

TOXIC SUBSTANCE REDUCTION PLAN SUMMARY

This Toxic Substance Reduction Plan Summary has been prepared in accordance with Section 8(2) of the *Toxics Reduction Act* and satisfies the minimum Plan Summary content requirements stipulated in Section 24 of Ontario Regulation (O.Reg.) 455/09.

Basic Facility Information

Mandatory Basic Facility Information Item	Details
Substance Name and Chemical Abstracts Service (CAS) Registry Number for the Substance(s) whose Toxic Substance Reduction Plans are summarized by this this Plan Summary	Mercury (Per O.Reg.455/09, "no single CAS numbers applies to this substance")
National Pollutant Release Inventory (NPRI) and O.Reg.127/01 Identification Numbers	NPRI ID: 1941 O.Reg.127/01 ID: 9490
The legal and trade names of the owner and the operator of the facility, the street address of the facility and the mailing address of the facility, if different	Goldcorp Porcupine Gold Mines Goldcorp Canada Ltd. 4315 Gold Mine Road, South Porcupine, ON P0N1H0 Canada
The number of full time employee equivalents at the facility	676
The two- and four-digit North American Industry Classification System (NAICS) codes and the six-digit NAICS Canada code	21 – Mining & Oil & Gas Extraction 2122 – Metal Ore Mining 212220 – Gold & Silver Ore Mining
Public contact	Kathy-Lynn Morrish Environmental Compliance Coordinator Goldcorp Canada Inc. [address per above] (705) 235-6254
The spatial coordinates of the facility expressed in Universal Transverse Mercator (UTM) within a North American Datum 83 (NAD83) datum	UTM Zone 17 482866 E, 5368194 N
Parent Company Information	Goldcorp Inc. Suite 3400-666 Burrard Street, Park Place Vancouver, BC V6C 2X8 (604) 696-3000

List of All Substances for which Toxic Substance Reduction Plans Have Been Prepared at the Facility

The Facility has prepared Toxic Substance Reduction Plans for the following prescribed Toxic Substances:

Arsenic*

Cadmium*

Chromium*

Cobalt*

Copper*

Lead*

Manganese*

Nickel*

Zinc*

Vanadium [CAS number 7440-62-2]

Cyanides (Ionic)*

Hydrochloric Acid [CAS number 7647-01-0]

Particulate Matter*

PM10*

PM2.5*

Nitrogen Oxides [CAS number 11104-93-1]

Carbon Monoxide [CAS number 630-08-0]

Ammonia (Total)*

Nitrate Ion*

Mercury*

*Per O.Reg.455/09, "no single CAS numbers apply to these substances"

Statement of Intent

As required by s.4(1) of the TRA, a Plan must include either a statement of the Facility's intent to reduce the use and/or creation of the Toxic Substance at the Facility, or the reasons for not including this statement.

A statement of the Facility's intent to reduce its "use" of the Toxic Substance has not been included as a part of this Plan. The Toxic Substance is never created within the Facility's process and therefore no statement with respect to intent to reduce creation of the Toxic Substance is required.

The Facility is captured by the requirements of the TRA pertaining to the Toxic Substance since the Facility meets the TRA's definition of target facilities "with North American Industry Classification System (NAICS) codes commencing with the digits 212 (mining – except oil and gas – that processes minerals, but only if the mineral processing at the facility involves the use of chemicals to separate, refine, smelt or concentrate metallic or non-metallic minerals from an ore)" and also triggered the Toxic Substance's TRA reporting threshold, which was adopted by the TRA from National Pollutant Release Inventory (NPRI).

Per guidance pertaining to the Toxic Substance, reporting is triggered if the Toxic Substance was "manufactured, processed, or otherwise used" (MPO) in the previous calendar year in an amount that is greater than a specified quantity. In the Facility's case, and following MOECC guidance, processing of ore in which the Toxic Substance occurs naturally, at typical background concentrations and as a component of a mineral, meets the definition of MPO, despite the fact that the Toxic Substance's presence is due to natural occurrence in mined ore and the Toxic Substance travels through the Facility's gold extraction process without undergoing any significant chemical change.

