2013 TOXICS REDUCTION ACT

Report on Toxic Substance Accounting Requirements

VERSION 1.0

Petro-Canada Lubricants Inc.
385 Southdown Road
Mississauga, Ontario
L5J 2Y3

June 2014

Version Control

Version	Date Issued	Modifications
Original	June 2014	Original version made available to the public and employees

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1.0 INTRODUCTION

Petro-Canada Lubricants Inc. (PCLI), a Suncor Energy business, is a world-scale supplier of products ranging from automobile lubricants to white oils for the pharmaceutical market. Finished goods are shipped nationally and internationally to customers familiar with our growing reputation for high quality, environment-friendly fluids.

The Lubricants Centre is located on the shore of Lake Ontario beside a residential community in Mississauga, Ontario.

Protection of the environment is a fundamental PCLI value. It is our responsibility to determine and manage the impacts of our business through programs like the Toxics Reduction Act (Act).

This annual toxics substance accounting report has been prepared to meet the regulatory obligations specified in Section 10 of the Act and has been prepared in accordance with the requirements of Section 27(1) of Ontario Regulation (O. Reg.) 455/09, as amended from time to time. It summarizes the relevant reporting requirements and will be updated, as required by the Act and O. Reg. 455/09.

For more information on the Act and O. Reg. 455/09 visit: http://www.ontario.ca/environment-and-energy/toxic-substance-reduction-planner-licence.

2.0 REPORTING CRITERIA

Section 3(1) of the Act specifies the criteria requiring the preparation of a toxic substance plan. These criteria are as follows:

> *3. (1) The owner and the operator of a facility shall ensure that a toxic substance reduction plan is prepared for a toxic substance in accordance with this Act and the regulations if all of the following criteria are met:*
>
> *1. The facility belongs to a class of facilities prescribed by the regulations.*
>
> *2. The number of persons employed at the facility exceeds the number of persons prescribed by the regulations.*
>
> *3. The toxic substance is used or created at the facility and the amounts of the substance that are used or created meet the criteria prescribed by the regulations.*
>
> *4. Such other criteria as are prescribed by the regulations. 2009, c. 19, s. 3 (1).*

Specific criteria are outlined in O. Reg. 455/09. The following sections detail the criteria and applicability to the PCLI facility.

2.1 Class of Facility

Section 4(1) of O. Reg. 455/09 specifies the types of facilities subject to toxic substance reduction planning and includes facilities that begin in North American Industry Classification System code “31”, “32” or “33” and “212”.

The PCLI facility carries out processes and activities related to “Petroleum and Coal Product Manufacturing”, which begins in NAICS code “32”, which is a code identified in O. Reg. 455/09.

2.2 Number of Persons

Section 5 of O. Reg. 455/09 specifies the numbers of persons at a facility must be greater than zero. As of December 31, 2013, the PCLI facility employed 452 persons.

2.3 Amounts of Toxic Substance Used or Created

Section 6 of O. Reg. 455/09 specifies that amounts of a toxic substance used or created must exceed zero. The use or creation of toxic substances for which accounting is required is greater than zero (refer to Section 4).

2.4 Other Criteria

Section 7(1) of O. Reg. 455/09 requires the owner and operator of a facility provide information on National Pollutant Release Inventory (NPRI) substances if reporting to the NPRI is required; or if the substance is acetone and reporting under Ontario Regulation 127/01 (Airborne Contaminant Discharge Monitoring and Reporting) made under the Environmental Protection Act applies.

In 2013, PCLI was required to report to the NPRI. Specifically, PCLI met the reporting requirements for the following substances listed in Schedule A of O. Reg. 455/09:

NPRI Part 1A Substances:

- 1,2,4-Trimethylbenzene
- Asbestos
- Benzene
- Biphenyl
- Cyclohexane
- Diethanolamine
- Ethylbenzene
- Hexane (-n)
- Hydrogen Sulphide
- Methyl Ethyl Ketone
- Molybdenum Trioxide
- Naphthalene
- Nickel compounds
- Propylene
- Sulphuric Acid
- Toluene
- Total Reduced Sulphur
- Xylene (all isomers)
- Zinc compounds

NPRI Part 4 Substances:

- Carbon Monoxide
- Nitrogen Oxides
- Total Particulate Matter
- PM10 - Particulate Matter <10 Microns
- PM2.5 - Particulate Matter <2.5 Microns
- Sulphur Dioxide

NPRI Part 5 Substances:

- Butane (all isomers)
- Hexane (-n) *(also reported as a Part 1A Substance)*
- Isopropyl Alcohol
- Methanol
- Methyl Ethyl Ketone *(also reported as a Part 1A Substance)*
- Propane
- Propylene *(also reported as a Part 1A Substance)*
- Pentane (all isomers)
- Toluene *(also reported as a Part 1A Substance)*

3.0 GENERAL FACILITY INFORMATION

Table 3-1 summarizes the general facility information with reference to the Act and/or O. Reg. 455/09.

