



PAKAR SCIENO TW
Integrated Environmental Solutions

CRWQM DATA VALIDATION

JANUARY 2025

Date : 27/2/2025



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Pakar Scieno TW Sdn Bhd

ENVIRONMENTAL DATA SUMMARY

JANUARY 2025

	Remarks	Count	(%)
Schedule Data	Data that has been scheduled	758 880	
Raw Data	Data that actually send to EDC	756 160	99.6
Failure Data	Data that not send to EDC	2 720	0.4
Environmental Data	Quality data that have go through QAQC procedure	746 338	98.7
Rejected Data	Data that have been rejected through QAQC process	9 822	1.3
Delayed Data	Data that transmit after 15 minute (count as environmental data but not payable).	0	0.0



INVOICE CLAIM FOR JANUARY 2025

DATE START:	1-Jan-25	: Please select start date - make sure data at table (Tableau) updated with latest data
DATE END:	31-Jan-25	: Please select End date - make sure data at table (Tableau) updated with latest data
DAYS COUNT	31	Days

INVOICE CLAIM									
No.	Items	Unit	Price Per Paramater (RM)	ENVIRONMENTAL DATA		PENALTY		Total Data Count D= (B - C)	Total Invoice (RM) A x D
				(Count)	Value (RM)	(Count)	Value (RM)		
				A	B	(B X A)	C		
A	Parameter Analyzed (in-situ)								
1	Dissolved Oxygen	mg/L	0.35	44,083	15,429.05	0	-	44,083	15,429.05
2	Dissolved Oxygen	% sat	0.35	44,083	15,429.05	0	-	44,083	15,429.05
3	Biochemical Oxygen Demand (BOD	mg/l	0.35	43,817	15,335.95	0	-	43,817	15,335.95
4	Chemical Oxygen Demand (COD	mg/l	0.35	43,817	15,335.95	0	-	43,817	15,335.95
5	Total Suspended Solids (TSS)	mg/l	0.35	43,853	15,348.55	0	-	43,853	15,348.55
6	Total Organic Carbon (TOC)	mg/l	0.35	43,733	15,306.55	0	-	43,733	15,306.55
7	Ammonium (NH4-N)	mg/l	0.35	43,820	15,337.00	0	-	43,820	15,337.00
8	Ammoniacal Nitrogen (NH3-N)	mg/l	0.35	43,820	15,337.00	0	-	43,820	15,337.00
9	Nitrate (NO ³⁺)	mg/l	0.35	43,814	15,334.90	0	-	43,814	15,334.90
10	pH		0.31	44,148	13,685.88	0	-	44,148	13,685.88
11	Conductivity	µS/cm	0.35	44,129	15,445.15	0	-	44,129	15,445.15
12	Turbidity	NTU	0.35	43,892	15,362.20	0	-	43,892	15,362.20
13	Temperature	°C	0.35	44,147	15,451.45	0	-	44,147	15,451.45
14	Salinity (‰)	ppt	0.35	44,129	15,445.15	0	-	44,129	15,445.15
15	Hydrocarbon (HC)	mg/l	0.35	43,819	15,336.65	0	-	43,819	15,336.65
19	Flowrate	m ³ /s	0.35	43,443	15,205.05	0	-	43,443	15,205.05
20	River Water Level	m	0.35	43,791	15,326.85	0	-	43,791	15,326.85
Total Amount (RM)				746,338	259,452.38	0	-		3 259,452.38



CRWQM ENVIRONMENTAL DATA										
No.	Items	Unit	Quantity (No. of stations)	Data Capture per day	Days	AxBxC	Total Environmental Data	Cost per parameter (RM)	Total Cost per Month (RM)	
			A	B	C		D	E	DxE	
A	Parameter Analyzed (in-situ)									
1	Dissolved Oxygen	mg/L	30	48	31	44,640	44,083	0.35	15,429.05	
2	Dissolved Oxygen	% sat	30	48	31	44,640	44,083	0.35	15,429.05	
3	Biochemical Oxygen Demand (BOD)	mg/l	30	48	31	44,640	43,817	0.35	15,335.95	
4	Chemical Oxygen Demand (COD)	mg/l	30	48	31	44,640	43,817	0.35	15,335.95	
5	Total Suspended Solids (TSS)	mg/l	30	48	31	44,640	43,853	0.35	15,348.55	
6	Total Organic Carbon (TOC)	mg/l	30	48	31	44,640	43,733	0.35	15,306.55	
7	Ammonium (NH ₄ -N)	mg/l	30	48	31	44,640	43,820	0.35	15,337.00	
8	Ammoniacal Nitrogen (NH ₃ -N)	mg/l	30	48	31	44,640	43,820	0.35	15,337.00	
9	Nitrate (NO ³⁺)	mg/l	30	48	31	44,640	43,814	0.35	15,334.90	
10	pH		30	48	31	44,640	44,148	0.31	13,685.88	
11	Conductivity	µS/cm	30	48	31	44,640	44,129	0.35	15,445.15	
12	Turbidity	NTU	30	48	31	44,640	43,892	0.35	15,362.20	
13	Temperature	°C	30	48	31	44,640	44,147	0.35	15,451.45	
14	Salinity (‰)	ppt	30	48	31	44,640	44,129	0.35	15,445.15	
15	Hydrocarbon (HC)	mg/l	30	48	31	44,640	43,819	0.35	15,336.65	
19	Flowrate	m ³ /s	30	48	31	44,640	43,443	0.35	15,205.05	
20	River Water Level	m	30	48	31	44,640	43,791	0.35	15,326.85	
								TOTAL	1	259,452.38



CRWQM PENALTY									
No.	Items	Unit	<90% Penalty	% (Raw Data)	Transmission Penalty	% (Penalty/Env Data)	Total Penalty Count	Cost per parameter (RM)	Total Penalty (RM)
			A		B		C=A+B	E	CxE
A	Parameter Analyzed (in-situ)								
1	Dissolved Oxygen	mg/L	0	0.00%	0	0%	0	0.35	0.00
2	Dissolved Oxygen	% sat	0	0.00%	0	0%	0	0.35	0.00
3	Biochemical Oxygen Demand (BOD)	mg/l	0	0.00%	0	0%	0	0.35	0.00
4	Chemical Oxygen Demand (COD)	mg/l	0	0.00%	0	0%	0	0.35	0.00
5	Total Suspended Solids (TSS)	mg/l	0	0.00%	0	0%	0	0.35	0.00
6	Total Organic Carbon (TOC)	mg/l	0	0.00%	0	0%	0	0.35	0.00
7	Ammonium (NH ₄ -N)	mg/l	0	0.00%	0	0%	0	0.35	0.00
8	Ammoniacal Nitrogen (NH ₃ -N)	mg/l	0	0.00%	0	0%	0	0.35	0.00
9	Nitrate (NO ₃ ⁺)	mg/l	0	0.00%	0	0%	0	0.35	0.00
10	pH		0	0.00%	0	0%	0	0.31	0.00
11	Conductivity	µS/cm	0	0.00%	0	0%	0	0.35	0.00
12	Turbidity	NTU	0	0.00%	0	0%	0	0.35	0.00
13	Temperature	°C	0	0.00%	0	0%	0	0.35	0.00
14	Salinity (‰)	ppt	0	0.00%	0	0%	0	0.35	0.00
15	Hydrocarbon (HC)	mg/l	0	0.00%	0	0%	0	0.35	0.00
19	Flowrate	m ³ /s	0	0.00%	0	0%	0	0.35	0.00
20	River Water Level	m	0	0.00%	0	0%	0	0.35	0.00
								TOTAL	2 0.00

PERFORMANCE BY PARAMETERS FOR 30 STATIONS – JANUARY 2025

	YSI EXO2										ISA GO					SONTEK	
	DO Con	DO Sat	Cond	Temp	Sal	pH	Nh4n	Nh3n	Turb	Tss	Bod	Cod	Toc	Hc	No3	River Depth	Flowrate
Scheduled Data Count	44640	44640	44640	44640	44640	44640	44640	44640	44640	44640	44640	44640	44640	44640	44640	44640	44640
Failure Data Count & (%)	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
	0.36%	0.36%	0.36%	0.36%	0.36%	0.36%	0.36%	0.36%	0.36%	0.36%	0.36%	0.36%	0.36%	0.36%	0.36%	0.36%	0.36%
Raw Data Count & (%)	44480	44480	44480	44480	44480	44480	44480	44480	44480	44480	44480	44480	44480	44480	44480	44480	44480
	99.64%	99.64%	99.64%	99.64%	99.64%	99.64%	99.64%	99.64%	99.64%	99.64%	99.64%	99.64%	99.64%	99.64%	99.64%	99.64%	99.64%
Accepted Data Count & (%)	44083	44083	44129	44147	44129	44148	43820	43820	43892	43853	43817	43817	43733	43819	43814	43791	43443
	99.11%	99.11%	99.21%	99.25%	99.21%	99.25%	98.52%	98.52%	98.68%	98.59%	98.51%	98.51%	98.32%	98.51%	98.50%	98.45%	97.67%
Rejected Data Count & (%)	397	397	351	333	351	332	660	660	588	627	663	663	747	661	666	689	1037
	0.89%	0.89%	0.79%	0.75%	0.79%	0.75%	1.48%	1.48%	1.32%	1.41%	1.49%	1.49%	1.68%	1.49%	1.50%	1.55%	2.33%

PERFORMANCE BY PARAMETERS & BY STATIONS – JANUARY 2025

Station ID	Parameters	DO con	DO sat	Conductivity	Temperature	Salinity	pH	NH4N	NH3N	Turbidity	TSS	BOD	COD	TOC	HC	NO3	River Water Level	Flowrate
	Schedule Data Count	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488
CR01K	Failure Data Count	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Raw Data Count	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488
	Rejected Data Count	35	35	35	35	35	35	35	35	38	38	0	0	0	0	0	0	1
	Environmental Data Count	1453	1453	1453	1453	1453	1453	1453	1453	1450	1450	1488	1488	1488	1488	1488	1488	1487
CR02K	Failure Data Count	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Raw Data Count	1487	1487	1487	1487	1487	1487	1487	1487	1487	1487	1487	1487	1487	1487	1487	1487	1487
	Rejected Data Count	8	8	8	8	8	8	8	8	11	11	0	0	0	0	0	3	3
	Environmental Data Count	1479	1479	1479	1479	1479	1479	1479	1479	1476	1476	1487	1487	1487	1487	1487	1484	1484
CR03K	Failure Data Count	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Raw Data Count	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488
	Rejected Data Count	1	1	1	1	1	1	2	2	2	2	69	69	69	69	69	0	0
	Environmental Data Count	1487	1487	1487	1487	1487	1487	1486	1486	1486	1486	1419	1419	1419	1419	1419	1488	1488
CR04P	Failure Data Count	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Raw Data Count	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488
	Rejected Data Count	20	20	11	11	11	11	21	21	89	89	51	51	51	51	51	0	0
	Environmental Data Count	1468	1468	1477	1477	1477	1477	1467	1467	1399	1399	1437	1437	1437	1437	1437	1488	1488
CR05A	Failure Data Count	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Raw Data Count	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488
	Rejected Data Count	14	14	14	14	14	15	15	15	73	73	2	2	2	4	2	2	4
	Environmental Data Count	1474	1474	1474	1474	1474	1473	1473	1473	1415	1415	1486	1486	1486	1484	1486	1486	1484

Station ID	Parameters	DO con	DO sat	Conduc tivity	Temper ature	Salinity	pH	NH4N	NH3N	Turbidi ty	TSS	BOD	COD	TOC	HC	NO3	River Water Level	Flowrate
	Schedule Data Count	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488
CR01K	Failure Data Count	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Raw Data Count	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Rejected Data Count	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.4%	2.6%	2.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
	Enviromental Data Count	97.6%	97.6%	97.6%	97.6%	97.6%	97.6%	97.6%	97.6%	97.4%	97.4%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.9%
CR02K	Failure Data Count	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
	Raw Data Count	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%
	Rejected Data Count	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.7%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%
	Enviromental Data Count	99.5%	99.5%	99.5%	99.5%	99.5%	99.5%	99.5%	99.5%	99.3%	99.3%	100.0%	100.0%	100.0%	100.0%	100.0%	99.8%	99.8%
CR03K	Failure Data Count	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Raw Data Count	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Rejected Data Count	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	4.6%	4.6%	4.6%	4.6%	4.6%	0.0%	0.0%
	Enviromental Data Count	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	95.4%	95.4%	95.4%	95.4%	95.4%	100.0%	100.0%
CR04P	Failure Data Count	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Raw Data Count	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Rejected Data Count	1.3%	1.3%	0.7%	0.7%	0.7%	0.7%	1.4%	1.4%	6.0%	6.0%	3.4%	3.4%	3.4%	3.4%	3.4%	0.0%	0.0%
	Enviromental Data Count	98.7%	98.7%	99.3%	99.3%	99.3%	99.3%	98.6%	98.6%	94.0%	94.0%	96.6%	96.6%	96.6%	96.6%	96.6%	100.0%	100.0%
CR05A	Failure Data Count	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Raw Data Count	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Rejected Data Count	0.9%	0.9%	0.9%	0.9%	0.9%	1.0%	1.0%	1.0%	4.9%	4.9%	0.1%	0.1%	0.1%	0.3%	0.1%	0.1%	0.3%
	Enviromental Data Count	99.1%	99.1%	99.1%	99.1%	99.1%	99.0%	99.0%	99.0%	95.1%	95.1%	99.9%	99.9%	99.9%	99.7%	99.9%	99.9%	99.7%

Station ID	Parameters	DO con	DO sat	Conductivity	Temperature	Salinity	pH	NH4N	NH3N	Turbidity	TSS	BOD	COD	TOC	HC	NO3	River Water Level	Flowrate
	Schedule Data Count	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488
CR11B	Failure Data Count	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Raw Data Count	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Rejected Data Count	5.0%	5.0%	0.2%	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Environmental Data Count	95.0%	95.0%	99.8%	99.8%	99.8%	99.9%	99.9%	99.9%	99.9%	99.9%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
CR12W	Failure Data Count	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Raw Data Count	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Rejected Data Count	0.9%	0.9%	0.9%	0.9%	0.9%	0.8%	0.9%	0.9%	0.8%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	1.7%
	Environmental Data Count	99.1%	99.1%	99.1%	99.1%	99.1%	99.2%	99.1%	99.1%	99.2%	99.2%	100.0%	100.0%	100.0%	100.0%	100.0%	98.3%	98.3%
CR13N	Failure Data Count	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Raw Data Count	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Rejected Data Count	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	2.8%	2.8%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%
	Environmental Data Count	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	97.2%	97.2%	99.9%	99.9%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	97.6%
CR14N	Failure Data Count	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Raw Data Count	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Rejected Data Count	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.5%	0.4%	0.4%	0.4%	0.0%	0.0%
	Environmental Data Count	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.5%	99.5%	99.6%	99.6%	99.6%	100.0%	100.0%
CR15N	Failure Data Count	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Raw Data Count	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Rejected Data Count	2.2%	2.2%	2.2%	2.2%	2.2%	2.9%	3.9%	3.9%	3.0%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Environmental Data Count	97.8%	97.8%	97.8%	97.8%	97.8%	97.1%	96.1%	96.1%	97.0%	97.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%

