



REPORT

2022 GHG Verification

Torex Gold Resources Inc.

Prepared for:

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Envirochem Project No.: 21028

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VERIFICATION STATEMENT

March 31st, 2023

Torex Gold Resources Inc. (Torex) retained Envirochem Services Inc. (Envirochem) to conduct a third-party verification to a limited level of assurance on their 2022 GHG inventory (“GHG Assertion”). This GHG Verification was developed following ISO 14064 methodology.

The GHG Assertion is comprised of the “TGRX GHG Emissions Inventory 2022 REV E” and “Inv GEI 2022 MM: CORP 2022 REV E” documents, prepared by Minera Media Luna, S.A. de C.V. (“Responsible Party”). The GHG Assertion states a total of 203,515 tonnes CO₂e were emitted during the 2022 calendar year (January 1st, 2022, to December 31st, 2022). As the verifier, it is Envirochem’s responsibility to express an opinion as to whether the GHG Assertion is materially correct, in accordance with the stated methodologies.

The review was completed in accordance with ISO 14064 Part 3, and the work was performed to provide limited, but not absolute assurance with respect to the GHG Assertion.

Based on the processes and procedures conducted and described in this Verification Statement, Envirochem is satisfied that the GHG Assertion, including the asserted annual emission of 203,515 tonnes CO₂e for the 2022 reporting period is materially correct, and a fair and accurate representation of the GHG Assertion in accordance with the verification criteria. There are no unresolved discrepancies that dispute the belief that the GHG Assertion is not, in all material respects, fairly presented in accordance with the relevant criteria.

Yours truly,

Envirochem Services Inc.

VERIFICATION SUMMARY

Level of Assurance	<ul style="list-style-type: none"> Limited level of assurance
Objectives	<ul style="list-style-type: none"> Issue a verification report that details the verification activities. Issue a limited verification statement
Criteria	<ul style="list-style-type: none"> ISO 14064-1:2018 Greenhouse gases — Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals (“ISO 14064 - Part 1”) ISO 14064-3:2019 Greenhouse gases — Part 3: Specification with guidance for the verification and validation of greenhouse gas statements (“ISO 14064 - Part 3”)
Summary	<ul style="list-style-type: none"> No unresolved material discrepancies identified
Verification Team	<ul style="list-style-type: none"> Farzad Dehkordi Neil Allen Alex Jardine Kimberly Walton
Scope	<ul style="list-style-type: none"> Facility Name: El Limón Guajes mining complex (ELG Mine Complex) and the Media Luna early-stage development project Organizational Boundary: Operational Control Physical Operations: Gold mining and processing Emission Sources: Stationary fuel combustion, mobile fuel combustion, electricity, process emissions. GHG’s Emitted: Carbon Dioxide, Methane, Nitrous Oxide
Reporting Period	<ul style="list-style-type: none"> Reporting Period: January 1, 2022 – December 31, 2022
Materiality	<ul style="list-style-type: none"> Quantitative materiality threshold is 5%
GHG Inventory	<ul style="list-style-type: none"> 203,515 tonnes CO₂e
CO ₂ Emissions Intensity	<ul style="list-style-type: none"> 0.429 tCO₂e/oz Au Based on gold production of 474,035 oz in 2022
Renewable Energy Consumption	<ul style="list-style-type: none"> 0%

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1.0 INTRODUCTION

This Verification Report summarizes the tasks taken for planning and executing the verification to deliver an opinion as to whether the GHG Assertion is presented fairly and in accordance with the verification objectives, scope and criteria. It includes the five components described below:

- Verification Summary, shown above
- Introduction, which describes the parties, the verification objectives and the operations that were reviewed.
- Verification Schedule, which describes key activities and dates
- Verification Findings, which describes the results of the verification and,
- Verification Statement, provided at the start of this Verification Report.

1.1 Facility Description

El Limón Guajes (ELG) gold mining complex is located in the highly prospective Guerrero Gold Belt, 180 kilometres southwest of Mexico City, in the state of Guerrero, Mexico. The El Limón Guajes mining complex is a gold mining operation comprised of the El Limón, Guajes and El Limón Sur open pits, the El Limón Guajes underground mine including zones referred to as Sub-Sill, El Limón Deep and 71, and the processing plant and related infrastructure. Processing of the gold ore is conducted centrally with a targeted throughput rate of 13,000 tonnes per day. The operation utilizes filtered tailings, a process in which the moisture content of tailings is reduced.

