Groundwater Interpretative Report

Imperial Oil and Gas Pty Ltd

Environmental Management Plan

2021-2025 EP187 Work Program IMP4-3

(17th of October 2022 to 16thof October 2023)

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Document title	Groundwater Interpretative Report
EMP title	2021-2025 EP187 Work Program IMP4-3
Exploration Permit	EP187
Interest holder details	Imperial Oil & Gas Pty Limited Level 19, 20 Bond Street, Sydney NSW 2000 ABN - 92 002 699 578
Operator details	Imperial Oil & Gas Pty Limited Level 19, 20 Bond Street, Sydney NSW 2000 ABN - 92 002 699 578

Acronyms / Terms	Definition
C2, C3, C4, C2-H, C3-H, C4-V	Abbreviated form of Carpentaria 2, Carpentaria 3, and Carpentaria 4 well pads. Sometimes followed by a "H" or "V" when referring to the well on the well pad, meaning Horizontal or Vertical respectively
Code	Code of Practice: Onshore Petroleum Activities in the Northern Territory
CMB	Control Monitoring Bore
DENR	Department of Environment and Natural Resources
DEPWS	Department of Environment, Parks and Water Security, now known as DLPE
DLPE	Department of Lands, Planning and Environment, previously known as DEPWS
EC	Electrical Conductivity
EMP	Environment Management Plan
EP	Exploration Permit
Guideline	Preliminary Guideline: Groundwater Monitoring Bores for Exploration Petroleum Wells in the Beetaloo Sub-Basin
IMB	Impact Monitoring Bore
LOR / LOD	Limit of Reporting / Detection

Table of contents

List of Figures

List of Tables

1 Introduction

The EMP IMP4-3 – Imperial OG 2021-2025 EP187 Program, Rev 3, dated 20 July 2021 was approved on the 17th October 2022.

Ministerial Condition 5.iii of the EMP Approval Notice requires Imperial Oil & Gas (Imperial) to provide an interpretative report of groundwater quality based on the groundwater monitoring required to be conducted at the well site.

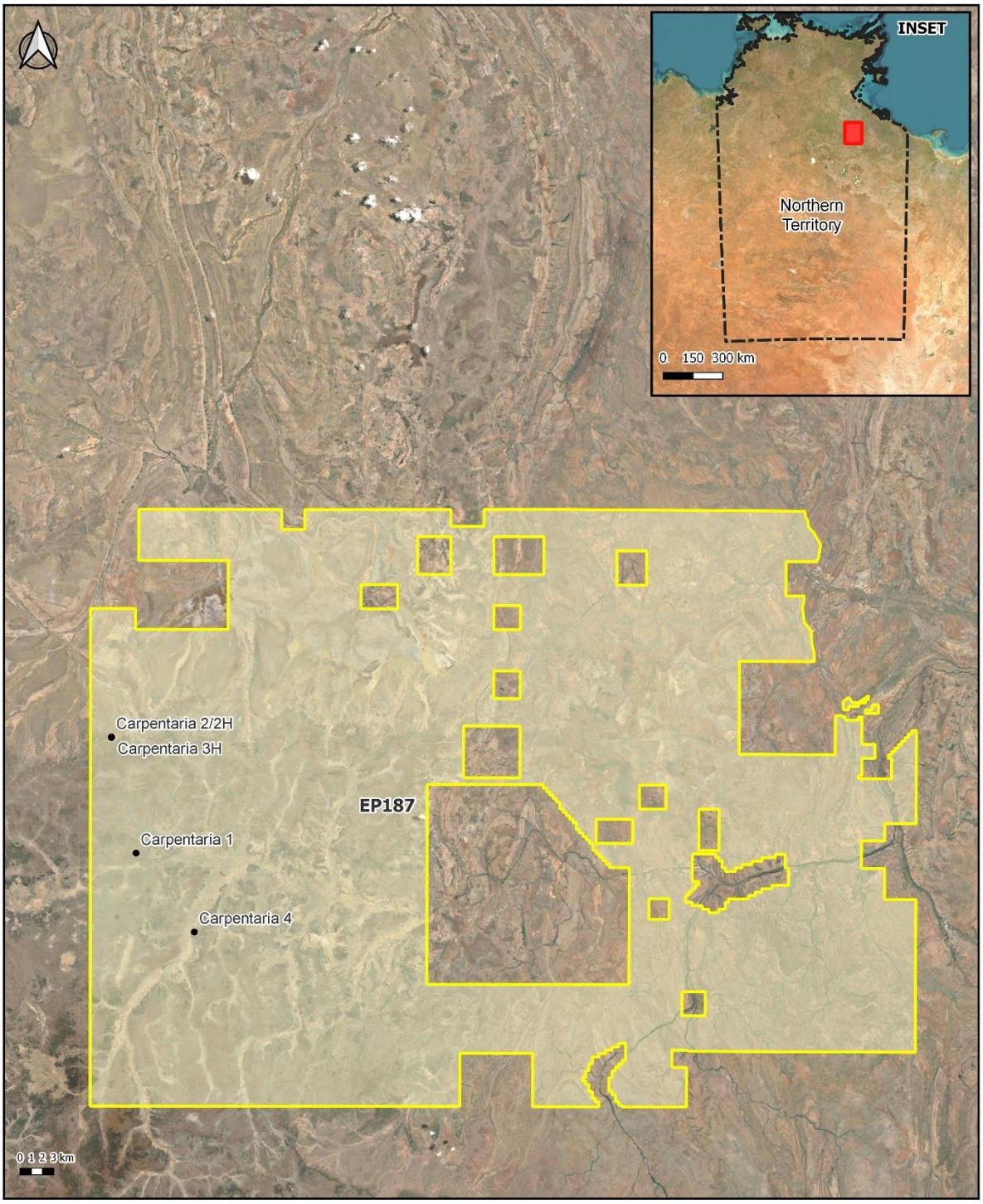
Ministerial Condition 5.iii of the Approval Notice is as follows:

> *"...in support of clause B.4.17.2 of the code, the interest holder must provide to DEPWS, via Onshoregas.depws@nt.gov.au, an interpretative report of groundwater quality based on the groundwater monitoring required to be conducted at the well site(s) in accordance with Table 6 of the Code of Practice: Onshore Petroleum Activities in the Northern Territory. The interpretative report must be provided annually within 3 months of the anniversary of the approval date of the EMP and include:*
>
> - *demonstration that there is no change to groundwater quality or level attributable to conduct of the regulated activity at the well site(s);*
> - *interpretation of any statistical outliers observed from baseline measured values for each of the analytes;*
> - *discussion of any trends observed; and*
> - *a summary of the results including descriptive statistics."*

Data was collected from the Carpentaria 2 and 3 (C2/C3) and the Carpentaria 4 (C4) well pads. The activities likely to affect groundwater occurring between the 17th of October 2022 and the 16th of October 2023 under this EMP included are outlined in the table below:

Table 1 – Summary of Activities for each well under IMP4-3

Well	Drilling	Hydraulic Fracturing
C2-H	No	No
C3-H	Yes	Yes
C4-V	Yes	No



Title:	Groundwater Report - Location Map
Project name:	IMP4-3 Annual Groundwater Interpretative Report
CRS:	GDA2020 / MGA zone 53
Created by:	John Maguire
Company name:	inGauge
Client name:	Imperial Oil & Gas

Figure 1 – Location of the Carpentaria-2 and 3 wellsite

Groundwater monitoring bores were installed as per the Department of Environment and Natural Resources (DENR) Preliminary Guideline: Groundwater Monitoring Bores for Exploration Petroleum Wells in the Beetaloo Sub-Basin (Guideline) for each well site. The following setup is present at each well, the details of these bores are shown in Table 2.

Table 2 – Monitoring Bores per well

Well	Control Monitoring Bore	Impact Monitoring Bore
C2-H and C3-H	Yes	Yes
C4-V	Yes	No

The following report demonstrates that the activities under the EMP have not had any impact on groundwater quality.

2 Groundwater Monitoring Program Details

2.1 Water Monitoring Bores

As per the Guideline a Control Monitoring Bore (CMB) is located approximately 100 metres up-gradient from the petroleum well, and an Impact Monitoring Bore (IMB) is located approximately 20 metres down-gradient from the well. Details of the monitoring bores are presented in Table 3. The Anthony Lagoon Aquifer and the Gum Ridge Aquifer are part of the Cambrian Limestone Aquifer (CLA). Only the Gum Ridge is present at Carpentaria 4.

Table 3 – Monitoring bores information

Well site	Carpentaria 2				Carpentaria 4
Aquifer	Gum Ridge		Anthony Lagoon		Gum Ridge
Bore Number	**RN042461**	**RN042464**	**RN042462**	**RN042463**	**RN043012**
Category	IMB	CMB	IMB	CMB	CMB
Total Depth (m)	234	228	100	100	142.5
Length of slotted liner (m)	130.7	124	24	29	58
ID of casing (mm)	153	156	158	158	158
Total Vol. of bore (L)	4302	4357	1960	1960	2688
Production rate (L/s)	3	2	4	4	10+
Time of produce one full volume (min)	23	36	8.2	8.2	4.5

The locations of the monitoring bores relevant to IMP4-3 are present on the Carpentaria 2 & 3, and 4 wellsite. These are visualised on Figure 2 and Figure 3.

Figure 2 – Schematic of the monitoring bore locations in relation to Carpentaria-2/3 well

Figure 3 – Schematic of the monitoring bore locations in relation to Carpentaria-4 well

2.2 Water Sampling

Water sampling from the monitoring bores have been undertaken at Carpentaria 2 & 3 well pad since 3rd of November 2021 until 26th of July 2023 and Carpentaria 4 well pad since 29th of August 2022 until 10th of October 2023. The timeframe of drilling and hydraulic fracturing activities during this timeframe are as follows:

- Drilling of Carpentaria 2 was initiated on the 07/11/2021 and completed on the 16/12/2021
- Hydraulic Fracturing of Carpentaria 2 was initiated on 12/07/2022 and completed on 01/08/2022
- Drilling of Carpentaria 3 was initiated on the 13/10/2022 and completed on the 11/11/2022
- Hydraulic Fracturing of Carpentaria 3 was initiated on the 8/12/2022 and completed on the 17/01/2023.

Groundwater samples were taken and analysed in accordance with the suite of analytes presented in Table 6: Minimum suite of analytes for groundwater monitoring from the Code of Practice: Onshore Petroleum Activities in the Northern Territory (the Code).

3 Methodology

All analytes listed in Table 6 of the Code of Practice were assessed by analyzing the difference in the CMB and IMB. The CMB serves as the reference point or baseline, positioned hydraulically upgradient and thus assumed to be unaffected by external influences from well pad activities. It reflects the natural state of local groundwater quality. Conversely, the IMB is located hydraulically downgradient of the well, the potential source of contamination, and is used to monitor changes in groundwater quality that may be due to these activities.

Therefore, the CMB results will always inform the baseline groundwater quality at the well pad.

As the aquifers IMB and CMB are in close proximity and are sampled within same day of each other, we can calculate the difference between the IMB and the CMB readings, this method accounts for natural fluctuations in groundwater conditions that might affect both bores equally. This differential analysis helps isolate the specific impacts of the well pad activity from other environmental or geological changes that could also influence groundwater quality, ensuring that the assessment focuses on changes attributable specifically to well pad activities rather than natural variability or unrelated factors.

Therefore, the results of the analysis indicate the following:

- **A negative difference:** When the CMB results are higher than those of the IMB, it suggests that any observed variations are likely due to natural fluctuations rather than impacts from well pad activities. These negative results are considered non-significant concerning well pad effects and have been adjusted to zero in the analysis to focus on potential impacts.
- **No difference:** If there is no difference between the IMB and CMB readings, this indicates that the well pad activities have not affected the groundwater quality relative to the control site. Such results confirm the absence of impact from the activities.
- **Positive difference:** A positive difference, where IMB readings are higher than the CMB, could be due to natural variability or potential impacts from well pad activities. These results warrant further assessment to determine the significance of the higher readings.

To further assess the degree of a positive result, the average of the reporting period is calculated and compared to the mean of the baseline, (where the baseline is all the prior reported data) using a Z score. If the average of the reporting period is more than 2 standard deviations above the mean, the results are flagged.

$$Z\ score = \frac{Mean_{Reporting\ Period} - Mean_{Baseline\ Period}}{Standard\ Deviation_{Baseline\ Period}}$$

Differential analysis has not been performed on the Carpentaria 4 CMB (RN43012) as this well pad does not yet have an IMB. All raw results are presented **Appendix A**, in addition to, the statistical calculations detailed above for the Carpentaria 2 & 3 bores.

4 Results and Discussions

Statistical analysis was performed for all analytes, as shown in **Appendix A,** based on the methodology discussed in Section 3. The results demonstrate that all (except observed dissolved methane in the Anthony Lagoon aquifer) difference data from the reporting period is within 2 standard deviations of the baseline (shown in the Z-score column), indicating no notable difference between the IMB and CMB.

The Preliminary Guideline: Groundwater Monitoring Bores for Exploration Petroleum Wells in the Beetaloo Sub-basin, states that the analytes of particular interest include Total Dissolved Solids, Chloride, Electrical Conductivity (E.C.), Strontium, Barium and Dissolved Methane. This is because drilling fluids, hydraulic fracturing fluids, well suspension fluids and produced formation fluids may have orders of magnitude (100s~1000s) higher concentrations than background values in potable waters. In addition, Strontium and Barium are typically elevated in produced water from unconventional shale gas reservoirs and serve among others as additional useful tracers. Dissolved methane is important to monitor as a baseline and over the longer term.

Although there is no notable difference, these analytes have been further discussed in detail below.

4.1 Gum Ridge Aquifer

4.1.1 Electrical Conductivity

4.1.1.1 Carpentaria 2 & 3

The results of monitoring for Electrical Conductivity in Gum Ridge aquifer are presented in Figure 4.

Figure 4 – C2 & C3 Electrical Conductivity measurements in Gum Ridge aquifer

The data shows consistent trends between the IMB and CMB measurements. Both datasets follow a relatively flat trend. However, there is a notable outlier in January 2023 where the datasets are both much lower than usual. This outlier is insignificant as both datasets have similar values, which indicates a natural cause and data returns to the normal range after this sample.

To further compare the reporting period data, the data from before the reporting period is summarized below in Table 4. This data is used in Figure 5 to compare the data before the reporting period (the box and whisker plots) to the data in the reporting period (represented by green dots). Figure 5 shows that the data during the reporting period is roughly similar to the previous data excluding the outliers discussed above. This demonstrates that the data during the reporting period is consistent with the data points prior.

Table 4 – C2 & C3 Summary statistics of the Electrical Conductivity measurements in Gum Ridge aquifer – Before the reporting period

Electrical Conductivity @ 25°C µS/cm	CMB (RN042464)	IMB (RN042461)
Minimum	1040.000	1020.000
Maximum	1120.000	1120.000
Average	1088.750	1081.875
20th percentile	1060.000	1058.000
80th percentile	1116.000	1100.000
Limit of detection	1.000	1.000
STD	27.538	26.638

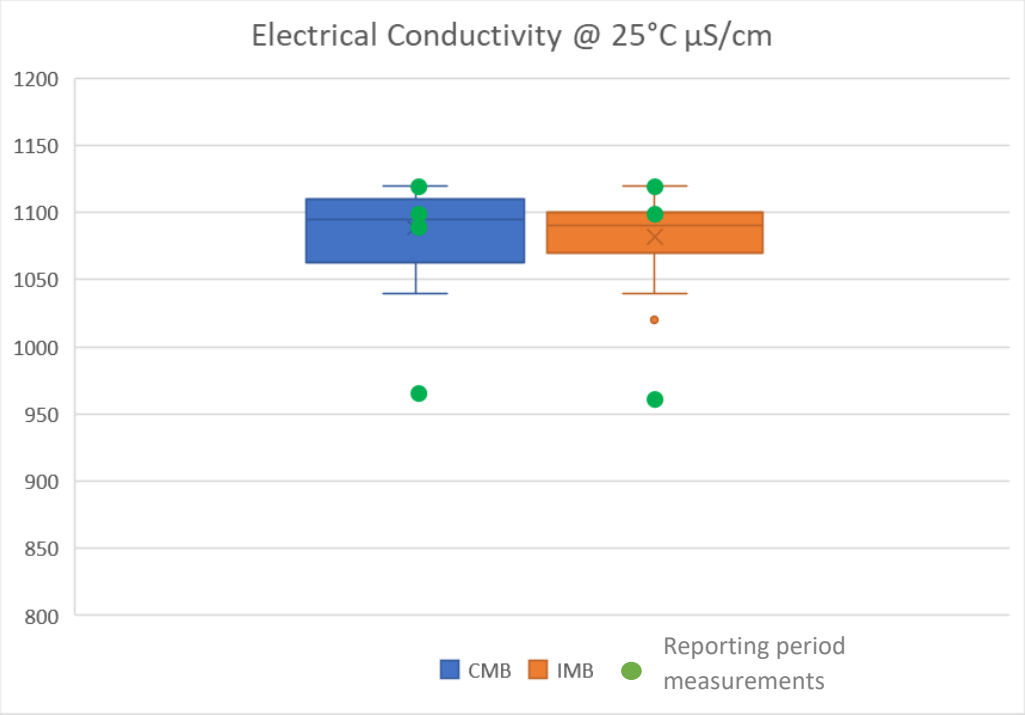


Figure 5 – Comparison of the Electrical Conductivity measurements in Gum Ridge aquifer – Before and during the reporting period

4.1.1.2 Carpentaria 4

The results of monitoring for Electrical Conductivity in Gum Ridge aquifer are presented in Figure 6.

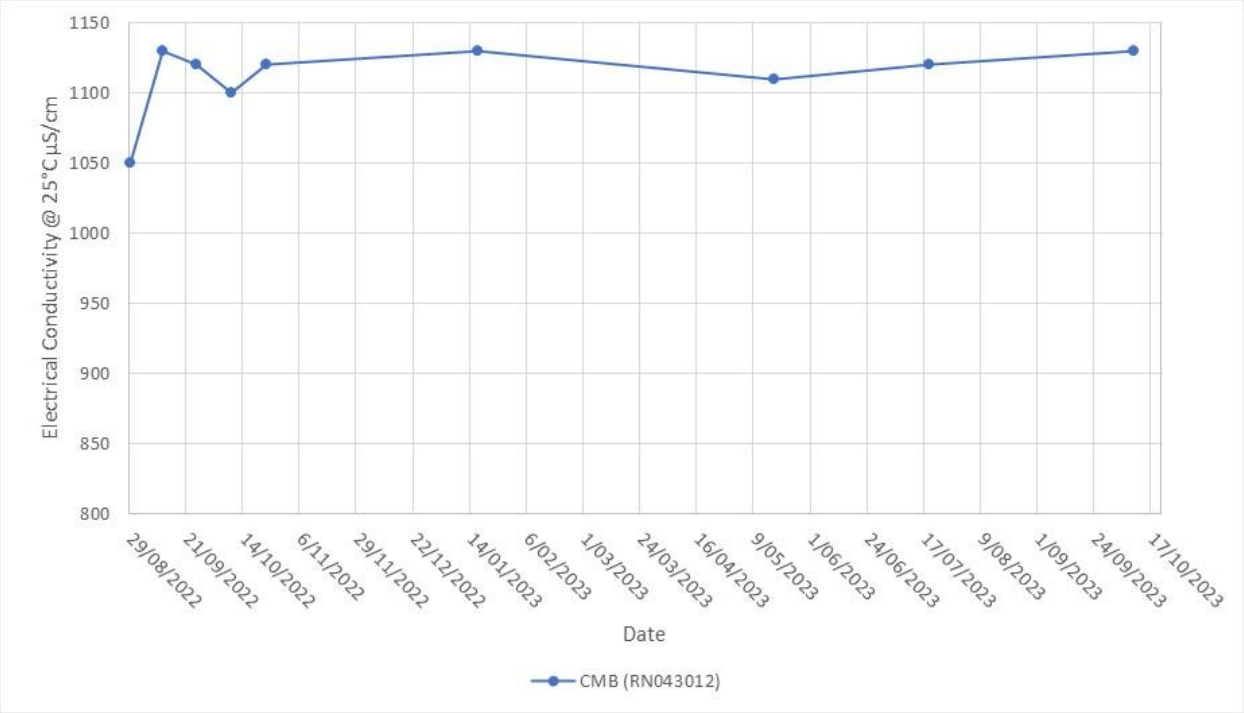


Figure 6 – C4 Electrical Conductivity measurements in Gum Ridge aquifer

Preliminary data from the control monitoring bore is beginning to demonstrate a stable range for the analyte as shown in the table below.

Table 5 – C4 Summary statistics of the Electrical Conductivity measurements in Gum Ridge aquifer

Electrical Conductivity @ 25°C µS/cm	CMB (RN043012)
Minimum	1050.000
Maximum	1130.000
Average	1100.000
20th percentile	1050.000
80th percentile	1130.000
Limit of detection	1.000
STD	35.590

4.1.2 Total Dissolved Solids

4.1.2.1 Carpentaria 2 and 3

The results of monitoring for Total Dissolved Solids in Gum Ridge aquifer are presented in Figure 7.

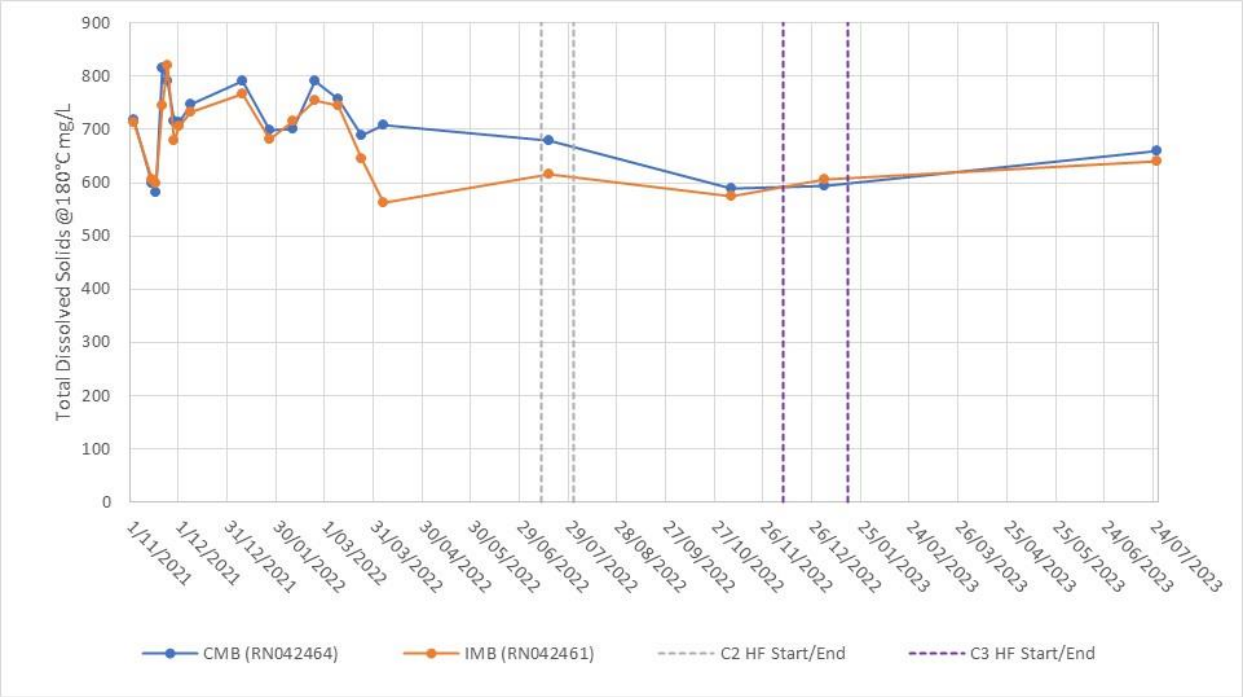


Figure 7 – C2 & C3 Total Dissolved Solids measurement in Gum Ridge aquifer

The data shows consistent trends between the IMB and CMB measurements. Both datasets follow a relatively flat trend.

To further compare the reporting period data, the data from before the reporting period is summarised below in Table 6. This data is used in Figure 8 to compare the data before the reporting period (the box and whisker plots) to the data in the reporting period (represented by green dots). Figure 8 shows that the data during the reporting period is roughly similar to the previous data. This demonstrates that the data during the reporting period is consistent with the data points prior.

Table 6 – C2 & C3 Summary statistics of the Total Dissolved Solids measurements in Gum Ridge aquifer – Before the reporting period

Total Dissolved Solids @180°C mg/L	CMB (RN042464)	IMB (RN042461)
Minimum	582.000	562.000
Maximum	814.000	820.000
Average	718.188	692.688
20th percentile	682.400	609.800
80th percentile	790.600	750.000
Limit of detection	10.000	10.000
STD	64.948	70.897

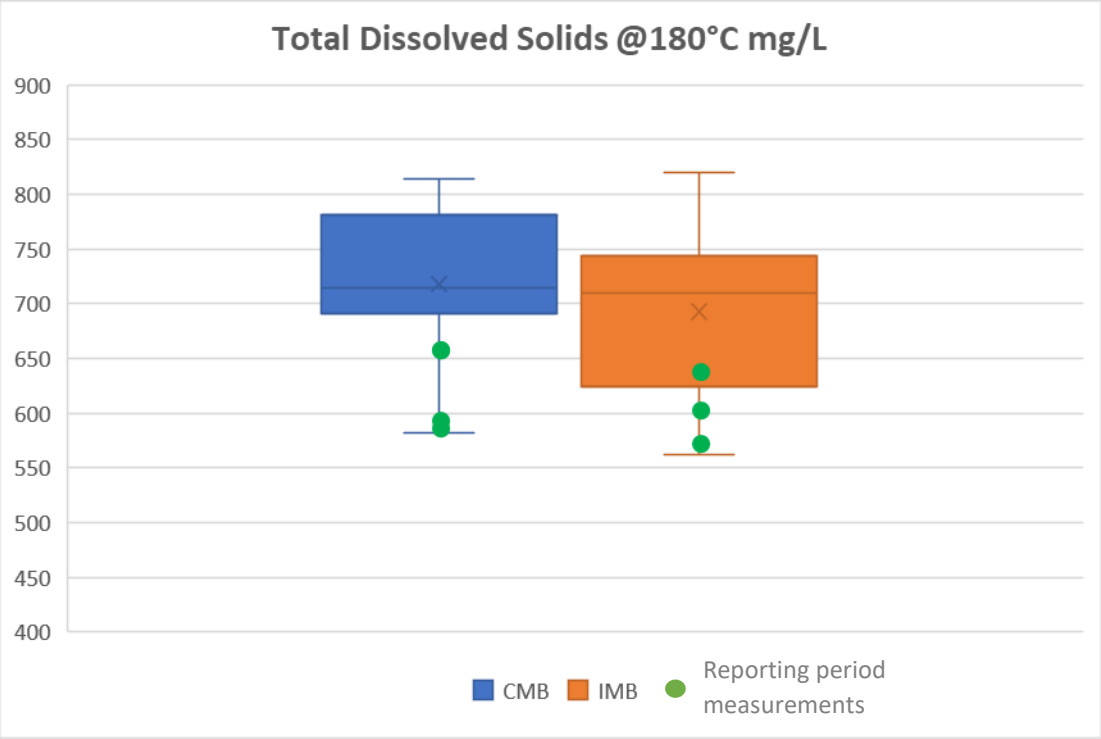


Figure 8 – Comparison of the Total Dissolved Solids measurements in Gum Ridge aquifer – Before and during the reporting period

4.1.2.2 Carpentaria 4

The results of monitoring for Total Dissolved Solids in Gum Ridge aquifer are presented in Figure 9.