Table 3-1: General Facility Information

Reporting Requirement	Facility Information	Reference to Act and/or O. Reg. 455/09
Parent Company Name	Suncor Energy Inc.	O. Reg. 455/09 s.18(2) subparagraph 14
Parent Company Address	150 6th Avenue Southwest Calgary, Alberta T2P 3E3	O. Reg. 455/09 s.18(2) subparagraph 14
Facility Name	Mississauga Lubricants Centre	O. Reg. 455/09 s.18(2) subparagraph 4
Facility Address	385 Southdown Road Mississauga, Ontario L5J 2Y3	O. Reg. 455/09 s.18(2) subparagraph 4
Universal Transverse Mercator (UTM) in North American Datum (NAD83)	X [m] 612417.51 Y [m] 4817383.76	O. Reg. 455/09 s.18(2) subparagraph 13
National Pollutant Release Inventory Identification Number	3899	O. Reg. 455/09 s.18(2) subparagraph 2
Ontario Regulation 127/01 Identification Number	5119	O. Reg. 455/09 s.18(2) subparagraph 3
Two Digit North American Industry Classification System (NAICS) Code	32 – Manufacturing	O. Reg. 455/09 s.18(2) subparagraph 6
Four Digit North American Industry Classification System (NAICS) Code	3241 – Petroleum and Coal Product Manufacturing	O. Reg. 455/09 s.18(2) subparagraph 6
Six Digit North American Industry Classification System (NAICS) Code	324190 – Other Petroleum and Coal Product Manufacturing CAN	O. Reg. 455/09 s.18(2) subparagraph 6
Number of Full-time Employee Equivalents at the Facility	452 (as of December 31, 2013)	O. Reg. 455/09 s.18(2) subparagraph 5
Facility Public Contact	Joel Thompson Director, Corporate Communications 150 6th Avenue Southwest Calgary, Alberta T2P 3E3 Tel: 403-296-6637 Email: jjthompson@suncor.com	O. Reg. 455/09 s.18(2) subparagraph 7

4.0 SUBSTANCE REPORTING

In accordance with s. 26(1) subparagraphs 2 and 7, PCLI made determinations for each substance reportable under the Act as follows:

1) The amount of the substance that enters a process as the substance itself or as a constituent of another substance.
2) The amount of the substance that is created.
3) If the substance is a NPRI substance,
    i. quantifications relating to its release, disposal and transfer that,
        A. are required to be provided under the NPRI Notice, or
        B. are determined through mass balance, published emission factors, site specific emission factors or engineering estimates, if no quantifications were required to be provided under the NPRI Notice, and
    ii. the amount of the substance that is contained in product, other than a substance that is identified as a criteria air contaminant or a volatile organic compound in the NPRI Notice.
4) If the toxic substance is acetone, the calculations mentioned in subsection 4 (3) of Ontario Regulation 127/01 (Airborne Contaminant Discharge Monitoring and Reporting) made under the Environmental Protection Act.

For the purposes of maintaining confidentiality, PCLI has reported 'Use', 'Created" and 'Contained in Product' quantities in the bands and ranges prescribed by the Ontario Ministry of the Environment. The band and ranges specified by the Ontario Ministry of the Environment are summarized as follows:

- >0 to 1
- >1 to 10
- >10 to 100
- >100 to 1,000
- >1,000 to 10,000
- >10,000 to 100,000
- >100,000 to 1,000,000

The units of measure depend upon the substance being reported under the NPRI and O. Reg. 127/01. Generally, release, disposal and recycling quantities are reported in tonnes. However, for substances with alternate reporting thresholds, these quantities are reported in kilograms or grams.

