AIR QUALITY MONITORING IN TOWNSVILLE

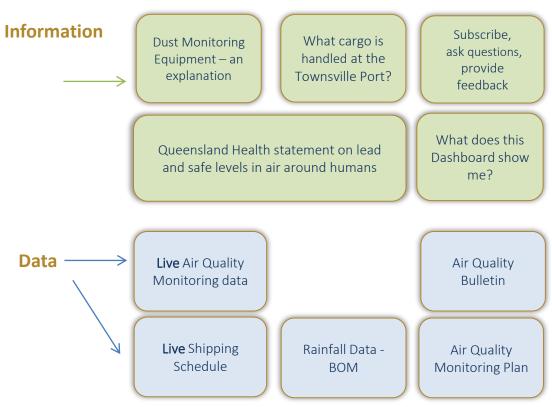
Air Quality Monitoring in Townsville is conducted separately by both the Department of Environment and Science (DES), and Port of Townsville Limited.

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

Click here to visit DES monitoring network

Air Quality Monitoring Locations







Shipping Movements in December 2018

Date In/Out	Vessel Name	Berths	Cargo	Date In/Out	Vessel Name	Berths	Cargo
02-02	STOLT AJISAI	9	Tallow	18-18	PACIFIC ARIA	10	Cruise
03-04	ARDMORE SEAVANGUARD	1	Fuels	18-19	PIKE	1	Fuels
03-05	TAURUS_1	9	Scrap	19-22	PACIFIC CONDOR	3 NTH	Copper Refined
03-05	BERGE BANDAI	8	Fertilizer	19-23	GLORIOUS FUJI	3 STH	Zinc Concentrates
03-09	LA BAMBA	3	Zinc Concentrates	19-20	GOLDEN LEADER	1	Fuels
04-05	ANTARES LEADER	4	Motor Vehicles	20-20	SEVEN SEAS MARINER	10	Cruise
05-05	EUPHONY ACE	10	Motor Vehicles	20-28	EMMA OLDENDORFF	3 NTH	Zinc Concentrates
05-06	LEO ASPHALT II	4	Bitumen	20-21	GELBRAY EXPRESS	9	Fodder, Cattle
06-07	DALARNA	8	Zinc Concentrates	21-22	GRAND ACE5	1	Fuels
06-06	SEABOURN SOJOURN	10	Cruise	21-21	SIRIUS HIGHWAY 1	4	Motor Vehicles
06-08	AAL DAMPIER	3	Containers	23-27	NINGHAI	8	Fertilizer
07-10	EIKE OLDENDORFF	4	Metal Pipes	23-27	HINEWAI	4	Repairs - Nil Cargo
10-10	VIKING ORION	10	Cruise	23-24	KOKOPO CHEIF(1)	1	Nil Cargo
10-13	MARIANNA	8	Sulphur	26-27	BRITISH CHIEF	1	Fuels
12-14	SEOUL TOWER	4	Containers	26-27	ORIENT TOKYO	3 NTH	Lead Concentrates
12-13	DAREEN	10	Fodder, Cattle	26-26	SHAMROCK MERCURY	4	Caustic Soda
14-20	OCCITAN KEY	3 STH	Zinc Concentrates	27-28	KOBE GLORIA	8	Sugar
14-19	ERNA OLDENDORFF	8	Lead Concentrates	27-28	KEN ORCHID	8	Fertilizer
14-15	GSL KETA	4	Containers	28-29	GREYMAN EXPRESS	10	Fodder, Cattle
15-17	KOTA NAGA	4	Containers	28-29	THERESA MICRONESIA	9	Molasses
15-16	SEABOURN ENCORE	10	Cruise	28-30	KOTA NIPAH	3 STH	Containers
15-16	KARIYUSHI LEADER	9	Motor Vehicles	29-30	GLORY ATLANTIC	4	Cement
16-17	DEVON EXPRESS	10	Fodder, Cattle	30-30	CSC RISING SUN	1	Fuels
16-19	ORIENT TOKYO	11	Concentrates	31-31	SOFRANA TOURVILLE	4	Containers
17-19	GLORY ATLANTIC	4	Cement	31-31	PALANCA MUSCAT	1	Bitumen

Port of Townsville - Overview

First established in 1864, the Port of Townsville is operates eight berths handled more than \$8 billion in trade during the 2016/2017 financial year; servicing more than 136 ports around the globe. 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 – expecting 19 vessel visits in 2018.

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

Imports

Motor vehicles, shipping containers (general cargo), cement, sulphuric acid, fertiliser, copper, nickel, zinc, copper anode, petroleum products, sulphur, containers, tyres.

Exports

Sugar, timber, fertiliser, shipping containers (general cargo) cattle, refrigerated meat, magnetite, copper, lead, zinc, zinc ferrites, zinc oxide, silver, molasses, sand, gravel, coke, project cargo.



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Visit our website and subscribe here https://www.townsville-port.com.au/environment-community/community/newsletter-sign-up/

OR

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

OR

Phone 07 47 811 500 and asked to be added to the list.

