



CLOSING THE DATA LOOP: Water Quality Dashboards in PowerBI

We want your feedback!

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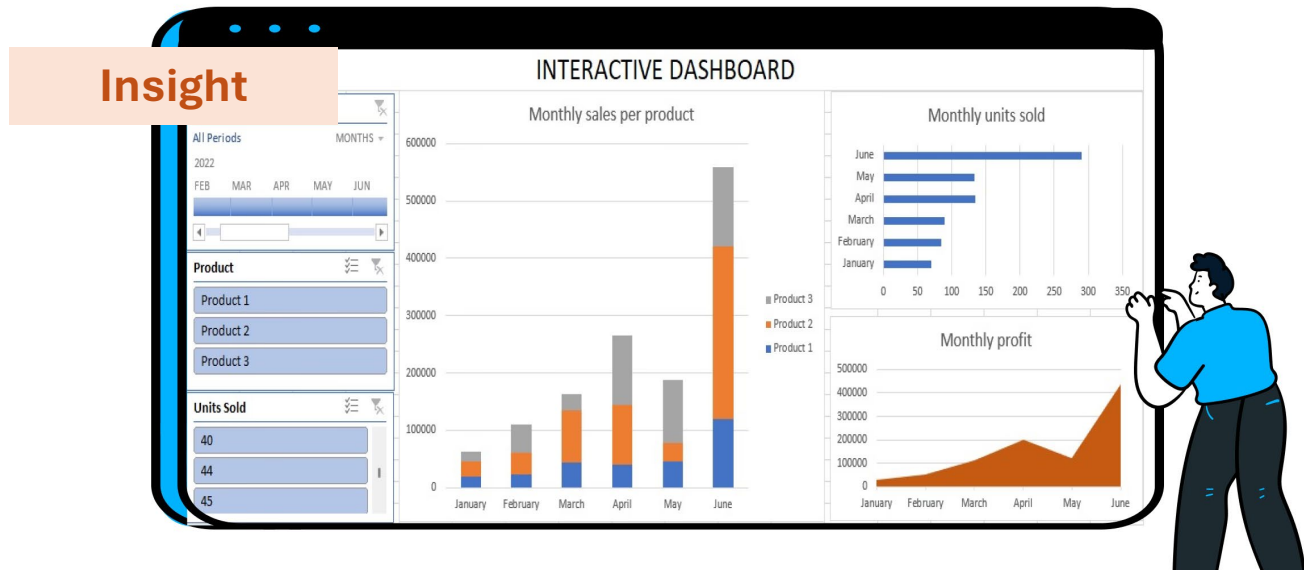
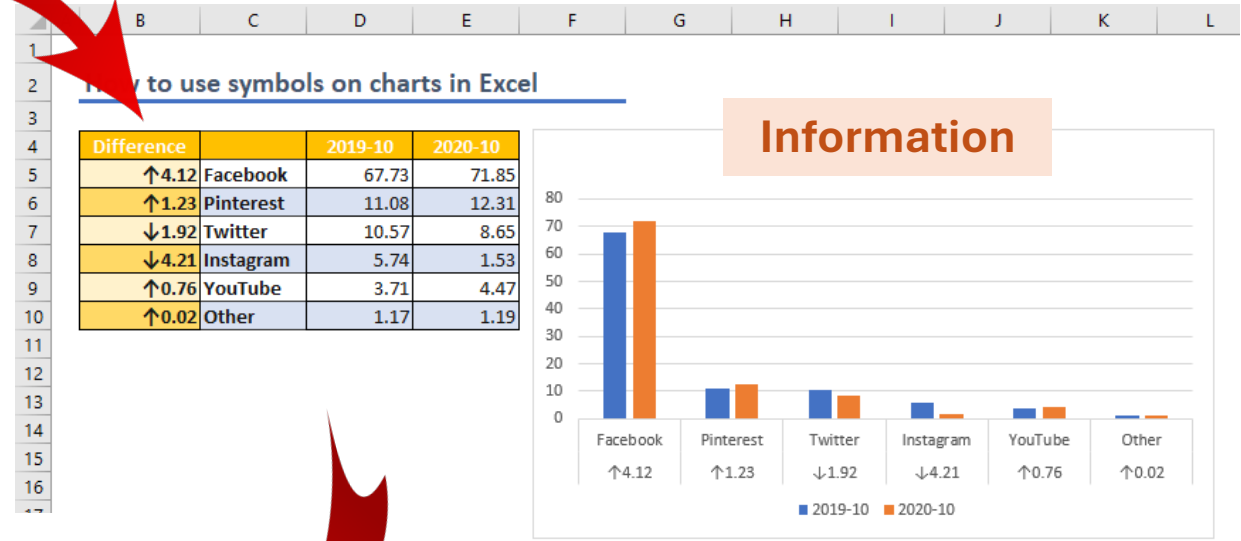
Operator Workshop

March 27, 2025

Building a data loop

A	B	C	D	E	F	G	H	I
Bureau Veritas Job Number: C4L4720			Atlantic First Nations Water Authority Inc					
Report Date: 2024/07/19			Client Project #: COMPLIANCE - LEAD 2024					
			Site Location: POTLOTEK					
			Your P. O. #: 2022-12					
			Sampler Initials: SJ					
ELEMENTS BY ICP/MS (WATER)								
Bureau Veritas ID	251904	251905	251906	251907	251908			
Sampling Date	2024/07/15 12:27	2024/07/15 12:13	2024/07/15 11:33	2024/07/15 11:51	2024/07/15 11:40			
	UNITS	001-12215 HWY #4	002-189 CHAPEL ISLAND RD	003-50 BACKLAND RD	QC Batch	004-34 NEW SUBDIVISION RD	QC Batch	005-95 MI'KMAWEY SCI
Metals								
IL Total Copper (Cu)	ug/L	140	10	120	9522003	15	9522002	230
IL Total Lead (Pb)	ug/L	3.8	ND	ND	9522003	ND	9522002	1.8
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								
ND = Not Detected at a concentration equal or greater than the indicated Detection Limit.								
Results relate only to the items tested.								