- NPRI Part 1A – Substances listed at the original NPRI threshold [tonnes]
- NPRI Part 1B – Metals listed at an alternate threshold [kilograms]
- NPRI Part 2 – Polycyclic aromatic compounds (PAHs), [kilograms]
- NPRI Part 3 – Hexachlorobenzene (HCB), Dioxins/furans (toxic equivalent), [grams]
- NPRI Part 4 – Criteria Air Contaminants (CACs) [tonnes]
- NPRI Part 5 – Speciated volatile organic compounds [tonnes]
- O. Reg. 127/01 – Acetone [tonnes]

The following sections summarize the information outlined above for each substance.

Note:

'—' is equal to zero in the tables below.

'0.0000' is a value greater than zero and greater than four (4) decimal places.

4.1 1,2,4-Trimethylbenzene (CAS Number 95-63-6)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	7%	141.0651	No significant change
Created (tonnes)	>1,000 to 10,000	>1,000 to 10,000	14%	744.8003	Increase in production levels
Contained in Product (tonnes)	>1,000 to 10,000	>1,000 to 10,000	12%	885.8553	Increase in production levels
Air Releases (tonnes)	0.0688	0.0587	17%	0.0101	Increased flow to the wastewater treatment plant
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change

4.2 Asbestos (CAS Number 1332-21-4)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	—	—	—	—	No significant change
Created (tonnes)	—	—	—	—	No significant change
Contained in Product (tonnes)	—	—	—	—	No significant change
Air Releases (tonnes)	—	—	—	—	No significant change
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	29.0200	109.3600	-73%	80.3400	Less asbestos was removed from site as part of our asbestos abatement program
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change

4.3 Benzene (CAS Number 71-43-2)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	7%	131.5561	No significant change
Created (tonnes)	>10,000 to 100,000	>10,000 to 100,000	13%	1,450.6859	Increase in production levels
Contained in Product (tonnes)	>10,000 to 100,000	>10,000 to 100,000	12%	1,582.8687	Increase in production levels
Air Releases (tonnes)	0.3670	0.6767	-46%	-0.3097	Change in emission factor resulted in lower emissions
Water Releases (tonnes)	0.0049	0.0051	-4%	-0.0002	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	0.0000	-100%	-0.0000	No benzene detected in wastewater treatment plant sludge and filter cake
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change

4.4 Biphenyl (CAS Number 92-52-4)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	8%	418.6376	No significant change
Created (tonnes)	>0 to 1	>0 to 1	-11%	-0.0007	No significant change
Contained in Product (tonnes)	>1,000 to 10,000	>1,000 to 10,000	8%	174.8873	No significant change
Air Releases (tonnes)	0.0102	0.0108	-6%	-0.0006	No significant change
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	0.0002	-100%	-0.0002	No biphenyl detected in wastewater treatment plant sludge and filter cake
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change

4.5 Cyclohexane (CAS Number 110-82-7)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	7%	357.4994	No significant change
Created (tonnes)	>100 to 1,000	>100 to 1,000	14%	23.2996	Increase in production levels
Contained in Product (tonnes)	>1,000 to 10,000	>1,000 to 10,000	7%	258.7513	No significant change
Air Releases (tonnes)	0.1949	0.1829	7%	0.0120	No significant change
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change

4.6 Diethanolamine (CAS Number 111-42-2)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>10 to 100	>10 to 100	12%	6.3400	Increased usage due to process demands
Created (tonnes)	—	—	—	—	No significant change
Contained in Product (tonnes)	—	—	—	—	No significant change
Air Releases (tonnes)	0.1887	0.1938	-3%	-0.0050	No significant change
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change

4.7 Ethylbenzene (CAS Number 100-41-4)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	7%	102.5062	Increase in production levels
Created (tonnes)	>1,000 to 10,000	>1,000 to 10,000	14%	515.0472	Increase in production levels
Contained in Product (tonnes)	>1,000 to 10,000	>1,000 to 10,000	12%	617.8384	Increase in production levels
Air Releases (tonnes)	0.1465	0.1851	-21%	-0.0385	Decrease in fugitive emissions and manufactured product
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	0.0000	-100%	-0.0000	No ethylbenzene detected in wastewater treatment plant sludge and filter cake sent for disposal
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change

