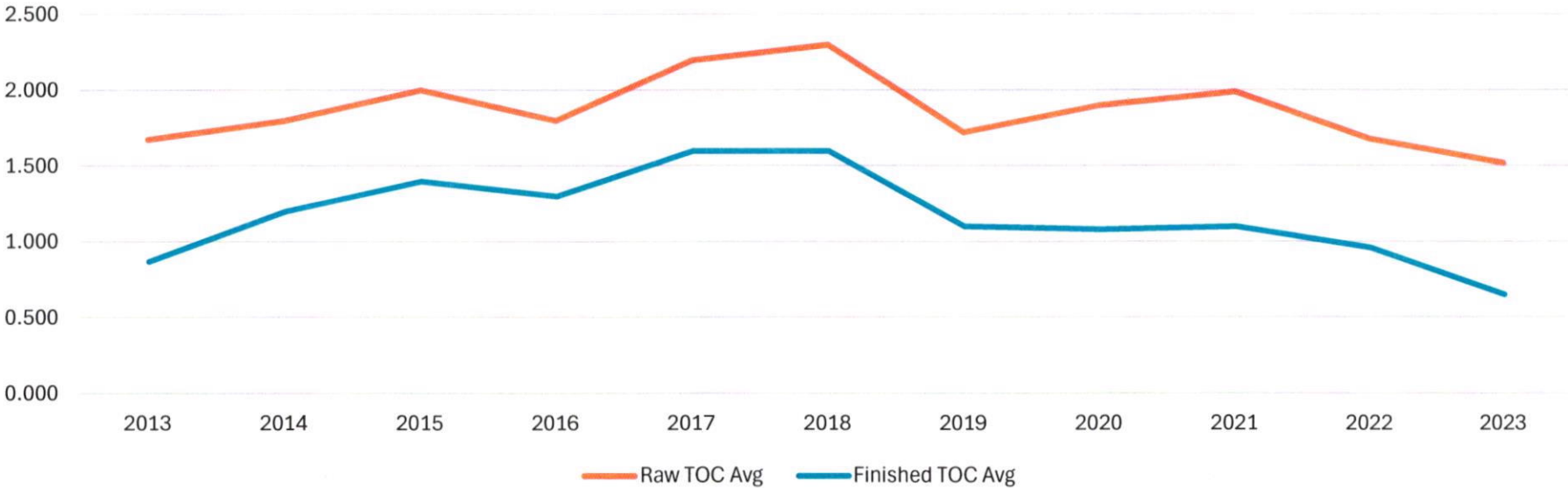
TTHM RAA



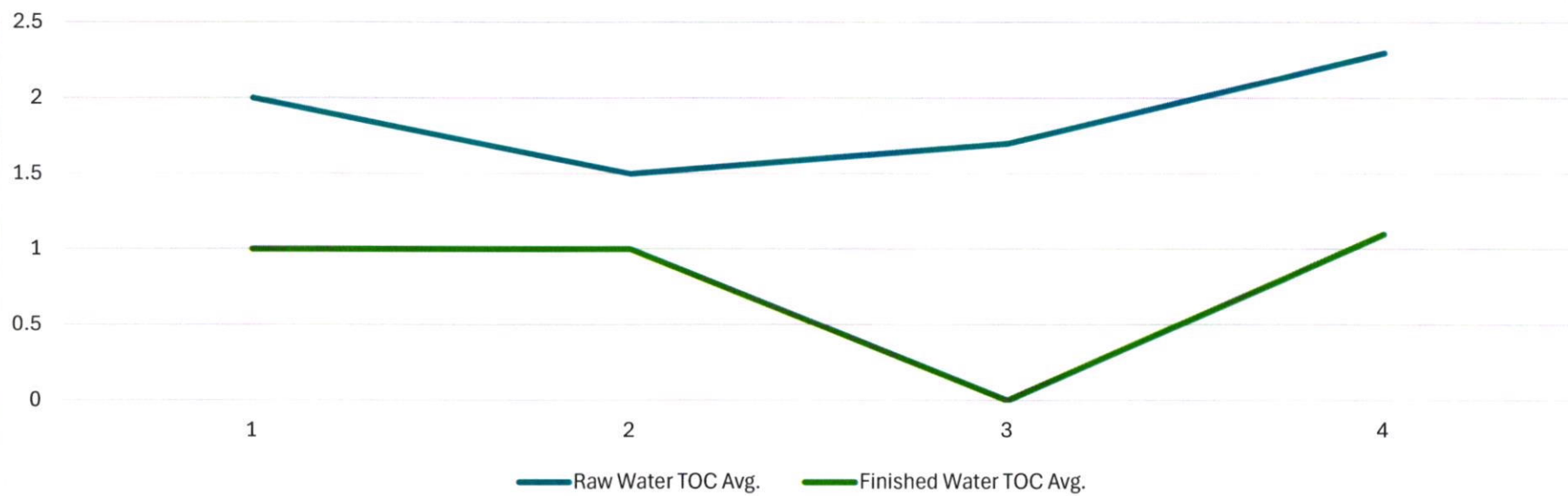
HAA5 RAA



HCA - TOC Annual Average



TOC Quarterly - 2024



TTHM and HAA5 Running Average

Reporting Requirements for TTHM and HAA5 Compliance (3rd Quarter 2024)

Quarter	Max. Residence Time		Avg. Residence Time		Avg. Residence Time		Avg. Residence Time		Quarterly Average TTHM HAA5	
	MRT0001	700	MRT0002	701	MRT0003	702	MRT0004	703		
	TTHM	HAA5	TTHM	HAA5	TTHM	HAA5	TTHM	HAA5		
Month 1	424 Butler Terrace Drive		1933 SR 940 Jeddo Stars		100 Hazel Street, Beaver Meadows		Advanced Auto Route 93, West Hazleton			
Month 2										
Month 3										
(3Q) 2024	0.0513	0.1010	0.0795	0.0899	0.0538	0.0473	0.0341	0.0731	0.0547	0.0778
(2Q) 2024	0.0538	0.0564	0.0367	0.0490	0.0656	0.0477	0.0314	0.0491	0.0469	0.0506
(1Q) 2024	0.0435	0.0252	0.0534	0.0232	0.0577	0.0324	0.0331	0.0219	0.0469	0.0257
(4Q) 2023	0.0290	0.0383	0.0272	0.0398	0.0362	0.0173	0.0286	0.0420	0.0303	0.0344
Average (RAA), based on the average of the last four quarters.	0.0444	0.0552	0.0492	0.0505	0.0533	0.0362	0.0318	0.0465	0.0447	0.0471

MCL TTHM
MCL HAA5

Running Yearly Average
Running Yearly Average

0.080 mg/L
0.060 mg/L