Greenhouse gas emissions resulting from the operation and processes at the facility were reviewed and estimated including stationary combustion, mobile combustion, electricity consumption, explosives usage, welding fumes, oxidation of lubricants, and wastewater treatment.

2.0 METHODOLOGY

Envirochem's verification team developed a GHG Emission Inventory, following the principles outlined in ISO 14064 - Part 1¹, and compared the inventory against the Mine's GHG Assertion to verify the methodology used (including confirming that all calculations, units, conversion factors, and parameters were correct) and confirm the results of the Mine's GHG Assertion.

Project documents provided by Minera Media Luna, S.A. de C.V. (Responsible Party), and supplementary documents published by the Mexican federal government, the Secretariat of Environment and Natural Resources (SEMARNAT), and the Intergovernmental Panel on Climate Change (IPCC), were reviewed during this process.

The emissions factors used in the GHG Assertion appear to be appropriate for the emission inventory calculation. It should be noted, however, that there are alternative sources for emission factors that may result in slight variations in calculated emissions.

¹ ISO 14064-1:2018 Greenhouse gases — Part 1: "Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals."

The global warming potentials used in the GHG Assertion are based on the IPCC's Fifth Assessment Report (AR5). The values align with recommendations from the United Nations Framework Convention on Climate Change (UNFCCC).

2.1 Documents Reviewed

The following documents were provided by the Responsible Party, and reviewed as part of the verification process:

- TGRX GHG Emissions Inventory 2022.xlsx
- TGRX GHG Emissions Inventory 2022 REV B.xlsx
- TGRX GHG Emissions Inventory 2022 REV C.xlsx
- TGRX GHG Emissions Inventory 2022 REV D.xlsx
- TGRX GHG Emissions Inventory 2022 REV E.xlsx
- Inv GEI 2022 MML CORP 2022.xlsx
- Inv GEI 2022 MML CORP 2022 REV B.xlsx
- Inv GEI 2022 MML CORP 2022 REV C.xlsx
- Inv GEI 2022 MML CORP 2022 REV D.xlsx
- Inv GEI 2022 MML CORP 2022 REV E.xlsx

The following is a list of additional supplementary documents that were used for the verification process:

- Regulation of the General Law of Climate Change in Matter of National Registry of Emissions (El Reglamento de la Ley General de Cambio Climático en Materia del Registro Nacional de Emisiones)
- Agreement that establishes the technical characteristics and the formulas for the application of methodologies for the calculation of emissions of gases or greenhouse effect compounds (Acuerdo que establece las particularidades técnicas y las fórmulas para la aplicación de metodologías para el cálculo de emisiones de gases o compuestos de efecto invernadero)
- 2006 IPCC Guidelines for National Greenhouse Gas Inventories
 - Volume 3: Industrial Processes and Product Use, Chapter 5: Non-Energy Products from Fuels and Solvent Use, and
 - Volume 5: Waste, Chapter 6: Wastewater Treatment and Discharge; and,
- SEMARNAT Factor De Emision Del Sistema Electrico Nacional 2022 (Emission Factor of the National Electrical System 2022).
- Lista de Combustibles y sus Poderes Calorificos 2023 (List of Fuels and their Calorific Powers 2023)

2.2 Verification Schedule

The following details the schedule established for the verification process:

- Initial Correspondence: January 2023
- Envirochem begins verification process: February 2023
- Inventory is updated with newly published emission factor: March, 2023

- Draft verification report provided to Torex: March, 2023 and,
- Final verification report provided to Torex: March, 2023

3.0 RESULTS

3.1 Verification Findings

A summary of verification items, verification procedure, and findings are shown in **Table 1**. This assessment was used to inform the verification opinion in determining the consistency of the GHG Assertion within the verification objective, scope, and criteria. There are no unresolved discrepancies that dispute the belief that the GHG Assertion is not, in all material respects, fairly presented in accordance with the relevant criteria.

Table 1: Verification Findings

Description	Procedure	Findings
Emission Sources	Comparison of 2022 GHG Inventory to 2021 GHG Inventory.	No material discrepancies have been detected.
Changes in Emissions	Comparison of 2022 GHG Inventory to 2021 GHG Inventory.	Annual emissions have increased by 3.3%. No material discrepancies have been detected.
Emission Quantification	GHG Emission Inventory: Calculations and activity data reviewed.	GHG quantification methodologies were compared to those published by relevant regulatory bodies including SEMARNAT and IPCC. Emissions were recalculated using provided activity data. No material discrepancies have been detected.
Completeness of Activity Data	Comparison of 2022 GHG Inventory to 2021 GHG Inventory.	Activity data is comprehensive and consistent with operations. No material discrepancies have been detected.
Diesel	GHG Emission Inventory: Calculations and activity data reviewed.	Methodology and calculations are correct. No material discrepancies have been detected. 2023 calorific values were published during the verification process and updated by both parties
Gasoline	GHG Emission Inventory: Calculations and activity data reviewed.	Methodology and calculations are correct. No material discrepancies have been detected. 2023 calorific values were published during the verification process and updated by both parties

