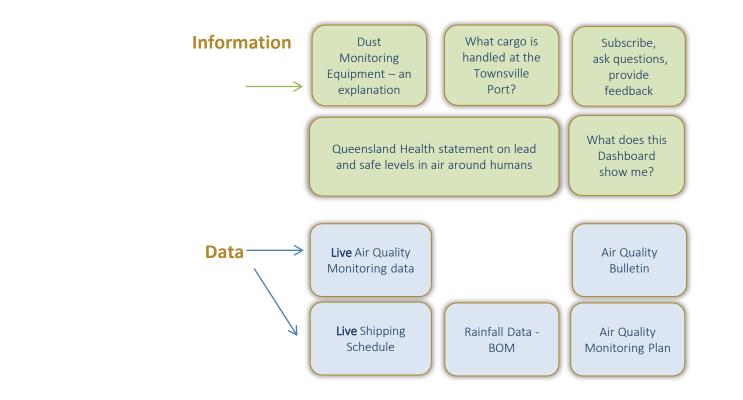


Air Quality Dashboard | NOVEMBER | 2020

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 November 2020

Date In/Out	Vessel Name	Cargo	Berth	Date In/Out	Vessel Name	Cargo	Berth
31 Oct - 01 Nov	ATILLA	Zinc Concentrates (Export), Nil Cargo (Import)	T03N	16 Nov - 20 Nov	IVS IBIS	Concentrates (Export), Nil Cargo (Import)	T11
01 Nov - 04 Nov	AFRICAN WARBLER	Nil Cargo (Export), Sulphur (Import)	Т10	17 Nov - 17 Nov	SAN DU AO	Nil Cargo (Export), Bitumen (Import)	T01
01 Nov - 02 Nov	NINE EAGLE	Cattle (Export), Nil Cargo (Import)	Т04	18 Nov - 19 Nov	AL KUWAIT	Cattle (Export), Nil Cargo (Import)	T04
01 Nov - 03 Nov	ΚΟΤΑ ΝΙΡΑΗ	Containers (Export), Containers (Import)	тозѕ	18 Nov - 18 Nov	SOFRANA TOURVILLE	Containers (Export), Containers (Import)	T03S
03 Nov - 04 Nov	GOLDEN MIND	Sulphuric Acid (Export), Nil Cargo (Import)	T01	18 Nov - 20 Nov	HAMBURG HIGHWAY	Nil Cargo (Export), Motor Vehicles (Import)	T03N
03 Nov - 04 Nov	NORTHERN HIGHWAY	Nil Cargo (Export), Motor Vehicles (Import)	T03N	19 Nov - 20 Nov	GLOUCESTER EXPRESS	Cattle (Export), Nil Cargo (Import)	T10
03 Nov - 04 Nov	IVS SPARROWHAWK	Sugar (Export), Nil Cargo (Import)	LUC	20 Nov - 22 Nov	KAIFONG	Lead Ingots (Export), Nil Cargo (Import)	Т08
03 Nov - 05 Nov	CASTLEGATE	Sugar (Export), Nil Cargo (Import)	Т09	20 Nov - 21 Nov	BASIC CHALLENGER	Concentrates (Export), Nil Cargo (Import)	T03S
04 Nov - 04 Nov	GREYMAN EXPRESS	Cattle (Export), Nil Cargo (Import)	Т04	21 Nov - 22 Nov	KOTA HIDAYAH	Containers (Export), Containers (Import)	тозѕ
04 Nov - 05 Nov	CYGNUS LEADER	Nil Cargo (Export), Motor Vehicles (Import)	T10	22 Nov - 25 Nov	BELLE OCEAN	Zinc Ferrites (Export), Nil Cargo (Import)	T10
04 Nov - 05 Nov	MAERSK MEDITERRANEAN	Nil Cargo (Export), Fuels (Import)	T01	22 Nov - 23 Nov	INTERLINK PRIORITY	Sugar (Export), Nil Cargo (Import)	т09
05 Nov - 07 Nov	MAERSK MEDITERRANEAN	Nil Cargo (Export), Nil Cargo (Import)	T01	22 Nov - 23 Nov	KAIFONG	Nil Cargo (Export), Nil Cargo (Import)	TO3S
05 Nov - 07 Nov	CHAYANEE NAREE	Sugar (Export), Nil Cargo (Import)	Т09	22 Nov - 24 Nov	TWO MILLION WAYS	Nil Cargo (Export), Fuels (Import)	T01
07 Nov - 09 Nov	BEAGLE	Nil Cargo (Export), Fuels (Import)	T01	23 Nov - 24 Nov	LESEDI QUEEN	Sugar (Export), Nil Cargo (Import)	Т09