Data



Requirements for Viewing Data Dashboards

- Available on **laptop for viewing** (not yet available on phones)
- Access to internet
- A Microsoft account from AFNWA and access to PowerBI granted

Access the dashboard through the given link something like:

<https://app.powerbi.com/groups/9698d934-c04c-4b6e-a96d-37c0b8c65653/reports/a3565f55-0c17-486b-bf4e-9551849511eb/512fa93e6a74a60acae4?experience=power-bi>

Potlotek - Power BI

app.powerbi.com/groups/9698d934-c04c-4b6e-a96d-37c0b8c65653/reports/a3565f55-0c17-486b-bf4e-9551849511eb/512fa93e6a74a60acae4?experience=power-bi

Potlotek | Data updated 3/13/25

Search

File Export Share Explore Subscribe Edit

Copilot

Home

Create

Browse

OneLake

Apps

Metrics

Monitor

Learn

Real-Time

Workloads

Workspaces

PowerBI Dashboards

Potlotek

...

Power BI

116%

ATLANTIC FIRST NATIONS WATER AUTHORITY INC.

DALHOUSIE UNIVERSITY

POTLOTEK FIRST NATION

AFNWA Potlotek Monitoring Dashboard

Drinking Water Facility **Wastewater Facility**

Select appropriate option

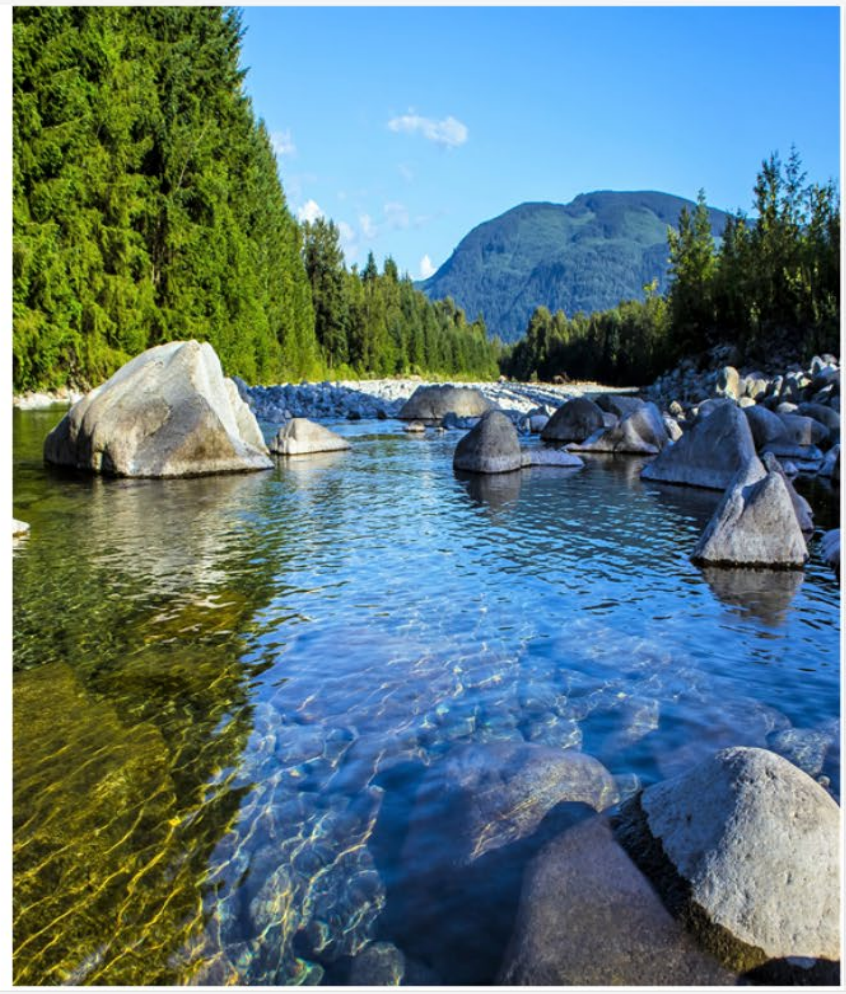
- Home
- Create
- Browse
- OneLake
- Apps
- Metrics
- Monitor
- Learn
- Real-Time
- Workloads
- Workspaces
- PowerBI Dashboards
- Potlotek
- ...
- Power BI



AFNWA Potlotek Monitoring Dashboard

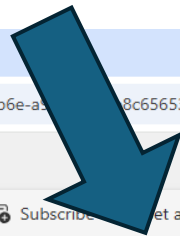
Home	Corrosion
Manganese	DBP
Distribution System Weekly Compliance	

Select appropriate option



Change the dates to filter the data to reflect only those dates

Select specific Sampling Points to filter the data to reflect only those locations



Date
1/1/2023 12/31/2025

Alkalinity Conductivity
All All

Potlotek Drinking Facility

← Back

Charts

- Alkalinity & Conductivity
- pH & Temperature
- Alkalinity & Conductivity Chart
- pH & Temperature Chart