4.8 Hexane (-n) (CAS Number 110-54-3)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	7%	632.5348	No significant change
Created (tonnes)	>1,000 to 10,000	>1,000 to 10,000	16%	854.2582	Increase in production levels levels
Contained in Product (tonnes)	>10,000 to 100,000	>10,000 to 100,000	6%	870.3984	No significant change
Air Releases (tonnes)	4.7485	4.7709	-0.5%	-0.0224	No significant change
Water Releases (tonnes)	—	—	N/A	N/A	No significant change
Land Releases (tonnes)	—	—	N/A	N/A	No significant change
On-site Disposal (tonnes)	—	—	N/A	N/A	No significant change
Transferred for Disposal (tonnes)	—	—	N/A	N/A	No significant change
Transferred for Treatment (tonnes)	—	—	N/A	N/A	No significant change
Transferred for Recycling (tonnes)	—	—	N/A	N/A	No significant change

4.9 Hydrogen Sulphide (CAS Number 7783-06-4)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>0 to 1	>0 to 1	4987%	0.5695	A new tank was added at the facility and the speciation profile for two tanks was updated to reflect the tank contents
Created (tonnes)	>10,000 to 100,000	>10,000 to 100,000	1%	185.4902	No significant change
Contained in Product (tonnes)	>0 to 1	>0 to 1	-15%	-0.0503	A vapour recovery unit was installed on the sulphur loading rack and a sweep on the sulphur pit, reducing hydrogen sulphide emissions
Air Releases (tonnes)	0.6449	0.7042	-8%	-0.0592	No significant change
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change

4.10 Methyl Ethyl Ketone (CAS Number 78-93-3)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>100 to 1,000	>100 to 1,000	36%	139.6970	Equipment maintenance and power outages demanded additional methyl ethyl ketone use
Created (tonnes)	—	—	—	—	No significant change
Contained in Product (tonnes)	—	—	—	—	No significant change
Air Releases (tonnes)	2.6656	3.8967	-32%	-1.2311	Improved leak detection and repair program execution resulting in higher repair success
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change

4.11 Molybdenum Trioxide (CAS Number 1313-27-5)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>10 to 100	>10 to 100	34%	5.0701	More catalyst containing molybdenum trioxide handled
Created (tonnes)	—	—	—	—	No significant change
Contained in Product (tonnes)	—	—	—	—	No significant change
Air Releases (tonnes)	—	—	—	—	Less fuel consumption
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	6.7955	-100%	-6.7955	Less catalyst containing molybdenum trioxide was disposed
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	5.2006	5.8440	-11%	-0.6434	Less catalyst containing molybdenum trioxide was recycled

4.12 Naphthalene (CAS Number 91-20-3)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	-2%	-85.0637	No significant change
Created (tonnes)	—	—	—	—	No significant change
Contained in Product (tonnes)	>100 to 1,000	>100 to 1,000	-25%	-89.7093	Increased fugitive releases
Air Releases (tonnes)	0.0404	0.0312	29%	0.0092	Increased fugitive releases
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	0.0002	-100%	-0.0002	No naphthalene detected in wastewater treatment plant sludge and filter cake
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change

4.13 Nickel (CAS Number, Not Applicable)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>10 to 100	>10 to 100	30%	3.9462	More catalyst containing nickel handled
Created (tonnes)	—	—	—	—	No significant change
Contained in Product (tonnes)	—	—	—	—	No significant change
Air Releases (tonnes)	0.0672	0.0811	-17%	-0.0138	Less fuel consumption
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	4.1010	5.6233	-27%	-1.5223	Less catalyst containing nickel was disposed
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	4.6328	-100%	-4.6328	No catalyst containing nickel was recycled

4.14 Propylene (CAS Number 115-07-1)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>100 to 1,000	>100 to 1,000	72%	213.6989	A worn valve stem on the propylene system resulted in a leak that was monitored and minimized until it could be replaced during the planned maintenance shutdown in the fall of 2013. A deficiency in the design of an upgraded piping system resulted in a discharge of Propylene from the system – once discovered, the design was upgraded and field changes made which eliminated the discharge.
Created (tonnes)	>1 to 10	>1 to 10	6%	0.1562	No significant change
Contained in Product (tonnes)	—	—	—	—	No significant change
Air Releases (tonnes)	45.8777	2.3008	1894%	43.5769	A worn valve stem on the propylene system resulted in a leak that was monitored and minimized until it could be replaced during the planned maintenance shutdown in the fall of 2013. A deficiency in the design of an upgraded piping system resulted in a discharge of Propylene from the system – once discovered, the design was upgraded and field changes made which eliminated the discharge.
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Treatment (tonnes)	—	—	—	—	No significant change