09 Nov - 13 Nov	FAIR OCEAN	Nil Cargo (Export), Zinc Concentrates (Import)	T10	23 Nov - 26 Nov	BASIC CHALLENGER	Concentrates (Export), Nil Cargo (Import)	T11
10 Nov - 11 Nov	JENNINGS BAY	Nil Cargo (Export), Fuels (Import)	T01	23 Nov - 25 Nov	SEA HAWK	Concentrates (Export), Nil Cargo (Import)	Т08
10 Nov - 11 Nov	NEPTUNE LEADER	Nil Cargo (Export), Motor Vehicles (Import)	т09	24 Nov - 26 Nov	TAOKAS WISDOM	Concentrates (Export), Nil Cargo (Import)	T03S
10 Nov - 12 Nov	KYOWA ROSE	Nil Cargo (Export), Containers (Import)	T03N	25 Nov - 26 Nov	HANSA REGENSBURG	Containers (Export), Containers (Import)	Т04
11 Nov - 13 Nov	THERESA MICRONESIA	Molasses (Export), Nil Cargo (Import)	Т08	26 Nov - 26 Nov	HANSA CLOPPENBURG	Containers (Export), Containers (Import)	T03N
12 Nov - 12 Nov	TOKYO TRADER	Containers (Export), Containers (Import)	Т04	26 Nov - 28 Nov	ATLANTIC CLOVER	Fertilizer (Export), Nil Cargo (Import)	Т08
12 Nov - 13 Nov	POLA ILARIA	Zinc Concentrates (Export), Nil Cargo (Import)	тозѕ	27 Nov - 28 Nov	KOTA HIDAYAH	Nil Cargo (Export), Nil Cargo (Import)	тозѕ
13 Nov - 15 Nov	KOTA HARUM	Containers (Export), Containers (Import)	тозѕ	27 Nov - 29 Nov	SIDER JASMINE	Nil Cargo (Export), General Cargo + Containers (Import)	Т04
14 Nov - 14 Nov	GELBRAY EXPRESS	Cattle (Export), Nil Cargo (Import)	T04	27 Nov - 28 Nov	GREYMAN EXPRESS	Cattle (Export), Nil Cargo (Import)	T10
14 Nov - 16 Nov	IVS IBIS	Nil Cargo (Export), Coke (Import)	Т09	28 Nov - 28 Nov	AUROCHS	Cattle (Export), Nil Cargo (Import)	T03N
14 Nov - 16 Nov	STRATEGIC ENDEAVOR	Fertilizer (Export), Nil Cargo (Import)	Т08	28 Nov - 28 Nov	AUROCHS	Nil Cargo (Export), Nil Cargo (Import)	T03N
14 Nov - 15 Nov	FLORIDA HIGHWAY	Nil Cargo (Export), Motor Vehicles (Import)	T10	28 Nov - 30 Nov	ALAM SINAR	Zinc Concentrates (Export), Nil Cargo (Import)	Т08
14 Nov - 15 Nov	GELBRAY EXPRESS	Nil Cargo (Export), Nil Cargo (Import)	T03N	28 Nov - 29 Nov	ARDMORE SEAFARER	Nil Cargo (Export), Fuels (Import)	T01
14 Nov - 17 Nov	KONDILI	Nil Cargo (Export), Cement (Import)	T04	29 Nov - 30 Nov	GOLDEN MIND	Nil Cargo (Export), Fuels (Import)	T01
15 Nov - 16 Nov	CORONADO BAY	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).

