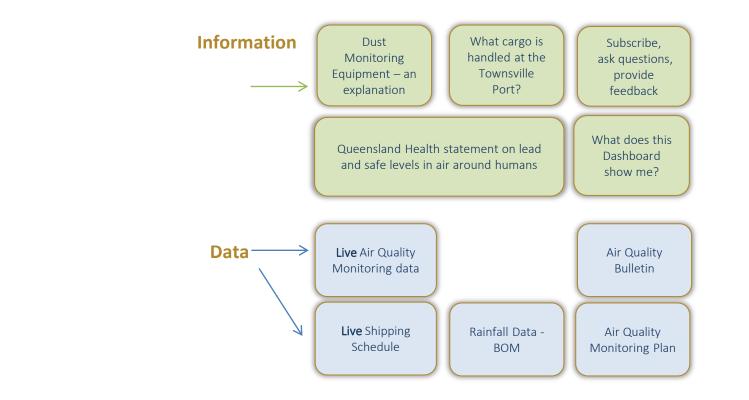


# Air Quality Dashboard | DECEMBER | 2020

## **AIR QUALITY MONITORING IN TOWNSVILLE**

Air Quality Monitoring in Townsville is conducted separately by both the Department of Environment and Science (DES), and Port of Townsville Limited.



Click here to visit the Port of Townsville's monitoring network

Click here to visit DES monitoring network



## **Shipping Movements in December 2020**

Date In/Out	Vessel Name	Cargo	Berth	Date In/Out	Vessel Name	Cargo	Berth
30 Nov - 01 Dec	GOLDEN RESOLUTION	Nil Cargo (Export), Fuels (Import)	T01	16 Dec - 17 Dec	CRYSTAL ISLAND	Zinc Concentrates (Export), Nil Cargo (Import)	T08
01 Dec - 11 Dec	SPAR VIRGO	Nil Cargo (Export), Zinc Concentrates (Import)	T10	16 Dec - 16 Dec	HESTIA LEADER	Nil Cargo (Export), Motor Vehicles (Import)	T04
02 Dec - 04 Dec	LAE CHIEF	Containers (Export), Concentrates (Import)	T04	16 Dec - 17 Dec	FLORIDA HIGHWAY	Nil Cargo (Export), Motor Vehicles (Import)	T03N
03 Dec - 03 Dec	CALIFORNIA HIGHWAY	Nil Cargo (Export), Motor Vehicles (Import)	T03N	16 Dec - 20 Dec	ANACAPA LIGHT	Zinc Ferrites (Export), Nil Cargo (Import)	T10
03 Dec - 05 Dec	ARDMORE SEAFOX	Nil Cargo (Export), Fuels (Import)	T01	17 Dec - 19 Dec	LILSTELLA	Nil Cargo (Export), Bitumen (Import)	T04
04 Dec - 04 Dec	LAE CHIEF	Nil Cargo (Export), Nil Cargo (Import)	Т08	17 Dec - 19 Dec	PLOVER ARROW	Zinc Concentrates (Export), Nil Cargo (Import)	T08
04 Dec - 06 Dec	KONDILI	Nil Cargo (Export), Nil Cargo (Import)	T04	19 Dec - 20 Dec	GREYMAN EXPRESS	Cattle (Export), Nil Cargo (Import)	T04
04 Dec - 07 Dec	TRAMMO INDEPENDENT	Nil Cargo (Export), Fodder (Import)	Т09	20 Dec - 21 Dec	AUROCHS	Cattle (Export), Nil Cargo (Import)	T04
04 Dec - 06 Dec	FLORA DELMAS	Containers (Export), Containers (Import)	T03S	20 Dec - 21 Dec	DORIC BREEZE	Nil Cargo (Export), Fuels (Import)	T01
06 Dec - 07 Dec	PACIFIC CONDOR	Nil Cargo (Export), Containers (Import)	T03N	20 Dec - 21 Dec	ANACAPA LIGHT	Lead Concentrates (Export), Nil Cargo (Import)	T08
06 Dec - 08 Dec	THE JUDGE	Nil Cargo (Export), Bitumen (Import)	T01	21 Dec - 23 Dec	STOLT HAGI	Sulphuric Acid (Export), Nil Cargo (Import)	T01
06 Dec - 07 Dec	SOUTHERN QUOKKA	Nil Cargo (Export), Caustic Soda (Import)	T04	22 Dec - 24 Dec	KEN SPIRIT	Zinc Concentrates (Export), Nil Cargo (Import)	T03S
08 Dec - 08 Dec	GELBRAY EXPRESS	Cattle (Export), Nil Cargo (Import)	T04	22 Dec - 23 Dec	BLUE BALESTIER	Fertilizer (Export), Nil Cargo (Import)	T08
08 Dec - 09 Dec	GRAND ACE7	Nil Cargo (Export), Fuels (Import)	T01	22 Dec - 24 Dec	ZEPHYR VENTURE	Nil Cargo (Export), Urea (Import)	T10
09 Dec - 10 Dec	THERESA MICRONESIA	Molasses (Export), Nil Cargo (Import)	Т09	22 Dec - 23 Dec	TOKYO TRADER	Containers (Export), Containers (Import)	T04
10 Dec - 12 Dec	TRAMMO INDEPENDENT	Zinc Concentrates (Export), Nil Cargo (Import)	T03S	23 Dec - 24 Dec	KOTA HARUM	Containers (Export), Containers (Import)	T04
10 Dec - 11 Dec	BEAGLE	Nil Cargo (Export), Fuels (Import)	T01	23 Dec - 26 Dec	SEA HAWK	Zinc Concentrates (Export), Nil Cargo (Import)	T08
11 Dec - 12 Dec	ARDMORE SEAFARER	Nil Cargo (Export), Fuels (Import)	T01	24 Dec - 27 Dec	KEN SPIRIT	Nil Cargo (Export), Nil Cargo (Import)	T03S
11 Dec - 13 Dec	KONDILI	Nil Cargo (Export), Cement (Import)	T04	25 Dec - 28 Dec	GLADIATOR	Sugar (Export), Nil Cargo (Import)	Т09
12 Dec - 14 Dec	SPAR VIRGO	Sugar (Export), Nil Cargo (Import)	Т09	26 Dec - 26 Dec	KYOWA ROSE	General Cargo (Export), Containers (Import)	T03N
12 Dec - 14 Dec	GOLDEN MIND	Sulphuric Acid (Export), Nil Cargo (Import)	T01	26 Dec - 31 Dec	SEA HAWK	Lead Concentrates (Export), Nil Cargo (Import)	T11
13 Dec - 13 Dec	GRAND DOLPHIN	Nil Cargo (Export), Motor Vehicles (Import)	T03N	26 Dec - 30 Dec	KYOWA ROSE	Nil Cargo (Export), Nil Cargo (Import)	T03N
13 Dec - 14 Dec	VENUS LEADER	Nil Cargo (Export), Motor Vehicles (Import)	T10	28 Dec - 28 Dec	HAMBURG HIGHWAY	Nil Cargo (Export), Motor Vehicles (Import)	T04
13 Dec - 15 Dec	TRAMMO INDEPENDENT	Nil Cargo (Export), Nil Cargo (Import)	T11	28 Dec - 29 Dec	SOFRANA TOURVILLE	Containers (Export), Containers (Import)	T03S
14 Dec - 15 Dec	DRY BEAM NEO	Nil Cargo (Export), Nil Cargo (Import)	Т08	29 Dec - 30 Dec	NOUMEA CHIEF	Containers (Export), Containers (Import)	T10
14 Dec - 15 Dec	GANADO EXPRESS	Cattle (Export), Nil Cargo (Import)	T04	31 Dec - 31 Dec	HANSA CLOPPENBURG	Nil Cargo (Export), Containers (Import)	T04
14 Dec - 16 Dec	CHEKIANG	Containers (Export), Containers (Import)	T10				