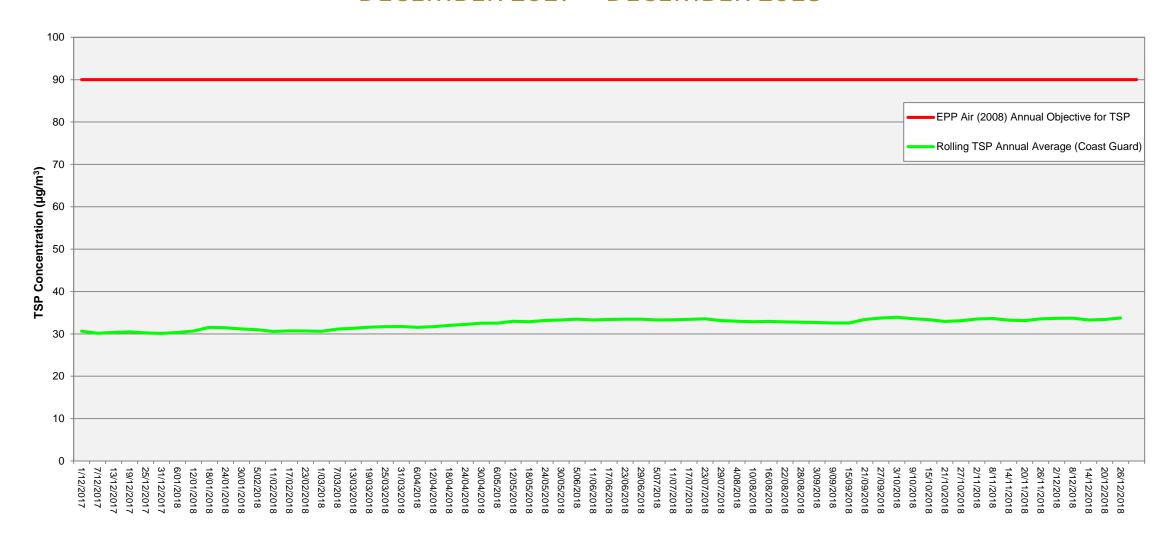
Ask a Question / Provide Feedback

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 2017 – DECEMBER 2018

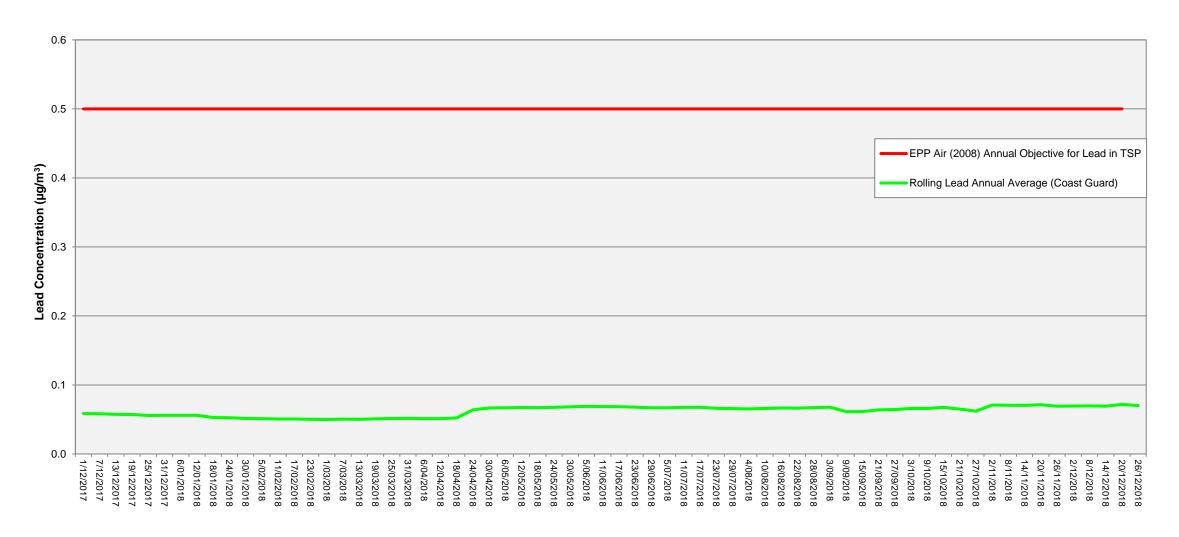


Note:

