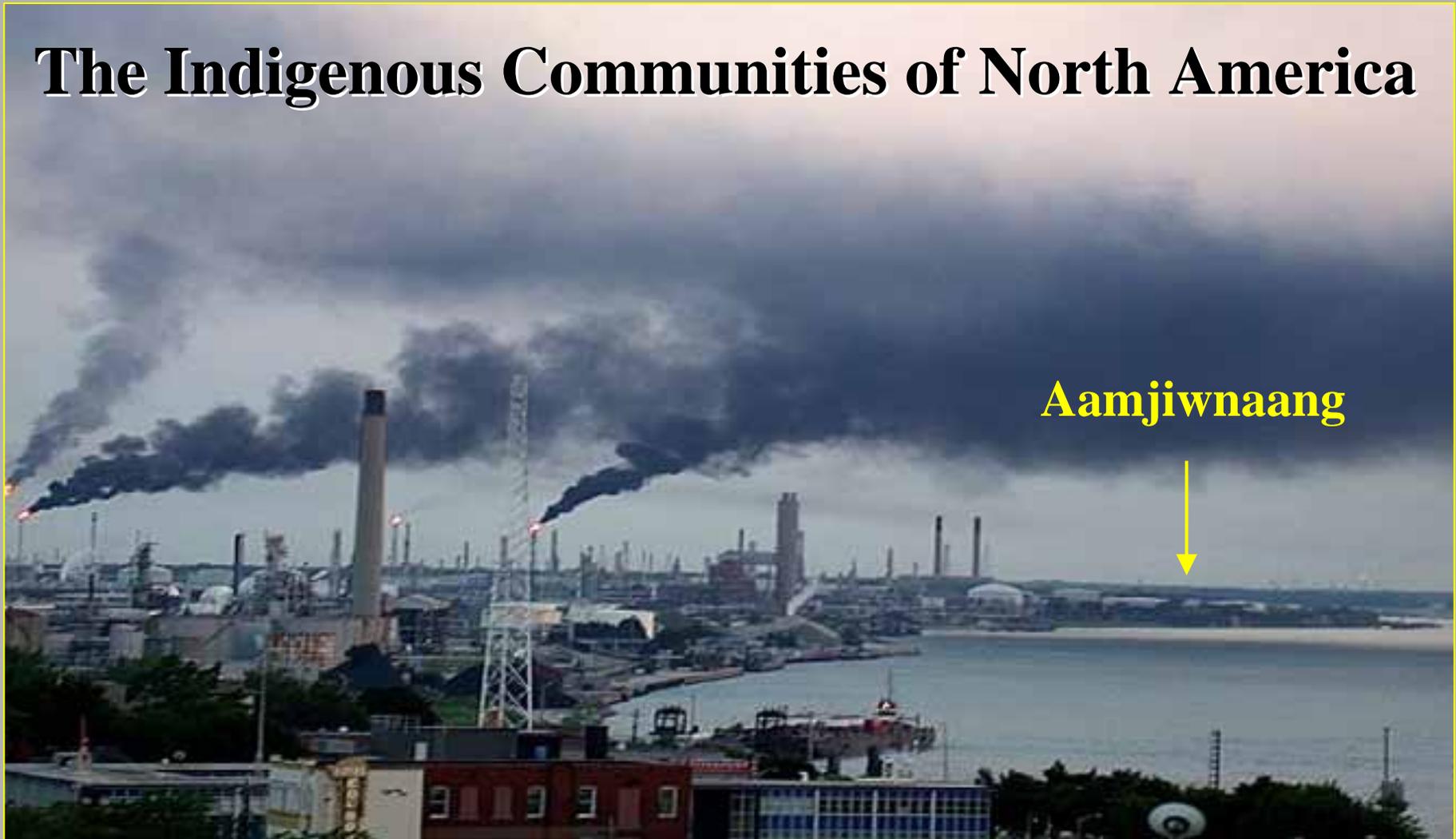


How Can PRTR Data Help?

The Indigenous Communities of North America



Picture taken 5 Kilometers from an Aamjiwnaang Border



Great Lakes Case Studies

Background:

The Commission for Environmental Cooperation asked this question, "Are there Indigenous Communities currently utilizing the PRTR to benefit the community strategy on pollution and if so how, or if not why?"

Aamjiwnaang First Nation came to the attention of the CEC when resource people pointed to the publicized decrease in male births over female births. Further, how this abnormality is attributed to the fact that Aamjiwnaang is surrounded by Canada's largest concentration of Petrochemical and Polymer plants.



Great Lakes Study Cont

Discussions lead to the inclusion of Ketegaunseebee First Nation (Garden River). Ketegaunseebee, like Aamjiwnaang, is very close to the city, (Sault Ste Marie, Ontario), and is close in proximity to industry, Steel and Forestry.

Aamjiwnaang and Ketegaunseebee are at polar opposites of environmental awareness. Aamjiwnaang is researching the cause and effect and suspected cumulative effects of exposures to the emissions. Ketegaunseebee is just beginning to investigate the chemicals that are impacting their community members. Aamjiwnaang has taken advantage of the National Pollution Release Inventory Database and Ketegaunseebee wasn't aware of its existence.

Ketegaunseebee First Nation



Ketegaunseebee Profile

Ketegaunseebee is located 8 miles southwest of Sault Ste. Marie Ontario.

The on-reserve population is 1015, and 1076 off-reserve.

Being located on the Trans-Canada Highway, 10 Miles from the U.S. border, presents Ketegaunseebee with unique environmental and health related challenges.



NPRI Registered Industry Ketegaunseebee



NPRI_ID 10045, Towland-Hewitson Construction Ltd (HMA Plant)

The Ketegaunseebee Study

Background:

Ketegaunseebee has been investigating the health impacts of auto and truck exhaust from the Trans-Canada Highway on their citizens.