First established in 1864, the Port of Townsville operates eight berths handles around \$8 billion in trade; servicing more than 136 ports around the globe.

Port of Townsville Overview In 2019-20, the Port of Townsville delivered strong financial results and continued to roll-out major infrastructure investments despite the impacts of the global pandemic, COVID-19. In a year where supply chains across the world have been tested, a total of 8.2 million tonnes of freight passed over our wharves, which was a 6.5 per cent increase on last year. With a focus on cost management, the Port also reported a \$13.87 million net profit for 2019/20, see the Annual Report.

The role of mining, resources and agricultural industries have never been more significant with our growth primarily driven by exports of mineral concentrates (up 17%), fertiliser (up 25%) and livestock (up 32%), making it Australia's largest live cattle export port. Townsville is the number one port in Australia for copper, zinc, lead and sugar exports and services 70% of the Northern Australia population. More than 20 shipping lines operate out of the Townsville Port offering more than 40 different services. Townsville is also a strategic Navy port and facilitates cruise ship visits.

Commodities/cargo that passes over the Townsville Port's berths include:

Imports Containers and general cargo, motor vehicles, tyres, bulk products - cement, sulphuric acid, fertiliser, sulphur, zinc concentrate and petroleum (fuel) products.

### **PORT®TOWNSVILLE**

#### Exports

General cargo, containers, timber, cattle, tallow, refined metal products, bulk products - sugar, molasses, fertiliser and mineral concentrates (zinc, copper, lead).

## **Subscribe to Dashboard Updates**

Visit our website and subscribe here <a href="https://www.townsville-port.com.au/environment-community/community/newsletter-sign-up/">https://www.townsville-port.com.au/environment-community/community/newsletter-sign-up/</a>

#### OR

Visit the <u>Port of Townsville Facebook page</u> and click on "Sign up" at the top of the page.