Station ID	Parameters	DO con	DO sat	Conductivity	Temperature	Salinity	pH	NH4N	NH3N	Turbidity	TSS	BOD	COD	TOC	HC	NO3	River Water Level	Flowrate
	Schedule Data Count	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488
CR16M	Failure Data Count	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Raw Data Count	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488
	Rejected Data Count	1	1	1	1	1	1	14	14	1	1	205	205	205	205	205	0	0
	Environmental Data Count	1487	1487	1487	1487	1487	1487	1474	1474	1487	1487	1283	1283	1283	1283	1283	1488	1488
CR17M	Failure Data Count	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Raw Data Count	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488
	Rejected Data Count	24	24	24	24	24	24	24	24	24	24	110	110	195	110	110	2	2
	Environmental Data Count	1464	1464	1464	1464	1464	1464	1464	1464	1464	1464	1378	1378	1293	1378	1378	1486	1486
CR18J	Failure Data Count	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
	Raw Data Count	1460	1460	1460	1460	1460	1460	1460	1460	1460	1460	1460	1460	1460	1460	1460	1460	1460
	Rejected Data Count	90	90	101	90	101	90	92	92	92	92	1	1	1	1	1	135	178
	Environmental Data Count	1370	1370	1359	1370	1359	1370	1368	1368	1368	1368	1459	1459	1459	1459	1459	1459	1325
CR19J	Failure Data Count	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Raw Data Count	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488
	Rejected Data Count	0	0	0	0	0	0	1	1	0	25	0	0	0	0	0	0	0
	Environmental Data Count	1488	1488	1488	1488	1488	1488	1487	1487	1488	1463	1488	1488	1488	1488	1488	1488	1488
CR20J	Failure Data Count	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Raw Data Count	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488
	Rejected Data Count	0	0	0	0	0	0	0	0	4	4	0	0	0	0	0	188	188
	Environmental Data Count	1488	1488	1488	1488	1488	1488	1488	1488	1484	1484	1488	1488	1488	1488	1488	1488	1300

Station ID	Parameters	DO con	DO sat	Conductivity	Temperature	Salinity	pH	NH4N	NH3N	Turbidity	TSS	BOD	COD	TOC	HC	NO3	River Water Level	Flowrate
	Schedule Data Count	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488
CR16M	Failure Data Count	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Raw Data Count	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Rejected Data Count	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.9%	0.9%	0.1%	0.1%	13.8%	13.8%	13.8%	13.8%	13.8%	0.0%	0.0%
	Environmental Data Count	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.1%	99.1%	99.9%	99.9%	86.2%	86.2%	86.2%	86.2%	86.2%	100.0%
CR17M	Failure Data Count	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Raw Data Count	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Rejected Data Count	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	7.4%	7.4%	13.1%	7.4%	7.4%	0.1%	0.1%
	Environmental Data Count	98.4%	98.4%	98.4%	98.4%	98.4%	98.4%	98.4%	98.4%	98.4%	98.4%	92.6%	92.6%	86.9%	92.6%	92.6%	0.0%	0.0%
CR18J	Failure Data Count	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%
	Raw Data Count	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%
	Rejected Data Count	6.2%	6.2%	6.9%	6.2%	6.9%	6.2%	6.3%	6.3%	6.3%	6.3%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%
	Environmental Data Count	93.8%	93.8%	93.1%	93.8%	93.1%	93.8%	93.7%	93.7%	93.7%	93.7%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	0.0%
CR19J	Failure Data Count	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Raw Data Count	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Rejected Data Count	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Environmental Data Count	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.9%	99.9%	100.0%	98.3%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%
CR20J	Failure Data Count	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Raw Data Count	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Rejected Data Count	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Environmental Data Count	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.7%	99.7%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%



Station ID	Parameters	DO con	DO sat	Conduc- tivity	Tempe- rature	Salinity	pH	NH4N	NH3N	Turbidi- ty	TSS	BOD	COD	TOC	HC	NO3	River Water Level	Flowra- te
	Schedule Data Count	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488
CR26D	Failure Data Count	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Raw Data Count	1487	1487	1487	1487	1487	1487	1487	1487	1487	1487	1487	1487	1487	1487	1487	1487	1487
	Rejected Data Count	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	164	164
	Enviromental Data Count	1486	1486	1486	1486	1486	1486	1486	1486	1486	1486	1487	1487	1487	1487	1487	1487	1323
CR27S	Failure Data Count	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47
	Raw Data Count	1441	1441	1441	1441	1441	1441	1441	1441	1441	1441	1441	1441	1441	1441	1441	1441	1441
	Rejected Data Count	1	1	1	1	1	1	28	28	2	16	28	28	29	28	28	0	1
	Enviromental Data Count	1440	1440	1440	1440	1440	1440	1413	1413	1439	1425	1413	1413	1412	1413	1413	1441	1440
CR29Q	Failure Data Count	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38	38
	Raw Data Count	1450	1450	1450	1450	1450	1450	1450	1450	1450	1450	1450	1450	1450	1450	1450	1450	1450
	Rejected Data Count	1	1	1	1	1	1	69	69	1	1	0	0	0	0	0	55	55
	Enviromental Data Count	1449	1449	1449	1449	1449	1449	1381	1381	1449	1449	1450	1450	1450	1450	1450	1395	1395
CR30Q	Failure Data Count	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Raw Data Count	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488
	Rejected Data Count	18	18	18	18	18	18	54	54	18	18	141	141	141	141	141	37	128
	Enviromental Data Count	1470	1470	1470	1470	1470	1470	1434	1434	1470	1470	1347	1347	1347	1347	1347	1451	1360
CR31S	Failure Data Count	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	Raw Data Count	1481	1481	1481	1481	1481	1481	1481	1481	1481	1481	1481	1481	1481	1481	1481	1481	1481
	Rejected Data Count	1	1	1	1	1	1	52	52	1	1	4	4	3	3	3	7	9
	Enviromental Data Count	1480	1480	1480	1480	1480	1480	1429	1429	1480	1480	1477	1477	1478	1478	1478	1474	1472

Station ID	Parameters	DO con	DO sat	Conduc- tivity	Temper- ature	Salinity	pH	NH4N	NH3N	Turbidi- ty	TSS	BOD	COD	TOC	HC	NO3	River Water Level	Flowrate
	Schedule Data Count	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488	1488
CR26D	Failure Data Count	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
	Raw Data Count	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%
	Rejected Data Count	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	11.0%	11.0%
	Enviromental Data Count	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%
CR27S	Failure Data Count	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%
	Raw Data Count	96.8%	96.8%	96.8%	96.8%	96.8%	96.8%	96.8%	96.8%	96.8%	96.8%	96.8%	96.8%	96.8%	96.8%	96.8%	96.8%	96.8%
	Rejected Data Count	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	1.9%	1.9%	0.1%	1.1%	1.9%	1.9%	2.0%	1.9%	1.9%	0.0%	0.1%
	Enviromental Data Count	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	98.1%	98.1%	99.9%	98.9%	98.1%	98.1%	98.0%	98.1%	98.1%	100.0%	99.9%
CR29Q	Failure Data Count	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%	2.6%
	Raw Data Count	97.4%	97.4%	97.4%	97.4%	97.4%	97.4%	97.4%	97.4%	97.4%	97.4%	97.4%	97.4%	97.4%	97.4%	97.4%	97.4%	97.4%
	Rejected Data Count	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	4.8%	4.8%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	3.8%	3.8%
	Enviromental Data Count	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	95.2%	95.2%	99.9%	99.9%	100.0%	100.0%	100.0%	100.0%	100.0%	96.2%	96.2%
CR30Q	Failure Data Count	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Raw Data Count	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Rejected Data Count	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	3.6%	3.6%	1.2%	1.2%	9.5%	9.5%	9.5%	9.5%	9.5%	2.5%	8.6%
	Enviromental Data Count	98.8%	98.8%	98.8%	98.8%	98.8%	98.8%	96.4%	96.4%	98.8%	98.8%	90.5%	90.5%	90.5%	90.5%	90.5%	97.5%	91.4%
CR31S	Failure Data Count	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
	Raw Data Count	99.5%	99.5%	99.5%	99.5%	99.5%	99.5%	99.5%	99.5%	99.5%	99.5%	99.5%	99.5%	99.5%	99.5%	99.5%	99.5%	99.5%
	Rejected Data Count	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	3.5%	3.5%	0.1%	0.1%	0.3%	0.3%	0.2%	0.2%	0.2%	0.5%	0.6%
	Enviromental Data Count	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	96.5%	96.5%	99.9%	99.9%	99.7%	99.7%	99.8%	99.8%	99.8%	99.5%	99.4%

Remarks for data failure – JANUARY 2025

NO	STATION ID	RIVER	TELCO LINE	FAILURE DATA COUNT	EQUIPMENT INVOLVES	REMARKS	ACTION TAKEN
1	CR18J	Sg Segamat, Johor	Celcom & Maxis	476	All	No data transmit	Reset phocos at site & data back online 14/1/25
2	CR22C	Sg Pahang, Pahang	Celcom & Maxis	357	All	Modem malfunction (freeze) & coverage line slow	Reset modem (ftp) & data back online 24/1/25
3	CR25T	Sg Besut, Terengganu	Celcom & Maxis	289	All	Solar regulator faulty	Replace new solar regulator & data back online 27/1/25
4	CR27S	Sg Tuaran, Sabah	Celcom & Maxis	799	All	Low battery & power supply	Swap battery & reboot datataker. Data back online 17/1/25
5	CR29Q	Sg Sarawak, Sarawak	Celcom & Maxis	646	All	Transmission failed due to coverage low	Restart datataker & reset power modem.

WQI SUMMARY – JANUARY 2025

STATION ID	LOCATION		WQI CLASS (DECEMBER 2024)		WQI CLASS (JANUARY 2025)	
			WQI	CLASS	WQI	CLASS
CR01K	TERUSAN MADA	KEDAH	82	CLEAN	87	CLEAN
CR02K	TERUSAN MADA	KEDAH	84	CLEAN	87	CLEAN
CR03K	SG MUDA	KEDAH	78	SLIGHTLY POLLUTED	81	CLEAN
CR04P	SG KULIM	PULAU PINANG	74	SLIGHTLY POLLUTED	74	SLIGHTLY POLLUTED
CR05A	SG BOGAK	PERAK	83	CLEAN	83	CLEAN
CR06A	SG PERAK	PERAK	89	CLEAN	90	CLEAN
CR07B	SG SELANGOR	SELANGOR	83	CLEAN	81	CLEAN
CR08B	SG LANGAT	SELANGOR	74	SLIGHTLY POLLUTED	76	SLIGHTLY POLLUTED
CR09B	SG SEMENYIH	SELANGOR	79	SLIGHTLY POLLUTED	79	SLIGHTLY POLLUTED
CR10B	SG LABU	SELANGOR	76	SLIGHTLY POLLUTED	73	SLIGHTLY POLLUTED
CR11B	SG LANGAT	SELANGOR	82	CLEAN	82	CLEAN
CR12W	SG KLANG	W.P.KUALA LUMPUR	53	POLLUTED	53	POLLUTED
CR13N	SG LINGGI	NEGERI SEMBILAN	79	SLIGHTLY POLLUTED	75	SLIGHTLY POLLUTED
CR14N	SG MUAR	NEGERI SEMBILAN	85	CLEAN	84	CLEAN
CR15N	SG MUAR	NEGERI SEMBILAN	85	CLEAN	86	CLEAN
CR16M	SG MELAKA	MELAKA	80	SLIGHTLY POLLUTED	80	SLIGHTLY POLLUTED
CR17M	SG KESANG	MELAKA	85	CLEAN	85	CLEAN
CR18J	SG SEGAMAT	JOHOR	85	CLEAN	87	CLEAN
CR19J	SG MUAR	JOHOR	69	SLIGHTLY POLLUTED	76	SLIGHTLY POLLUTED
CR20J	SG SEMANGGAR	JOHOR	84	CLEAN	84	CLEAN
CR21J	SG SKUDAI	JOHOR	72	SLIGHTLY POLLUTED	77	SLIGHTLY POLLUTED
CR22C	SG PAHANG	PAHANG	84	CLEAN	86	CLEAN
CR23C	SG KUANTAN	PAHANG	80	SLIGHTLY POLLUTED	85	CLEAN
CR24T	SG PAKA	TERENGGANU	76	SLIGHTLY POLLUTED	82	CLEAN
CR25T	SG BESUT	TERENGGANU	91	CLEAN	93	CLEAN
CR26D	SG KELANTAN	KELANTAN	89	CLEAN	89	CLEAN
CR27S	SG TUARAN	SABAH	95	CLEAN	94	CLEAN
CR29Q	SG SARAWAK	SARAWAK	89	CLEAN	87	CLEAN
CR30Q	SG BATANG SADONG	SARAWAK	89	CLEAN	87	CLEAN
CR31S	SG MOYOG	SABAH	94	CLEAN	93	CLEAN

		CLEAN	SLIGHTLY POLLUTED	POLLUTED
JANUARY	WQI RANGE	81-100	60-80	0-59
	STATION COUNT	21	8	1
	%	70.0%	26.7%	3.3%
DECEMBER	WQI RANGE	81-100	60-80	0-59
	STATION COUNT	18	11	1
	%	60.0%	36.7%	3.3%

WQI DATA COUNT – JANUARY 2025

Station ID	River	Shchedule Data Count	Raw Data Count	WQI Data Count	NO WQI Data Count
CR01K	Terusan Mada, Arau	1488	1488	1450	38
CR02K	Terusan Mada, Bukit Jenun	1488	1487	1476	11
CR03K	Sg Muda, Kedah	1488	1488	1416	72
CR04P	Sg Kulim, P.Pinang	1488	1488	1344	144
CR05A	Sg Bogak, Perak	1488	1488	1414	74
CR06A	Sg Perak, Perak	1488	1488	1484	4
CR07B	Sg Selangor, Selangor	1488	1488	1407	81
CR08B	Sg Langat (Dengkil), Selangor	1488	1488	1480	8
CR09B	Sg Semenyih, Selangor	1488	1488	1483	5
CR10B	Sg Labu, Selangor	1488	1488	1468	20
CR11B	Sg Langat (Cheras), Selangor	1488	1488	1412	76
CR12W	Sg Klang, W.P. Kuala Lumpur	1488	1488	1473	15
CR13N	Sg Linggi, N. Sembilan	1488	1488	1446	42
CR14N	Sg Muar (Pasir Besar), N. Sembilan	1488	1488	1481	7
CR15N	Sg Muar (Jelai Jempol), N. Sembilan	1488	1488	1429	59