Added to the community concerns of the Trans-Canada was the road salt used 6 months of each year. The salt permeates every facet of Ketegaunseebee life.

Members identified the releases from local industry as a source of concern, however the extent of that health concern wasn't fully understood.



Ketegaunseebee Chemical Needs Assessment

Ketegaunseebee has the releases of three of Canada's largest industries impacting them. The steel, pulp and paper and petrochemical industries of Sault Ste Marie.

As the Industry is located upstream and up wind from the community, Ketegaunseebee is impacted by all releases.

The community needs extensive water, soil and sediment testing to determine the compounds, levels of each chemical and possible identified health impacts of each.





Ketegaunseebee Findings

One person interviewed knew of the PRTR/NPRI. That person worked for a Provincial Native Political Organization in the environment field.

All interviewed identified chemical releases and salt content in water as sources of concern.

Cultural impacts were identified as a potential. There was concern again regarding the salt content and its impact on game, fish and fowl.

Health impacts were speculative, as no real comprehensive health study had been completed.

The community had no confidence in the government to address these issues.



How The PRTR Could Help Ketegaunseebee

➤ Toxicology Research

NPRI data would help Ketegaunseebee with the understanding of what is being released.

➤ Human Health Impacts Research

NPRI data will give direction for studies. The possible health impact information would be beneficial to Ketegaunseebee.

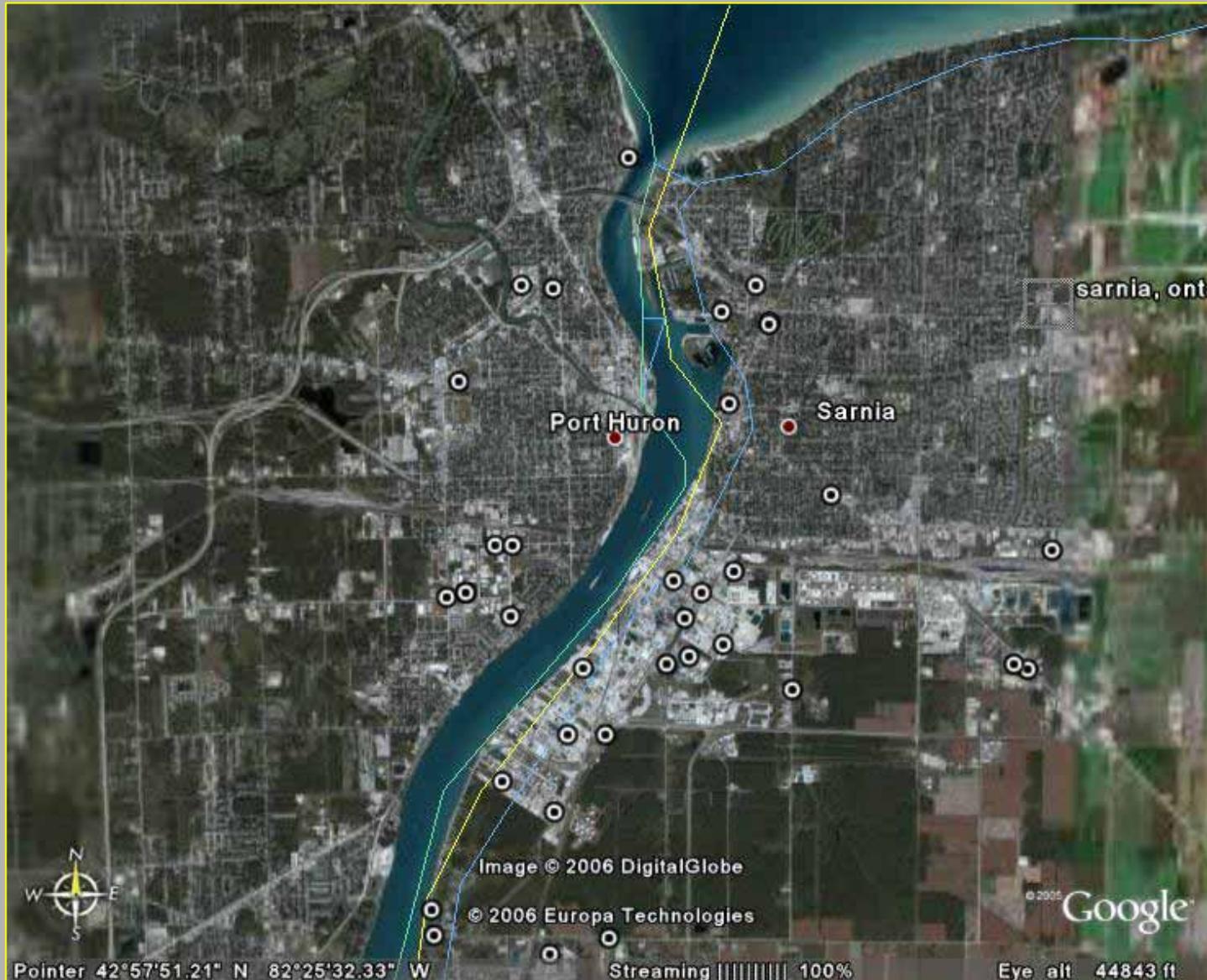
➤ Soil, Sediment, Air and Water Research

The data will give Ketegaunseebee the opportunity to create air and water models. This will enable them to test with a greater degree of accuracy.

Aamjiwnaang First Nation



NPRI Registered Industry Aamjiwnaang



NPRI_ID 6472, Sarnia Terminal, (Shell Canada Products)

The Aamjiwnaang Case Study



Suncor's Genesis flare looms ominously over the Aamjiwnaang Burial Grounds

Background:

Aamjiwnaang has been investigating the health impacts of emissions on their citizens since fall 2003.