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OR

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

OR

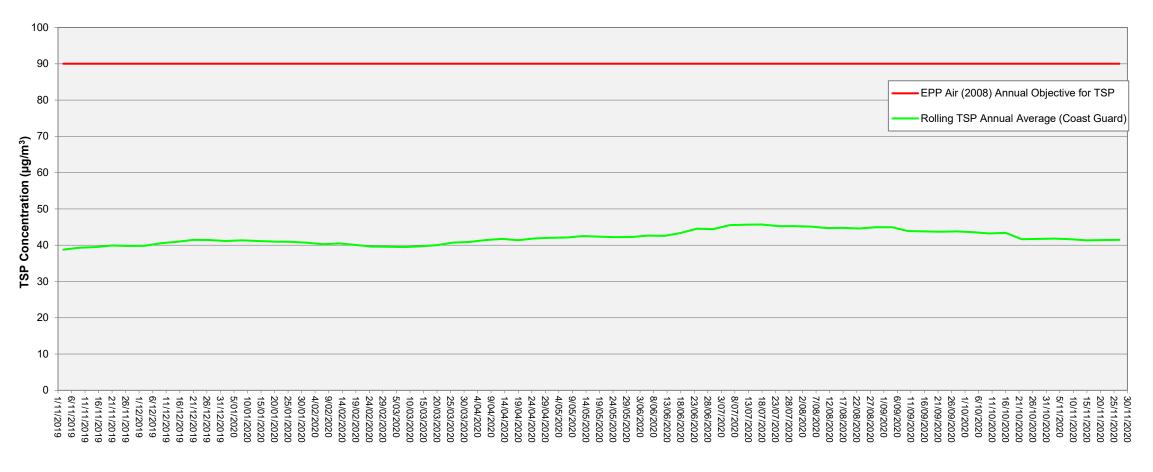
Phone 07 4781 1500 and asked to be added to the list.

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 NOVEMBER 2019 – NOVEMBER 2020

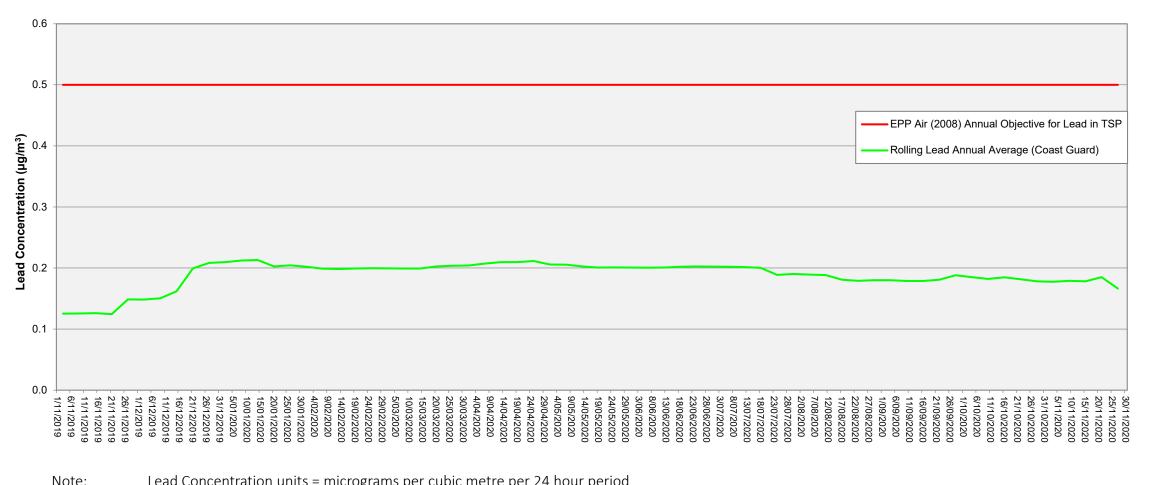


Note:

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



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



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



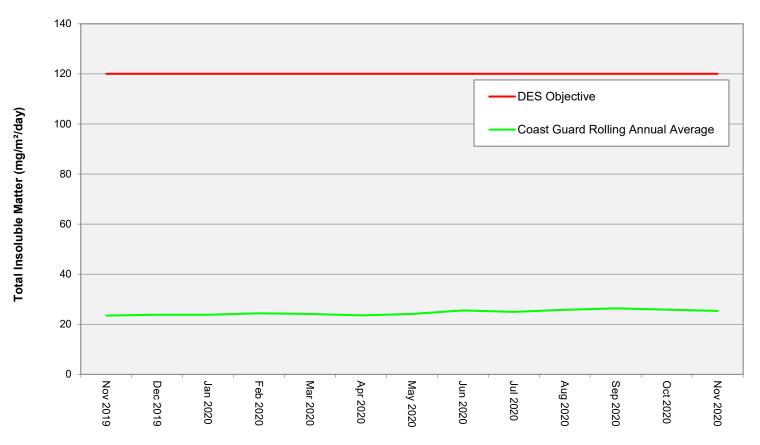
0.6 0.5 0.4 0.3 0.0 0.2 0.1 0.0 Jan-20 Feb-20 May-20 Jun-20 Jul-20 Mar-20 Apr-20 Aug-20 Sep-20 Oct-20 Nov-20 Dec-20 Month Rolling 3 month average lead (Coast Guard) (µg/m3) ——Trigger (μg/m3) -Limit (μ g/m3)