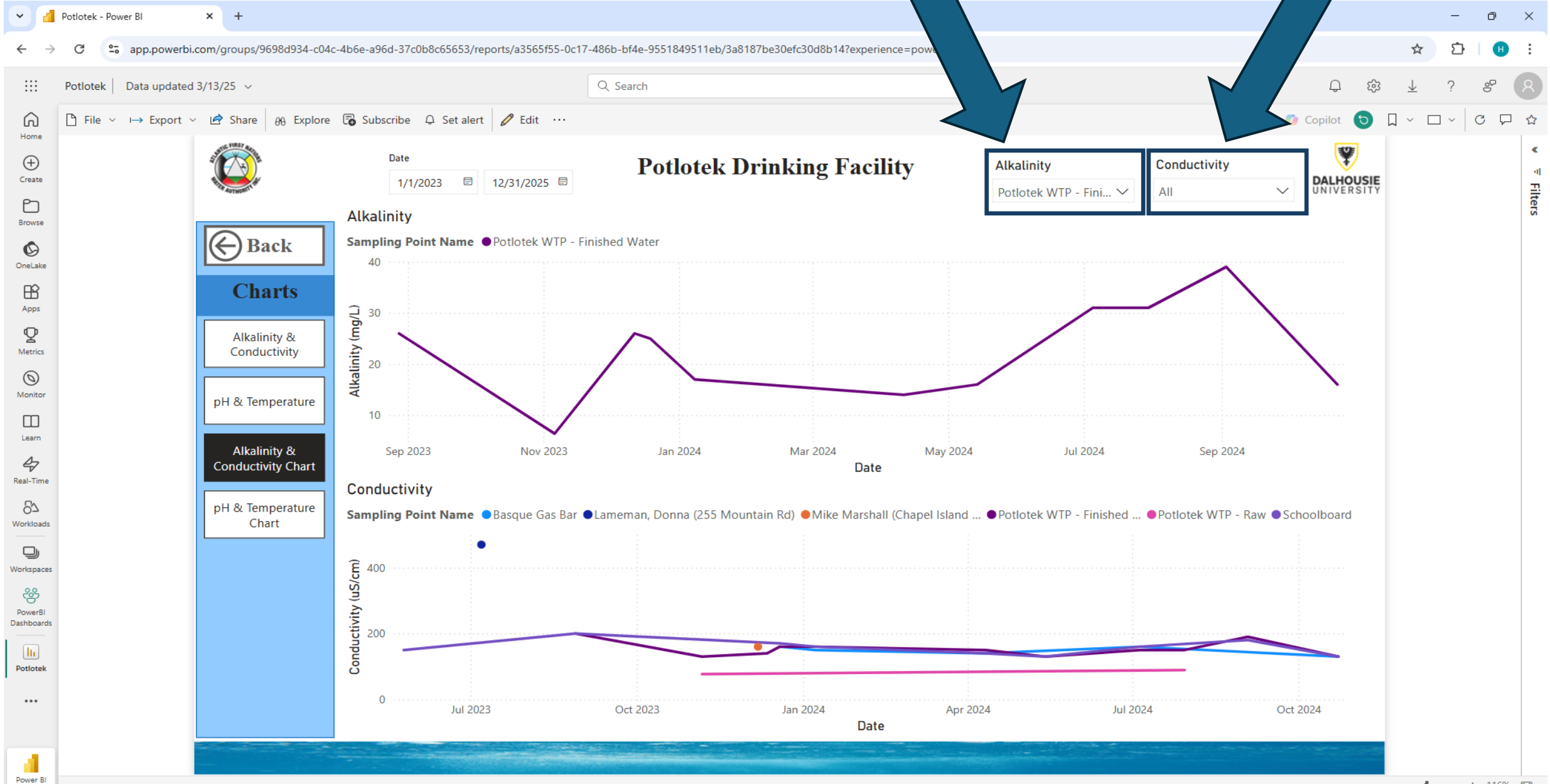
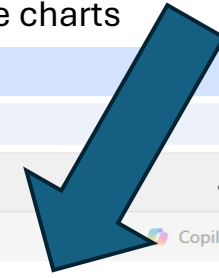
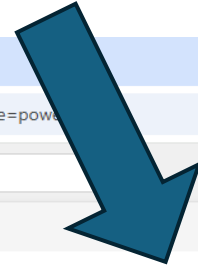
Date	Alkalinity	Sampling Point Name
Thursday, May 25, 2023	13.00	Schoolboard
Friday, July 07, 2023	200.00	Lameman, Donna (255 Mountain
Monday, August 28, 2023	26.00	Potlotek WTP - Finished Water
Monday, August 28, 2023	31.00	Schoolboard
Monday, November 06, 2023	6.40	Potlotek WTP - Finished Water
Monday, November 06, 2023	15.00	Potlotek WTP - Raw
Thursday, December 07, 2023	23.00	Mike Marshall (Chapel Island Rd)
Tuesday, December 12, 2023	26.00	Potlotek WTP - Finished Water
Tuesday, December 19, 2023	23.00	Basque Gas Bar
Tuesday, December 19, 2023	25.00	Potlotek WTP - Finished Water
Tuesday, December 19, 2023	37.00	Schoolboard
Monday, January 08, 2024	18.00	Basque Gas Bar
Monday, January 08, 2024	17.00	Potlotek WTP - Finished Water
Monday, January 08, 2024	18.00	Schoolboard
Thursday, April 11, 2024	14.00	Basque Gas Bar
Thursday, April 11, 2024	14.00	Potlotek WTP - Finished Water
Thursday, April 11, 2024	15.00	Schoolboard
Tuesday, May 14, 2024	16.00	Potlotek WTP - Finished Water
Tuesday, May 14, 2024	16.00	Schoolboard
Friday, July 05, 2024	31.00	Basque Gas Bar
Friday, July 05, 2024	31.00	Potlotek WTP - Finished Water
Friday, July 05, 2024	29.00	Schoolboard

Date	Conductivity	Sampling Point Name
Thursday, May 25, 2023	150.00	Schoolboard
Friday, July 07, 2023	470.00	Lameman, Donna (255 Mountain
Monday, August 28, 2023	200.00	Potlotek WTP - Finished Water
Monday, August 28, 2023	200.00	Schoolboard
Monday, November 06, 2023	130.00	Potlotek WTP - Finished Water
Monday, November 06, 2023	77.00	Potlotek WTP - Raw
Thursday, December 07, 2023	160.00	Mike Marshall (Chapel Island Rd)
Tuesday, December 12, 2023	140.00	Potlotek WTP - Finished Water
Tuesday, December 19, 2023	160.00	Basque Gas Bar
Tuesday, December 19, 2023	160.00	Potlotek WTP - Finished Water
Tuesday, December 19, 2023	170.00	Schoolboard
Monday, January 08, 2024	150.00	Basque Gas Bar
Monday, January 08, 2024	160.00	Potlotek WTP - Finished Water
Monday, January 08, 2024	160.00	Schoolboard
Thursday, April 11, 2024	140.00	Basque Gas Bar
Thursday, April 11, 2024	150.00	Potlotek WTP - Finished Water
Thursday, April 11, 2024	140.00	Schoolboard
Tuesday, May 14, 2024	130.00	Potlotek WTP - Finished Water
Tuesday, May 14, 2024	130.00	Schoolboard
Friday, July 05, 2024	160.00	Basque Gas Bar
Friday, July 05, 2024	150.00	Potlotek WTP - Finished Water
Friday, July 05, 2024	160.00	Schoolboard

