

# 2019 Annual Information Form

Sherritt International Corporation For the year ended December 31, 2019 Dated as of March 19, 2020



# **TABLE OF CONTENTS**

		Page
Intr	oduction	3
For	ward-Looking Statements	4
Scie	ntific and Technical Information	5
1.	Overview of the Business	7
	1.1 Three-Year History	8
2.	Corporate Structure	14
	2.1 Name and Incorporation	14
	2.2 Intercorporate Relationships	15
3.	Description of the Business	15
	3.1 Nickel Operations	15
	3.2 Oil and Gas	22
	3.3 Power	39
	3.4 Technologies	43
	3.5 Environment, Health and Safety and Sustainability	43
	3.6 Employees	50
	3.7 Investment in the Ambatovy Joint Venture	50
	3.8 Risk Factors	54
4.	Dividends	75
<b>5</b> .	Capital Structure	75
6.	Market for Securities	77
7.	Directors and Officers	78
8.	Transfer Agent and Registrar	81
9.	Material Contracts	81
10.	Interest of Experts	82
11.	Additional Information	83
	11.1 Additional Documents	83
	11.2 Audit Committee	83
Sch	edule A Glossary of Terms	85
Sch	edule B Technical Information	90
Sch	edule C Mandate of the Audit Committee	101



# Sherritt International Corporation **Annual Information Form**

For the year ended December 31, 2019 Dated as of March 19, 2020

# Introduction

This annual information form ("Annual Information Form" or "AIF") contains important information that will help you make an informed decision about investing in Sherritt International Corporation. It describes Sherritt International Corporation, its businesses and activities as well as risks and other factors that affect its business.

The information contained in this Annual Information Form relates to Sherritt International Corporation, its subsidiaries, its interest in an associate, and its proportionate interest in joint ventures for the year ended December 31, 2019, where applicable, unless otherwise indicated.

The information, including any financial information, disclosed in this Annual Information Form is stated as of December 31, 2019 or for the year ended December 31, 2019, as applicable, unless otherwise indicated. In this Annual Information Form, references to the "Corporation" or "Sherritt" are to Sherritt International Corporation together with its subsidiaries, its interest in an associate, and its proportionate interest in joint ventures. References to "management" are, unless otherwise indicated, to senior management of the Corporation.

Except as otherwise indicated, all dollar amounts in this Annual Information Form are expressed in Canadian dollars and references to "\$" are to Canadian dollars. As of December 31, 2019 and March 18, 2020, the United States/Canada Dollar exchange rates, as reported by the Bank of Canada, were US\$0.77/Cdn.\$1.00 and US\$0.69/Cdn.\$1.00, respectively.

# Forward-Looking Statements

This Annual Information Form contains certain forward-looking statements. Forward-looking statements can generally be identified by the use of statements that include such words as "believe", "expect", "anticipate", "intend", "plan", "forecast", "likely", "may", "will", "could", "should", "suspect", "outlook", "projected", "continue" or other similar words or phrases. Specifically, forward-looking statements in this document include but are not limited to, statements respecting certain expectations regarding operating costs and capital spending; sales volumes; revenue, costs and earnings; sufficiency of working capital and capital project funding; drill plans and results on exploration wells; funding of future Ambatovy cash calls; strengthening the Corporation's capital structure and reducing annual interest expenses; and amounts of certain other commitments.

Forward-looking statements are not based on historical facts, but rather on current expectations, assumptions and projections about future events, including commodity and product prices and demand; the level of liquidity and access to funding; share-price volatility; realized prices for production; earnings and revenues; development and exploration wells and enhanced oil recovery in Cuba; environmental risks and liabilities; availability of regulatory approvals; compliance with applicable environmental laws and regulations; debt repayments; collection of accounts receivable; risks related to U.S. Government policy towards Cuba; and certain corporate objectives, goals and plans for 2020. By their nature, forward-looking statements require the Corporation to make assumptions and are subject to inherent risks and uncertainties. There is significant risk that predictions, forecasts, conclusions or projections will not prove to be accurate, that those assumptions may not be correct and that actual results may differ materially from such predictions, forecasts, conclusions or projections.