NPRI/PRTR Data was introduced to the Environment Committee as a means of monitoring airborne pollutants.

A series of public meetings and smaller focus groups has Aamjiwnaang citizens educated and empowered environmentally.



Aamjiwnaang Chemical Needs Assessment

Aamjiwnaang is the definition of “Toxic Soup”. The need to measure cumulative effects is expressed in all conversations with community members.

Soil and Sediment test results reveal heavy metals 100 times greater than Ontario Ministry of Environment’s *Severe Effect Levels*.

Ministry of Environment Certificate of Approvals granted to expand existing or construct new projects are based on Pristine Environments not actual neighboring emissions. This leads to daily exceedances of the Ambient Air Quality in Aamjiwnaang

Aamjiwnaang Findings



Setting aside those on the committee and resource people no others interviewed on Aamjiwnaang knew of the PRTR/NPRI.

All interviewed identified chemical releases and “Incidents” from within Chemical Valley as major sources concern.

Cultural Impacts included; Hunting Fishing, Medicine Gathering and Ceremonial Activities.

Health Impacts included; Asthma, Reproductive Disorders, Learning Disabilities and Cancers.

Fear was the most common reported Personal Impact; Fear of the Outdoors, of the Warning Sirens, of the Unreported “Incidences”.

Aamjiwnaang Findings cont



There is no confidence, within Aamjiwnaang, in the International, Federal or Provincial regulatory bodies policing or protecting members.

The Federal status of Reserve lands leads to Provincial standards not applying, and no Federal legislation existing.

The science of *Manufactured Uncertainty* put forward by industry, and taken at face value by Government, lead to all commissioned by Aamjiwnaang research and study findings being belittled as “Speculative Data”.



How The PRTR Helped Aamjiwnaang

➤ Cause and Effect Research and Studies

Ongoing research is looking into the possible causes of the birth ratio skewing utilizing the contaminants identified as Endocrine Disruptors from NPRI Data

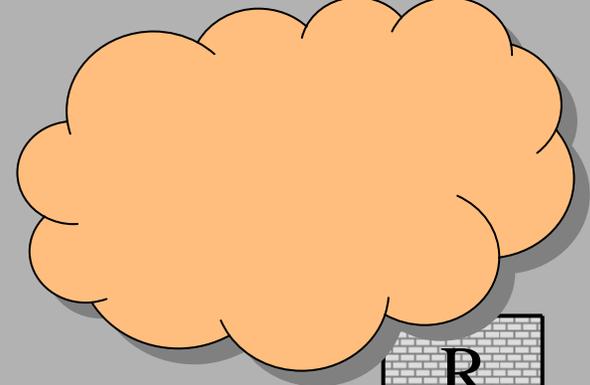
➤ Legal Research – Cumulative Effects

Ongoing research is examining legal avenues to pressure government to consider Cumulative Effects when issuing Certificates of Approval

➤ Previously Published NPRI Based Research

The next few slides have been utilized to illustrate the lack of effort on behalf of Sarnia's Chemical Valley to meet North American Standards