Although the Toxic Substance is present in trace amounts in the processed ore, the Toxic Substance's "use"-based reporting threshold was exceeded due to the large quantity of ore that is processed at the Facility on an annual basis.

As a result, and in accordance with the TRA, this specified quantity has been reported to the MOECC as a "use" of the Toxic Substance as a part of a mandatory Toxic Substance quantification, accounting and reporting exercise.

This document satisfies the additional TRA requirement of Toxic Substance Reduction Plan preparation, which requires the Facility to systematically examine opportunities to reduce its "use" of the Toxic Substance. Unlike tracking, accounting, reporting and preparation of a Toxic Substance Reduction Plan which are all requirements; the implementation toxic substance reduction options identified in the Plan (if any) is not a requirement of the TRA or O.Reg.455/09.

The Facility understands the benefits to reducing the use and creation of toxic substances, informing Ontarians about toxic substances in their community and helping Ontario position itself to compete in an increasingly green global economy. However, due to the fact that the only Facility activity which the TRA has defined as a "use" of the Toxic Substance is the processing of ore in which the Toxic Substance occurs naturally, there are no opportunities to reduce the "use" of the Toxic Substance aside from reducing the Facility's ore production.

As a part of fulfilling its requirements under the TRA and O.Reg.455/09, the Facility has prepared a total of ten Toxic Substance Reduction Plans and Plan Summaries for naturally occurring elements which are prescribed toxic substances and whose "use" cannot be reduced based on the factors presented above.

The MOECC has stated that the TRA is not intended to focus on "end of pipe" emissions as they don't necessarily have any bearing on the amount of a substance that is "used" or "created," however the Facility would like to take this opportunity to inform the reader that the Facility currently complies with all environmental regulations that control the release and disposal of the Toxic Substance; meeting or exceeding the strict release limits imposed by these regulations for the Toxic Substance.

Objectives of the Toxic Substance Reduction Plan

The Objectives of the Plan are as follows:

- provide support for the Facility's position that, under the TRA's framework, it is impossible to reduce the "use" of the Toxic Substance without reducing Facility production;
- provide the reader with an understanding of the nature of the Facility activity which the TRA has defined as a "use" of the Toxic Substance; and
- document how the Facility has fulfilled the applicable requirements under the TRA and O. Reg. 455/09 with respect to the Toxic Substance.

Description of Why the Toxic Substance Is Used or Created

As stated elsewhere in this Plan, the Facility activity that the MOECC has defined for the purpose of the TRA as a "use" of the Toxic Substance is the handling and processing of mined materials in which the Toxic Substance occurs naturally, at typical background concentrations in the region and as a component of a mineral. Since the Toxic Substance occurs naturally in mined materials, and the Facility is a mining and mineral processing facility, it is impossible to reduce this "use" of the Toxic Substance without reducing the Facility's production. The Toxic Substance simply travels through the Facility process along with all other non-gold materials without undergoing any significant chemical change. It is impossible for the Toxic Substance to be created within the Facility process. It is an elemental mass contribution to the material in which it may be a component.

Rationale for Not Implementing Toxic Substance Reduction Options

As required by s.18(4) of O.Reg.455/09 (as amended by s.9(3) of O.Reg.214/11), a Plan must contain an explanation of why no toxic substance reduction options will be implemented.

Facility personnel have considered each of the seven categories for toxic substance reduction options, and, in light of the information provided in the Statement of Intent section of this Plan, the Facility feels that no toxic substance reduction options can be identified in any of the seven toxic substance reduction categories.

Therefore the rationale for not implementing toxic substance reduction options is that no toxic substance reduction options could be identified.

Statement that the Plan Summary Accurately Reflects the Current Version of the Plan

As required by s.24(1)8 of O.Reg.455/09 this Plan Summary accurately reflects the current version of the Plan.