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



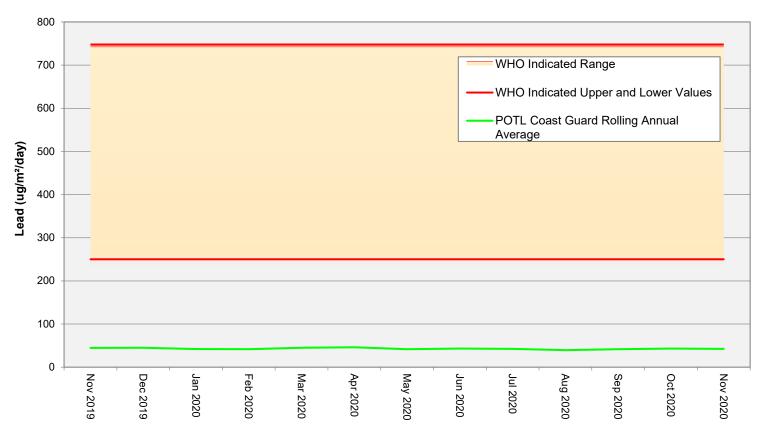
Dust Deposition Gauge – General dust deposition levels (monthly) at Coast Guard Site NOVEMBER 2019 – NOVEMBER 2020



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



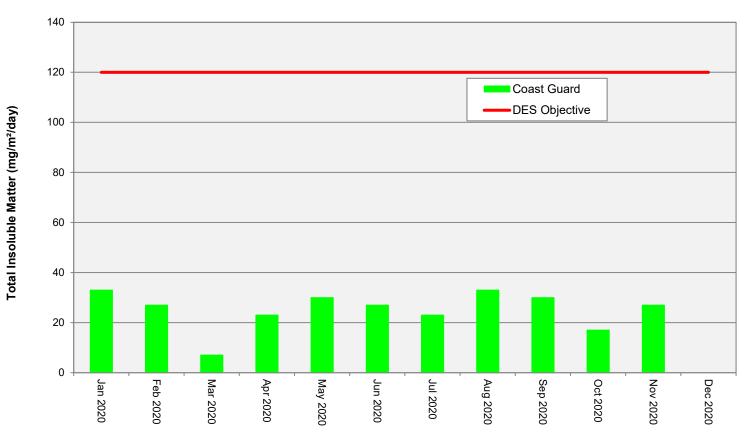
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Dust Deposition Gauge – General dust deposition levels (monthly) at Coast Guard Site

