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4 July 2024

Senator Sarah Hanson-Young Chair Senate Environment and Communications References Committee Australian Parliament House Canberra ACT

RE: Response to Middle Arm Sustainable Development Precinct Questions on Notice

Dear Chair,

Firstly, I would like to thank you and other members of the Senate Committee for allowing INPEX to provide information and clarity surrounding our current Australian operations, including those in Darwin, and our relevance to the Middle Arm Sustainable Development Precinct in which we have outlined our support in our previous submission.

INPEX is active in several projects in Australia and the Timor Sea, including Prelude FLNG, Bayu-Undan/Darwin LNG, Van Gogh, Ravensworth, however the INPEX-operated Ichthys LNG (liquified natural gas) project is the crown jewel in our global portfolio. Ichthys LNG involved an investment of more than A\$60b, which has resulted in significant and ongoing economic and community benefits across the country.

Our Australian new energy business is supporting a more sustainable tomorrow through renewable energy initiatives, native revegetation, carbon farming and future biofuels interests.

INPEX is committed to reducing its carbon emissions and achieving the goals under the Paris Agreement. Our business strategy roadmap, "INPEX Vision@2022", sets out the path to achieving our target of net zero carbon emissions by 2050 while providing a stable and reliable supply of energy to our neighbours in the Indo-Pacific.

INPEX supports the development of a shared hub to store carbon at Middle Arm Sustainable Development Precinct, and other initiatives that can help industries with high emissions to lower them. We believe hub models like this can help Australia cut its emissions and aligns with the Federal Government's goal of net zero emissions by 2050.

Below we have collated responses to questions on notice provided to us by the Senate Committee Secretary. We welcome any additional queries or further clarity on these responses, alternatively we would be happy to provide a briefing to you or your office regarding INPEX's operations.

Yours sincerely,

Bill Townsend Senior Vice President Corporate

INPEX Response to Middle Arm Sustainable Development Precinct Questions on Notice

1. Could you advise of the dates your gas incinerators have been offline, and how long they have remained offline.

The first notifications to the Northern Territory Environmental Protection Authority (NTEPA) for planned by-pass of acid gas removal unit (AGRU) incinerators were made in September 2018; and notifications of unplanned by-pass were made in March 2019. Since then, the incinerators have experienced various technical difficulties, resulting in them being intermittently taken offline to investigate and repair so as to ensure the safe operation of the Ichthys LNG plant (ILNG).

Tables 1 & 2 below provide a log of all outages of the acid gas removal incinerators, including their causes, since 2019.

Table 1: AGI 1 Outages and Causes

ID	Outage Start	Outage Finish	Duration	Reason for AGI 1 Outage
	Date	Date	(Days)	
1	1/01/2019	20/01/2019	20	Transmitters full of water, replaced
	0:00	22:00		
2	4/02/2019	13/02/2019	9	Wider range transmitter install
	13:00	2:00		100
3	7/03/2019	21/06/2019	106	Internal inspection of burner + thermocouples replacement + 12N
	3:00	2:00		ESD
4	30/06/2019	12/07/2019	12	Investigate/adjust damper
	11:00	17:00	S	AL SO WELL WITH THE SEASON
5	13/07/2019	14/02/2020	215	Replace AGI Burner Tip & I228 Coatings Remediation
	19:00	0:00		
6	25/02/2020	29/02/2020	3	Transmitter calibration fault, check/calibrate
	14:00	0:00		8
7	17/05/2020	16/06/2020	30	Weld repairs (internal) to thermocouples + Positioner repair
	19:00	20:00		
8	19/07/2020	23/07/2020	5	Annual ESD (plant is test tripped)
	7:00	21:00		
9	29/11/2020	3/12/2020	5	Flow transmitter failed
	0:00	15:00	e	SEAN OF COMMISSIONS
10	13/01/2021	16/01/2021	4	Flow transmitter, calibrate
	4:00	18:00		
11	10/02/2021	26/02/2021	16	Flow transmitter calibrate. Replace stack inlet screen
	8:00	0:00		The state of the s
12	7/05/2021	11/05/2021	4	Line faults tripping unit, could not pinpoint root cause
	23:00	21:00	3	
13	16/06/2021	25/06/2021	9	Pilot ignitor fault
	6:00	8:00		
14	24/09/2021	27/09/2021	3	Vibration issue on valve damper
	12:00	19:00		2000 000 000 000 000 000 000 000 000 00
15	11/01/2022	9/05/2022	118	Transmitter repairs + Actuators Replacement
	10:00	0:00	13	
16	17/05/2022	12/09/2022	118	Exp. Joint failure + into Major Shutdown + vessel IVI's and repairs
	2:00	13:00		
17	28/09/2022	2/10/2022	4	Shutdown valve faulted
	7:00	3:00	8	
18	18/10/2022	21/10/2022	3	Faulty O2 Analyser on Acid Gas Furnace
	0:00	8:00		
19	25/11/2022	29/11/2022	4	Fuel gas valve fault
	9:00	19:00		
20	2/12/2022	20/10/2023	323	Air blower valve positioner snapped
	6:00	18:00	3	CONTRACTOR OF STREET,
21	24/10/2023	4/12/2023	41	Replace holed bellows (expansion joint)
	14:00	8:00		