Station ID	River	Shchedule Data Count	Raw Data Count	WQI Data Count	NO WQI Data Count
CR16M	Sg Melaka, Melaka	1488	1488	1269	219
CR17M	Sg Kesang, Melaka	1488	1488	1369	119
CR18J	Sg Segamat, Johor	1488	1460	1365	95
CR19J	Sg Muar, Johor	1488	1488	1462	26
CR20J	Sg Semanggar, Johor	1488	1488	1484	4
CR21J	Sg Skudai, Johor	1488	1488	1461	27
CR22C	Sg Pahang, Pahang	1488	1467	1438	29
CR23C	Sg Kuantan, Pahang	1488	1488	1474	14
CR24T	Sg Paka, Terengganu	1488	1488	1404	84
CR25T	Sg Besut, Terengganu	1488	1471	1458	13
CR26D	Sg Kelantan, Kelantan	1488	1487	1486	1
CR27S	Sg Tuaran, Sabah	1488	1441	1371	70
CR29Q	Sg Sarawak, Sarawak	1488	1450	1381	69
CR30Q	Sg Batang Sadong, Sarawak	1488	1488	1293	195
CR31S	Sg Moyog, Sabah	1488	1481	1425	56

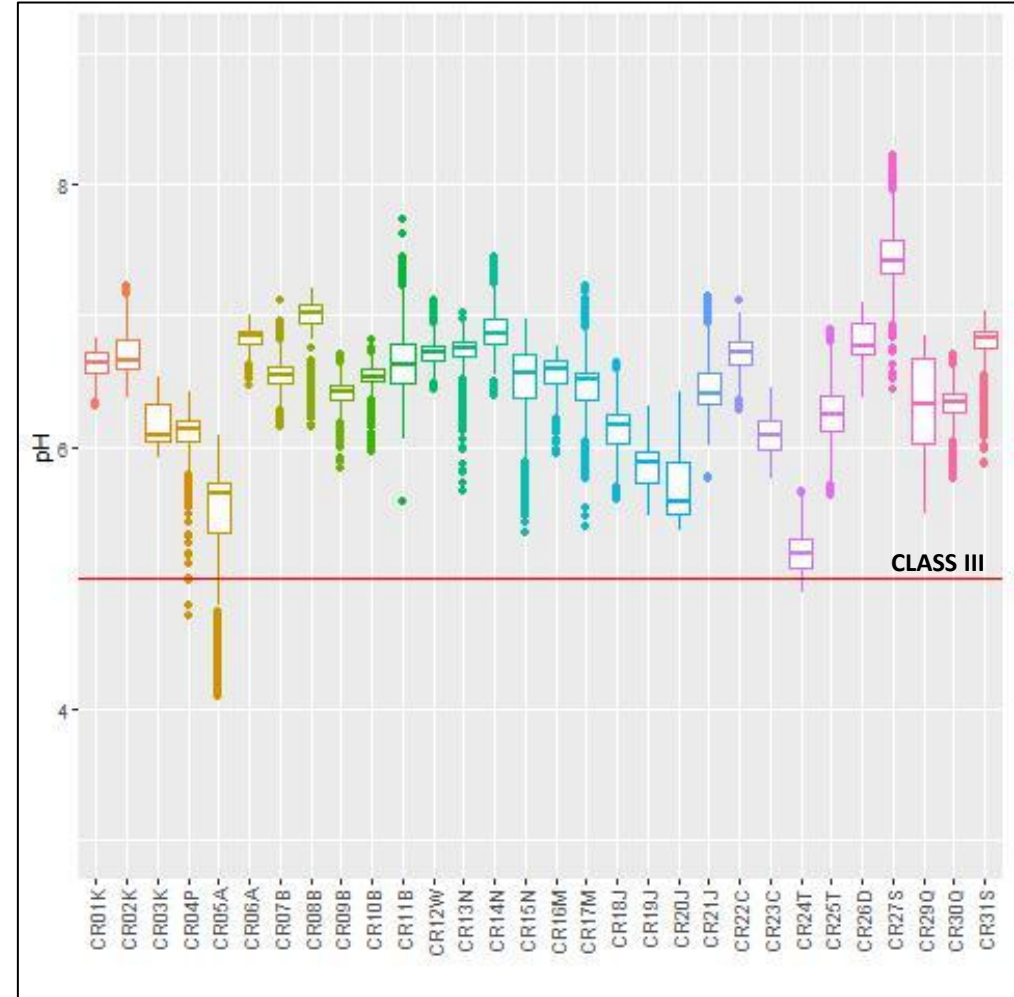
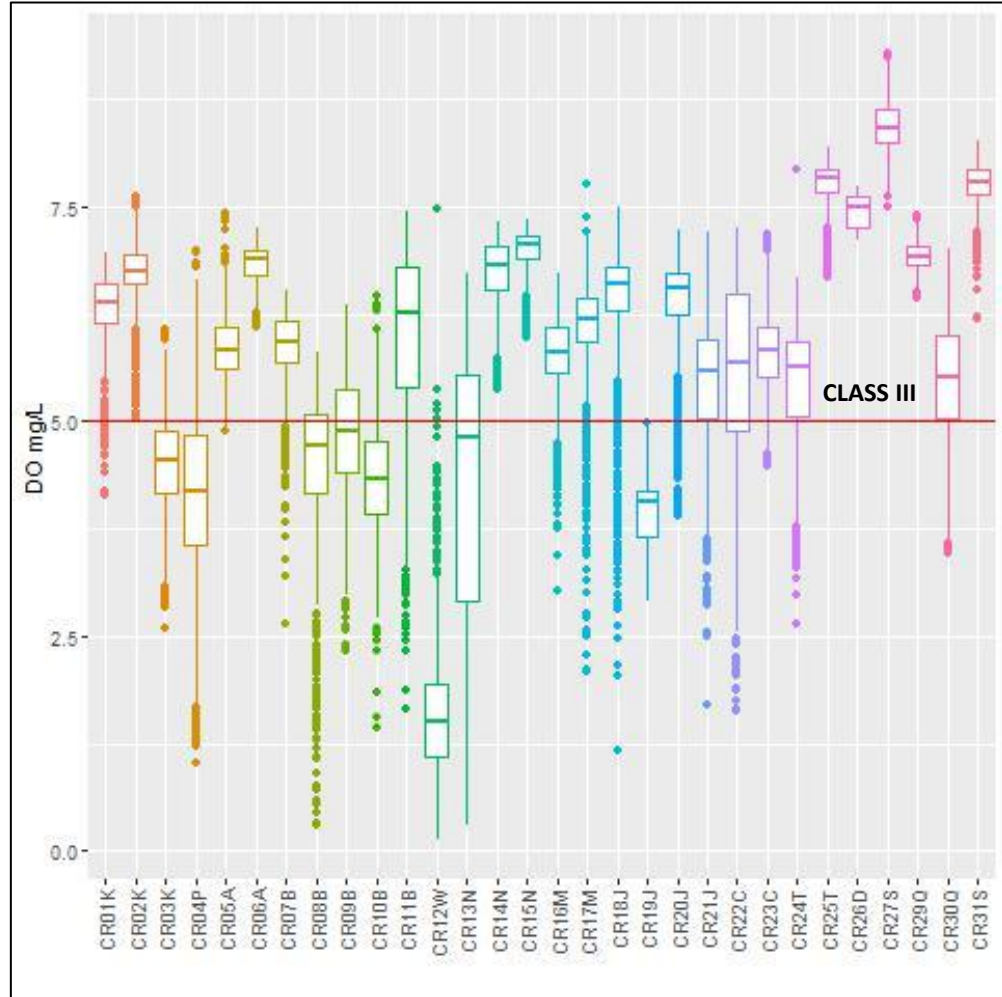
Remarks for Rejected Data

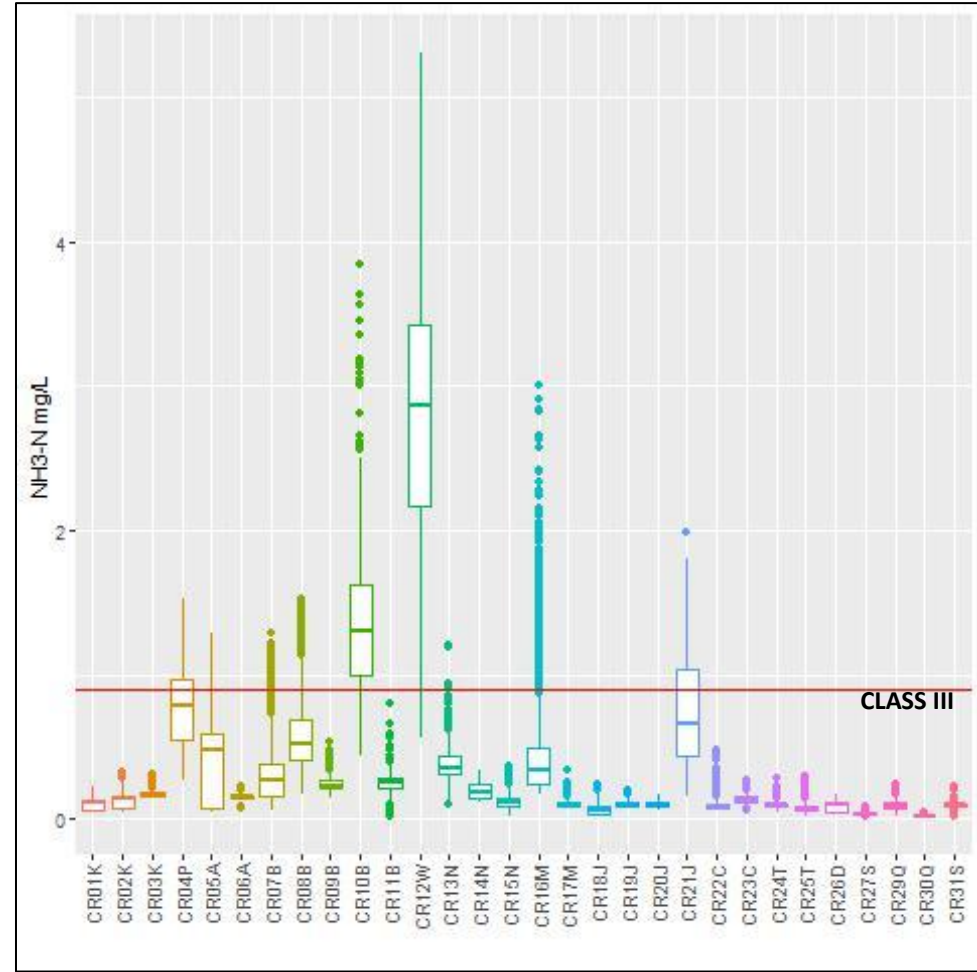
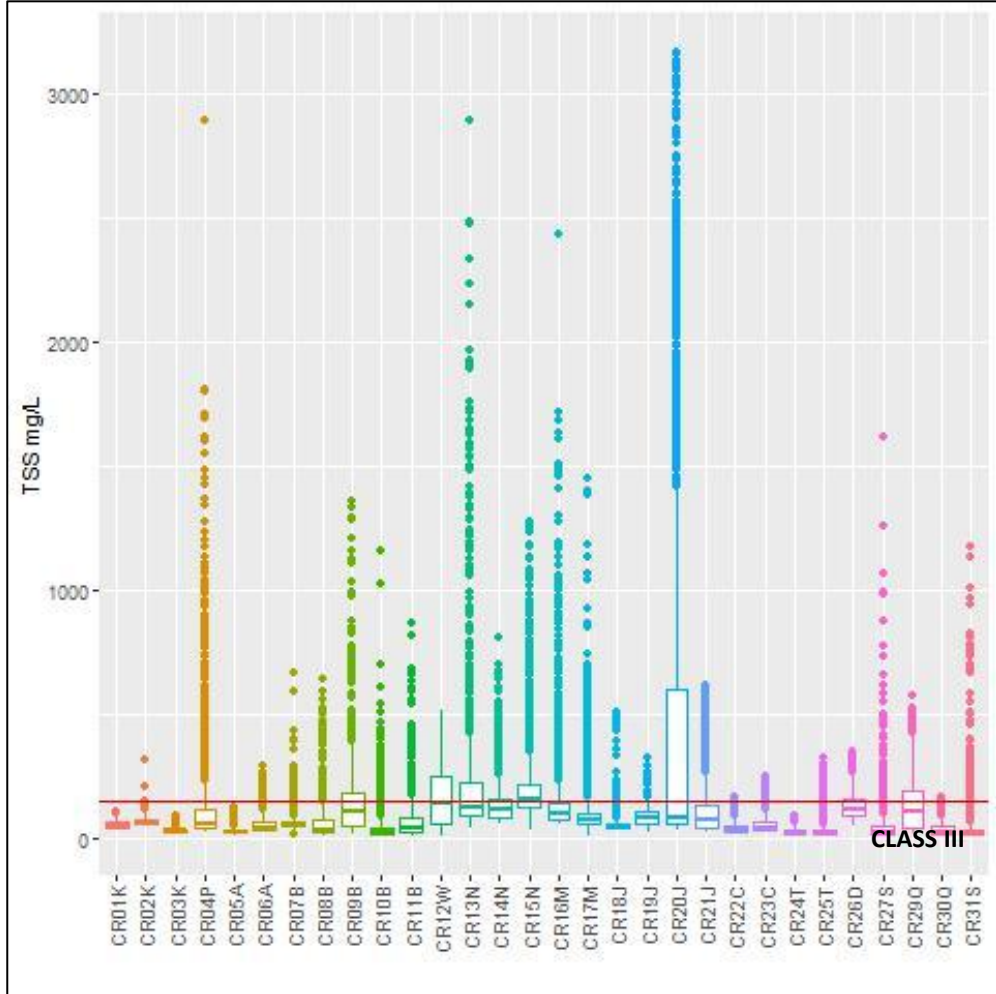
NO	STATION ID	FLAGGING ABBREVIATION	WQI PARAMETERS							REMARKS	ACTION TAKEN
			DO Con	DO Sat	P H	Nh3 N	TSS	BOD	COD		
1	CR04P	M	0	0	0	0	40	0	0	Turbidity sensor faulty	Swap turbidity sensor to other port
		NA	10	10	10	10	10	0	0	DCP & EXO cable malfunction	Reset DCP
		LI	0	0	0	0	0	35	35	Compressor malfunction	Troubleshoot wiring compressor
		AWL	0	0	0	0	0	0	0		
		PRBC	0	0	0	0	0	0	0		
		PRN	0	0	0	0	0	0	0		
		DOR	1	1	0	0	24	0	0	Turbidity sensor faulty	Swap turbidity sensor to other port
		BF	0	0	0	0	0	0	0		
		CONST	0	0	0	0	3	0	0		
		OUTL	0	0	0	2	8	0	0		
		SP	0	0	0	0	0	0	0		
		DEL	9	9	1	9	4	16	16	Compressor malfunction	Troubleshoot wiring compressor
2	CR07B	M	0	0	0	0	0	0	0		
		NA	0	0	0	0	0	0	0		
		LI	0	0	0	0	0	0	0		
		AWL	0	0	0	0	0	0	0		
		PRBC	0	0	0	0	0	0	0		
		PRN	0	0	0	0	0	0	0		
		DOR	0	0	0	0	2	0	0		
		BF	0	0	0	0	0	0	0		
		CONST	0	0	0	0	0	0	0		
		OUTL	0	0	0	0	0	0	0		
		SP	0	0	0	0	0	0	0		
		DEL	0	0	0	46	35	0	0	Sensor reading drift due to dirt	Cleaning