#### OR

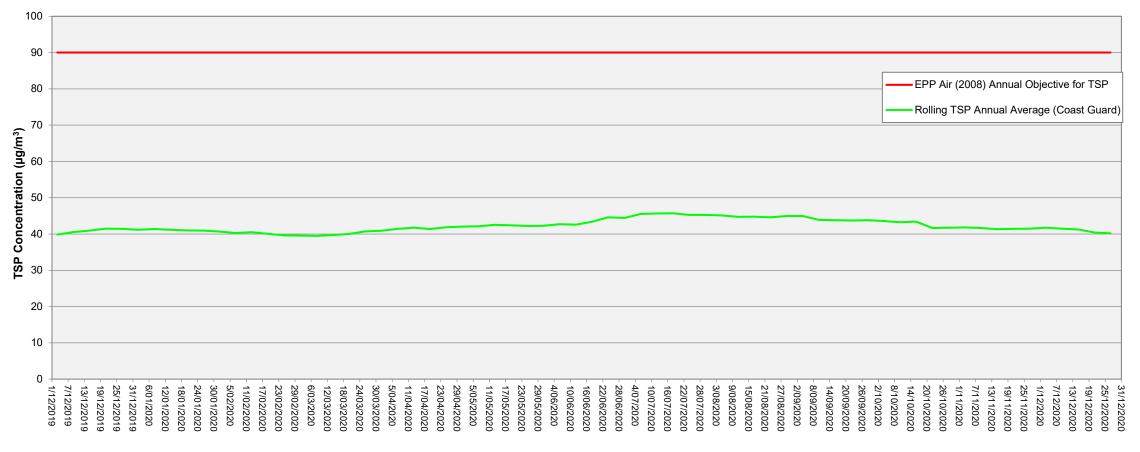
Phone 07 4781 1500 and asked to be added to the list.

## Ask a Question / Provide Feedback

Send your enquiry or feedback to community@townsvilleport.com.au



### Hi-Volume Sampler – General total dust levels (one in six days) at Coast Guard Site DECEMBER 2019 – DECEMBER 2020



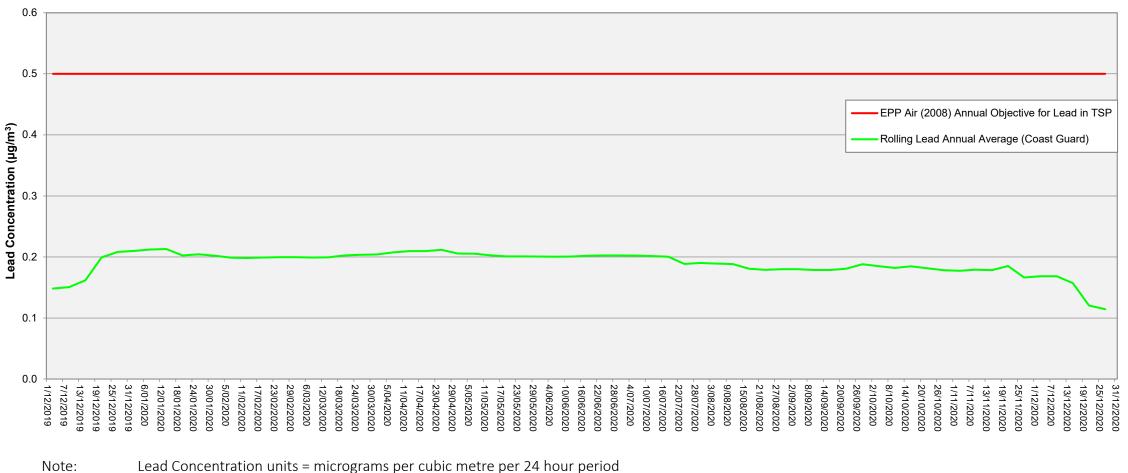
Note:

TSP Concentration units = micrograms per cubic metre per 24 hour period

Rolling annual average = the moving average of the previous 11 results and the current result



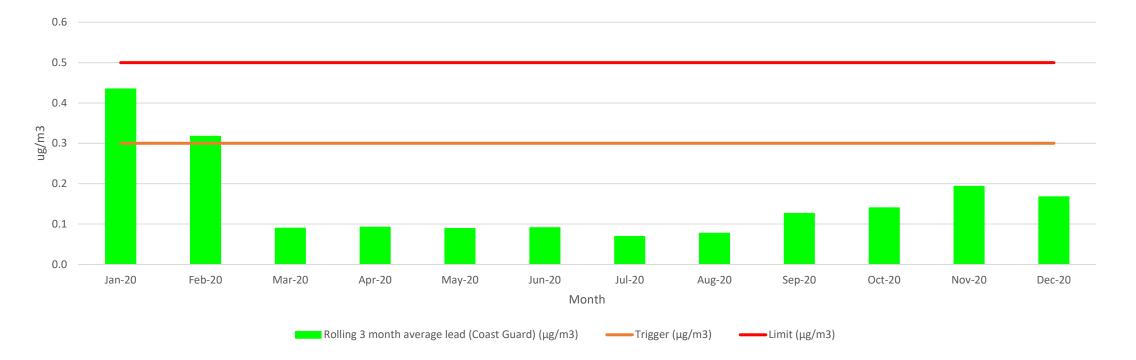
# Hi-Volume Sampler – Lead in dust levels (one in six days) at Coast Guard Site DECEMBER 2019 – DECEMBER 2020



Rolling annual average = the moving average of the previous 11 results and the current result