22	24/12/2023 15:00	2/01/2024 10:00	9	Flame scanner faulting, tripping unit
23	8/01/2024 19:00	13/01/2024 22:00	5	Repair leak from regulator
24	3/02/2024 7:00	(Current Outage)	143+	Inspect/Repair loose air heater tubes

Table 2: AGI 2 Outages and Causes

ID	Outage Start	Outage Finish	Duration	Reason for AGI 2 Outage
	Date	Date	(Days)	
1	5/01/2019 23:00	17/01/2019 21:00	12	Replacement of control valve regulator
2	27/01/2019	31/01/2019	3	Damper limit indication fault
2	17:00	1:00	3	Damper limit mulcation fault
3	18/02/2019	22/02/2019	5	Transmitter faulted and would not allow unit to run in auto
	7:00	23:00	4.40	
4	6/03/2019 14:00	27/07/2019 20:00	143	Heat concerns, shut down for internal visual inspection
5	27/08/2019	30/08/2019	3	Oxygen analyser frozen + Control valve issues
	8:00	12:00	53%	a rate of the supersystem of the
6	6/09/2019	17/09/2019	11	Pressure control valve failure
	23:00	20:00	1111	ALTERNATION OF THE SACRES
7	19/10/2019	20/11/2019	31	Fan coupling failure
	23:00	0:00	17-100-01	The state of the s
8	23/11/2019	16/12/2019	23	Ignitor System Repair
	11:00	2:00	1	
9	18/12/2019	24/12/2019	6	Earth fault
	7:00	4:00	3444	
10	25/12/2019	29/12/2019	4	Flow Transmitter failed
	7:00	10:00		● 製造工芸者・場合できる社会の対象を含むない事業は必要ない。
11	25/01/2020	31/01/2020	5	Bleed air limit switch fault
	23:00	5:00		To and the second for the
12	2/03/2020	6/03/2020	4	Temperature element failure
	20:00	9:00		
13	23/03/2020	28/03/2020	5	Valve repair
	22:00	20:00	(2.4%)	
14	12/05/2020	25/05/2020	13	Replace failed valve positioner on
	16:00	11:00		*
15	17/06/2020	21/02/2021	249	Replace Expansion Joint
	4:00	6:00	A CONTRACTOR OF THE PARTY OF TH	Books - Specific to the state of a factor
16	27/06/2021	3/07/2021	7	Failed magnetic limit switch dislodged
	6:00	21:00	1000	
17	29/10/2021	1/11/2021	3	Repeated trips, failures to start, found switch needed adjusting
	7:00	13:00		
18	3/01/2022	6/01/2022	4	Flow transmitters L-, water in impulse lines
	5:00	21:00		PACKAGO AND
19	20/03/2022	29/04/2022	40	Replace Expansion Joint
	4:00	12:00		
20	17/05/2022	4/06/2022	19	Damper counterweights on loosened due to vibration
	2:00	20:00		
21	22/06/2022	16/08/2022	55	Major Shutdown, vessel IVI's and repairs
	4:00	3:00	Salter (Sec	Control and the State of the Action Telephone State Control and Co
22	3/11/2022	16/04/2024	530	Fan coupling failure defects rectification
	20:00	21:00	1500	THE RESERVE THE PROPERTY OF TH
23	19/04/2024	24/04/2024	5	Temperature trip transmitter failed
	9:00	15:00	3	THE THE PARTY WITH THE PARTY WAS TO SEE THE PARTY WAS THE PARTY WAS THE
24	27/04/2024	10/06/2024	44	Damper installed incorrectly, reverse
	16:00	23:00	E00	A CONTRACTOR OF THE PROPERTY O
25	13/06/2024	(Current	11+	Fan coupling failure B replacement, AGI expected to restart 28/6/24
	13:00	Outage)		50 CEC 16 W W