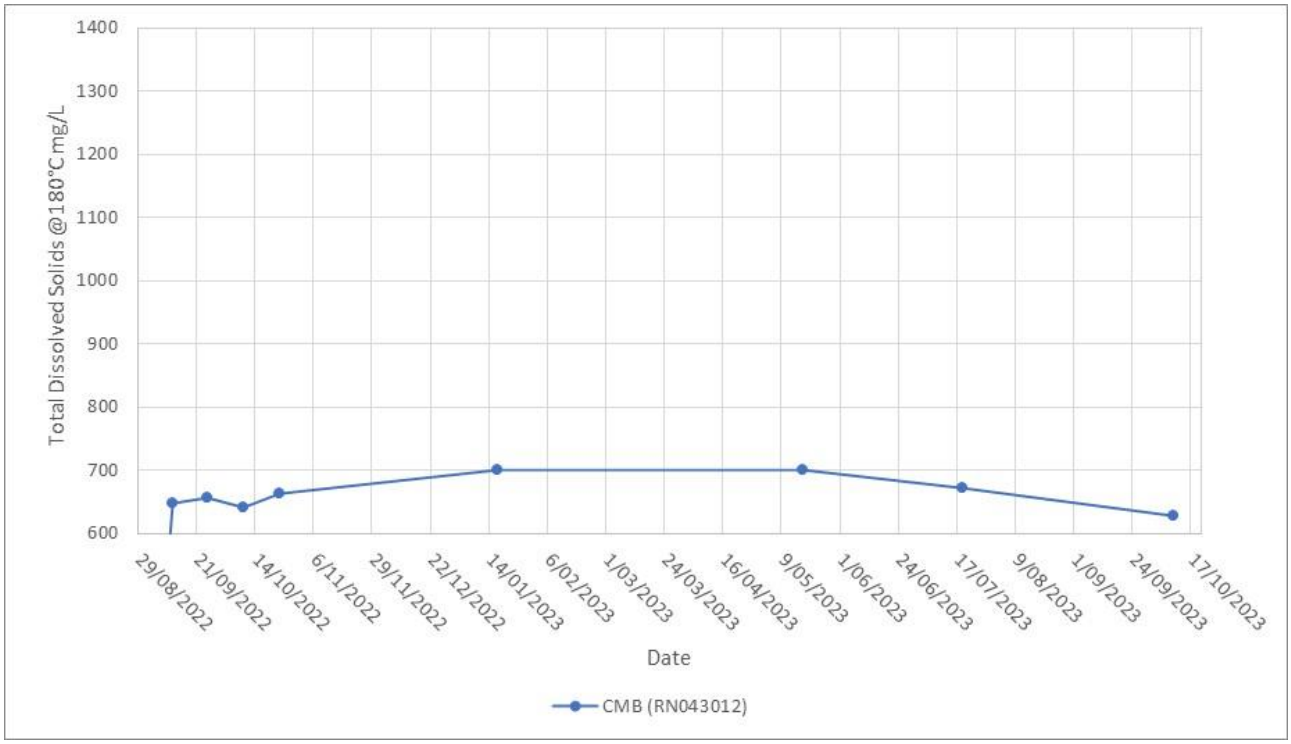


Figure 9 – C4 Total Dissolved Solids measurement in Gum Ridge aquifer

Preliminary data from the control monitoring bore is beginning to demonstrate a stable range for the analyte as shown in the table below.

Table 7 – C4 Summary statistics of the Total Dissolved Solids measurements in Gum Ridge aquifer

Total Dissolved Solids @180°C mg/L	CMB (RN043012)
Minimum	0
Maximum	656.000
Average	486.250
20th percentile	0
80th percentile	656.000
Limit of detection	10.000
STD	324.225

4.1.3 Chloride

4.1.3.1 Carpentaria 2 and 3

The results of monitoring for Chloride in Gum Ridge aquifer are presented Figure 10 .

Figure 10 – C2 & C3 Chloride measurements in Gum Ridge aquifer

The data shows consistent trends between the IMB and CMB measurements. Notably, there was an upward spike in chloride concentration observed in January 2022 at the IMB, however no activities that would affect the aquifer were being undertaken at the time by Imperial. In the later samples of 2023, the concentrations of chloride appear to be rising again which may suggest higher concentrations are in the normal range for the aquifer. This is further supported by the chloride concentrations observed in the results for the Carpentaria 4 CMB discussed in **Section 4.1.3.2.**

Both datasets follow a relatively flat trend. To further compare the reporting period data, the data from before the reporting period is summarised below in Table 8. This data is used in Figure 11 to compare the data before the reporting period (the box and whisker plots) to the data in the reporting period (represented by green dots). Figure 11 shows that the data during the reporting period is roughly similar to the previous data. This demonstrates that the data during the reporting period is consistent with the data points prior as well as nearby Carpentaria 4 CMB.

Table 8 – C2 & C3 Summary statistics of Chloride measurements in Gum Ridge aquifer – Before the reporting period

Chloride mg/L	CMB (RN042464)	IMB (RN042461)
Minimum	52.000	54.000
Maximum	62.000	76.000
Average	57.125	58.938
20th percentile	53.400	54.400
80th percentile	60.600	61.000
Limit of detection	1.0000	1.000
STD	3.384	5.385

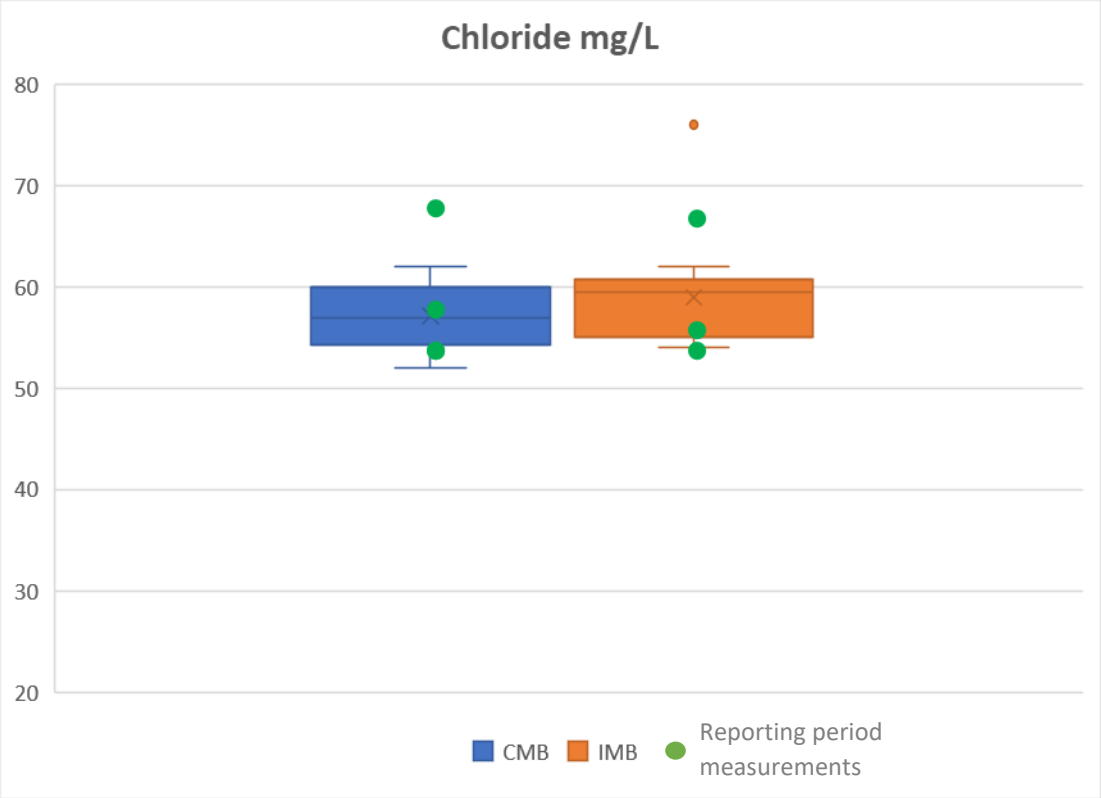


Figure 11 – Comparison of Chloride measurements in Gum Ridge aquifer – Before and during the reporting period

4.1.3.2 Carpentaria 4

The results of monitoring for Chloride in Gum Ridge aquifer are presented in Figure 12.

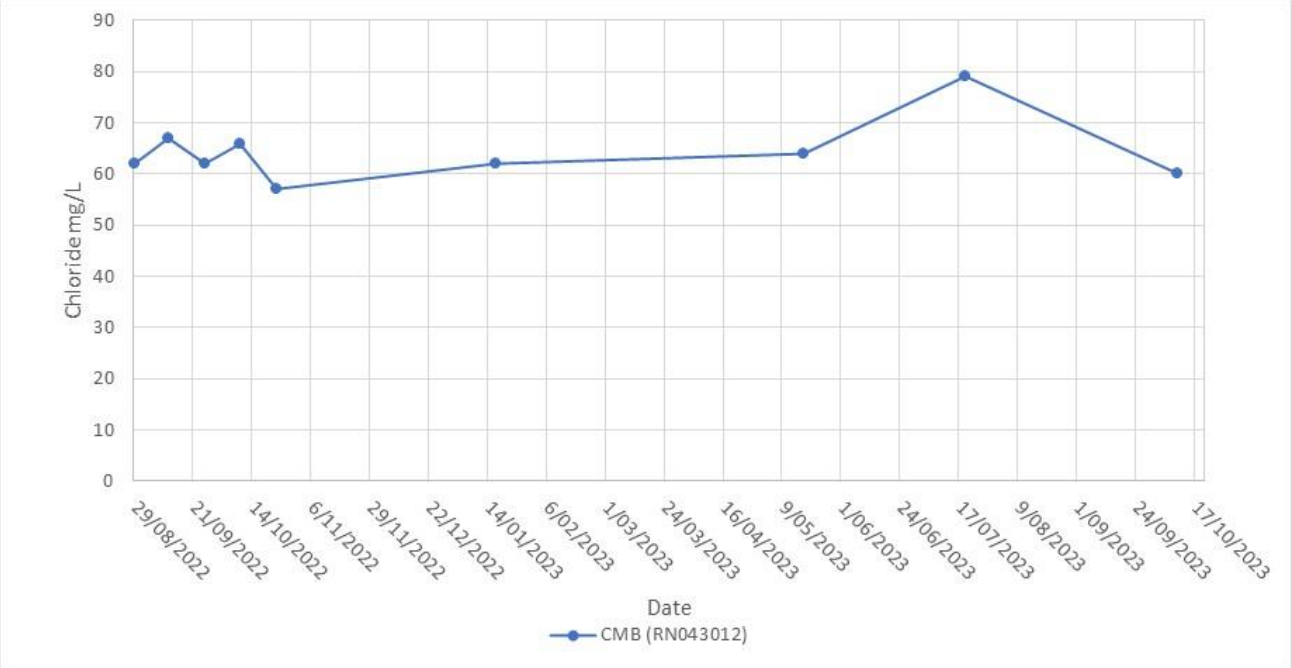


Figure 12 – C4 Chloride measurements in Gum Ridge aquifer

Preliminary data from the control monitoring bore is beginning to demonstrate a stable range for the analyte as shown in the table below.

Table 9 – C4 Summary statistics of Chloride measurements in Gum Ridge aquifer

Chloride mg/L	CMB (RN043012)
Minimum	62.000
Maximum	67.000
Average	64.250
20th percentile	62.000
80th percentile	67.000
Limit of detection	1.000
STD	2.630

4.1.4 *Barium*

4.1.4.1 Carpentaria 2 &3

The results of monitoring for Barium in Gum Ridge aquifer are presented in Figure 13 .

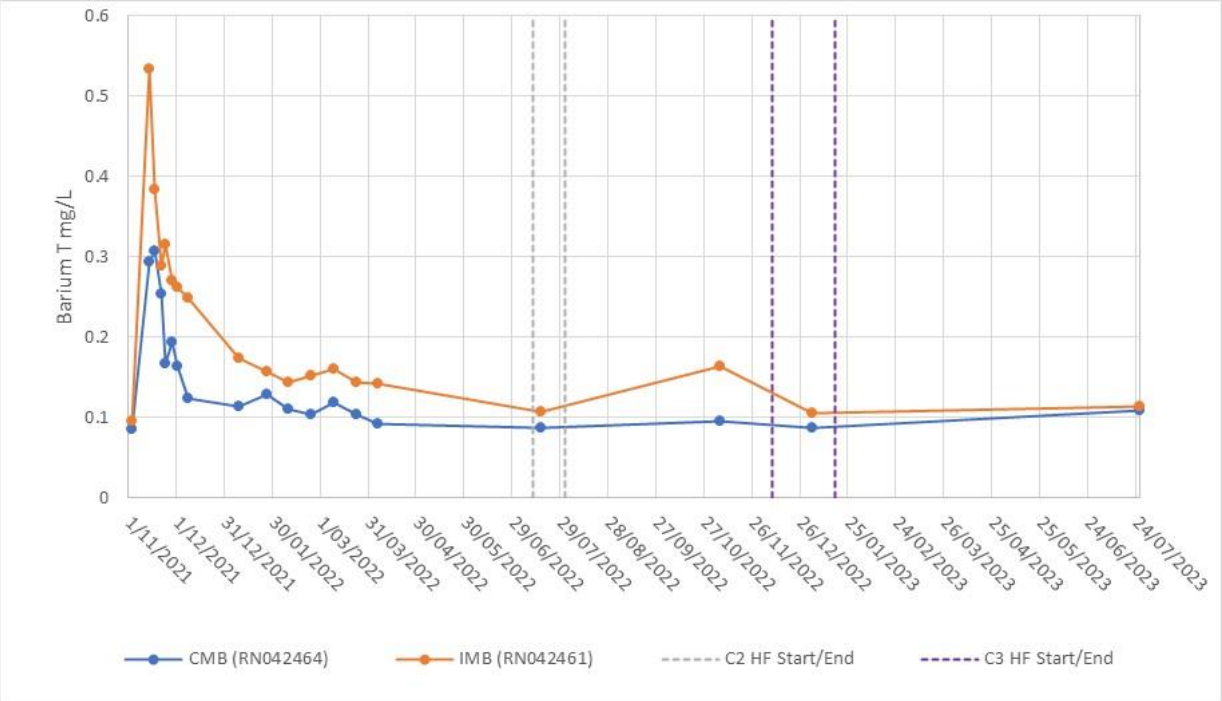


Figure 13 – C2 & C3 Barium measurements in Gum Ridge aquifer

The data shows consistent trends between the IMB and CMB measurements. Both datasets show an initial spike in Barium concentration with later stabilization in both bores.

To further compare the reporting period data, the data from before the reporting period is summarised below in Table 10. This data is used in Figure 14. to compare the data before the reporting period (the box and whisker plots) to the data in the reporting period (represented by green dots) Figure 14 shows that the data during the reporting period is roughly similar to the previous data. This demonstrates that the data during the reporting period is consistent with the data points prior.

Table 10 – C2 & C3 Summary statistics of the total Barium measurements in Gum Ridge aquifer – Before the reporting period

Barium T mg/L	CMB (RN042464)	IMB (RN042461)
Minimum	0.085	0.095
Maximum	0.307	0.533
Average	0.153	0.223
20th percentile	0.096	0.142
80th percentile	0.230	0.304
Limit of detection	0.001	0.001
STD	0.073	0.117

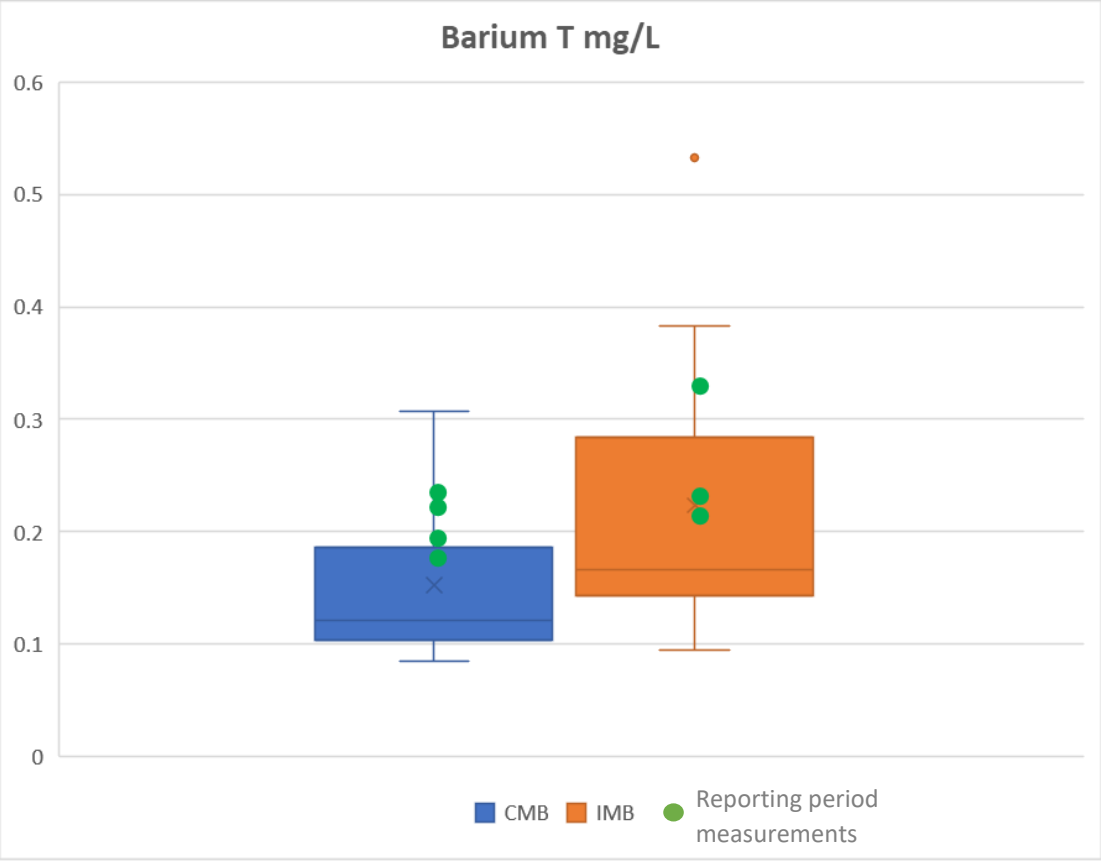


Figure 14 – Comparison of the Barium measurements in Gum Ridge aquifer – Before and during the reporting period

4.1.4.2 Carpentaria 4

The results of monitoring for Barium in Gum Ridge aquifer are presented in Figure 15.

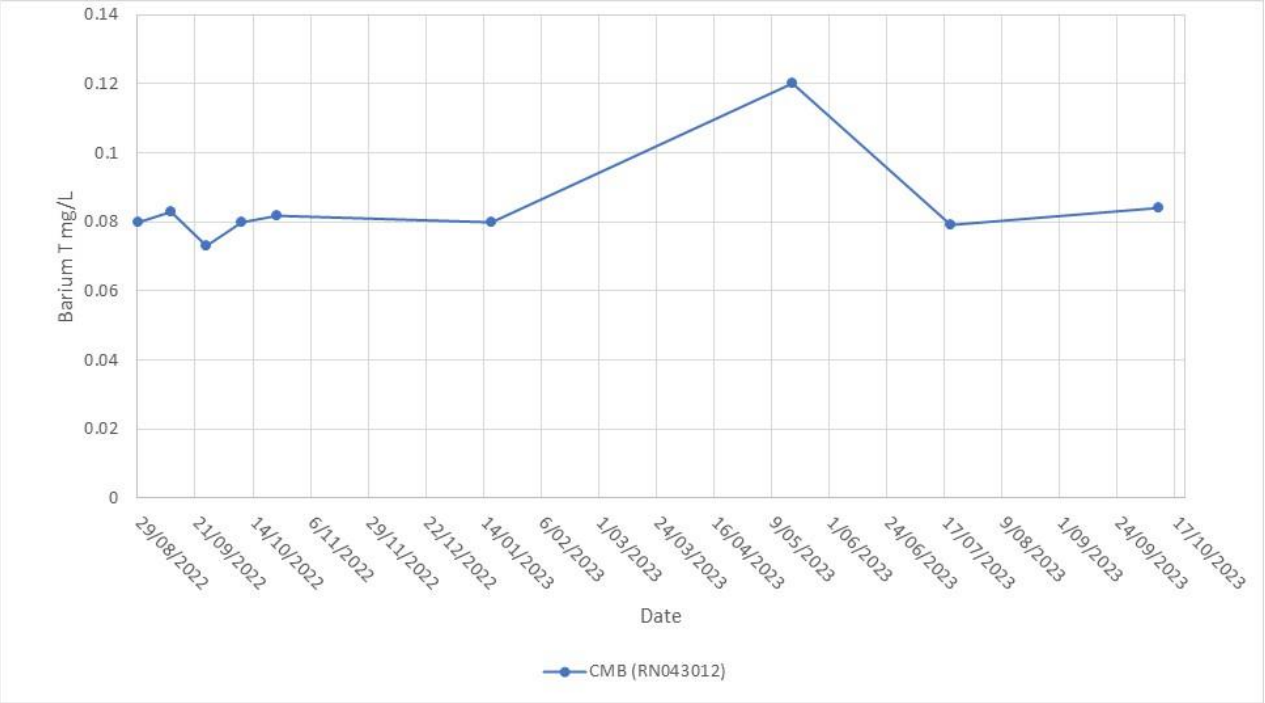


Figure 15 – C4 Total Barium measurements in Gum Ridge aquifer

Preliminary data from the control monitoring bore is beginning to demonstrate a stable range for the analyte as shown in the table below.

Table 11 – C4 Summary statistics of the Total Barium measurements in Gum Ridge aquifer

Barium T mg/L	CMB (RN043012)
Minimum	0.073
Maximum	0.083
Average	0.079
20th percentile	0.073
80th percentile	0.083
Limit of detection	0.001
STD	0.004

4.1.5 Strontium

4.1.5.1 Carpentaria 2 & 3

The results of monitoring for Strontium in Gum Ridge aquifer are presented in Figure 16.

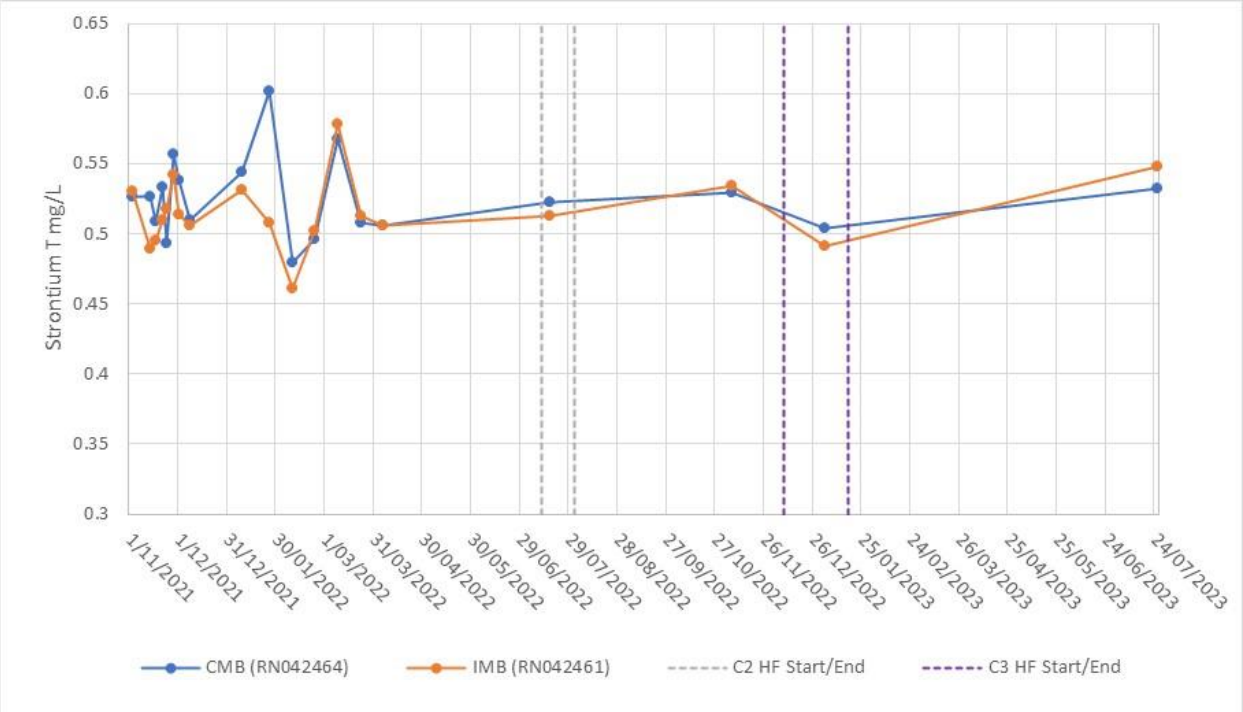


Figure 16 – C2 & C3 Total Strontium measurements in Gum Ridge aquifer

The measurements show consistent trends between the IMB and CMB measurements. Both datasets follow a relatively flat trend. Notably, there is an upward spike in Strontium concentration observed in January 2022 (CMB only) and March 2022 (both CMB and IMB), however no activities that would affect the aquifer were being undertaken by Imperial at the time.

To further compare the reporting period data, the data from before the reporting period is summarised below in Table 12. This data is used in Figure 17 to compare the data before the reporting period (The box and whisker plots) to the data in the reporting period (represented by green dots). Figure 17 shows that the data during the reporting period is roughly similar to the previous data. This demonstrates that the data during the reporting period is consistent with the data points prior.