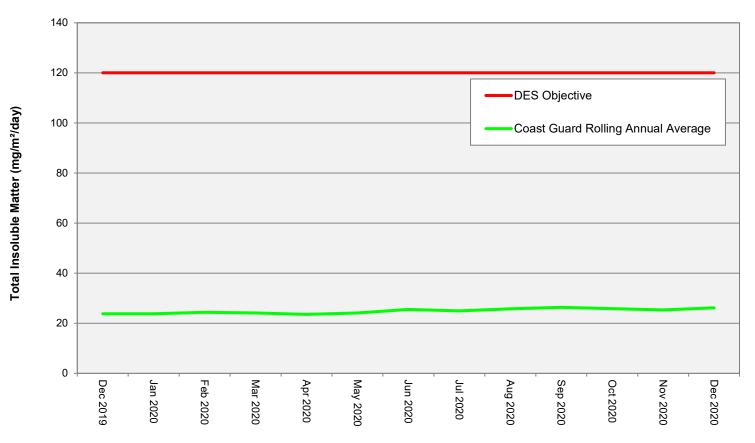
## Hi-Volume Sampler - Lead in dust levels (one in six days) at Coast Guard Site 2020



Note: Rolling 3 month average = the moving average of the previous 2 months and the current month result



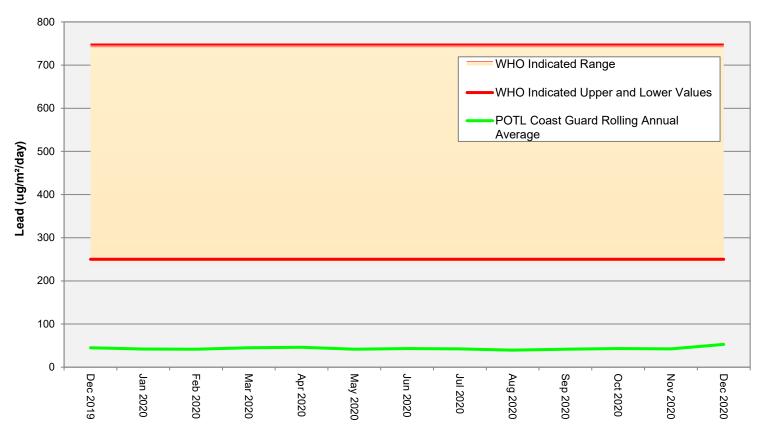
### Dust Deposition Gauge – General dust deposition levels (monthly) at Coast Guard Site DECEMBER 2019 – DECEMBER 2020



Note: Total Insoluble Matter Concentration units = micrograms per square metre per day Rolling annual average = the moving average of the previous 11 results and the current result



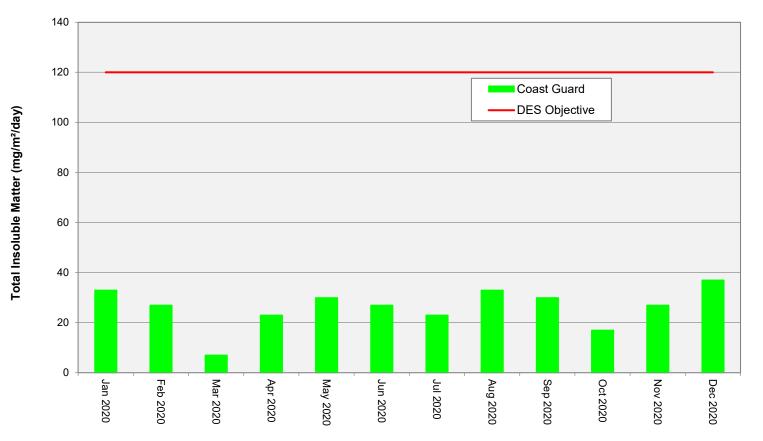
### Dust Deposition Gauge – Lead in dust deposition levels (monthly) at Coast Guard Site DECEMBER 2019 – DECEMBER 2020



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## Dust Deposition Gauge – General dust deposition levels (monthly) at Coast Guard Site

