

Townsville Port | Air Quality Dashboard | JANUARY 2018

Information

Dust Monitoring Equipment – an explanation

What cargo is handled at the Townsville Port?

Subscribe,
ask questions,
provide
feedback

Queensland Health statement on lead and safe levels in air around humans

What does this Dashboard show me?

Data

Live Air Quality Monitoring data

Create a monthly data Dashboard

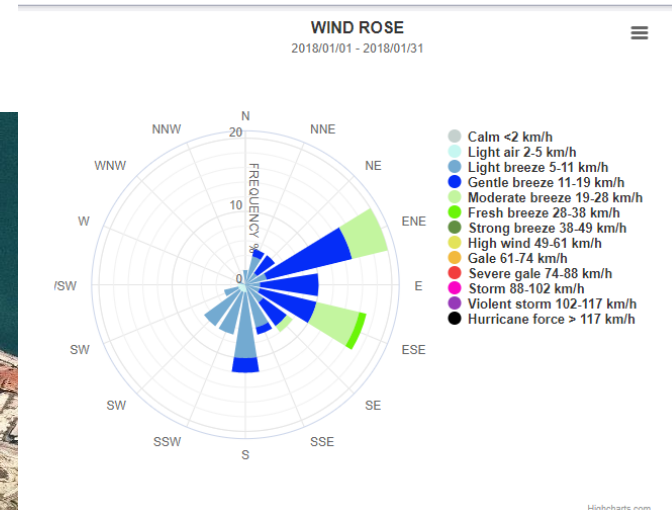
Air Quality Bulletin

Live Shipping Schedule

Rainfall Data - BOM

Air Quality Monitoring Plan

Air Quality Monitoring Locations



Click on the
YELLOW location
dots to view
monitoring data

SHIPPING MOVEMENT

| Date In/Out | Vessel Name | Berths | Cargo |
|-------------|-------------------------|---------|------------------------|
| 1-2 | THERESA MICRONESIA | 9 | Molasses |
| 2-5 | INDUSTRIAL FORCE | 3 | Concentrates |
| 2-3 | GULF COAST | 1 | Fuel |
| 2-2 | PMG TARKA | TMP 1 | NIL |
| 3-4 | SM EMERALD | 9 | Sugar |
| 3-5 | STELLAR WISTERIA | 1 | Sulphuric Acid |
| 4-4 | VENUS LEADER | 10 | Motor Vehicles |
| 4-5 | NOCC OCEANIC | 9 | Motor Vehicles |
| 5-6 | MAASGRACHT | 10 | Containers |
| 5-5 | SOFRANA TOURVILLE (NEW) | 3 | Containers |
| 6-8 | DAIWAN JUSTICE | 8 | Fertilizer |
| 8-8 | ANL KOKODA TRADER | 10 | Containers |
| 8-9 | PALANCA MUSCAT | 1 | Bitumen |
| 9-11 | PACIFIC CONDOR | 3 | Copper Refined, Tyres |
| 9-11 | STI VIRTUS | 1 | Fuels |
| 10-10 | PLEIADES LEADER | 9 | Motor Vehicles |
| 10-29 | SEASTAR TRADER | 10/8//3 | Zinc Ferrites, Sulphur |
| 11-13 | KOTA NIPAH | 3 | Containers |
| 11-13 | GOLDEN ASPIRANT | 1 | Sulphuric Acid |
| 13-14 | MTS STATUM | 10 | Steel Pipes |
| 13-15 | HEEMSKERKGRACHT | 9 | Containers |
| 13-14 | EAGLE MELBOURNE | 1 | Fuels |
| 14-15 | ANL ECHUCA | 3 | Containers |
| 14-19 | OLIVIA | 10 | Zinc Concentrates |

| Date In/Out | Vessel Name | Berths | Cargo |
|-------------|-----------------------|--------|---------------------|
| 14-16 | INDUSTRIAL DART | 8 | NIL |
| 15-19 | SUN METALS CORORATION | 10WBA | NIL |
| 15-17 | FLORA DELMAS | 9 | Containers |
| 15-19 | MIA SCHULTE | 3 | Containers |
| 16-17 | BISON EXPRESS | 3 | Fodder, cattle |
| 16-19 | BBC OCEAN | 8 | Copper Concentrates |
| 17-20 | GOLDEN TAKA | 9 | Molasses |
| 20-22 | BBC OCEAN | 10 | Zinc Ferrites |
| 20-23 | OLIVIA | 3 | Concentrates |
| 20-28 | SUN METALS CORORATION | 10WBA | NIL |
| 20-22 | ALCEM LUGAIT | 4 | Cement |
| 21-22 | IKAN JENAHAR | 8 | Fertilizer |
| 23-25 | KOTA NASRAT | 3 | Containers |
| 23-24 | GOLDEN CREATION | 1 | Sulphuric Acid |
| 24-24 | GALLOWAY EXPRESS | 3 | Fodder, cattle |
| 24-25 | OLIVIA | 11 | Copper Concentrates |
| 25-25 | GRAND DAHLIA | 9 | Motor Vehicles |
| 25-26 | OCEAN UTE | 3 | Cattle |
| 27-28 | TOLL OSBORNE | 10 | Steel Pipes |
| 28-29 | BW TAGUS | 1 | Fuels |

[illegible]

AIR QUALITY MONITORING IN TOWNSVILLE

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

Click here to visit DEHP's
monitoring network

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

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.



Subscribe to Dashboard Updates

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

OR

Visit the [Port of Townsville Facebook page](#) and click on “Sign up” at the top of the page.

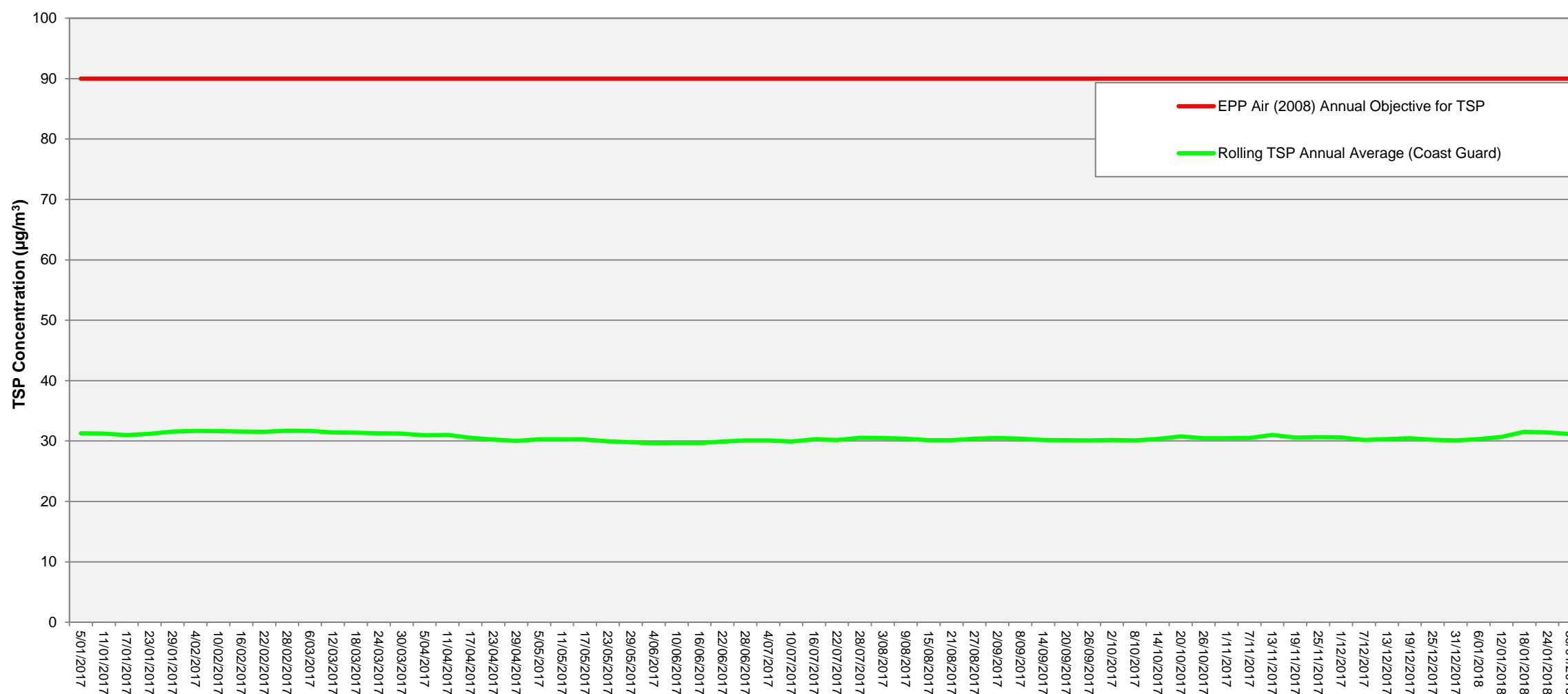
OR

Phone 07 4781 1551 and asked to be added to the list.