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 2017 – DECEMBER 2018

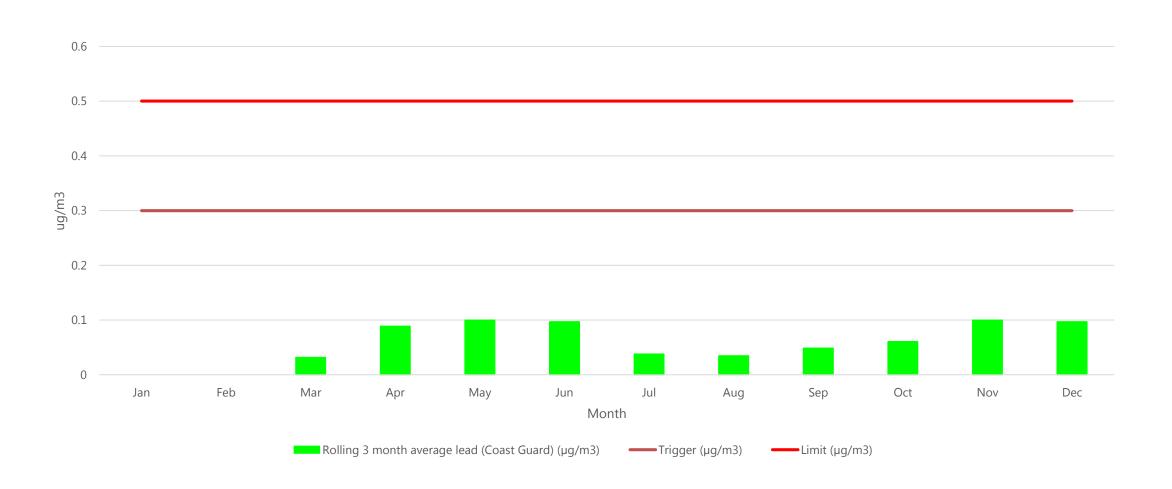


Note: Lead Concentration units = micrograms per cubic metre per 24 hour period

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Hi-Volume Sampler - Lead in dust levels (one in six days) at Coast Guard Site JANUARY 2018 – DECEMBER 2018

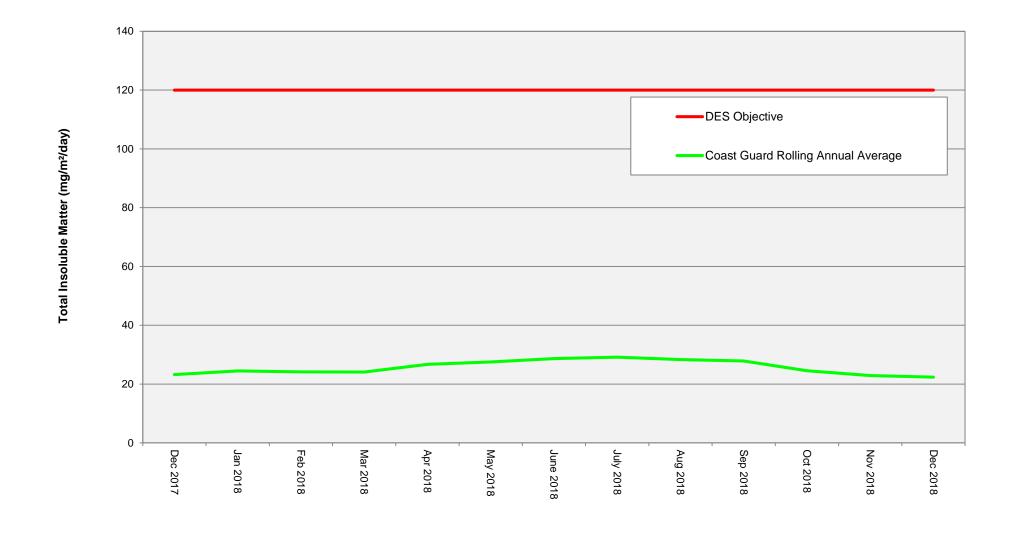


Note: Rolling 3 month average = the moving average of the previous 2 months and the current month result





Dust Deposition Gauge – General dust deposition levels (monthly) at Coast Guard Site DECEMBER 2017 – DECEMBER 2018



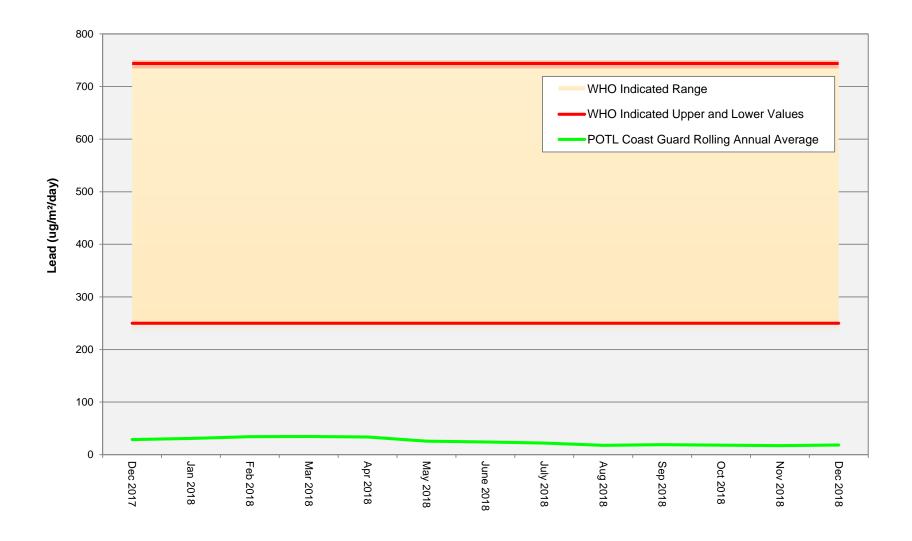
Note:

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 2017 – DECEMBER 2018

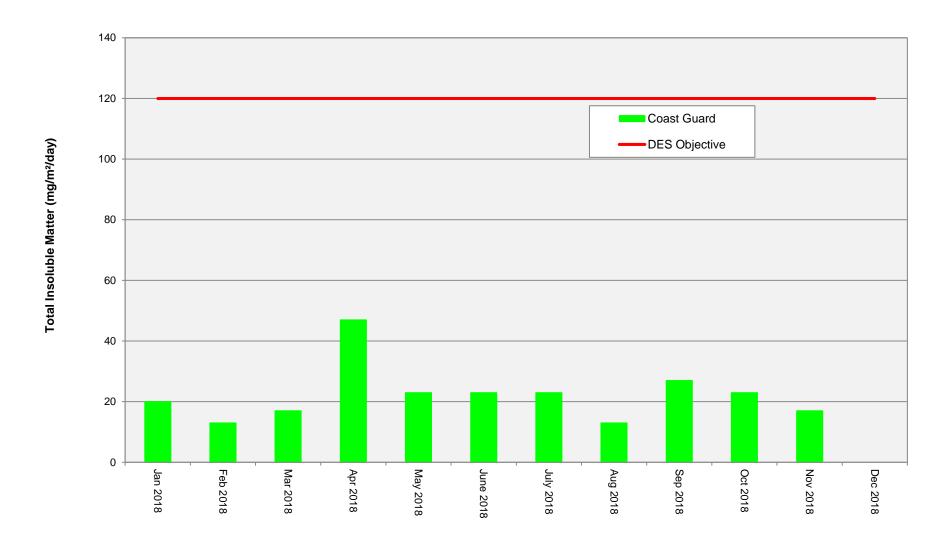


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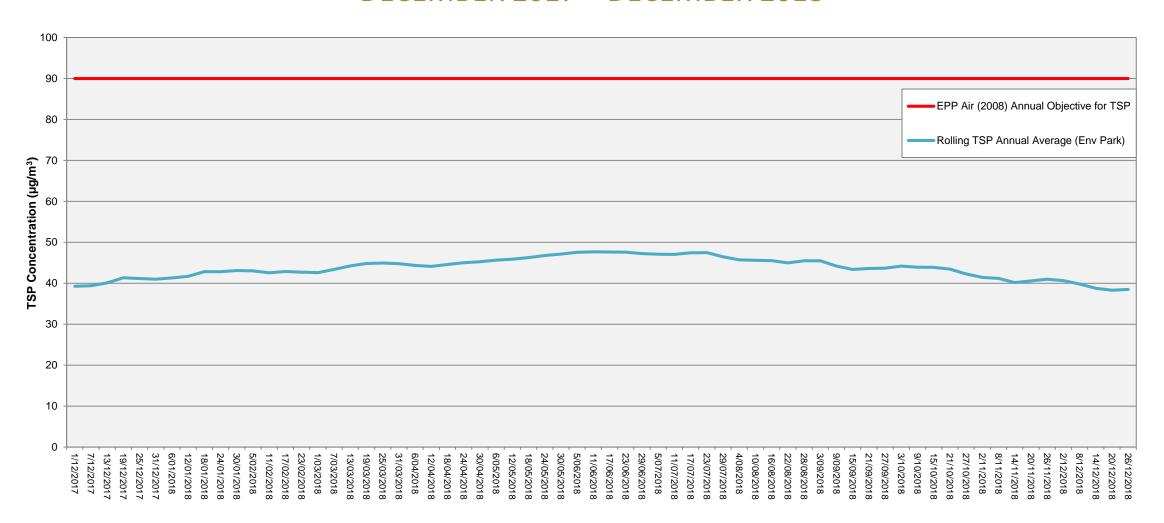
Dust Deposition Gauge – General dust deposition levels (monthly) at Coast Guard Site JANUARY 2018 – DECEMBER 2018



Note: Total Insoluble Matter Concentration units = milligrams per square metre per day ^December 2018 dust bottles removed due to Cyclone Owen. Nil data for display.



Hi-Volume Sampler - General total dust levels (one in six days) at Environment Park site DECEMBER 2017 – DECEMBER 2018