Table 12 – C2 & C3 Summary statistics of the total Strontium measurements in Gum Ridge aquifer – Before the reporting period

Strontium T mg/L	CMB (RN042464)	IMB (RN042461)
Minimum	0.479	0.461
Maximum	0.602	0.578
Average	0.526	0.514
20th percentile	0.500	0.498
80th percentile	0.552	0.531
Limit of detection	0.001	0.001
STD	0.031	0.025

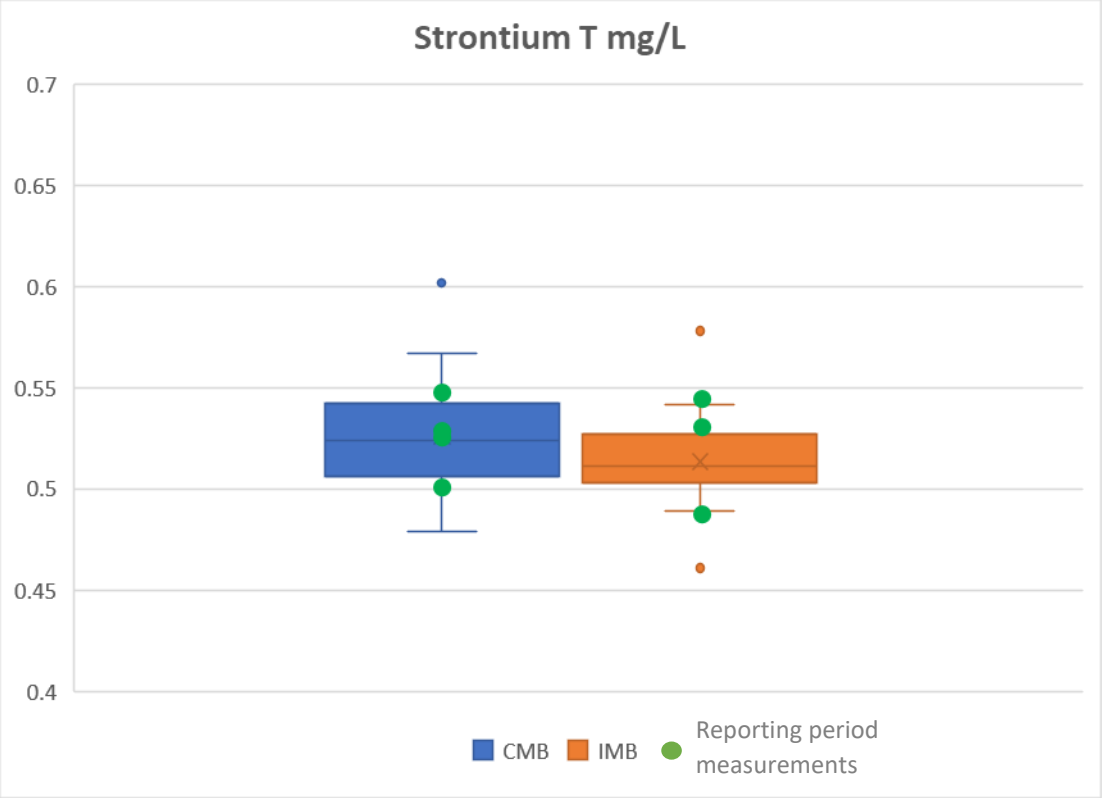


Figure 17 – Comparison of the total Strontium measurements in Gum Ridge aquifer – Before and during the reporting period

4.1.5.2 Carpentaria 4

The results of monitoring for Strontium in Gum Ridge aquifer are presented in Figure 18.

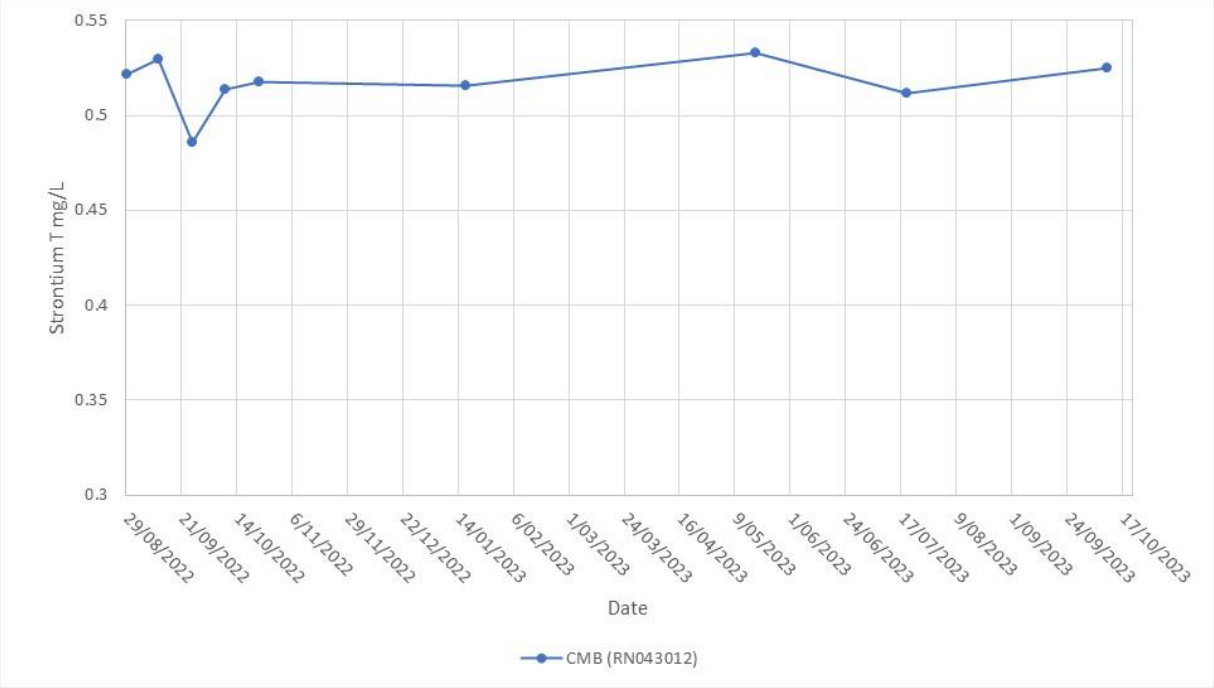


Figure 18 – C4 Total Strontium measurements in Gum Ridge aquifer

Preliminary data from the control monitoring bore is beginning to demonstrate a stable range for the analyte as shown in the table below.

Table 13 – C4 Summary statistics of the Total Strontium measurements in Gum Ridge aquifer

Strontium T mg/L	CMB (RN043012)
Minimum	0.486
Maximum	0.530
Average	0.513
20th percentile	0.486
80th percentile	0.530
Limit of detection	0.001
STD	0.019

4.1.6 Methane

4.1.6.1 Carpentaria 2 & 3

The results of monitoring for Methane in Gum Ridge aquifer are presented in Figure 19. Measurements with values below the Limit of Detection (LOD) of 0.01 mg/L were assumed to be equal to 0.01 mg/L.

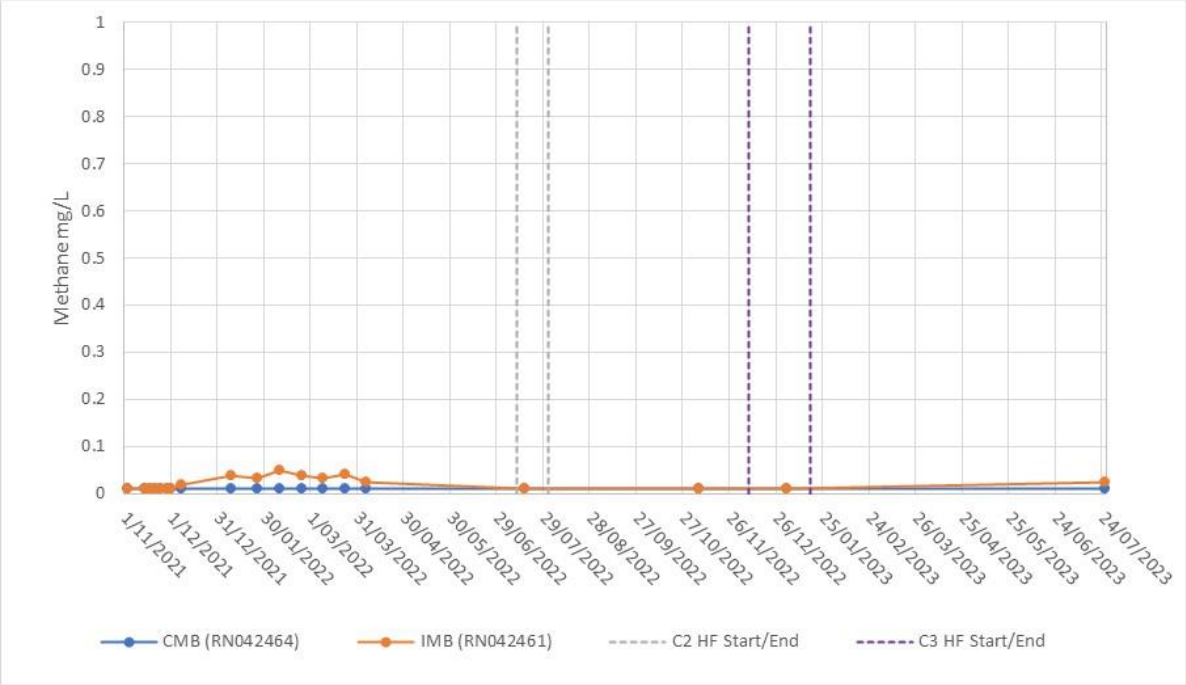


Figure 19 – C2 & C3 Methane measurements in Gum Ridge aquifer

The data shows no measurements from the CMB above the detection threshold. Some observations were made at the IMB with concentrations increasing and then decreasing in the period from January 2022 to April 2022 and no activities by Imperial were occurring at this time. The data indicates two periods of elevated dissolved methane levels. The first peak in early 2022 and the second beginning in mid-2023. After initial low levels, there was a rise reaching a peak in February 2022, followed by a decline and a period of levels below the LOR. A second increase started in July 2023, suggesting a recurring pattern of methane level fluctuations over the observed time frame.

To further compare the reporting period data, the data from before the reporting period is summarised below in Table 14. This data is used in Figure 20. to compare the data before the reporting period (the box and whisker plots) to the data in the reporting period (represented by green dots). Figure 20 shows that the data during the reporting period is roughly similar to the previous data. This demonstrates that the data during the reporting period is consistent with the data points prior.

Table 14 – C2 & C3 Summary statistics of Methane measurements in Gum Ridge aquifer – Before the reporting period

Methane mg/L	CMB (RN042464)	IMB (RN042461)
Minimum	0.010	0.010
Maximum	0.010	0.048
Average	0.010	0.022
20th percentile	0.010	0.010
80th percentile	0.010	0.039
Limit of detection	0.010	0.010
STD	0.000	0.014

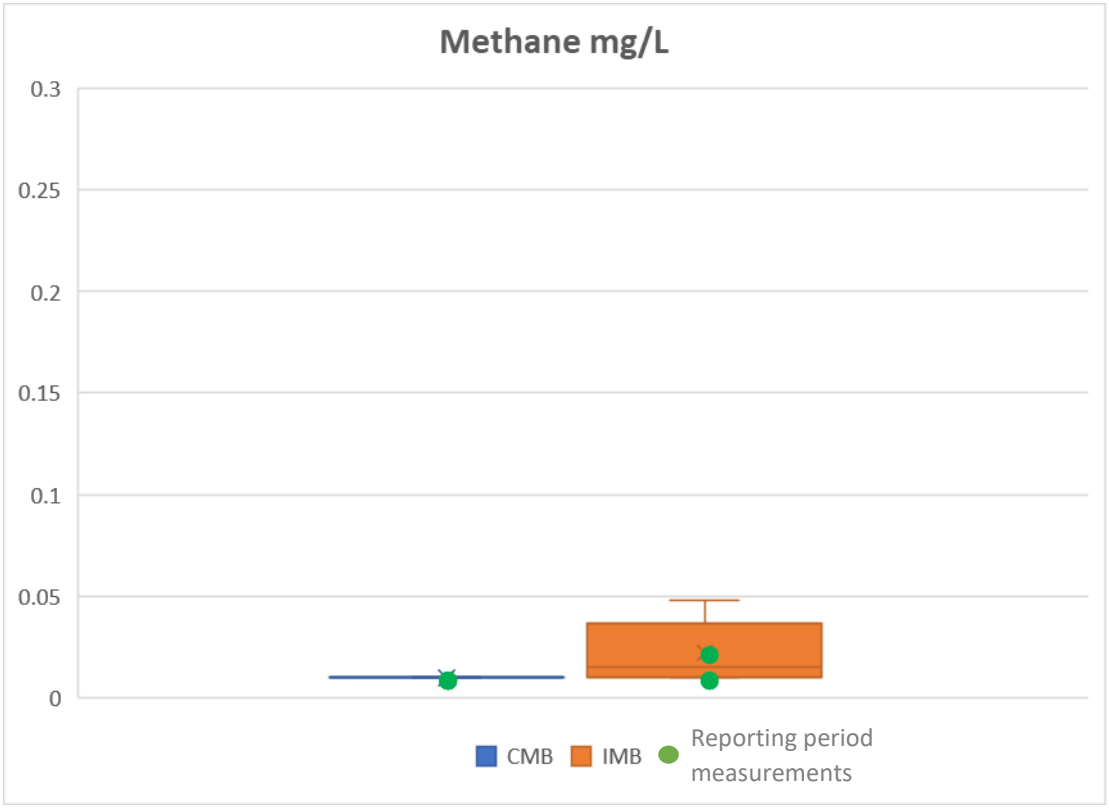


Figure 20 – Comparison of Methane measurements in Gum Ridge aquifer – Before and during the reporting period

4.1.6.2 Carpentaria 4

The results of monitoring for Methane in Gum Ridge aquifer are presented Figure 21. Measurements with values below the LOD of 0.01 mg/L were assumed to be equal to 0.01 mg/L.

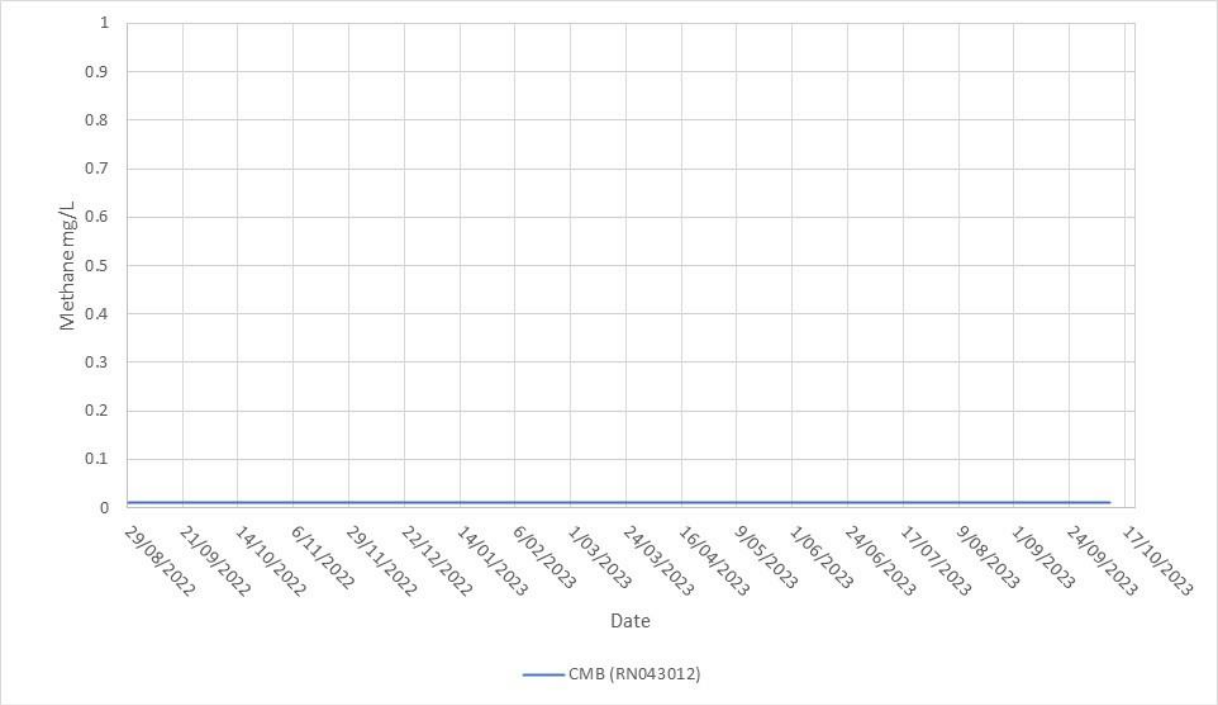


Figure 21 – C4 Methane measurements in Gum Ridge aquifer

Preliminary data from the control monitoring bore consistently shows no reading above the LOD for the analyte as shown in the table below.

Table 15 – C4 Summary statistics of the Methane measurements in Gum Ridge aquifer

Methane mg/L	CMB (RN043012)
Minimum	0.010
Maximum	0.010
Average	0.010
20th percentile	0.010
80th percentile	0.010
Limit of detection	0.010
STD	0.000

4.1.7 *Water Level*

The water levels for Gum Ridge have been monitored using Solinst Leveloggers which monitor pressure in the water column within a bore. These are suspended via cable below the standing water level within an impact monitoring bore.

Datapoints are consistent, with the Gum Ridge aquifer maintaining approximately a 22m water level, before, during and after hydraulic fracturing activities. A small change in 2023 is evident as a new logger (serial number #1091448) was suspended at a different height compared to previous loggers in the water bore.

Other abrupt changes in water level can be attributed to the anticipated short disturbances to the water during hydraulic fracturing, equipment 'data spikes' or data retrieval requiring the water level logger to be removed from the aquifer for data download.

Water level data for the Gum Ridge can be seen in Figure 22.

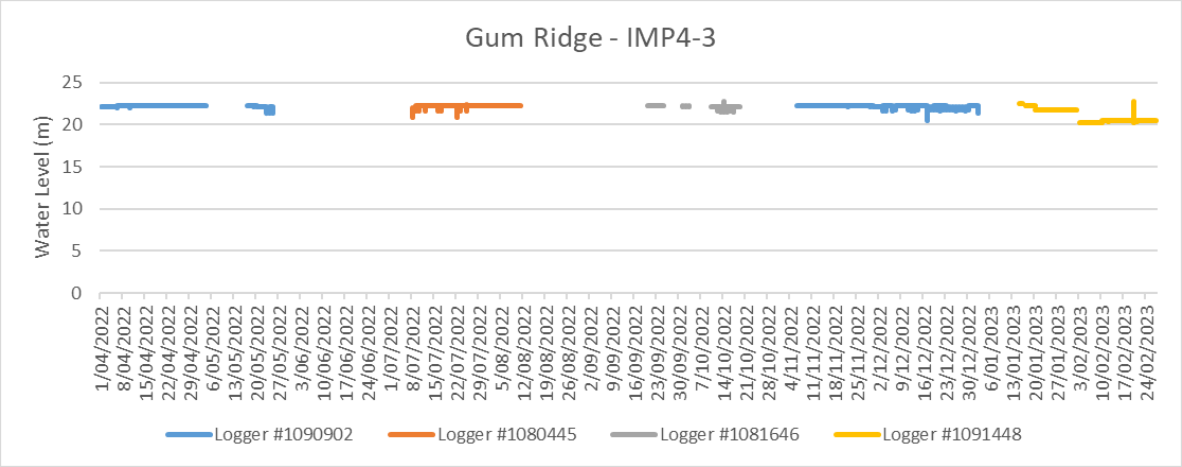


Figure 22 – Gum Ridge Aquifer Water Level

4.2 Anthony Lagoon Aquifer

4.2.1 Electrical Conductivity

The results of monitoring for Electrical Conductivity in Anthony Lagoon aquifer are presented in Figure 23.

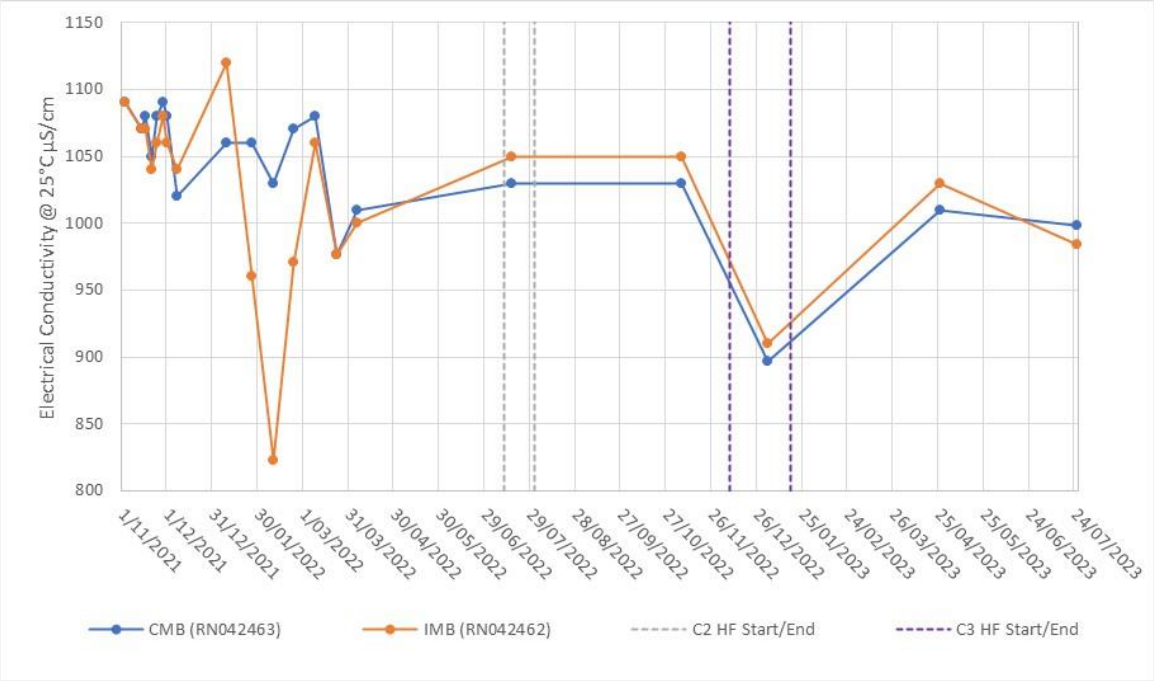


Figure 23 – C2 & C3 Electrical Conductivity measurements in Anthony Lagoon aquifer

The data shows consistent trends between the IMB and CMB measurements. One downward spike was seen in electrical conductivity concentration observed in February 2022 at the IMB, however no activities that would affect the aquifer were being undertaken by Imperial at the time. A similar downward trend for both the IMB and CMB was measured again in January 2023. This may indicate that Electrical Conductivity measurements can be lower in the aquifer. Excluding these spikes, the data shows a relatively consistent trend for both sets.

To further compare the reporting period data, the data from before the reporting period is summarised below in Table 16. This data is used in Figure 24 to compare the data before the reporting period (the box and whisker plots) to the data in the reporting period (represented by green dots). Figure 24 shows that the data during the reporting period is roughly similar to the previous data, excluding the two outliers as mentioned above. This demonstrates that the data during the reporting period is consistent with the data points prior.

Table 16 – C2 & C3 Summary statistics of the Electrical Conductivity measurements in Anthony Lagoon aquifer – Before the reporting period

Electrical Conductivity @ 25°C µS/cm	CMB (RN042463)	IMB (RN042462)
Minimum	976.000	823.0
Maximum	1090.000	1120.000
Average	1054.750	1029.375
20th percentile	1024.000	973.000
80th percentile	1080.000	1076.000
Limit of detection	1.000	1.000
STD	32.879	71.059

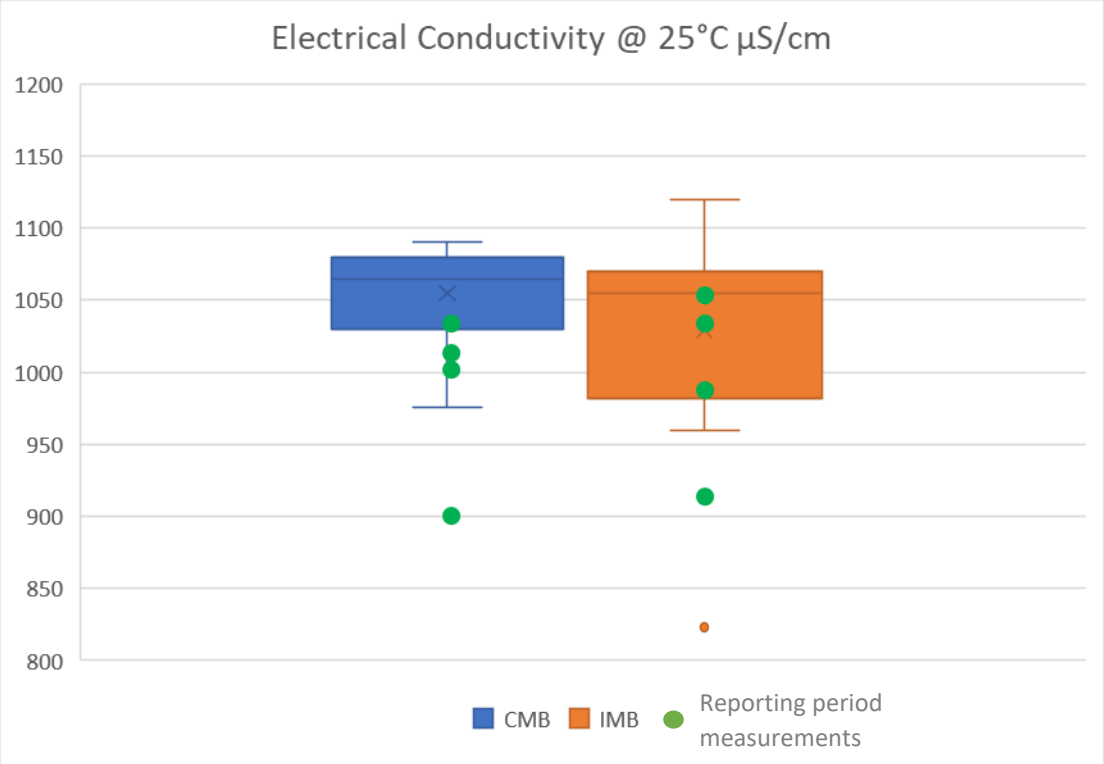


Figure 24 – Comparison of the Electrical Conductivity measurements in Anthony Lagoon aquifer – Before and during the reporting period

4.2.2 Total Dissolved Solids

The results of monitoring for Total Dissolved Solids in Anthony Lagoon aquifer are presented in Figure 25.

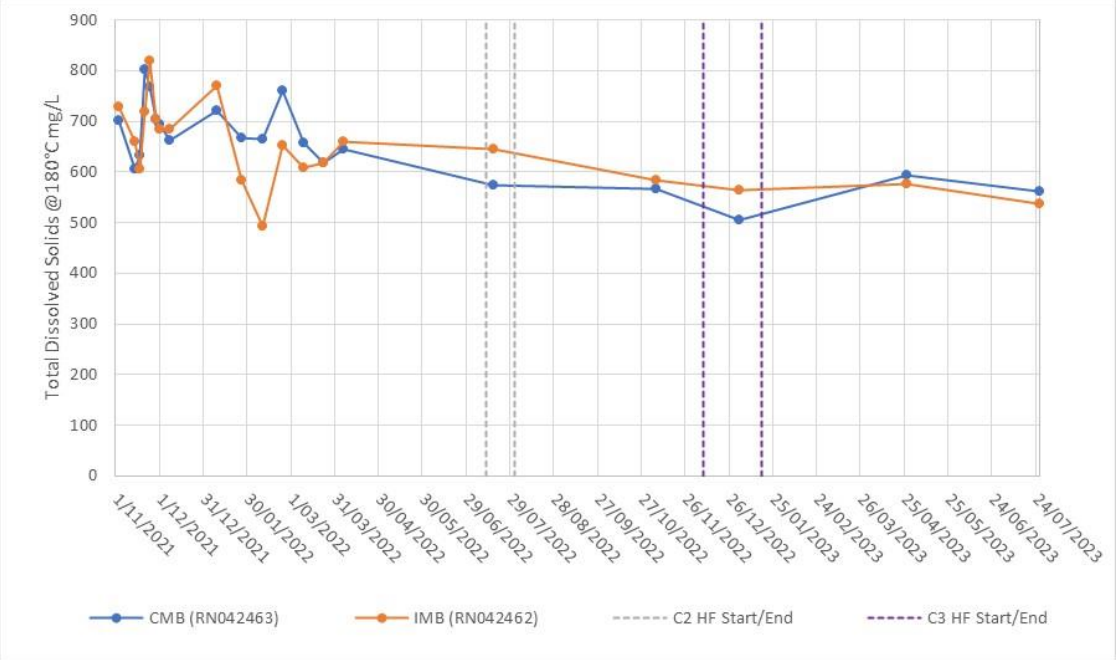


Figure 25 – C2 & C3 Total Dissolved Solids measurements in Anthony Lagoon aquifer

The data shows consistent trends between the IMB and CMB measurements. Both datasets follow a relatively flat trend.