Transferred for Recycling (tonnes)	—	—	—	—	No significant change

4.15 Sulphuric Acid (CAS Number 7664-93-9)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>10 to 100	>10 to 100	-43%	-36.1900	Decreased usage of sulphuric acid in the cooling towers
Created (tonnes)	>10 to 100	>10 to 100	17%	2.5418	2012 saw lower emissions due to planned and unplanned shutdowns. As a result the emissions increased year over year in 2013. Additionally, there was a higher sulphur concentration in feedstock vs. 2012
Contained in Product (tonnes)	—	—	—	—	No significant change
Air Releases (tonnes)	17.1073	14.5655	17%	2.5418	2012 saw lower emissions due to planned and unplanned shutdowns. As a result the emissions increased year over year in 2013. Additionally, there was a higher sulphur concentration in feedstock vs. 2012
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change

4.16 Toluene (CAS Number 108-88-3)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	9%	536.0747	No significant change
Created (tonnes)	>10,000 to 100,000	>10,000 to 100,000	14%	3,497.1931	Increase in production levels
Contained in Product (tonnes)	>10,000 to 100,000	>10,000 to 100,000	13%	3,925.9656	Increase in production levels
Air Releases (tonnes)	2.5369	3.9924	-37%	-1.4555	Improved leak detection and repair program execution resulting in higher repair success
Water Releases (tonnes)	0.0050	0.0230	-78%	-0.0180	Less toluene in wastewater effluent
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	0.0000	0.0000	-50%	-0.0000	Less sludge and filter cake containing toluene disposed
Transferred for Disposal (tonnes)	0.0016	0.0118	-86%	-0.0102	Less sludge and filter cake containing toluene disposed
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change

4.17 Total Reduced Sulphur (CAS Number Not Applicable)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>0 to 1	>0 to 1	4987%	0.5695	A new tank was added at the facility and the speciation profile for two tanks was updated to reflect the tank contents
Created (tonnes)	>10,000 to 100,000	>10,000 to 100,000	1%	185.4902	No significant change
Contained in Product (tonnes)	>0 to 1	>0 to 1	-15%	-0.0503	A vapour recovery unit was installed on the sulphur loading rack and a sweep on the sulphur pit, reducing hydrogen sulphide (total reduced sulphur) emissions
Air Releases (tonnes)	0.6449	0.7042	-8%	-0.0592	No significant change
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change

4.18 Xylene (CAS Number 1330-20-7)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	7%	483.3131	No significant change
Created (tonnes)	>10,000 to 100,000	>10,000 to 100,000	16%	1,790.4254	Increase in production levels
Contained in Product (tonnes)	>10,000 to 100,000	>10,000 to 100,000	13%	2,275.0309	Increase in production levels
Air Releases (tonnes)	0.4732	0.6040	-22%	-0.1307	Change in emission factor resulted in lower emissions
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	0.0000	-100%	-0.0000	No xylene detected in wastewater treatment plant sludge and filter cake
Transferred for Disposal (tonnes)	0.0002	0.0000	331%	0.0002	More sludge and filter cake containing xylene disposed
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change

4.19 Zinc (CAS Number Not Applicable)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>100 to 1,000	>100 to 1,000	5%	5.9286	No significant change
Created (tonnes)	—	—	—	—	No significant change
Contained in Product (tonnes)	>10 to 100	>10 to 100	12%	11.7699	Increase in production levels
Air Releases (tonnes)	0.0934	0.0988	-6%	-0.0055	No significant change
Water Releases (tonnes)	—	—	—	—	No significant change
Land Releases (tonnes)	—	—	—	—	No significant change
On-site Disposal (tonnes)	—	—	—	—	No significant change
Transferred for Disposal (tonnes)	—	1.0294	-100%	-1.0294	Less catalyst containing zinc disposed
Transferred for Treatment (tonnes)	—	—	—	—	No significant change
Transferred for Recycling (tonnes)	—	—	—	—	No significant change

4.20 Carbon Monoxide (CAS Number 630-08-0)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	—	—	—	—	No significant change
Created (tonnes)	>10 to 100	>10 to 100	-2%	-1.4754	No significant change
Air Releases (tonnes)	>10 to 100	>10 to 100	-2%	-1.4754	No significant change