The Corporation cautions readers of this Annual Information Form not to place undue reliance on any forward-looking statement as a number of factors could cause actual future results, conditions, actions or events to differ materially from the targets, expectations, estimates or intentions expressed in the forward-looking statements. These risks, uncertainties and other factors include, but are not limited to, changes in the global price for nickel, cobalt, oil and gas, fertilizers or certain other commodities; security market fluctuations and price volatility; level of liquidity; access to capital; access to financing; identification and management of growth opportunities; risks related to Sherritt's investment in the Ambatovy Joint Venture (as defined below); risks related to non-implementation of the Transaction (as defined below); risk of future non-compliance with debt restrictions, covenants and mandatory repayments; uncertainty of exploration results and Sherritt's ability to replace depleted mineral and oil and gas reserves; risks associated with the Corporation's joint venture partners; variability in production at Sherritt's operations in Cuba and Madagascar; risks associated with mining, processing and refining activities; risks related to Sherritt's operations in Cuba; risks related to the U.S. government policy toward Cuba, including the U.S. embargo on Cuba and the Helms-Burton legislation; potential interruptions in transportation; uncertainty of gas supply for electrical generation; the Corporation's reliance on key personnel and skilled workers; the possibility of equipment and other failures; uncertainty of resources and reserve estimates; the potential for shortages of equipment and supplies; risks related to environmental liability including liability for reclamations costs, tailings facility failures and toxic gas releases; risks related to the Corporation's corporate structure; political, economic and other risks of foreign operations; risks associated with Sherritt's operation of large projects generally; risks related to the accuracy of capital and operating cost estimates; foreign exchange and pricing risks; compliance with applicable environment, health and safety legislation and other associated matters; risks associated with governmental regulations regarding climate change and greenhouse gas emissions; maintaining the Corporation's social license to grow and operate; risks relating to community relations; credit risks; shortage of equipment and supplies; competition in product markets; future market access; interest rate changes; risks in obtaining insurance; uncertainties in labour relations; uncertainty in the ability of the Corporation to enforce legal rights in foreign jurisdictions; uncertainty regarding the interpretation and/or application of the applicable laws in foreign jurisdictions; legal contingencies; risks related to the Corporation's accounting policies; uncertainty in the ability of the Corporation to obtain government permits; risks to information technologies systems and cybersecurity; failure to comply with, or changes to, applicable government regulations; bribery and corruption risks, including failure to comply with the Corruption of Foreign Public Officials Act or applicable local anti-corruption law; the ability to accomplish corporate objectives, goals and plans for 2020; and the Corporation's ability to meet other factors listed from time to time in the Corporation's continuous disclosure documents. Readers are cautioned that the foregoing list of factors is not exhaustive and should be considered in conjunction with the risk factors described in this Annual Information Form and in the Corporation's other documents filed with the Canadian securities authorities.

The Corporation may, from time to time, make oral forward-looking statements. The Corporation advises that the above paragraph and the risk factors described in this Annual Information Form and in the Corporation's other documents filed with the Canadian securities authorities should be read for a description of certain factors that could cause the actual results of the Corporation to differ materially from those in the oral forward-looking statements. The forward-looking information and statements contained in this Annual Information Form are made as of the date hereof and the Corporation undertakes no obligation to update publicly or revise any oral or written forward-looking information or statements, whether as a result of new information, future events or otherwise, except as required by applicable securities laws. The forward-looking information and statements contained herein are expressly qualified in their entirety by this cautionary statement.

# Scientific and Technical Information

Proven and Probable Mineral Reserves and Measured, Indicated and Inferred Mineral Resources have been estimated in accordance with the definitions of these terms adopted by the Canadian Institute of Mining, Metallurgy and Petroleum (the "CIM") in May 2014 and incorporated in National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101") by Canadian securities regulatory authorities. All of the Corporation's oil and gas reserves have been evaluated, on an annual basis, in accordance with National Instrument 51-101 - Standards of Disclosure for Oil and Gas Activities ("NI 51-101") and the Canadian Oil and Gas Evaluation Handbook (the "COGE Handbook") prepared by the Society of Petroleum Evaluation Engineers.

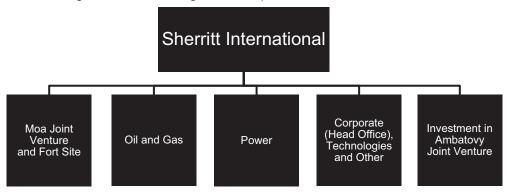
# Glossary of Terms

Please see Schedule 'A' of this AIF for a glossary of certain terms and abbreviations used in this document.



# 1. Overview of the Business

Sherritt is based in Toronto, Ontario and is a leader in the mining and refining of nickel and cobalt from lateritic ores with projects, operations and investments in Canada, Cuba and Madagascar. The Corporation is the largest independent energy producer in Cuba, with extensive oil and power operations on the island. Sherritt licenses its proprietary technologies and provides metallurgical services to mining and refining operations worldwide. The common shares ("Shares") of the Corporation are listed on the Toronto Stock Exchange (the "TSX"), trading under the symbol "S".



## MOA JOINT VENTURE AND FORT SITE

Sherritt is an industry leader in the mining, processing and refining of nickel and cobalt from lateritic ore bodies. Sherritt has a 50/50 partnership with General Nickel Company S.A. ("GNC") of Cuba (the "Moa Joint Venture"). In addition, Sherritt has a wholly-owned fertilizer business, sulphuric acid, utilities and storage and administrative facilities in Fort Saskatchewan, Alberta, Canada ("Fort Site") that provide additional sources of income.

The Moa Joint Venture mines, processes and refines nickel and cobalt for sale worldwide (except in the United States). The Moa Joint Venture is a vertically-integrated joint venture that mines lateritic ore by open pit methods and processes them at its facilities at Moa, Cuba into mixed sulphides containing nickel and cobalt. The mixed sulphides are transported to the refining facilities in Fort Saskatchewan, Alberta. The resulting nickel and cobalt products are sold to various markets, primarily in Europe, Japan and China. At the current depletion rates, the concessions of the Moa Joint Venture are planned to be mined until at least 2034.

The Fertilizers' facilities at Fort Saskatchewan provide inputs (ammonia, sulphuric acid and utilities) for the Moa Joint Venture's metals refinery, produce agriculture fertilizer for sale in Western Canada and provides additional fertilizer storage and administrative facilities. The refinery facilities in Fort Saskatchewan have an annual production capacity of approximately 35,000 (100% basis) tonnes of nickel and approximately 3,800 (100% basis) tonnes of cobalt.