To further compare the reporting period data, the data from before the reporting period is summarised below in Table 17. This data is used in Figure 26 to compare the data before the reporting period (The box and whisker plots) to the data in the reporting period (represented by green dots). Figure 26 shows that the data during the reporting period is roughly similar to the previous data. This demonstrates that the data during the reporting period is consistent with the data points prior.

Table 17 – C2 & C3 Summary statistics of the Total Dissolved Solids measurements in Anthony Lagoon aquifer – Before the reporting period

Total Dissolved Solids @180°C mg/L	CMB (RN042463)	IMB (RN042462)
Minimum	575.000	492.000
Maximum	802.000	820.000
Average	679.938	664.688
20th percentile	623.600	606.800
80th percentile	744.400	724.000
Limit of detection	10.000	10.000
STD	61.546	77.589

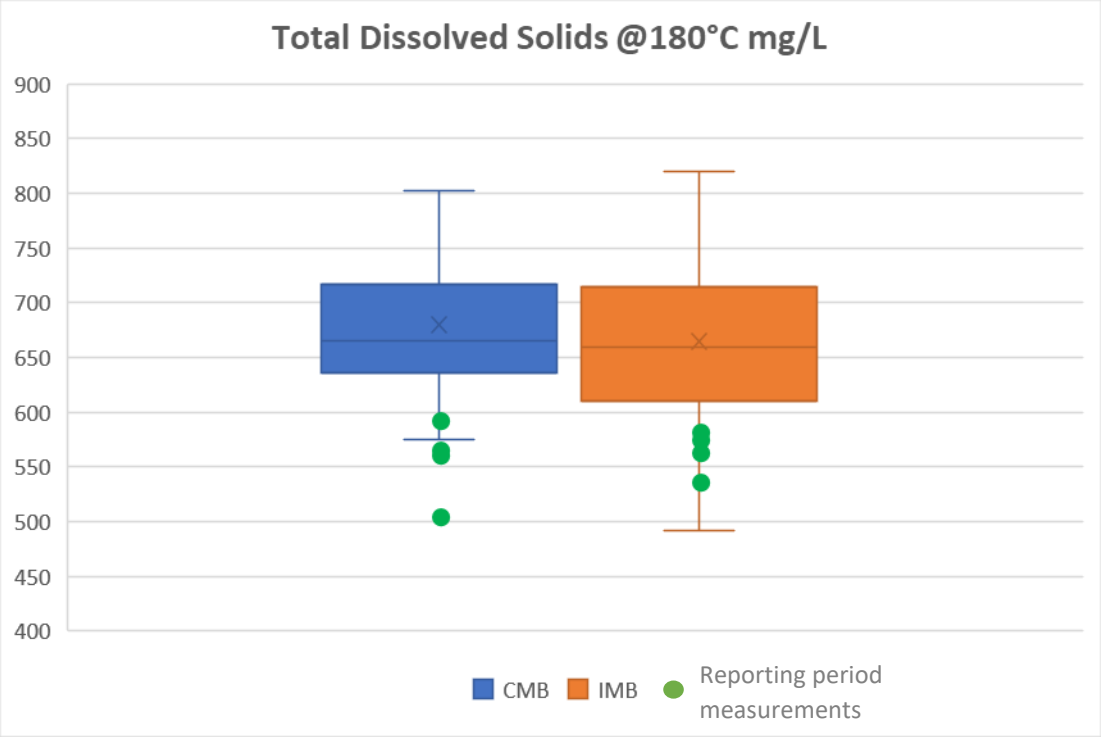


Figure 26 – Comparison of the Total Dissolved Solids measurements in Anthony Lagoon aquifer – Before and during the reporting period

4.2.3 Chloride

The results of monitoring for Chloride in Anthony Lagoon Aquifer are presented in Figure 27

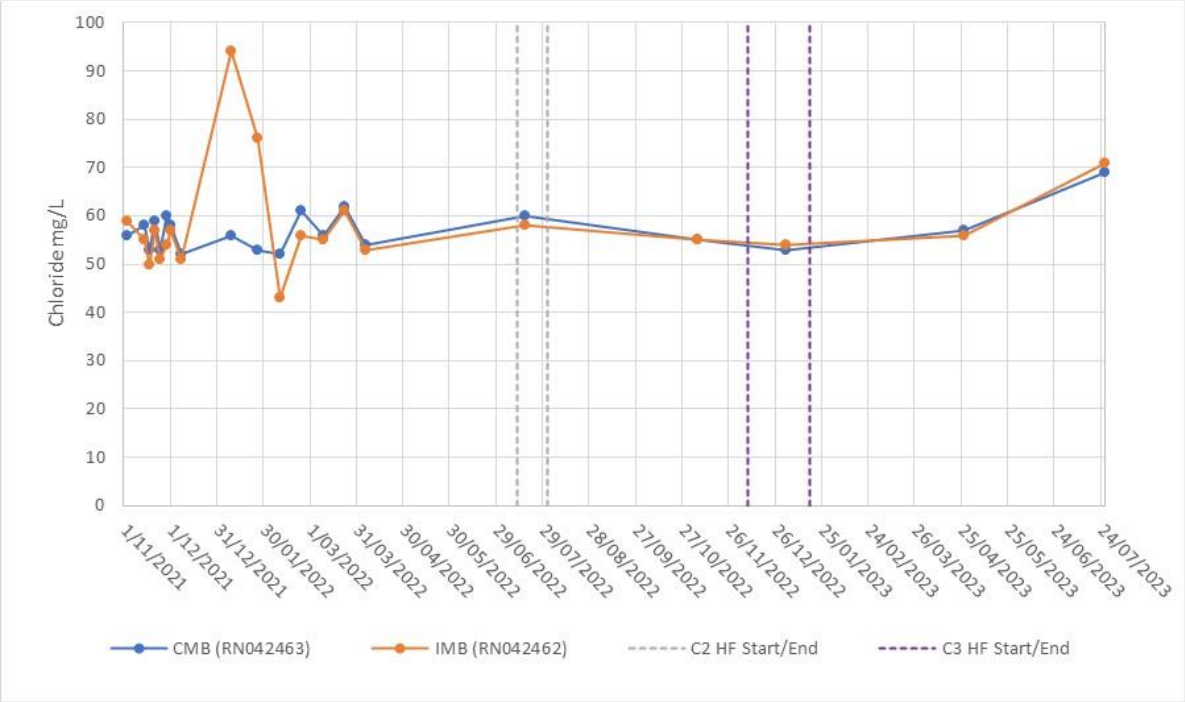


Figure 27 – C2 & C3 Chloride measurements in Anthony Lagoon aquifer

The data shows consistent trends between the IMB and CMB measurements. Notably, there was an upward spike in chloride concentration observed in January 2022 at the IMB, however no activities that would affect the aquifer were being undertaken by Imperial at the time. In late 2023 the concentrations of Chloride appear to be rising in both bores which may indicate that the upward spike in chloride concentration previously seen in 2022 may be within the normal range for the aquifer.

To further compare the reporting period data, the data from before the reporting period is summarised below in Table 18. This data is used in Figure 28 to compare the data before the reporting period (the box and whisker plots) to the data in the reporting period (represented by green dots). Figure 28 shows that the data during the reporting period is roughly similar to the previous data. This demonstrates that the data during the reporting period is consistent with the data points prior.

Table 18 – C2 & C3 Summary statistics of Chloride measurements in Anthony Lagoon aquifer – Before the reporting period

Chloride mg/L	CMB (RN042463)	IMB (RN042462)
Minimum	52.000	43.000
Maximum	62.000	94.000
Average	56.438	58.125
20th percentile	53.000	51.000
80th percentile	60.000	60.200
Limit of detection	1.000	1.000
STD	3.366	11.781

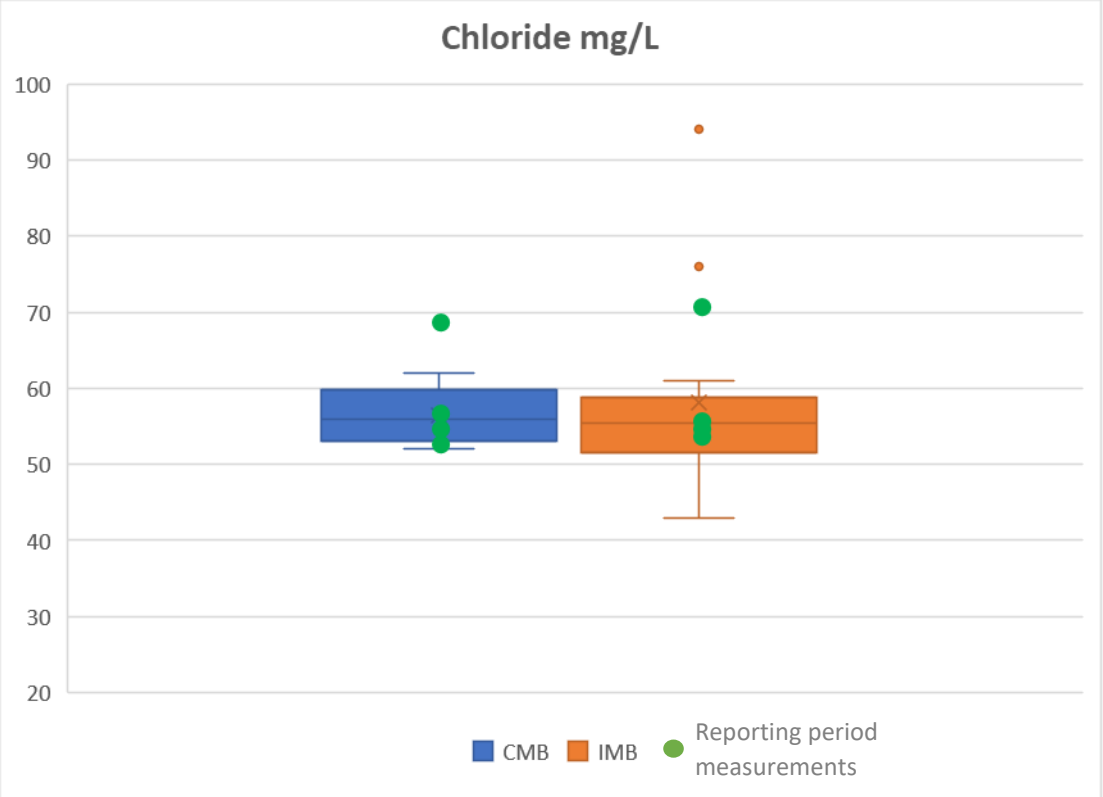


Figure 28 – Comparison of Chloride measurements in Anthony Lagoon aquifer – Before and during the reporting period

4.2.4 *Barium*

The results of monitoring for Barium in Anthony Lagoon aquifer are presented in Figure 29

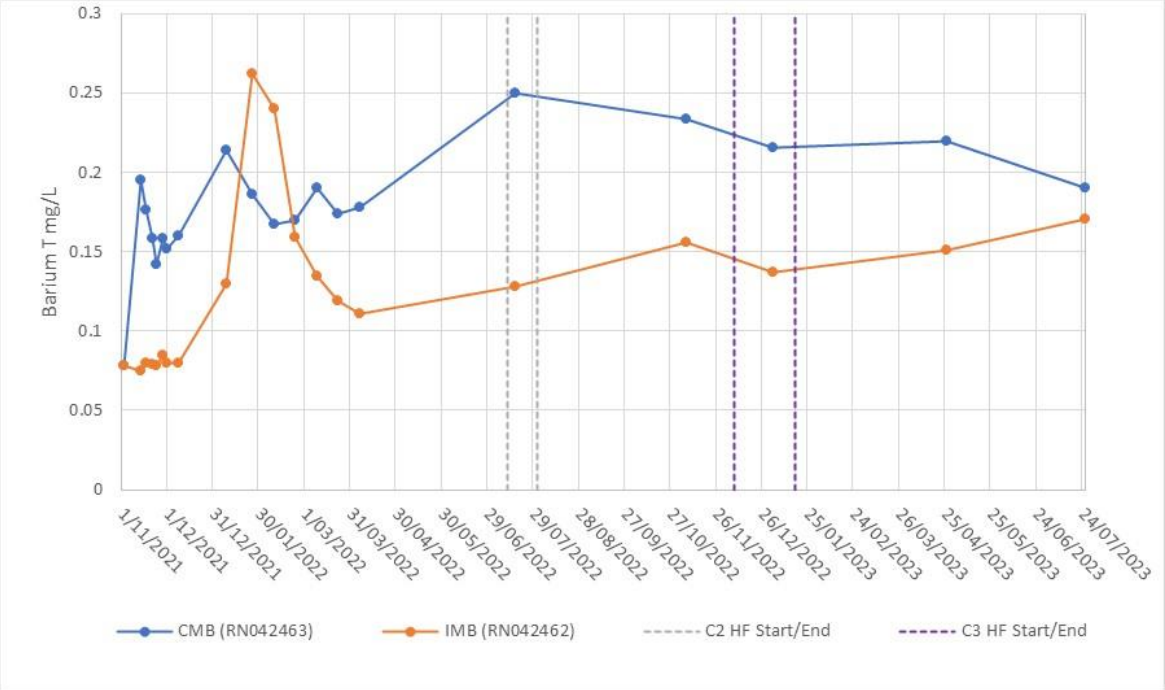


Figure 29 – C2 & C3 Total Barium measurements in Anthony Lagoon aquifer

The data shows consistent trends between the IMB and CMB measurements. Both datasets were showing a slowly increasing trend between 2021 and 2022. In 2023 the CMB Barium concentrations, which have typically been higher in the past, appear to be reducing while throughout 2023 the IMB barium concentrations have been rising.

To further compare the reporting period data, the data from before the reporting period is summarised below in Table 19. This data is used in Figure 30 to compare the data before the reporting period (the box and whisker plots) to the data in the reporting period (represented by green dots). Figure 30 shows that the data during the reporting period is roughly similar to the previous data. This demonstrates that the data during the reporting period is consistent with the data points prior.

Table 19 – C2 & C3 Summary statistics of the total Barium measurements in Anthony Lagoon aquifer – Before the reporting period

Barium T mg/L	CMB (RN042463)	IMB (RN042462)
Minimum	0.078	0.075
Maximum	0.250	0.262
Average	0.172	0.120
20th percentile	0.154	0.078
80th percentile	0.193	0.149
Limit of detection	0.001	0.001
STD	0.036	0.058

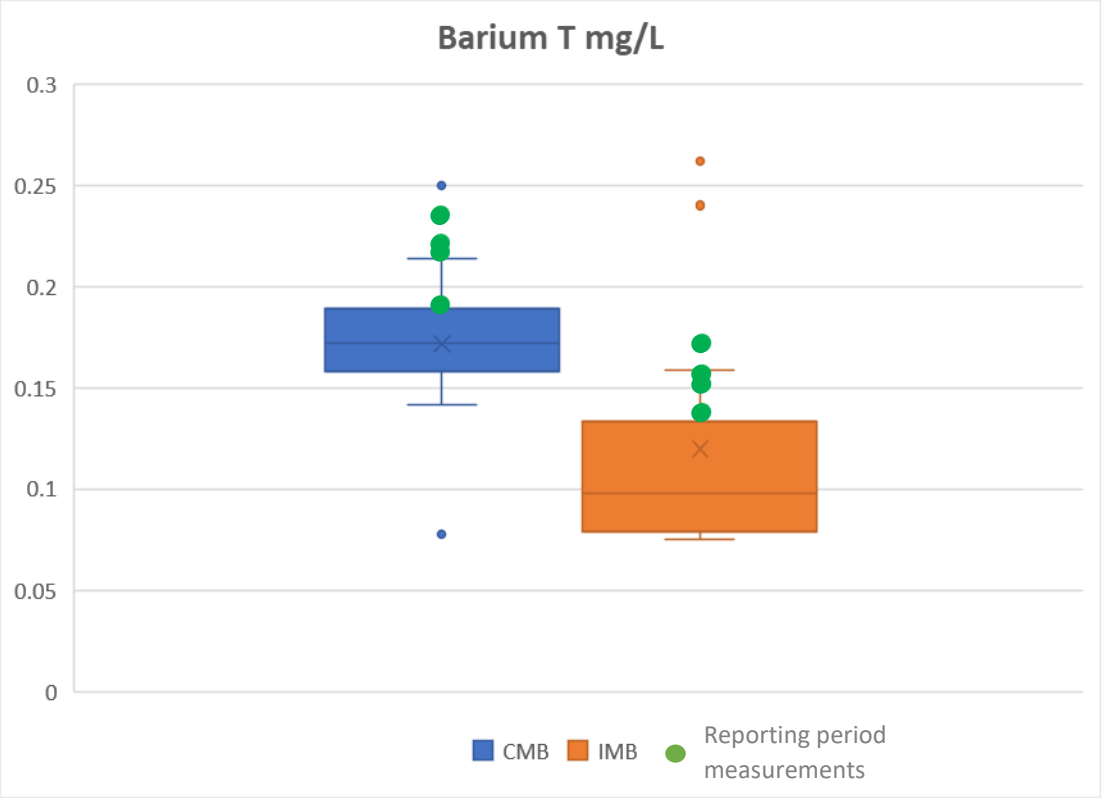


Figure 30 – Comparison of the total Barium measurements in Anthony Lagoon aquifer – Before and during the reporting period

4.2.5 *Strontium*

The results of monitoring for Strontium in Anthony Lagoon aquifer are presented in Figure 31

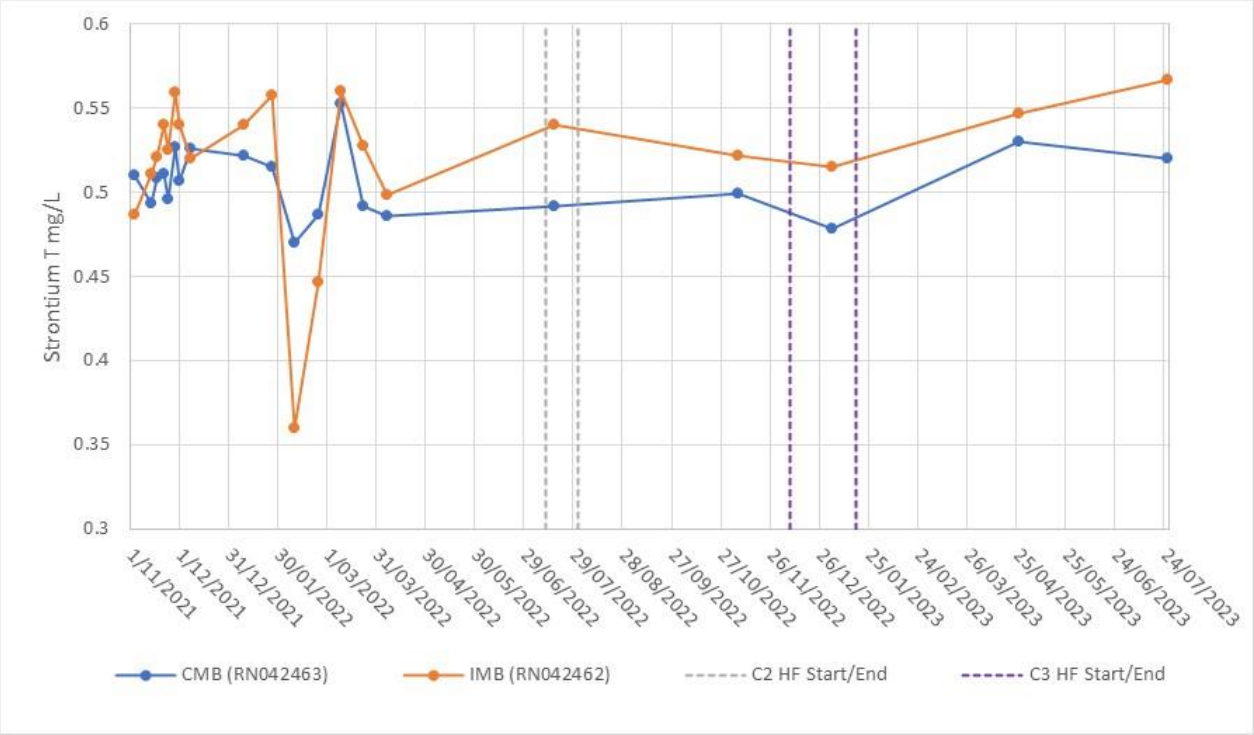


Figure 31 – C2 & C3 Total Strontium measurements in Anthony Lagoon aquifer

The data shows consistent trends between the IMB and CMB measurements. Both datasets follow a slowly increasing trend. Notably, there was a downward spike in Strontium concentration observed in February 2022 at the IMB, however no activities by Imperial were undertaken at the time.

To further compare the reporting period data, the data from before the reporting period is summarised below in Table 20. This data is used in Figure 32 to compare the data before the reporting period (the box and whisker plots) to the data in the reporting period (represented by green dots). Figure 32 shows that the data during the reporting period is roughly similar to the previous data. This demonstrates that the data during the reporting period is consistent with the data points prior.

Table 20 – C2 & C3 Summary statistics of the total Strontium measurements in Anthony Lagoon aquifer – Before the reporting period

Strontium T mg/L	CMB (RN042463)	IMB (RN042462)
Minimum	0.470	0.360
Maximum	0.553	0.560
Average	0.506	0.515
20th percentile	0.489	0.491
80th percentile	0.524	0.551
Limit of detection	0.001	0.001
STD	0.020	0.051

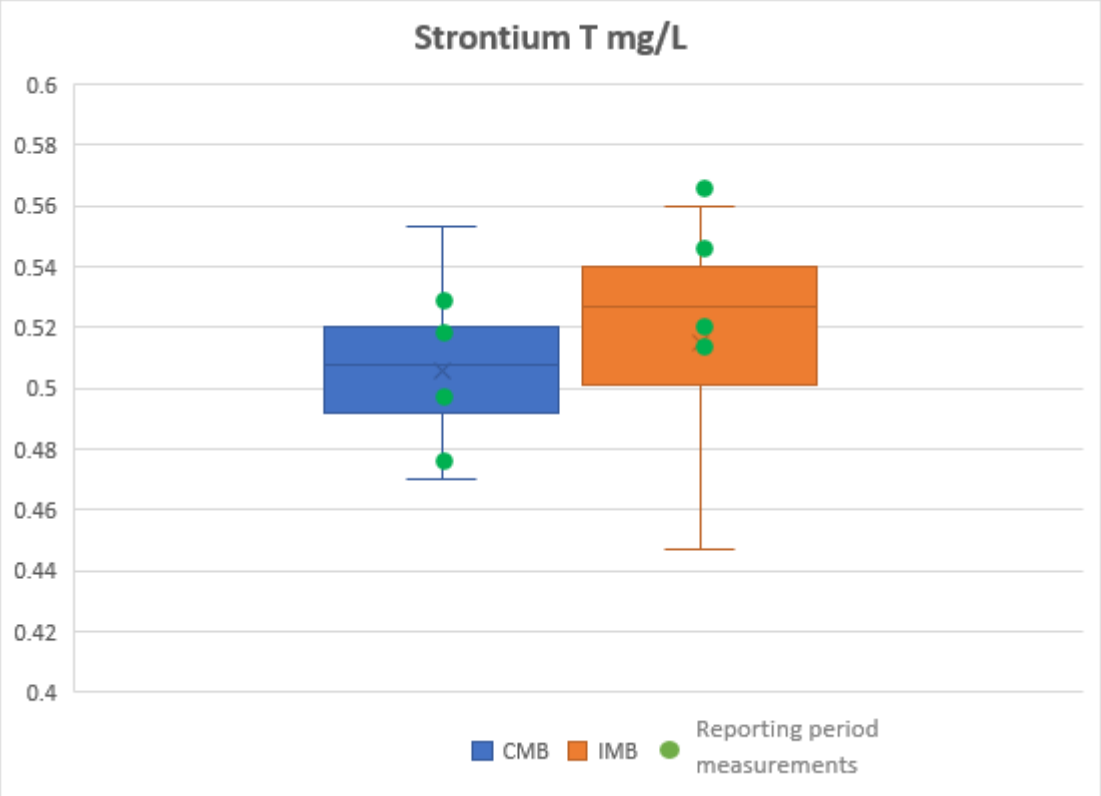


Figure 32 – Comparison of the total Strontium measurements in Anthony Lagoon aquifer – Before and during the reporting period

4.2.6 Methane

The results of monitoring for Methane in Anthony Lagoon aquifer are presented in Figure 33. Measurements with values below the LOD of 0.01 mg/L were assumed to be equal to 0.01 mg/L.

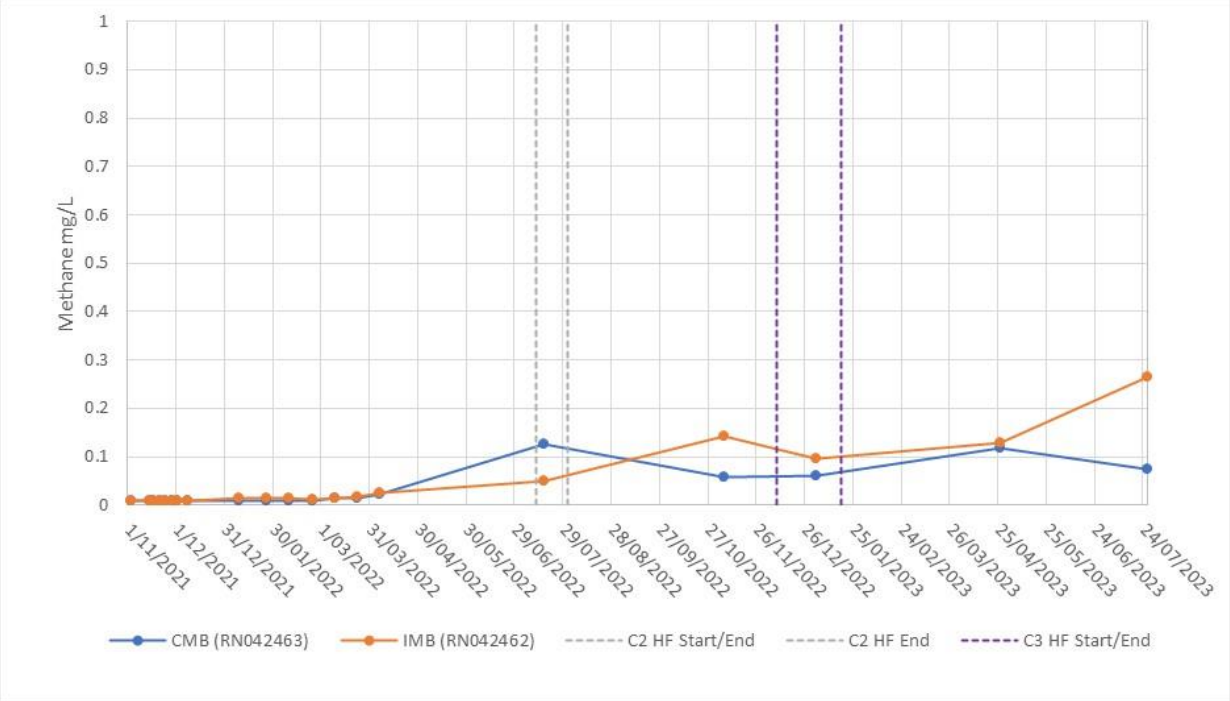


Figure 33 – C2 & C3 Methane measurements in Anthony Lagoon aquifer

The data shows consistent trends between the IMB and CMB measurements. Both datasets follow a slowly increasing trend.