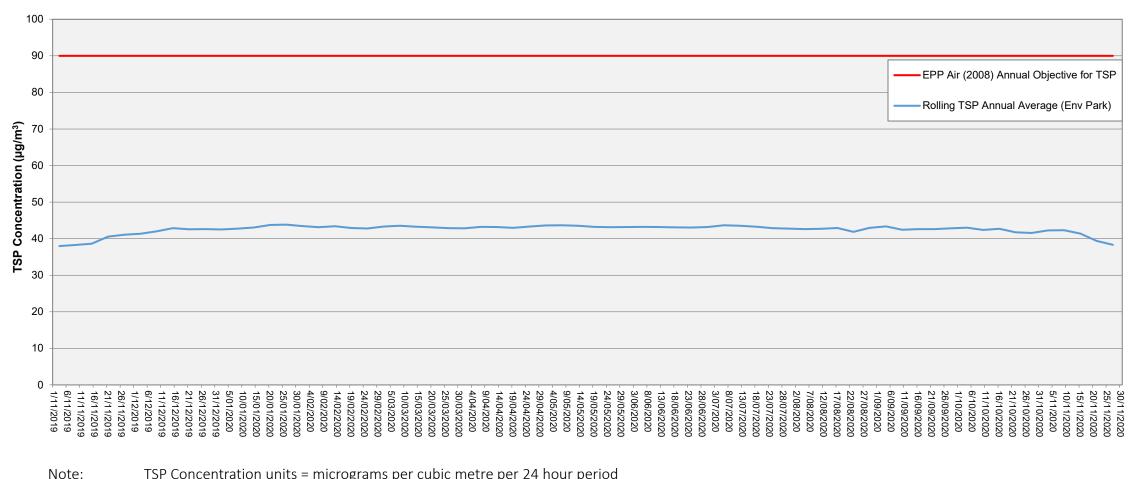


2020

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



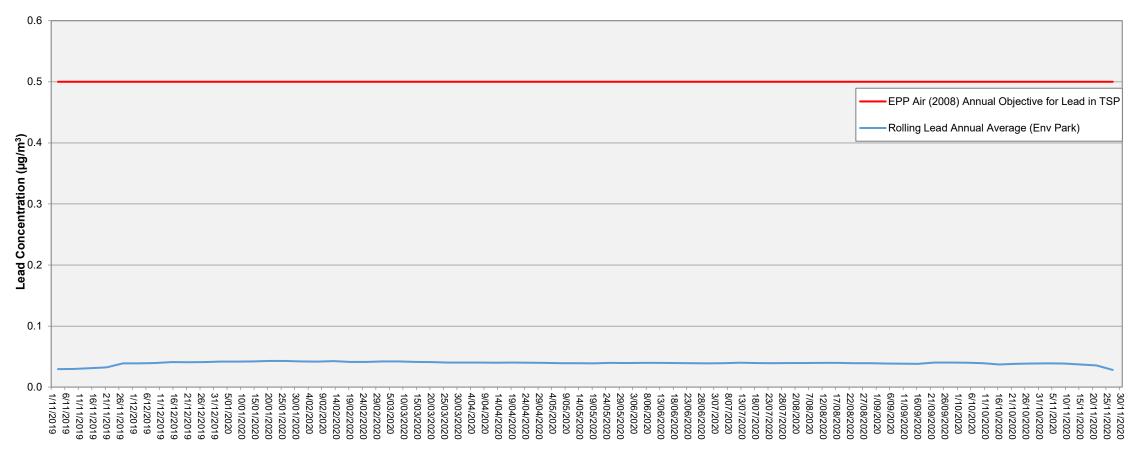
Hi-Volume Sampler - General total dust levels (one in six days) at Environment Park site NOVEMBER 2019 – NOVEMBER 2020



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

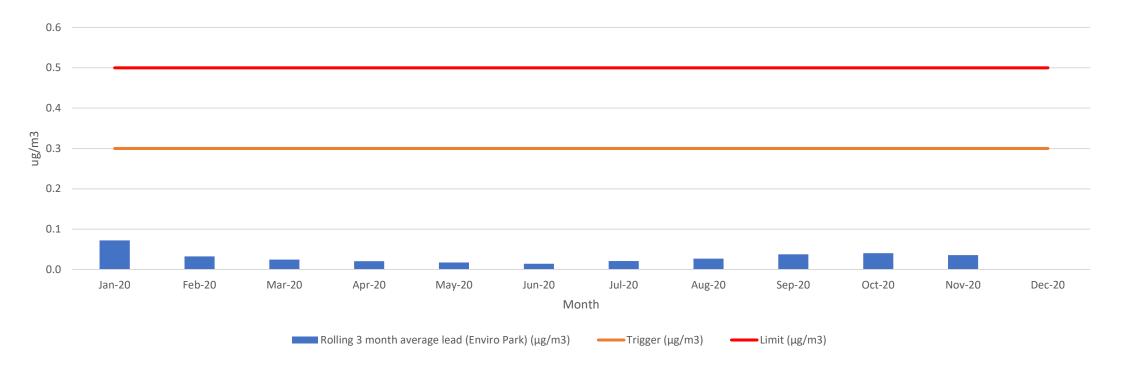


Hi-Volume Sampler - Lead in dust levels (one in six days) at Environment Park site NOVEMBER 2019 – NOVEMBER 2020



Note: PORT[®]TOWNSVILLE Lead Concentration units = micrograms per cubic metre per 24 hour period