#### **OIL AND GAS**

Sherritt's Oil and Gas division explores for and produces oil and gas primarily from reservoirs located offshore, but in close proximity to the coastline along the north coast of Cuba. Specialized long reach directional drilling methods are being used to economically exploit these reserves from land-based drilling locations.

Under the terms of its production-sharing contracts ("PSCs"), Sherritt's net production is made up of an allocation from gross working-interest production (cost-recovery oil) to allow recovery of all approved costs in addition to a negotiated percentage of the remaining production (profit oil). The pricing for oil produced by Sherritt in Cuba is based on a discount to U.S. Gulf Coast High Sulfur Fuel Oil ("USGC HSFO") reference prices.

Sherritt currently has an interest in four PSCs, one PSC which is developed and in the production stage and the remaining three PSCs in the exploration phase.

In addition, Sherritt holds working-interests in several oil fields and the related production platform located in the Gulf of Valencia in Spain.

# 1. Overview of the Business (cont.)

#### **POWER**

Sherritt's primary power generating assets are located in Cuba at Varadero, Boca de Jaruco and Puerto Escondido. These assets are held by Sherritt through its one-third interest in Energas S.A. (**"Energas"**), which is a Cuban joint arrangement established to process raw natural gas and generate electricity for sale to the Cuban national electrical grid. Cuban government agencies Unión Eléctrica (**"UNE"**) and Unión Cubapetróleo (**"CUPET"**) hold the remaining two-thirds interest in Energas.

Raw natural gas is supplied free of charge to Energas by CUPET as part of its obligations as outlined in the Association Agreement (as defined below). The processing of raw natural gas produces clean natural gas, used to generate electricity, as well as by-products such as condensate and liquefied petroleum gas. All of Energas' electrical generation is purchased by UNE under long-term fixed-price contracts while the by-products are purchased by CUPET or a Cuban entity providing natural gas to the City of Havana at market based prices. Sherritt provided the financing for the construction of the Energas facilities and is being repaid from the cash flows generated by the facilities.

The Energas facilities are comprised of two combined cycle plants at Varadero and Boca de Jaruco that produce electricity using steam generated from the waste heat captured from the gas turbines. Energas' electrical generating capacity is 506 MW.

#### **CORPORATE AND OTHER**

## **Technologies**

Sherritt's Technologies group (**"Technologies"**) provides technical support, process optimization and technology development to Sherritt's operating divisions and identifies opportunities for the Corporation as a result of its research and development and international activities. Technologies' activities include the internally focused development of technologies that provide strategic advantages to the Corporation; evaluating, developing and commercializing process technologies for natural resource-based industries, in particular for the hydrometallurgical recovery of non-ferrous metals which has resulted in more than 40 mining operations worldwide utilizing the Corporation's proprietary technology; and providing technical support for Sherritt's operations, marketing and business development arms.

# INVESTMENT IN THE AMBATOVY JOINT VENTURE

Sherritt has a 12% interest in Ambatovy Minerals S.A. ("AMSA") and Dynatec Madagascar S.A. ("DMSA"). Together AMSA and DMSA form the "Ambatovy Joint Venture", which owns a significant nickel operation in Madagascar. The Ambatovy Joint Venture is one of the world's largest, vertically integrated, nickel mining, processing and refining operations utilizing lateritic ore. Sherritt's partners in the Ambatovy Joint Venture include Sumitomo Corporation ("Sumitomo") and Korea Resources Corporation ("KORES") and together with Sherritt and Sumitomo, (the "Ambatovy Partners"). The Ambatovy Joint Venture has two nickel deposits located near Moramanga (eastern-central Madagascar) and is expected to operate until at least 2043.

# 1.1 Three-Year History

## 2020

In February 2020, the Corporation announced a transaction (the **"Transaction"**) that proposes exchanging the Corporation's existing senior unsecured debentures (the "8.00% Senior Unsecured Debentures", the "7.50% Senior Unsecured Debentures", and the "7.875% Senior Unsecured Debentures", collectively, the **"Debentures"**) due in 2021, 2023 and 2025 (the **"Existing Notes"**) in the aggregate principal amount of \$588 million, together with all accrued and unpaid interest thereon up to but excluding the implementation date of the Transaction (the **"Effective Date"**), for new secured debentures due in 2027 (the **"New Secured Notes"**) in an aggregate principal amount equal to 50% of the principal amount of the Existing Notes plus all accrued and unpaid interest in respect of the Existing Notes up to but excluding the Effective Date, and certain early cash consent considerations. Assuming an anticipated Effective Date of April 30, 2020, the aggregate principal amount of the New Secured Notes would be approximately \$319 million. If completed, the Transaction would result in a reduction of loans and borrowings in respect of the Existing Notes of approximately \$269 million and an extension of the 2021, 2023 and 2025 maturities under the Existing Notes to a maturity of 2027 under the New Secured Notes.

The Transaction also proposes exchanging the Corporation's Ambatovy Partner loans held by the Ambatovy Partners (together with the holders of the Existing Notes, the Debtholders) in the aggregate principal amount of approximately \$145 million, plus all accrued and unpaid interest, for, at the election of each Ambatovy Partner, either (i) the Ambatovy Partner's pro rata share of the Corporation's 12% interest in the Ambatovy Joint Venture and its loans receivable from the Ambatovy Joint Venture (collectively, the "Ambatovy Joint Venture assets") or (ii) amended loans with no further recourse against the Corporation. This would result in a further reduction of recourse loans and borrowings of approximately \$145 million using the January 31, 2020 foreign exchange rates.

