

WELCOME

**ENGEN REFINERY PRESENTATION TO THE
PORTFOLIO COMMITTEE: ENVIRONMENT,
FORESTRY & FISHERIES**

12 March 2024

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ENGEN Team

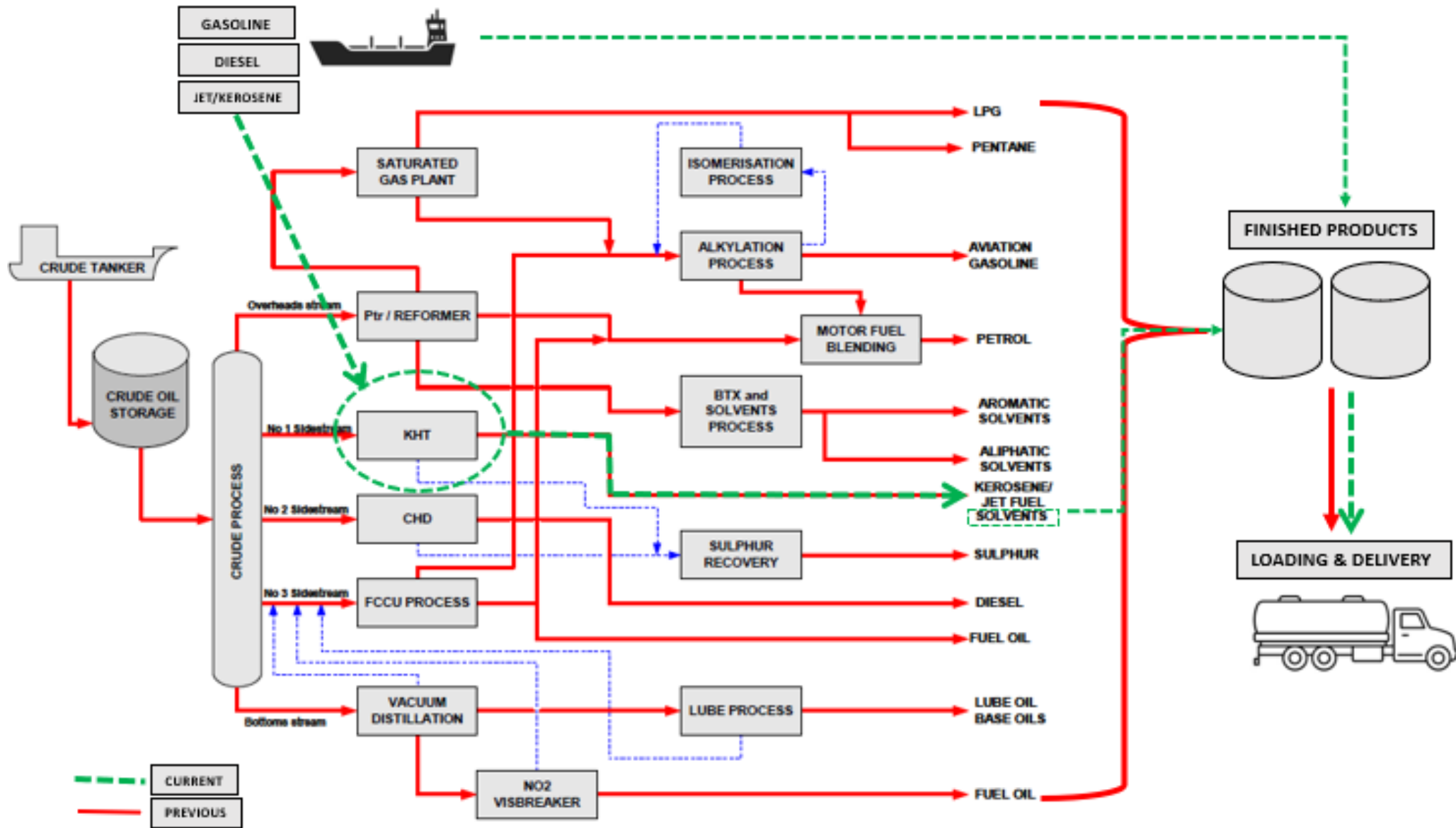
Ms. Shirley Moroka-Mosia	:Head HSEQ
Mr. Godfrey Vilakazi	:Chief Marketing Officer
Mr. Pradeep Ramharakh	:Manager: Transition, Repurpose & RTT
Mr. Senzo Makhathini	:Manager: Environment
Mr. Bradley Scheepers	:Manager: HSEQ & Food Compliance
Ms. Nompumelelo Mdlalose	:Environmental Advisor

AGENDA

1. Background and status of the site
2. Compliance status
3. Air Quality
4. Complaints management
5. Stakeholder engagement & CSI
6. Discussion

BACKGROUND & STATUS OF THE SITE





KHT – < 3 % of Total Refinery Point Source Emissions

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COMPLIANCE STATUS

Existing site permits and licenses

Site retains and complies with the:

- Atmospheric Emissions License (2020-2025)
- Scheduled Activities Permit (2022-2027)
- Water Use License (2020-2040)
- Trade Effluent Permit (2024-2029)
- Remediation Order (2022)

*Reviewing site permits and licenses for applicability to current and future state.