Ask a Question / Provide Feedback

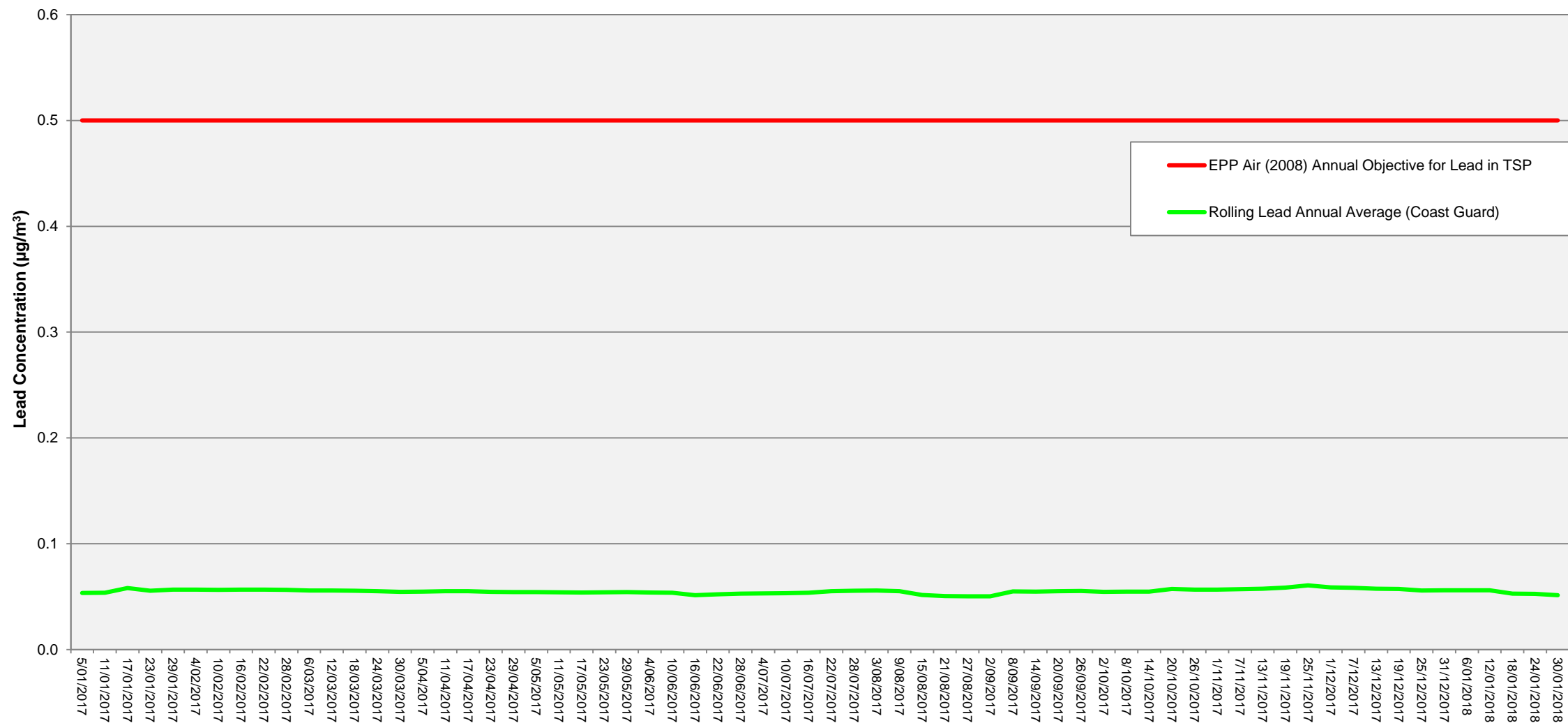
Send your enquiry or feedback to community@townsvilleport.com.au

Hi-Volume Sampler - General total dust levels (one in six days) at Coast Guard Site JANUARY 2017 – JANUARY 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 JANUARY 2017 – JANUARY 2018

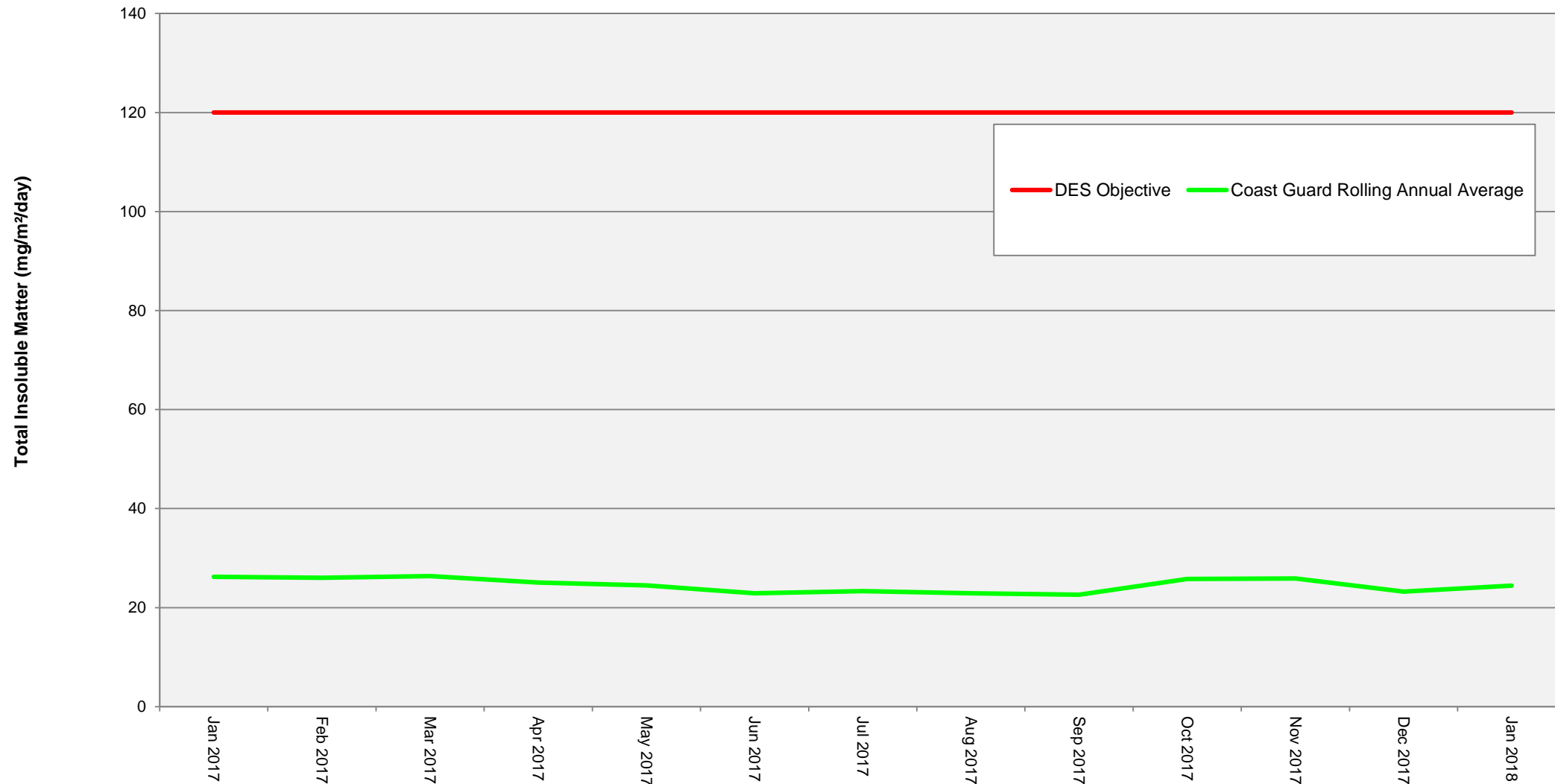


Note:

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

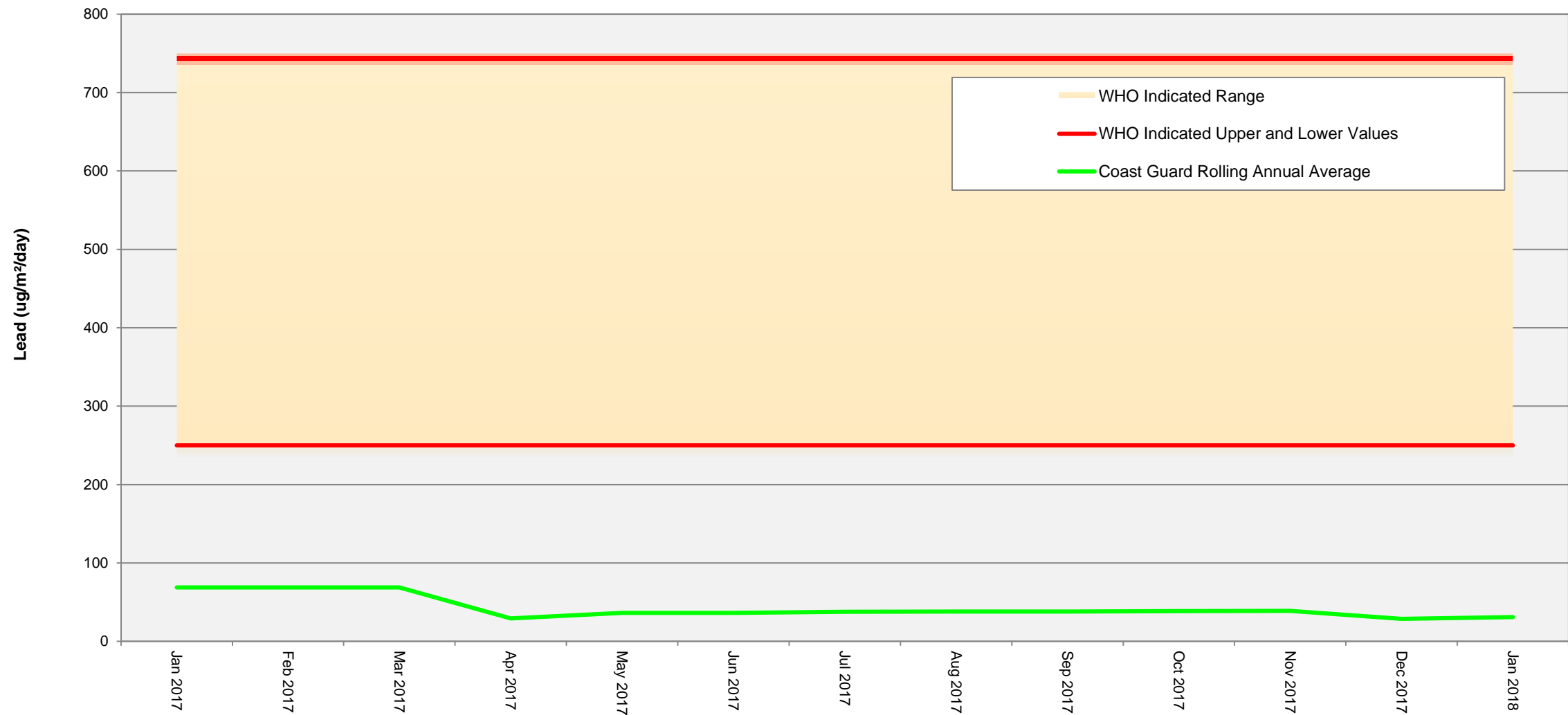
Rolling annual average = the moving average of the previous 11 results and the current result

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



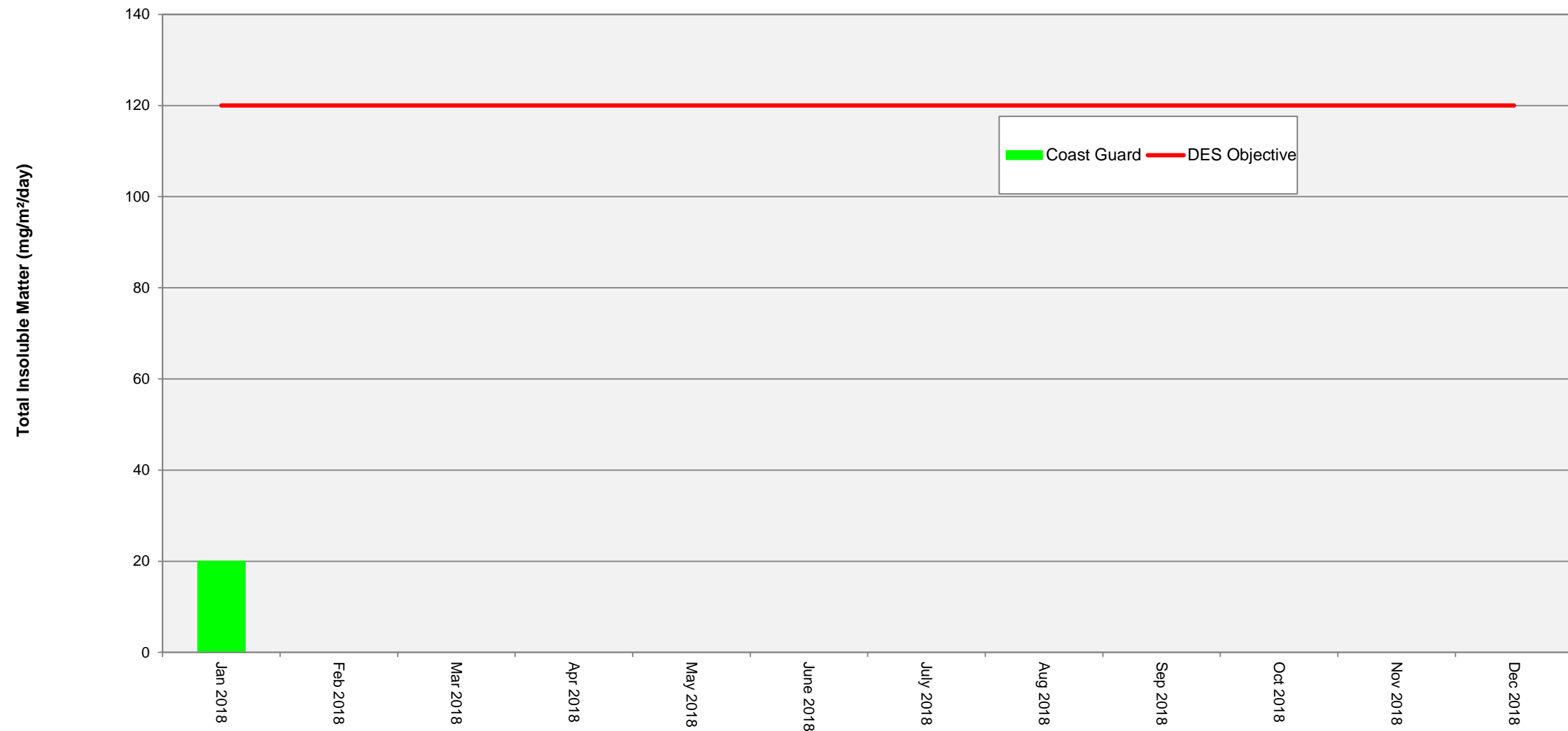
Note: Total Insoluble Matter Concentration units = micrograms per square metre per day
 Rolling annual average = the moving average of the previous 11 results and the current result