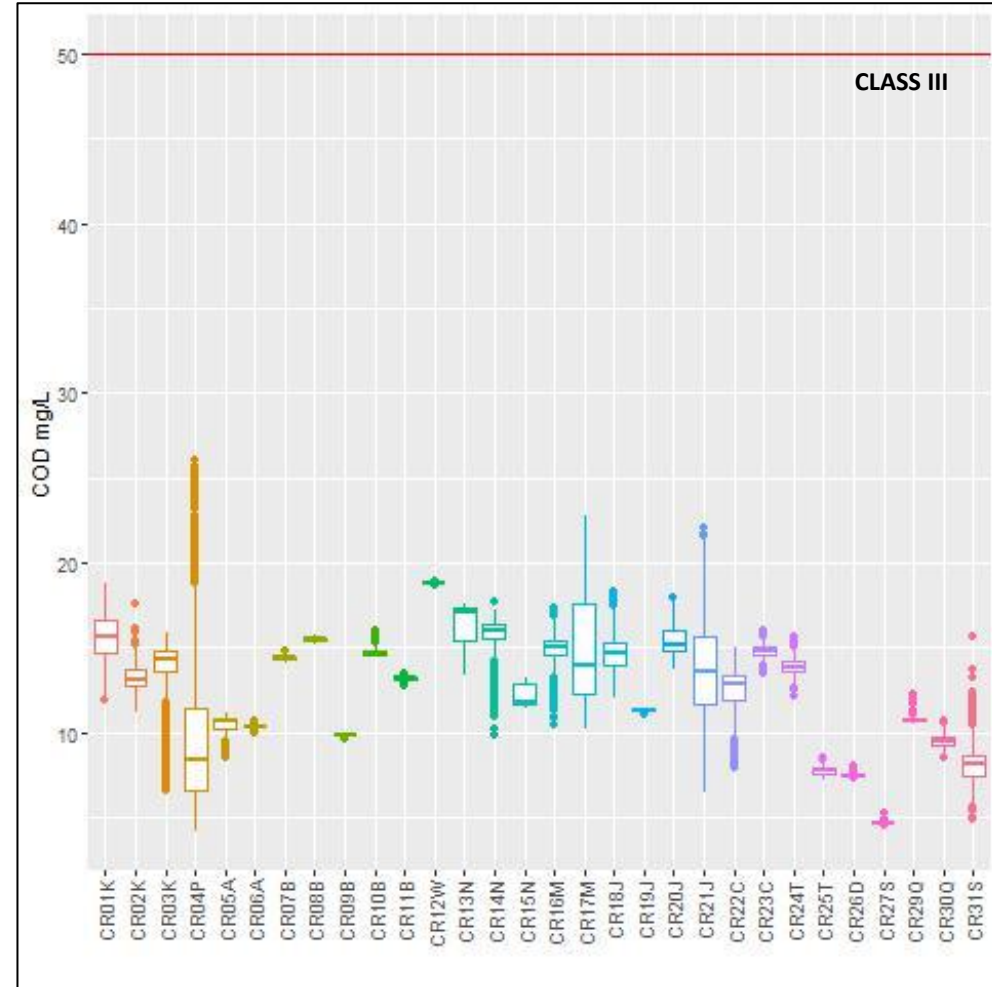
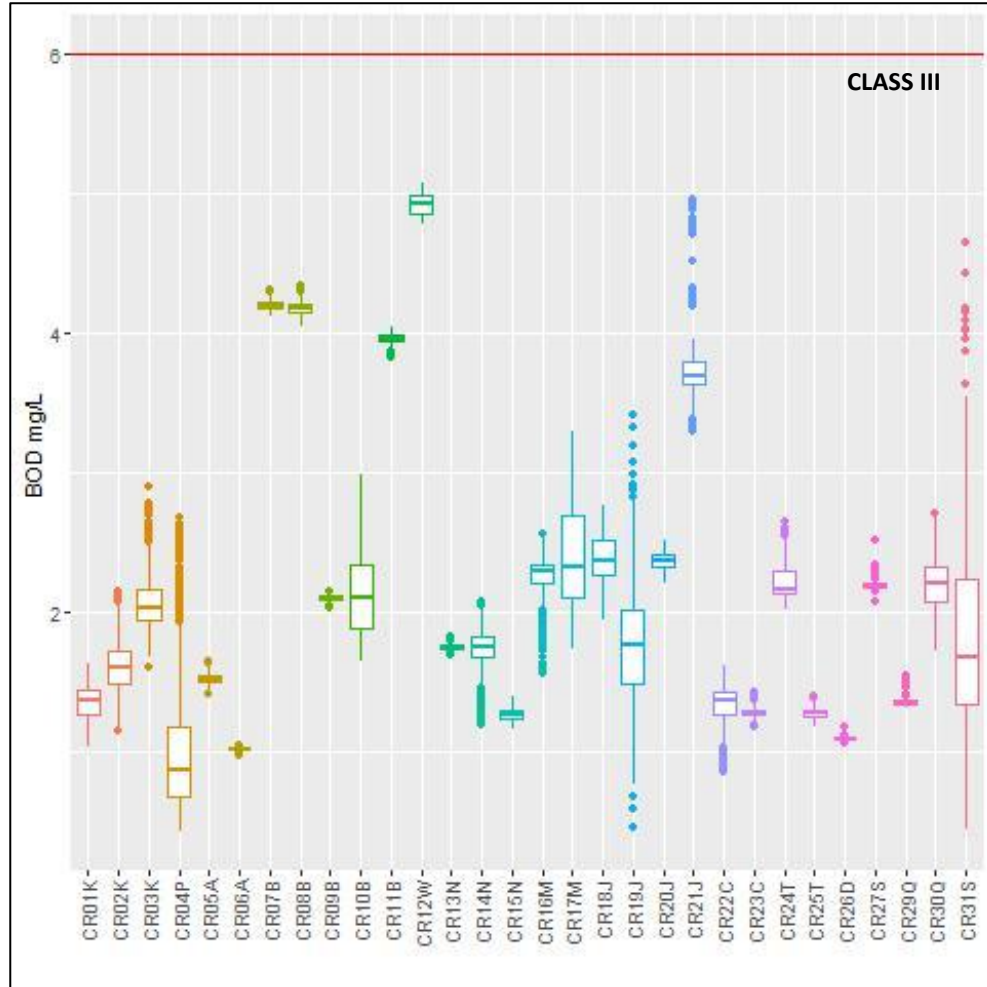
NO	STATION ID	FLAGGING ABBREVIATION	WQI PARAMETERS							REMARKS	ACTION TAKEN
			DO Con	DO Sat	P H	Nh3 N	TSS	BOD	COD		
3	CR16M	M	0	0	0	4	0	151	151	Intensity low due to ISA probe faulty	Swap replacement to new ISA probe & perform clearwater calibration.
		NA	0	0	0	0	0	0	0		
		LI	0	0	0	0	0	21	21		
		AWL	1	1	1	1	1	0	0		
		PRBC	0	0	0	0	0	0	0		
		PRN	0	0	0	0	0	0	0		
		DOR	0	0	0	0	0	0	0		
		BF	0	0	0	0	0	0	0		
		CONST	0	0	0	0	0	28	28	Intensity low due to ISA probe faulty	Swap replacement to new ISA probe & perform clearwater calibration.
		OUTL	0	0	0	0	0	0	0		
		SP	0	0	0	0	0	0	0		
		DEL	0	0	0	9	0	5	5	Intensity low due to ISA probe faulty	Swap replacement to new ISA probe & perform clearwater calibration.
4	CR17M	M	0	0	0	0	0	0	0		
		NA	0	0	0	0	0	0	0		
		LI	0	0	0	0	0	94	94	Intensity low due to purging issue	Replace new compressor & perform clearwater calibration
		AWL	24	24	24	24	24	0	0	Reading AWL due to low water level	Cleaning & adjust sonde position
		PRBC	0	0	0	0	0	0	0		
		PRN	0	0	0	0	0	0	0		
		DOR	0	0	0	0	0	0	0		
		BF	0	0	0	0	0	0	0		
		CONST	0	0	0	0	0	0	0		
		OUTL	0	0	0	0	0	0	0		
		SP	0	0	0	0	0	0	0		
		DEL	0	0	0	0	0	16	16	Intensity low due to purging issue	Replace new compressor & perform clearwater calibration

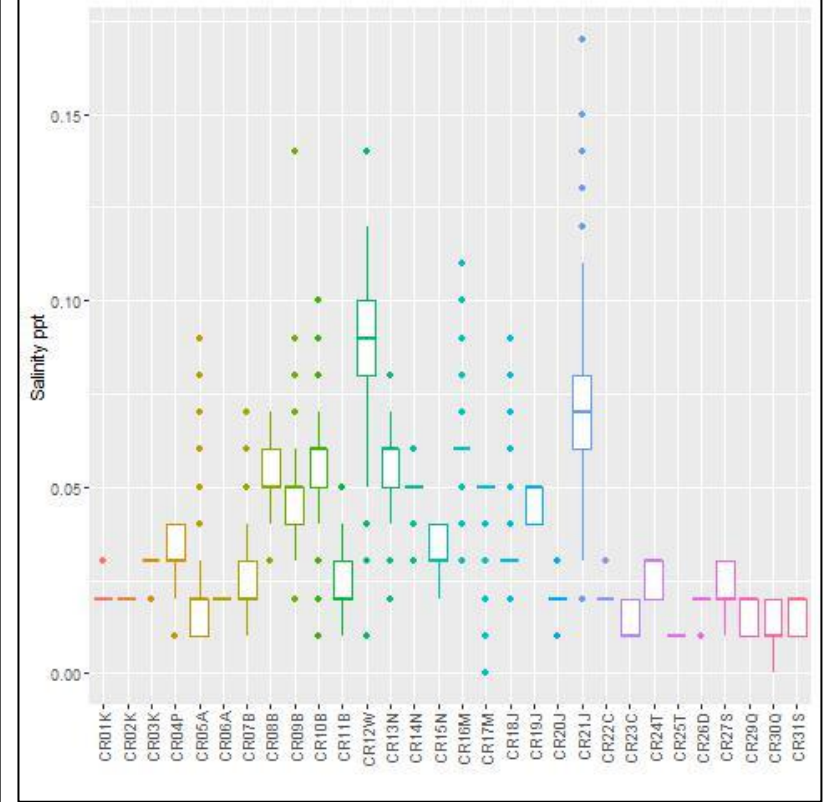
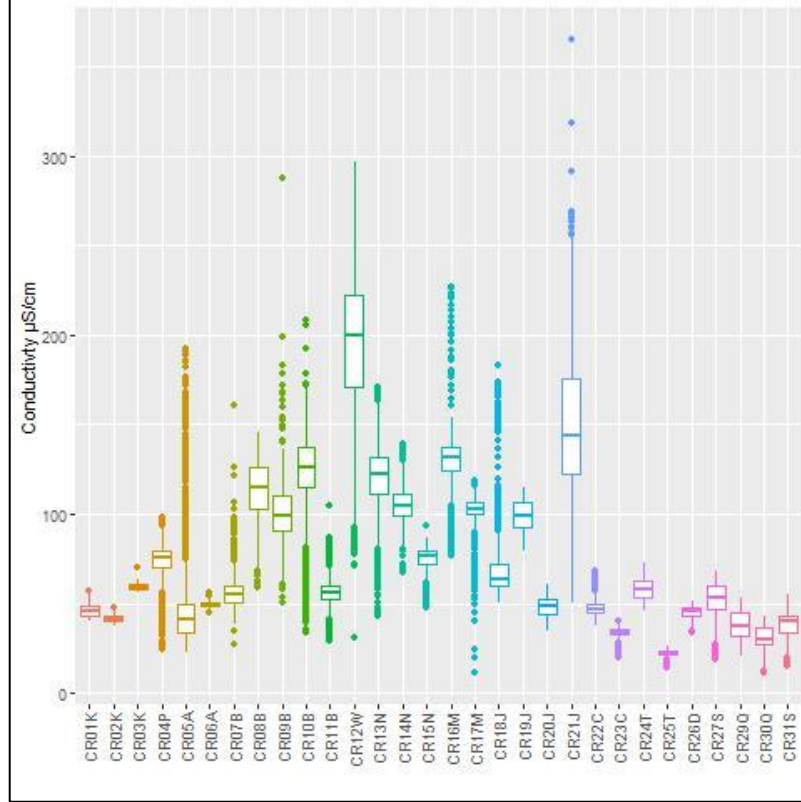
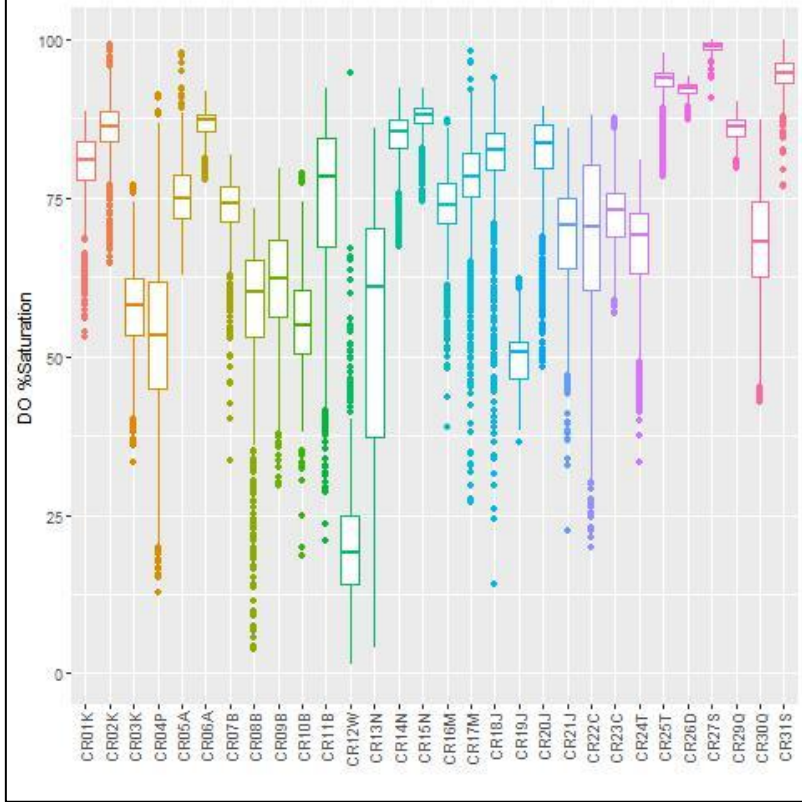
NO	STATION ID	FLAGGING ABBREVIATION	WQI PARAMETERS							REMARKS	ACTION TAKEN
			DO Con	DO Sat	P H	Nh3 N	TSS	BOD	COD		
5	CR18J	M	0	0	0	0	0	0	0		
		NA	3	3	3	3	3	0	0		
		LI	0	0	0	0	0	1	1		
		AWL	0	0	0	0	0	0	0		
		PRBC	0	0	0	0	0	0	0		
		PRN	0	0	0	0	0	0	0		
		DOR	1	0	1	2	0	0	0		
		BF	0	0	0	0	0	0	0		
		CONST	0	0	0	0	0	0	0		
		OUTL	0	0	0	2	0	0	0		
		SP	0	0	0	0	0	0	0		
	DEL	86	87	86	85	89	0	0	Sensor reading drift due to dirt	Cleaning	
6	CR24T	M	14	14	14	14	14	17	17	GO reading freeze due to canbus cable issue	Replace new canbus cable
		NA	21	21	21	21	21	0	0	EXO cable breaks due to rat bites	Continuing the cable and reset DCP.
		LI	0	0	0	0	0	1	1		
		AWL	7	7	7	7	7	0	0	EXO cable breaks due to rat bites	Continuing the cable and reset DCP.
		PRBC	0	0	0	0	0	0	0		
		PRN	0	0	0	0	0	0	0		
		DOR	0	0	0	0	0	0	0		
		BF	0	0	0	0	0	0	0		
		CONST	0	0	0	0	0	9	9		
		OUTL	0	0	0	0	0	0	0		
		SP	0	0	0	0	0	0	0		
	DEL	0	0	0	0	11	5	5			