Select pages to pull up relative data and charts

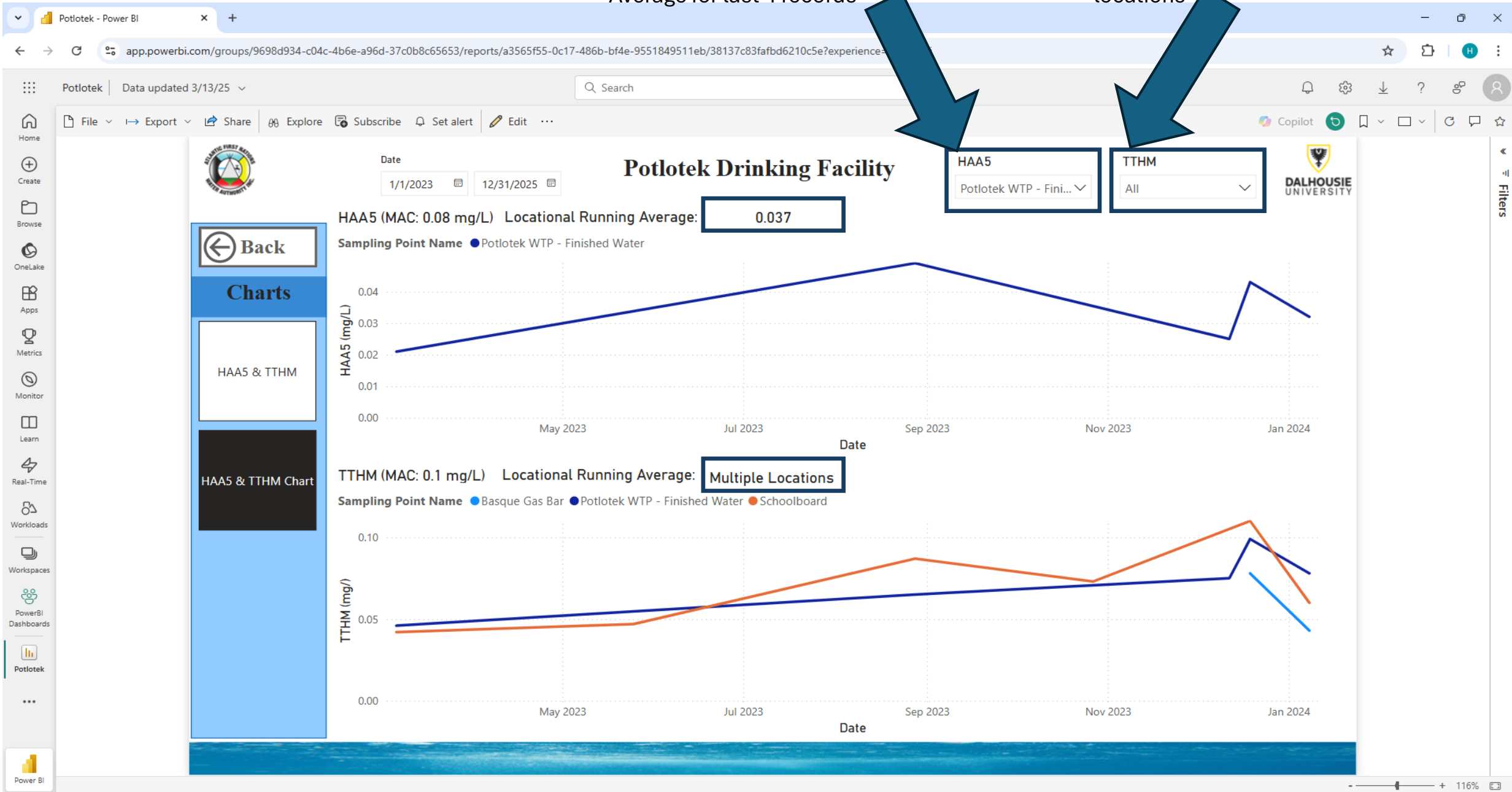
Selecting a single location will filter only that location for the charts

Selecting no specific or multiple locations will have multiple lines on the charts