Dust Deposition Gauge – Lead in dust deposition levels (monthly) at Coast Guard Site JANUARY 2017 – JANUARY 2018



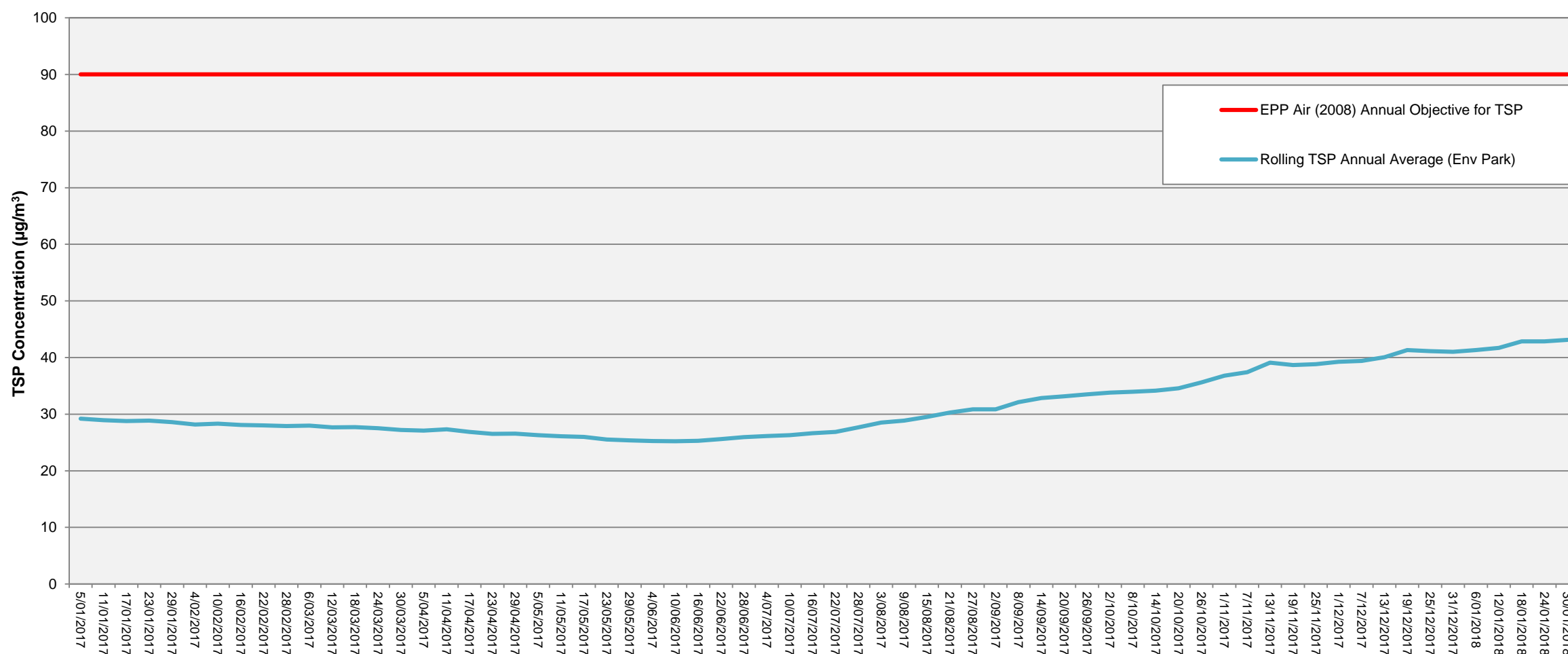
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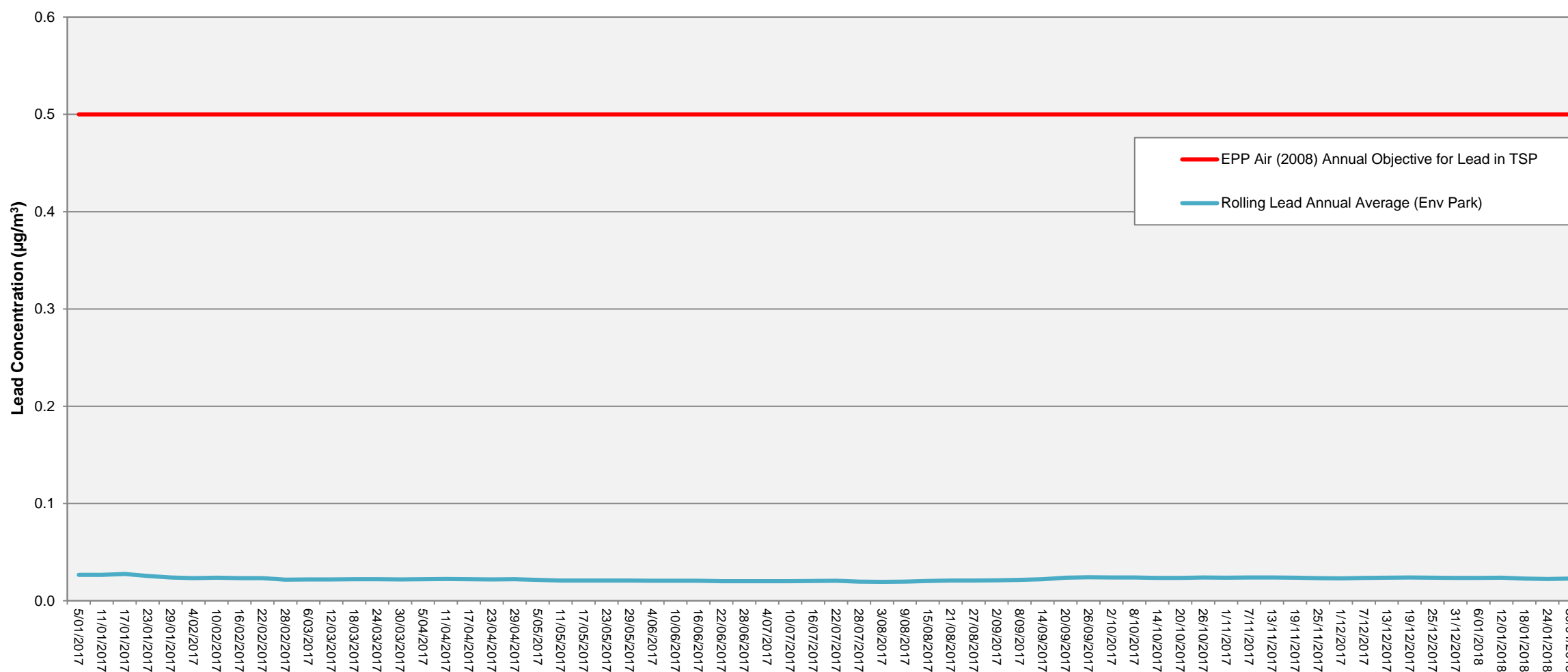
Note: Total Insoluble Matter Concentration units = milligrams per square metre per day

