



SUSTAINABILITY CONSULTING

Vizsla Silver GHG Inventory Report

Prepared by Warm Springs Consulting October 10, 2023

Overview

CONSULTANT CONTENT

The Vizsla Silver Greenhouse Gas (GHG) Inventory Report describes Vizsla Silver's operational contribution to climate change measured in GHG emissions in units of equivalent metric tonnes of carbon dioxide (MTCO2e). This report covers the fiscal year, from May 1, 2022 to April 30, 2023 (FY 2022/23), which, as the inaugural reporting year, will be considered the baseline year. The purpose of this GHG emissions inventory is to benchmark Vizsla Silver's company-wide GHG emissions and to provide a consistent methodology for documenting GHG emissions on an ongoing basis. Warm Springs Consulting (WSC) compiled the data with support from the Vizsla Silver staff.

Methodology

Vizsla Silver's GHG inventory has been developed in accordance with the revised GHG Protocol Corporate Standard and the Corporate Value Chain Accounting and Reporting Standard. WSC utilized procedures and calculations per the ISO Standard 14064-1, pertaining to GHG quantification.

To support uniform reporting, Vizsla Silver's combined CO₂ equivalent emissions of all GHGs, including CH_4 and NO_2 emissions, are expressed as CO_2 equivalent (CO2e). Inventory boundary, materiality, and calculation development involve the collection and examination of documentation, testimony, and data from internal and external sources.



Base Year

The Science Based Target Initiative recommends selecting the most recent year for which data is available and complete. Based on this recommendation and the availability of reliable data, the FY 2022/23 GHG inventory is Vizsla Silver's base year for future comparisons.

Primary vs. Secondary Data

Primary data refers to activity data taken directly from meter readings, i.e., the "raw" utility bill data. Primary data is generally considered to be the most accurate and thus preferable. Secondary data, or estimated data, refers to the development and use of intensity factors and/or energy consumption models based on financial data or square footage. For this report, WSC utilized a mix of primary and secondary data to calculate Scope 1 and Scope 2 emissions.

Scope 1

Vizsla Silver provided consumption data for the direct use of gasoline and diesel (primary data). The utilization of natural gas in the Vancouver office, as well as refrigerant consumption in both the Vancouver and Mazatlan offices, was determined based on square footage and EPA-assumed emissions per square foot for comparable facilities (secondary data).

Scope 2

Utility bill data was used for the calculation of Scope 2 emissions for the Mexico sites (primary data). WSC utilized office square footage and EPA emissions factors to quantify Scope 2 emissions for the Vancouver office (secondary data).

Scope	Emissions Source/ Category	Data Source	% Primary Data	% Secondary Data	Calculation Method
1	Refrigerants	 Vizsla Silver office locations, size in square meters Intergovernmental Panel on Climate Change Fifth Assessment Report for refrigerant global warming potential 	0%	100%	Location- based estimate
	Natural Gas	 Vizsla Silver office locations, size in square meters Energy Information Administration (EIA) location data for refrigerant consumption-based on location 	0%	100%	Location- based estimate
	Gasoline	Consumption data for Mexico operations	100%	0%	Mass-balance
	Diesel	Consumption data for Mexico operations	100%	0%	Mass-balance
2	Electricity	 Utility bills for Mexico locations EIA consumption estimate based on Vancouver location size 	75%	25%	Location- based

Table 1: Emissions Calculation Methodology



WSC used emissions factors based on recognized published data applicable to the types of emissions associated with the inventory. These factors are published by the Environmental Protection Agency (EPA)¹, EIA², Canada's Department of Environment and Climate Change³, and the International Energy Agency⁴ and are consistent with methodologies from the World Business Council Sustainable Development and World Resources Institute Greenhouse Gas Protocol.

		Emissions		
Scope	Item	Factor	Unit	Source
1	Gasoline	8.78	kg CO2e/ gallon	EPA ¹
1	Diesel	10.21	kg CO2e/ gallon	EPA ¹
1	Natural Gas	0.05	kg CO2e/ft3	EPA ¹
2	British Columbia	0.015	kg CO2e/kWh	Government of Canada ³
				International Energy
2	Mexico	0.43	kg CO2e/kWh	Agency ⁴

Table 2: Emissions Factors and Sources

Scope 1 & 2 Emissions Overview

Vizsla Silver's GHG emissions reflect the current operational activities which either directly consume fuel and refrigerants (Scope 1) or consume purchased electricity (Scope 2). Scope 1 emissions represent 79% of total emissions for Vizsla Silver at an estimated 181 metric tonnes of CO2e (MT CO2e). These emissions sources include the combustion of diesel fuel in equipment, the use of natural gas for heating, and the use of refrigerants in air conditioning units. Scope 2 emissions resulting from electricity consumption at all facilities represent 21% of total emissions for Vizsla Silver at an estimated 49 MT CO2e.