This is highlighted in Table 21 and Figure 34 which show the reporting period data to be higher than the prior datapoints.

Table 21 – C2 & C3 Summary statistics of Methane measurements in Anthony Lagoon aquifer – Before the reporting period

Methane mg/L	CMB (RN042463)	IMB (RN042462)
Minimum	0.010	0.010
Maximum	0.126	0.051
Average	0.019	0.015
20th percentile	0.010	0.010
80th percentile	0.014	0.016
Limit of detection	0.010	0.010
STD	0.029	0.010

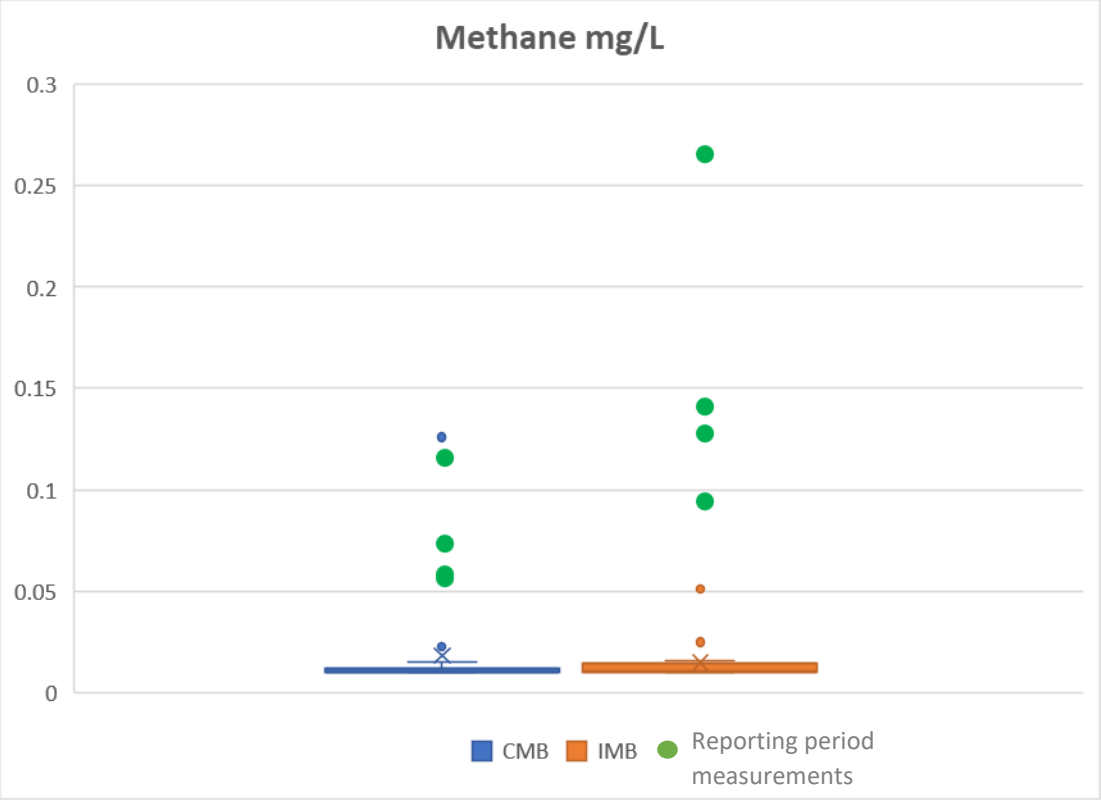


Figure 34 – Comparison of Methane measurements in Anthony Lagoon aquifer – Before and during the reporting period

As shown in Figure 33 it is evident that the cause is likely natural due to a similar trend in both the CMB and IMB.

However, methane is an indicator of hydrocarbon gases that can originate from leaks but can also occur naturally. Therefore, it requires long-term monitoring. However, methane is not the sole indicator. In compliance with the Code, Imperial has monitored various hydrocarbon indicators, including:

- Benzene, toluene, ethylbenzene, xylene, and naphthalene (BTEXN),
- Total recoverable hydrocarbons (TRH),
- Polycyclic aromatic hydrocarbons (PAH),
- Dissolved propane, and dissolved ethane.

No statistically significant increases have been observed in these hydrocarbon analytes (refer Appendix A), nor have there been any noteworthy deviations from those discussed in Section 4.2. This strongly suggests that the methane detected is from natural sources rather than anthropogenic ones.

Formation fluids, along with the drilling and hydraulic fracturing fluids used for the regulated activity, exhibit hydrocarbon concentrations orders of magnitude higher (~100-~1000 times) than the aquifer baseline. If methane elevations were due to petroleum activity, corresponding increases would be expected in other hydrocarbon analytes, as well as in other analysis suites, such as physio-chemical, nutrient, radiological, ion, and dissolved metal parameters currently being assessed.

Dissolved methane is commonly found in sedimentary basins. For example, measurements in the Eromanga Basin within the Cooper GBA region have been recorded as high as 216,500 µg/L[1].While concentrations up to approximately 20,000 µg/L are typical in productive aquifers of the Surat Basin[2]. The CLA (where the IMB and CMB being discussed are present) spans the Daly, Georgina, and Wiso Basins. The CLA includes the Anthony Lagoon and Gum Ridge formations, where studies such as the SREBA Water Studies indicate dissolved methane concentrations are generally very low, typically below standard reporting limits (e.g., <0.01 mg/L). However, concentrations between 0.01–2.21 mg/L have been observed on several occasions during GISERA, industry, and SREBA monitoring programs[3] [4]. Data collected during the reporting period remain below the upper limits identified in these studies.

Carbon isotope analyses of dissolved methane suggest that concentrations typically below 10,000 µg/L observed across the Daly, Wiso, and Georgina Basin aquifers are due to microbial activity rather than leakage from deeper thermogenic gas reserves4. Isotope analysis shows that the elevated methane concentrations, such as the almost 6 mg/L detected in a pastoral bore east of Larrimah, are likely due to microbial activity introduced by iron- or sulfate-reducing bacteria.

This microbial activity may occur within the aquifer itself or within water bores, contributing to the detectable dissolved methane concentrations observed across the CLA. This conclusion is supported by the absence of detectable ethane, a significant component of deeper gas resources, which has not been found above laboratory reporting limits or in correlation with dissolved methane concentrations. As mentioned above, if hydrocarbon gases in groundwater were leaking upward from the Beetaloo Sub-basin gas reserves, ethane would be expected to accompany methane due to its common presence in these resources[5] [6].

The occurrence of microbial activity in the CLA is unsurprising, as it is a karstic system[5] with many bores in the region accessing the aquifer. Both the widespread presence of bores and the karstic features, such as sinkholes, independently provide pathways for organic matter to enter the aquifer. Organic matter naturally support bacterial populations, which naturally contribute to methane concentrations.

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[1] Hall, L.S., Wang, L., Bailey, A.H.E., Orr, M.L., Owens, R., Jarrett, A.J.M., Lech, M.E., Skeers, N., Reese, B. and Woods, M. (2020). Petroleum prospectivity of the Beetaloo Sub-basin. Technical appendix for the Geological and Bioregional Assessment: Stage 2, Department of the Environment and Energy, Bureau of Meteorology, CSIRO and Geoscience Australia.

[2] Mallants D, Raiber M and Davies P (2016) Decision Support System for Investigating Gas in Water Bores and Links to Coal Seam Gas Development. Project report prepared by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) for the Queensland Department of Natural Resources and Mines.

[3] ELA (2022). Strategic Regional Environmental and Baseline Assessment for the Beetaloo Sub-basin: Water Quality and Quantity Baseline Summary Report. Technical Report 24/2022. Report prepared for the Northern Territory Department of Environment, Parks and Water Security by Eco Logical Australia (ELA) and Tetra Tech Coffey.

[4] Wilkes, P., Rachakonda, P. K., Larcher, A. and Woltering, M. (2019). Baseline assessment of groundwater characteristics in the Beetaloo Sub-basin, NT: Geochemistry Analysis. Report prepared for the Gas Industry Social and Environmental Research Alliance by CSIRO.

[5] ELA (2022). Strategic Regional Environmental and Baseline Assessment for the Beetaloo Sub-basin: Water Quality and Quantity Baseline Summary Report. Technical Report 24/2022. Report prepared for the Northern Territory Department of Environment, Parks and Water Security by Eco Logical Australia (ELA) and Tetra Tech Coffey

[6] Hall, L.S., Wang, L., Bailey, A.H.E., Orr, M.L., Owens, R., Jarrett, A.J.M., Lech, M.E., Skeers, N., Reese, B. and Woods, M. (2020). Petroleum prospectivity of the Beetaloo Sub-basin. Technical appendix for the Geological and Bioregional Assessment: Stage 2, Department of the Environment and Energy, Bureau of Meteorology, CSIRO and Geoscience Australia

The Anthony Lagoon Aquifer has a higher frequency of containing methane, with 20% of samples taken being above the limit of reporting, as shown in below Figure 35. Locally, bores RN041800 (IMB) and RN041678 (CMB), which are approximately 10km away from RN042463 and RN042462 have consistently recorded dissolved methane levels above 0.01 mg/L since their establishment. Therefore, the presence of elevated methane in both the IMB and CMB of this well site and others locally, supports the hypothesis of the presence of methane producing bacteria being present within the local area.

Therefore, due to the similarities in the CMB and IMB, lack of elevation in other hydrocarbon indicators, similar dissolved methane elevations locally, and data from regional studies, it is unlikely that this recent increase is attributable to petroleum activity. Rather it indicates that elevated methane concentrations are normal within this part of the CLA.

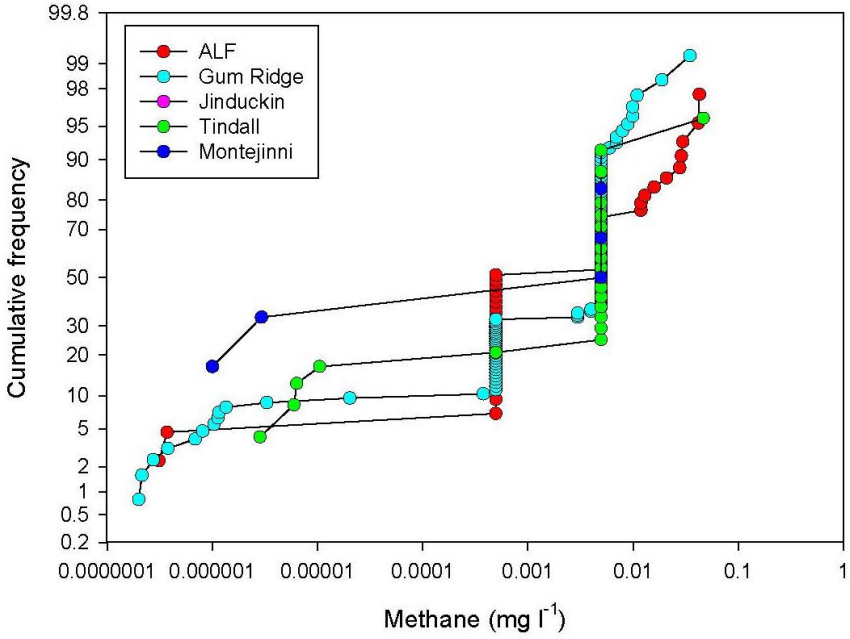

Figure 35 – Cumulative frequency plot for methane; CLA[7]

[7] Shand, P., Love, A. J. and Maggu J., (2022). Beetaloo Sub-basin SREBA Water Studies: Review of regional groundwater quality. Technical Report 35/2022. Northern Territory Department of Environment, Parks and Water Security. Palmerston, Northern Territory.

4.2.7 *Water Level*

The water levels for Anthony Lagoon have been monitored using Solinst Leveloggers which monitor pressure in the water column within a bore. These are suspended via cable below the standing water level within an impact monitoring bore.

Datapoints are consistent, with the Anthony Lagoon aquifer maintaining approximately a 21-22m water level, before, during and after hydraulic fracturing activities. A small change in 2023 is evident as a new logger (serial number #1091062) was suspended at a different height compared to previous loggers in the water bore.

A few abrupt changes in water level can be attributed to the anticipated short disturbances to the water during hydraulic fracturing, equipment 'data spikes' or data retrieval requiring the water level logger to be removed from the aquifer for data download.

The Anthony Lagoon data can be seen in Figure 36.

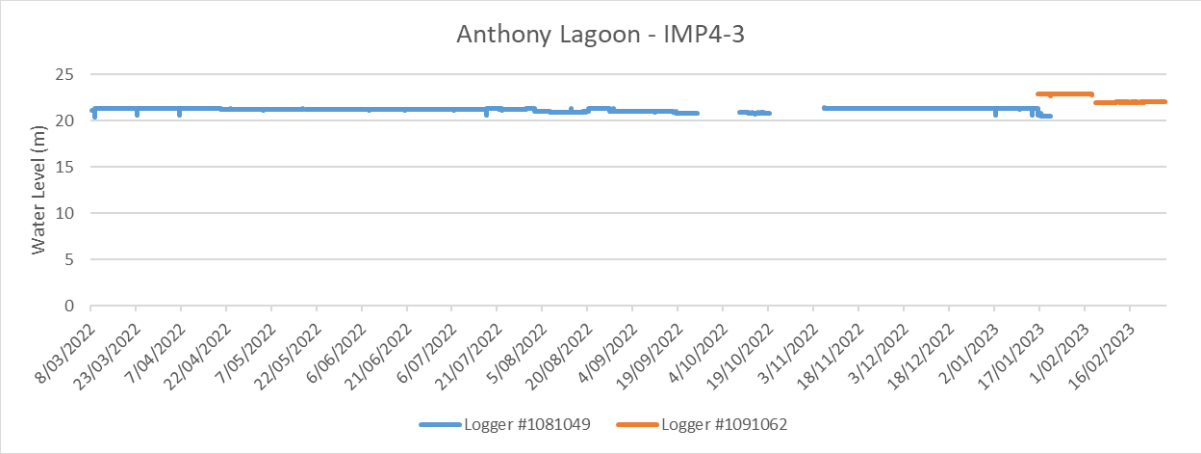

Figure 36 – Anthony Lagoon Aquifer Water Level

5 Conclusions

In conclusion, the Carpentaria 4 CMB consistently display values that are consistent for the Gum Ridge and will enable the establishment of a baseline comparison once an IMB is drilled.

The analysis results from the IMBs and the CMBs on Carpentaria 2/3 demonstrated consistent trends and similar levels of concentrations throughout the reporting period. As detailed in Section 3, any positive differences between the CMB and IMB, excluding the observed dissolved methane in the Anthony Lagoon, remain within two standard deviations of the baseline average. This consistency shows that the values do not significantly deviate from historical observations, suggesting they are not caused by any Imperial activities. Consequently, it can be concluded that there is no substantial increase in the difference between the IMB and CMB readings, and therefore, no adverse impact on groundwater quality attributable to the conduct of regulated activities.

The largest standard deviation during the reporting period was observed in methane levels within the Anthony Lagoon Aquifer. Comprehensive monitoring and analysis of methane and other hydrocarbon indicators suggest that the elevated methane concentrations in this aquifer are primarily due to natural, microbial activity rather than petroleum-related activities. This conclusion is supported by the absence of associated hydrocarbon analytes, such as ethane, as well as the alignment of methane concentrations in both the CMB and IMB with typical regional values. The karstic nature of the aquifer further reinforces the hypothesis of microbial methane production, which isotope analyses conducted in regional studies have attributed to microbial activity rather than leakage from thermogenic gas reserves.

While current evidence does not indicate that petroleum activities are contributing to elevated methane levels, continued monitoring is important for identifying potential changes over time. If methane measurements increase in the future a hydrogeologist will be engaged to investigate the observed concentrations and provide advice.

The ongoing groundwater sampling, as required by Ministerial Condition 5, being undertaken by Imperial will continue to provide further certainty of the state of groundwater at the IMP4-3 well sites.

Appendix A – Groundwater Monitoring Data Tables

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RN042461 - raw data

CARPENTARIA 2

				Baseline															Reporting Period		
Category	**CHEMICAL NAME**	**RESULT UNIT**	LIMIT OF DETECTION	3/11/2021	14/11/2021	17/11/2021	21/11/2021	24/11/2021	28/11/2021	1/12/2021	8/12/2021	9/01/2022	26/01/2022	9/02/2022	23/02/2022	9/03/2022	23/03/2022	6/04/2022	20/07/2022	6/11/2022	2/01/2023	26/07/2023
General, anions, cations and metal	pH - Lab	pH Unit	0.01	7.6	7.55	7.52	7	7.45	7.7	7.52	7.22	7.59	7.36	7.37	7.64	7.47	7.29	7.01	7.44	7.65	7	7.01
	Electrical Conductivity @ 25°C	µS/cm	1	1100	1090	1110	1070	1080	1090	1070	1040	1090	1080	1100	1100	1120	1020	1050	1100	1120	962	1100
	Total Dissolved Solids @180°C	mg/L	10	713	605	598	744	820	680	706	732	766	682	716	754	744	644	562	617	574	605	640
	Suspended Solids (SS)	mg/L	1	----	3	2	1	<1	<1	<1	3	2	2	2	4	2	5	10	<1	<1	2	4
	Gross beta	Bq/L	0.10	0.33	0.45	0.34	0.39	0.36	0.34	0.34	0.37	0.26	0.21	0.24	0.31	0.36	---	0.31	0.39	0.33	0.41	0.3
	Hydroxide Alkalinity as CaCO3	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Carbonate Alkalinity as CaCO3	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bicarbonate Alkalinity as CaCO3	mg/L	1	484	478	395	496	480	373	478	494	480	464	448	484	492	479	479	461	501	454	474
	Total Alkalinity as CaCO3	mg/L	1	484	478	395	496	480	373	478	494	480	464	448	484	492	479	479	461	501	454	474
	Sulfate as SO4 2-	mg/L	1	81	90	86	82	79	86	80	82	83	88	81	82	80	81	81	86	83	96	86
	Chloride	mg/L	1	61	59	54	60	55	60	60	54	56	76	54	61	56	62	55	60	56	54	67
	Calcium D	mg/L	1	129	131	116	127	124	125	134	125	122	138	139	139	130	129	132	124	133	103	135
	Magnesium D	mg/L	1	47	54	44	49	48	49	50	47	47	57	50	50	48	49	46	49	44	43	51
	Sodium D	mg/L	1	38	48	38	42	41	40	41	40	39	43	41	40	39	39	37	38	37	35	40
	Potassium D	mg/L	1	8	10	7	9	8	8	9	8	8	8	9	9	8	8	9	7	8	6	9
	Calcium T	mg/L	1	125	118	124	126	127	135	124	129	130	125	121	134	144	138	137	123	132	141	144
	Magnesium T	mg/L	1	51	47	48	50	49	50	50	50	50	49	48	52	51	55	51	52	55	48	53
	Sodium T	mg/L	1	36	43	41	41	42	41	43	42	40	37	39	41	41	42	41	40	43	40	42
	Potassium T	mg/L	1	7	8	8	8	9	9	8	8	8	7	7	8	8	9	8	7	9	9	10
	Arsenic D	mg/L	0.001	<0.001	0.003	0.002	0.003	<0.001	<0.001	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
	Barium D	mg/L	0.001	0.089	0.552	0.342	0.279	0.302	0.238	0.258	0.234	0.155	0.125	0.156	0.148	0.141	0.134	0.131	0.102	0.129	0.09	0.103
	Cadmium D	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
	Copper D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lead D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lithium D	mg/L	0.001	0.038	0.042	0.036	0.046	0.04	0.04	0.042	0.04	0.04	0.027	0.04	0.04	0.039	0.038	0.039	0.043	0.037	0.033	0.043
	Manganese D	mg/L	0.001	0.012	1.32	0.781	0.688	0.662	0.56	0.569	0.455	0.337	0.264	0.326	0.285	0.246	0.18	0.117	0.049	0.267	0.058	0.034
	Selenium D	mg/L	0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Silver D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Strontium D	mg/L	0.001	0.502	0.504	0.457	0.452	0.511	0.5	0.502	0.488	0.468	0.408	0.503	0.494	0.487	0.472	0.494	0.489	0.436	0.42	0.508
	Zinc D	mg/L	0.005	0.006	0.007	0.009	0.013	0.012	0.014	0.01	0.01	0.01	0.01	0.011	0.008	0.01	0.009	0.011	0.01	0.008	0.011	<0.005
	Boron D	mg/L	0.05	0.1	0.1	0.1	0.12	0.11	0.11	0.11	0.11	0.11	0.09	0.11	0.11	0.09	0.12	0.1	0.12	0.1	0.09	0.13
	Iron D	mg/L	0.05	0.22	1.37	0.48	0.49	0.24	0.14	0.27	0.53	0.41	0.26	0.5	0.53	0.76	0.89	1.11	<0.05	0.06	<0.05	0.6
	Arsenic T	mg/L	0.001	<0.001	0.002	0.002	0.001	0.001	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Barium T	mg/L	0.001	0.095	0.533	0.383	0.288	0.315	0.27	0.262	0.249	0.173	0.157	0.143	0.152	0.16	0.143	0.142	0.107	0.164	0.105	0.114
	Cadmium T	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001
	Copper T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lead T	mg/L	0.001	<0.001	0.001	0.002	0.002	0.002	0.002	0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	0.002	<0.001
	Lithium T	mg/L	0.001	0.038	0.045	0.042	0.041	0.04	0.048	0.042	0.043	0.04	0.07	0.042	0.041	0.044	0.038	0.042	0.04	0.042	0.039	0.041
	Manganese T	mg/L	0.001	0.014	1.28	0.854	0.674	0.704	0.604	0.584	0.471	0.375	0.313	0.28	0.288	0.276	0.188	0.129	0.05	0.315	0.063	0.034
	Selenium T	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Silver T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Strontium T	mg/L	0.001	0.53	0.489	0.495	0.51	0.518	0.542	0.514	0.506	0.531	0.508	0.461	0.502	0.578	0.513	0.506	0.513	0.534	0.491	0.548
	Zinc T	mg/L	0.005	0.008	0.01	0.012	0.015	0.016	0.015	0.014	0.014	0.013	0.009	0.014	0.011	0.013	0.011	0.016	0.009	0.01	0.013	0.005
	Boron T	mg/L	0.05	0.11	0.13	0.11	0.12	0.12	0.13	0.12	0.12	0.11	0.16	0.12	0.12	0.13	0.11	0.12	0.12	0.09	0.1	0.1
	Iron T	mg/L	0.05	0.29	1.44	0.81	0.69	0.63	0.43	0.8	1.43	1.22	0.7	1.66	1.42	2.14	1.62	5.01	0.06	0.28	0.14	1.95
	Mercury D	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Mercury T	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Reactive Silica	mg/L	0.05	32	28.9	29.8	30	30.4	31.5	30.6	31.5	31.6	30.4	31.4	30.5	30.4	31	30.2	31.4	31.5	29.9	32.9
	Fluoride	mg/L	0.1	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.6	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4
	Nitrite as N	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Nitrate as N	mg/L	0.01	0.08	<0.01	0.01	0.02	0.01	0.01	0.01	0.02	0.04	0.04	0.03	0.04	0.05	0.08	0.02	0.07	0.02	0.06	0.05
	Nitrite + Nitrate as N	mg/L	0.01	0.08	<0.01	0.01	0.02	0.01	0.01	0.01	0.03	0.04	0.04	0.03	0.04	0.05	0.08	0.02	0.07	0.02	0.06	0.05
	Total Anions	meq/L	0.01	13.1	13.1	11.2	13.3	12.8	10.9	12.9	13.1	12.9	13.2	12.2	13.1	13.1	13	12.8	12.7	13.3	12.6	13.2
	Total Cations	meq/L	0.01	12.2	13.3	11.2	12.4	12.1	12.2	12.8	12	11.8	13.6	13.1	13	12.3	12.4	12.2	12	12.1	10.4	12.9
	Ionic Balance	%	0.01	3.62	0.89	0.16	3.43	2.65	5.53	0.36	4.18	4.2	1.51	3.58	0.29	2.9	2.5	2.38	2.59	4.91	9.75	0.95
Diss. pet. gases	Methane	µg/L	10	<10	<10	<10	<10	<10	<10	11	19	38	33	48	39	33	40	24	<10	<10	<10	23
	Ethane	µg/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Propane	µg/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
PAH Suite	Naphthalene	µg/L	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	<1	<1	<0.1	<5	<0.1	<0.1
	Acenaphthylene	µg/L	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	<1	<1	<0.1	<0.1	<0.1	<0.1
	Acenaphthene	µg/L	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	<1	<1	<0.1	<0.1	<0.1	<0.1
	Fluorene	µg/L	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	<1	<1	<0.1	<0.1	<0.1	<0.1
	Phenanthrene	µg/L	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	<1	<1	<0.1	<0.1	<0.1	<0.1
	Anthracene	µg/L	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	<1	<1	<0.1	<0.1	<0.1	<0.1
	Fluoranthene	µg/L	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	<1	<1	<0.1	<0.1	<0.1	<0.1
	Pyrene	µg/L	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	<1	<1	<0.1	<0.1	<0.1	<0.1
	Benz(a)anthracene	µg/L	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	<1	<1	<0.1	<0.1	<0.1	<0.1
	Chrysene	µg/L	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	<1	<1	<0.1	<0.1	<0.1	<0.1
	Benzo(b+j)fluoranthene	µg/L	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	<1	<1	<0.1	<0.1	<0.1	<0.1
	Benzo(k)fluoranthene	µg/L	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	<1	<1	<0.1	<0.1	<0.1	<0.1
	Benzo(a)pyrene	µg/L	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	<0.05	<0.05	<0.05	<0.05
	Indeno(1.2.3.cd)pyrene	µg/L	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	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1
	Dibenz(a.h)anthracene	µg/L	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	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1
	Benzo(g.h.i)perylene	µg/L	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	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1
	Sum of polycyclic aromatic hydrocarbons	µg/L	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	<0.05	<0.05	<0.05	<0.05
	Benzo(a)pyrene TEQ (zero)	µg/L	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	<0.05	<0.05	<0.1	<0.05
Total Recoverable Hydrocarbons	C6 - C9 Fraction	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	C10 - C14 Fraction	µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C15 - C28 Fraction	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	C29 - C36 Fraction	µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C10 - C36 Fraction (sum)	µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C6 - C10 Fraction	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	C6 - C10 Fraction minus BTEX (F1)	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	>C10 - C16 Fraction	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C16 - C34 Fraction	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C34 - C40 Fraction	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C10 - C40 Fraction (sum)	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C10 - C16 Fraction minus Naphthalene (F2)	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
BTEXN, Alpha/Beta, Surrogates	Benzene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Toluene	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Ethylbenzene	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	meta- & para-Xylene	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	ortho-Xylene	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Total Xylenes	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Sum of BTEX	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Naphthalene	µg/L	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	<1	<1	<0.1	<5	<0.1	<5
	Gross alpha	Bq/L	0.05	0.2	0.33	0.25	0.31	0.23	0.25	0.24	0.26	0.21	0.22	0.18	0.2	0.15	---	0.14	0.22	0.2	0.22	0.19
	Gross beta activity - 40K	Bq/L	0.10	<0.10	0.22	0.11	0.17	0.14	0.12	0.11	0.16	<0.10	<0.10	<0.10	0.12	0.15	---	0.11	0.15	0.1	0.18	<0.10
	Phenol-d6	%	1.0	26.5	24.4	26.6	18	22.7	26.7	22	24.4	32.9	15.6	24.9	25.2	---	---	---	---	---	---	---
	2-Chlorophenol-D4	%	1.0	55	53	55.4	37.7	52.8	54.7	55.6	59	64	46.7	42.4	53.9	---	---	---	---	---	---	---
	2.4.6-Tribromophenol	%	1.0	63.9	57.5	52	59.2	59.2	58.5	52	45.5	77	31.5	76.9	64.3	---	---	---	---	---	---	---
	2-Fluorobiphenyl	%	1.0	57.8	65.4	62.9	55.5	67.6	64.2	65.9	64.5	68.4	58.4	62.3	63.5	60.1	53.5	57.4	53.8	47.2	43.7	70.8
	Anthracene-d10	%	1.0	74.4	83.6	89.8	83.9	81.7	81.2	76.7	87.8	91.2	70.8	68.3	81.6	78.5	80.1	95.1	67.8	63.7	61.6	78.8
	4-Terphenyl-d14	%	1.0	80.5	90.8	88.7	92	80.8	92.5	96.6	99.9	91.3	72.8	67	91	66.6	73.4	88.8	75.1	66.2	71	78.7
	1.2-Dichloroethane-D4	%	2	112	96.6	86.6	123	120	118	113	132	99.5	91	110	126	102	91.4	104	119	100	107	93.1
	Toluene-D8	%	2	116	97	84.4	104	106	101	112	108	109	111	106	110	114	98.1	107	103	107	99.3	106
	4-Bromofluorobenzene	%	2	118	93.9	90.2	117	121	95.2	110	112	110	105	111	108	113	90.4	114	100	110	103	130