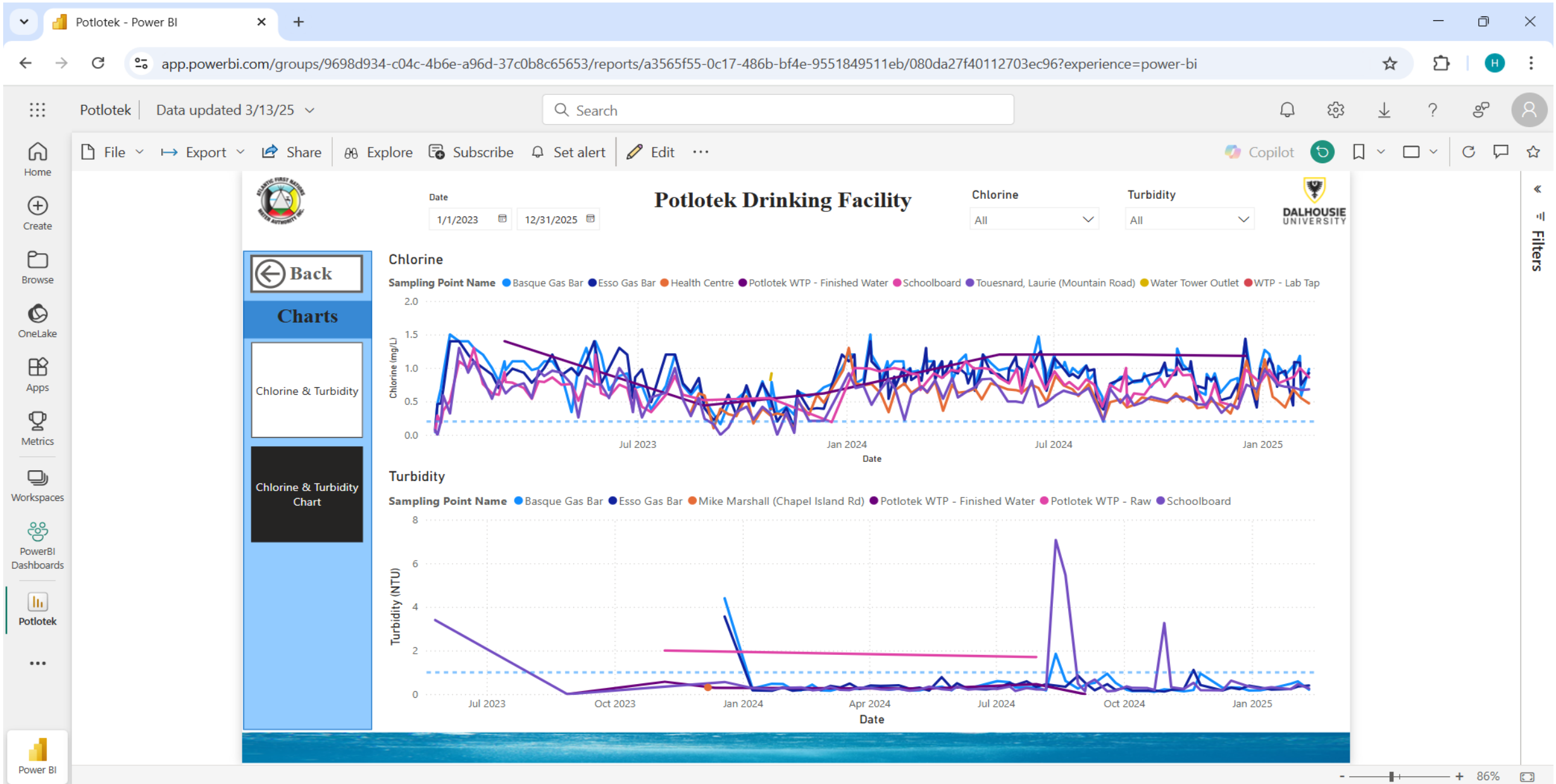


Selecting a single location will allow us to calculate Locational Running Average for last 4 records

Selecting no location or multiple locations will return "Multiple locations"



Charts can get messy! Data will collect over the years and with multiple locations it might get confusing, however these charts help us understand the trend and filter for any outliers



Moving to the wastewater facility

The image shows a Power BI report interface. At the top, the browser address bar displays the URL: `app.powerbi.com/groups/9698d934-c04c-4b6e-a96d-37c0b8c65653/reports/a3565f55-0c17-486b-bf4e-9551849511eb/512fa93e6a74a60acae4?experience=power-bi`. The report header includes the logos for Atlantic First Nations Water Authority Inc., Dalhousie University, and Potlotek First Nation. The main title is "AFNWA Potlotek Monitoring Dashboard". Below the title, there are two blue buttons: "Drinking Water Facility" and "Wastewater Facility". A text prompt below the buttons says "Select appropriate option". On the right side of the report, there is a large image of a river with large rocks and mountains in the background. The interface also shows a left-hand navigation pane with various Power BI icons and a top navigation bar with options like File, Export, Share, Explore, and Subscribe.