Terminal mode operations and future

Authority engagements have been taking place:

- On-going engagement with the City of eThekweni's Health Department
- On-going engagement with the EDTEA
 - Enquiries for authorisation application applicability
- Site visits by various authorities (DFFE; EDTEA; eThekweni Municipality)
- Remediation Order for the site issued in 2022
- Environmental Authorisation in terms of the NEM: EIA Regulations not applicable- compliance with the NEM:WA Part 8

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FENCELINE MONITORING

BENZENE, TOLUENE, ETHYLBENZENE, XYLENE (BTEX)



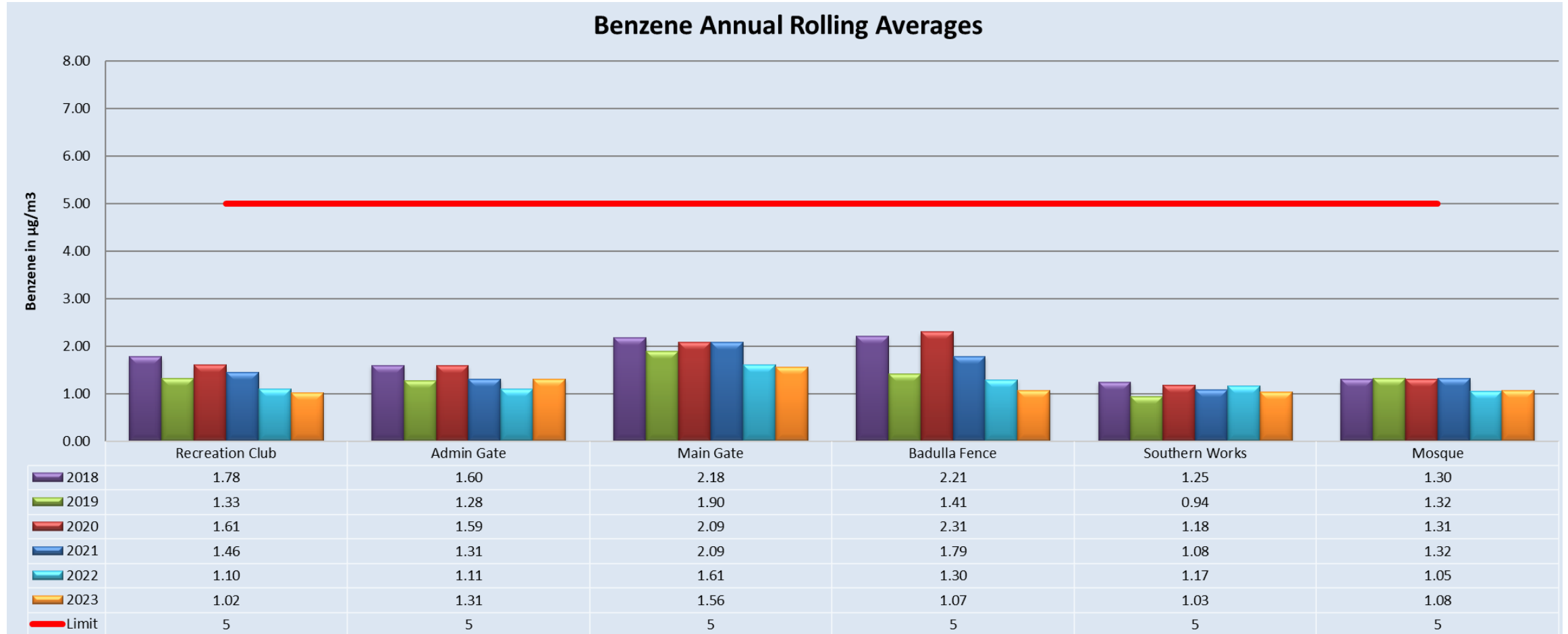
Google Earth

Image © 2022 Maxar Technologies

1 km

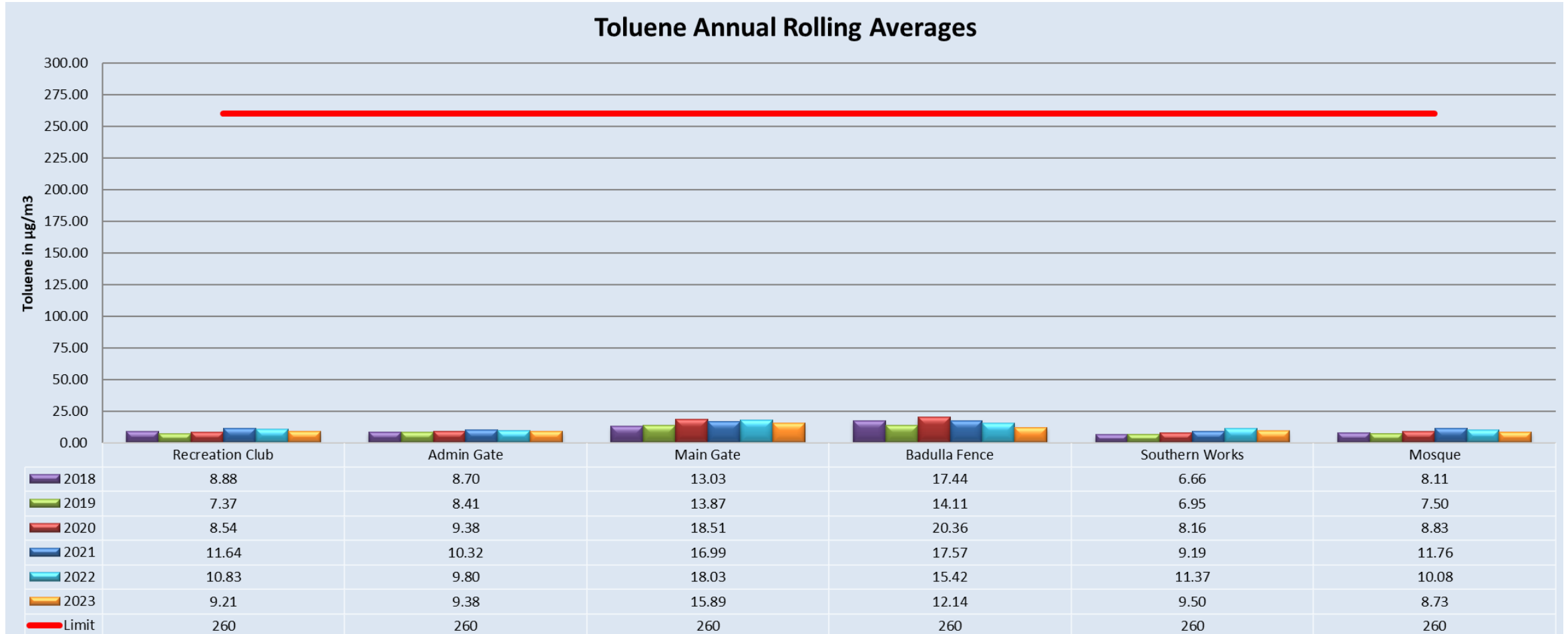


FENCELINE MONITORING - BENZENE



National Ambient Air Quality Standards for Benzene (DEA, 2009) limit - 5 µg/m³

FENCELINE MONITORING - TOLUENE