2. Could you please provide the total Volatile Organic Compound (VOC) monitoring data for air monitoring stations at Stokes Hill, Winnellie, and Palmerston, as well as monitoring data for benzene.

In accordance with Ichthys LNG environmental protection licence 228 (EPL228) air toxics, including VOCs, were monitored at Stokes Hill¹, Winnellie, and Palmerston for the first 24 months of ILNG steady state plant operations; between October 2019 and October 2021. This included monthly monitoring for the first 12 months and quarterly monitoring for the second 12 months. Results were required to be compared to the specified air toxics criteria in the *National Environment Protection (Air Toxics) Measure* (NEPM Air Toxics). Tables containing the raw laboratory data and converted data for comparison to NEPM Air Toxics are provided in Attachment 1. These monitoring results show that VOCs were below NEPM Air Toxics criteria. These results were endorsed by an independent third party as per EPL228 requirement. The air toxic monitoring program was ceased in accordance with EPL228. These monitoring results have been included in the three EPL228 Annual Environmental Monitoring Reports (AEMR) covering the October 2019 to October 2021 period and are publicly available on the Ichthys website.

During periods when both acid gas removal unit (AGRU) incinerators are not operational, INPEX conducts contingency quarterly ambient air toxic monitoring to verify that the VOCs at Frances Bay and outside boundary of ILNG plant (see Figure 1), are at safe levels by comparing the results to NEPM Air Toxics criteria. In December 2022 both AGIs were offline and were likely to remain offline for an extended period before they could safely be brought back online, as such quarterly contingency monitoring was implemented in Q1 2023. Due to ongoing issues with both AGIs INPEX has continued with quarterly monitoring. Results from this monitoring has detected no VOCs, including benzene, to date at either Frances Bay or the ILNG plant boundary. Monitoring results have been communicated to the NTEPA on a quarterly basis. Tables containing the raw laboratory data and converted data for comparison to NEPM Air Toxics are provided in Attachment 1.

A high-level summary of air toxic monitoring outcomes to date are provided in 3.



Figure 1: Ambient Air Toxic monitoring locations (red crosses) at ILNG fence boundary and Francis Bay near Darwin CBD.

¹ Stokes Hill air quality monitoring station was decommissioned in April 2021 and a new site established at Frances Bay.

Table 3: High-level summary of ambient air toxic results to date

Survey date	Results Summary	Reported to NT EPA				
First 24 months of steady state op-	erations at Palmerston, Stokes Hill, Winnellie					
October 2019						
November 2019						
December 2019						
January 2020						
February 2020		September 2020 (included in 2019-2020 AEMR)				
larch 2020 pril 2020		,				
April 2020						
May 2020						
June 2020	All results below NEPM Air Toxics criteria.					
July 2020						
August 2020						
September 2020		September 2021 (included in				
October 2020		2020-2021 AEMR)				
January 2021						
April 2021						
July 2021		September 2022 (included in				
October 2021		2021-2022 AEMR)				
Contingency monitoring at ILNG bo	oundary and Frances Bay while AGIs offline					
Q1 2023 (Feb 2023)		22 February 2023				
Q2 2023 (May 2023)		22 August 2023				
Q3 2023 (September 2023)	All In It I women's Total State Stat	25 September 2023				
Q4 2023 (December 2023)	All results below NEPM Air Toxics criteria.	21 December 2023				
Q1 2024 (March 2024)		3 April 2024				
Q2 2024 (June 2024)		26 June 2024				

3. Could you advise if there is total VOC monitoring data for INPEX Australia work sites? a. Is there air toxics monitoring for INPEX Australia work sites? (benzene, PAH, formaldehyde, toluene, xylenes)

As mentioned in response to Question 2, ambient air toxic monitoring has and continues to be carried out at Ichthys LNG. Results are discussed in response to Question 2 and shown in Attachment 1.