4.21 Nitrogen Oxides (CAS Number 11104-93-1)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	—	—	—	—	No significant change
Created (tonnes)	>100 to 1,000	>100 to 1,000	-2%	-9.4310	No significant change
Air Releases (tonnes)	>100 to 1,000	>100 to 1,000	-2%	-9.4310	No significant change

4.22 Total Particulate of Matter (CAS Number Not Applicable)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>10 to 100	>10 to 100	-9%	-2.0625	No significant change
Created (tonnes)	>10 to 100	>10 to 100	-23%	-5.6614	Lower fuel consumption, lower TDS measurement in cooling tower water and higher precipitation to mitigate road dust.
Air Releases (tonnes)	38.5257	46.2496	-17%	-7.7239	Lower fuel consumption, lower TDS measurement in cooling tower water and higher precipitation to mitigate road dust.

4.23 PM10 – Particulate Matter <10 Microns (CAS Number Not Applicable)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1 to 10	>1 to 10	-10%	-0.2560	No significant change
Created (tonnes)	>10 to 100	>10 to 100	-24%	-4.1332	Lower fuel consumption, lower TDS measurement in cooling tower water and higher precipitation to mitigate road dust.
Air Releases (tonnes)	15.7892	20.1785	-22%	-4.3892	Lower fuel consumption, lower TDS measurement in cooling tower water and higher precipitation to mitigate road dust.

4.24 PM2.5 – Particulate Matter <2.5 Microns (CAS Number Not Applicable)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>0 to 1	>0 to 1	-14%	-0.0297	Lower fuel consumption, lower TDS measurement in cooling tower water and higher precipitation to mitigate road dust.
Created (tonnes)	>1 to 10	>10 to 100	-25%	-3.0622	Lower fuel consumption, lower TDS measurement in cooling tower water and higher precipitation to mitigate road dust.
Air Releases (tonnes)	9.2658	12.3577	-25%	3.0919	Lower fuel consumption, lower TDS measurement in cooling tower water and higher precipitation to mitigate road dust.

4.25 Sulphur Dioxide (CAS Number 7446-09-5)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	—	—	—	—	No significant change
Created (tonnes)	>100 to 1,000	>100 to 1,000	15%	75.2172	2012 saw lower emissions due to planned and unplanned shutdowns. As a result the emissions increased year over year in 2013. Additionally, there was a higher sulphur concentration in feedstock vs. 2012
Air Releases (tonnes)	573.2526	498.0354	15%	75.2172	2012 saw lower emissions due to planned and unplanned shutdowns. As a result the emissions increased year over year in 2013. Additionally, there was a higher sulphur concentration in feedstock vs. 2012

4.26 Butane (all isomers) (CAS Number Not Applicable)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>100 to 1,000	>100 to 1,000	12%	60.5831	Increase in production levels
Created (tonnes)	>1,000 to 10,000	>1,000 to 10,000	13%	640.0169	Increase in production levels
Air Releases (tonnes)	6.4213	6.4832	-1%	-0.0619	No significant change

4.28 Isopropyl Alcohol (CAS Number 67-63-0)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	—	—	—	—	No significant change
Created (tonnes)	>1 to 10	>1 to 10	-7%	-0.3781	Decrease in production levels
Air Releases (tonnes)	4.7270	5.1051	-7%	-0.3781	Decrease in production levels

4.29 Methanol (CAS Number 67-56-1)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1 to 10	>1 to 10	-26%	-2.5842	Less methanol used
Created (tonnes)	—	—	—	—	No significant change
Air Releases (tonnes)	1.4322	1.9543	-27%	-0.5221	Less methanol used

4.30 Pentane (all isomers) (CAS Number Not Applicable)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>1,000 to 10,000	>1,000 to 10,000	9%	286.1667	No significant change
Created (tonnes)	>1,000 to 10,000	>1,000 to 10,000	6%	543.6281	No significant change
Air Releases (tonnes)	7.0923	7.1265	9%	-0.0342	No significant change

4.31 Propane (CAS Number 74-98-6)

Required Information	2013 Reporting Year	2012 Reporting Year	Change (%)	Change (tonnes)	Rationale For Change
Use (tonnes)	>100 to 1,000	>100 to 1,000	6%	20.2147	No significant change
Created (tonnes)	>1,000 to 10,000	>1,000 to 10,000	23%	397.2939	Increase in production levels
Air Releases (tonnes)	5.2599	5.2587	0.02%	0.011	No significant change

5.0 TOXIC SUBSTANCE REDUCTION PLAN SUMMARY

As described in the Toxic Substance Reduction Plan Summaries dated December 1, 2013 and December 3, 2012, there were no options identified for implementation, above and beyond the actions the Lubricants Centre has already taken, at this time. The plan will be reviewed in accordance with the Act and regulation, at which time, new options may be identified and considered for implementation.