RN042464 - raw data

CARPENTARIA 2

				Baseline															Reporting Period			
Category	**CHEMICAL NAME**	**RESULT UNIT**	**LIMIT OF DETECTION**	3/11/2021	14/11/2021	17/11/2021	21/11/2021	24/11/2021	28/11/2021	1/12/2021	8/12/2021	9/01/2022	26/01/2022	9/02/2022	23/02/2022	9/03/2022	23/03/2022	6/04/2022	20/07/2022	6/11/2022	2/01/2023	26/04/2023	26/07/2023
General, anions, cations and metal	pH - Lab	pH Unit	0.01	7.51	7.43	7.43	7.03	7.55	7.58	7.49	7.27	7.64	7.33	7.44	7.5	7.62	7.24	7.06	7.4	7.6	6.96	7.56	7.07
	Electrical Conductivity @ 25°C	µS/cm	1	1120	1110	1100	1070	1090	1100	1090	1040	1110	1080	1060	1110	1120	1040	1060	1120	1120	966	1090	1100
	Total Dissolved Solids @180°C	mg/L	10	717	600	582	814	790	716	712	748	792	698	700	791	756	689	708	678	588	595	660	660
	Suspended Solids (SS)	mg/L	1	----	1	<1	1	<1	<1	<1	1	2	5	6	2	3	7	2	<1	<1	4	15	20
	Gross beta	Bq/L	0.1	0.3	0.31	0.36	0.31	0.31	0.25	0.32	0.27	0.27	0.3	0.25	0.3	0.34	---	0.31	0.32	0.25	0.43	0.28	0.28
	Hydroxide Alkalinity as CaCO3	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Carbonate Alkalinity as CaCO3	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bicarbonate Alkalinity as CaCO3	mg/L	1	493	484	390	497	490	369	492	496	482	470	486	482	464	474	478	455	472	449	411	470
	Total Alkalinity as CaCO3	mg/L	1	493	484	390	497	490	369	492	496	482	470	486	482	464	474	478	455	472	449	411	470
	Sulfate as SO4 2-	mg/L	1	80	92	83	83	81	85	84	85	122	77	83	85	83	84	83	86	90	98	80	84
	Chloride	mg/L	1	60	57	52	59	53	61	60	54	56	55	52	61	57	62	55	60	54	54	58	68
	Calcium D	mg/L	1	128	123	120	124	117	126	140	130	127	108	144	143	131	134	141	123	139	102	107	136
	Magnesium D	mg/L	1	48	46	44	47	44	48	50	47	50	43	52	50	49	52	48	50	46	43	44	51
	Sodium D	mg/L	1	42	36	35	37	35	38	39	38	40	34	45	39	38	40	38	38	37	34	36	40
	Potassium D	mg/L	1	7	7	7	8	7	8	8	8	8	6	9	9	8	8	10	7	8	6	6	9
	Calcium T	mg/L	1	129	130	129	132	126	141	132	133	132	154	130	135	143	136	135	123	135	143	136	142
	Magnesium T	mg/L	1	54	48	48	50	48	51	50	50	50	58	48	51	50	54	50	52	55	49	51	53
	Sodium T	mg/L	1	37	40	37	39	38	39	41	40	38	46	39	40	40	41	39	40	42	40	40	41
	Potassium T	mg/L	1	6	8	8	8	8	9	8	8	8	9	8	8	8	9	8	7	9	9	8	10
	Arsenic D	mg/L	0.001	<0.001	<0.001	0.001	0.004	<0.001	0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
	Barium D	mg/L	0.001	0.087	0.28	0.272	0.227	0.151	0.168	0.158	0.119	0.099	0.092	0.111	0.106	0.108	0.101	0.092	0.084	0.08	0.072	0.088	0.101
	Cadmium D	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
	Copper D	mg/L	0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lead D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lithium D	mg/L	0.001	0.038	0.042	0.037	0.044	0.037	0.038	0.042	0.039	0.043	0.032	0.041	0.04	0.04	0.041	0.043	0.044	0.037	0.034	0.032	0.043
	Manganese D	mg/L	0.001	0.007	0.457	0.407	0.367	0.26	0.25	0.228	0.177	0.098	0.109	0.134	0.114	0.117	0.104	0.086	0.007	0.008	0.009	0.052	0.071
	Selenium D	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Silver D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Strontium D	mg/L	0.001	0.494	0.493	0.47	0.431	0.461	0.506	0.512	0.498	0.487	0.432	0.519	0.499	0.488	0.472	0.513	0.499	0.455	0.429	0.479	0.491
	Zinc D	mg/L	0.005	0.005	0.007	0.006	0.01	<0.005	0.006	<0.005	0.006	<0.005	0.005	0.007	<0.005	0.007	0.006	0.007	0.007	0.005	0.005	0.008	0.011
	Boron D	mg/L	0.05	0.1	0.11	0.1	0.11	0.1	0.1	0.11	0.1	0.11	0.1	0.13	0.11	0.09	0.12	0.1	0.13	0.1	0.1	0.1	0.12
	Iron D	mg/L	0.05	0.33	0.78	0.76	0.9	0.31	0.82	0.92	0.2	<0.05	0.62	1.03	0.35	1	1.02	0.32	<0.05	<0.05	0.09	0.64	1.26
	Arsenic T	mg/L	0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.002	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Barium T	mg/L	0.001	0.085	0.294	0.307	0.254	0.166	0.193	0.164	0.124	0.113	0.129	0.11	0.104	0.118	0.104	0.091	0.086	0.095	0.086	0.109	0.116
	Cadmium T	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Copper T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lead T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	0.002
	Lithium T	mg/L	0.001	0.042	0.042	0.042	0.04	0.039	0.051	0.043	0.043	0.043	0.044	0.038	0.04	0.043	0.038	0.039	0.041	0.041	0.038	0.043	0.042
	Manganese T	mg/L	0.001	0.007	0.47	0.452	0.389	0.288	0.277	0.235	0.199	0.113	0.158	0.13	0.111	0.13	0.099	0.089	0.007	0.009	0.011	0.062	0.069
	Selenium T	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Silver T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Strontium T	mg/L	0.001	0.526	0.526	0.509	0.533	0.493	0.557	0.538	0.51	0.544	0.602	0.479	0.496	0.567	0.508	0.506	0.522	0.529	0.504	0.532	0.551
	Zinc T	mg/L	0.005	0.009	0.007	0.006	0.006	0.006	0.007	0.006	0.138	0.007	0.009	0.007	0.008	0.007	0.006	0.008	0.006	0.007	0.007	0.016	0.021
	Boron T	mg/L	0.05	0.1	0.12	0.11	0.12	0.12	0.13	0.12	0.12	0.11	0.11	0.1	0.11	0.11	0.1	0.1	0.12	0.09	0.11	0.12	0.11
	Iron T	mg/L	0.05	0.42	1.53	1.13	1.2	0.47	1.27	1.23	0.34	0.94	2.96	2.7	0.72	2.32	3.13	1.34	<0.05	0.13	0.87	6.5	8.15
	Mercury D	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Mercury T	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Reactive Silica	mg/L	0.05	30.9	29.1	29.5	31.4	30.5	31.8	30.7	30.7	30.4	29.6	31.1	30.3	29.9	30.8	30	31.2	31	30.1	32.3	32.2
	Fluoride	mg/L	0.1	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.4
	Nitrite as N	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Nitrate as N	mg/L	0.01	0.08	0.02	0.02	0.03	0.03	0.02	0.03	0.04	0.04	0.03	0.03	0.04	0.04	0.07	0.03	0.07	0.06	0.05	0.05	0.08
	Nitrite + Nitrate as N	mg/L	0.01	0.08	0.02	0.02	0.03	0.03	0.02	0.03	0.04	0.04	0.03	0.03	0.04	0.04	0.07	0.03	0.07	0.06	0.05	0.05	0.08
	Total Anions	meq/L	0.01	13.2	13.2	11	13.3	13	10.9	13.3	13.2	13.8	12.5	12.9	13.1	12.6	13	12.8	12.6	12.8	12.5	11.5	13
	Total Cations	meq/L	0.01	12.3	11.7	11.3	11.9	11.2	12.1	13	12.2	12.4	10.6	13.6	13.2	12.4	12.9	12.9	12.1	12.5	10.3	10.7	13
	Ionic Balance	%	0.01	3.38	6.13	1.45	5.76	7.5	5.37	1.02	3.9	5.17	8.59	2.82	0.22	0.72	0.22	0.25	1.98	1.15	9.97	3.76	0.4
Disc. pet. gases	Methane	µg/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Ethane	µg/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Propane	µg/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
PAH Suite	Naphthalene	µg/L	1	<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	<1	<1	<0.1	<5	<0.1	<0.1	<0.1
	Acenaphthylene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
	Acenaphthene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
	Fluorene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
	Phenanthrene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
	Anthracene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
	Fluoranthene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
	Pyrene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benz(a)anthracene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
	Chrysene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo(b+j)fluoranthene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo(k)fluoranthene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo(a)pyrene	µg/L	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	<0.05	<0.05	<0.05	<0.05	<0.05
	Indeno(1.2.3.cd)pyrene	µg/L	1	<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	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1
	Dibenz(a.h)anthracene	µg/L	1	<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	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1
	Benzo(g.h.i)perylene	µg/L	1	<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	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1
	Sum of polycyclic aromatic hydrocarbons	µg/L	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	<0.05	<0.05	<0.05	<0.05	<0.05
	Benzo(a)pyrene TEQ (zero)	µg/L	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	<0.05	<0.05	<0.1	<0.05	<0.05
Total Recoverable Hydrocarbons	C6 - C9 Fraction	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	C10 - C14 Fraction	µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C15 - C28 Fraction	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	C29 - C36 Fraction	µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C10 - C36 Fraction (sum)	µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C6 - C10 Fraction	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	C6 - C10 Fraction minus BTEX (F1)	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	>C10 - C16 Fraction	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C16 - C34 Fraction	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C34 - C40 Fraction	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C10 - C40 Fraction (sum)	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C10 - C16 Fraction minus Naphthalene (F2)	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
BTEXN, Alpha/Beta, Surrogates	Benzene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Toluene	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Ethylbenzene	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	meta- & para-Xylene	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	ortho-Xylene	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Total Xylenes	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Sum of BTEX	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Naphthalene	µg/L	1	<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	<1	<1	<0.1	<5	<0.1	<0.1	<5
	Gross alpha	Bq/L	0.05	0.21	0.26	0.31	0.2	0.26	0.19	0.23	0.22	0.17	0.2	0.18	0.2	0.18	---	0.18	0.25	0.21	0.14	0.23	0.19
	Gross beta activity - 40K	Bq/L	0.1	<0.10	<0.10	0.14	<0.10	0.11	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.13	---	0.11	<0.1	<0.10	0.22	<0.10	<0.10
	Phenol-d6	%	1	19.7	21.5	31.4	18.7	21.5	23.7	20.8	22.6	26.6	16.8	18.5	28.2	---	---	---	---	---	---	---	---
	2-Chlorophenol-D4	%	1	42.3	46.7	63.7	43.5	49.9	44.9	53.2	53.4	51.6	40.5	36.3	58.7	---	---	---	---	---	---	---	---
	2.4.6-Tribromophenol	%	1	51.4	47.7	65.4	44.5	63.1	48.1	48	37.8	76	33.9	41.4	69.1	---	---	---	---	---	---	---	---
	2-Fluorobiphenyl	%	1	53.4	57.1	72	55.2	61.6	52.5	67	68.7	58.4	58.7	55.8	79.4	54.6	47.5	51.5	62.4	47.3	54.6	69.8	74.6
	Anthracene-d10	%	1	63.1	76.2	105	80	81.9	63.1	75.6	78.4	88.2	91	65.7	91	72.6	74.4	82.7	73.3	66.1	78.9	86.6	90.3
	4-Terphenyl-d14	%	1	65.1	86.3	100	91.2	85.5	72.3	89	94.7	92.2	83.9	73.1	92.3	62.6	65.5	75.7	78	69.2	95.7	99.6	95.2
	1.2-Dichloroethane-D4	%	2	110	101	89.2	119	113	126	122	130	97.8	90.7	116	118	99.3	86.9	99.7	99.4	106	115	105	83.5
	Toluene-D8	%	2	110	104	89.1	101	110	107	113	104	108	110	112	109	112	110	101	86.7	105	95.2	108	94.3
	4-Bromofluorobenzene	%	2	111	96.7	93.8	115	110	97.9	114	106	104	104	122	98.3	114	97.5	108	80.7	104	104	99.2	114

Bores;
RN042461 **Difference in Bores (IMB -CMB)**
RN042464

CARPENTARIA 2

Category	CHEMICAL NAME	RESULT UNIT	No. results	Baseline Statistics* Min	Q1	Mean	Q3	Max	Standard Deviation	Average from reporting period (17/10/22 -16/10/23)	Flag if above 2 Z Score
General, anions, cations and metal	pH - Lab	pH Unit	19	0.00	0.00	0.04	0.09	0.14	0.05	0.030	-0.29
	Electrical Conductivity @ 25°C	µS/cm	19	0.00	0.00	3.13	0.00	40.00	9.82	0.000	†
	Total Dissolved Solids @180°C	mg/L	19	0.00	0.00	4.19	3.75	30.00	8.50	3.333	-0.10
	Suspended Solids (SS)	mg/L	18	0.00	0.00	1.00	2.00	8.00	2.03	0.000	†
	Gross beta	Bq/L	18	0.00	0.00	0.04	0.08	0.14	0.04	0.033	-0.17
	Hydroxide Alkalinity as CaCO3	mg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Carbonate Alkalinity as CaCO3	mg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Bicarbonate Alkalinity as CaCO3	mg/L	19	0.00	0.00	3.19	4.75	28.00	6.75	12.667	1.40
	Total Alkalinity as CaCO3	mg/L	19	0.00	0.00	3.19	4.75	28.00	6.75	12.667	1.40
	Sulfate as SO4 2-	mg/L	19	0.00	0.00	1.00	0.75	11.00	2.69	0.667	-0.12
	Chloride	mg/L	19	0.00	0.00	1.94	2.00	21.00	4.99	0.667	-0.25
	Calcium D	mg/L	19	0.00	0.00	3.13	2.50	30.00	7.36	0.333	-0.38
	Magnesium D	mg/L	19	0.00	0.00	1.81	1.75	14.00	3.78	0.000	†
	Sodium D	mg/L	19	0.00	0.00	2.69	4.50	12.00	3.48	0.333	-0.68
	Potassium D	mg/L	19	0.00	0.00	0.56	1.00	3.00	0.86	0.000	†
	Calcium T	mg/L	19	0.00	0.00	0.38	0.75	2.00	0.70	0.667	0.42
	Magnesium T	mg/L	19	0.00	0.00	0.31	1.00	1.00	0.46	0.000	†
	Sodium T	mg/L	19	0.00	0.25	1.63	2.00	4.00	1.27	0.667	-0.76
	Potassium T	mg/L	19	0.00	0.00	0.13	0.00	1.00	0.33	0.000	†
	Arsenic D	mg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Barium D	mg/L	19	0.00	0.03	0.07	0.09	0.27	0.06	0.023	-0.75
	Cadmium D	mg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Chromium D	mg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Copper D	mg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Lead D	mg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Lithium D	mg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Manganese D	mg/L	19	0.01	0.09	0.25	0.34	0.86	0.20	0.103	-0.71
	Selenium D	mg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Silver D	mg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Strontium D	mg/L	19	0.00	0.00	0.01	0.01	0.05	0.01	0.006	0.00
	Zinc D	mg/L	19	0.00	0.00	0.00	0.01	0.01	0.00	0.003	-0.43
	Boron D	mg/L	19	0.00	0.00	0.00	0.01	0.01	0.00	0.003	0.19
	Iron D	mg/L	19	0.00	0.00	0.14	0.29	0.79	0.24	0.003	-0.57
	Arsenic T	mg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Barium T	mg/L	19	0.01	0.03	0.07	0.09	0.24	0.06	0.029	-0.73
	Cadmium T	mg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Chromium T	mg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Copper T	mg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Lead T	mg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.04
	Lithium T	mg/L	19	0.00	0.00	0.00	0.00	0.03	0.01	0.001	-0.30
	Manganese T	mg/L	19	0.01	0.10	0.25	0.34	0.81	0.19	0.119	-0.66
	Selenium T	mg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Silver T	mg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Strontium T	mg/L	19	0.00	0.00	0.00	0.00	0.03	0.01	0.002	-0.24
	Zinc T	mg/L	19	0.00	0.00	0.01	0.01	0.01	0.00	0.003	-0.67
	Boron T	mg/L	19	0.00	0.00	0.01	0.02	0.05	0.01	0.000	†
	Iron T	mg/L	19	0.00	0.00	0.37	0.25	3.67	0.90	0.050	-0.35
	Mercury D	mg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Mercury T	mg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Reactive Silica	mg/L	19	0.00	0.00	0.36	0.72	1.20	0.39	0.400	0.10
	Fluoride	mg/L	19	0.00	0.00	0.01	0.00	0.20	0.05	0.000	†
	Nitrite as N	mg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Nitrate as N	mg/L	19	0.00	0.00	0.00	0.00	0.01	0.00	0.003	0.37
	Nitrite + Nitrate as N	mg/L	19	0.00	0.00	0.00	0.00	0.01	0.00	0.003	0.37
	Total Anions	meq/L	19	0.00	0.00	0.09	0.07	0.70	0.20	0.267	0.86
	Total Cations	meq/L	19	0.00	0.00	0.38	0.40	3.00	0.80	0.033	-0.43
	Ionic Balance	%	19	0.00	0.00	0.54	0.72	2.28	0.82	1.437	1.08
Diss. pet. gases	Methane	mg/L	19	0.00	0.00	0.01	0.03	0.04	0.01	0.004	-0.58
	Ethane	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Propane	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
PAH Suite **	Naphthalene	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Acenaphthylene	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Acenaphthene	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Fluorene	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Phenanthrene	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Anthracene	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Fluoranthene	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Pyrene	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Benz(a)anthracene	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Chrysene	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Benzo(b+j)fluoranthene	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Benzo(k)fluoranthene	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Benzo(a)pyrene	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Indeno(1.2.3.cd)pyrene	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Dibenz(a.h)anthracene	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Benzo(g.h.i)perylene	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Sum of polycyclic aromatic hydrocarbons	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Benzo(a)pyrene TEQ (zero)	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
Total Recoverable Hydrocarbons	C6 - C9 Fraction	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	C10 - C14 Fraction	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	C15 - C28 Fraction	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	C29 - C36 Fraction	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	C10 - C36 Fraction (sum)	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	C6 - C10 Fraction	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	C6 - C10 Fraction minus BTEX (F1)	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	>C10 - C16 Fraction	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	>C16 - C34 Fraction	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	>C34 - C40 Fraction	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	>C10 - C40 Fraction (sum)	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	>C10 - C16 Fraction minus Naphthalene (F2)	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
BTEXN, Alpha/Beta, Surrogates	Benzene	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Toluene	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Ethylbenzene	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	meta- & para-Xylene	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	ortho-Xylene	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Total Xylenes	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Sum of BTEX	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Naphthalene **	µg/L	19	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†
	Gross alpha	Bq/L	18	0.00	0.00	0.02	0.04	0.11	0.03	0.027	0.10
	Gross beta activity - 40K	Bq/L	18	0.00	0.00	0.03	0.05	0.12	0.03	0.000	†
	Phenol-d6	%	12	0.00	0.00	2.47	5.48	6.80	2.54	-	†
	2-Chlorophenol-D4	%	12	0.00	0.60	5.37	8.93	12.70	4.34	-	†
	2.4.6-Tribromophenol	%	12	0.00	0.00	7.97	11.98	35.50	9.80	-	†
	2-Fluorobiphenyl	%	19	0.00	0.00	4.04	6.38	11.70	3.90	0.000	†
	Anthracene-d10	%	19	0.00	0.00	5.05	8.90	18.10	5.27	0.000	†
	4-Terphenyl-d14	%	19	0.00	0.00	4.92	7.83	20.20	6.19	0.000	†
	1.2-Dichloroethane-D4	%	19	0.00	0.00	3.51	4.45	19.60	4.83	3.200	-0.06
	Toluene-D8	%	19	0.00	0.00	2.52	3.75	16.30	4.09	5.933	0.83
	4-Bromofluorobenzene	%	19	0.00	0.00	4.25	6.75	19.30	5.37	7.333	0.57