A meeting of Debtholders to vote on the Transaction is scheduled for April 9, 2020 (the "Debtholders' Meeting"). The Transaction is subject to, among other conditions precedent, approval by an affirmative vote of at least 66 3/3% of the votes cast by the Corporation's Debtholders present in person or by proxy at the Debtholders' Meeting, and subject to approval by the Ontario Superior Court of Justice (Commercial List). Upon implementation, the Transaction would result in a total reduction of loans and borrowings of approximately \$414 million.

The following additional key developments occurred subsequent to year-end:

- In addition to the payments of US\$2.5 million per month Sherritt is receiving following ratification of the overdue receivables agreement with its Cuban partners in June 2019, Sherritt received a commitment from its Cuban partners for an incremental US\$5 million per month, which will be used to fund Energas operations and reduce overdue amounts owed to Sherritt.
- Syndicated Revolving-Term Credit Facility (the "Syndicated Facility")

Pursuant to a consent and waiver agreement dated February 21, 2020 the Corporation and the lenders under the Syndicated Facility have agreed, among other things, that the Corporation could pursue the Transaction and commence the proceedings under the Canada Business Corporations Act relating thereto (the "CBCA Proceedings") subject to, amongst others, the completion of an amendment and restatement of the Syndicated Facility substantially concurrently with or prior to the implementation of the Transaction.

The maximum credit available under the Corporation's Syndicated Facility is \$70.0 million and its maturity is April 30, 2020. The total available draw is based on eligible receivables and inventories, which are pledged as collateral. Certain cash held in banks in Canada is also pledged as collateral. The interest rates are prime plus 3.00% or bankers' acceptance plus 4.00%. The Syndicated Facility is subject to the flowing financial covenants and restrictions as of December 31, 2019:

- EBITDA, as defined in the agreement, equal to or greater than \$70.0 million, a decrease from \$100.0 million as at December 31, 2018;
- EBITDA-to-interest expense covenant of not less than 1.35:1, a decrease from 1.75:1 as at December 31, 2018;
- Limits on capital expenditures and funding of the Moa Joint Venture and Ambatovy Joint Venture, which remained unchanged during the year; and
- Minimum cash covenant balance, as defined in the agreement, of \$70.0 million, less undrawn credit, a decrease from \$100.0 million, less undrawn credit, as at December 31, 2018.

This amount is comprised of cash and cash equivalents and short-term investments of the Corporation and its wholly-owned subsidiaries held in Canada. The required minimum cash covenant balance as at December 31, 2019 is calculated to be \$53.3 million. As at December 31, 2019, the Corporation has \$45.3 million of letters of credit outstanding pursuant to this Syndicated Facility. As at December 31, 2019, \$8.0 million has been drawn on this Syndicated Facility.

#### 2019

# Oil and Gas and Power

Sherritt's Cuban partners ratified an overdue receivables agreement for the repayment of US\$150 million from Energas S.A., and made US\$21.1 million in payments under the plan through December 31, 2019.

# 1. Overview of the Business (cont.)

#### Oil and Gas

In Block 10, drilling of the well LT-100 continued in stages throughout the year. Third-party industry experts completed detailed lab analysis of rock cuttings collected during previous operations on Block 10, which indicated that the rock formation between the upper and lower target reservoirs has unanticipated and unique characteristics. Based on these analyses, drilling parameters were modified including the characteristics of the drilling fluid and the utilization of Pressure Managed Drilling (PMD). The unstable formations were drilled successfully and casing was placed in the hole to isolate the unstable formation prior to drilling to the final total depth. Upon commencing drilling, an unexpected lost circulation zone was encountered above the target reservoir. Additional analyses by third party experts was undertaken and it was determined that Pressurized Mud Cap Drilling (PMCD) would be required to drill through the reservoir to total depth. This was executed successfully between October and December of 2019. Sherritt completed drilling on Block 10 in December 2019, reaching the target depth of approximately 5,700 meters and preliminary testing is now underway.

#### **Production Results**

Finished nickel production at the Moa Joint Venture in 2019 was 33,108 tonnes on a 100% basis, exceeding guidance for the year. Finished cobalt production at the Moa Joint Venture in 2019 was 3,376 tonnes in line with guidance for the year. Production totals achieved by the Moa Joint Venture in 2019 benefitted from operational excellence initiatives completed over the preceding 18 months, and included efforts to improve ore access and increase equipment reliability. These initiatives were supplemented by specific mitigation strategies to offset the negative impact that reduced diesel fuel supply in Cuba and the disruption of railway service in Canada had on operations in the fourth quarter. Nickel production at the Ambatovy Joint Venture in 2019 was below guidance due to a number of factors, including unplanned shutdowns and maintenance activities needed to replace or repair major pieces of equipment.

Production for the Oil and Gas business in Cuba on a gross working interest was 4,175 barrels of oil per day, exceeding guidance for the year. While oil production in Cuba in 2019 was impacted by natural reservoir declines, the level of decline was not as rapid in the first half of the year as was anticipated. Power production in 2019 was 736 gigawatt hours, exceeding guidance for the year. Higher production for 2019 was largely due to increased availability of natural gas supply for power generation activities in the second half of the year than was previously anticipated.