INPEX carries out Worker Exposure Monitoring for BTEX at our onshore and offshore facilities. Specifically, at the ILNG plant near Darwin, INPEX has collected data on BTEX exposure levels to workers at various work locations onsite. This is done to ensure levels are within acceptable exposure standards (see response to Questions 4 relating to methodology and Question 5 relating to results). Figure 2 provides an illustration of the six exposure monitoring locations around the AGIs, within the ILNG Plant.

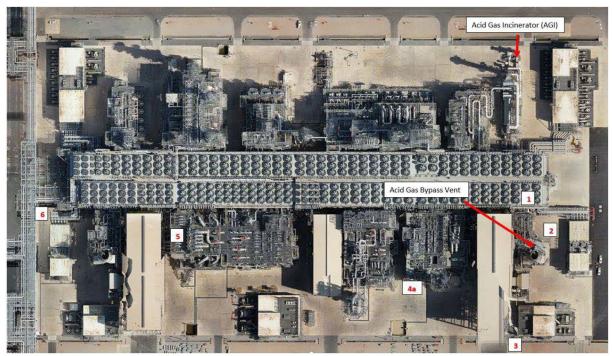


Figure 2: Static Worker Exposure Monitoring locations at ILNG

4. What are INPEX Australia's procedures for determining if the air quality is dangerous for humans on site, and how hazardous air quality is determined?

The following documents outline the business requirements and processes for determining whether air quality is hazardous and dangerous for humans at site:

- Occupational Health and Hygiene Standard (0000-AH-STD-60018 section 1.2)
- Health Exposure Assessment Procedure (0000-AH-PRC-60022)
- Health Exposure Assessment Guideline (0000-AH-GLN-60027)

These documents and relevant Australian Standards and Safe Work Australia guidance (e.g. Workplace Exposure Standards for Airborne Contaminants) provide the processes to ensure a safe work environment where health risks are managed to as low as reasonably practicable. From a high-level perspective, the steps detailed within these processes include:

1. Develop an occupational exposure monitoring plan in accordance with the National Institute for Occupational Safe and Health (NIOSH) methodology,

- 2. Undertake a sampling plan in accordance with Australian and international standards and methodologies,
- 3. Send samples to National Association for Testing Authorities (NATA) accredited laboratory for analysis,
- 4. Review results against the Safe Work Australia Workplace Exposure Standards for Airborne Contaminants Standard,
- 5. Conduct a statistical analysis to revise similar exposure group hazardous contaminants and determination of following years plan.

Company documents referenced can be provided upon request.

5. Please provide any air quality reports sent to NT Worksafe from occupation hygiene reports.

Whilst Occupational hygiene reports (i.e.: exposure monitoring data or health exposure assessment reports) are not currently a regulatory requirement under NT WorkSafe please see Table 4 of Hygiene Monitoring results undertaken at INPEX Darwin site over the past 7 years.

All workers are randomly selected, and testing is conducted throughout the year to ensure different tasks and variations are captured. In addition to this occupational monitoring, task monitoring is conducted to ensure control effectiveness is maintained.

Table 4: Occupational Hygiene Exposure Monitoring

Survey Date	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylene (ppm)
Workplace Exposure Standard	1ppm	50ppm	100ppm	80ppm
2018	<10% WES	<10% WES	<10% WES	<10% WES
2019	<10% WES	<10% WES	<10% WES	<10% WES
2020	<10% WES	<10% WES	<10% WES	<10% WES
2021	<10% WES	<10% WES	<10% WES	<10% WES
2022	<10% WES	<10% WES	<10% WES	<10% WES
2023	<10% WES	<10% WES	<10% WES	<10% WES
2024 year to date	<10% WES	<10% WES	<10% WES	<10% WES

6. Please provide details of all reports of injury or health impacts to workers on site.

INPEX has a robust Incident & Injury/Illness reporting system which incorporates a structured and methodical investigation process. We have fostered a strong reporting culture and focus on SMART (specific, measurable, achievable, relevant, time-based) actions to address findings.