Description	Procedure	Findings
Liquefied Petroleum (LP) Gas	GHG Emission Inventory: Calculations and activity data reviewed.	Methodology and calculations are correct. No material discrepancies have been detected. 2023 calorific values were published during the verification process and updated by both parties
Electricity	GHG Emission Inventory: Calculations and activity data reviewed.	Methodology and calculations are correct. No material discrepancies have been detected. 2022 electricity emission factor was published during the verification process and updated by both parties.
Lubricant	GHG Emission Inventory: Calculations and activity data reviewed.	Methodology and calculations are correct. No material discrepancies have been detected. 2023 calorific values were published during the verification process and updated by both parties
Explosives	GHG Emission Inventory: Calculations and activity data reviewed.	Methodology and calculations are correct. No material discrepancies have been detected.
Welding	GHG Emission Inventory: Calculations and activity data reviewed.	Methodology and calculations are correct. No material discrepancies have been detected.
Wastewater Treatment	GHG Emission Inventory: Calculations and activity data reviewed.	Methodology and calculations are correct. No material discrepancies have been detected. No wastewater emissions have been reported for 2022.
GHG and Energy Intensity	GHG Emission Inventory: Calculations reviewed.	Methodology and calculations are correct. No material discrepancies have been detected.

3.2 Inherent Limitations

The following limitations to this GHG Verification were noted when evaluating the GHG Assertion:

- The provided activity data was used for fuel and electricity consumption, but activity data was not compared against the original data;
- The provided material consumption/use (i.e., for acetylene, lubricants, explosives, wastewater treatment) was used, but was not compared against the original data;
- Fuel energy content was not compared against original technical data sheets;
- Material produced/processed was not compared against original production logs.

3.3 Identified Discrepancies and Resolutions

One (1) immaterial discrepancy was identified, and the discrepancy reached a resolution. **Table 2** provides a summary of issues raised, the response provided by the Responsible Party, and any resulting actions taken to resolve the potential issue.

Table 2: Material and Immaterial Discrepancies Identified

Identified Error, Omission or Misrepresentation	Material/Immaterial	Resolution
Oxidization of Oils in Machinery was not included in 2022. In 2021 the item accounted for 232.2 tonnes CO ₂ e.	Immaterial. 253 tonnes fewer total CO ₂ e emissions were being reported compared to corrected estimations. (203,515 tCO ₂ e vs. 203,262 tCO ₂ e)	This was resolved by updating the oxidization of oils in machinery data to include 2022 information and correcting the calculations.

4.0 PARTICIPANTS AND QUALIFICATIONS

A summary of the qualifications and experience of the Envirochem assessors who prepared and reviewed this report is as follows:

Farzad Dehkordi, M.Sc.

Senior Manager & Partner – Environmental Engineering & Air Quality Specialist

Mr. Dehkordi has more than 25 years of experience in various industrial sectors as an executive, regulator and consultant. He acquired his Master's degree in civil and environmental engineering and has tailored his career to incorporate environmental engineering focusing on air and odour pollution inventory, assessment, modelling, permitting sampling and control. Mr. Dehkordi is proficient in air policy review, air dispersion modelling assessments, air emissions inventory, climate change analysis, NPRI & GHG calculations, air and odour monitoring & sampling and data analysis with a variety of tools and software including CALPUFF, CALApps, AERMOD, AERSCREEN, SCREEN3, ArcGIS, SURFER, EPA TANKS, WRPLOT View, MEIT/PEIT tool, R software, and Python scripting. He is a specialist in emissions estimating using standard emission factors for the Council of Ministers of Environment (CCME) and the US EPA, and is proficient in Continuous Emissions Monitoring Systems (CEMS) data and stack testing. He has managed and conducted air quality assessment, permitting, modelling and climate change risk analysis projects for a variety of facilities including shipyards and port terminals, composting facilities, pellet plants, mining and petroleum & natural gas, wood products, biomass combustion, power plants, steel making factories/smelters, agricultural operations, HMA facilities, LNG facilities, wastewater treatment plants, rendering plants, scrap metal recycling, pulp & paper in a team both as a member or as a team leader. He is also well versed in air assessment guidelines and regulatory framework in regional, provincial, federal and international levels. He has also conducted a variety of waste to energy feasibility studies and energy auditing. He has also participated in several preliminary Green

Marine assessment and review for bulk commodity terminals. Farzad has served the role of technical committee chair and director of Air and Waste Association Management (A&WAM) for BC and Yukon chapter.