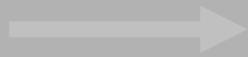
Overview



CCME
Canadian Council
of Ministers of
the Environment

CPPI
Canadian Petroleum
Producers Institute

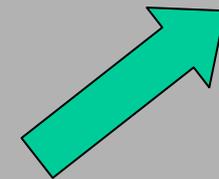
EC
Environment Canada



**Working
Group**
Federal
CPPI
Provincial
Non Gov
Health

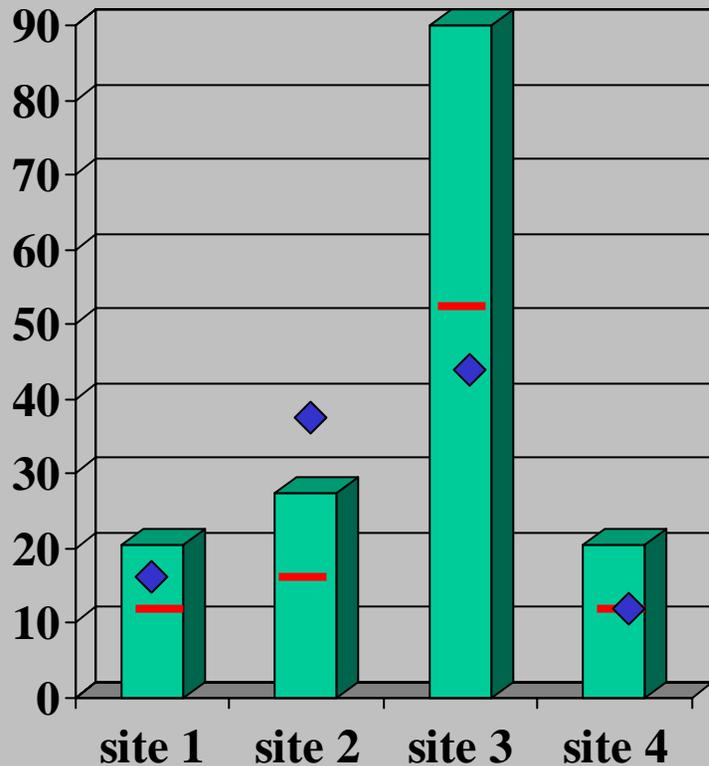


standard approach
for all provinces to apply



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Refinery Emissions - sample

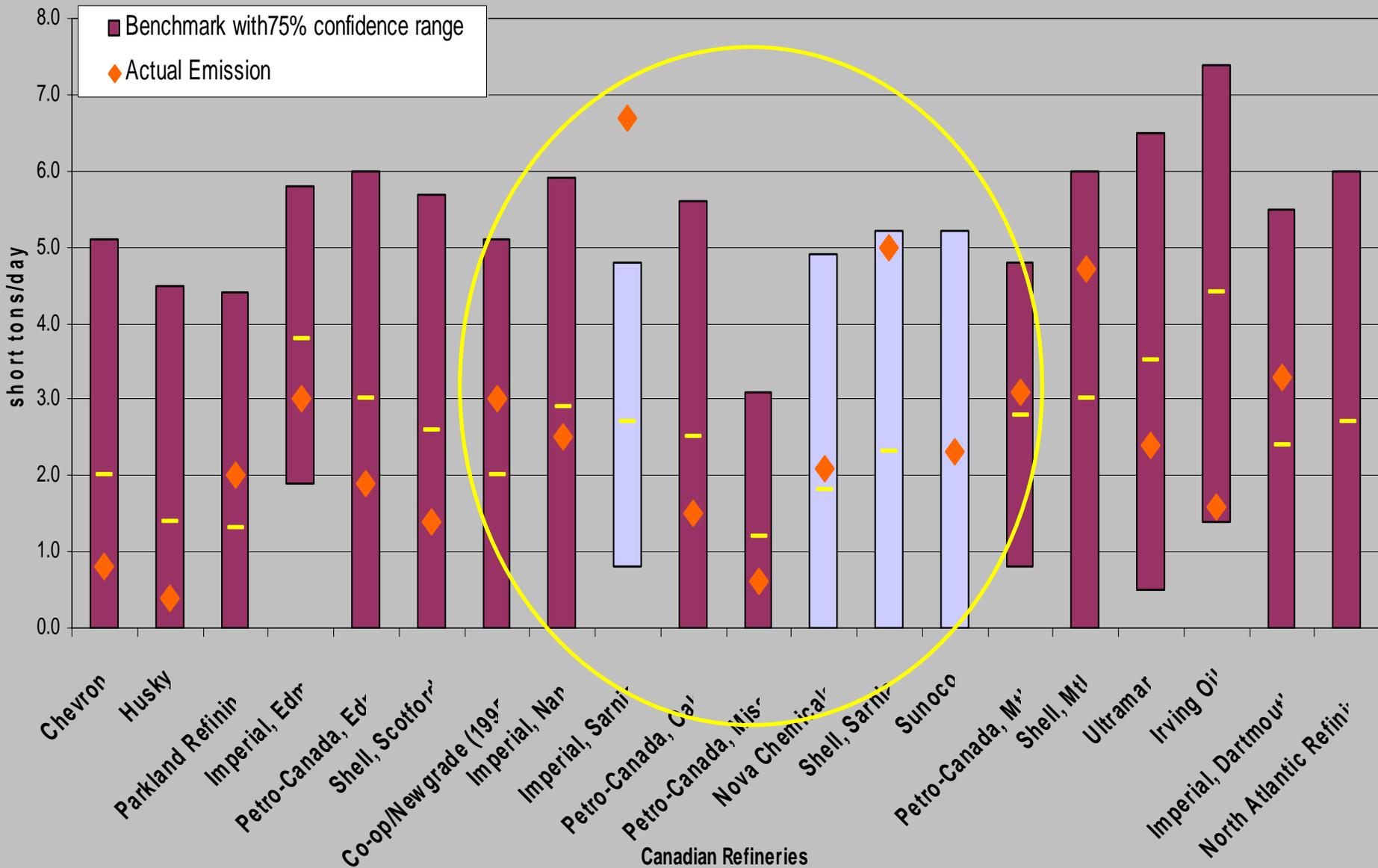


— average/ U.S benchmark

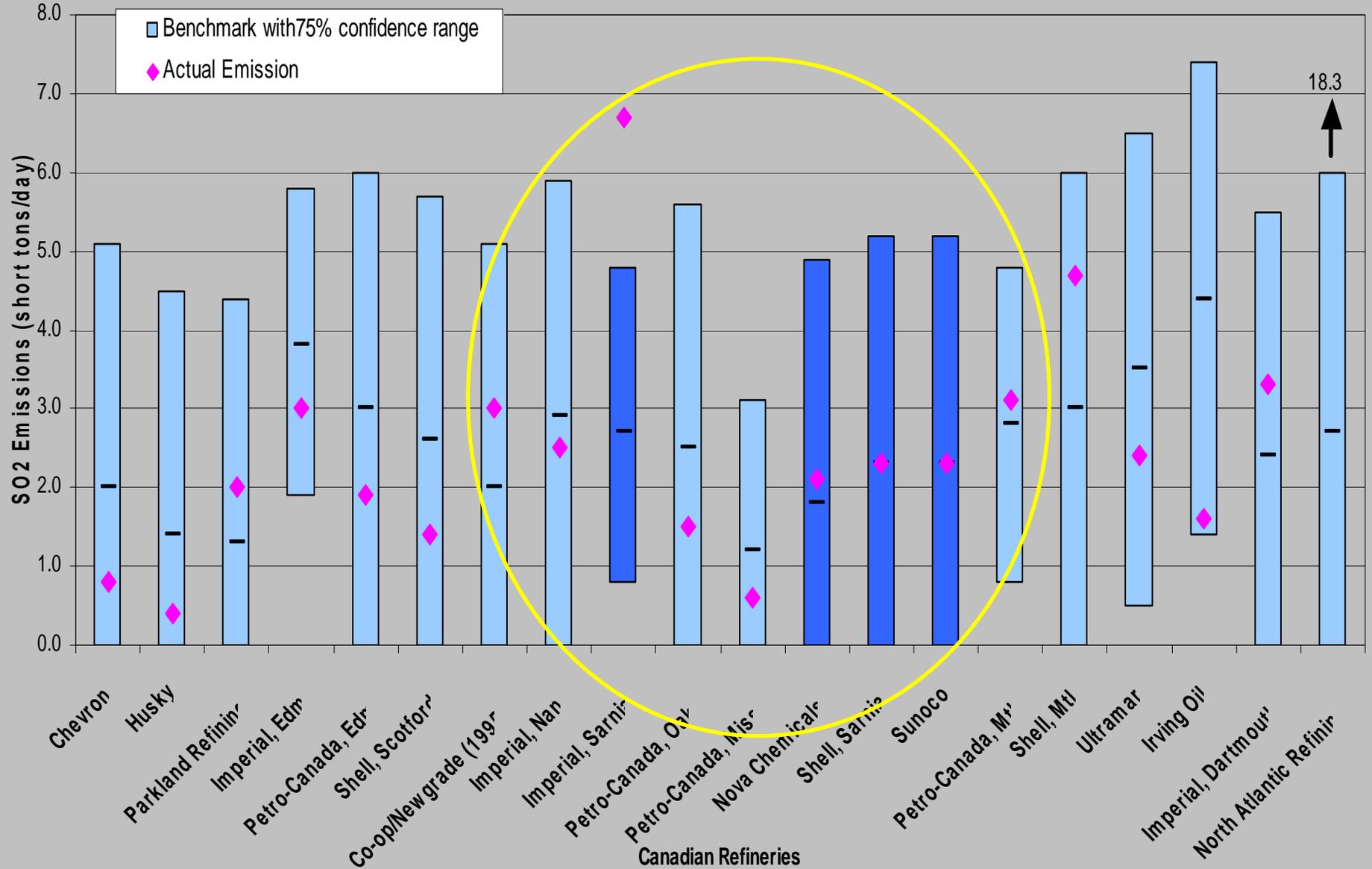
◆ comparable Canadian performance