Please see Table 5 for a summary of all the injury & health related recordable events at the INPEX-operated ILNG site near Darwin since operations commenced, noting that 2017/2018 was a period of transition to operations from project delivery. It is pertinent to highlight that none of the reported injury/illnesses listed below are related to VOC emissions or air toxicity. Specific details of each/any event can be provided on request.

Table 5: Summary of Incidents at Ichthys LNG site since production started in 2018

Year	No Treatment	First Aid Illness	First Aid Injury	Medical Treatment Illness	Medical Treatment Injury	Alternative Duties Illness	Alternative Duties Injury	Lost Time Injury	Fatality
2018 Ichthys LNG	11		353		14		11	3	
2019 Ichthys LNG	11		79		1		2	2	
2020 Ichthys LNG		3	34		1		10	1	
2021 Ichthys LNG	5	3	33	1	1	3	13	2	
2022 Ichthys LNG	4	5	36	1	3		7	1	
2023 Ichthys LNG	1	5	23	1	2	1	2		
2024 Ichthys LNG	1	5	9		1		1	2	

Concluding remarks

INPEX has collected air emissions data in the near-field, mid-field, and far-field to verify that emissions are within acceptable levels. To date, monitoring of VOCs has demonstrated that air quality is within acceptable levels. See Table 6 for a high-level overview.

Table 6: overview of nearfield, midfield and far-field monitoring programs and results.

Field	Program	Findings
Near-field (within site boundary)	Worker exposure monitoring for BTEX compounds and H ₂ S	All static (area monitoring) results collected between 2019 to 2024 have been less than 10% of the corresponding workplace exposure standards.
Mid-field (on site boundary)	Ambient air toxic monitoring at ILNG Security Fence	All results below NEPM Air Toxics criteria.
Far-field (within the community)	Ambient air toxic monitoring at Frances Bay, Winnellie, Palmerston, and Stokes Hill Wharf	

Attachment 1 - Ambient Air Toxic Monitoring data

Table 7 presents the raw laboratory VOC data for all sites collected to date by INPEX for Ichthys LNG. Values preceded by a less than symbol '<' indicate results were below the laboratory limit of reporting (LOR), which is the lowest concentration that a laboratory can report. Note the values in Table 5 are presented in $\mu g/m^3$, whereas NEPM Air Toxics criteria is in parts per million (ppm). Therefore, to compare results to NEPM Air Toxics criteria the data in Table 5 must be converted to ppm, this conversion takes into account the molecular weight of each substance. Table 6 presents the data in Table 5 but as ppm, and for the purposes of converting the data from $\mu g/m^3$ to ppm, the LOR was used where results were below laboratory LOR.