Finally, there have been no amendments to the Toxic Substance Reduction Plan Summaries dated December 1, 2013 and December 3, 2012.

6.0 ANNUAL CERTIFICATION STATEMENT

In accordance with s.19 of O. Reg. 455/09, the highest ranking employee at the facility electronically certified the toxic substance plan. A copy of the electronic certification is provided in Attachment 1.

Attachment 1: Copy of Electronic Certification

Report Submission and Electronic Certification

NPRI - Electronic Statement of Certification

Specify the language of correspondence

English

Comments (optional)

I hereby certify that I have exercised due diligence to ensure that the submitted information is true and complete. The amounts and values for the facility(ies) identified below are accurate, based on reasonable estimates using available data. The data for the facility(ies) that I represent are hereby submitted to the programs identified below using the Single Window Reporting Application.
I also acknowledge that the data will be made public.
Note: Only the person identified as the Certifying Official or the authorized delegate should submit the report(s) identified below.

Company Name

Petro-Canada Lubricants Inc.

Certifying Official (or authorized delegate)

Ken Bisgrove

Report Submitted by

Gord Pinard

I, the Certifying Official or authorized delegate, agree with the statements above and acknowledge that by pressing the "Submit Report(s)" button, I am electronically certifying and submitting the facility report(s) for the identified company to its affiliated programs.

ON MOE TRA - Electronic Certification Statement

Annual Report Certification Statement

TRA Substance List

CAS RN	Substance Name
100-41-4	Ethylbenzene
108-88-3	Toluene
110-54-3	n-Hexane

110-82-7	Cyclohexane
111-42-2	Diethanolamine (and its salts)
11104-93-1	Nitrogen oxides (expressed as NO2)
115-07-1	Propylene
1313-27-5	Molybdenum trioxide
1330-20-7	Xylene (all isomers)
1332-21-4	Asbestos (friable form only)
630-08-0	Carbon monoxide
71-43-2	Benzene
7446-09-5	Sulphur dioxide
7664-93-9	Sulphuric acid
7783-06-4	Hydrogen sulphide
78-93-3	Methyl ethyl ketone
91-20-3	Naphthalene
92-52-4	Biphenyl
95-63-6	1,2,4-Trimethylbenzene
NA - 11	Nickel (and its compounds)

NA - 14	Zinc (and its compounds)
NA - M08	Total Particulate Matter
NA - M09	PM10 - Particulate Matter
NA - M10	PM2.5 - Particulate Matter
NA - M14	Total reduced sulphur (expressed as hydrogen sulphide)
NA - M16	Volatile Organic Compounds (VOCs)

Exit Record Certification Statement

TRA Exit Record Substances

CAS RN	Substance Name
67-56-1	Methanol

Company Name

Petro-Canada Lubricants Inc.

Highest Ranking Employee

Gord Pinard

Report Submitted by

Gord Pinard

I, the highest ranking employee, agree with the certification statement(s) above and acknowledge that by checking the box I am electronically signing the statement(s). I also acknowledge that by pressing the 'Submit Report(s)' button I am submitting the facility record(s)/report(s) for the identified facility to the Director under the Toxics Reduction Act, 2009. I also acknowledge that the Toxics Reduction Act, 2009 and Ontario Regulation 455/09 provide the authority to the Director under the Act to make certain information as specified in subsection 27(5) of Ontario Regulation 455/09 available to the public.

Submitted Report

Period	Submission Date	Facility Name	Province	City	Programs

2013	29/05/2014	Mississauga Lubricants Centre	Ontario	Mississauga	NPRI,ON MOE TRA,NFPRER

Note: If there is a change in the contact information for the facility, a change in the owner or operator of the facility, if operations at the facility are terminated, or if information submitted for any previous year was mistaken or inaccurate, please update this information through SWIM or by contacting the National Pollutant Release Inventory directly.