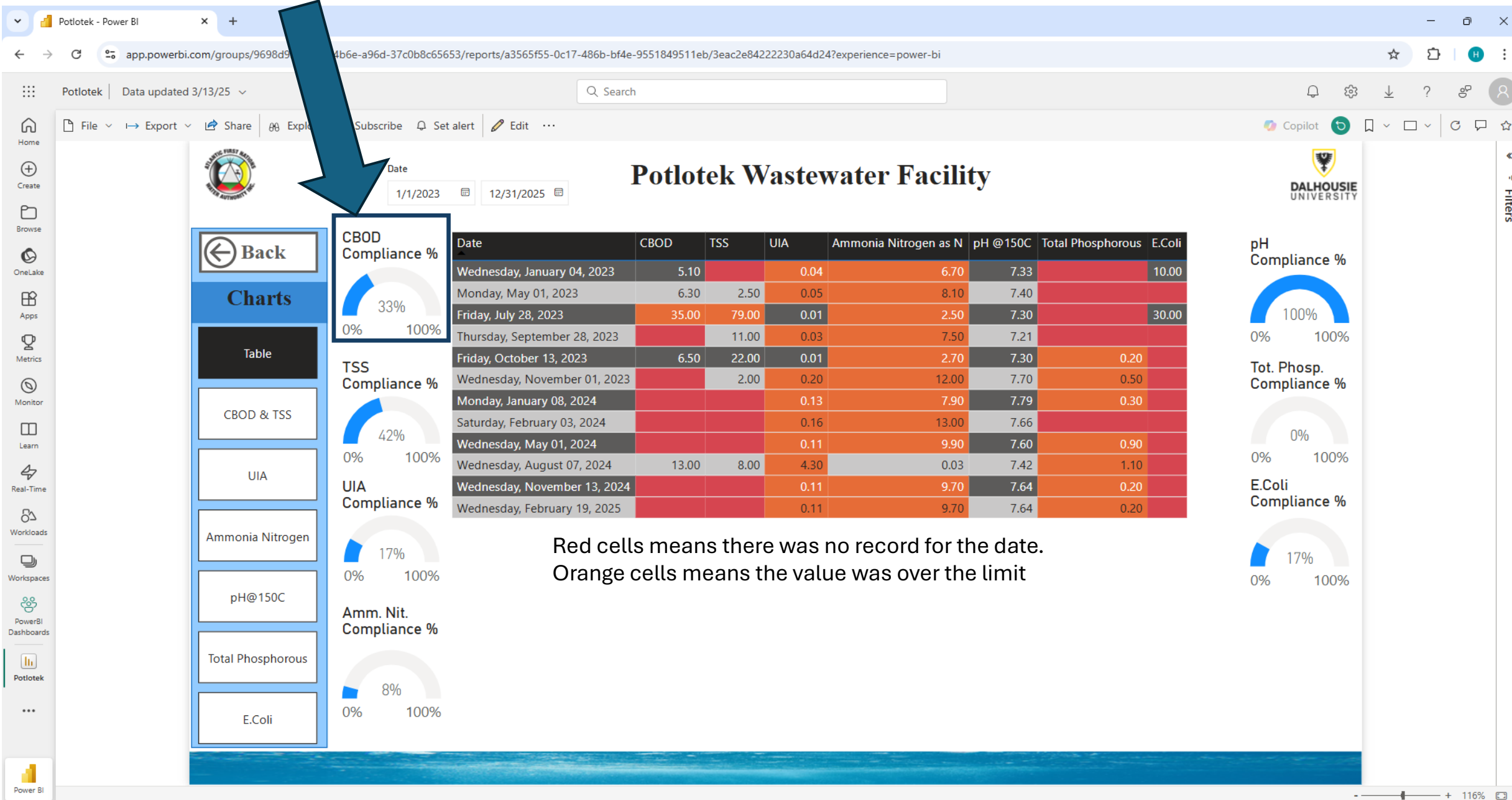
AFNWA Potlotek Monitoring Dashboard

[Drinking Water Facility](#) [Wastewater Facility](#)