■ confidence/variability around US performance

VOC

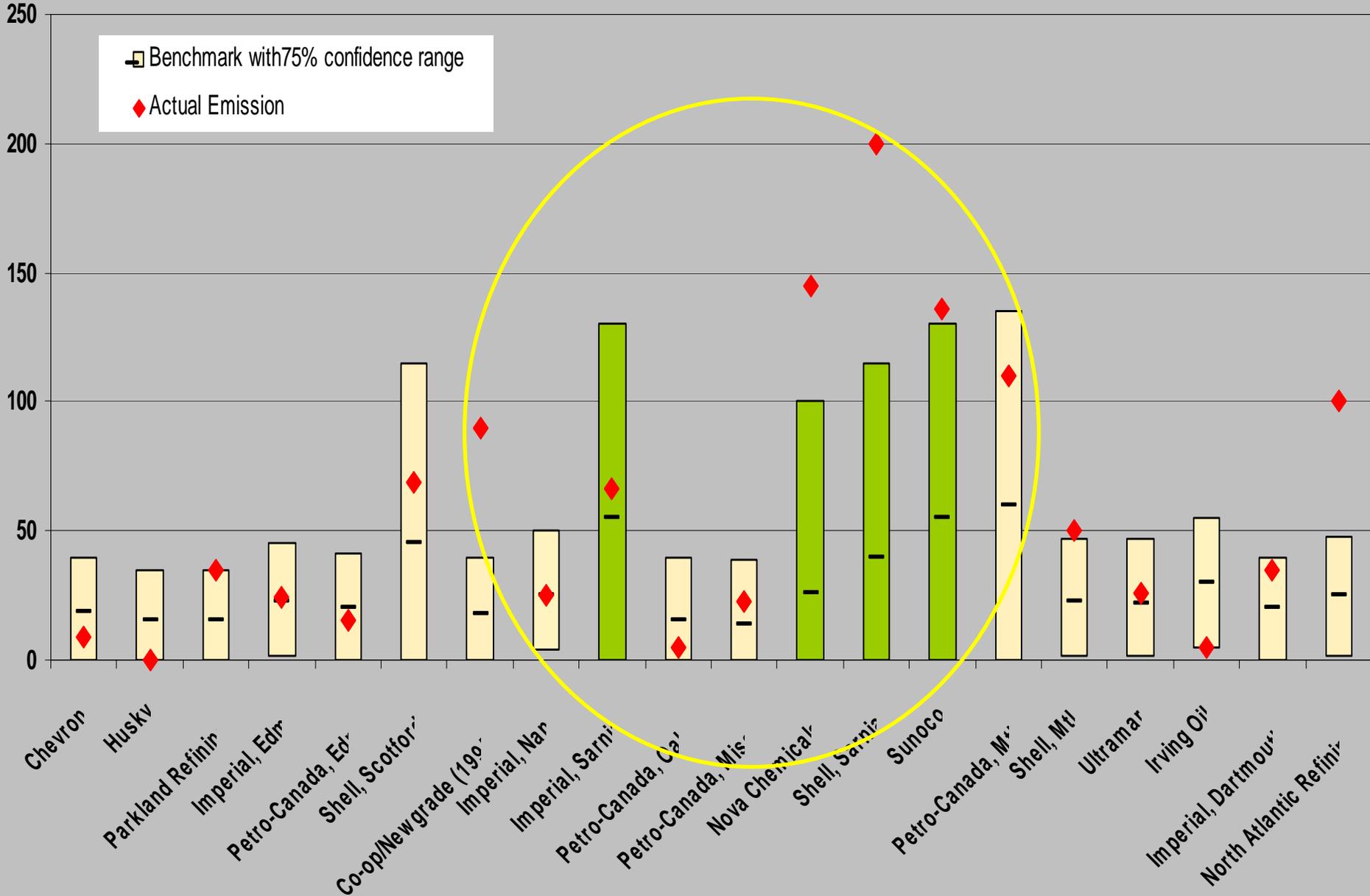


SO_x

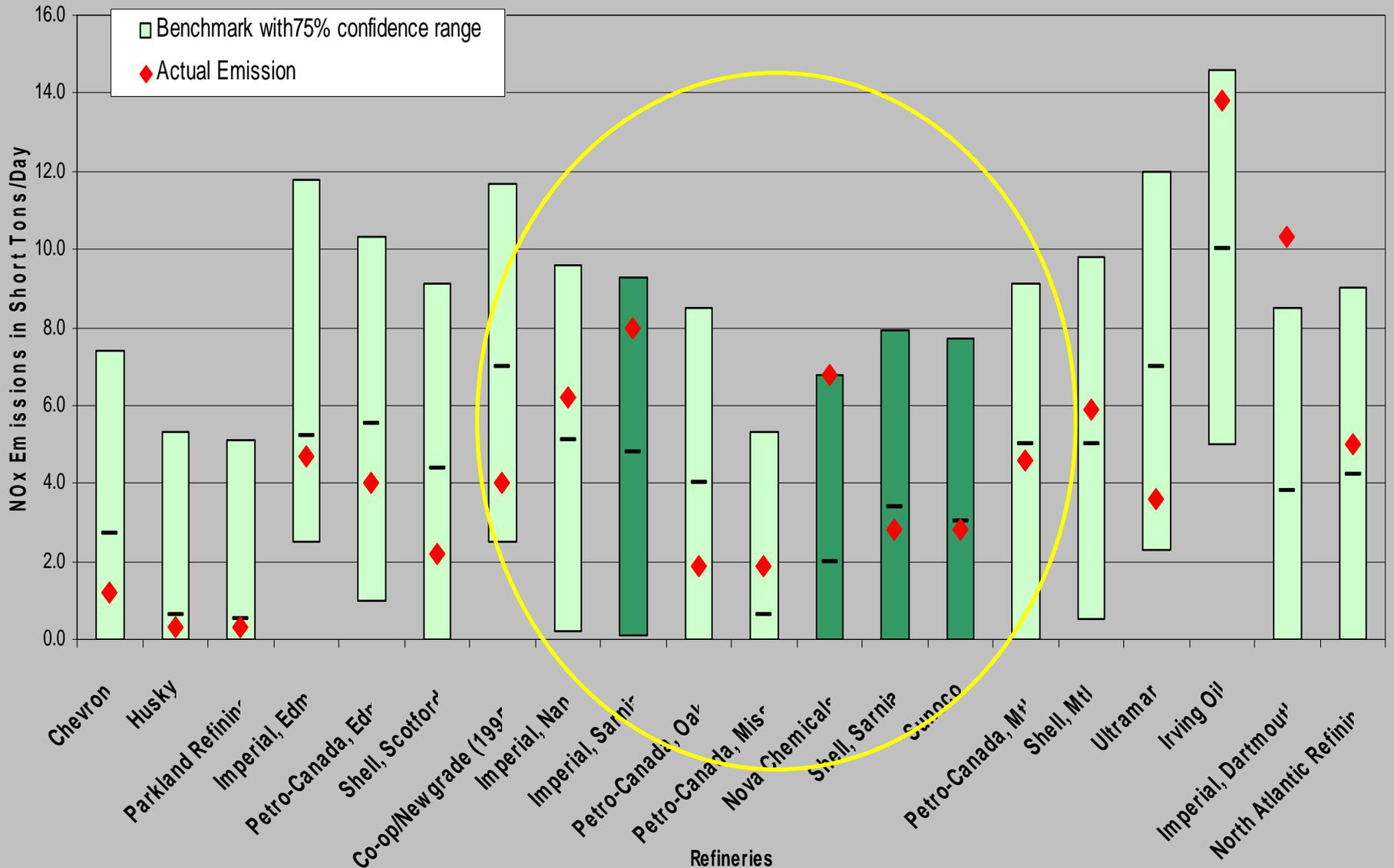


Benzene

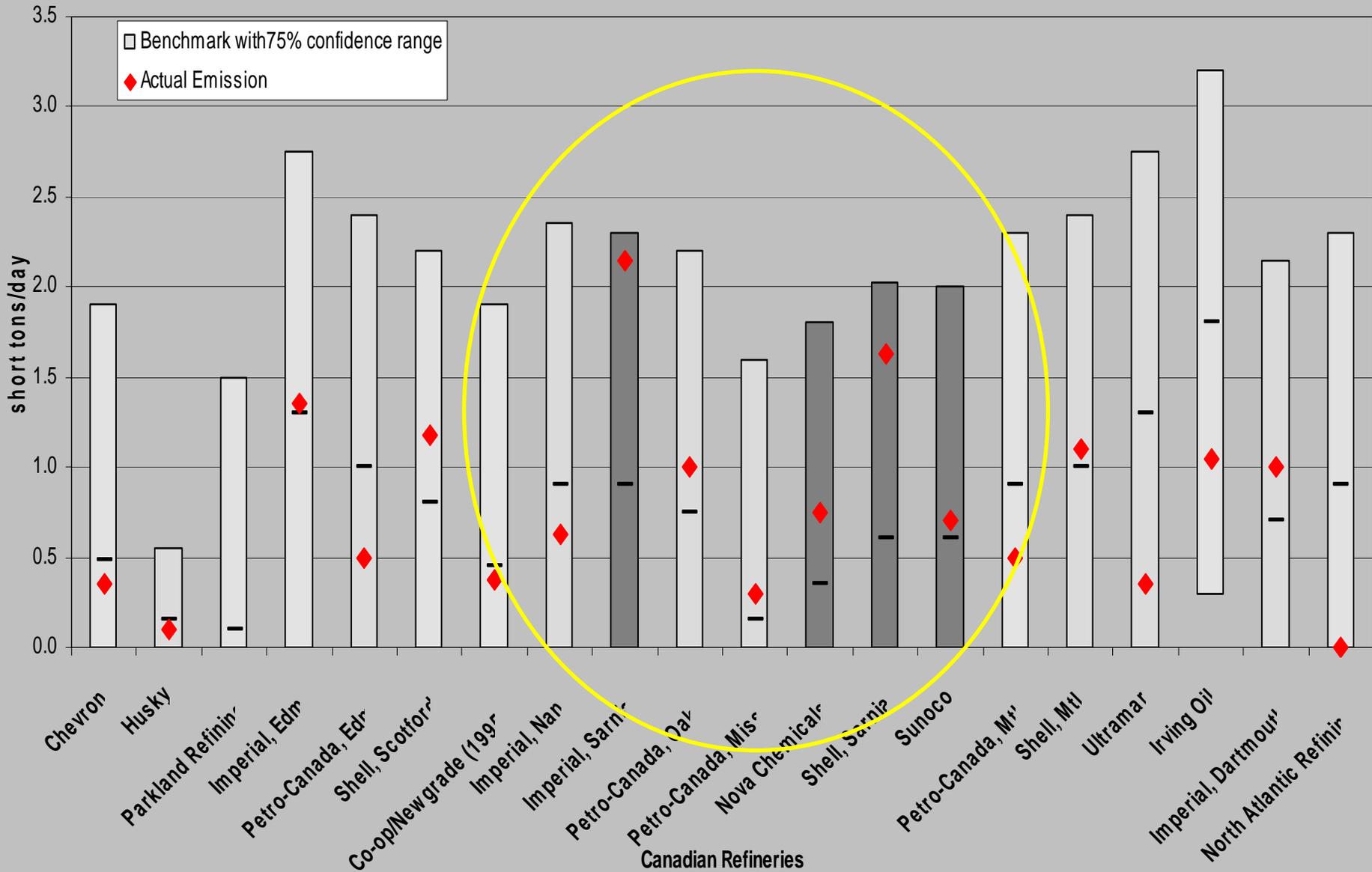
pounds/day



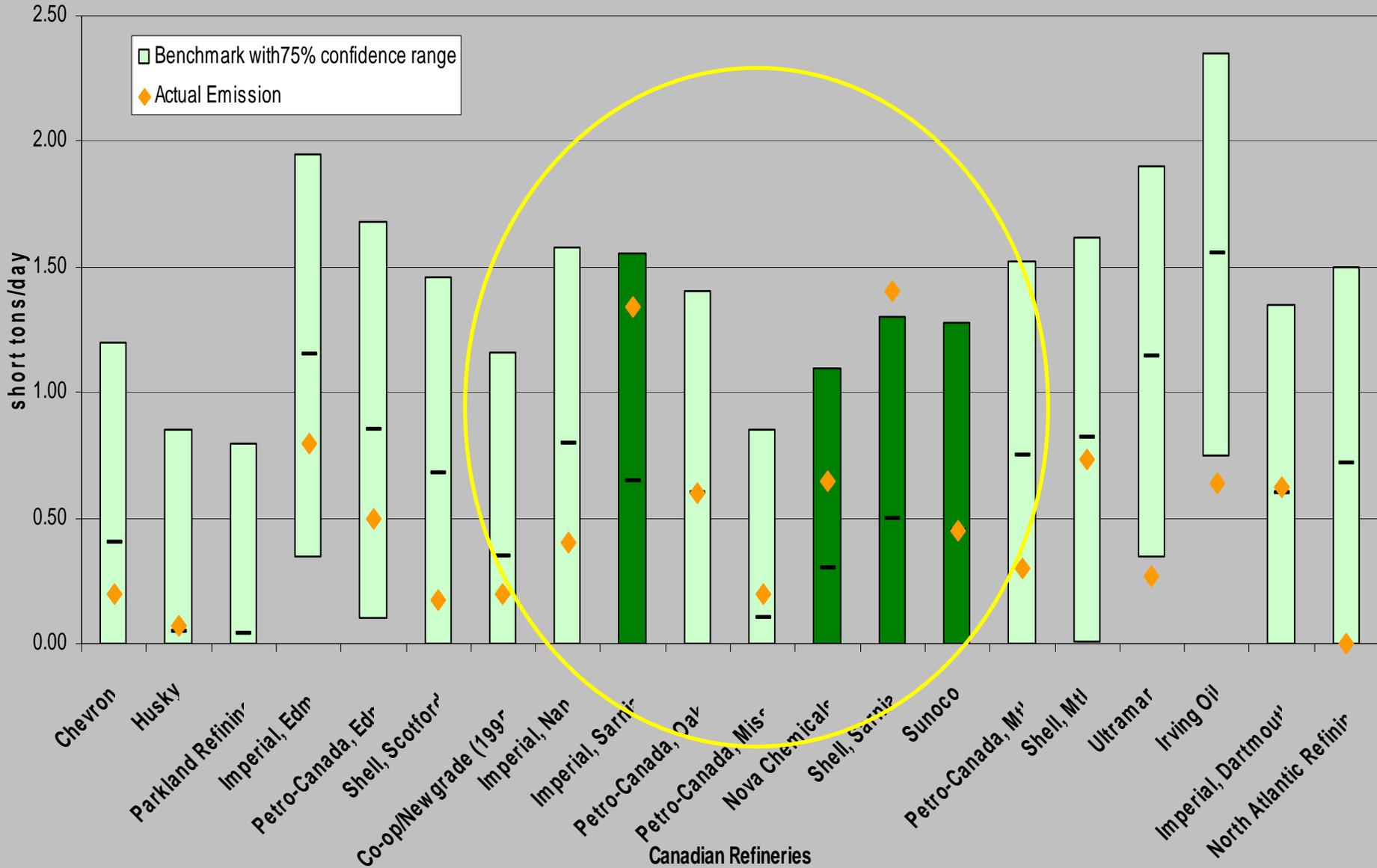
NO_x



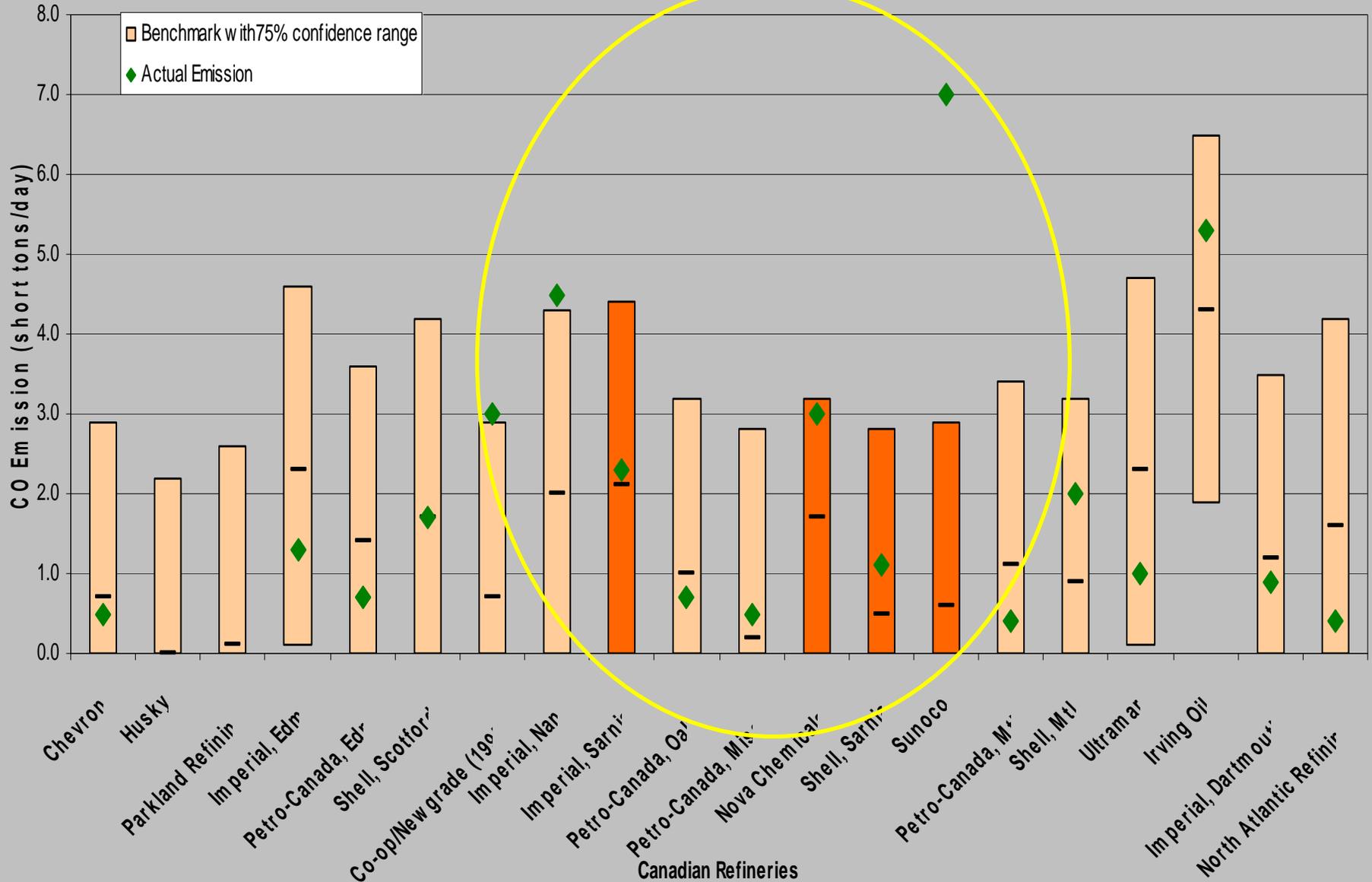
PM 10



PM 2.5



CO



Study Conclusions

Although all participants who were shown examples of the NPRI web site found the information interesting, none could think of ways to use the information. The consensus was that Health staff would be best to use that information.