Figure 1. Scope 1 & Scope 2, Total Emissions

2022 Emissions Summary (MT CO2e)



¹<u>United States Environmental Protection Agency (EPA</u>). GHG Emissions Factors Hub. 2023.

² U.S. Energy Information Administration. 2023.

³ <u>Government of Canada BC</u>. Emission Factors and Reference Values. 2023.

⁴ International Energy Agency, Mexico. 2021.





Figure 2. Scope 1 & Scope 2, Percent of Total Emissions

Table 3: Emissions Calculations Table

		Consumption		Emissions (MTCO2e)		
Scope	Emissions Source/Category	2022	Unit	2022	% of Total Emissions	Assumptions/ Notes
1	Refrigerants	1	kg	2	1%	Only includes Vancouver and Mazatlan offices
	Natural Gas	255,445	ft3	14	6%	Only includes estimation for Vancouver office
	Gasoline	0	Liters	0	0%	
	Diesel	61,242	Liters	165	72%	
	Total Scope 1			181	79%	
2	Electricity	216,498	kWh	48	21%	
	Total Scope 2			48	21%	
	Total Scope 1 & Scope 2			229	100%	



Scope 1 Emissions

The largest source of Scope 1 emissions is diesel fuel combustion, associated with the use of vehicles (primarily passenger trucks on and near the site). Natural gas emissions are estimated for heating in the Vancouver office based on the office floor plan, measured in square meters. Emissions from the use of refrigerants in the Vancouver and Mazatlan offices have been estimated based on the size of facilities cooled, measured in square meters.



Figure 3. Scope 1 Emissions by Source Fuel

Scope 2 Emissions

Scope 2 emissions were calculated for each location using utility billing data with units of electricity consumed, measured in kilowatt hours (kwh), provided by Vizsla Silver for Mexico locations. The electricity consumption and resulting emissions were estimated for the Vancouver office based on size of facilities cooled, measured in square meters.





Figure 4. Scope 2 Emissions by Facility Location

Scope 2 Emissions by Facility (MT CO2e)

Scope 3

Vizsla Silver plans to continue reporting on Scopes 1 & Scope 2 GHG emissions. A significant portion of the company's operational emissions likely come from drilling operations, which are currently managed through a contracted third party, and therefore fall within Scope 3, rather than Scope 1 or 2. Vizsla Silver is working to start gathering Scope 3 data and will report Scope 3 emissions once data is available and cost-effective to collect. The company has stated its intent to continue publishing emissions data utilizing the methods described above.

Peer Benchmarking

The table below provides a peer comparison based on Scope 1 & 2 emissions.

		<u>Discovery</u>	<u>GoGold</u>	<u>Skeena</u>
	Vizsla Silver	<u>Silver</u>	<u>Resources</u>	<u>Resources</u>
Market Cap (\$M CAD)	300	238	396	417
Scope 1 (MT CO2e)	181	411	8,288	5,280
Scope 2 (MT CO2e)	48	3	5,603	1
Emissions Intensity MT				
CO2e (Scope 1 & 2) per				
\$M market cap	0.76	1.74	35.08	12.66

Table 4: Peer Benchmarking



Exploring Pathways to Net Zero

Using the above Scope 1 & Scope 2 emissions for Vizsla Silver, WSC prepared a hypothetical pathway to net zero emissions with the target year of 2024 utilizing a combination of emissions reduction strategies. It's important to note that this analysis uses rough cost and savings estimates to show possible pathways. Actual pricing will need to be updated before net zero targets are set.



Figure 5. Carbon Reduction Strategies

Scope 1

- **Reduce fuel consumption:** An 8% reduction in annual fuel consumption could result in an estimated reduction of 18 MT CO2e and a cost savings of over \$11,000 CAD.
- **Carbon Credits:** At a cost of \$28 CAD/MT, 163 MT CO2e could be offset, totalling \$4,700 CAD annually.

Scope 2

- **Solar Energy:** Installing solar energy to meet 28% of the electricity demand at Camp Clementina could reduce annual emissions by 22 MT CO2e, while potentially saving more than \$800 CAD per year.
- **Energy Efficiency:** Investing in energy efficiency measures could reduce 2 MT CO2e annually and potentially save around \$1,100 CAD, annually.
- **Renewable Energy Credits (RECs):** At a cost of \$213 CAD per credit, emissions could be reduced by 24 MT CO2e for an annual cost of around \$5,000 CAD.







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