## 2018

# **Financings**

On January 25, 2018, the Corporation completed a public offering of 94,464,440 units of the Corporation (the **"Units"**) at a price of \$1.40 per Unit for gross proceeds of approximately \$132 million. Each Unit sold in the offering consisted of one Share and one-half of one common share purchase warrant linked to the price of cobalt (each full warrant, a **"Cobalt-Linked Warrant"**). A Cobalt-Linked Warrant is exercisable at an exercise price of \$1.95 for a period of 36 months from January 25, 2018.

In January 2018, the maturity of the Syndicated Facility was extended to January 30, 2019 and the maximum credit available was increased from \$63.6 million to \$70.0 million with interest rates of prime plus 3.50% or bankers' acceptance plus 4.50%.

On December 21, 2018, the Syndicated Facility was renewed with maximum credit available of \$70.0 million. The interest rate was decreased to prime plus 3.00% or bankers' acceptance plus 4.00% from prime plus 3.50% or bankers' acceptance plus 4.50%. The total available draw is based on eligible receivables and inventory. The principal amount outstanding under the Syndicated Facility at December 31, 2018 was \$8.0 million. The Syndicated Facility is subject to certain financial covenants and restrictions.

#### **Dutch Auction**

On February 16, 2018, the Corporation purchased approximately \$121.0 million principal amount of Debentures through a modified dutch auction procedure (the **"Dutch Auction"**) at an aggregate cost of approximately \$110.0 million plus accrued interest. Debentures that were purchased were retired and cancelled and no longer remain outstanding. Following the completion

of the Dutch Auction, as of February 16, 2018, the Corporation had an aggregate total of approximately \$599.0 million of Debentures outstanding. In the second quarter of 2018, the Corporation repurchased an additional \$10.7 million of outstanding Debentures for cancellation.

#### **Production Results**

Production for finished nickel and cobalt at the Moa Joint Venture in 2018 was 30,708 tonnes and 3,234 tonnes, respectively (100% basis). This production was in line with guidance that Sherritt had previously released. Totals for 2018 were impacted by the disruption in the supply of hydrogen sulphide, a key reagent used in the production of finished nickel cobalt, a reduction in the availability of mixed sulphides due to the highest level of rainfall at Moa in more than 20 years and rail transportation delays to the Fort Site. At the Ambatovy Joint Venture, production of finished nickel and cobalt in 2018 was 33,185 tonnes and 2,852 tonnes, respectively (100% basis).

Gross oil production in Cuba and production by Sherritt's oil and gas operations in 2018 were above guidance ranges. In 2018, gross oil production in Cuba was 4,839 bopd and net production from all oil and gas operations was 2,209 boepd. Production by Sherritt's Power division in 2018 of 781 GWh (33 1/3% basis) was within the 2018 guidance.

#### 2017

### **Financing**

On January 31, 2017, the Syndicated Facility was renewed with maximum credit available of \$90.0 million, of which \$13.7 million matured on April 21, 2017. Thereafter, the maximum amount available decreased by 4.167% quarterly beginning on April 28, 2017. The interest rates increased from prime plus 2.50% or bankers' acceptance plus 3.50% to prime plus 3.50% or bankers' acceptance plus 4.50%.

#### Oil and Gas

In March 2017, the Corporation announced the first drilling results from its Block 10 PSC. The well targeted the previously discovered Lower Veloz formation in the Bay of Cárdenas, Province of Matanzas, Cuba. The results from the first well have provided constructive data to optimize the drilling of the second well, again targeting the Lower Veloz formation.

On November 1, 2017, the Corporation was awarded a new PSC, Block 6A, on the north coast of Cuba, west of Havana. The commitments during the first subperiod consist of the collection of existing geological and geophysical information and the reprocessing and interpretation of existing 2D seismic. Based upon results of the interpretation, the Corporation will either continue into the next subperiod or relinquish the Block.

The term of the PSC for Puerto Escondido-Yumuri, which was set to expire in March 2018, was extended on new contract terms until March 20, 2021. The Corporation's PSC for Block II (Varadero West), which expired in November 2017, has reverted to the Cuban government.

# **Ambatovy Joint Venture**

On December 12, 2017, Sherritt announced the closing of a restructuring of the Ambatovy Joint Venture that resulted in the transfer by Sherritt of a 28% interest in the Ambatovy Joint Venture and the elimination of the Additional Partner Loans (approximately \$1.4 billion as at December 10, 2017) from Sherritt's balance sheet (the "Ambatovy Restructuring").

Sherritt resumed funding for its 12% interest retroactively to the end of 2015 and paid approximately US\$38 million to fulfill non-funding to closing, including accrued interest. Total cash funding provided by the Ambatovy Partners to fund the Ambatovy Joint Venture cash calls in 2017 was US\$117.0 million. At closing of the Ambatovy Restructuring, Sherritt made a payment of approximately US\$10 million into an escrow account to cover potential post-closing funding requirements of the Ambatovy Joint Venture. The escrow account was subsequently depleted following cash calls in 2018.