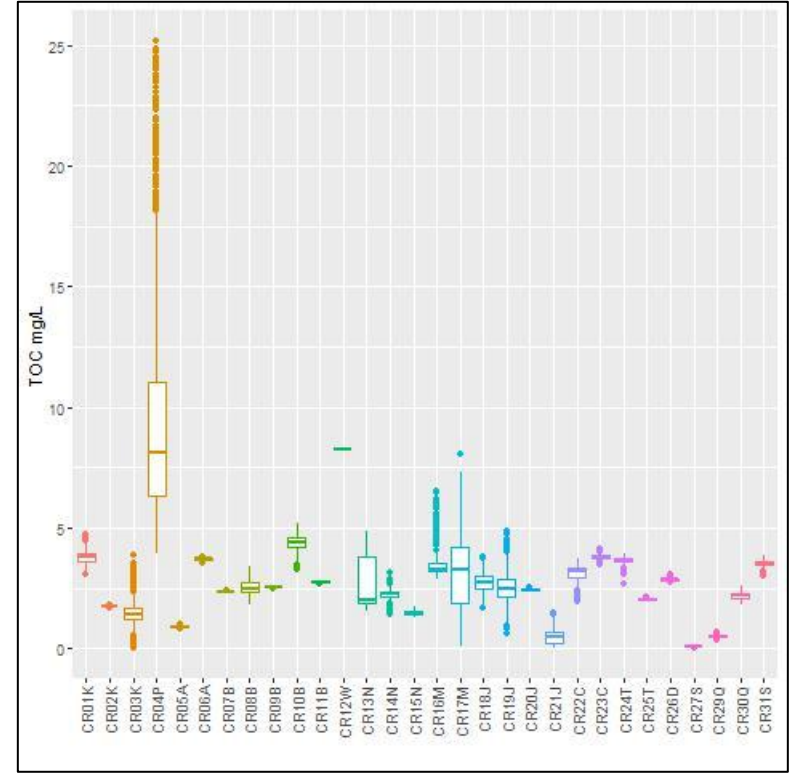
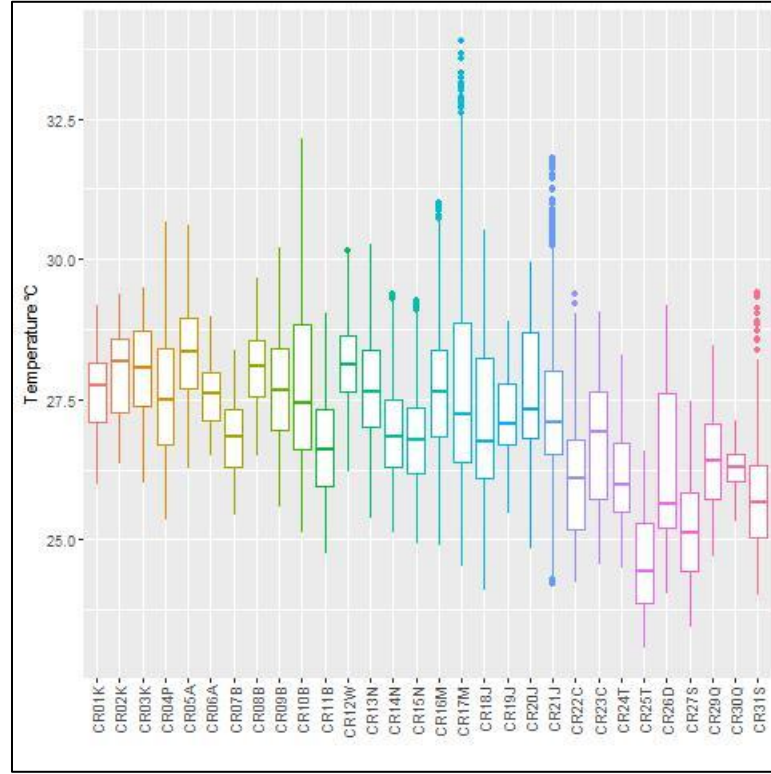
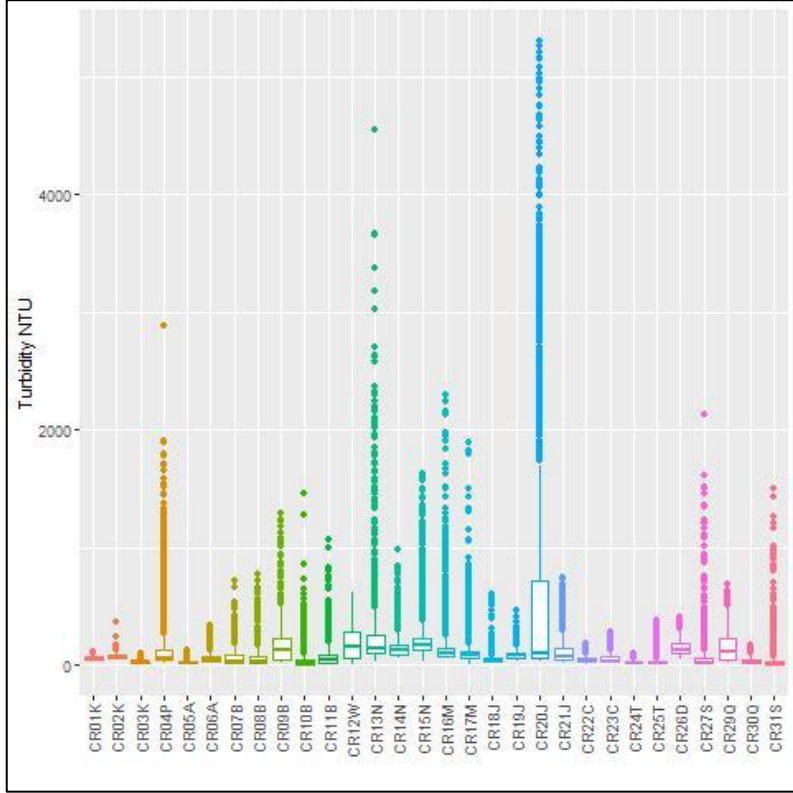
NO	STATION ID	FLAGGING ABBREVIATION	WQI PARAMETERS							REMARKS	ACTION TAKEN	
			DO Con	DO Sat	P H	Nh3 N	TSS	BOD	COD			
7	CR30Q	M	8	8	8	8	8	115	115	EXO DCP malfunction (freeze) & GO reading freeze due to high water level.	Reset DCP & Cleaning after the water recede & reconnect to GO system.	
		NA	10	10	10	10	10	26	26	EXO DCP malfunction (freeze) & GO cable LAN loose	Reset DCP & reconnecting the LAN cable back	
		LI	0	0	0	0	0	0	0			
		AWL	0	0	0	0	0	0	0			
		PRBC	0	0	0	0	0	0	0			
		PRN	0	0	0	0	0	0	0			
		DOR	0	0	0	0	0	0	0			
		BF	0	0	0	0	0	0	0			
		CONST	0	0	0	13	0	0	0	0	Sensor reading drift due to dirt	Cleaning
		OUTL	0	0	0	21	0	0	0	0	Sensor reading drift due to dirt	Cleaning
		SP	0	0	0	0	0	0	0	0		
		DEL	0	0	0	2	0	0	0	0		

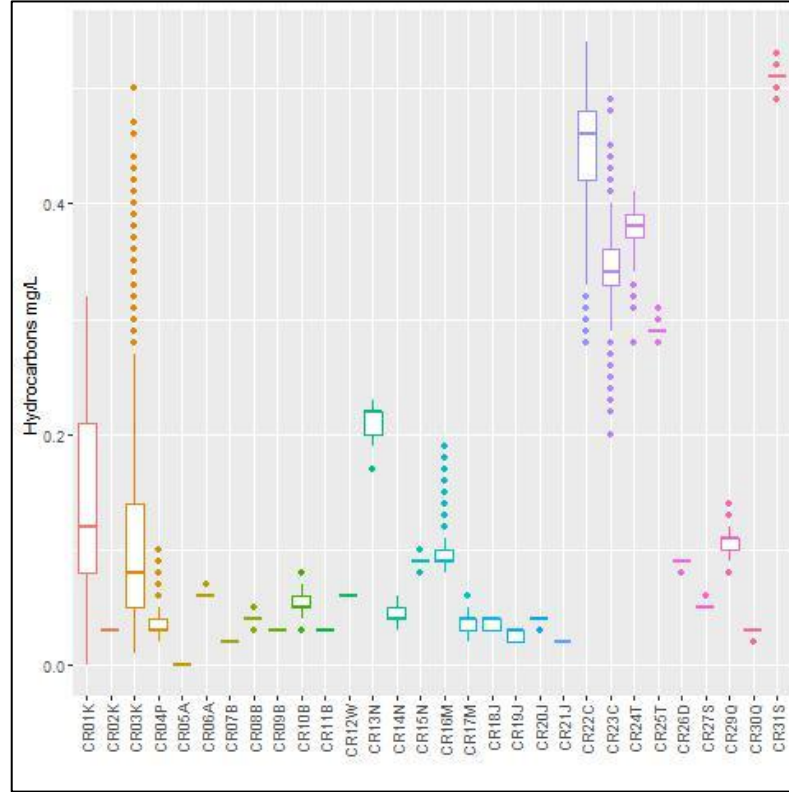
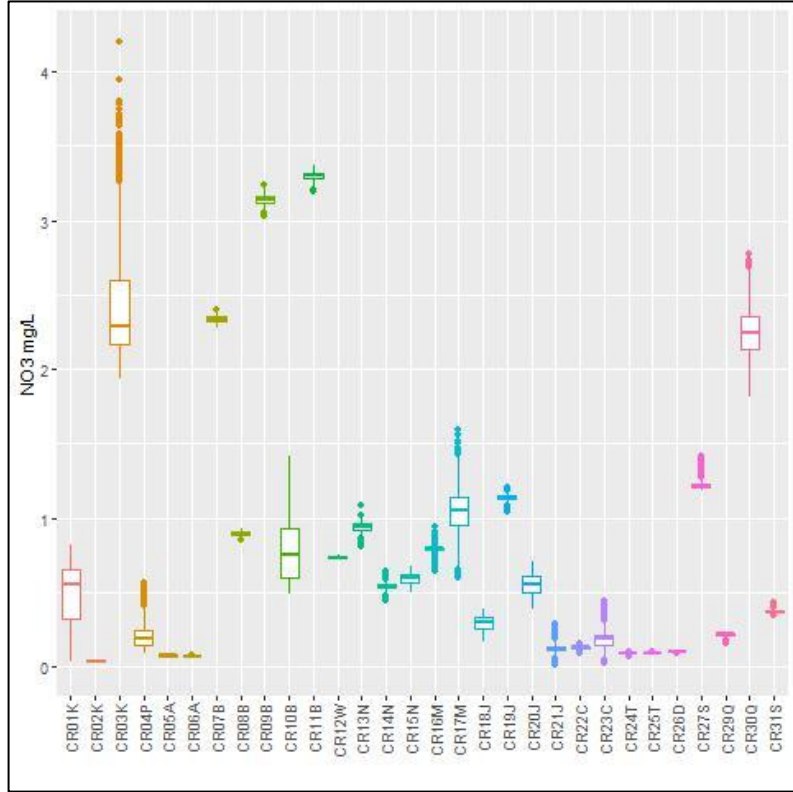












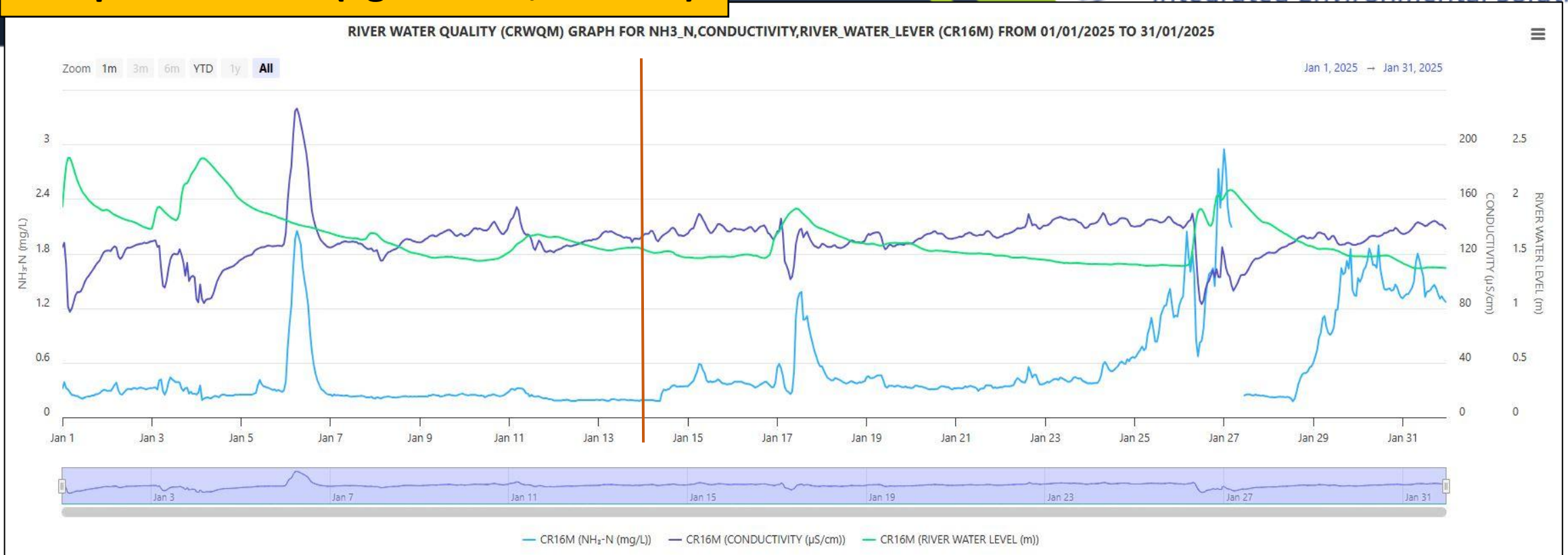
NPE LEVEL 1 : FALSE ALERT

Notification alert pollution that have been captured :

1.