Table 7: Laboratory VOC data in μg/m³

BTEX		Ber	izene (μg	/m³)			Tol	uene (μg,	/m³)			m.p-	Xylene (µ	ıg/m³)			o-X	ylene (μg	/m³)	
Sample date	Palmerston	Stokes Hill	Frances Bay	Winnellie	ILNG	Palmerston	Stokes Hill	Frances Bay	Winnellie	ILNG	Palmerston	Stokes Hill	Frances Bay	Winnellie	ILNG	Palmerston	Stokes Hill	Frances Bay	Winnellie	ILNG
16-Aug-19	<2	<2	- 2	<2		<7.5	<7.5	-	<7.5	17/8	<6	<6	-	<6	378	<3	<3	1.5%	<3	- S
12-Sep-19	<2	<2	15	<2	100	<7.5	<7.5	-	<7.5	-	<6	<6	e	<6	100	<3	<3		<3	:::
10-Oct-19	<2	<2	-	<2	196	<7.5	<7.5	-	<7.5	-	<6	<6	-	<6	-0	<3	<3	-	<3	300
6-Nov-19	<2	<2	P	<2	20	<7.5	<7.5	-	<7.5	120	<6	<6	-	<6	-	<3	<3	323	<3	-
11-Dec-19	<3	<3	2	<3	20	<7.5	<7.5	12	<7.5	-	<8	<8	=	<8	(2)	<4	<4	-	<4	921
24-Jan-20	<1.6	<1.6	-	<1.6	5:	<7.5	<7.5	ē	<7.5	178	<4.4	<4.4	9	<4.4	578	<2.2	<2.2	378	<2.2	
7-Feb-20	<2	<2	-	<2		<7.5	<7.5	:=	<7.5	-	<6	<6	[e	<6	-	<3	<3		<3	-
20-Mar-20	<2	<2	-	<2	140	<7.5	<7.5		<7.5	-	<6	<6	-	<6		<3	<3		<3	=
17-Apr-20	<2	<2	~	<2		<7.5	<7.5	-	<7.5	-	<6	<6	-	<6	-	<3	<3		<3	-
19-May-20	<2	<2	2	<2	2	<7.5	<7.5	; <u>a</u>	<7.5	-	<6	<6	2	<6	-	<3	<3	-	<3	121
17-Jun-20	<2	<2	2	<2	23	<7.5	<7.5	2	<7.5	28	<6	<6	4	<6	22	<3	<3	25	<3	820
24-Jul-20	<2	<2	-	<2		<7.5	<7.5	:=	<7.5	-	<6	<6		<6	-	<3	<3	-	<3	151
24-Aug-20	<2	<2	15	<2		<7.5	<7.5	Œ	<7.5	1,000	<6	<6	æ	<6	100	<3	<3	:=:	<3	-
18-Sep-20	<2	<2	-	<2	-	<7.5	<7.5	-	<7.5	-	<6	<6	-	<6	-	<3	<3	-	<3	·
19-Oct-20	4.4	<2	12	<2	120	<7.5	<7.5	12	<7.5	120	<6	<6	-	<6	-	<3	<3	3-3	<3	14
20-Jan-21	<2	<2	2	<2	23	<7.5	<7.5	82	<7.5	28	<6	<6	84	<6	2.5	<3	<3	23	<3	828
29-Apr-21	<3	(5)	<3	<3	58	<7.5	356	<7.5	<7.5	17/8	<7		<7	<8	378	<4	85	<4	<4	
16-Jul-21	<2	-	<2	<2	-	<7.5	S#2	<7.5	<7.5		<6	252	<6	<6		<3	:=	<3	<3	:=:
14-Oct-21	7.1	100	<3	<3	-	17	.*:	<7.5	<7.5	1900	15		<8	<8	(- -0)	5.3	-e	<4	<4	æ

BTEX		Ben	zene (μg/	m³)			Tol	uene (μg/	m³)			m.p-	Xylene (μ	g/m³)			o-X	ylene (µg	/m³)	
Sample date	Palmerston	Stokes Hill	Frances Bay	Winnellie	ILNG	Palmerston	Stokes Hill	Frances Bay	Winnellie	ILNG	Palmerston	Stokes Hill	Frances Bay	Winnellie	ILNG	Palmerston	Stokes Hill	Frances Bay	Winnellie	ILNG
3-Feb-23	÷	793	<3	100	<3	3	3=0	<7.5	=	<7.5	Э	-	<8	-	<9)B	-	<3	-	<3
22-May-23	2:	12-1	<3	929	<3	~	120	<14	-	<14	-	823	<8	21	<8	-		<4	2	<4
5-Sep-23	29	(52)	<3	723	<2	8	321	<13	٥	<11	2		<7	2	<7	8	220	<4	2	<3
14-Dec-23	ē.	(5)	<3	352	<3	8		<13	-	<13	8		<7	- 2	<7	ā	5.70	<4	-	<4
20-Mar-24	76	175	<3	1.50	<3	- a	-	<12	-2	<12	5	1875	<7	<u></u>	<7	-	1.0	<4	-	<4
5-Jun-24	+:	100	<3	9.0	<3	8	380	<14		<16	9	5-1	<8	-	<9		-	<4	-	<5