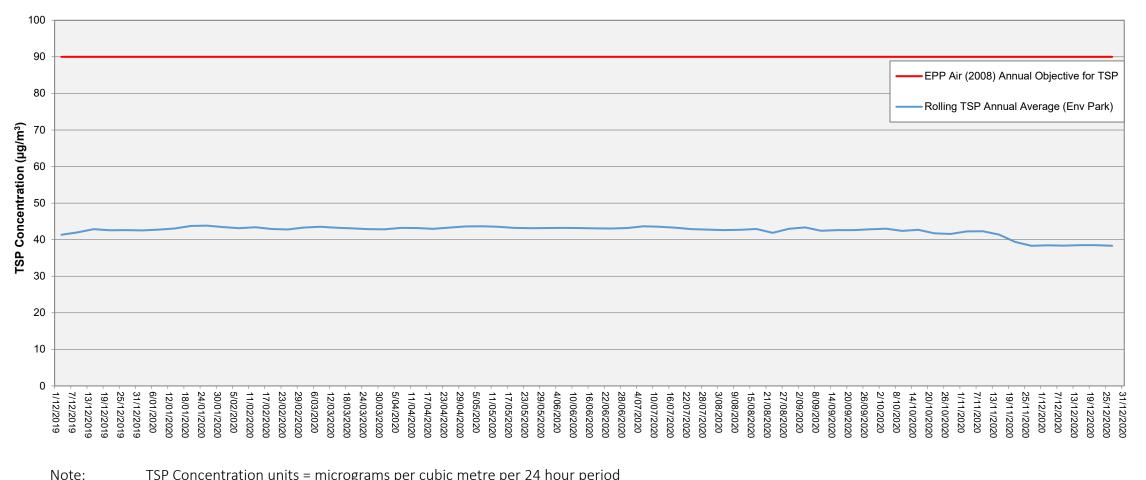


2020

Note: Total Insoluble Matter Concentration units = milligrams per square metre per day



### Hi-Volume Sampler - General total dust levels (one in six days) at Environment Park site DECEMBER 2019 – DECEMBER 2020

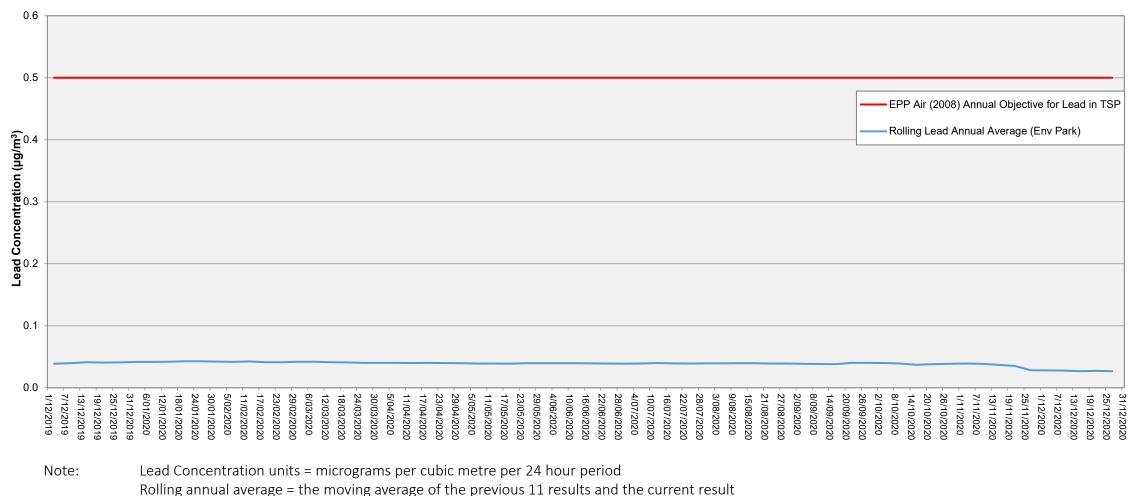


TSP Concentration units = micrograms per cubic metre per 24 hour period

Rolling annual average = the moving average of the previous 11 results and the current result

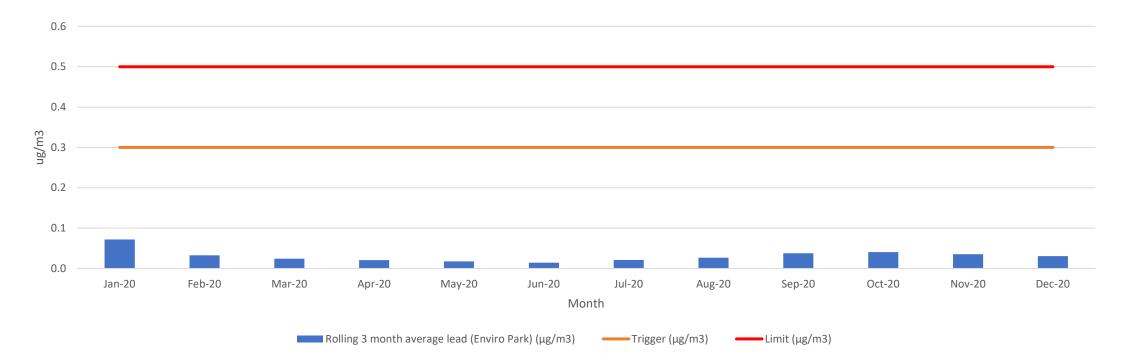


### Hi-Volume Sampler - Lead in dust levels (one in six days) at Environment Park site DECEMBER 2019 – DECEMBER 2020



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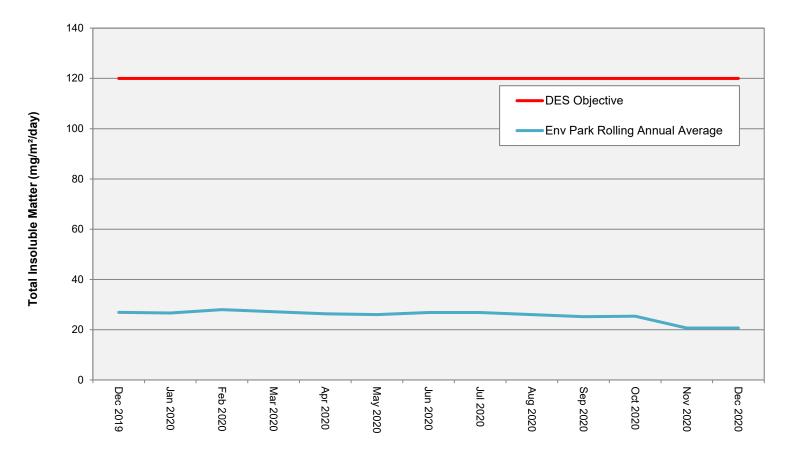
## Hi-Volume Sampler - Lead in dust levels (one in six days) at Environment Park site 2020