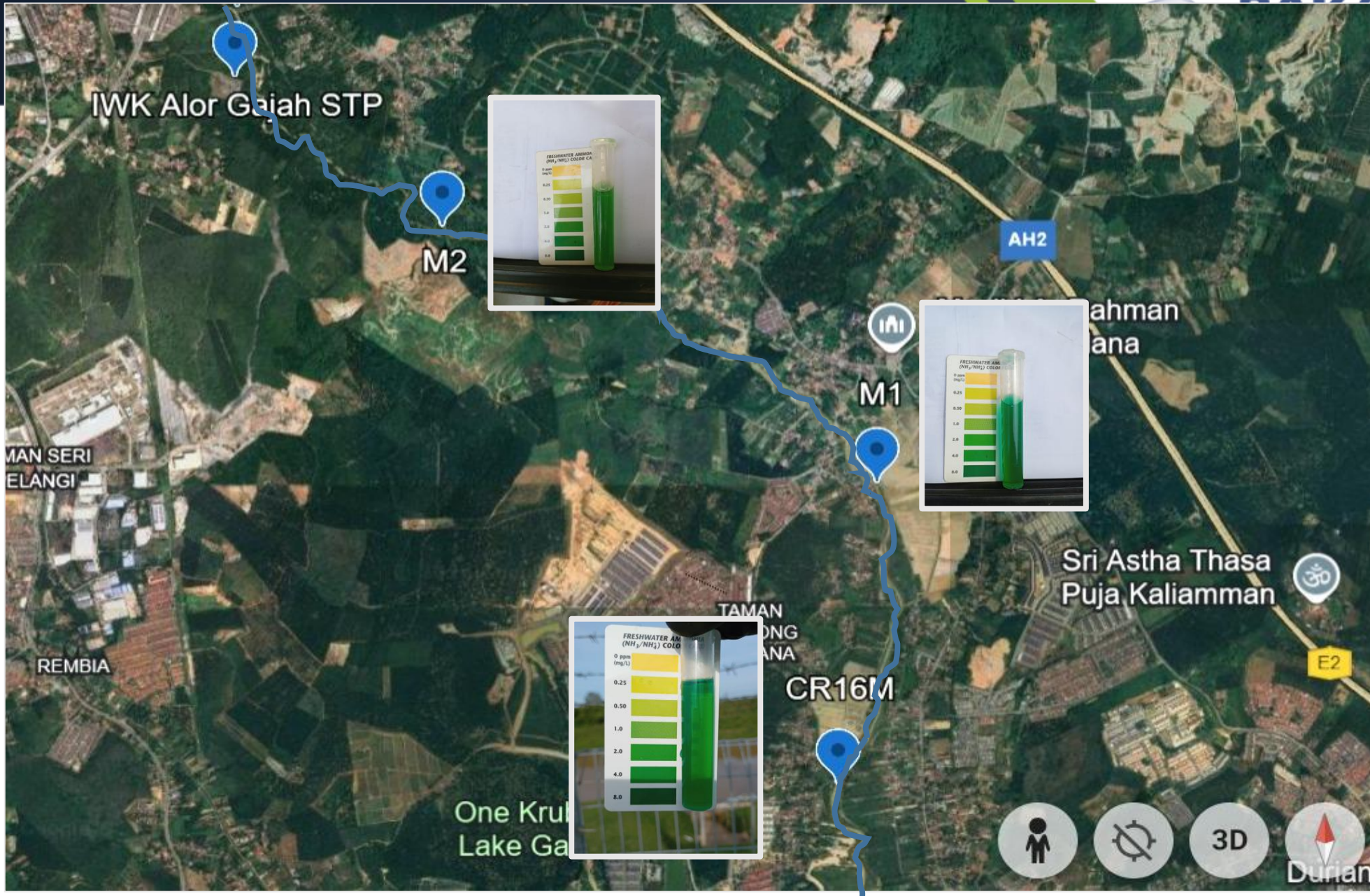
Station ID	CR16M (Sg Melaka, Melaka)	NPE1 Level Limit	3.50 mg/L
Date	27/1/2025	Time	0700-0830
Remarks	False alert due to sensor drift	NH3-N Level Recorded	3.62 mg/L

Graph 1: CR16M (Sg Melaka, Melaka)



Graph 1: Shows the **Ammoniacal Nitrogen (mg/L)**, **Conductivity (µS/cm)** and **River Water Level (m)** trend at CR16M (Sg Melaka, Melaka) for January 2025. The correlation between these parameters shows that Conductivity and Ammoniacal Nitrogen trend reflect to the water level trend. The highest Ammoniacal Nitrogen level at this station for this month is 3.00 mg/L. NPE Level 1 (NH₃N): 3.50 mg/L. (Red line is date of calibration – 13/1/2025).

During event on 27/1/2025, after verification on-site done by EMO the data was found faulty due to sensor drift. A new calibrated sensor was replaced & data back online.

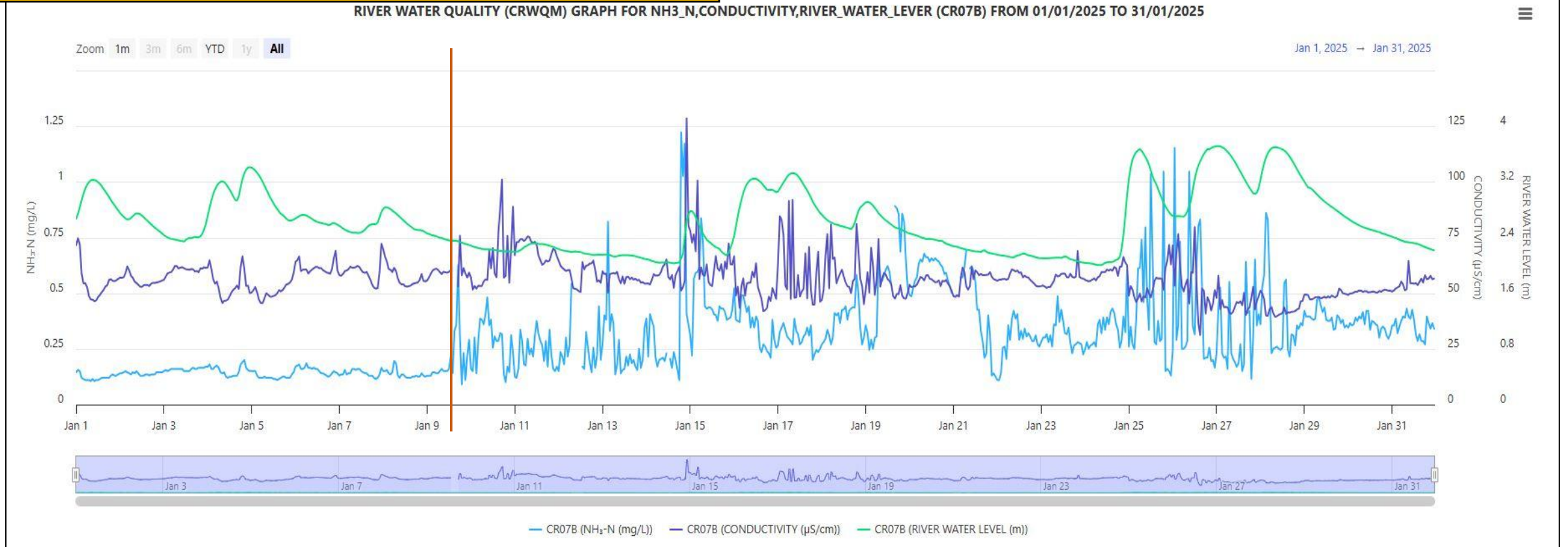


A verification on-site was conducted by EMO on 6/1/2025 when Ammonia in CR16M (Sg Melaka) increased to 2.05 mg/L from 0.2 mg/L. Few sampling points were done by doing test kit verification at 5 points which are M1, M2, M3, M4 & M5. Shown on the map beside is the location from station (CR16M) to IWK Alor Gajah upstream of 5.87 km. The test kit shown a greenish color as the range is between 1.0-2.0 mg/L.



Shown on the map beside is the location from station IWK Alor Gajah to upstream of 7.38 km from station. The test kit shown green-yellowish color as the range is between 0.5-1.0 mg/L at point M3 & M4. Meanwhile at point M5 the test kit color is more to green as the range is 2.0 mg/L.

Graph 2: CR07B (Sg Selangor, Selangor)



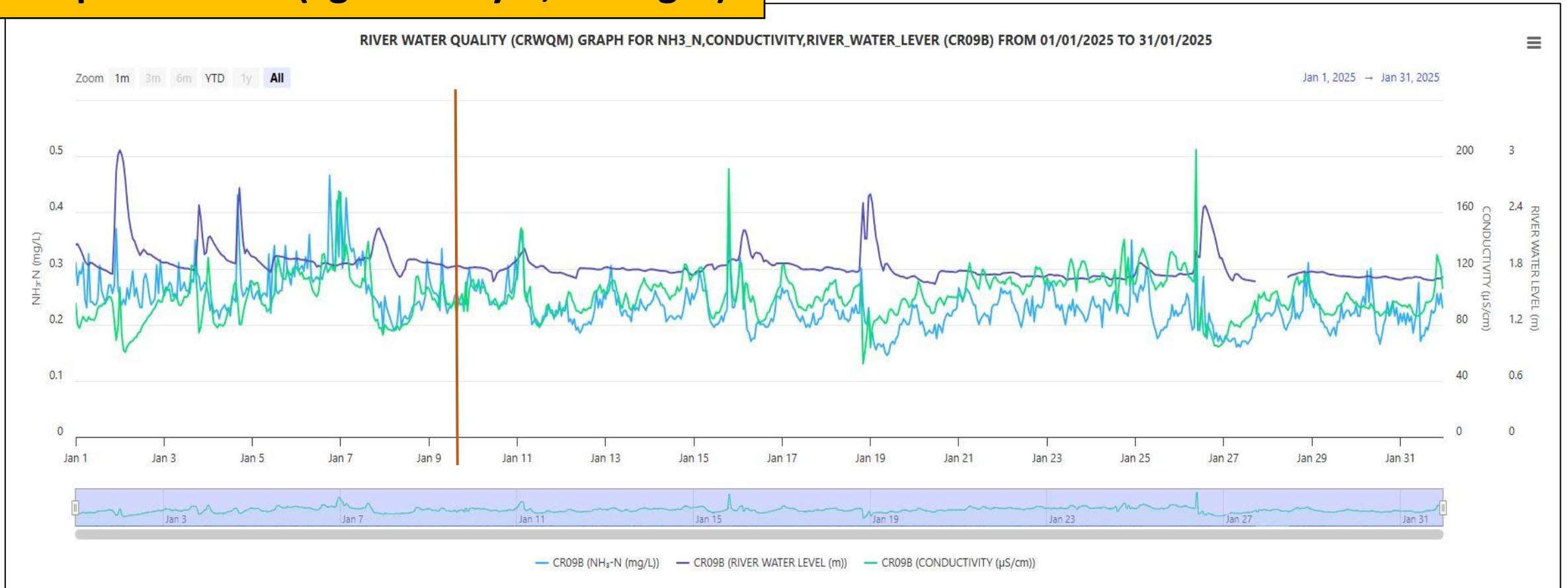
Graph 2: Shows the **Ammoniacal Nitrogen (mg/L)**, **Conductivity (µS/cm)** and **River Water Level (m)** trend at CR07B (Sg Selangor, Selangor) for January 2025. The correlation between these parameters shows that Conductivity and Ammoniacal Nitrogen trend reflect to the water level trend. The highest Ammoniacal Nitrogen level at this station for this month is 1.28 mg/L. NPE Level 1 (NH₃N): 5 mg/L. (Red line is date of calibration – 9/1/2025).

Graph 3: CR08B (Sg Langat, Selangor)



Graph 3: Shows the **Ammoniacal Nitrogen (mg/L)**, **Conductivity (µS/cm)** and **River Water Level (m)** trend at CR08B (Sg Langat, Selangor) for January 2025. The correlation between these parameters shows that Conductivity and Ammoniacal Nitrogen trend reflect to the water level trend. The highest Ammoniacal Nitrogen level at this station for this month is 1.52 mg/L. NPE Level 1 (NH₃N): 8.5 mg/L. (Red line is date of calibration – 2/1/2025).