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



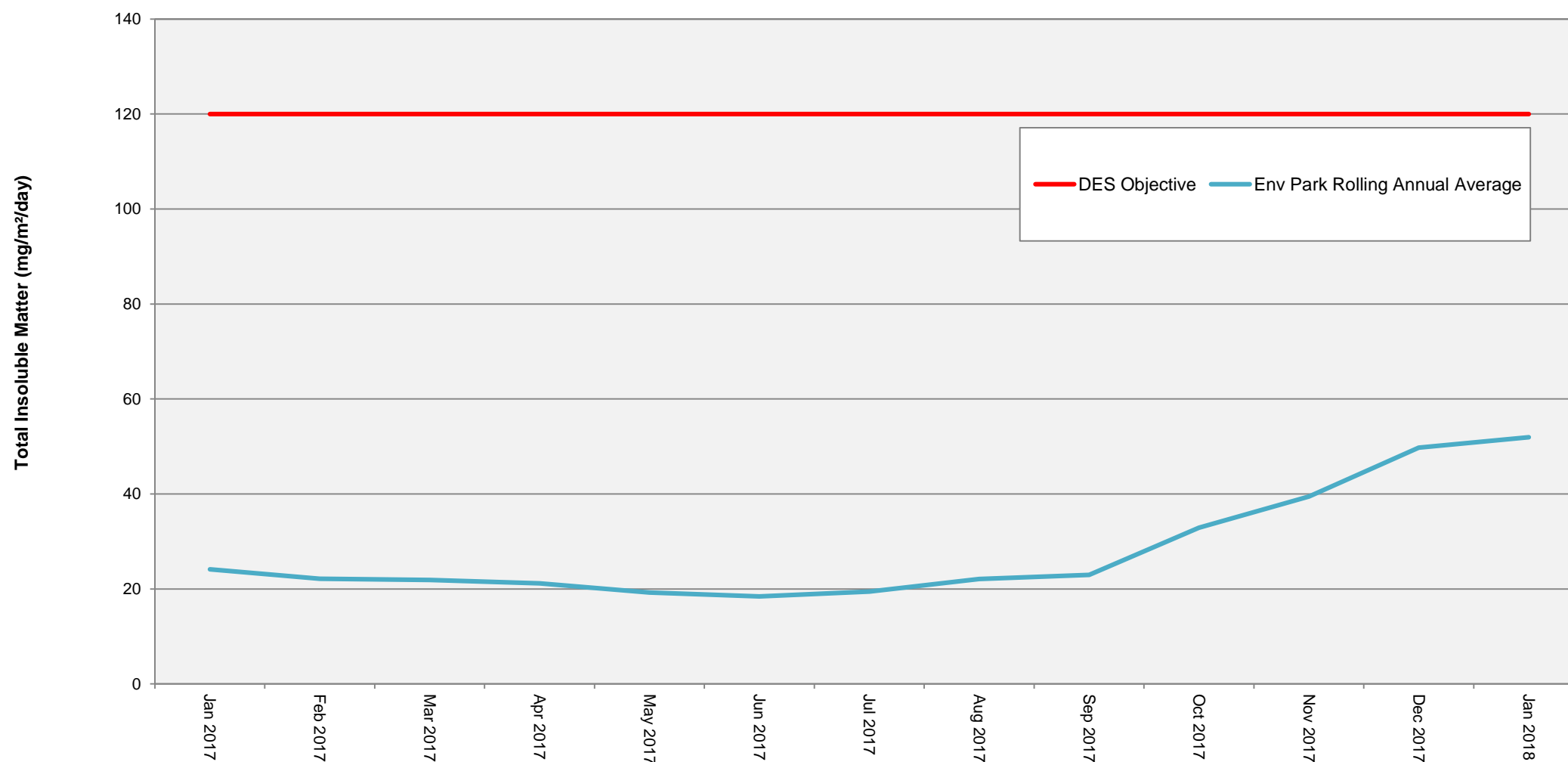
Note: TSP Concentration units = micrograms per cubic metre per 24 hour period
 Rolling annual average = the moving average of the previous 11 results and the current result

Hi-Volume Sampler - Lead in dust levels (one in six days) at Environment Park site JANUARY 2017 – JANUARY 2018



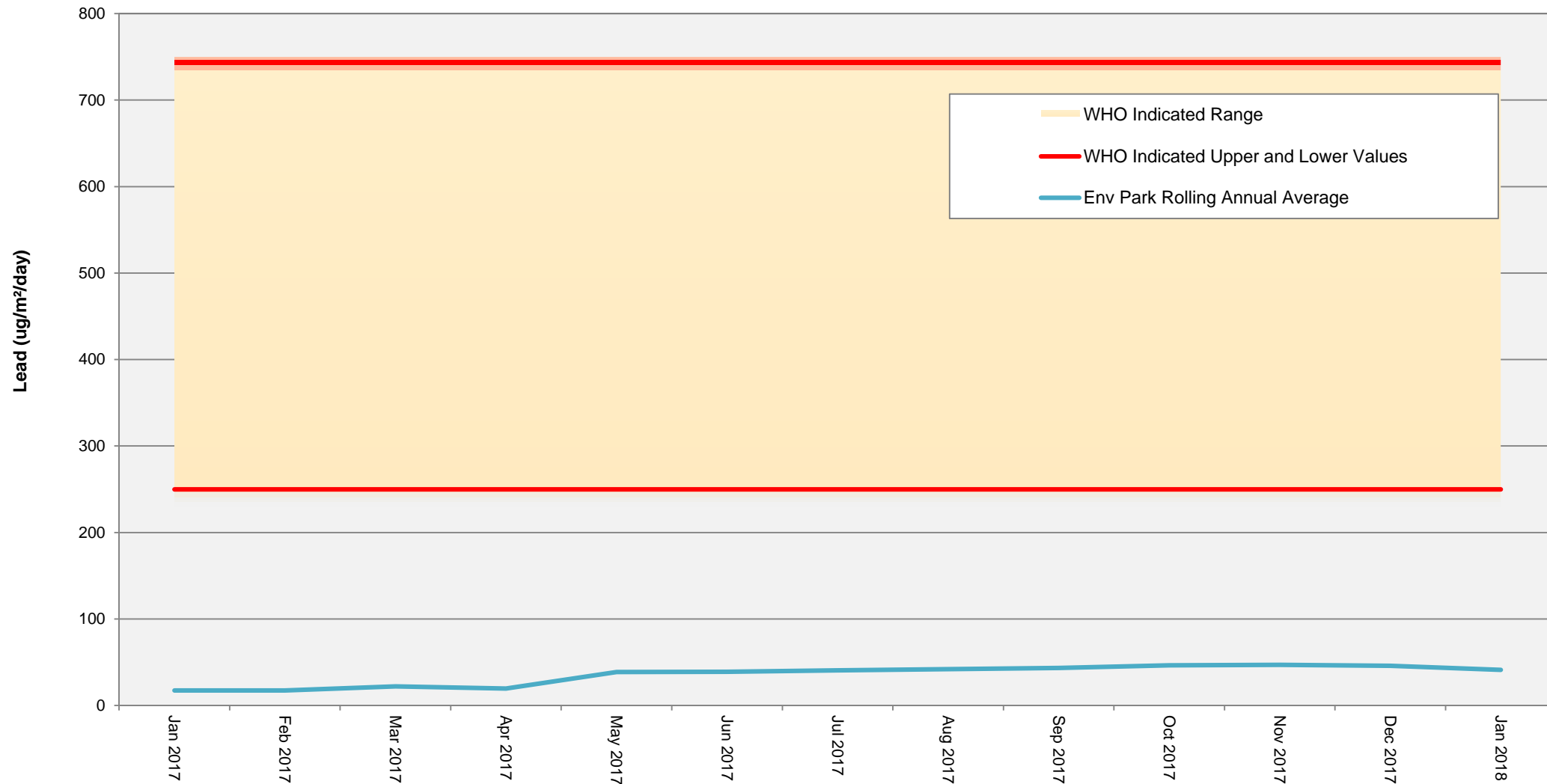
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Dust Deposition Gauge - General dust deposition levels (monthly) at Environment Park site JANUARY 2017 – JANUARY 2018