Note: Rolling 3 month average = the moving average of the previous 2 months and the current month result



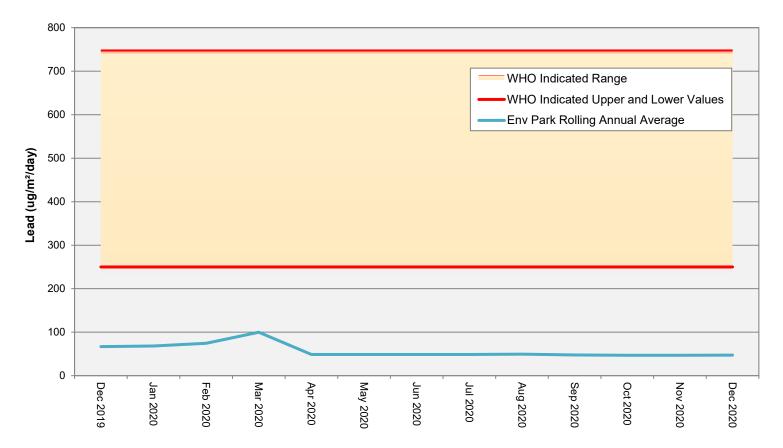
### Dust Deposition Gauge - General dust deposition levels (monthly) at Environment Park site DECEMBER 2019 – DECEMBER 2020



Note: Total Insoluble Matter Concentration units = micrograms per square metre per day Rolling annual average = the moving average of the previous 11 results and the current result



### Dust Deposition Gauge – Lead in dust deposition levels (monthly) at Environment Park site DECEMBER 2019 – DECEMBER 2020

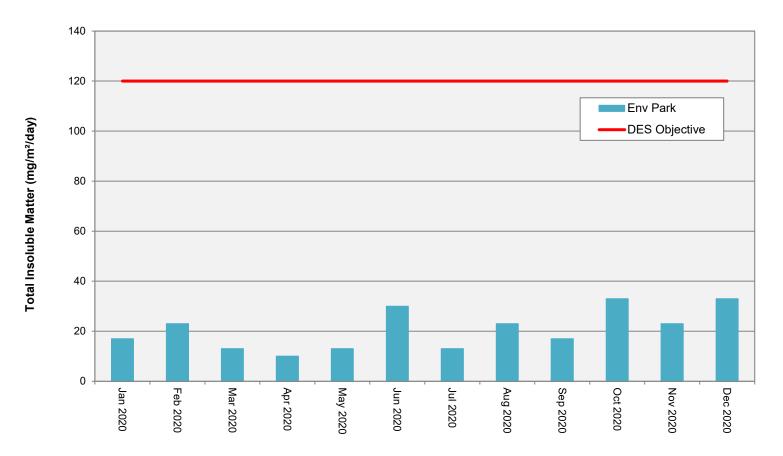


Note:

Lead Concentration units = micrograms per square metre per day Rolling annual average = the moving average of the previous 11 results and the current result



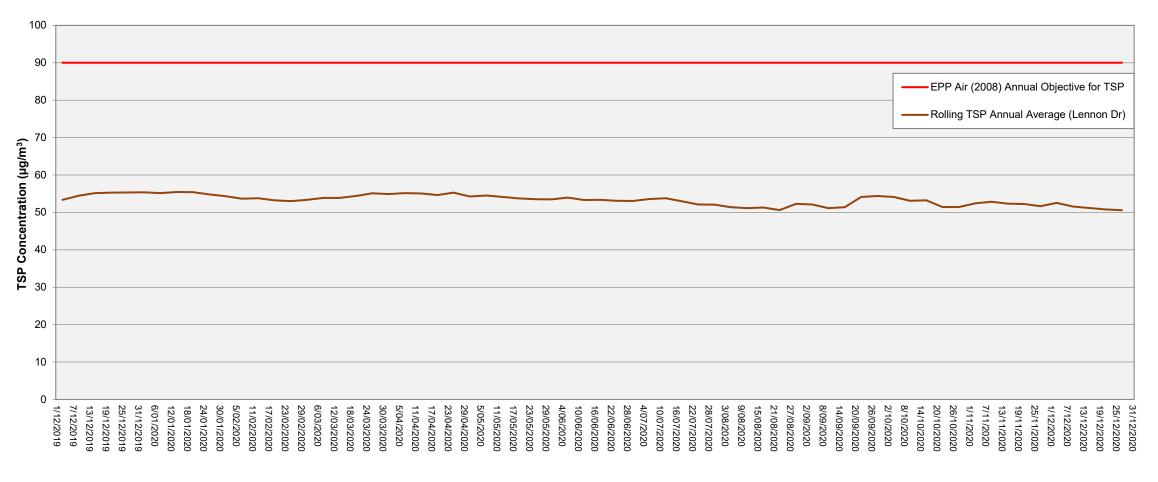
# Dust Deposition Gauge – General dust deposition levels (monthly) at Environment Park Site 2020