Graph 4: CR09B (Sg. Semenyih, Selangor)



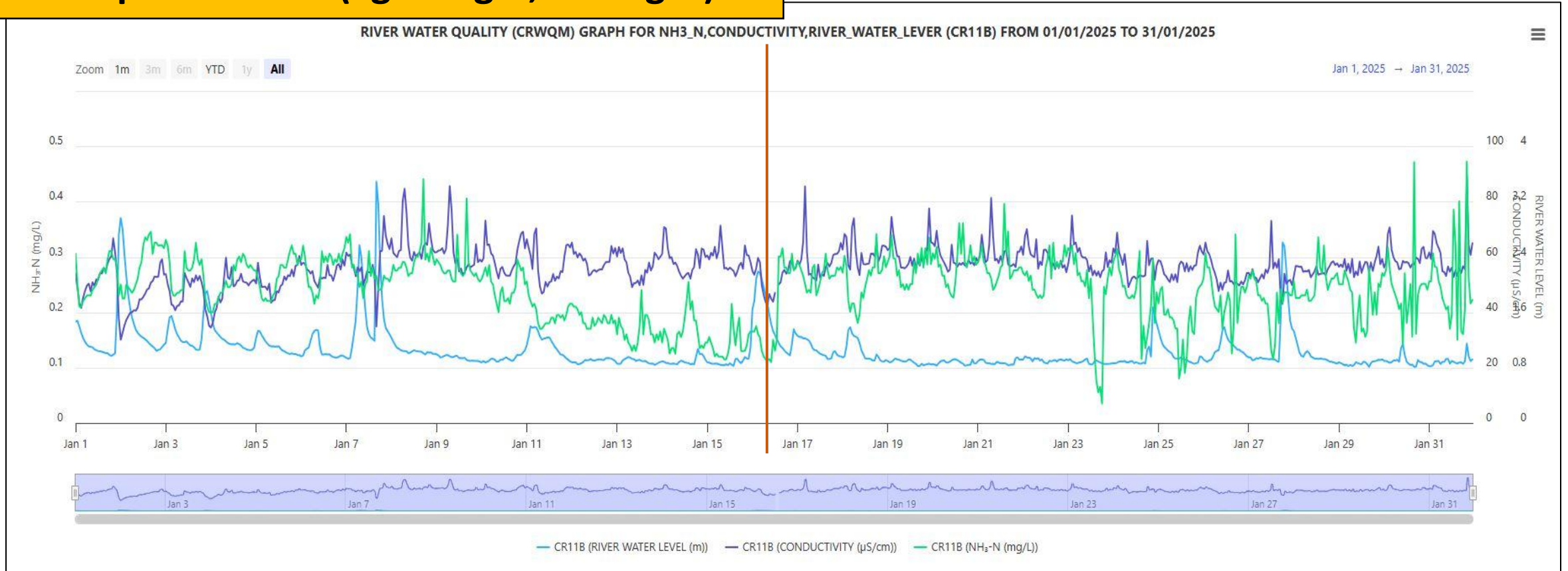
Graph 4: Shows the **Ammoniacal Nitrogen (mg/L)**, **Conductivity (µS/cm)** and **River Water Level (m)** trend at CR09B (Sg Semenyih, Selangor) for January 2025. The correlation between these parameters shows that Conductivity and Ammoniacal Nitrogen trend reflect to the water level trend. The highest Ammoniacal Nitrogen level at this station for this month is 0.53 mg/L. NPE Level 1 (NH₃N): 8.5 mg/L. (Red line is date of calibration – 7/1/2025).

Graph 5: CR10B (Sg. Labu, Selangor)



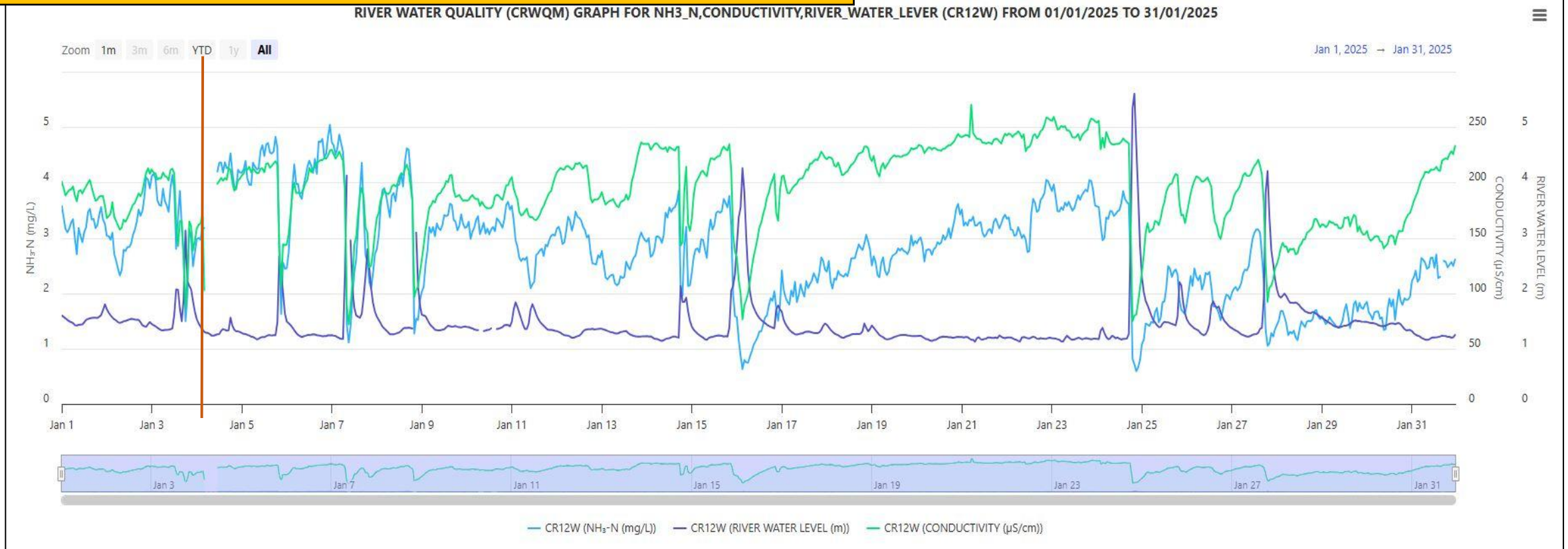
Graph 5: Shows the **Ammoniacal Nitrogen (mg/L)**, **River Water Level (m)** and **Conductivity (µS/cm)** trend at CR10B (Sg. Labu, Selangor) for January 2025. The correlation between these parameters shows that Conductivity and Ammoniacal Nitrogen trend reflect to the water level trend. The highest Ammoniacal Nitrogen level at this station for this month is 3.84 mg/L. NPE Level 1 (NH₃N): 10.0 mg/L. (Red line is date of calibration – 14/1/2025).

Graph 6: CR11B (Sg. Langat, Selangor)



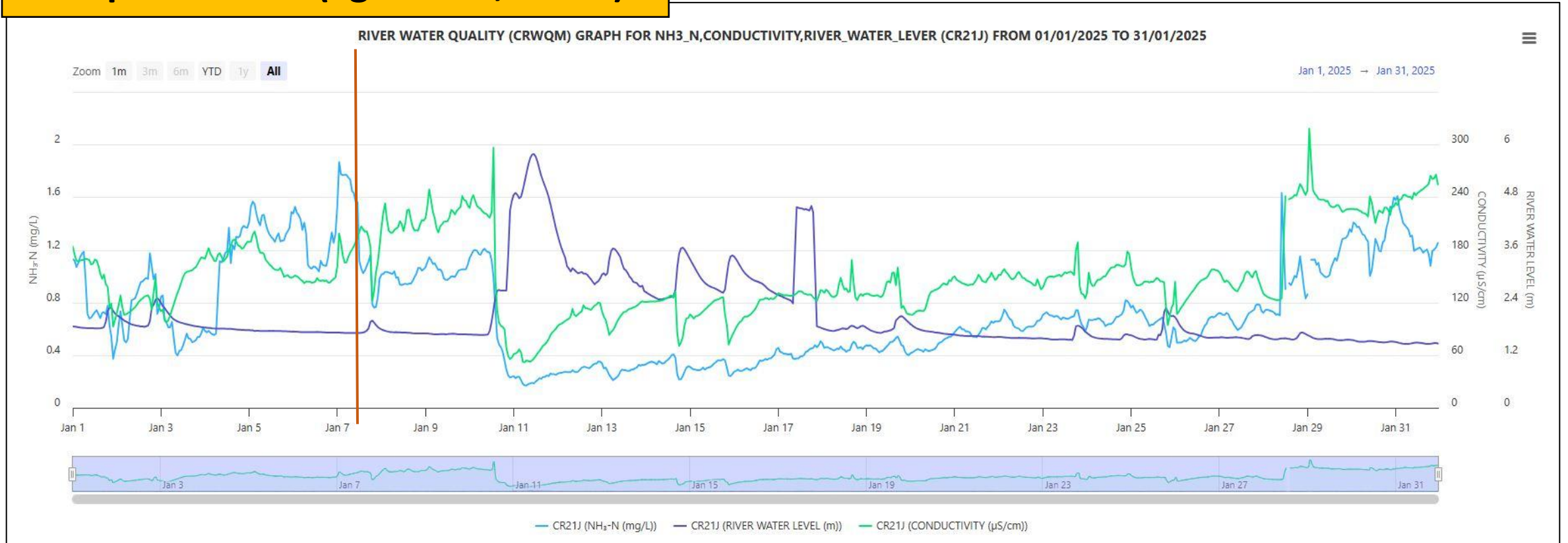
Graph 6: Shows the **Ammoniacal Nitrogen (mg/L)**, **Conductivity (µS/cm)** and **River Water Level (m)** trend at CR11B (Sg. Langat, Selangor) for January 2025. The correlation between these parameters shows that Conductivity and Ammoniacal Nitrogen trend reflect to the water level trend. The highest Ammoniacal Nitrogen level at this station for this month is 0.80 mg/L. NPE Level 1 (NH₃N): 7.8 mg/L. (Red line is **date** of calibration – 16/1/2025).

Graph 7: CR12W (Sg. Klang, W.P. Kuala Lumpur)

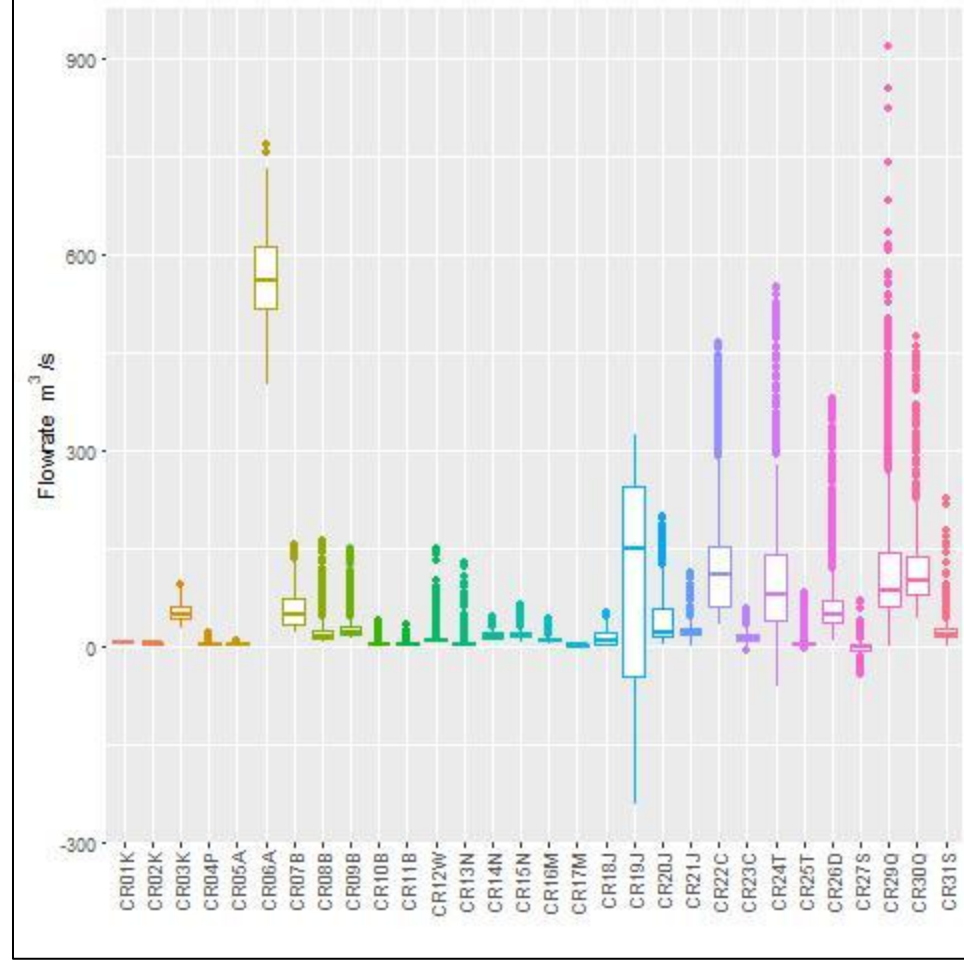
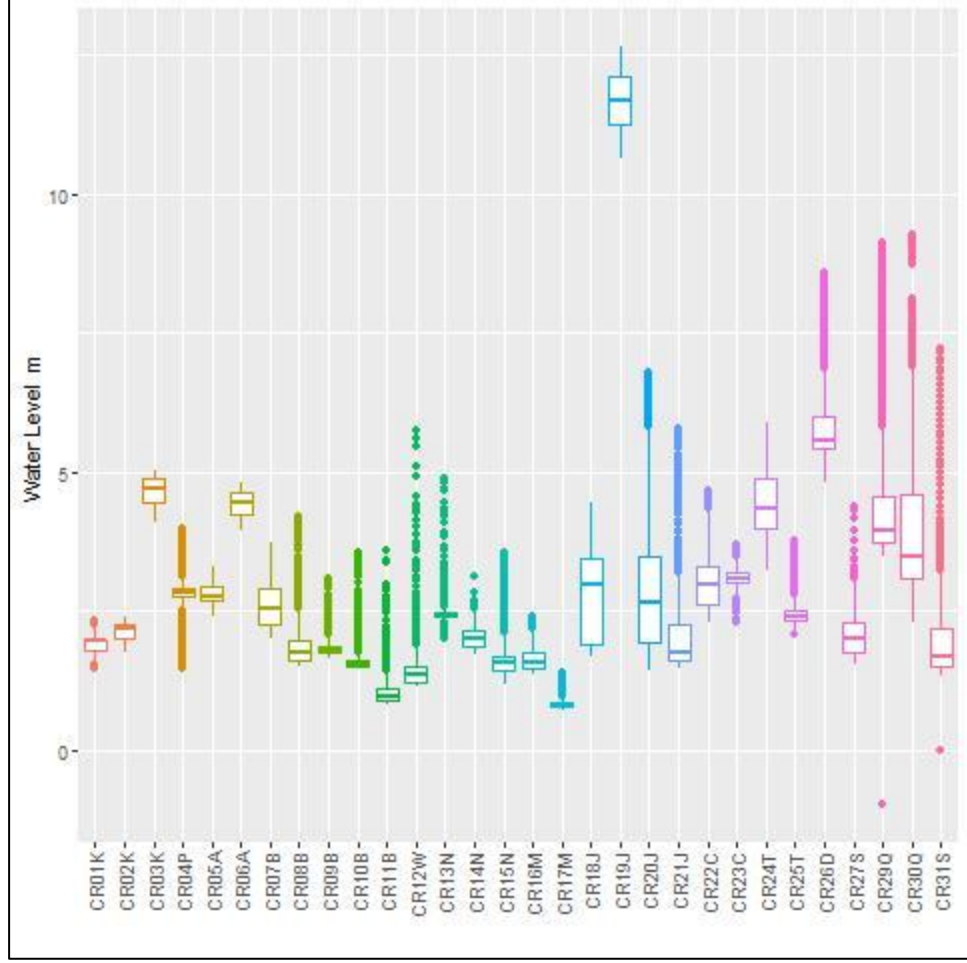


Graph 7: Shows the **Ammoniacal Nitrogen (mg/L)**, **Conductivity (µS/cm)** and **River Water Level (m)** trend at CR12W (Sg. Klang, W.P. Kuala Lumpur) for December 2024. The correlation between these parameters shows that Conductivity and Ammoniacal Nitrogen trend reflect to the water level trend. The highest Ammoniacal Nitrogen level at this station for this month is 5.31 mg/L. NPE Level 1 (NH₃N): 12.0 mg/L. (Red line is date of calibration – 3/1/2025).