Neil Allen, B.Sc., M.Sc., P.G.Dipl.Env.Mngt., P.Ag., EP(EMSLA), EP(CEA), CHSMSA, COR
Senior Environmental Specialist - HSE Assurance and Management Systems

Mr. Allen is a Senior Environmental and Health and Safety Auditor with Envirochem and has over 24 years of consulting experience in Canada, New Zealand, Australia, the United States, Africa, India, and the Philippines. He is a Certified Environmental Management System (EMS) Lead Auditor to ISO 14001 [EP(EMSLA)] and Certified Regulatory Compliance Auditor [EP(CEA)] (Health and Safety and Environmental) with ECO Canada / CECAB. He is also a Certified Health and Safety Management System Auditor (CHSMSA) with the Auditing Association of Canada, an ISO 45001 (and former OHSAS 18001) Lead Auditor, and a Certificate of Recognition (COR) Program Safety Management System (SMS) Auditor Certified with the Manufacturing Safety Alliance of BC and the Trucking Safety Council of BC. He is also a Certified Towards Sustainable Mining (TSM) Verification Auditor with the Mining Association of Canada (MAC), and a GHG Verification Auditor to ISO 14064-3. For the past 24 years, Neil has specialized in completing EMS Audits and EMS Development and Implementation to ISO 14001:2004 & 2015, Regulatory Compliance Audits (Environmental and Occupational Health and Safety), Green Marine Verification Audits, Environmental Management Frameworks for First Nation Clients, Occupational Health and Safety Management System Audits (COR and ISO 45001 and OHSAS 18001), and Greenhouse Gas (GHG) Verification Audits to ISO 14064-3 for a number of private and government sector Clients in Canada and Internationally.

Alex Jardine, B.Sc.

Environmental Scientist, Air Quality Specialist

Mr. Jardine has more than seven years of experience in the environmental sector and currently serves as Envirochem's air quality Project Manager. He has experience in multiphase project coordination in many sectors including at various terminals throughout the Vancouver Fraser Port Authority and Metro Vancouver. He has strong analytical skills acquired through his undergraduate studies in chemistry, post-graduate studies at BCIT (Environmental Engineering), and experience as an analytical laboratory technician. He has experience in air quality monitoring, air permitting, pollution control, and air quality dispersion modelling and general environmental consultancy in British Columbia and the Lower Mainland. He is also proficient in air assessment guidelines and regulatory frameworks at the regional, provincial, federal, and international levels. He has also conducted energy auditing for large industrial clients. He has been involved in several preliminary Green Marine assessment and review for bulk commodity terminals. He is well versed in a variety of air quality software including CALPUFF, SCREEN3, WRPLOT, AERMOD, AERSCREEN, MEIT/PEIT tool etc. Alex has worked in emissions sectors including composting facilities, cannabis wastewater treatment plants, bulk terminals, rendering plants, shredding facilities, mining and petroleum & natural gas, sawmills and hospitals.

Kimberly Walton, MCC, SEMAC

Environmental Scientist

Ms. Walton acquired her Master of Climate Change (MCC) at the University of Waterloo where she established an understanding of climate science, adaptation, and mitigation. She then went on to graduate with an advanced certificate in Sustainable Energy Management (SEMAC) through BCIT. Ms. Walton has developed a variety of skills throughout her studies and work experience, including GHG inventory assessments, energy audits, lifecycle costing, community climate action plans, and climate risk assessments. She is well versed in NPRI and GHG reporting and using air quality software including WRPLOT.

5.0 CONCLUSION

The Envirochem verification team has found no unresolved discrepancies that dispute the belief that the GHG Assertion is not, in all material respects, fairly presented in accordance with the relevant criteria.

As noted in **Section 3.1** above, the verification team created a GHG emissions inventory to confirm that all calculations, units, conversion factors, and parameters were correct. Based on the information that was provided, it has been determined that the final calculation of 203,515 tonnes CO_{2e} emissions is materially correct, and a fair and accurate representation of the GHG Assertion in accordance with the verification criteria.

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