Note: Total Insoluble Matter Concentration units = milligrams per square metre per day



# Hi-Volume Sampler - General total dust levels (one in six days) at Lennon Drive site DECEMBER 2019 – DECEMBER 2020



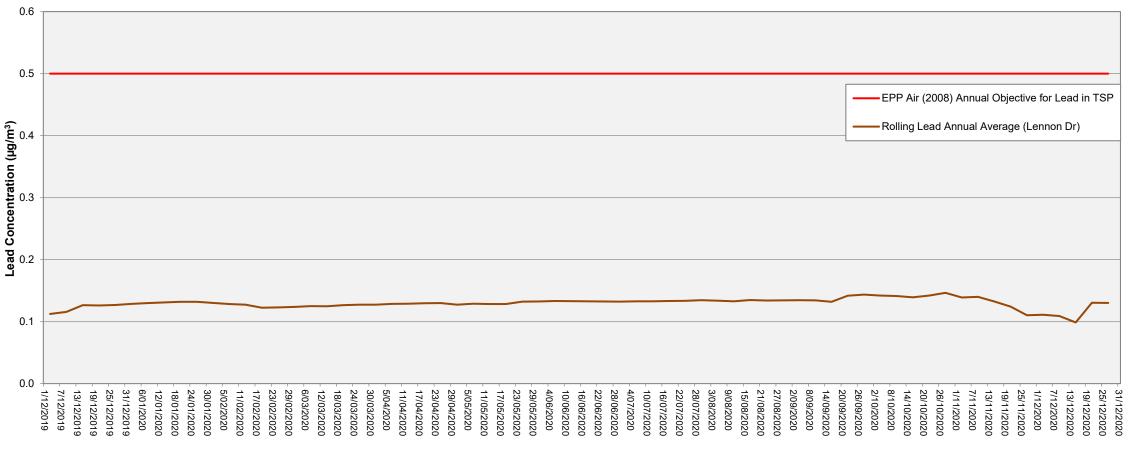
Note:

**PORT•TOWNSVILLE** 

TSP Concentration units = micrograms per cubic metre per 24 hour period

Rolling annual average = the moving average of the previous 11 results and the current result

# Hi-Volume Sampler - Lead in dust levels (one in six days) at Lennon Drive Site DECEMBER 2019 – DECEMBER 2020



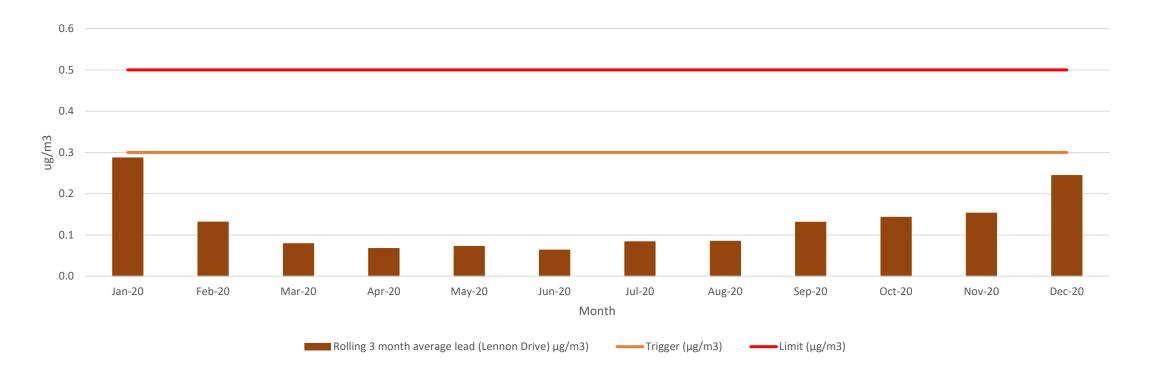
Lead Concentration units = micrograms per cubic metre per 24 hour period

Rolling annual average = the moving average of the previous 11 results and the current result



Note:

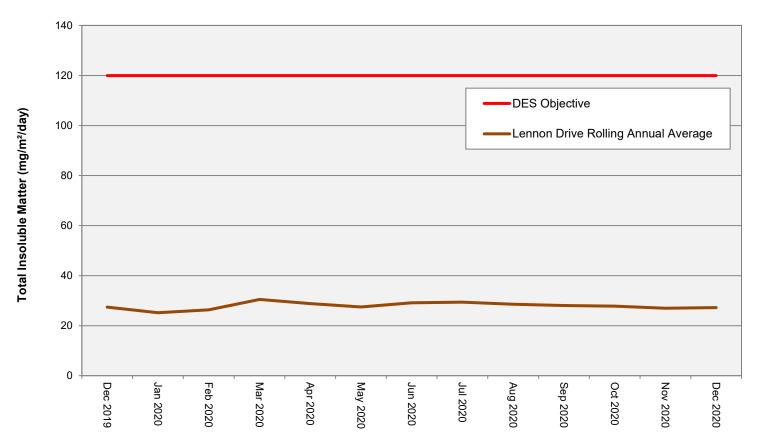
## Hi-Volume Sampler - Lead in dust levels (one in six days) at Lennon Drive Site 2020