# 1. Overview of the Business (cont.)

# **Strategic Priorities**

The table below lists Sherritt's strategic priorities for 2019, and summarizes how the Corporation has performed against those priorities on a year to date basis.

priorities on a year to date basis.		
Strategic Priorities	2019 Actions	Status
PRESERVE LIQUIDITY AND BUILD BALANCE SHEET STRENGTH	Continue to emphasize de-leveraging of the balance sheet within the context of a low commodity price environment.	Sherritt's efforts to preserve liquidity were reflected by a number of austerity measures implemented throughout 2019, including the elimination of discretionary expenditures, the deferral of non-critical projects and limiting the number of new hires, in response to volatile commodity prices and increased U.S. sanctions against Cuba. These austerity measures contributed to a 5% reduction in administration expenses in 2019 from last year (excluding stock-based compensation).
	Optimize working capital and receivables collection	In Q2 2019, Sherritt's Cuban partners ratified an agreement on US\$150 million of Energas receivables comprising monthly payments and a 100% share of Moa Joint Venture dividends once a minimum threshold amount is exceeded (US\$68 million for 2019). Sherritt received US\$21.1 million (average of US\$2.6 million per month) of Cuban energy payments as a result of the agreement in 2019. Total overdue receivables at the end of 2019 were US\$158.4 million, indicative of the negative impact that U.S. sanctions against Cuba had on the country's access to foreign currency and Sherritt's inability to repatriate cash held in Cuba. Subsequent to quarter end, Sherritt received a commitment from its Cuban partners for an incremental US\$5.0 million per month, which will be used to fund Energas operations and apply to overdue amounts. The US\$2.5 million per

month payment from last year will

continue.

Strategic Priorities	2019 Actions	Status
	Operate the Moa Joint Venture and Fort Site businesses to position as a low-cost producer of finished nickel and cobalt while maximizing Free Cash Flow	The Moa Joint Venture and Fort Site met or exceeded its production and unit cost guidance for 2019 generated \$66.3 million of adjusted operating cash flow year-to-date in 2019, despite the 61% decline in realized cobalt prices from last year and the impact of the CN rail strike and diesel fuel supply shortages in Cuba.
UPHOLD GLOBAL OPERATIONAL LEADERSHIP IN FINISHED NICKEL LATERITE PRODUCTION	Further reduce NDCC towards the goal of being consistently in the lowest cost quartile	Despite the positive effects that operational excellence initiatives had on driving increasing production in FY2019, NDCC rose in the year to US\$4.14/lb, reflecting the dramatic 61% year-over-year decline in cobalt prices.
	Maximize production of finished nickel and cobalt and improve predictability over 2018 results	Finished nickel production at the Moa Joint Venture in 2019 was 33,108 tonnes (100% basis), exceeding guidance for the year. Finished cobalt production at the Moa Joint Venture in 2019 was 3,376 tonnes (100% basis) in line with guidance for the year. Higher production has been driven by initiatives aimed at improving operational effectiveness, ore access and mining equipment reliability.
	Achieve peer leading performance in environmental, health, safety and sustainability	Sherritt's operations at Moa, Fort Site, Oil & Gas and Power had zero work-related fatalities in 2019. In Q4 there were zero lost time incidents across all of Sherritt's operations. In Q4 2019, Moa/Fort Site had a recordable injury frequency rate of 0.45 and a lost time injury frequency rate of 0.09; the Oil and Gas business had a recordable injury frequency rate of 0.47 and a lost time injury rate of 0.00; and the Power business had a recordable injury frequency rate of 0.74 and a lost time injury frequency rate of 0.74 and a lost time injury frequency rate of 0.00.
OPTIMIZE OPPORTUNITIES IN CUBAN ENERGY BUSINESS	Successfully execute Block 10 drilling program	Sherritt completed approximately 5,700 meters to reach the target drilling depth. Preliminary testing continues in 2020.

# 2. Corporate Structure

# 2.1 Name and Incorporation

Sherritt International Corporation, formerly Sherritt International Corp., was incorporated on October 4, 1995 by articles of incorporation under the *Business Corporations Act* (New Brunswick). The articles of incorporation were amended in 1995 and in 2004 to provide for the Corporation's current name and capital structure. The articles provide for an authorized capital consisting of an unlimited number of Shares.

On June 14, 2007, Sherritt and Dynatec were amalgamated under the *Business Corporations Act* (New Brunswick), with the amalgamated corporation named Sherritt International Corporation.

On August 1, 2007, Sherritt continued under the Business Corporations Act (Ontario) by filing articles of continuance.

On December 1, 2010, Sherritt amalgamated with two of its wholly-owned subsidiaries, with the amalgamated corporation named Sherritt International Corporation.

On June 3, 2016, Sherritt continued under the Canada Business Corporations Act by filing articles of continuance.

Sherritt International Corporation's registered and head office is at Bay-Adelaide Centre, East Tower, 22 Adelaide St. West, Suite 4220, Toronto, ON M5H 3E4.

# 2.2 Intercorporate Relationships

Name	Jurisdiction	% of voting Securities Held (directly or indirectly)
Ambatovy Minerals S.A.	Madagascar	12
Dynatec Madagascar S.A.	Madagascar	12
Energas S.A.	Cuba	33⅓
International Cobalt Company Inc.	Bahamas	50
Moa Nickel S.A.	Cuba	50
Sherritt International Oil and Gas Limited	Alberta	100
SICOG Oil and Gas Limited	Barbados	100
The Cobalt Refinery Company Inc.	Alberta	50

# 3. Description of the Business

# 3.1 Nickel Operations

Moa Joint Venture and Fort Site

For the year ended December 31, 2019, the Moa Joint Venture (50% basis), the Fort Site (100% basis) incurred earnings from operations of \$11.0 million on revenue of \$461.0 million compared to earnings from operations of \$78.9 million on revenue of \$498.1 million for the year ended December 31, 2018.