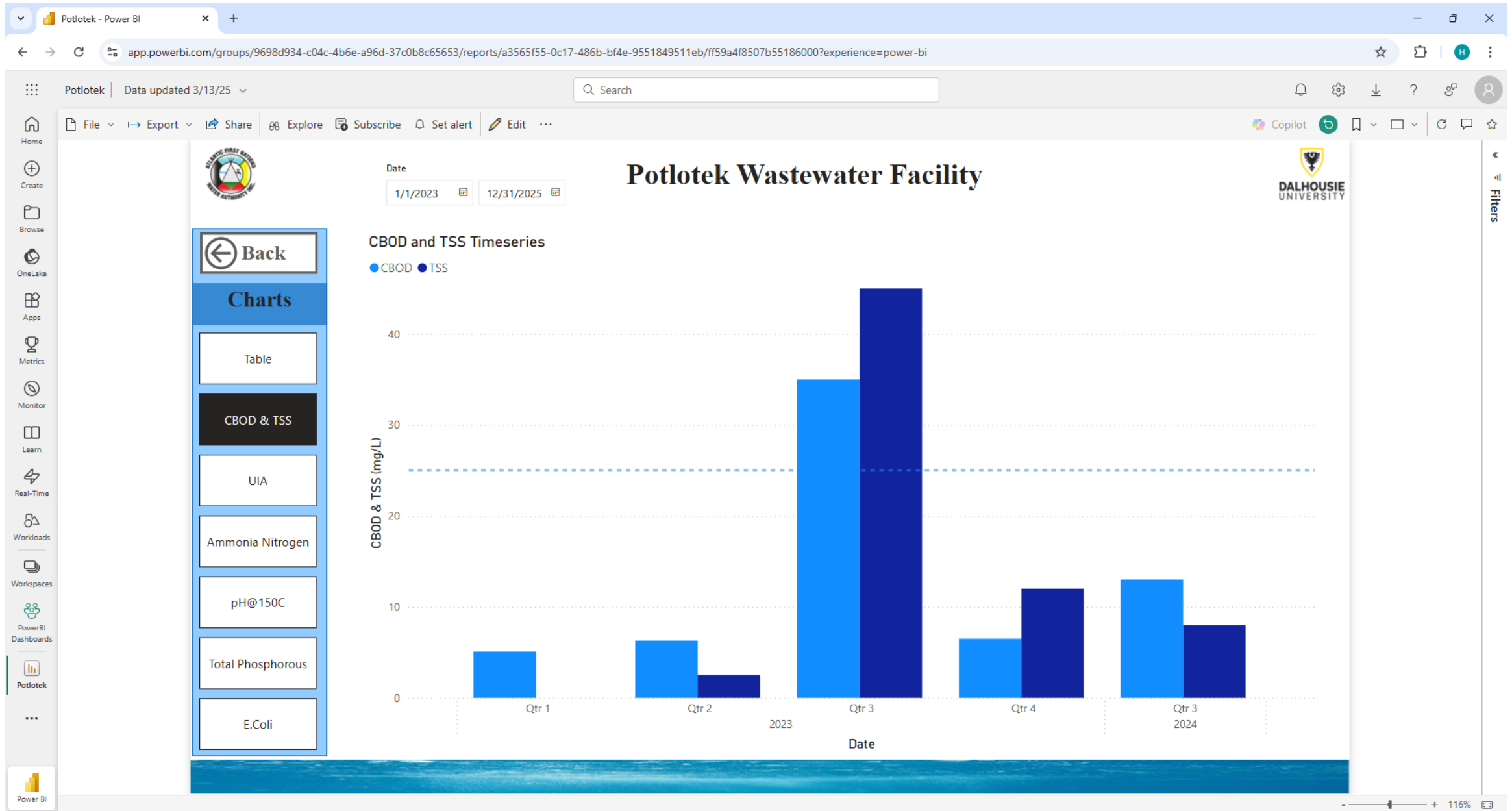
Select appropriate option



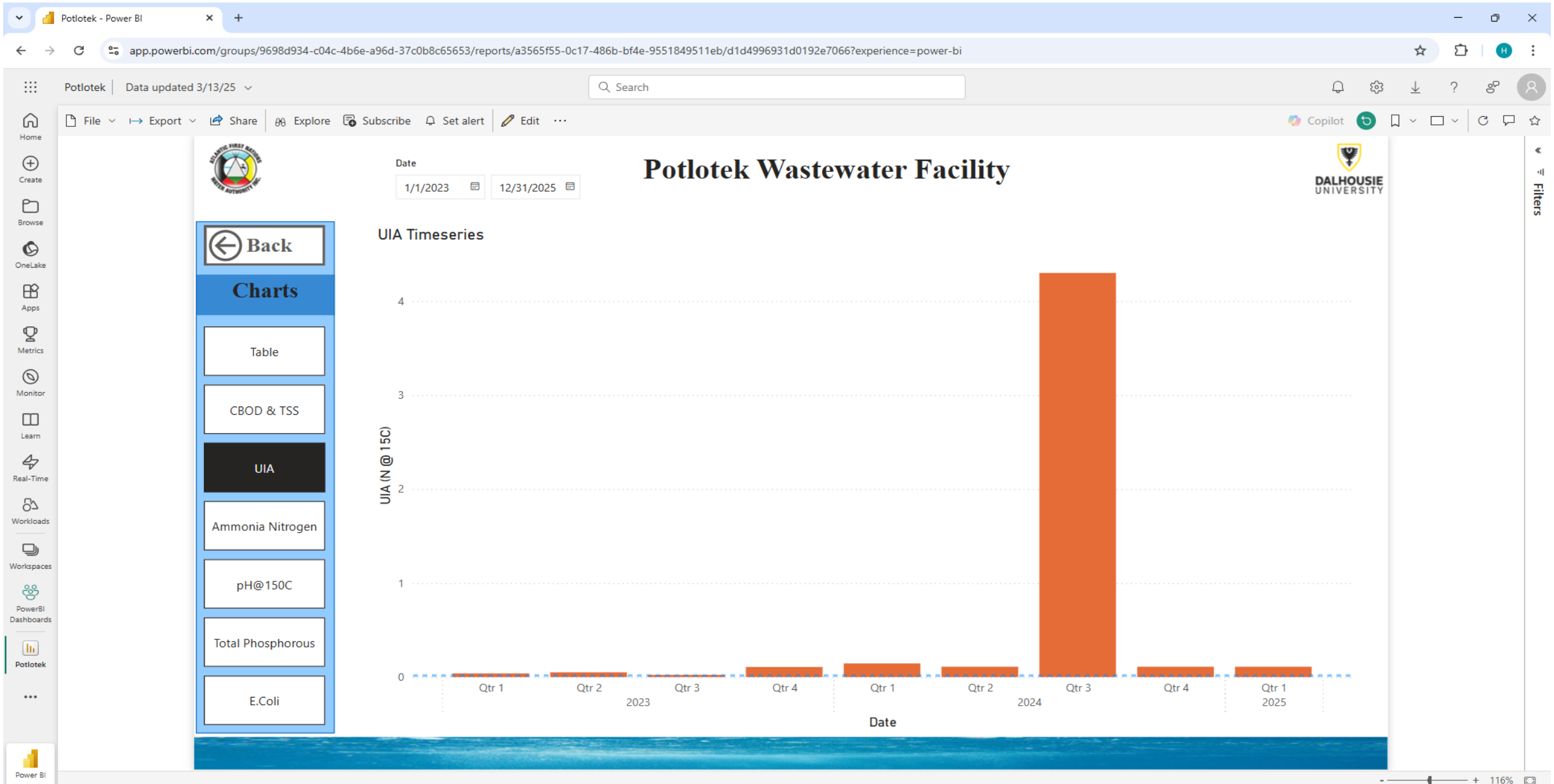
Compliance % reflects the number of records that weren't missing or over the limit out of all the records



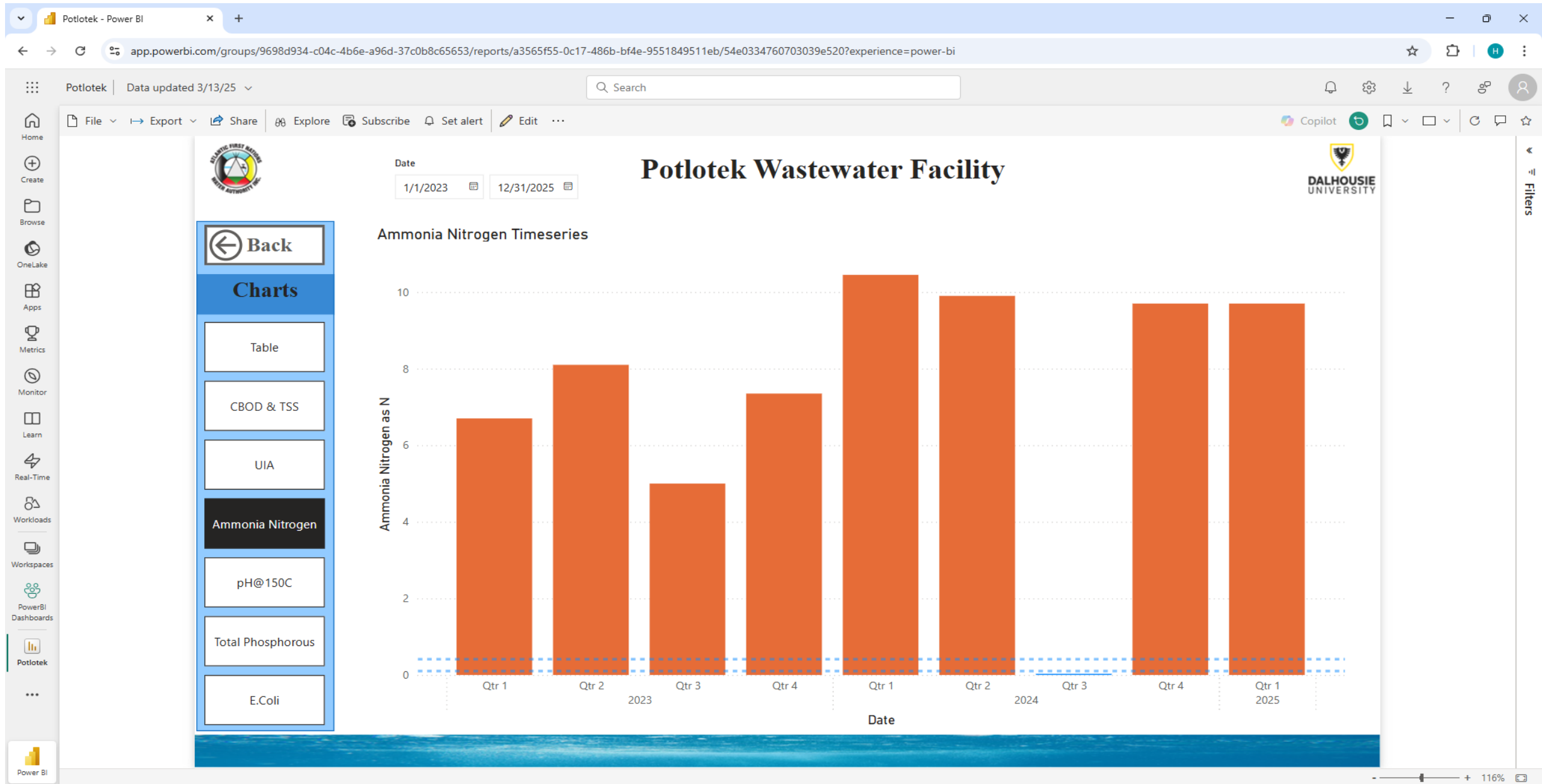
The charts are set to aggregate data quarterly, for CBOD and TSS the limit is 25 mg/L, the dashed blue signifies the limit, so if the bars exceed the line, then its over the limit