Guidelines for Air Quality, World Health Organisation - 260 µg/m³

FENCELINE MONITORING - ETHYLBENZENE

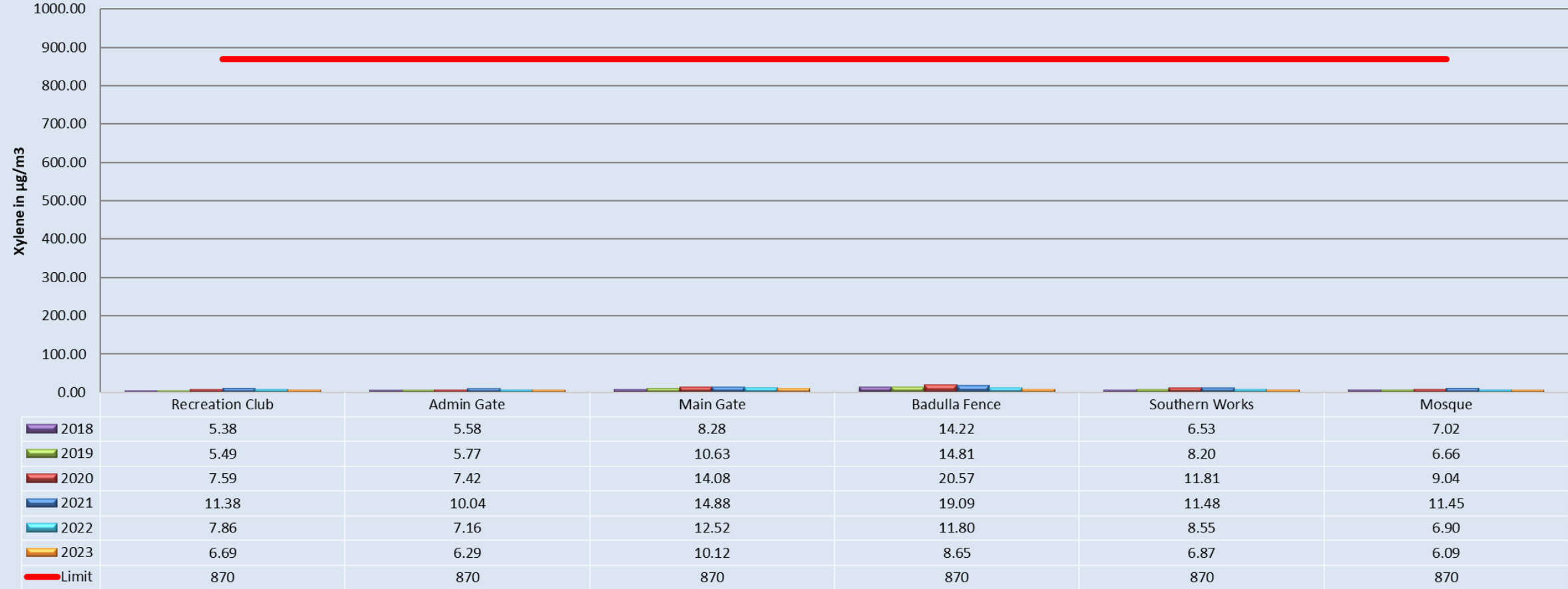
Ethyl Benzene Annual Rolling Averages



US EPA IRIS Guidelines -1000 µg/m3

FENCELINE MONITORING - XYLENE

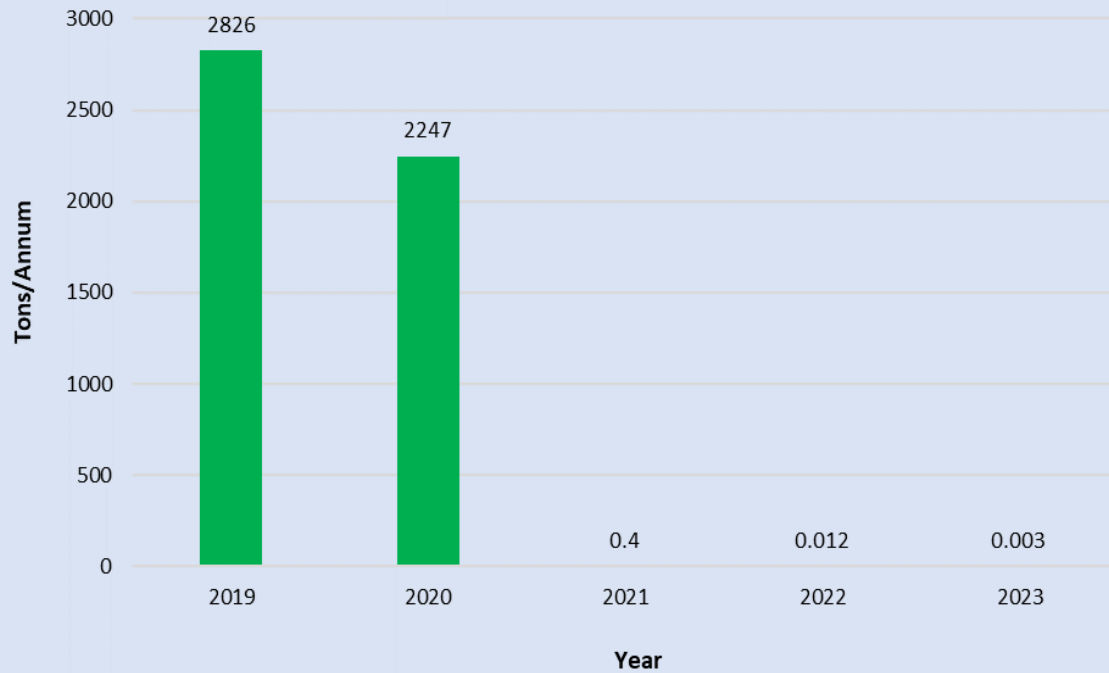
Xylene Annual Rolling Averages



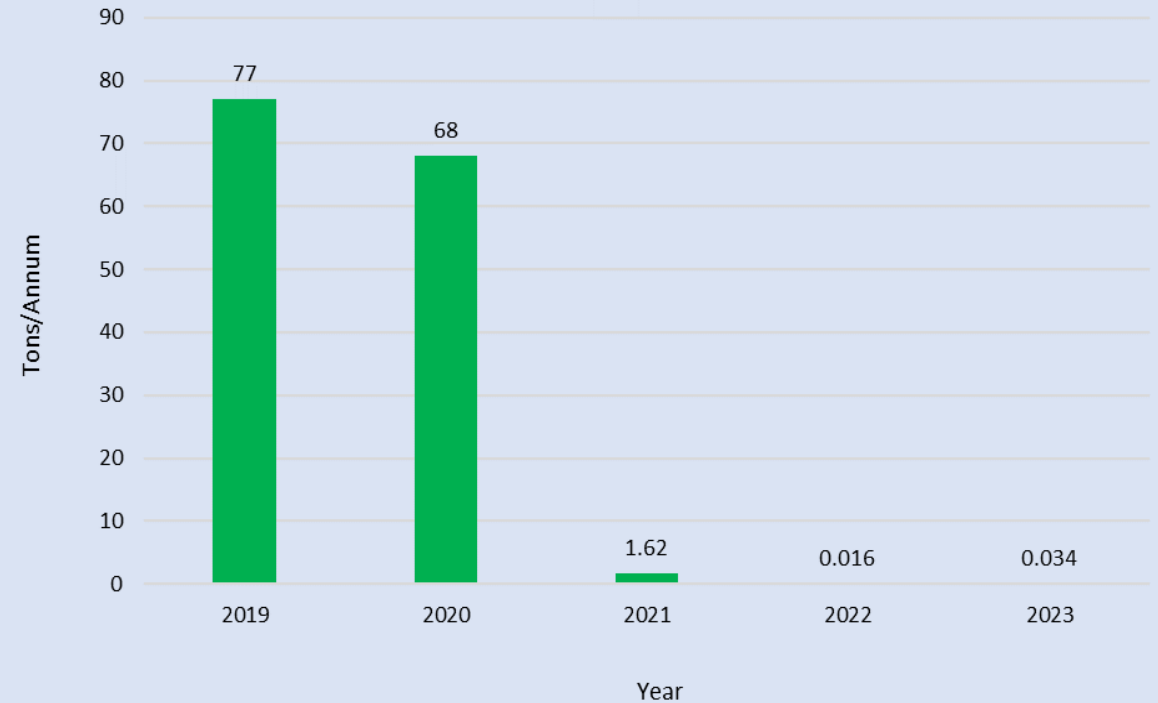
Guidelines for Air Quality, World Health Organisation - 870 µg/m3