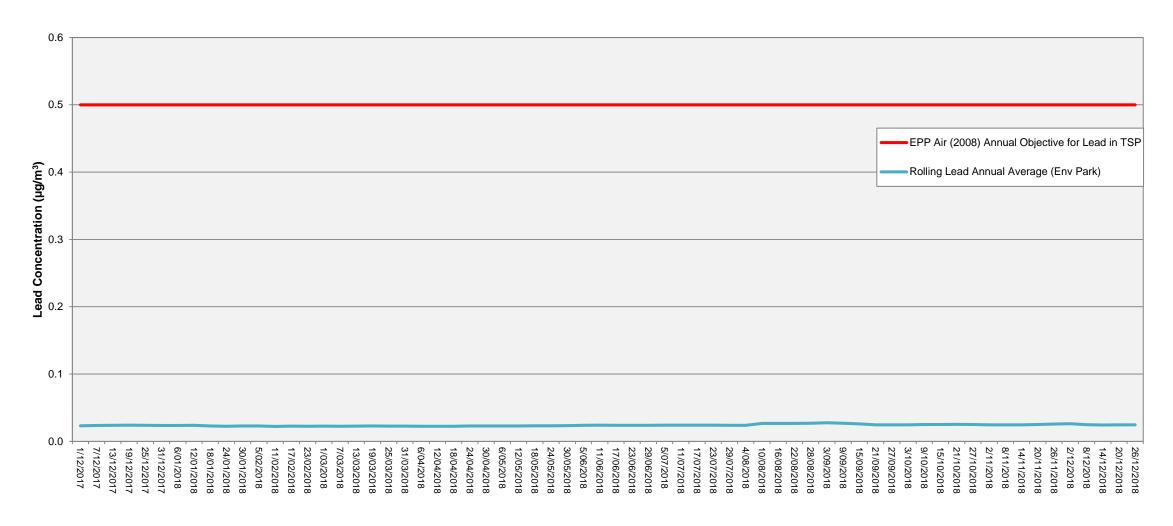


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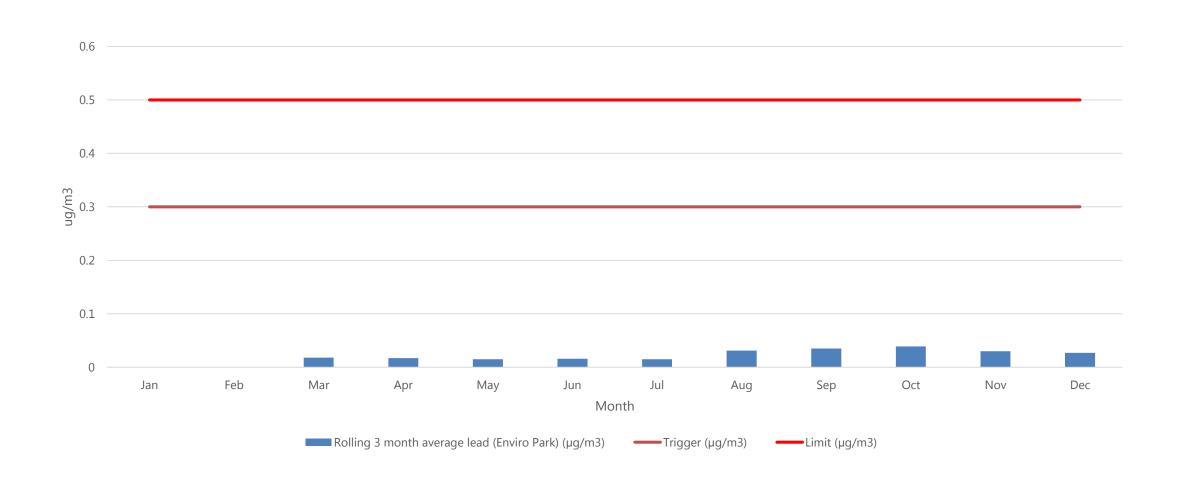
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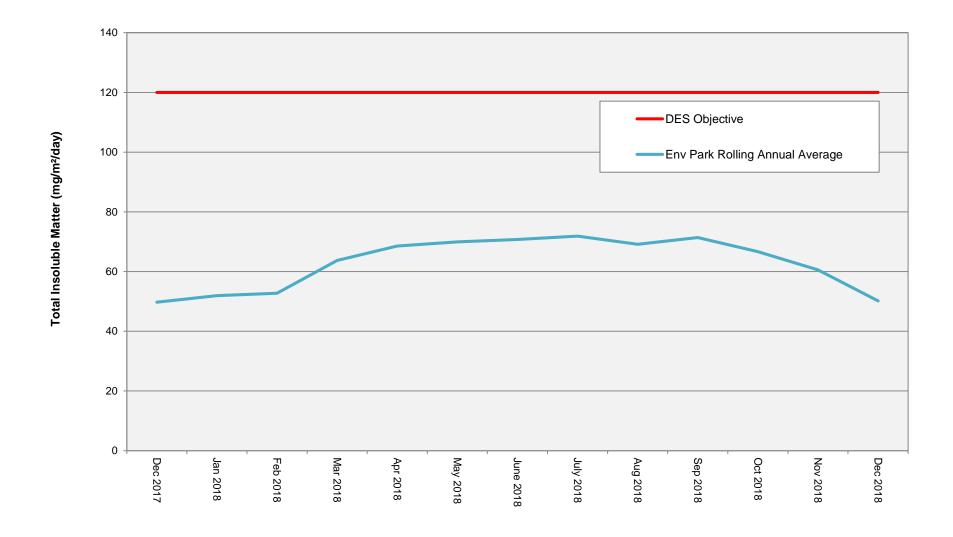
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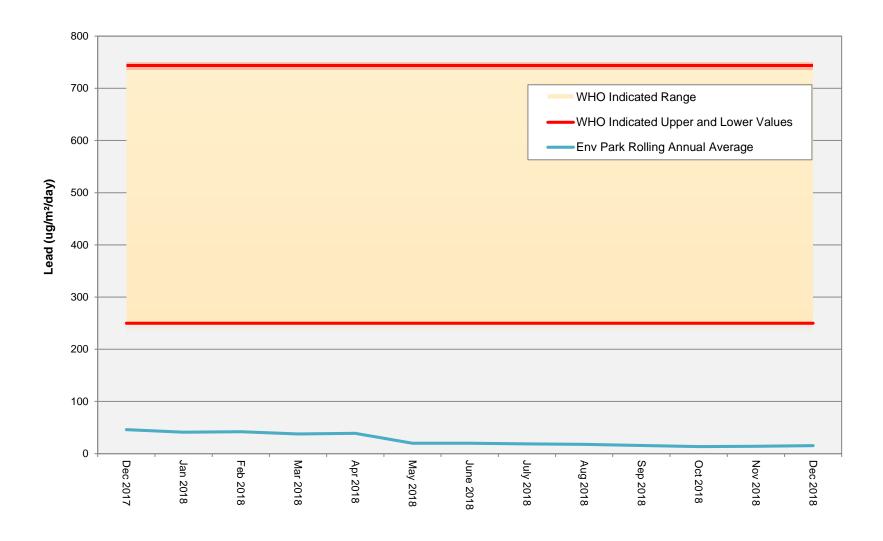
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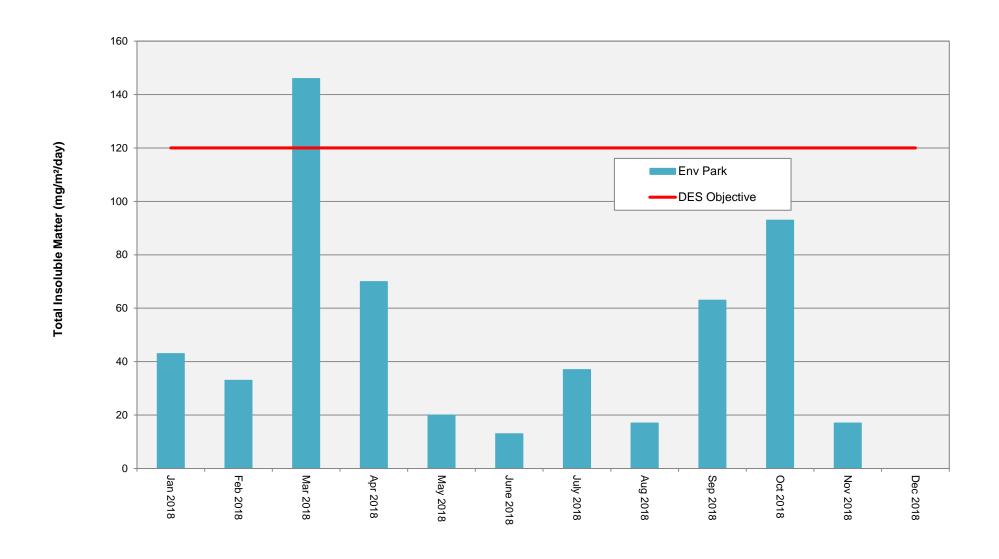