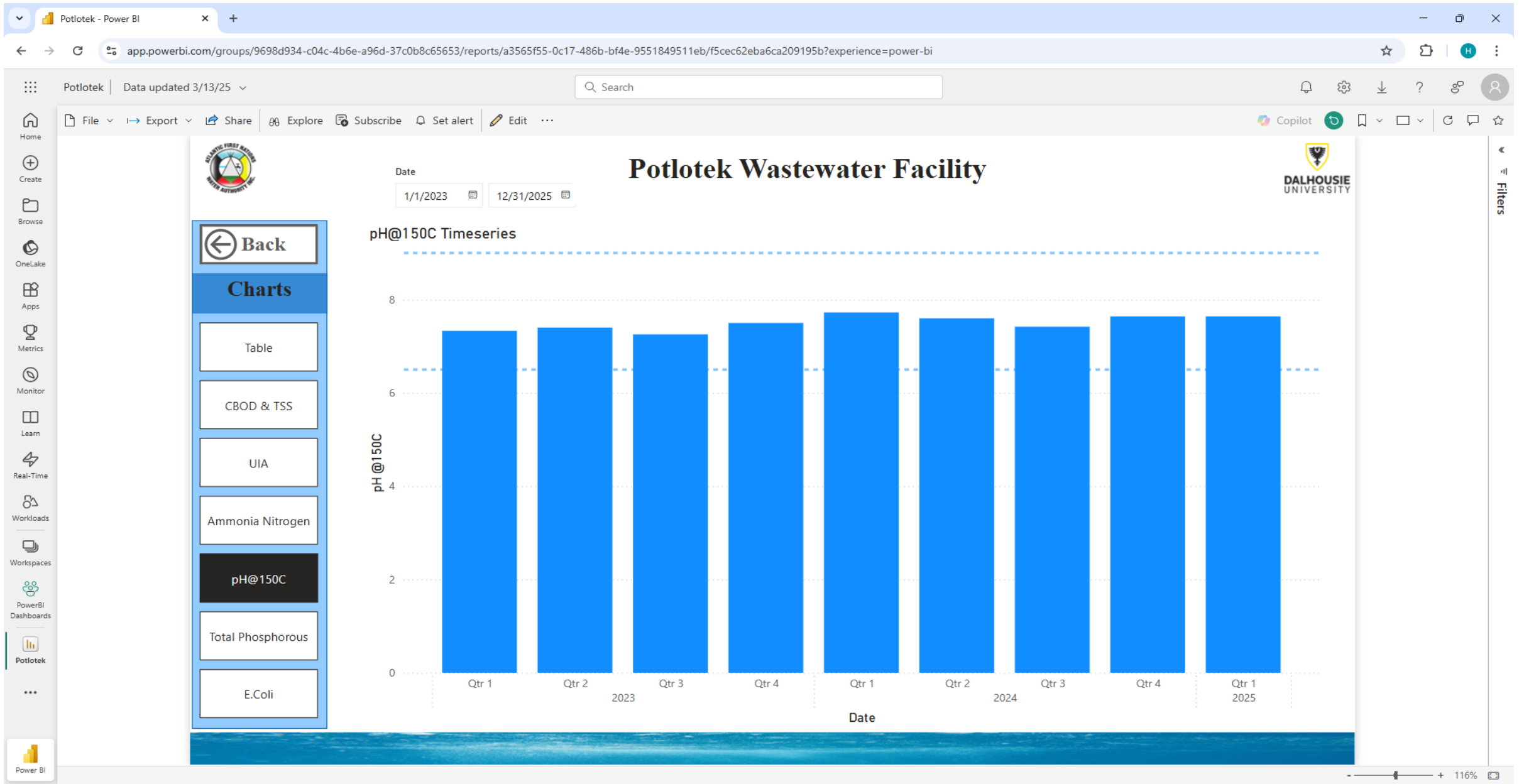
For UIA, Total Phosphorous and E.Coli , if the bar exceeds the limit denoted by dashed blue line



For Ammonia Nitrogen, it's a little complicated because the limits are different for different months, hence two different dashed blue lines, but for the bars a formula has been used associating the months with their limits and comparing them with the aggregate value, if it turns orange that means its in exceedance.



For pH, we need to operate within limits hence, the two dashed blue lines denote upper and lower limits. If its within limit it will be blue otherwise it will turn orange.



Next Steps!

- We want to **pilot this with some operators** to get your feedback and ideas
- If you want to get access to your dashboard and receive training to begin using it, please let us know (or we'll randomly pick some of you)
- The pilot process will allow us **to improve the dashboard user experience** and **build training modules for users**

Wela'lin!

Woliwon!