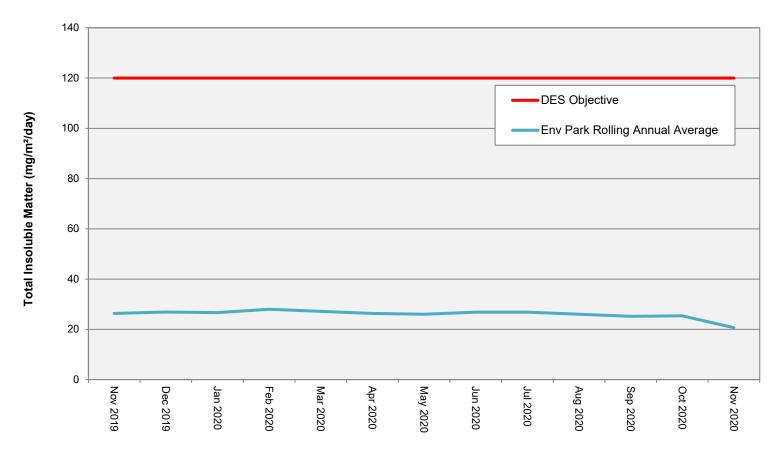
Hi-Volume Sampler - Lead in dust levels (one in six days) at Environment Park site 2020



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



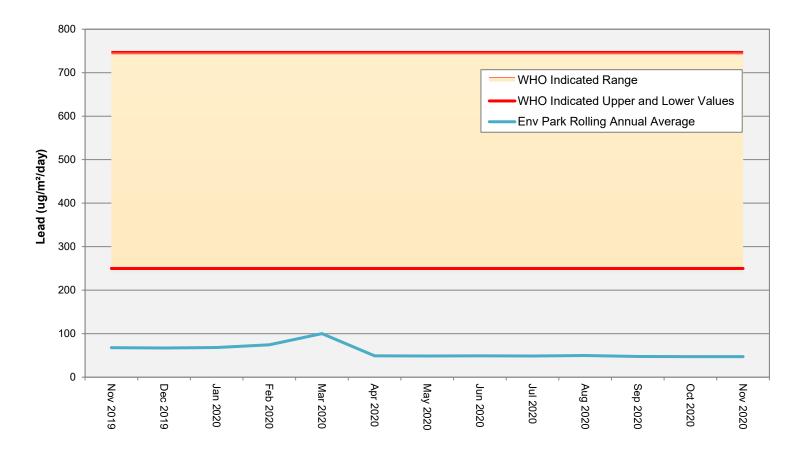
Dust Deposition Gauge - General dust deposition levels (monthly) at Environment Park site NOVEMBER 2019 – NOVEMBER 2020



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 NOVEMBER 2019 – NOVEMBER 2020

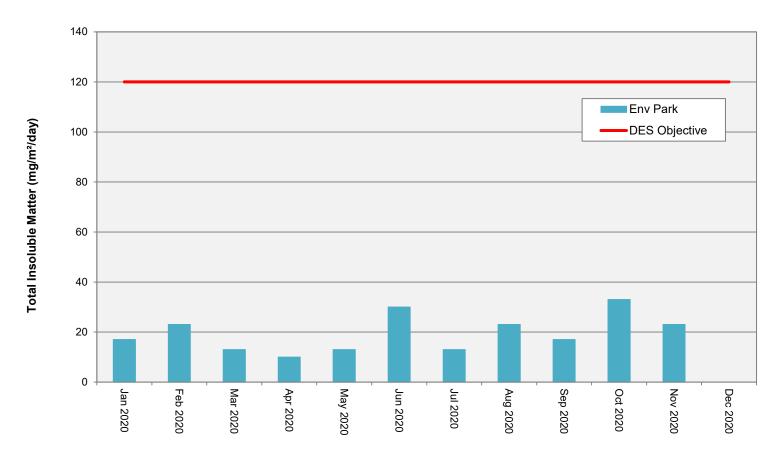


Note:

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



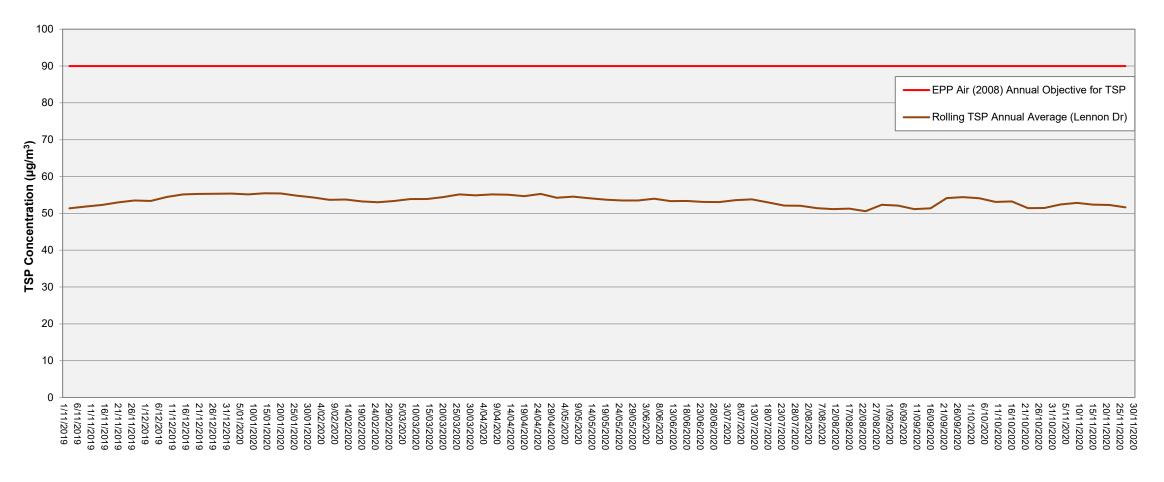
Dust Deposition Gauge – General dust deposition levels (monthly) at Environment Park Site 2020



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 NOVEMBER 2019 – NOVEMBER 2020

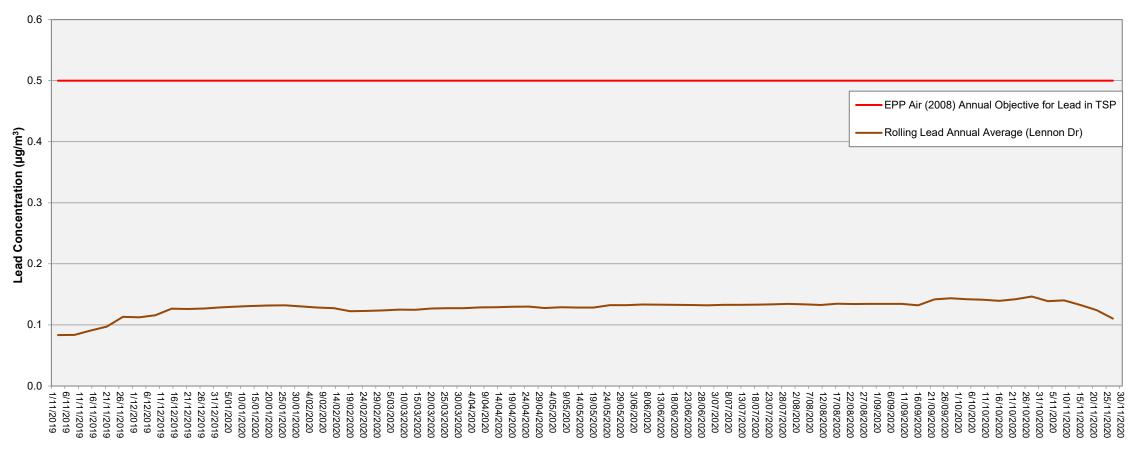


Note:

PORT••TOWNSVILLE

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

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



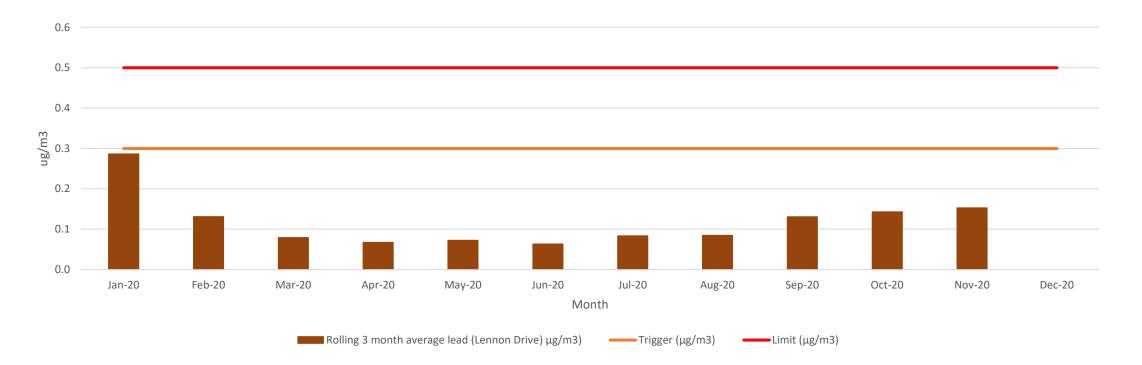
Lead Concentration units = micrograms per cubic metre per 24 hour period