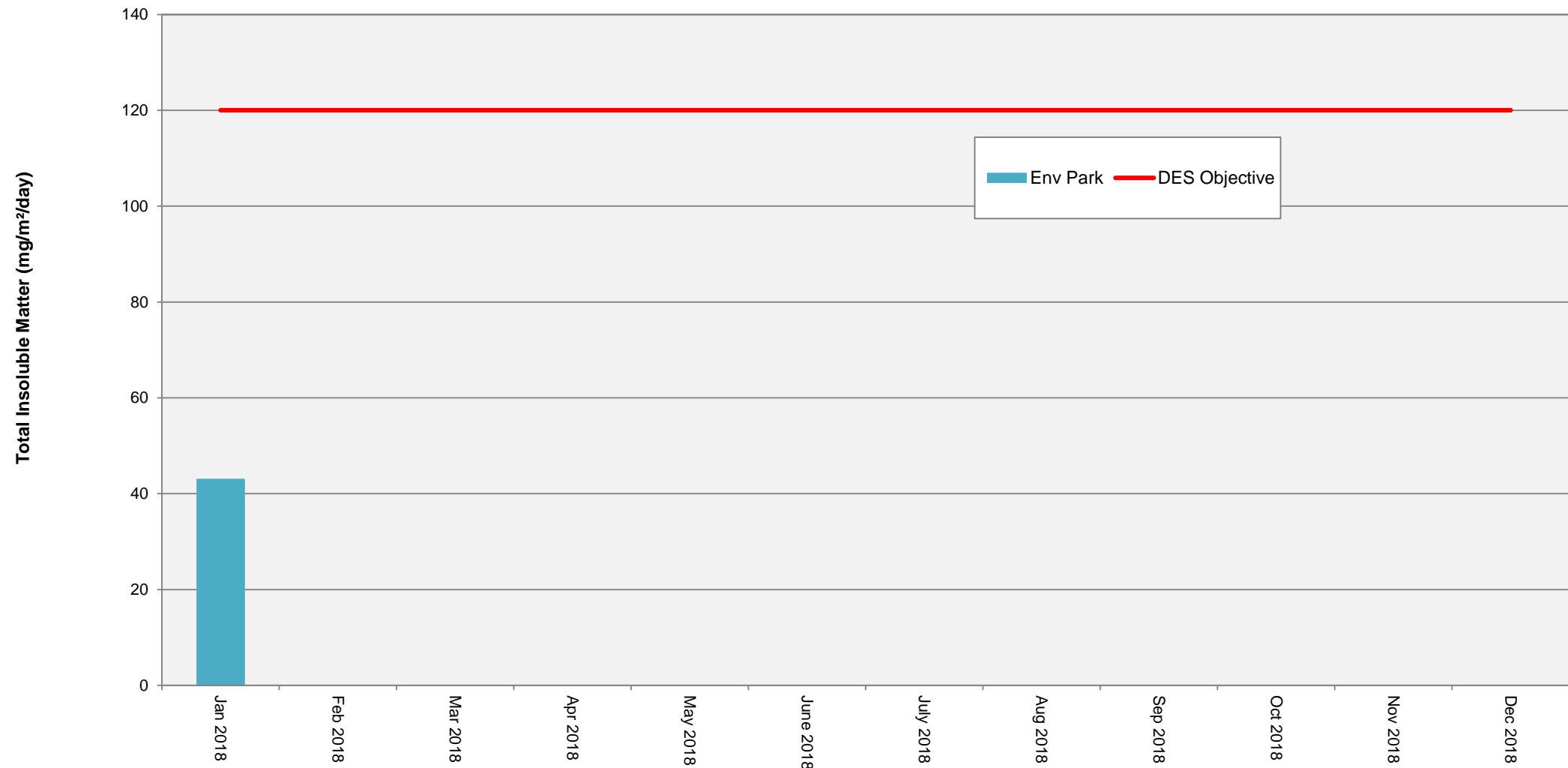
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Dust Deposition Gauge – Lead in dust deposition levels (monthly) at Environment Park site JANUARY 2017 – JANUARY 2018



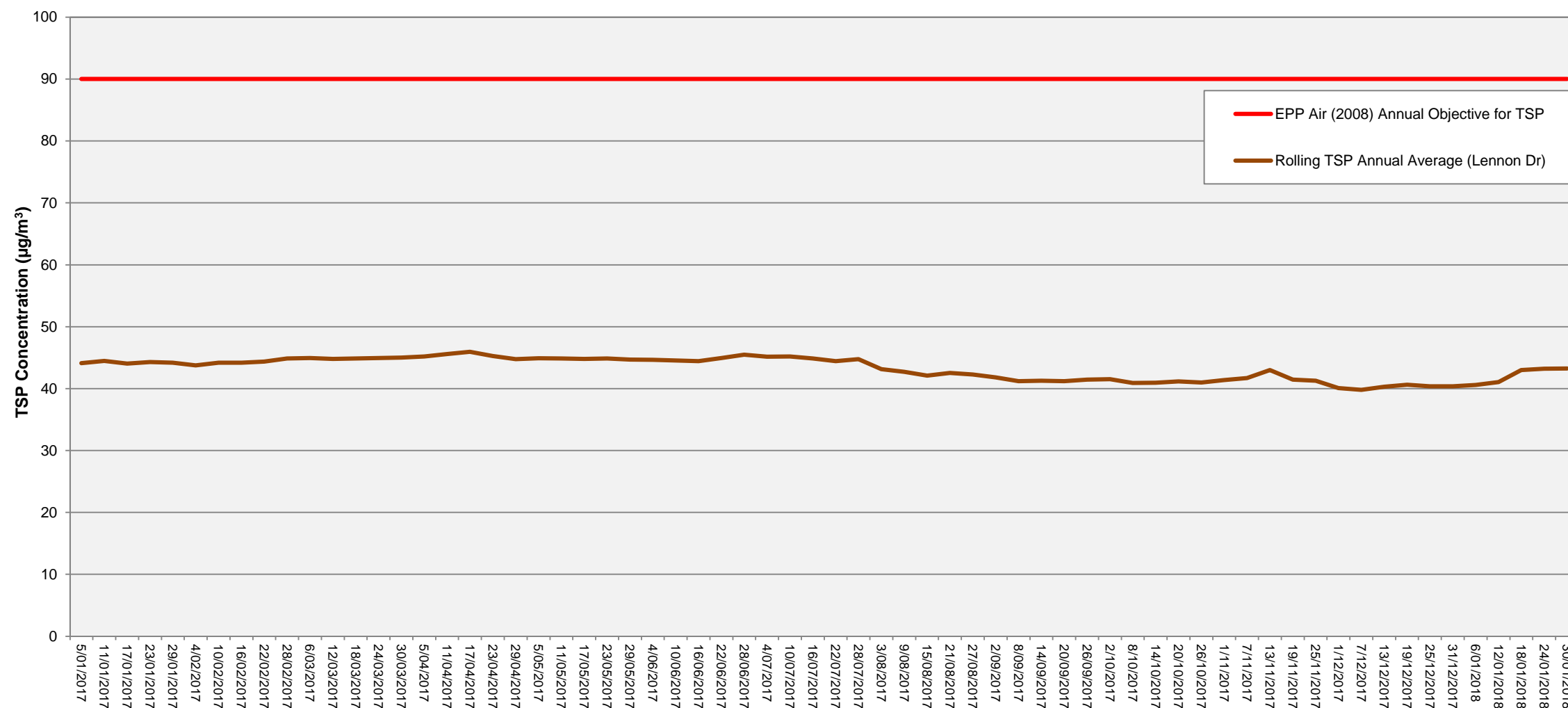
Note: Lead Concentration units = micrograms per square metre per day
Rolling annual average = the moving average of the previous 11 results and the current result

Dust Deposition Gauge – General dust deposition levels (monthly) at Environment Park Site JANUARY 2017 – JANUARY 2018



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 JANUARY 2017 – JANUARY 2018