EMISSIONS

SO2 Emissions



PM Emissions



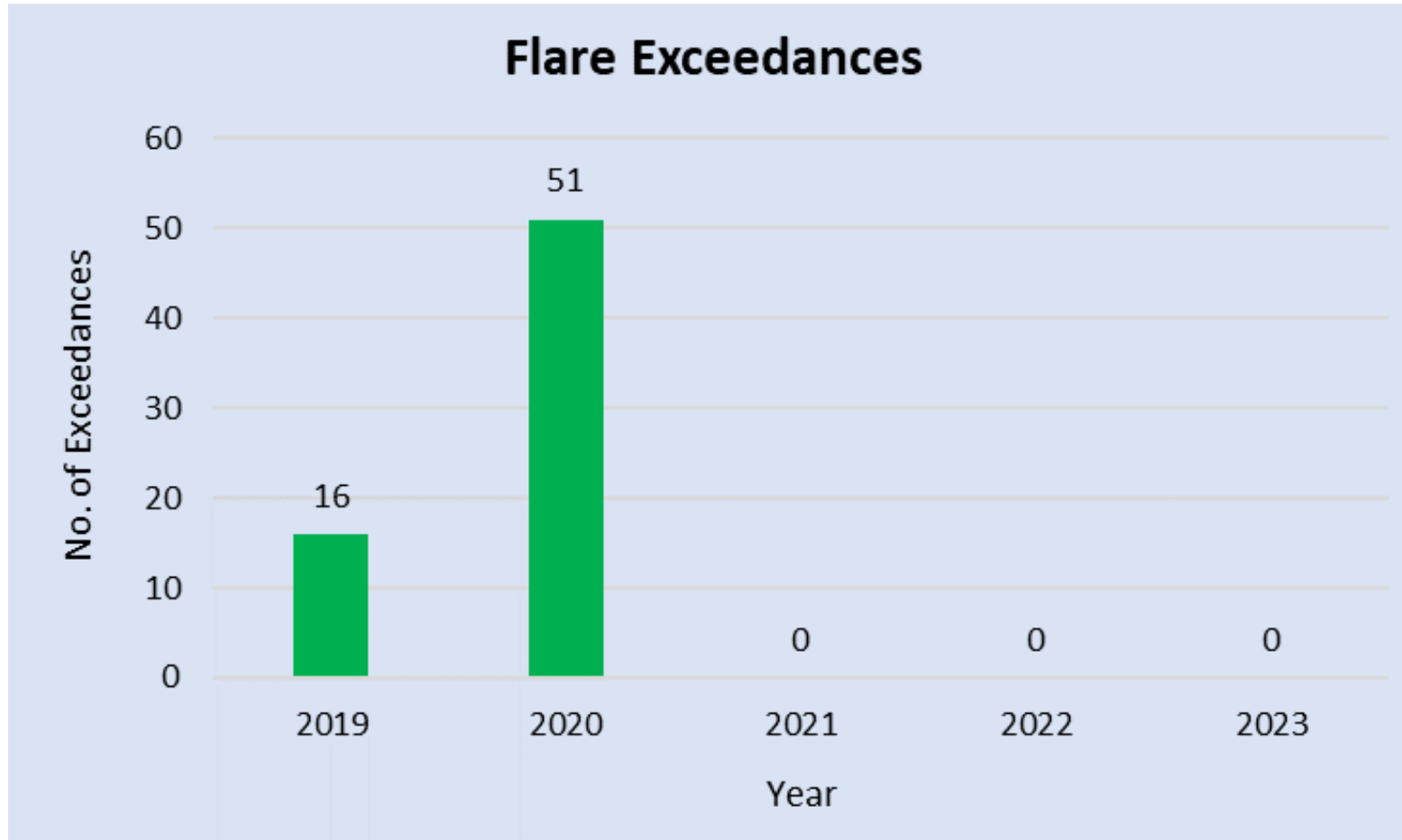
- KHT – constitutes 2.72 % of Total Refinery SO2 Point Source Emissions
- KHT – constitutes 3.06 % of Total Refinery PM Point Source Emissions

Kerosene Hydro Treater
SO2- Sulphur Dioxide
PM- Particulate Matter

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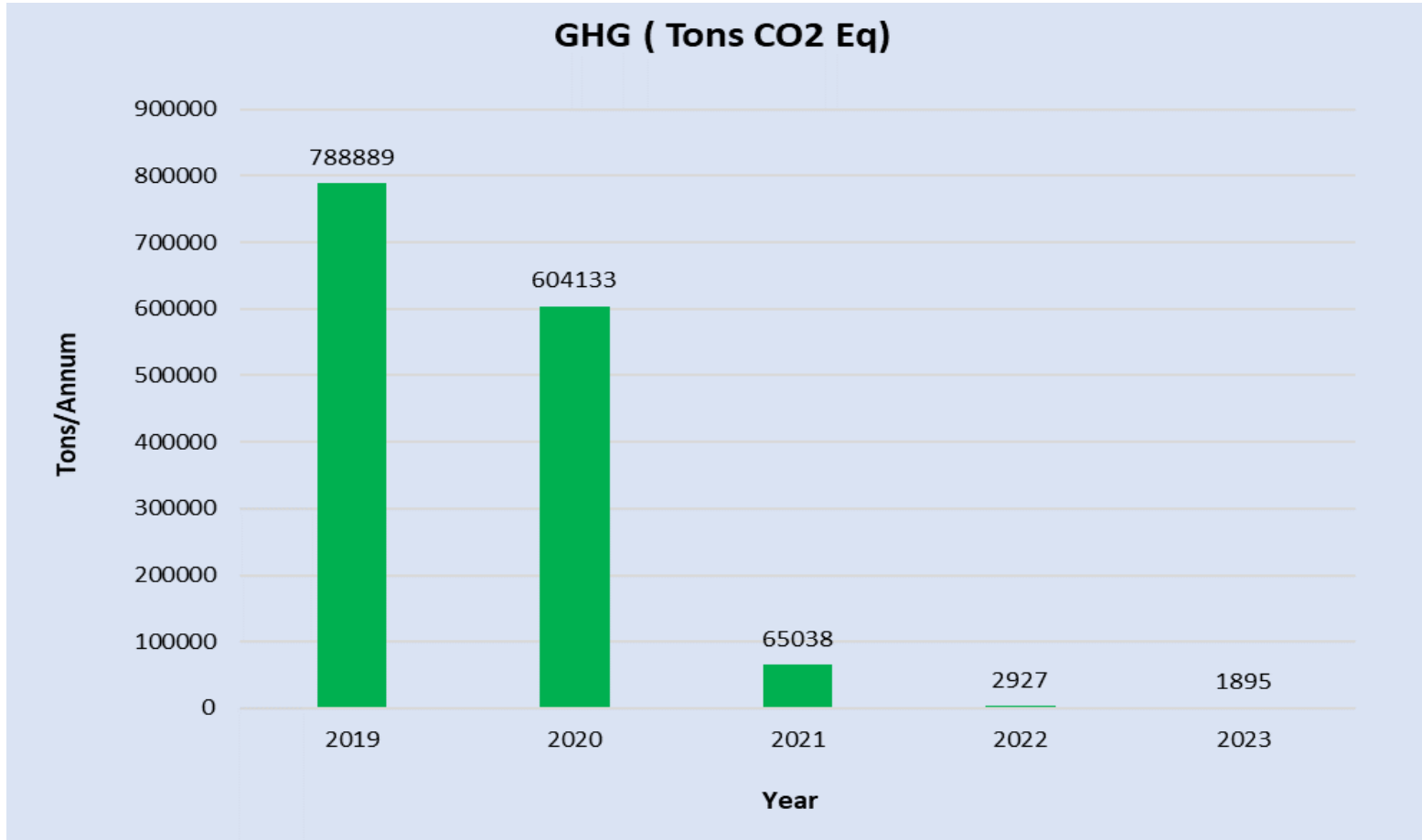
FLARING