Note: Rolling 3 month average = the moving average of the previous 2 months and the current month result



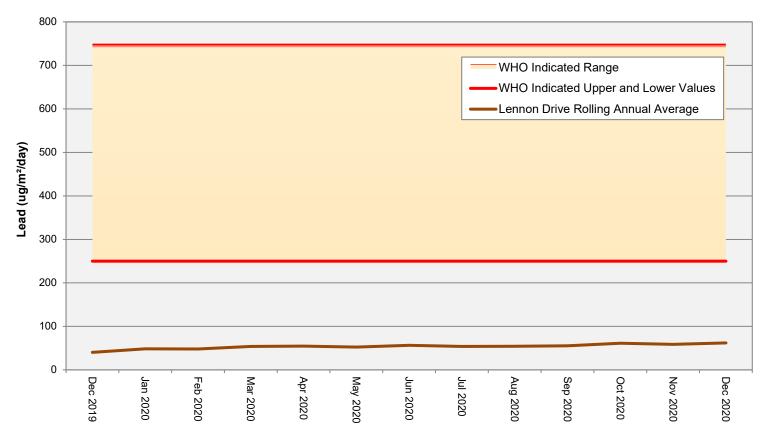
### Dust Deposition Gauge - General dust deposition levels (monthly) at Lennon Drive Site DECEMBER 2019 – DECEMBER 2020



Note: Total Insoluble Matter Concentration units = micrograms per square metre per day Rolling annual average = the moving average of the previous 11 results and the current result



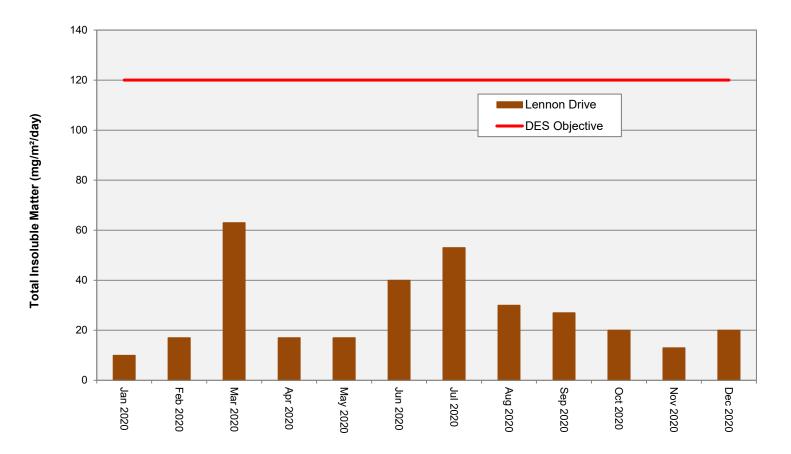
### Dust Deposition Gauge – Lead in dust deposition levels (monthly) at Lennon Drive Site DECEMBER 2019 – DECEMBER 2020



Note: Lead Concentration units = micrograms per square metre per day Rolling annual average = the moving average of the previous 11 results and the current result



# Dust Deposition Gauge – General dust deposition levels (monthly) at Lennon Drive Site 2020



Note: Total Insoluble Matter Concentration units = milligrams per square metre per day



#### This statement/advice was provided by Queensland Health in relation to blood lead levels in Townsville in April 2016

Environmental limits for lead are set using a number of possible criteria including potential health effects.

Blood lead level within the Australian population have been decreasing over time as the use of lead – particularly in petrol and paint - has been phased put. The most recent NHMRC guidance document suggests that a blood lead level of less than 5  $\mu$ g/dL is what should be expected in the general population.

Elevated blood lead levels are notified to Queensland Health for investigation. Previously this level was 10  $\mu$ g/dL but since the beginning of 2016 has been reduced to 5  $\mu$ g/dL. This is not an indication of a safe blood level, but is a trigger level that requires investigation into what in the individual's environment is contributing to the level.

Based on studies recognised by the World Health Organisation into the relationship between lengthy exposure to ambient air lead levels and increases in blood lead levels, the current 12 month rolling average for measurements (as at March 2016) at the Townsville Coast Guard Site could be expected to add between 0.36 µg/dL and 0.6 µg/dL to a person's total blood lead level. This increment is only about 10% of the level that would require further investigation. Along with other normal exposure, this would not be expected to exceed that level, is well within the expected community range, and below the level that would trigger further investigation.

The highest rolling annual average in recent years (recorded in May 2014 at the Townsville Coast Guard Site) yields a predicted result of between 1.14  $\mu$ g/dL and 1.9  $\mu$ g/dL, still well under the level which should trigger concern.