CHEMICAL NAME	Baseline Data 3/11/2021	14/11/2021	17/11/2021	21/11/2021	24/11/2021	28/11/2021	1/12/2021	8/12/2021	9/01/2022	26/01/2022	9/02/2022	23/02/2022	9/03/2022	23/03/2022	6/04/2022	20/07/2022	Reporting Period Data 6/11/2022	2/01/2023	26/04/2023 - missed sample	26/07/2023
pH - Lab	0.09	0.12	0.09	0.00	0.00	0.12	0.03	0.00	0.00	0.03	0.00	0.14	0.00	0.05	0.00	0.04	0.05	0.04	-	0
Electrical Conductivity @ 25°C	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Total Dissolved Solids @180°C	0.00	5.00	16.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	16.00	0.00	0.00	0.00	0.00	0.00	0	10	-	0
Suspended Solids (SS)	-	2.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	8.00	0.00	0	0	-	0
Gross beta	0.03	0.14	0.00	0.08	0.05	0.09	0.02	0.10	0.00	0.00	0.00	0.01	0.02	-	0.00	0.07	0.08	0	-	0.02
Hydroxide Alkalinity as CaCO3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Carbonate Alkalinity as CaCO3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Bicarbonate Alkalinity as CaCO3	0.00	0.00	5.00	0.00	0.00	4.00	0.00	0.00	0.00	0.00	0.00	2.00	28.00	5.00	1.00	6.00	29	5	-	4
Total Alkalinity as CaCO3	0.00	0.00	5.00	0.00	0.00	4.00	0.00	0.00	0.00	0.00	0.00	2.00	28.00	5.00	1.00	6.00	29	5	-	4
Sulfate as SO4 2-	1.00	0.00	3.00	0.00	0.00	1.00	0.00	0.00	0.00	11.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	2
Chloride	1.00	2.00	2.00	1.00	2.00	0.00	0.00	0.00	0.00	21.00	2.00	0.00	0.00	0.00	0.00	0.00	2	0	-	0
Calcium D	1.00	8.00	0.00	3.00	7.00	0.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00	0.00	0.00	1.00	0	1	-	0
Magnesium D	0.00	8.00	0.00	2.00	4.00	1.00	0.00	0.00	0.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Sodium D	0.00	12.00	3.00	5.00	6.00	2.00	2.00	2.00	0.00	9.00	0.00	1.00	1.00	0.00	0.00	0.00	0	1	-	0
Potassium D	1.00	3.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Calcium T	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	2.00	2.00	0.00	0	0	-	2
Magnesium T	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00	0	0	-	0
Sodium T	0.00	3.00	4.00	2.00	4.00	2.00	2.00	2.00	2.00	0.00	0.00	1.00	1.00	1.00	2.00	0.00	1	0	-	1
Potassium T	1.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Arsenic D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Barium D	0.00	0.27	0.07	0.05	0.15	0.07	0.10	0.12	0.06	0.03	0.05	0.04	0.03	0.03	0.04	0.02	0.049	0.018	-	0.002
Cadmium D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Chromium D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Copper D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Lead D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Lithium D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Manganese D	0.01	0.86	0.37	0.32	0.40	0.31	0.34	0.28	0.24	0.16	0.19	0.17	0.13	0.08	0.03	0.04	0.259	0.049	-	0
Selenium D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Silver D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Strontium D	0.01	0.01	0.00	0.02	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0.017
Zinc D	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.003	0.006	-	0
Boron D	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0.01
Iron D	0.00	0.59	0.00	0.00	0.00	0.00	0.00	0.33	0.36	0.00	0.00	0.18	0.00	0.00	0.79	0.00	0.01	0	-	0
Arsenic T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Barium T	0.01	0.24	0.08	0.03	0.15	0.08	0.10	0.13	0.06	0.03	0.03	0.05	0.04	0.04	0.05	0.02	0.069	0.019	-	0
Cadmium T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Chromium T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Copper T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Lead T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.001	-	0
Lithium T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.001	0.001	-	0
Manganese T	0.01	0.81	0.40	0.29	0.42	0.33	0.35	0.27	0.26	0.16	0.15	0.18	0.15	0.09	0.04	0.04	0.306	0.052	-	0
Selenium T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Silver T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Strontium T	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.005	0	-	0
Zinc T	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.00	0.01	0.00	0.01	0.01	0.01	0.00	0.003	0.006	-	0
Boron T	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.02	0.01	0.02	0.01	0.02	0.00	0	0	-	0
Iron T	0.00	0.00	0.00	0.00	0.16	0.00	0.00	1.09	0.28	0.00	0.00	0.70	0.00	0.00	3.67	0.01	0.15	0	-	0
Mercury D	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Mercury T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Reactive Silica	1.10	0.00	0.30	0.00	0.00	0.00	0.00	0.80	1.20	0.80	0.30	0.20	0.50	0.20	0.20	0.20	0.5	0	-	0.7
Fluoride	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Nitrite as N	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Nitrate as N	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0	0.01	-	0
Nitrite + Nitrate as N	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0	0.01	-	0
Total Anions	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.00	0.00	0.50	0.00	0.00	0.10	0.5	0.1	-	0.2
Total Cations	0.00	1.60	0.00	0.50	0.90	0.10	0.00	0.00	0.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.1	-	0
Ionic Balance	0.24	0.00	0.00	0.00	0.00	0.16	0.00	0.28	0.00	0.00	0.76	0.07	2.18	2.28	2.13	0.61	3.76	0	-	0.55
Methane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.02	0.04	0.03	0.02	0.03	0.01	0.00	0	0	-	0.013
Ethane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Propane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Naphthalene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Acenaphthylene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Acenaphthene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Fluorene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Phenanthrene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Anthracene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Pyrene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Benz(a)anthracene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Chrysene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Benzo(b+j)fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Benzo(k)fluoranthene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Benzo(a)pyrene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Indeno(1.2.3.cd)pyrene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Dibenz(a.h)anthracene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Benzo(g.h.i)perylene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Sum of polycyclic aromatic hydrocarbons	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Benzo(a)pyrene TEQ (zero)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
C6 - C9 Fraction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
C10 - C14 Fraction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
C15 - C28 Fraction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
C29 - C36 Fraction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
C10 - C36 Fraction (sum)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
C6 - C10 Fraction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
C6 - C10 Fraction minus BTEX (F1)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
>C10 - C16 Fraction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
>C16 - C34 Fraction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
>C34 - C40 Fraction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
>C10 - C40 Fraction (sum)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
>C10 - C16 Fraction minus Naphthalene (F2)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Benzene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Toluene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Ethylbenzene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
meta- & para-Xylene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
ortho-Xylene	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Total Xylenes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Sum of BTEX	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Naphthalene **	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	-	0
Gross alpha	0.00	0.07	0.00	0.11	0.00	0.06	0.01	0.04	0.04	0.02	0.00	0.00	0.00	-	0.00	0.00	0	0.08	-	0
Gross beta activity - 40K	0.00	0.12	0.00	0.07	0.03	0.02	0.01	0.06	0.00	0.00	0.00	0.02	0.02	-	0.00	0.05	0	0	-	0
Phenol-d6	6.80	2.90	0.00	0.00	1.20	3.00	1.20	1.80	6.30	0.00	6.40	0.00	-	-	-	-	-	-	-	-
2-Chlorophenol-D4	12.70	6.30	0.00	0.00	2.90	9.80	2.40	5.60	12.40	6.20	6.10	0.00	-	-	-	-	-	-	-	-
2.4.6-Tribromophenol	12.50	9.80	0.00	14.70	0.00	10.40	4.00	7.70	1.00	0.00	35.50	0.00	-	-	-	-	-	-	-	-
2-Fluorobiphenyl	4.40	8.30	0.00	0.30	6.00	11.70	0.00	0.00	10.00	0.00	6.50	0.00	5.50	6.00	5.90	0.00	0	0	-	0
Anthracene-d10	11.30	7.40	0.00	3.90	0.00	18.10	1.10	9.40	3.00	0.00	2.60	0.00	5.90	5.70	12.40	0.00	0	0	-	0
4-Terphenyl-d14	15.40	4.50	0.00	0.80	0.00	20.20	7.60	5.20	0.00	0.00	0.00	0.00	4.00	7.90	13.10	0.00	0	0	-	0
1.2-Dichloroethane-D4	2.00	0.00	0.00	4.00	7.00	0.00	0.00	2.00	1.70	0.30	0.00	8.00	2.70	4.50	4.30	19.60	0	0	-	9.6
Toluene-D8	6.00	0.00	0.00	3.00	0.00	0.00	0.00	4.00	1.00	1.00	0.00	1.00	2.00	0.00	6.00	16.30	2	4.1	-	11.7
4-Bromofluorobenzene	7.00	0.00	0.00	2.00	11.00	0.00	0.00	6.00	6.00	1.00	0.00	9.70	0.00	0.00	6.00	19.30	6	0	-	16

*All readings below the limit of detection (LOD) have been assumed to be equal to the limit of detection.
** Limit of detection has changed, all readings are equal to limit of detection (LOD)
† The differential average from the basline and reporting period is Zero so there is no Z score
‡ The standard deviation from the basline is zero which means the Z score is undefined

RN042462 - raw data

CARPENTARIA 2

				Baseline															Reporting Period			
Category	**CHEMICAL NAME**	**RESULT UNIT**	**LIMIT OF DETECTION**	3/11/2021	14/11/2021	17/11/2021	21/11/2021	24/11/2021	28/11/2021	1/12/2021	8/12/2021	9/01/2022	26/01/2022	9/02/2022	23/02/2022	9/03/2022	23/03/2022	6/04/2022	20/07/2022	6/11/2022	2/01/2023	26/04/2023	26/07/2023
General, anions, cations and metal	pH - Lab	pH Unit	0.01	7.66	7.55	7.51	7.1	7.56	7.78	7.58	7.3	7.75	7.48	7.51	7.8	7.32	7.40	7.13	7.45	7.75	7.10	7.69	7.21
	Electrical Conductivity @ 25°C	µS/cm	1	1090	1070	1070	1040	1060	1080	1060	1040	1120	960	823	971	1060.00	976.00	1000.00	1050.00	1050.00	910.00	1030.00	984
	Total Dissolved Solids @180°C	mg/L	10	728	660	606	718	820	705	685	685	770	584	492	653	608.00	618.00	659.00	644.00	584.00	565.00	576.00	538
	Suspended Solids (SS)	mg/L	1	----	1	<1	1	<1	1	1	1	8	25	20	12	6.00	5.00	3.00	1.00	6.00	4.00	2.00	5
	Gross beta	Bq/L	0.1	0.35	0.45	0.48	0.47	0.38	0.4	0.49	0.48	0.64	0.44	0.36	0.48	0.42	---	0.43	0.55	0.51	0.69	0.42	0.52
	Hydroxide Alkalinity as CaCO3	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Carbonate Alkalinity as CaCO3	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bicarbonate Alkalinity as CaCO3	mg/L	1	483	474	422	480	474	370	472	477	443	350	325	423	448.00	443.00	455.00	439.00	437.00	444.00	403.00	445
	Total Alkalinity as CaCO3	mg/L	1	483	474	422	480	474	370	472	477	443	350	325	423	448.00	443.00	455.00	439.00	437.00	444.00	403.00	445
	Sulfate as SO4 2-	mg/L	1	80	96	90	88	86	94	91	92	82	78	52	69	73.00	80.00	83.00	83.00	64.00	82.00	60.00	42
	Chloride	mg/L	1	59	55	50	57	51	54	57	51	94	76	43	56	55.00	61.00	53.00	58.00	55.00	54.00	56.00	71
	Calcium D	mg/L	1	115	118	108	116	112	113	122	117	105	94	91	108	108.00	112.00	112.00	106.00	108.00	85.00	90.00	98
	Magnesium D	mg/L	1	50	59	52	57	54	55	57	55	53	46	39	48	51.00	55.00	50.00	54.00	50.00	48.00	52.00	56.00
	Sodium D	mg/L	1	38	42	37	46	39	40	39	39	46	38	30	36	38.00	41.00	36.00	38.00	37.00	35.00	38.00	39
	Potassium D	mg/L	1	7	10	8	10	9	9	9	9	16	11	10	10	9.00	9.00	11.00	8.00	9.00	7.00	8.00	10
	Calcium T	mg/L	1	120	109	115	115	112	120	115	117	112	117	87	101	118.00	120.00	116.00	105.00	105.00	116.00	109.00	106
	Magnesium T	mg/L	1	60	52	55	56	55	56	57	57	54	56	38	50	53.00	62.00	56.00	57.00	60.00	54.00	57.00	60
	Sodium T	mg/L	1	37	39	39	40	39	40	42	40	46	45	30	36	39.00	43.00	40.00	40.00	42.00	40.00	41.00	42
	Potassium T	mg/L	1	7	9	9	9	9	10	9	9	17	13	9	9	10.00	11.00	10.00	8.00	10.00	10.00	10.00	12
	Arsenic D	mg/L	0.001	<0.001	0.001	<0.001	0.002	0.001	0.002	0.002	0.002	0.003	<0.001	0.001	0.001	0.00	0.00	0.00	0.00	<0.001	<0.001	<0.001	<0.001
	Barium D	mg/L	0.001	0.088	0.076	0.072	0.075	0.077	0.079	0.077	0.08	0.111	0.145	0.24	0.159	0.13	0.11	0.10	0.13	0.13	0.12	0.13	0.146
	Cadmium D	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Copper D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lead D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lithium D	mg/L	0.001	0.055	0.085	0.08	0.095	0.083	0.087	0.089	0.088	0.086	0.072	0.056	0.072	0.08	0.08	0.09	0.09	0.08	0.07	0.07	0.088
	Manganese D	mg/L	0.001	0.028	0.053	0.043	0.047	0.042	0.043	0.04	0.042	0.073	0.087	0.121	0.088	0.07	0.07	0.06	0.05	0.05	0.04	0.05	0.064
	Selenium D	mg/L	0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Silver D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Strontium D	mg/L	0.001	0.495	0.517	0.498	0.477	0.535	0.548	0.528	0.528	0.479	0.459	0.366	0.451	0.49	0.47	0.49	0.52	0.45	0.44	0.52	0.495
	Zinc D	mg/L	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	Boron D	mg/L	0.05	0.11	0.11	0.11	0.15	0.12	0.12	0.12	0.11	0.11	0.1	0.08	0.1	0.10	0.13	0.11	0.14	0.11	0.10	0.11	0.13
	Iron D	mg/L	0.05	0.43	<0.05	0.7	0.83	0.69	0.87	0.57	0.71	2.76	<0.05	2.64	2.37	2.05	1.88	0.84	0.76	0.42	0.44	1.57	1.98
	Arsenic T	mg/L	0.001	<0.001	<0.001	<0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.002	0.001	0.002	0.00	0.00	0.00	0.00	0.00	<0.001	<0.001	<0.001
	Barium T	mg/L	0.001	0.078	0.075	0.08	0.079	0.078	0.085	0.08	0.08	0.13	0.262	0.24	0.159	0.14	0.12	0.11	0.13	0.16	0.14	0.15	0.171
	Cadmium T	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Copper T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lead T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lithium T	mg/L	0.001	0.057	0.089	0.09	0.084	0.084	0.103	0.095	0.091	0.085	0.08	0.052	0.073	0.09	0.08	0.09	0.09	0.09	0.08	0.10	0.09
	Manganese T	mg/L	0.001	0.026	0.051	0.047	0.048	0.044	0.044	0.041	0.041	0.081	0.133	0.12	0.092	0.08	0.07	0.06	0.05	0.06	0.05	0.06	0.06	0.065
	Selenium T	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Silver T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Strontium T	mg/L	0.001	0.487	0.511	0.521	0.54	0.525	0.559	0.54	0.52	0.54	0.558	0.36	0.447	0.56	0.53	0.50	0.54	0.52	0.52	0.55	0.57
	Zinc T	mg/L	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.006	<0.005	0.011	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	Boron T	mg/L	0.05	0.11	0.13	0.12	0.12	0.12	0.14	0.14	0.12	0.12	0.1	0.07	0.1	0.13	0.12	0.12	0.12	0.10	0.12	0.14	0.12	
	Iron T	mg/L	0.05	0.54	1.18	0.86	0.91	0.61	0.94	0.65	0.78	3.48	10.7	3.55	3.13	2.57	2.03	1.89	0.93	1.61	1.29	1.63	3.21	
	Mercury D	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Mercury T	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Reactive Silica	mg/L	0.05	28.2	24.5	27.6	25.9	26	27.1	26.4	26.7	24.7	21.6	18.2	21.7	24.10	25.10	24.60	25.50	24.60	25.10	26.80	24.90	
	Fluoride	mg/L	0.1	0.5	0.8	0.7	0.1	0.8	0.8	0.8	0.6	0.8	0.8	0.6	0.7	0.60	0.80	0.80	0.80	0.80	0.80	0.80	0.70	
	Nitrite as N	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	Nitrate as N	mg/L	0.01	0.08	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	<0.01	0.02	<0.01	0.01	<0.01	0.03	
	Nitrite + Nitrate as N	mg/L	0.01	0.08	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	<0.01	0.02	<0.01	0.01	<0.01	0.03	
	Total Anions	meq/L	0.01	13	13	11.7	13	12.7	10.9	12.9	12.9	13.2	10.8	8.79	11.5	12.00	12.20	12.30	12.10	11.60	12.10	10.90	11.80	
	Total Cations	meq/L	0.01	11.7	12.8	11.5	12.7	12	12.1	12.7	12.3	12	10.4	9.31	11.2	11.50	12.10	11.60	11.60	11.30	9.89	10.60	11.40	
	Ionic Balance	%	0.01	5.25	0.75	1	1.14	3	5.49	0.89	2.36	4.75	1.65	2.88	1.35	2.35	0.44	3.20	2.29	1.18	10.00	1.17	1.36	
Disc. pet. gases	Methane	µg/L	10	<10	<10	<10	<10	<10	<10	<10	<10	14	15	14	12	14.00	16.00	25.00	51.00	142.00	96.00	129.00	266.00	
	Ethane	µg/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
	Propane	µg/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
PAH Suite	Naphthalene	µg/L	1	<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	<1	<1	<0.1	<5	<0.1	<0.1	<0.1	
	Acenaphthylene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	
	Acenaphthene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	
	Fluorene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	
	Phenanthrene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	
	Anthracene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	
	Fluoranthene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	
	Pyrene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	
	Benz(a)anthracene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	
	Chrysene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	
	Benzo(b+j)fluoranthene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	
	Benzo(k)fluoranthene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	
	Benzo(a)pyrene	µg/L	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	<0.05	<0.05	<0.05	<0.05	<0.05	
	Indeno(1.2.3.cd)pyrene	µg/L	1	<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	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	
	Dibenz(a.h)anthracene	µg/L	1	<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	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	
	Benzo(g.h.i)perylene	µg/L	1	<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	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	
	Sum of polycyclic aromatic hydrocarbons	µg/L	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	<0.05	<0.05	<0.05	<0.05	<0.05	
	Benzo(a)pyrene TEQ (zero)	µg/L	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	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05
Total Recoverable Hydrocarbons	C6 - C9 Fraction	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	C10 - C14 Fraction	µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C15 - C28 Fraction	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	100	<100	<100	110	<100	<100	<100	<100	<100	<100	<100	<100	<100
	C29 - C36 Fraction	µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C10 - C36 Fraction (sum)	µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	150	<50	<50	110	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C6 - C10 Fraction	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	C6 - C10 Fraction minus BTEX (F1)	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	>C10 - C16 Fraction	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	180	130	<100	160	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C16 - C34 Fraction	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C34 - C40 Fraction	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C10 - C40 Fraction (sum)	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	180	130	<100	160	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C10 - C16 Fraction minus Naphthalene (F2)	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	180	130	<100	160	<100	<100	<100	<100	<100	<100	<100	<100	<100
BTEXN, Alpha/Beta, Surrogates	Benzene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<20	<1	
	Toluene	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
	Ethylbenzene	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	
	meta- & para-Xylene	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	
	ortho-Xylene	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<20	<2	
	Total Xylenes	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	
	Sum of BTEX	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
	Naphthalene	µg/L	1	<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	<1	<1	<0.1	<5	<0.1	<0.1	<5	
	Gross alpha	Bq/L	0.05	0.29	0.58	0.61	0.61	0.5	0.6	0.52	0.68	0.44	0.39	0.3	0.35	0.38	---	0.34	0.64	0.51	0.45	0.52	0.46
	Gross beta activity - 40K	Bq/L	0.1	0.13	0.21	0.23	0.22	0.15	0.17	0.24	0.25	0.21	<0.10	0.11	0.24	0.17	---	0.19	0.27	0.24	0.44	0.11	0.21	
	Phenol-d6	%	1	26.6	27	27.2	18.3	23	28.7	18.7	22.3	37.4	15.1	17.5	20.9	---	---	---	---	---	---	---	---	---
	2-Chlorophenol-D4	%	1	52.9	57.4	55.9	41.1	53.2	58.3	46.9	53.5	70.7	38.5	35.2	44.2	---	---	---	---	---	---	---	---	---
	2.4.6-Tribromophenol	%	1	64.2	66.7	59.2	56.6	54.7	64.4	47.2	38.2	98.4	30.2	38.6	56.4	---	---	---	---	---	---	---	---	---
	2-Fluorobiphenyl	%	1	56.2	69.3	66	55.6	66	67.9	60	65.2	82.9	75	52.5	61.4	59.10	61.50	56.80	51.00	48.80	50.50	68.40	73	
	Anthracene-d10	%	1	74.2	90.7	89.2	74.5	74.4	98.3	74	76.2	102	72	60.2	77.2	81.80	85.70	86.20	51.80	68.50	64.80	83.90	81.2	
	4-Terphenyl-d14	%	1	87	98.3	92.8	95.1	75.5	95.6	96.6	90.7	103	91.9	66.7	84.3	70.40	74.20	75.90	55.60	70.40	72.60	96.10	81.1	
	1.2-Dichloroethane-D4	%	2	115	93.3	86.9	119	121	107	119	110	95.7	92.8	109	125	96.60	85.80	107.00	110.00	85.10	109.00	101.00	89.2	
	Toluene-D8	%	2	110	88.2	89.1	102	106	88.2	112	106	98.1	117	111	113	105.00	108.00	109.00	95.30	86.40	90.50	109.00	110	
	4-Bromofluorobenzene	%	2	109	90.4	93.3	116	118	82.4	112	107	101	110	116	101	110.00	99.50	116.00	97.80	85.10	98.10	98.30	131	

RN042463 - raw data

CARPENTARIA 2

				Baseline															Reporting Period			
Category	**CHEMICAL NAME**	**RESULT UNIT**	**LIMIT OF DETECTION**	3/11/2021	14/11/2021	17/11/2021	21/11/2021	24/11/2021	28/11/2021	1/12/2021	8/12/2021	9/01/2022	26/01/2022	9/02/2022	23/02/2022	9/03/2022	23/03/2022	6/04/2022	20/07/2022	6/11/2022	2/01/2023	26/04/2023	26/07/2023
General, anions, cations and metal	pH - Lab	pH Unit	0.01	7.65	7.45	7.46	7.04	7.55	7.6	7.52	7.26	7.74	7.39	7.5	7.57	7.29	7.35	7.11	7.52	7.71	7.1	7.70	7.19
	Electrical Conductivity @ 25°C	µS/cm	1	1090	1070	1080	1050	1080	1090	1080	1020	1060	1060	1030	1070	1080	976	1010	1030	1030	897	1010.00	998.00
	Total Dissolved Solids @180°C	mg/L	10	701	607	632	802	768	704	694	663	721	666	665	760	657	618	646	575	567	506	594.00	562.00
	Suspended Solids (SS)	mg/L	1	----	17	10	13	11	12	12	13	9	7	6	6	8	6	8	8	4	9	9.00	7.00
	Gross beta	Bq/L	0.1	0.45	0.38	0.31	0.32	0.32	0.36	0.27	0.33	0.26	0.22	0.23	0.31	0.33	---	0.33	0.35	0.35	0.69	0.39	0.29
	Hydroxide Alkalinity as CaCO3	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Carbonate Alkalinity as CaCO3	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bicarbonate Alkalinity as CaCO3	mg/L	1	473	476	347	484	484	426	483	481	474	459	400	481	459	467	472	454	466	444	421.00	457.00
	Total Alkalinity as CaCO3	mg/L	1	473	476	347	484	484	426	483	481	474	459	400	481	459	467	472	454	466	444	421.00	457.00
	Sulfate as SO4 2-	mg/L	1	84	91	82	81	79	84	81	80	75	65	68	67	55	59	56	37	54	53	37.00	41.00
	Chloride	mg/L	1	56	58	53	59	53	60	58	52	56	53	52	61	56	62	54	60	55	53	57.00	69.00
	Calcium D	mg/L	1	105	110	109	119	111	118	129	121	111	103	110	126	116	115	117	101	110	86	91.00	112.00
	Magnesium D	mg/L	1	51	50	48	54	49	53	55	52	51	48	51	53	51	54	49	51	46	46	48.00	54.00
	Sodium D	mg/L	1	44	36	35	39	36	38	39	38	38	36	38	39	38	39	36	38	36	35	37.00	39.00
	Potassium D	mg/L	1	8	7	7	8	7	8	8	8	8	7	7	8	8	7	9	6	8	6	6.00	9.00
	Calcium T	mg/L	1	114	113	120	119	117	126	118	126	120	114	118	118	126	122	119	100	109	114	114.00	115.00
	Magnesium T	mg/L	1	63	51	54	53	52	54	54	57	53	52	51	54	53	58	55	54	56	50	55.00	54.00
	Sodium T	mg/L	1	38	39	39	39	38	38	41	41	38	36	39	39	39	41	40	40	41	39	41.00	41.00
	Potassium T	mg/L	1	8	8	8	8	8	8	8	8	8	7	7	7	8	9	8	7	9	8	8.00	10.00
	Arsenic D	mg/L	0.001	<0.001	<0.001	0.002	0.007	0.001	0.001	0.003	0.002	0.003	0.002	0.002	0.004	0.004	0.002	0.002	0.002	0.003	0.003	0.00	0.00
	Barium D	mg/L	0.001	0.084	0.173	0.15	0.154	0.128	0.145	0.148	0.152	0.196	0.165	0.159	0.17	0.174	0.169	0.166	0.239	0.187	0.193	0.18	0.17
	Cadmium D	mg/L	0.0001	<0.0001	<0.0001	<0.0001	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Copper D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lead D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lithium D	mg/L	0.001	0.082	0.056	0.049	0.06	0.05	0.053	0.054	0.054	0.051	0.036	0.055	0.051	0.049	0.051	0.051	0.05	0.044	0.041	0.04	0.05
	Manganese D	mg/L	0.001	0.116	0.202	0.156	0.166	0.141	0.158	0.176	0.155	0.197	0.166	0.133	0.125	0.133	0.124	0.111	0.092	0.055	0.058	0.06	0.06
	Selenium D	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Silver D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Strontium D	mg/L	0.001	0.521	0.475	0.457	0.452	0.469	0.502	0.5	0.499	0.454	0.44	0.441	0.486	0.474	0.462	0.478	0.471	0.42	0.424	0.47	0.462
	Zinc D	mg/L	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	Boron D	mg/L	0.05	0.11	0.11	0.1	0.11	0.1	0.11	0.11	0.11	0.1	0.09	0.12	0.1	0.09	0.12	0.1	0.13	0.09	0.09	0.10	0.12
	Iron D	mg/L	0.05	4.11	3.01	4.57	6.21	2.82	6.17	6.89	6.26	4.93	3.96	2.85	2.69	4.19	4.07	1.84	4.94	0.53	<0.05	2.25	3.48
	Arsenic T	mg/L	0.001	<0.001	<0.001	0.001	0.002	0.002	0.003	0.002	0.002	0.002	0.002	0.002	0.003	0.003	0.002	0.003	0.002	0.004	0.002	0.01	0.00
	Barium T	mg/L	0.001	0.078	0.195	0.176	0.158	0.142	0.158	0.152	0.16	0.214	0.186	0.167	0.17	0.19	0.174	0.178	0.25	0.234	0.216	0.22	0.19
	Cadmium T	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.01	<0.001
	Copper T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00	<0.001
	Lead T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00	<0.001
	Lithium T	mg/L	0.001	0.09	0.057	0.056	0.052	0.051	0.063	0.054	0.056	0.053	0.084	0.046	0.05	0.055	0.048	0.05	0.048	0.051	0.047	0.06	0.05
	Manganese T	mg/L	0.001	0.124	0.206	0.178	0.165	0.153	0.168	0.177	0.164	0.223	0.181	0.145	0.123	0.146	0.123	0.122	0.091	0.064	0.064	0.07	0.06
	Selenium T	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Silver T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Strontium T	mg/L	0.001	0.51	0.493	0.508	0.511	0.496	0.527	0.507	0.526	0.522	0.515	0.47	0.487	0.553	0.492	0.486	0.492	0.499	0.478	0.53	0.52
	Zinc T	mg/L	0.005	<0.005	0.021	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.02	<0.005
	Boron T	mg/L	0.05	0.1	0.12	0.11	0.12	0.11	0.12	0.12	0.11	0.11	0.15	0.1	0.11	0.12	0.1	0.11	0.12	0.09	0.11	0.14	0.10
	Iron T	mg/L	0.05	5.22	9.61	6.91	6.67	4.92	6.56	8.23	6.66	5.43	4.03	2.9	3.07	4.14	3.52	4.92	4.92	2.28	3.42	5.20	4.08
	Mercury D	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Mercury T	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Reactive Silica	mg/L	0.05	25	26.5	27.2	27.6	27.8	28.9	28.2	28.1	29.3	28.4	29.3	28.3	28	28.4	27.4	27.6	27.8	26.4	30.10	29.90
	Fluoride	mg/L	0.1	0.8	0.5	0.6	0.6	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.6	0.5	0.50	0.50
	Nitrite as N	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Nitrate as N	mg/L	0.01	0.06	0.02	0.01	0.02	0.02	0.01	0.01	0.02	0.02	0.03	0.02	0.02	0.03	0.07	0.01	0.03	0.01	0.02	0.02	0.04
	Nitrite + Nitrate as N	mg/L	0.01	0.06	0.02	0.01	0.02	0.02	0.01	0.01	0.02	0.02	0.03	0.02	0.02	0.03	0.07	0.01	0.03	0.01	0.02	0.02	0.04
	Total Anions	meq/L	0.01	12.8	13	10.1	13	12.8	12	13	12.7	12.6	12	10.9	12.7	11.9	12.3	12.1	11.5	12	11.5	10.80	11.90
	Total Cations	meq/L	0.01	11.6	11.3	11.1	12.3	11.3	12.1	12.9	12.2	11.6	10.8	11.5	12.6	11.8	12	11.7	11	11	9.75	10.20	12.00
	Ionic Balance	%	0.01	5.03	6.94	4.5	2.91	6.19	0.64	0.42	2.28	4.2	5.18	2.88	0.69	0.22	1.02	1.9	2.17	4.08	8.09	2.54	0.12
Disc. pet. gases	Methane	µg/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	13	15	23	126	58	60	117.00	75.00
	Ethane	µg/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Propane	µg/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
PAH Suite	Naphthalene	µg/L	1	<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	<1	<1	<0.1	<5	<0.1	<0.1	<0.1
	Acenaphthylene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
	Acenaphthene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
	Fluorene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
	Phenanthrene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
	Anthracene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
	Fluoranthene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
	Pyrene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benz(a)anthracene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
	Chrysene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo(b+j)fluoranthene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo(k)fluoranthene	µg/L	1	<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	<1	<1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo(a)pyrene	µg/L	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	<0.05	<0.05	<0.05	<0.05	<0.05
	Indeno(1.2.3.cd)pyrene	µg/L	1	<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	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1
	Dibenz(a.h)anthracene	µg/L	1	<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	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1
	Benzo(g.h.i)perylene	µg/L	1	<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	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1
	Sum of polycyclic aromatic hydrocarbons	µg/L	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	<0.05	<0.05	<0.05	<0.05	<0.05
	Benzo(a)pyrene TEQ (zero)	µg/L	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	<0.05	<0.05	<0.1	<0.05	<0.05
Total Recoverable Hydrocarbons	C6 - C9 Fraction	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	C10 - C14 Fraction	µg/L	50	<50	160	100	50	70	70	110	60	60	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C15 - C28 Fraction	µg/L	100	<100	130	140	<100	<100	120	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	C29 - C36 Fraction	µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C10 - C36 Fraction (sum)	µg/L	50	<50	290	240	50	70	190	210	60	60	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C6 - C10 Fraction	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	C6 - C10 Fraction minus BTEX (F1)	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	>C10 - C16 Fraction	µg/L	100	<100	270	180	140	110	150	160	130	160	150	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C16 - C34 Fraction	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C34 - C40 Fraction	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C10 - C40 Fraction (sum)	µg/L	100	<100	270	180	140	110	150	160	130	160	150	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C10 - C16 Fraction minus Naphthalene (F2)	µg/L	100	<100	270	180	140	110	150	160	130	160	150	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
BTEXN, Alpha/Beta, Surrogates	Benzene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Toluene	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Ethylbenzene	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	meta- & para-Xylene	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	ortho-Xylene	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Total Xylenes	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Sum of BTEX	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Naphthalene	µg/L	1	<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	<1	<1	<0.1	<5	<0.1	<0.1	<5
	Gross alpha	Bq/L	0.05	0.45	0.32	0.29	0.3	0.3	0.31	0.27	0.25	0.25	0.18	0.2	0.2	0.19	---	0.17	0.22	0.27	0.23	0.18	0.15
	Gross beta activity - 40K	Bq/L	0.1	0.22	0.17	0.11	<0.10	0.12	0.16	<0.10	0.13	<0.10	<0.10	<0.10	0.11	0.12	---	0.13	0.12	0.12	0.48	0.12	<0.10
	Phenol-d6	%	1	23.7	29.3	28.7	20.9	23.3	24.7	17.2	23.1	26.5	17.8	20.8	25.2	---	---	---	---	---	---	---	---
	2-Chlorophenol-D4	%	1	46.5	60.1	56.1	47.3	51.1	49.1	41.7	53.3	49.6	39.5	37.6	51.7	---	---	---	---	---	---	---	---
	2.4.6-Tribromophenol	%	1	71.2	65.7	37.6	59.1	63.2	59.9	41	45	61.6	38.3	65.5	69.9	---	---	---	---	---	---	---	---
	2-Fluorobiphenyl	%	1	50.1	73.5	67.1	54.8	70	55.6	56.3	69.2	59	77.5	57.6	67.1	67	49.2	66.8	58.2	55.4	69.8	52.60	71.10
	Anthracene-d10	%	1	79.4	87.2	84.4	83.2	76.7	69.7	69.4	79.2	71	63.3	68.3	85.4	87.3	74.4	89.6	70.7	81.2	90.9	57.60	82.10
	4-Terphenyl-d14	%	1	91.8	90	89.8	92.9	78.8	80.9	83	93.6	72.4	84.5	70.4	93.1	74.3	68.3	79.3	81	83.8	107	62.60	83.70
	1.2-Dichloroethane-D4	%	2	114	87	87.4	116	124	116	118	130	102	90.6	96.6	128	103	82.8	101	116	101	118	102.00	90.80
	Toluene-D8	%	2	109	87.8	86.2	100	108	100	104	106	110	111	96.8	110	116	102	108	104	104	98.5	111.00	105.00
	4-Bromofluorobenzene	%	2	104	81.5	90.9	112	119	93.8	107	105	109	106	101	98.8	117	95.2	115	100	101	105	98.10	130.00