- No flare exceedances have been recorded since December 2020.
- Flare uses Methane Rich Gas (MRG)- no H2S

H2S: Hydrogen Sulphide

GREENHOUSE GASES (GHG)



- > 99% reduction in GHG emissions since 2019

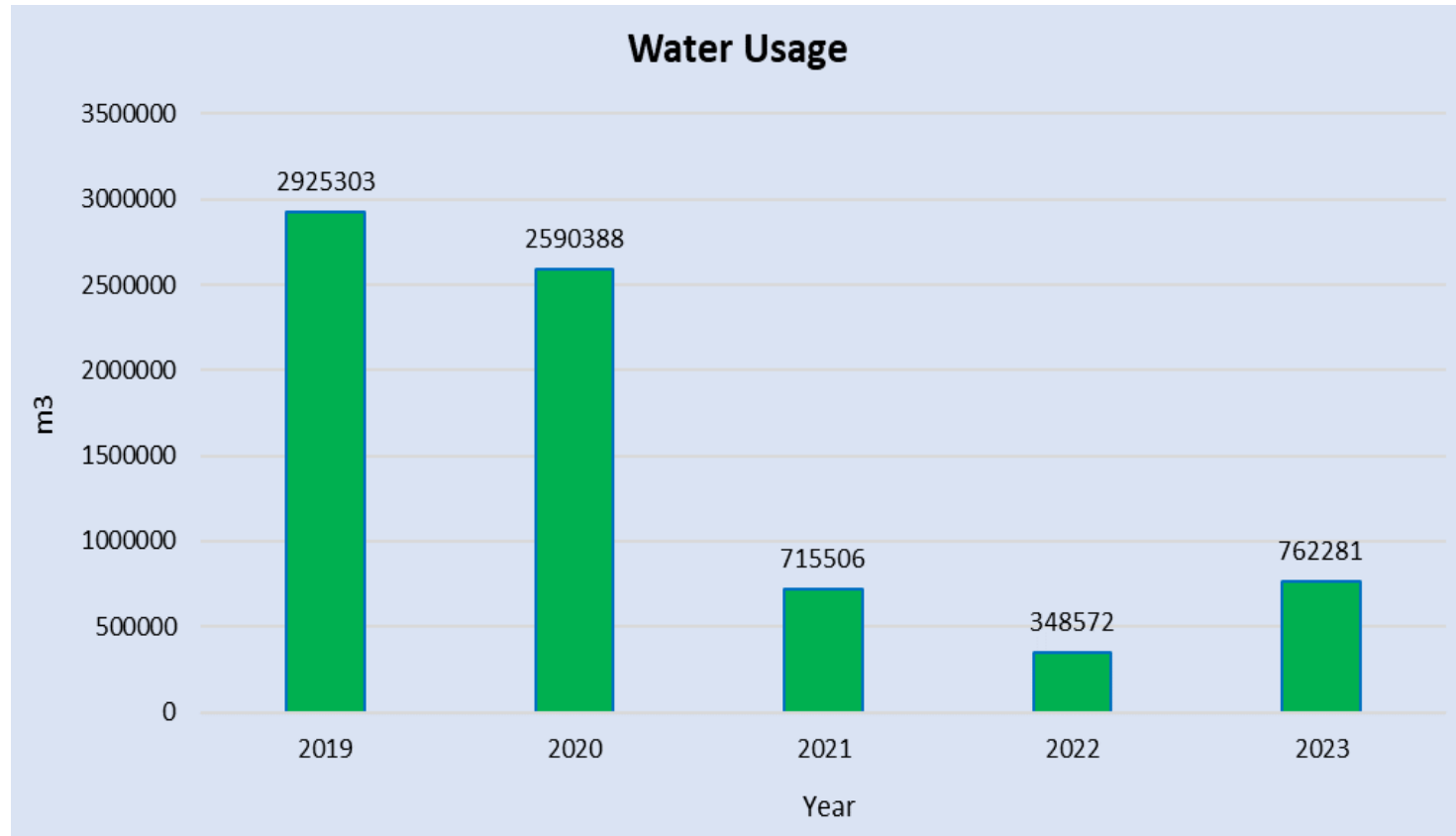
Pollution control measures and mitigation plans:

- Tank maintenance program
- Floating and geodesic dome roofs for tanks
- Pipeline maintenance program
- Loading vapour recovery units (VRU)
- BTEX fenceline
- Leak detection & repair program (LDAR)
- Point source emission testing