Table 6: Converted VOC data to ppm

			Benzene					Toluene			13	Xylene (tota	l of ortho, m	eta and para	
Sample date	Palmerston	Stokes Hill	Frances Bay	Winnellie	ILNG	Palmerston	Stokes Hill	Frances Bay	Winnellie	ILNG	Palmerston	Stokes Hill	Frances Bay	Winnellie	IING
16-Aug-19	0.0006	0.0006	70	0.0006	5/20	0.002	0.002		0.002	859	0.002	0.002	-	0.002	175
12-Sep-19	0.0006	0.0006	-	0.0006	1,51	0.002	0.002		0.002	14774	0.002	0.002	:=	0.002	196
10-Oct-19	0.0006	0.0006	190	0.0006	1,50	0.002	0.002		0.002		0.002	0.002	-	0.002	9 7 .3
6-Nov-19	0.0006	0.0006	-	0.0006		0.002	0.002	- 2	0.002	(m)	0.002	0.002	*	0.002	(+)
11-Dec-19	0.0009	0.0009	(4)	0.0009	-6	0.002	0.002	- 14	0.002	96	0.003	0.003	+	0.003	1947
24-Jan-20	0.0005	0.0005	-	0.0005	:27	0.002	0.002	-	0.002	321	0.002	0.002	=	0.002	8 -2 3
7-Feb-20	0.0006	0.0006	2	0.0006	- 21	0.002	0.002	2	0.002	1924	0.002	0.002	-	0.002	323
20-Mar-20	0.0006	0.0006	28	0.0006	220	0.002	0.002	- 6	0.002	82	0.002	0.002	2	0.002	949
17-Apr-20	0.0006	0.0006	576	0.0006	570	0.002	0.002	a a	0.002	859	0.002	0.002	-	0.002	878
19-May-20	0.0006	0.0006	-	0.0006	1,51	0.002	0.002		0.002	1977	0.002	0.002	:=	0.002	275
17-Jun-20	0.0006	0.0006	-	0.0006	1.50	0.002	0.002	e e	0.002		0.002	0.002	-	0.002	9 1 3
24-Jul-20	0.0006	0.0006	-	0.0006	00	0.002	0.002	- *	0.002	(e)	0.002	0.002		0.002	(+)
24-Aug-20	0.0006	0.0006	*	0.0006	- 6	0.002	0.002	>=	0.002	38	0.002	0.002	-	0.002	19-71
18-Sep-20	0.0006	0.0006	120	0.0006	:37	0.002	0.002	-	0.002	323	0.002	0.002	=	0.002	(40
19-Oct-20	0.0014	0.0006	20	0.0006	121	0.002	0.002	12	0.002	1924	0.002	0.002	-	0.002	323
20-Jan-21	0.0006	0.0006	28	0.0006	229	0.002	0.002	- 4	0.002	82	0.002	0.002	2	0.002	9400
29-Apr-21	0.0009	(5)	0.0009	0.0009	1578	0.002	578	0.002	0.002	859	0.003		0.003	0.003	8754

			Benzene					Toluene			×	(ylene (tota	of ortho, m	eta and para)
Sample date	Palmerston	Stokes Hill	Frances Bay	Winnellie	IING	Palmerston	Stokes Hill	Frances Bay	Winnellie	IING	Palmerston	Stokes Hill	Frances Bay	Winnellie	IING
16-Jul-21	0.0006	1.51	0.0006	0.0006	18	0.002	(B)	0.002	0.002	1979	0.002	E	0.002	0.002	335
14-Oct-21	0.0022	1000	0.0009	0.0009	1.50	0.005	350	0.002	0.002	0.50	0.005	æ	0.003	0.003	553
3-Feb-23		100	0.0009	-	0.0009		(-)	0.002	(-	0.002	-	>-	0.003	39	0.003
22-May-23	10.1	. 19 8	0.0009	-	0.0009	¥		0.004	-	0.004	-	- 34	0.003	3-0	0.003
5-Sep-23	(6)	320	0.0009	=	0.0006	(2)	12.5	0.003	(2)	0.003	2	9	0.003	120	0.002
14-Dec-23	21	123	0.0009	28	0.0009	2 2	323	0.003	12	0.003	2	82	0.003	1/27	0.003
20-Mar-24	87	(E)	0.0009	- 5	0.0009	2	25	0.003	927	0.003	2]	5	0.003	821	0.003
5-Jun-24	(5.)	(20)	0.0009	-	0.0009	-	573	0.004	8573	0.004			0.003		0.003