Planner License Number

As required by s.18(2) of O.Reg.455/09 (as amended by s. 9(2) of O.Reg.214/11), the Licensed Toxic Substance Reduction Planner responsible for providing Planner Recommendations on and certification of this Plan is as follows:

Russell Polack

Air Quality Specialist

Golder Associates Ltd.

Toxic Substance Reduction Planner License Number TSRP0002

Copies of the Certification

Certification statements are provided in the following page.

Toxic Substance Reduction Plan Highest Ranking Employee Certification Statement

As required by s.4(2) of the *Toxics Reduction Act* (TRA), Toxic Substance Reduction Plans must contain a certification, signed by the highest ranking employee at the Facility who has management responsibilities (HRE) relating to the Facility. The information provided below is intended to satisfy this requirement for the respective Toxic Substance Reduction Plans listed below.


As per TRA guidance, if a Toxic Substance Reduction Plan is completed after the date prescribed in s.11.1 of Ontario Regulation (O.Reg.) 455/09, a rationale must be provided by the HRE which explains the reason that the Plan was completed after the prescribed date. Also following TRA guidance, a "Confirmation Statement" is being provided in place of the corresponding Certification Statement prescribed in s.19 of O.Reg.455/09.

The following statement, made on behalf of the HRE satisfies the requirement for a written rationale for for completing each respective Toxic Substance Reduction Plan listed below after the date prescribed in s.11.1 of O.Reg.455/09:

The Toxic Substance Reduction Plan subject to this Confirmation Statement has not been completed in accordance with s.11.1 of O.Reg.455/09 as Facility conditions at the time of the prescribed completion date did not allow for the preparation of the Toxic Substance Reduction Plan.

The following Confirmation Statement satisfies the requirements of s.4(2) of the TRA for the Toxic Substance Plan, with the exception of s.11.1 of O.Reg.455/09:

As of (insert date) May 21, 2015, I, (insert name) Brendan Zuidema, certify that I have read the toxic substance reduction plan for Mercury and am familiar with its contents, and to my knowledge the plan is factually accurate and complies with the *Toxics Reduction Act, 2009* and *Ontario Regulation 455/09 (General)* made under that Act, with the exception of section 11.1.


Signature

May 21 | 2015
Date

May 21, 2015

Project No. 1419918

Kathy-Lynn Morrish
Porcupine Gold Mines

**LICENSED TOXIC SUBSTANCE REDUCTION PLANNER CERTIFICATION STATEMENT FOR THE
DOCUMENT ENTITLED *TOXIC SUBSTANCE REDUCTION PLAN MERCURY***

Dear Ms. Morrish:

Golder Associates Ltd. (Golder) was retained by the Goldcorp Porcupine Gold Mines facility (the Facility) to provide various services pertaining to Toxic Substance Reduction Plan preparation under the *Toxics Reduction Act* (TRA), including Toxic Substance Reduction Planner (Planner) certification of a Toxic Substance Reduction Plan for the substance Mercury (the Plan).

Following TRA guidance, in circumstances where a Plan is prepared after the date prescribed in s.11.1 of Ontario Regulation (O.Reg.) 455/09, a Planner "Confirmation Statement" is to be provided in place of the corresponding Certification Statement prescribed in s.19 of O.Reg.455/09. The following Confirmation Statement satisfies this requirement. Furthermore, the following Confirmation Statement is limited to the respective versions of the Plan which is dated as indicated in the Confirmation Statement:

As of May XX, 2015, I, Russell Polack certify that I am familiar with the processes at the Goldcorp Porcupine Gold Mines Facility that use or create the toxic substance referred to below, that I agree with the estimates referred to in subparagraphs 7 iii, iv and v of subsection 4 (1) of the Toxics Reduction Act, 2009 that are set out in the toxic substance reduction plan referred to below and that the plan complies with that Act and Ontario Regulation 455/09 (General) made under that Act, with the exception of section 11.1.

- *Mercury (May 21, 2015)*



May 21, 2015

Russell Polack
Toxic Substance Reduction Planner
License No. TSRP0002

Date

RLP/