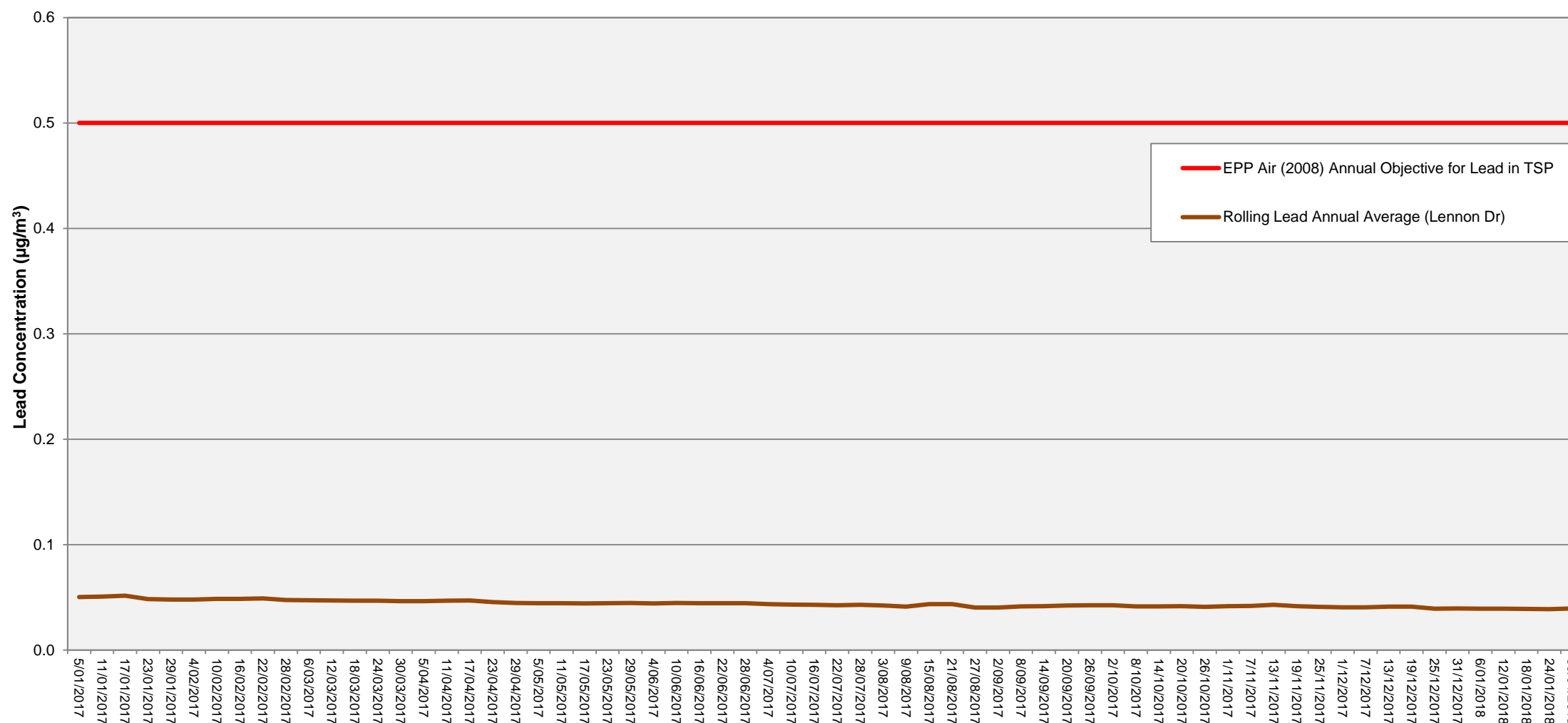


Note:

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

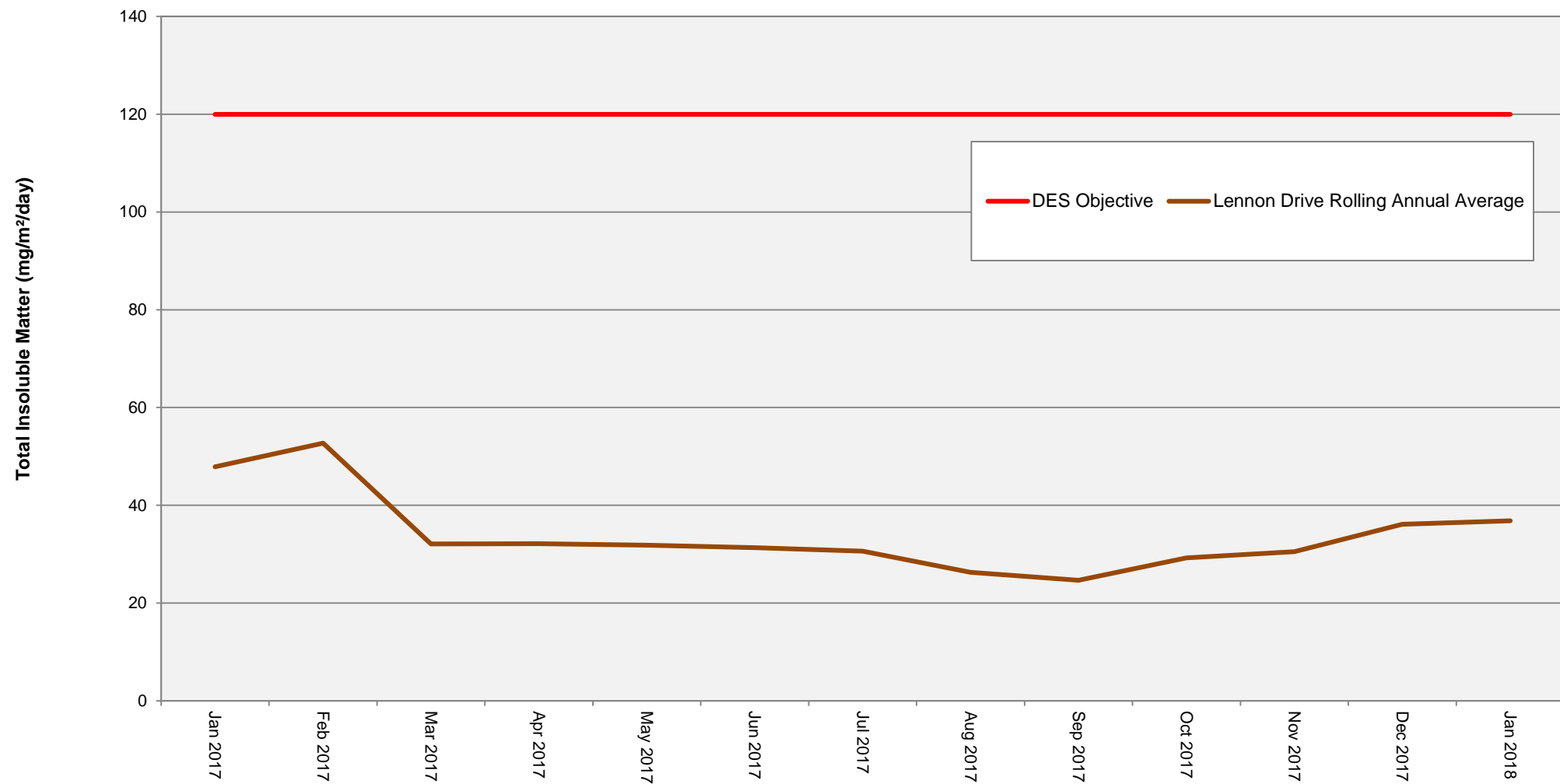
Rolling annual average = the moving average of the previous 11 results and the current result