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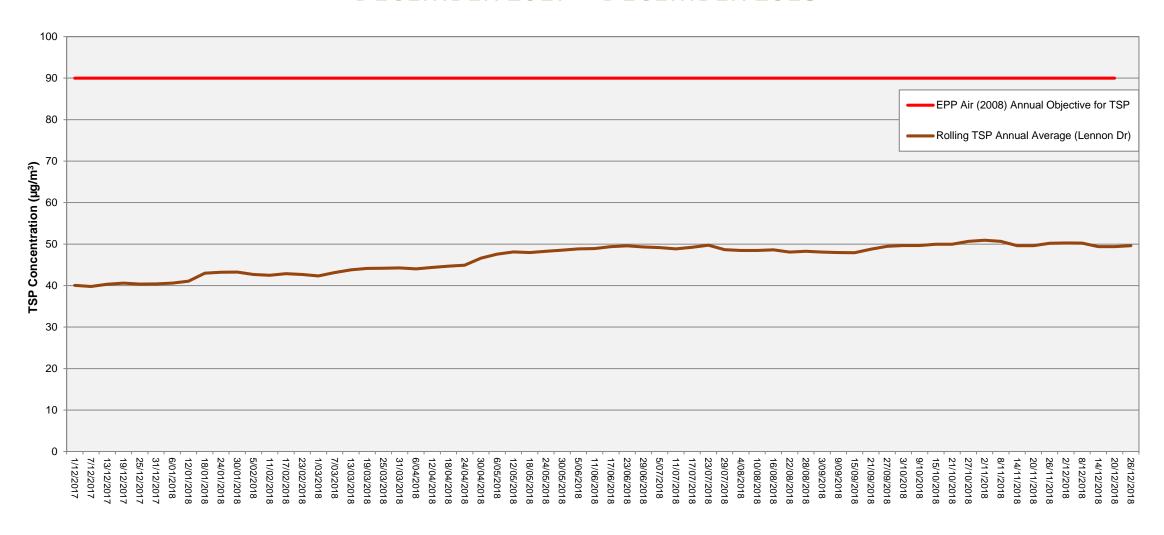