Bores;
RN042462 **Difference in Bores (IMB - CMB)**
RN042463

CARPENTARIA 2

				Baseline Statistics*							Flag if above 2	Baseline																Reporting Period Data			
Category	CHEMICAL NAME	RESULT UNIT	No. results	Min	Q1	Mean	Q3	Max	Standard Deviation	Average from reporting period (17/10/22 - 16/10/23)	Z Score	3/11/2021	14/11/2021	17/11/2021	21/11/2021	24/11/2021	28/11/2021	1/12/2021	8/12/2021	9/01/2022	26/01/2022	9/02/2022	23/02/2022	9/03/2022	23/03/2022	6/04/2022	20/07/2022	6/11/2022	2/01/2023	26/04/2023	26/07/2023
General, anions, cations and metal	pH - Lab	pH Unit	20	0.00	0.01	0.06	0.08	0.23	0.06	0.015	-0.71	0.01	0.10	0.05	0.06	0.01	0.18	0.06	0.04	0.01	0.09	0.01	0.23	0.03	0.05	0.02	0.00	0.04	0.00	0.00	0.02
	Electrical Conductivity @ 25°C	µS/cm	20	0.00	0.00	6.25	0.00	60.00	15.36	13.250	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	60.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	20.00	13.00	20.00	0.00
	Total Dissolved Solids @180°C	mg/L	20	0.00	0.00	17.88	43.50	69.00	23.65	19.000	0.05	27.00	53.00	0.00	0.00	52.00	1.00	0.00	22.00	49.00	0.00	0.00	0.00	0.00	0.00	13.00	69.00	17.00	59.00	0.00	0.00
	Suspended Solids (SS)	mg/L	19	0.00	0.00	2.53	0.00	18.00	5.54	0.500	-0.37	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.00	14.00	6.00	0.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00
	Gross beta	Bq/L	19	0.00	0.07	0.14	0.20	0.38	0.09	0.105	-0.43	0.00	0.07	0.17	0.15	0.06	0.04	0.22	0.15	0.38	0.22	0.13	0.17	0.09	-	0.10	0.20	0.16	0.00	0.03	0.23
	Hydroxide Alkalinity as CaCO3	mg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Carbonate Alkalinity as CaCO3	mg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Bicarbonate Alkalinity as CaCO3	mg/L	20	0.00	0.00	5.31	0.00	75.00	18.15	0.000	†	10.00	0.00	75.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Alkalinity as CaCO3	mg/L	20	0.00	0.00	5.31	0.00	75.00	18.15	0.000	†	10.00	0.00	75.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sulfate as SO4 2-	mg/L	20	0.00	5.50	12.06	16.75	46.00	11.28	15.750	0.33	0.00	5.00	8.00	7.00	7.00	10.00	10.00	12.00	7.00	13.00	0.00	2.00	18.00	21.00	27.00	46.00	10.00	29.00	23.00	1.00
	Chloride	mg/L	20	0.00	0.00	4.00	0.00	38.00	10.39	0.750	-0.31	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	38.00	23.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	2.00
	Calcium D	mg/L	20	0.00	0.00	1.50	0.75	10.00	3.10	0.000	†	10.00	8.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00	0.00	0.00	0.00
	Magnesium D	mg/L	20	0.00	0.00	2.19	3.00	9.00	2.32	3.000	0.35	0.00	9.00	4.00	3.00	5.00	2.00	2.00	3.00	2.00	0.00	0.00	0.00	0.00	1.00	1.00	3.00	4.00	2.00	4.00	2.00
	Sodium D	mg/L	20	0.00	0.00	2.06	2.75	8.00	2.59	0.500	-0.60	0.00	6.00	2.00	7.00	3.00	2.00	0.00	1.00	8.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00	1.00	0.00	1.00	0.00
	Potassium D	mg/L	20	0.00	1.00	2.19	2.75	8.00	1.78	1.250	-0.53	0.00	3.00	1.00	2.00	2.00	1.00	1.00	1.00	8.00	4.00	3.00	2.00	1.00	2.00	2.00	2.00	1.00	1.00	2.00	1.00
	Calcium T	mg/L	20	0.00	0.00	0.88	0.00	6.00	1.90	0.500	-0.20	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00	2.00	0.00	0.00
	Magnesium T	mg/L	20	0.00	0.00	1.63	3.00	4.00	1.45	4.000	1.64	0.00	1.00	1.00	3.00	3.00	2.00	3.00	0.00	1.00	4.00	0.00	0.00	0.00	4.00	1.00	3.00	4.00	4.00	2.00	6.00
	Sodium T	mg/L	20	0.00	0.00	1.50	1.75	9.00	2.74	0.750	-0.27	0.00	0.00	0.00	1.00	1.00	2.00	1.00	0.00	8.00	9.00	0.00	0.00	0.00	2.00	0.00	0.00	1.00	1.00	0.00	1.00
	Potassium T	mg/L	20	0.00	1.00	2.13	2.00	9.00	2.18	1.750	-0.17	0.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	9.00	6.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	2.00	2.00	2.00
	Arsenic D	mg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Barium D	mg/L	20	0.00	0.00	0.01	0.00	0.08	0.02	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Cadmium D	mg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chromium D	mg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Copper D	mg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Lead D	mg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Lithium D	mg/L	20	0.00	0.03	0.03	0.04	0.04	0.01	0.035	0.51	0.00	0.03	0.03	0.04	0.03	0.03	0.04	0.03	0.04	0.04	0.00	0.02	0.03	0.03	0.04	0.04	0.04	0.03	0.04	0.04
	Manganese D	mg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.001	‡	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Selenium D	mg/L	20	0.00	0.00	0.00	0.00	0.01	0.00	0.000	†	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Silver D	mg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Strontium D	mg/L	20	0.00	0.01	0.02	0.04	0.07	0.02	0.030	0.27	0.00	0.04	0.04	0.03	0.07	0.05	0.03	0.03	0.03	0.02	0.00	0.00	0.01	0.01	0.01	0.05	0.03	0.02	0.05	0.02
	Zinc D	mg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Boron D	mg/L	20	0.00	0.00	0.01	0.01	0.04	0.01	0.013	0.32	0.00	0.00	0.01	0.04	0.02	0.01	0.01	0.00	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01
	Iron D	mg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.098	‡	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.00	0.00
	Arsenic T	mg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Barium T	mg/L	20	0.00	0.00	0.01	0.00	0.08	0.02	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Cadmium T	mg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chromium T	mg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Copper T	mg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Lead T	mg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Lithium T	mg/L	20	0.00	0.03	0.03	0.04	0.04	0.01	0.038	0.73	0.00	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.03	0.00	0.01	0.02	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04
	Manganese T	mg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.002	‡	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
	Selenium T	mg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Silver T	mg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Strontium T	mg/L	20	0.00	0.00	0.02	0.03	0.05	0.02	0.033	0.81	0.00	0.02	0.01	0.03	0.03	0.03	0.03	0.00	0.02	0.04	0.00	0.00	0.01	0.04	0.01	0.05	0.02	0.04	0.02	0.05
	Zinc T	mg/L	20	0.00	0.00	0.00	0.00	0.01	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Boron T	mg/L	20	0.00	0.00	0.01	0.01	0.02	0.01	0.010	0.18	0.01	0.01	0.01	0.00	0.01	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.02	0.01	0.00	0.01	0.01	0.00	0.02
	Iron T	mg/L	20	0.00	0.00	0.46	0.00	6.67	1.61	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.67	0.65	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Mercury D	mg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Mercury T	mg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Reactive Silica	mg/L	20	0.00	0.00	0.23	0.00	3.20	0.77	0.000	†	3.20	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fluoride	mg/L	20	0.00	0.13	0.22	0.30	0.30	0.11	0.250	0.29	0.00	0.30	0.10	0.00	0.30	0.30	0.30	0.20	0.30	0.30	0.10	0.20	0.20	0.30	0.30	0.30	0.20	0.30	0.30	0.20
	Nitrite as N	mg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Nitrate as N	mg/L	20	0.00	0.00	0.00	0.00	0.02	0.00	0.000	†	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Nitrite + Nitrate as N	mg/L	20	0.00	0.00	0.00	0.00	0.02	0.00	0.000	†	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Anions	meq/L	20	0.00	0.00	0.22	0.20	1.60	0.41	0.175	-0.11	0.20	0.00	1.60	0.00	0.00	0.00	0.00	0.20	0.60	0.00	0.00	0.00	0.10	0.00	0.20	0.60	0.00	0.60	0.10	0.00
	Total Cations	meq/L	20	0.00	0.00	0.27	0.40	1.50	0.39	0.210	-0.15	0.10	1.50	0.40	0.40	0.70	0.00	0.00	0.10	0.40	0.00	0.00	0.00	0.00	0.10	0.00	0.60	0.30	0.14	0.40	0.00
	Ionic Balance	%	20	0.00	0.00	0.65	0.63	4.85	1.23	0.788	0.11	0.22	0.00	0.00	0.00	0.00	4.85	0.47	0.08	0.55	0.00	0.00	0.66	2.13	0.00	1.30	0.12	0.00	1.91	0.00	1.24
Diss. pet. gases	Methane	mg/L	20	0.00	0.00	0.00	0.00	0.01	0.00	0.081	47.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.04	0.01	0.19
	Ethane	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Propane	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PAH Suite **	Naphthalene	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Acenaphthylene	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Acenaphthene	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fluorene	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Phenanthrene	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Anthracene	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fluoranthene	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Pyrene	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Benz(a)anthracene	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chrysene	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Benzo(b+j)fluoranthene	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Benzo(k)fluoranthene	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Benzo(a)pyrene	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Indeno(1.2.3.cd)pyrene	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dibenz(a.h)anthracene	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Benzo(g.h.i)perylene	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sum of polycyclic aromatic hydrocarbons	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Benzo(a)pyrene TEQ (zero)	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Recoverable Hydrocarbons	C6 - C9 Fraction	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C10 - C14 Fraction	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C15 - C28 Fraction	µg/L	20	0.00	0.00	0.63	0.00	10.00	2.42	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C29 - C36 Fraction	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C10 - C36 Fraction (sum)	µg/L	20	0.00	0.00	9.38	0.00	90.00	25.36	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.00	0.00	0.00	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C6 - C10 Fraction	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C6 - C10 Fraction minus BTEX (F1)	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	>C10 - C16 Fraction	µg/L	20	0.00	0.00	5.00	0.00	60.00	15.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	0.00	0.00	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	>C16 - C34 Fraction	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	>C34 - C40 Fraction	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	>C10 - C40 Fraction (sum)	µg/L	20	0.00	0.00	5.00	0.00	60.00	15.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	0.00	0.00	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	>C10 - C16 Fraction minus Naphthalene (F2)	µg/L	20	0.00	0.00	5.00	0.00	60.00	15.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	0.00	0.00	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BTEXN, Alpha/Beta, Surrogates	Benzene	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	4.750	‡	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.00	0.00
	Toluene	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ethylbenzene	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	4.500	‡	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.00	0.00
	meta- & para-Xylene	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	4.500	‡	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.00	0.00
	ortho-Xylene	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	4.500	‡	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.00	0.00
	Total Xylenes	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	2.000	‡	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00
	Sum of BTEX	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Naphthalene **	µg/L	20	0.00	0.00	0.00	0.00	0.00	0.00	0.000	†	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Gross alpha	Bq/L	19	0.00	0.17	0.23	0.31	0.43	0.11	0.278	0.41	0.00	0.26	0.32	0.31	0.20	0.29	0.25	0.43	0.19	0.21	0.10	0.15	0.19	-	0.17	0.42	0.24	0.22	0.34	0.31
	Gross beta activity - 40K	Bq/L	19	0.00	0.01	0.07	0.12	0.15	0.05	0.058	-0.28	0.00	0.04	0.12	0.12	0.03	0.01	0.14	0.12	0.11	0.00	0.01	0.13	0.05	-	0.06	0.15	0.12	0.00	0.00	0.11
	Phenol-d6	%	12	0.00	0.00	1.61	2.55	10.90	3.09	-	†	2.90	0.00	0.00	0.00	0.00	4.00	1.50	0.00	10.90	0.00	0.00	0.00	-	-	-	-	-	-	-	-
	2-Chlorophenol-D4	%	12	0.00	0.00	3.68	6.10	21.10	6.05	-	†	6.40	0.00	0.00	0.00	2.10	9.20	5.20	0.20	21.10	0.00	0.00	0.00	-	-	-	-	-	-	-	-
	2.4.6-Tribromophenol	%	12	0.00	0.00	5.84	5.78	36.80	11.07	-	†	0.00	1.00	21.60	0.00	0.00	4.50	6.20	0.00	36.80	0.00	0.00	0.00	-	-	-	-	-	-	-	-
	2-Fluorobiphenyl	%	20	0.00	0.00	3.69	5.50	23.90	6.65	4.425	0.11	6.10	0.00	0.00	0.80	0.00	12.30	3.70	0.00	23.90	0.00	0.00	0.00	0.00	12.30	0.00	0.00	0.00	0.00	15.80	1.90
	Anthracene-d10	%	20	0.00	0.00	5.78	7.73	31.00	9.70	6.575	0.08	0.00	3.50	4.80	0.00	0.00	28.60	4.60	0.00	31.00	8.70	0.00	0.00	0.00	11.30	0.00	0.00	0.00	0.00	26.30	0.00
	4-Terphenyl-d14	%	20	0.00	0.00	5.36	8.08	30.60	8.10	8.375	0.37	0.00	8.30	3.00	2.20	0.00	14.70	13.60	0.00	30.60	7.40	0.00	0.00	0.00	5.90	0.00	0.00	0.00	0.00	33.50	0.00
	1.2-Dichloroethane-D4	%	20	0.00	0.00	2.18	3.00	12.40	3.34	0.000	†	1.00	6.30	0.00	3.00	0.00	0.00	1.00	0.00	0.00	2.20	12.40	0.00	0.00	3.00	6.00	0.00	0.00	0.00	0.00	0.00
	Toluene-D8	%	20	0.00	0.00	2.78	5.25	14.20	3.85	1.250	-0.40	1.00	0.40	2.90	2.00	0.00	0.00	8.00	0.00	0.00	6.00	14.20	3.00	0.00	6.00	1.00	0.00	0.00	0.00	0.00	5.00
	4-Bromofluorobenzene	%	20	0.00	0.00	3.36	4.83	15.00	3.87	0.300	-0.79	5.00	8.90	2.40	4.00	0.00	0.00	5.00	2.00	0.00	4.00	15.00	2.20	0.00	4.30	1.00	0.00	0.00	0.00	0.20	1.00

*All readings below the limit of detection (LOD) have been assumed to be equal to the limit of detection.

** Limit of detection has changed, all readings are equal to limit of detection (LOD)

† The differential average from the basline and reporting period is Zero so there is no Z score

‡ The standard deviation from the basline is zero which means the Z score is undefined

RN043012 - raw data
CARPENTARIA 4

				Baseline				Reporting Period				
Category	**CHEMICAL NAME**	**RESULT UNIT**	**LIMIT OF DETECTION**	29/08/2022	11/09/2022	25/09/2022	9/10/2022	23/10/2022	17/01/2023	17/05/2023	19/07/2023	10/10/2023
General, anions, cations and metal	pH - Lab	pH Unit	0.01	7.16	7.56	7.46	7.11	7.46	6.97	6.97	7.11	7.38
	Electrical Conductivity @ 25°C	µS/cm	1	1050	1130	1120	1100	1120	1130	1110	1120	1130
	Total Dissolved Solids @180°C	mg/L	10	---	648	656	641	664	702	702	672	628
	Suspended Solids (SS)	mg/L	1	<1	<1	<1	<1	1	<1	5	4	63
	Gross beta	Bq/L	0.1	0.22	0.28	0.35	0.31	<0.10	0.28	0.39	0.34	0.43
	Hydroxide Alkalinity as CaCO3	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Carbonate Alkalinity as CaCO3	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Bicarbonate Alkalinity as CaCO3	mg/L	1	433	496	485	440	401	472	461	474	489
	Total Alkalinity as CaCO3	mg/L	1	433	496	485	440	401	472	461	474	489
	Sulfate as SO4 2-	mg/L	1	81	81	81	86	79	86	90	80	94
	Chloride	mg/L	1	62	67	62	66	57	62	64	79	60
	Calcium D	mg/L	1	140	143	136	122	136	135	116	135	138
	Magnesium D	mg/L	1	50	49	50	50	53	46	43	54	52
	Sodium D	mg/L	1	41	40	44	40	43	40	37	45	42
	Potassium D	mg/L	1	9	8	8	7	8	9	9	9	8
	Calcium T	mg/L	1	140	141	136	140	138	147	160	128	145
	Magnesium T	mg/L	1	52	52	48	51	55	52	45	53	52
	Sodium T	mg/L	1	45	40	39	38	45	44	39	44	42
	Potassium T	mg/L	1	9	8	8	8	9	9	8	8	9
	Arsenic D	mg/L	0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Barium D	mg/L	0.001	0.08	0.083	0.083	0.078	0.08	0.074	0.056	0.084	0.085
	Cadmium D	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Copper D	mg/L	0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lead D	mg/L	0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Lithium D	mg/L	0.001	0.041	0.044	0.039	0.039	0.041	0.034	0.035	0.042	0.037
	Manganese D	mg/L	0.001	0.056	0.008	0.008	0.007	0.005	0.008	0.005	0.006	0.006
	Selenium D	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Silver D	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Strontium D	mg/L	0.001	0.54	0.535	0.532	0.499	0.522	0.486	0.385	0.543	0.548
	Zinc D	mg/L	0.005	0.007	<0.005	0.007	0.016	0.008	0.011	0.01	0.019	0.028
	Boron D	mg/L	0.05	0.11	0.12	0.08	0.1	0.08	0.09	0.11	0.1	0.08
	Iron D	mg/L	0.05	0.36	0.1	0.08	<0.05	0.1	0.49	0.18	0.29	0.36
	Arsenic T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Barium T	mg/L	0.001	0.08	0.083	0.073	0.08	0.082	0.08	0.12	0.079	0.084
	Cadmium T	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Chromium T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Copper T	mg/L	0.001	0.002	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001
	Lead T	mg/L	0.001	0.004	<0.001	<0.001	<0.001	0.007	<0.001	0.001	<0.001	<0.001
	Lithium T	mg/L	0.001	0.038	0.039	0.04	0.038	0.038	0.044	0.044	0.049	0.04
	Manganese T	mg/L	0.001	0.052	0.007	0.007	0.007	0.005	0.008	0.398	0.005	0.007
	Selenium T	mg/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	Silver T	mg/L	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Strontium T	mg/L	0.001	0.522	0.53	0.486	0.514	0.518	0.516	0.533	0.512	0.525
	Zinc T	mg/L	0.005	0.007	<0.005	<0.005	0.008	0.008	0.011	0.027	0.018	0.03
	Boron T	mg/L	0.05	0.12	0.12	0.07	0.07	0.11	0.11	0.14	0.11	0.09
	Iron T	mg/L	0.05	0.72	0.34	0.5	0.45	0.76	0.17	1.72	2.86	1.83
	Mercury D	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Mercury T	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Reactive Silica	mg/L	0.05	30.6	32	31.6	33.8	31.6	30.8	28.8	29.5	31
	Fluoride	mg/L	0.1	0.4	0.5	0.3	0.4	0.4	0.3	0.4	0.4	0.4
	Nitrite as N	mg/L	0.01	0.01	<0.01	<0.01	0.03	<0.01	<0.01	0.09	<0.01	<0.01
	Nitrate as N	mg/L	0.01	0.04	0.11	0.11	0.11	0.11	0.08	0.09	1.34	0.12
	Nitrite + Nitrate as N	mg/L	0.01	0.05	0.11	0.11	0.14	0.11	0.08	0.09	1.34	0.12
	Total Anions	meq/L	0.01	12.1	13.5	13.1	12.4	11.3	13	12.9	13.4	13.4
	Total Cations	meq/L	0.01	13.1	13.1	13	12.1	13.2	12.5	11.2	13.4	13.2
	Ionic Balance	%	0.01	4.08	1.4	0.4	1.31	8	1.88	7.16	0.01	0.84
Dis. pet. gases	Methane	µg/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Ethane	µg/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Propane	µg/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10
PAH Suite	Naphthalene	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Acenaphthylene	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Acenaphthene	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Fluorene	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Phenanthrene	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Anthracene	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Fluoranthene	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Pyrene	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benz(a)anthracene	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Chrysene	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo(b+j)fluoranthene	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo(k)fluoranthene	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo(a)pyrene	µg/L	0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Indeno(1.2.3.cd)pyrene	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Dibenz(a.h)anthracene	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo(g.h.i)perylene	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Sum of polycyclic aromatic hydrocarbons	µg/L	0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Benzo(a)pyrene TEQ (zero)	µg/L	0.5	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total Recoverable Hydrocarbons	C6 - C9 Fraction	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	C10 - C14 Fraction	µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C15 - C28 Fraction	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	C29 - C36 Fraction	µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C10 - C36 Fraction (sum)	µg/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	C6 - C10 Fraction	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	C6 - C10 Fraction minus BTEX (F1)	µg/L	20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	>C10 - C16 Fraction	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C16 - C34 Fraction	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C34 - C40 Fraction	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C10 - C40 Fraction (sum)	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	>C10 - C16 Fraction minus Naphthalene (F2)	µg/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100
BTEXN, Alpha/Beta, Surrogates	Benzene	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Toluene	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Ethylbenzene	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	meta- & para-Xylene	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	ortho-Xylene	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Total Xylenes	µg/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Sum of BTEX	µg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Naphthalene	µg/L	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<5	<5
	Gross alpha	Bq/L	0.05	0.23	0.25	0.22	0.25	<0.05	0.21	0.22	0.28	0.33
	Gross beta activity - 40K	Bq/L	0.1	<0.10	<0.10	0.13	<0.10	<0.10	<0.10	0.13	<0.10	0.14
	Phenol-d6	%	1	43	---	---	---	---	---	---	---	---
	2-Chlorophenol-D4	%	1	75.2	---	---	---	---	---	---	---	---
	2.4.6-Tribromophenol	%	1	77.4	---	---	---	---	---	---	---	---
	2-Fluorobiphenyl	%	1	77.5	66.9	63.5	73.4	72.1	60.8	51.7	59.4	76.2
	Anthracene-d10	%	1	77.1	80.9	66.7	83.3	81.1	74.9	71.6	67.4	87.4
	4-Terphenyl-d14	%	1	83.7	80.2	69.2	84.2	81.2	77.7	87.2	70.1	97.8
	1.2-Dichloroethane-D4	%	2	104	98.5	104	101	110	102	108	110	107
	Toluene-D8	%	2	109	88.2	111	120	100	116	108	114	92.9
	4-Bromofluorobenzene	%	2	102	79.6	102	121	99.6	114	90.7	105	107