Capital spending of \$33.6 million at the Moa Joint Venture (50% basis) and the Fort Site (100% basis) focused on sustaining capital for mining and production equipment. During 2019, the Moa Joint Venture incurred exploration and development expenditures of US\$25,324, compared to US\$66,039 in 2018.

#### **MARKET OVERVIEW**

#### **Nickel**

Since 2016, the worldwide nickel market price has trended upward based on a supply deficit due to strong demand from the stainless steel industry and new demand for the production of lithium ion batteries for electric vehicles. In 2019, nickel prices were relatively flat for the first half of the year, before increasing steeply in July on the back of rumours surrounding an Indonesian ore export ban; and then retreating again in December based in part on continued concerns surrounding US-China trade policy and increasing LME nickel stocks. Nickel prices on the London Metals Exchange ("LME") were higher in 2019 than in 2018. The LME average cash settlement price for 2019 was US\$6.32 per pound, a 6% increase from the 2018 average of US\$5.95 per pound. Nickel opened 2019 at US\$4.74 per pound and closed the year at US\$6.35 per pound, and traded in a range between US\$4.74 and US\$8.45 per pound.

Nickel is a heavy silver-coloured metal whose principal economic value lies in its resistance to corrosion and oxidation and excellent strength and toughness at high temperatures.

Nickel is used in the production of stainless steel, which accounts for approximately two-thirds of worldwide nickel consumption. After stainless, the lithium ion rechargeable battery market will be an important driver of nickel demand. Nickel is also used in the production of industrial materials, including non-ferrous steels, alloy steels, plated goods, catalysts and chemicals. In 2019, China was responsible for over 55% of world consumption of primary nickel production. Nickel demand is strongly influenced by world macro-economic conditions, which in turn influence the state of the world stainless steel industry, the single largest consumer of nickel.

In 2019, the Moa Joint Venture produced 33,108 tonnes (100% basis) or approximately 1.5% of annual world refined nickel production. Current world supply of refined nickel is estimated to be approximately 2.41 million tonnes per annum. World nickel supply is broadly classified into primary and secondary nickel. Primary nickel is further subdivided into refined nickel (Class I) having a minimum nickel content of 99%, and charge nickel (Class II) having a nickel content of less than 99%. The main physical forms of Class I nickel are electrolytic nickel (cathode and rondelles), pellets, briquettes, granules and powder. Class II nickel includes ferronickel, nickel oxide sinter and utility nickel. Secondary nickel is the nickel contained in scrap metal, principally stainless steel scrap. World nickel supply has also been impacted by the growth of nickel pig iron ("NPI") in China and more recently, Indonesia. NPI is the lowest purity of what is considered refined nickel (as low as 2% nickel content) and is primarily used in China to make stainless steel. Wood Mackenzie estimates that NPI production in China was approximately 570,000 tonnes of nickel equivalent in 2019 while an additional 358,000 tonnes was produced in Indonesia. Total worldwide NPI production is estimated to be approximately 928,000 tonnes in 2019, making 2019 a new record year for world NPI production.

Most major refined nickel producers supply nickel at grades ranging from 98.4% to 99.9% in purity. The Moa Joint Venture's sintered nickel briquettes, produced at a minimum of 99.8% purity, are well suited for stainless steel, alloy steel production and battery chemical applications, and are expected to continue to be sold to such industries. The Moa Joint Venture's "steel grade" (unsintered) nickel briquettes having a typical purity of 99.4% nickel are well suited for stainless steel production and foundry use.

In 2017, the Moa Joint Venture introduced a "dissolving grade" nickel powder having a typical purity of 99.8% nickel suitable for battery chemical applications.

#### Cobalt

Cobalt is a hard, lustrous, grey metal that is used in the production of high temperature, wear-resistant super alloys, catalysts, paint dryers, cemented carbides, magnetic alloys, pigments, rechargeable batteries and chemicals. The cobalt market is much smaller and more specialized than the nickel market.

The cobalt market has been subject to significant price volatility due to the lack of a liquid terminal market. The LME introduced a 99.3% cobalt contract in February 2010 and in January 2017 announced that it was increasing the minimum purity to 99.8% to assist in contract adoption. In March 2019, the LME launched a cash-settled LME Cobalt (Fastmarkets MB) contract, hoping to complement their existing physically-settled offering but interest in this new cash-settled contract has been muted. Cobalt contract trading volumes on the older physically-deliverable contract continued to slump, down another 26% over 2018 trading volumes. Due to continued illiquidity, the LME cobalt contract remains a secondary pricing mechanism to the more widely accepted Fastmarkets MB standard-grade pricing as discussed below.

In 2019, more than 70% of the world's mined cobalt production came from the "copper belt" located in the Democratic Republic of the Congo (DRC). Australia, Canada, Cuba, Russia and the Philippines were responsible for more than 15% of the world's mined supply. Refined mainly as a by-product of nickel and copper mining, more than 75% of worldwide cobalt metal production is produced by nickel producers. In the longer term, significant increases in supply are possible from new large-scale international projects targeting copper and nickel production.

The Moa Joint Venture produces finished cobalt (briquettes and powder) at 99.9% purity, which exceeds the current LME cobalt specification. Based on data from CRU, worldwide supply of primary cobalt for 2019 is estimated to be approximately 133,330 tonnes, an increase of approximately 5% from 126,619 tonnes of primary cobalt produced in 2018. Sherritt is among the leading suppliers of metallic cobalt to world markets. The Moa Joint Venture supplied 3,376 tonnes (100% basis) or approximately 2.5% of world primary cobalt in 2019. In 2019, the Moa Joint Venture was the world's 4<sup>th</sup> producer of refined cobalt metal and powder (100% basis).