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



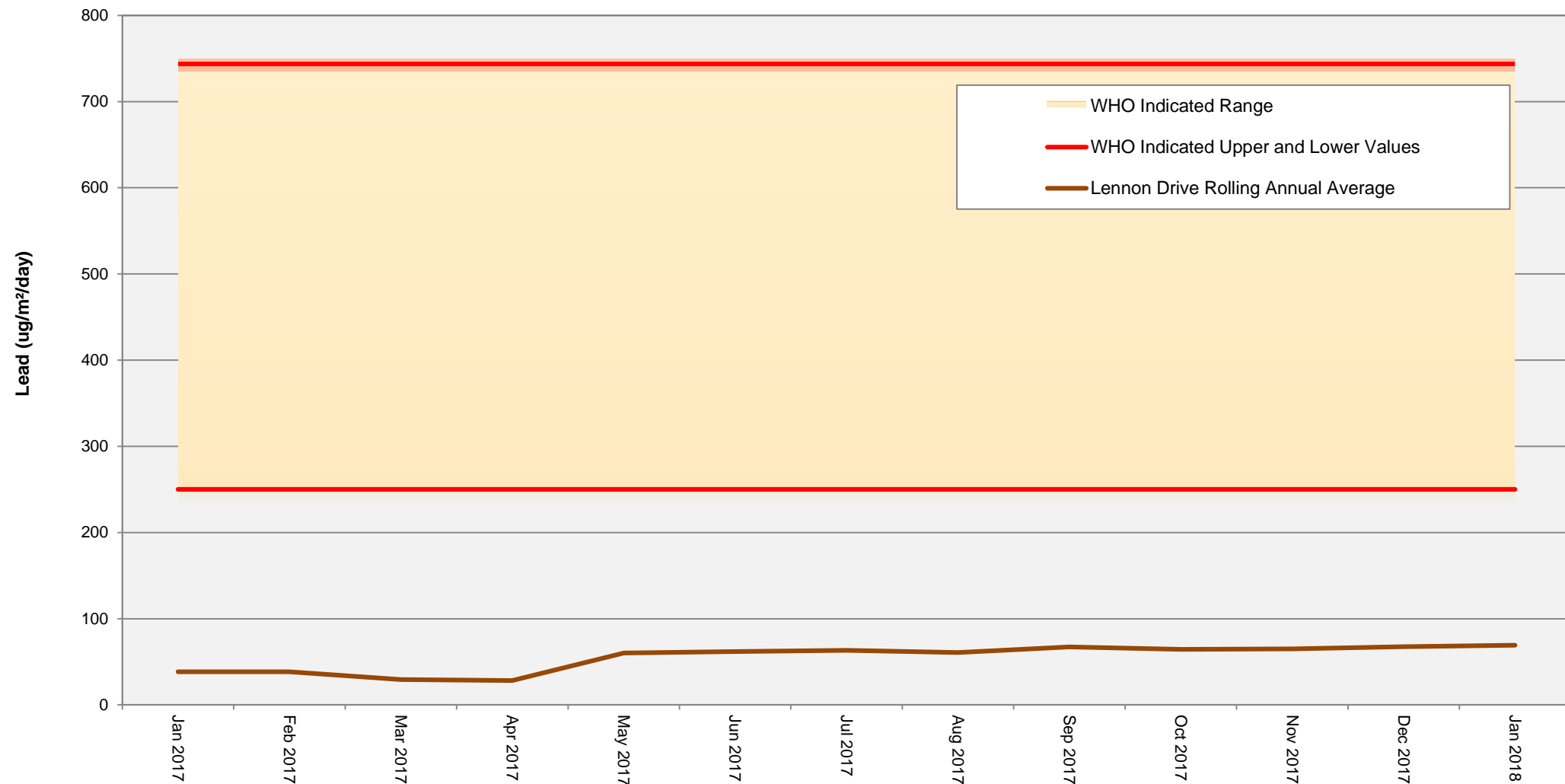
Note: Lead Concentration units = micrograms per cubic metre per 24 hour period
 Rolling annual average = the moving average of the previous 11 results and the current result

Dust Deposition Gauge - General dust deposition levels (monthly) at Lennon Drive Site JANUARY 2017 – JANUARY 2018



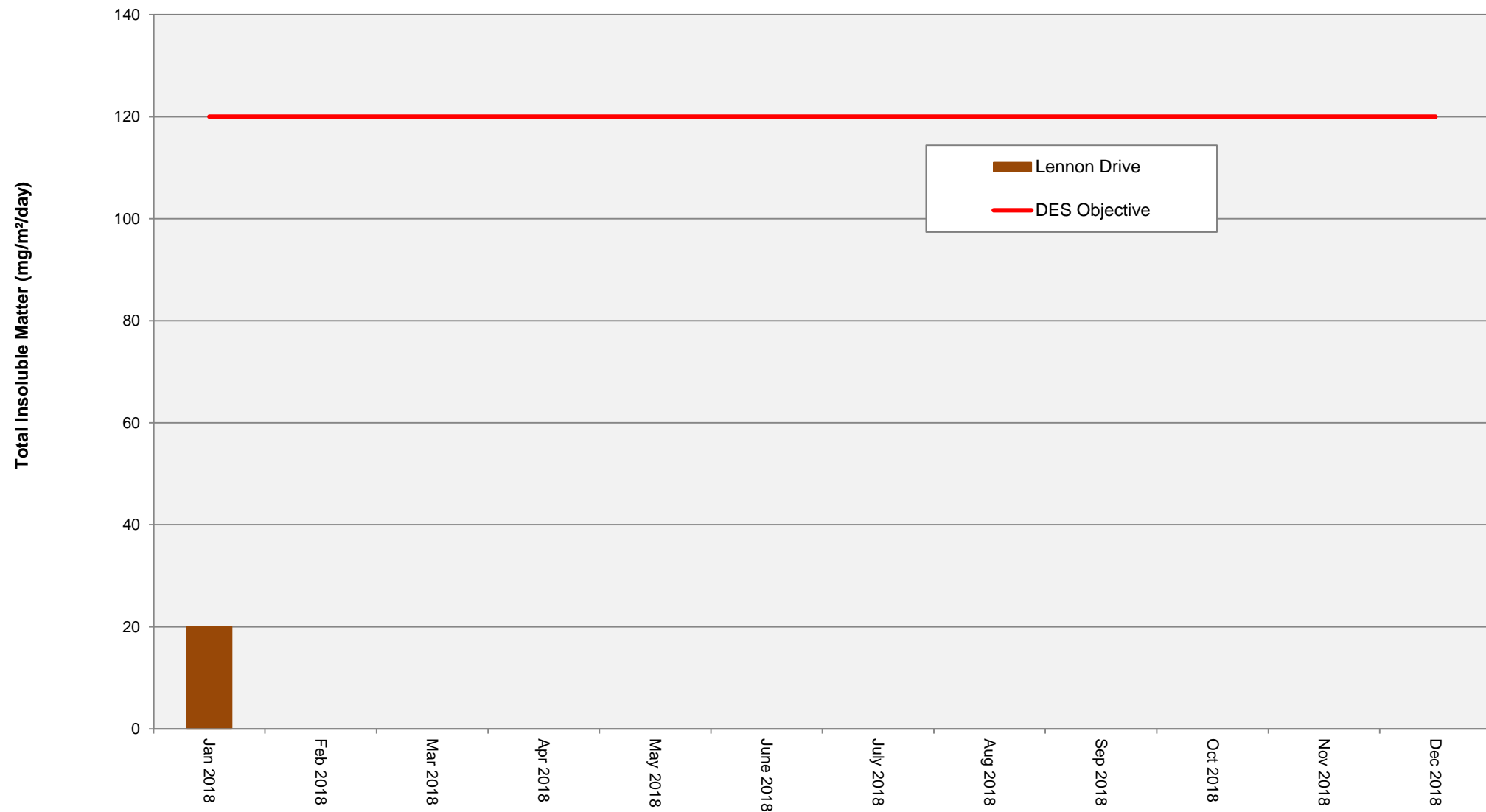
Note: Total Insoluble Matter Concentration units = micrograms per square metre per day
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Dust Deposition Gauge – General dust deposition levels (monthly) at Lennon Drive Site JANUARY 2017 – JANUARY 2018



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 out. The most recent NHMRC guidance document suggests that a blood lead level of less than 5 µg/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 µg/dL but since the beginning of 2016 has been reduced to 5 µg/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 µg/dL and 1.9 µg/dL, still well under the level which should trigger concern.