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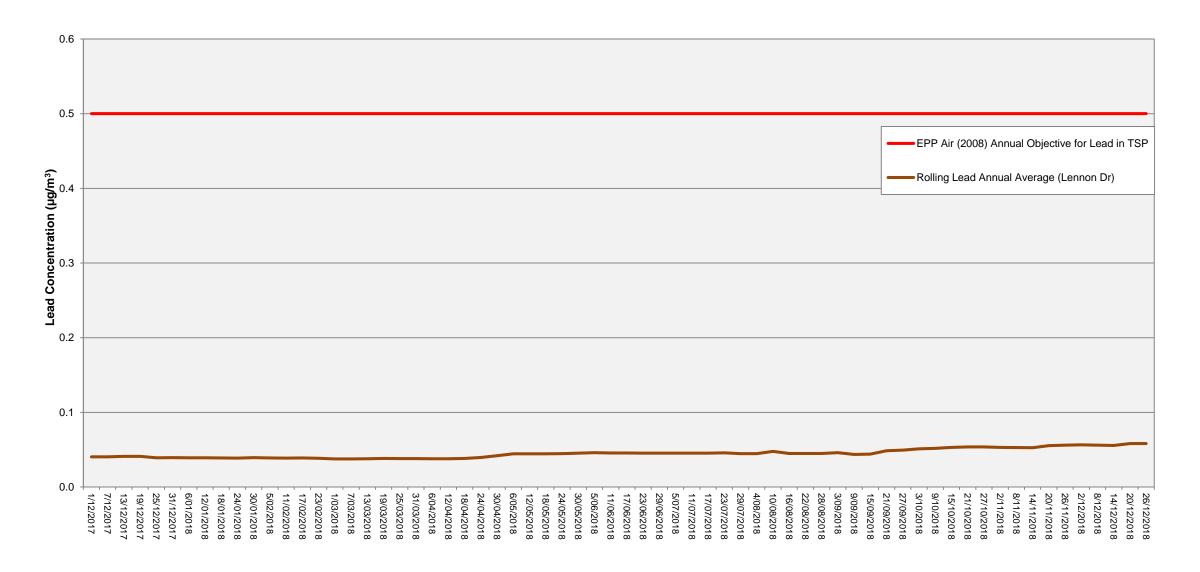
Hi-Volume Sampler - General total dust levels (one in six days) at Lennon Drive site DECEMBER 2017 – DECEMBER 2018



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



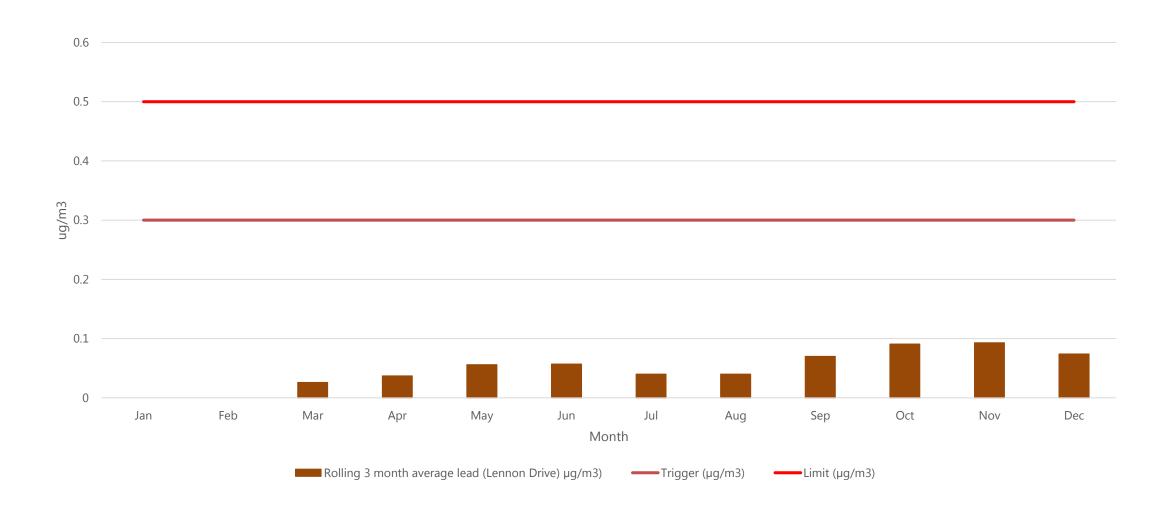
Hi-Volume Sampler - Lead in dust levels (one in six days) at Lennon Drive Site DECEMBER 2017 – DECEMBER 2018