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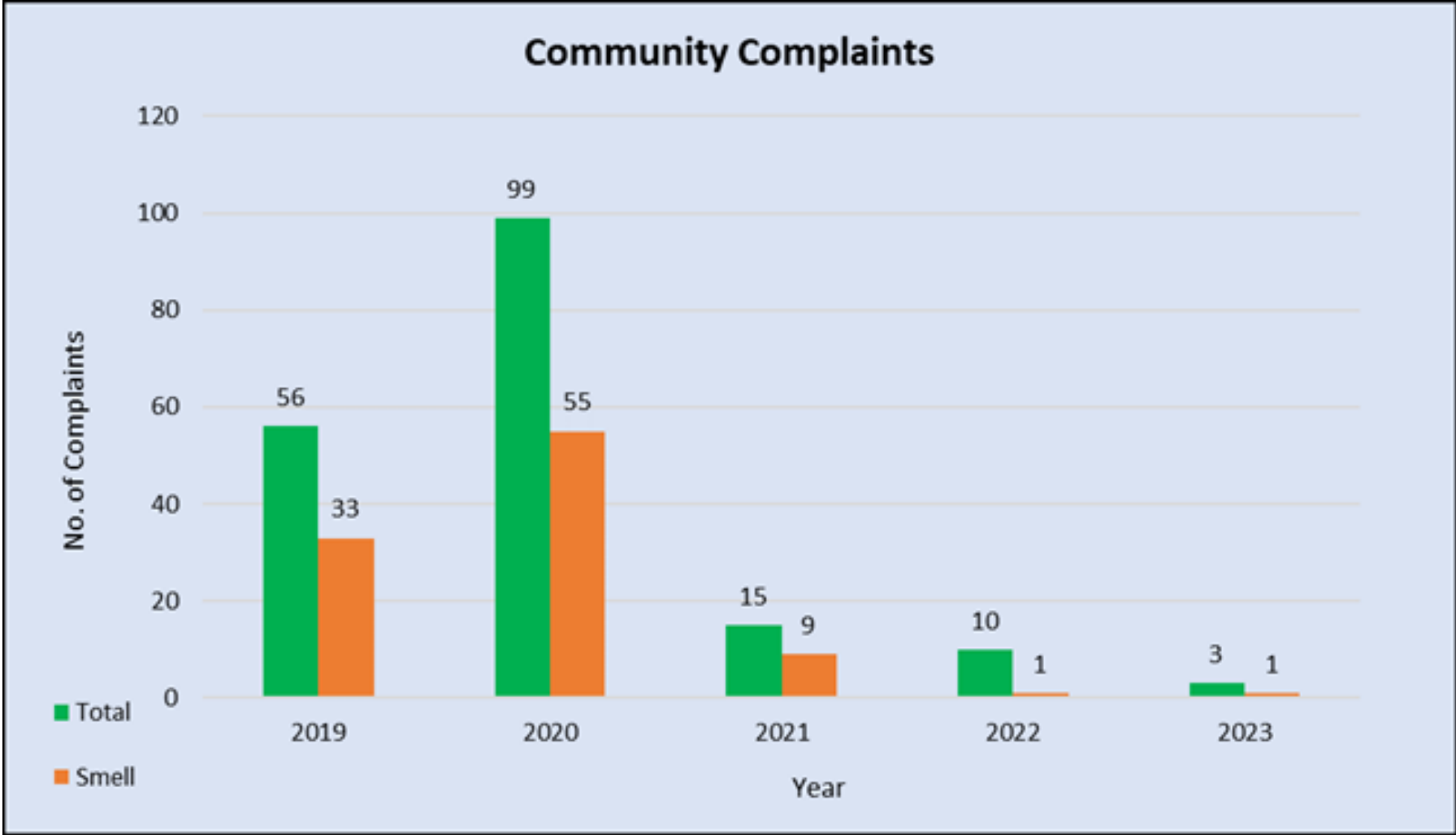


WATER USE



- > 70% reduction in water usage since 2019
- More reliance on groundwater.

COMPLAINTS



COMMUNITY ENGAGEMENT JOURNEY

2009-17

- Community Stakeholder Forum (CSF)
- CSF transitioned to Engen Community Stakeholder Forum (ECSF) in 2011/12
- Proposals made that the ECSF engagement models needs review

2018

- Perception Audit Commissioned to test effectiveness of the ECSF
- ECSF SWOT analysis conducted
- Sample of South Durban Basin community interviewed about the ECSF

2019

- Perception Audit Feedback received by Engen
- ECSF Membership Reviewed
- ECSF Capacity Building Workshop conducted
- ECSF Strategy Reviewed

2020-21

- ECSF engagement model reviewed
- Appointment of an Independent Community Stakeholder Engagement Facilitator (ICSEF)

2022-24

- ECSF dissolved
- Joint Interim Committee (JIC) formed as recommended by ICSEF
- JIC comprised of former ECSF members and the 13-man Delegation
- JC endorsed as a final engagement model in 2022

REGULAR COMMUNITY ENGAGEMENT

- Aim of Community-Engen Joint Committee (JC) is to co-create opportunities for community enhancement, and to resolve matters of contention.
- JC meets monthly (special meetings are convened for urgent matters).
- JC includes Community Representatives from Wentworth, Merebank, Umlazi and Lamontville.
- Governed by a signed Terms of Reference and guided by an Executive Committee.
- Sub-committees: 1. Health Safety & Environment (HSE) | 2. Localisation | 3. Social Investment (CSI) | 4. Governance
- Interest groups, including SDCEA, are encouraged to join the JC.
- All environmental concerns can be tabled for discussion (special focus deliberated at Sub-committee meetings).
- A standard Agenda is prepared and sent to Community Reps to provide inputs / comments for any additional agenda items to be discussed.