➤ Educational material should be developed to help Health Staff acquaint themselves with PRTR Data

Cultural Impacts of the pollution were of great concern. The practicing of many Aanishnaabe cultural activities have been impacted or impeded because of the potential harm.

➤ Traditional Aboriginal Knowledge needs to be included into any future plans of the CEC in addressing the impacts of emissions

Study Conclusions Cont. 1

The ranking of Industry on the NPRI was something participants liked about the data. The thought was it could be used as a motivation for Industry to improve their ranking.

➤ A newsletter type medium be sent out by postal code identifying these rankings.

An identified concern that was difficult to address was how best to create a visual impact of the amount of emissions. X amount of tonnes of Y compound released into the air shed over a calendar year is confusing.

➤ Educational material should be developed understandable to all ages that explains the emission and identified health impacts of the contaminant.

Study Conclusions Cont. 2

The Canadian NPRI site is at best a cumbersome site to navigate through. The target audience, general public, need a user friendly medium. The pollutionwatch.org site is the example.

➤ Reassess the NPRI site format for general ease of use and the ability of the data to be understood by the target audience

Each community needs audience specific education, health professionals, general public and academic level targets.

➤ The development of regional workshops for Political Leadership, Health Professional. Further, the development of an interactive educational Cd's, DVD's and websites will provide the necessary tools to begin to understand the scope of the services of the CEC and how best to utilize The Data.