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

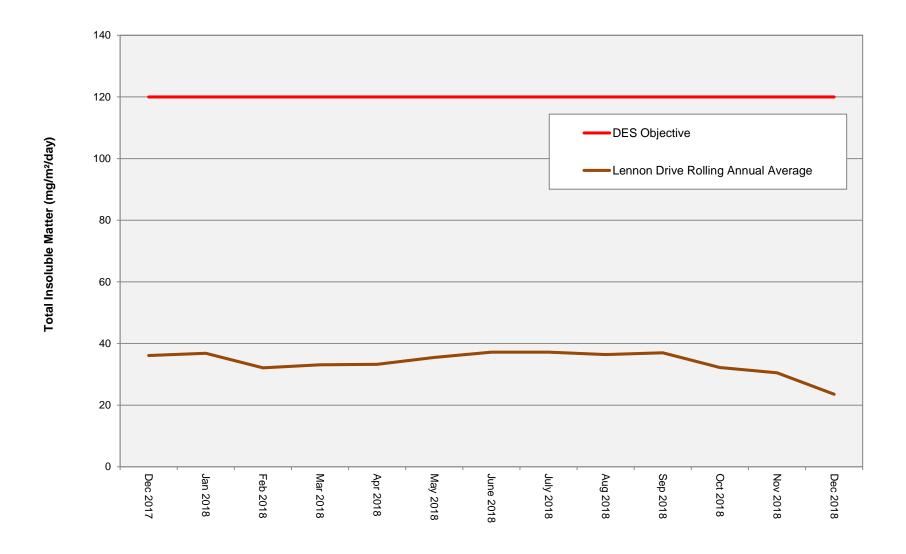
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Hi-Volume Sampler - Lead in dust levels (one in six days) at Lennon Drive Site JANUARY 2018 – DECEMBER 2018



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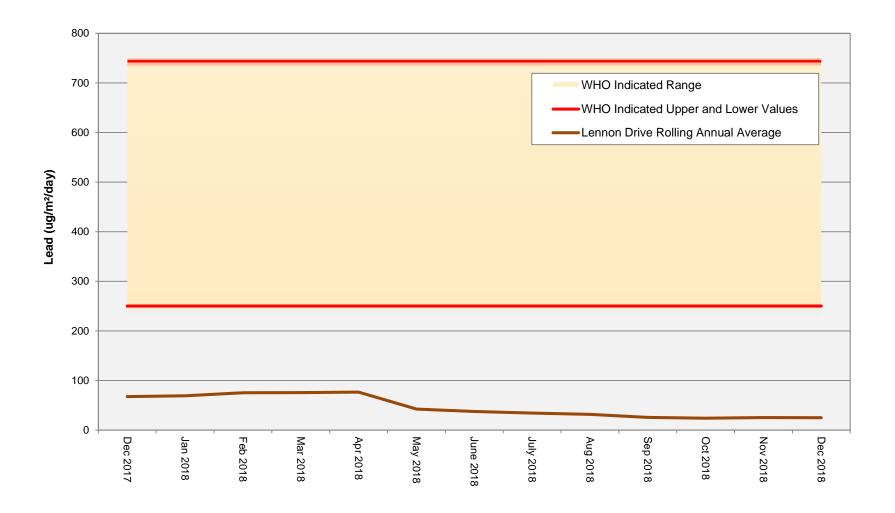
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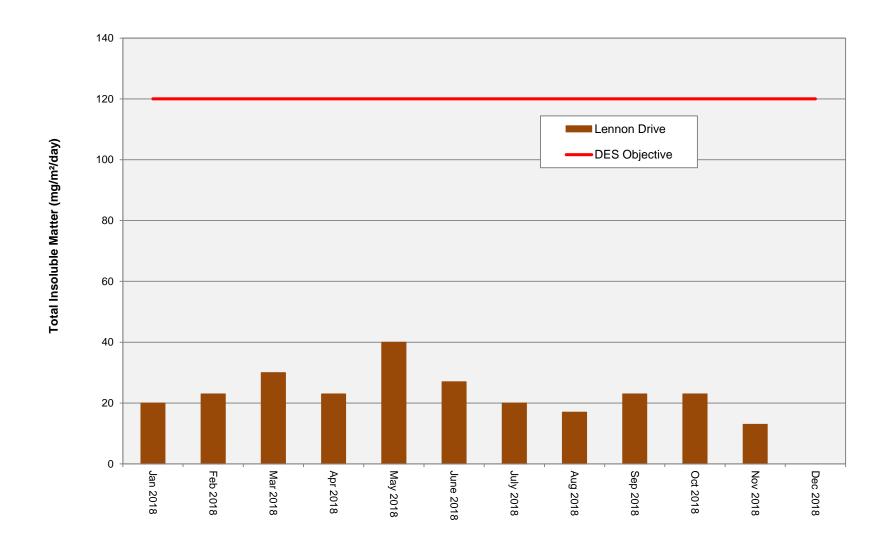
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This statement/advice was provided by Queensland Health in relation to blood lead levels in Townsville in April 2016

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 μ g/dL and 0.6 μ g/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.