PROJECTS CO-CREATED WITH THE JC IN 2023

Skills Development

- Artisan Training (21)
- Learnerships (29)
- Adult Based Education and Training (ABET) to finish matric (50)

Maintenance and Assistance to 6 Schools

- Air Conditioners and Jojo Tanks
- Motorised Gates, Plumbing, Painting,
- Computer and Sports Equipment.

School Fees

- Paid for 11 matriculants in need.

Community Wellbeing & Development

- Austerville Swimming Pool & Lamontville Swimming Pool Support
- Merewent Cheshire Home – Medical Equipment and Fuel
- Mason Lincoln Special School – Kitchenware and medical equipment
- St Monica's & Ocean View Childrens Youth Care Centre – 31 Christmas Boxes
- Beach Cleanup
- Donation of 177 Scientific Calculators to SDB learners
- Arbour Day – 120 trees planted at South Durban schools and mental health facilities
- Food Hamper Distribution – R135k



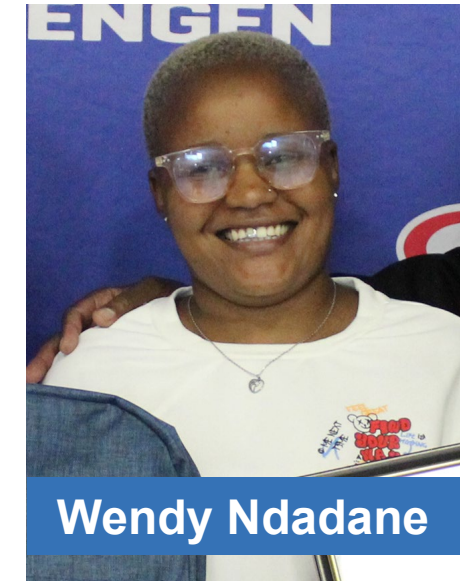
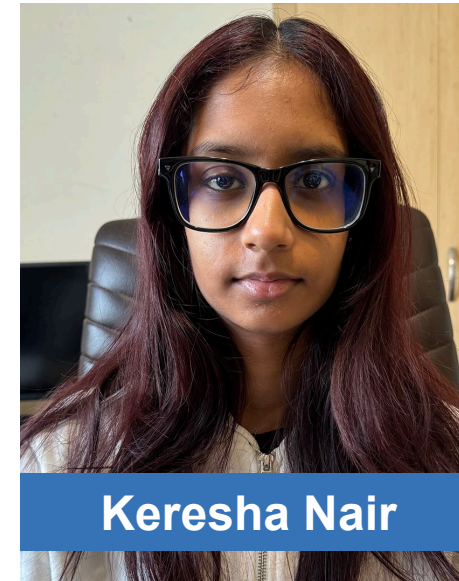
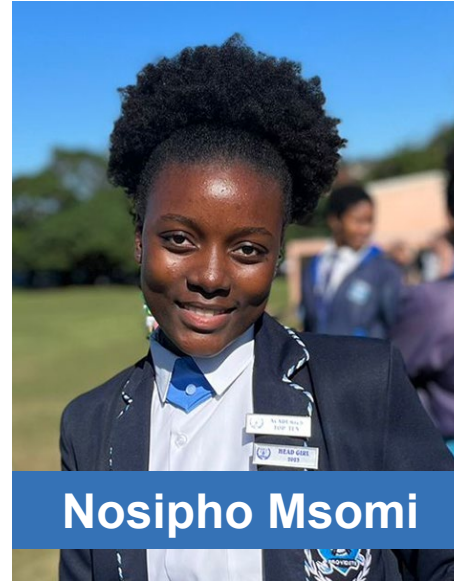
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SOUTH DURBAN COMMUNITY UPLIFTMENT

Engen Maths & Science School (EMSS)

- 4 are located in South Durban (at Fairvale, Ganges, Hillview and Umlazi High Schools).
- Offers weekly supplementary Maths, Science & English classes
- 600 South Durban learners in Grade 10-12 enrolled annually.
- Employs quality educators.
- 2023 EMSS matric class - 97% pass rate - 70% Bachelor passes (v 83% and 41% nationally).
- Bursaries offered to approximately 100 matrics for tertiary study.



SOUTH DURBAN COMMUNITY UPLIFTMENT

Engen Computer School

- Based in Wentworth since 2009.
- Offers free 4-month introductory-level computer skills training (National Certificate: IT: End User Computing).
- Open to unemployed residents and school-leavers from South Durban.
- Consistently attracts a waiting list.
- To date 2 939 graduates.
- Of the 2023 graduates, approx. 35% secured employment or gained acceptance into learnership programmes.

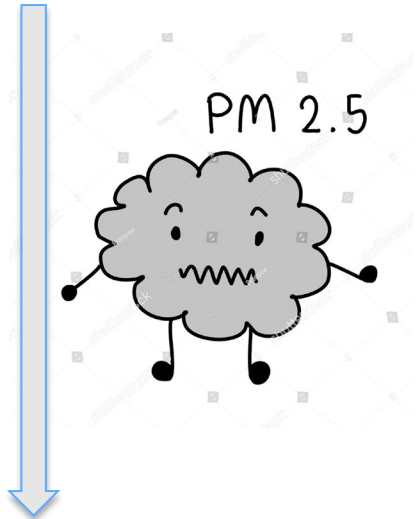


CONCLUSION

- Significant decrease in site operations between 2020 and 2024
- Continue investigation re-purposing opportunities
- Apply for variations & amendments as and when necessary



Ongoing stakeholder engagement through JCs.
Welcome and encourage collaboration with all stakeholders.



Engen continues complying with site licences & permits



One 100s MHI installations in south Durban basin authorised through various legislative requirement.



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Thank you.



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