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



Note:

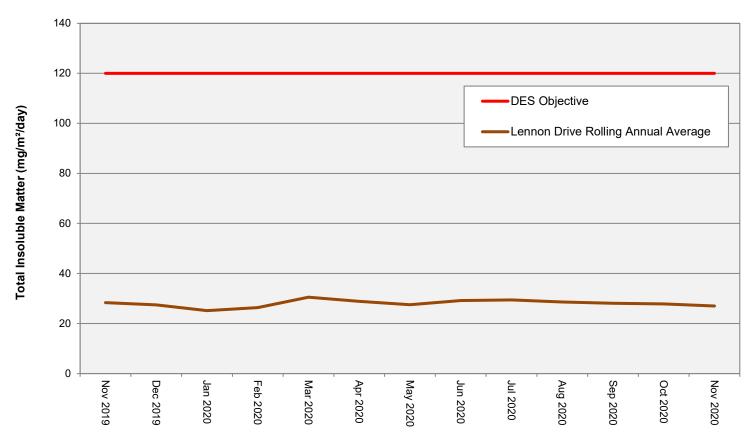
Hi-Volume Sampler - Lead in dust levels (one in six days) at Lennon Drive Site 2020



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 NOVEMBER 2019 – NOVEMBER 2020

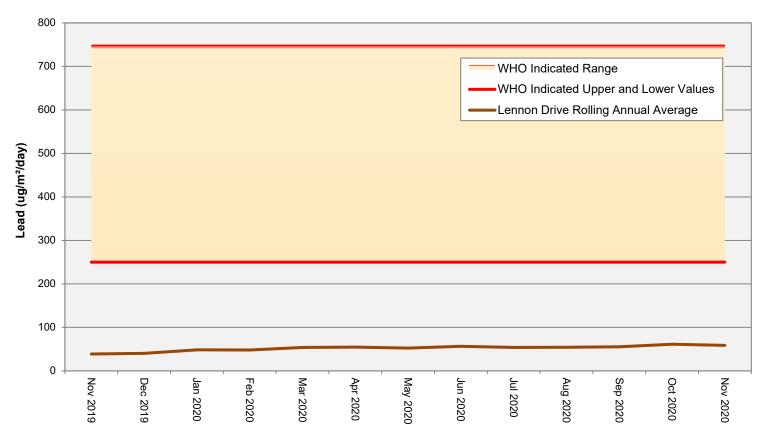


Total Insoluble Matter Concentration units = micrograms per square metre per day Rolling annual average = the moving average of the previous 11 results and the current result



Note:

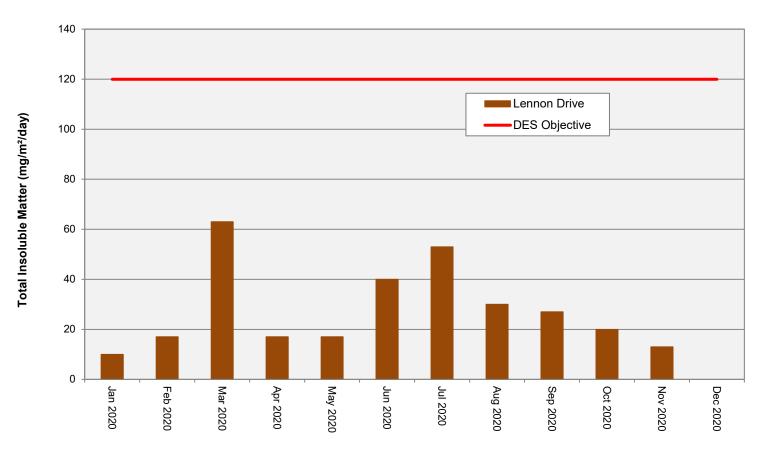
Dust Deposition Gauge – Lead in dust deposition levels (monthly) at Lennon Drive Site NOVEMBER 2019 – NOVEMBER 2020



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 μ 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 μ g/dL but since the beginning of 2016 has been reduced to 5 μ 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 μ g/dL and 1.9 μ g/dL, still well under the level which should trigger concern.