Graph 8: CR21J (Sg Skudai, Johor)



Graph 8: Shows the **Ammoniacal Nitrogen (mg/L)**, **Conductivity (µS/cm)** and **River Water Level (m)** trend at CR21J (Sg Skudai, Johor) for January 2025. The correlation between these parameters shows that Conductivity and Ammoniacal Nitrogen trend reflect to the water level trend. The highest Ammoniacal Nitrogen level at this station for this month is 1.99 mg/L. NPE Level 1 (NH₃N): 10.0 mg/L. (Red line is date of calibration – 7/1/2025).



Graph 9: CR19J (Sg. Muar, Johor)

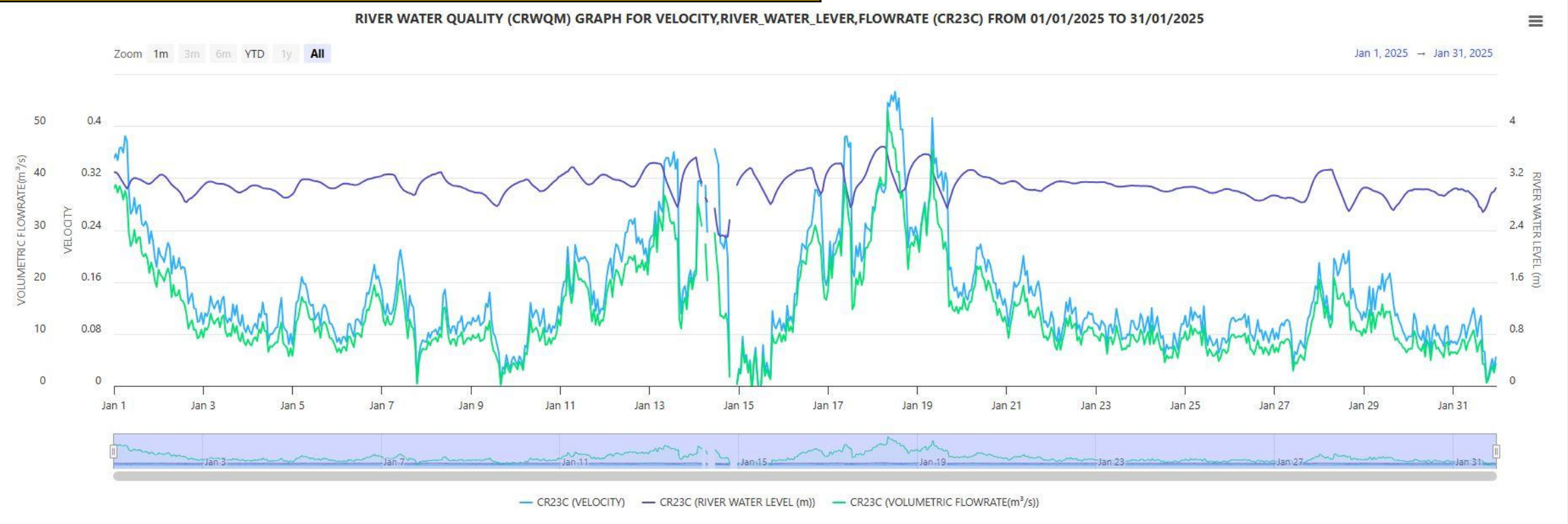
RIVER WATER QUALITY (CRWQM) GRAPH FOR VELOCITY,RIVER_WATER_LEVER,FLOWRATE (CR19J) FROM 01/01/2025 TO 31/01/2025



Graph 9: Shows the **River Water Level (m)**, **Velocity (m/s)** and **Volumetric Flowrate (m³ /s)** trend at CR19J (Sg. Muar, Johor) for January 2025. The highest water level recorded at this station this month is 12.65 m and the lowest water level recorded at this station is 10.62 m.

This month the negative reading (Volumetric Flowrate) captured by this station is 465 count of data which is 31.25 % from the raw data.

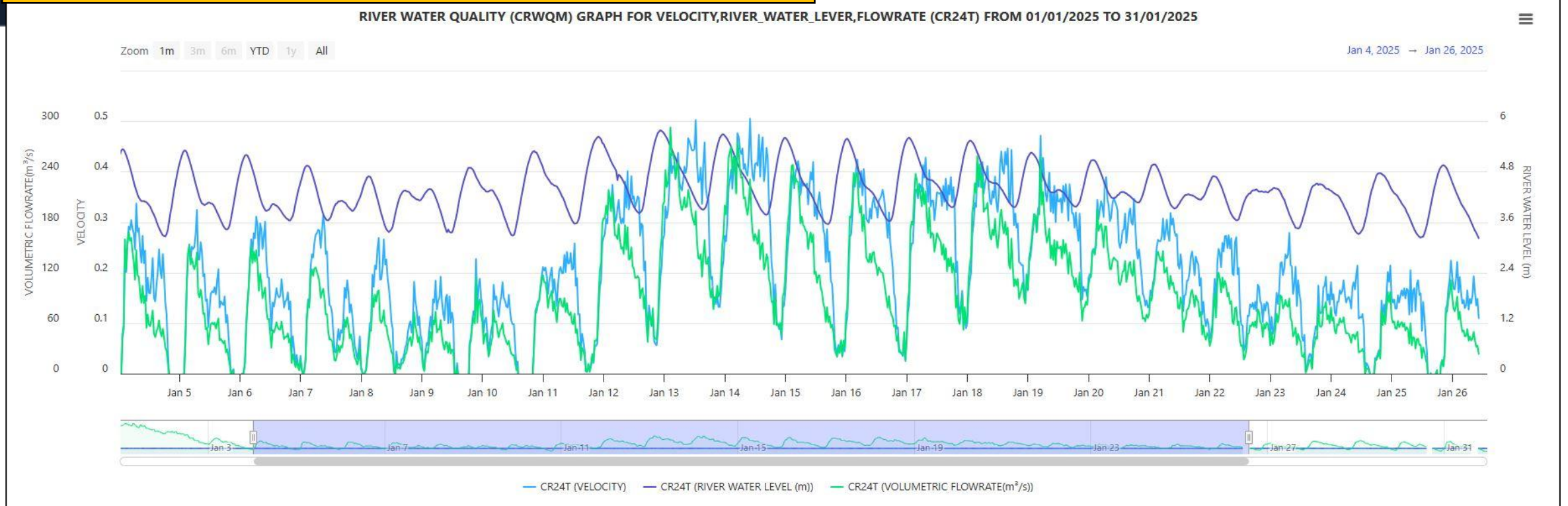
Graph 10: CR23C (Sg. Kuantan, Pahang)



Graph 10: Shows the **River Water Level (m)**, **Velocity (m/s)** and **Volumetric Flowrate (m³ /s)** trend at CR23C (Sg. Kuantan, Pahang) for January 2025. The highest water level recorded at this station this month is 3.69 m and the lowest water level recorded at this station is 2.29 m.

This month the negative reading (Volumetric Flowrate) captured by this station is 12 count of data which is 0.81 % from the raw data.

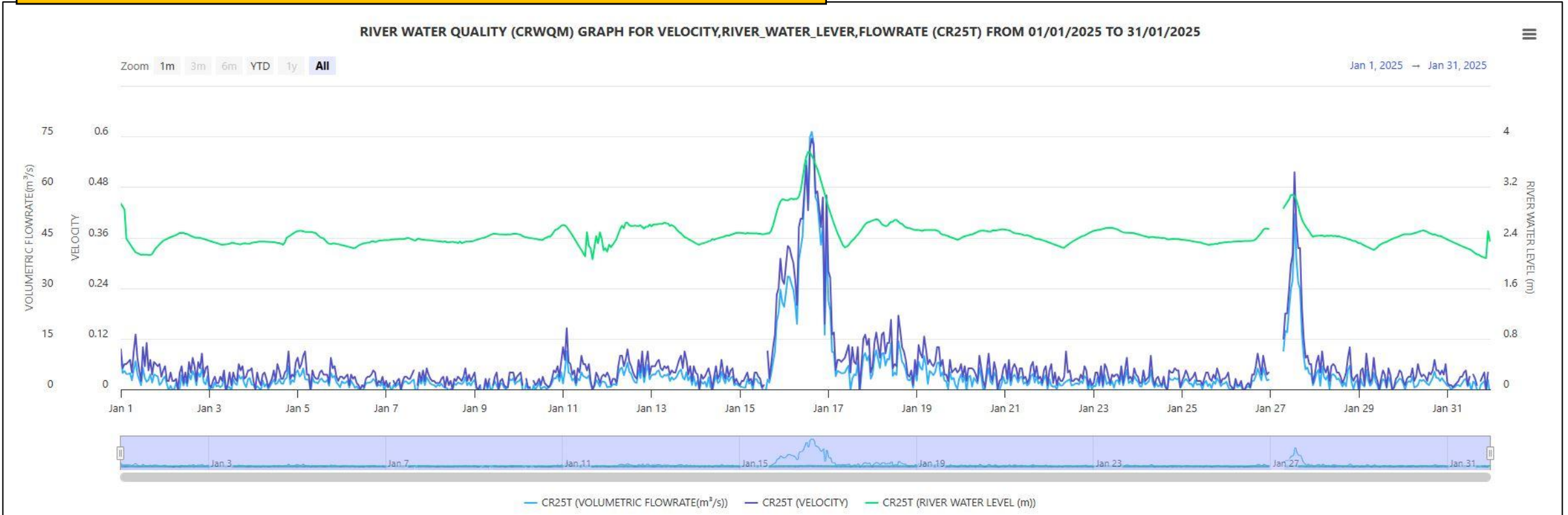
Graph 11: CR24T (Sg. Paka, Terengganu)



Graph 11: Shows the **River Water Level (m)**, **Velocity (m/s)** and **Volumetric Flowrate (m³ /s)** trend at CR24T (Sg. Paka, Terengganu) for January 2025. The highest water level recorded at this station this month is 5.87 m and the lowest water level recorded at this station is 3.22 m.

This month the negative reading (Volumetric Flowrate) captured by this station is 118 count of data which is 7.93 % from the raw data.

Graph 12: CR25T (Sg. Besut, Terengganu)

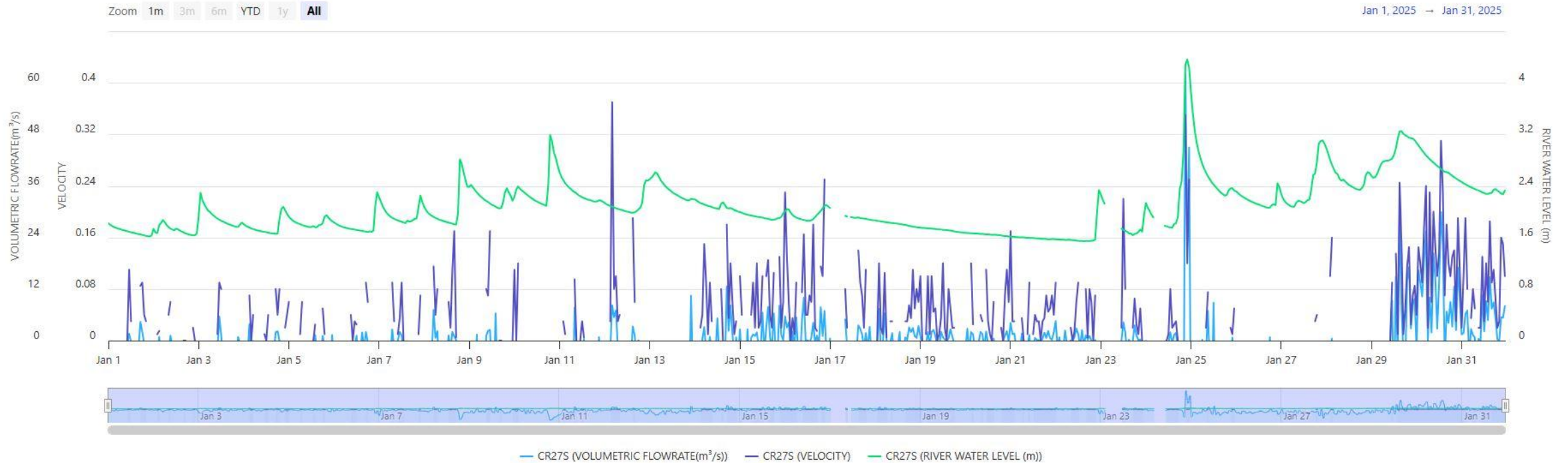


Graph 12: Shows the **River Water Level (m)**, **Velocity (m/s)** and **Volumetric Flowrate (m³ /s)** trend at CR25T(Sg. Besut, Terengganu) for January 2025. The highest water level recorded at this station this month is 3.76 m and the lowest water level recorded at this station is 2.06 m.

This month the negative reading (Volumetric Flowrate) captured by this station is 176 count of data which is 11.96 % from the raw data.

Graph 13: CR27S (Sg. Tuaran, Sabah)

RIVER WATER QUALITY (CRWQM) GRAPH FOR VELOCITY,RIVER_WATER_LEVER,FLOWRATE (CR27S) FROM 01/01/2025 TO 31/01/2025



Graph 13: Shows the **River Water Level (m)**, **Velocity (m/s)** and **Volumetric Flowrate (m³ /s)** 4.39 m and the lowest water level recorded at this station is 1.42 m.

This month the negative reading (Volumetric Flowrate) captured by this station is 973 count of data which is 67.57% from the raw data.

Flood/High Water Level: CR29Q (Sg Sarawak, Sarawak)

22/1/2025



29/1/2025



28/1/2025



Images show the condition at CR29Q (Sg Sarawak, Sarawak) during flood event. . Deployment cannot be access for temporarily until the water recede.

Flood/High Water Level: CR30Q (Sg Btg Sadong, Sarawak)

29/1/2025



Images show the condition at CR30Q (Sg Btg Sadong, Sarawak) during flood event. Deployment cannot be access for temporarily until the water recede.



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THANK YOU