The relative importance of the different uses of cobalt has changed over the years, with demand for older, more established uses, such as pigment, magnets and carbides showing only modest, if any, growth over the period. Many of these traditional uses are strongly reliant on industrial growth for demand increases, so demand for these uses tends to rise and fall with global economic performance. Over the last decade growth in the chemical sector, primarily in battery chemicals, has increased the demand for cobalt. The world's reliance on global communications in the form of mobile phones and tablet technology has been a driving force for increased cobalt consumption. Strong recovery from the superalloy sector has also helped the market remain in relative balance. Over the long term, positive growth is expected in the rechargeable battery sector (hybrid and electric vehicle applications).

The Fastmarkets MB Standard Grade cobalt price declined from the start of 2019 at US\$27.25 per pound and closing the year at US\$15.53 per pound. In 2019, the price ranged between US\$12.43 per pound and US\$27.25 per pound, averaging US\$16.57 per pound, 56% lower than the average price for 2018 of US\$37.35 per pound. In 2019, the LME daily cash settlement price averaged US\$15.13 per pound with a low of US\$11.79 per pound and a high of US\$21.32 per pound.

## **MOA JOINT VENTURE**

The Moa Joint Venture is a vertically-integrated nickel and cobalt mining, processing, refining and marketing joint venture between subsidiaries of Sherritt and GNC, a Cuban company. The operations of the Moa Joint Venture are carried on through three companies:

- Moa Nickel S.A. ("Moa Nickel") owns and operates the Moa, Cuba mining and processing facility
- The Cobalt Refinery Company Inc. ("CRC") owns and operates the Fort Saskatchewan, Alberta metals refinery

■ International Cobalt Company Inc. ("ICCI") – located in Nassau, Bahamas, acquires mixed sulphides from Moa Nickel and other third party feeds, contracts with CRC for the refining of such purchased materials and then markets finished nickel and cobalt.

Sherritt and GNC each hold 50% of the issued and outstanding shares of each of these companies, the financial results of which are equity accounted into Sherritt's consolidated financial statements.

Moa Nickel mines lateritic ore by open pit methods and processes it at its facilities at Moa into mixed sulphides containing nickel and cobalt. The mixed sulphides are purchased, free on board, from Moa Nickel by ICCI pursuant to the terms and conditions of an agreement (the "Mixed Sulphides Supply Agreement"), which expires June 30, 2027, between Moa Nickel and ICCI.

The mixed sulphides from Moa Nickel are transported by ocean freight to Canada and then by rail to Fort Saskatchewan. CRC refines this material together with other nickel and cobalt feed materials purchased by ICCI pursuant to the terms and conditions of a tolling agreement between ICCI and CRC, which expires June 30, 2027, with ICCI retaining ownership of the product throughout the refining process.

Once the mixed sulphides and other feed materials are refined by CRC, the resulting nickel and cobalt products are sold by ICCI, directly or indirectly, to various markets, primarily in Europe, Japan and China. ICCI does not sell nickel and cobalt into the United States due to an embargo. For further information, please see 3.8 "Risk Factors - Risks related to U.S. Government Policy Towards Cuba".

In 2019, approximately 94% of the nickel input and 92% of the cobalt input for CRC's refinery were derived from mixed sulphides from Moa Nickel. Under the terms of the Mixed Sulphides Supply Agreement, the price paid by ICCI to Moa Nickel is discounted from, in the case of nickel, the official LME cash price and, in the case of cobalt, the price received from ICCI customers. ICCI also purchases other nickel and cobalt feed materials from third parties for refining at CRC's refinery and subsequently sells the finished products in international markets.

## Status under Cuban Law

Under the terms of its constitution, the Cuban state is the unconditional owner of all land and natural resources lying within Cuban territory, and in accordance with section 15 thereof, it is authorized to sell land in Cuba when it is in the interest of the development of the country. The property and assets of the Moa Joint Venture were conveyed through a deed of sale, which was approved by the Executive Committee of the Council of Ministers. The deed of sale was later registered in the registry of property of Cuba, and Moa Nickel was registered in the commercial registry and the registry of the Chamber of Commerce of the Republic of Cuba. The Moa Joint Venture also received mining concessions by means of decree or resolution granting exploration and mining rights.

The resolution of the Executive Committee of the Council of Ministers forming the Moa Joint Venture provides specific protection and guarantees over and above any future laws that the Government of Cuba may introduce, such as the current Foreign Investment Law of Cuba ("Law 118"). Law 118 authorizes the government of Cuba to enter into international economic associations (including joint ventures) with foreign investors for the exploitation of natural resources and the development of industrial projects in Cuba. Law 118 provides a variety of guarantees for foreign investors including: (1) a guarantee that their assets cannot be expropriated, except in the public interest and in such case that indemnification must be provided in freely convertible currency equal to the commercial value of the property taken, (2) the right to have such "commercial value" determined by an expert if the parties to the international economic association cannot agree on such a price, and (3) a guarantee of the free transference abroad in freely convertible currency of net profits or dividends received from the investment as well as funds received by way of indemnification from the Cuban State.

The Cuban government also required the Moa Joint Venture to obtain an environmental permit setting operating standards in connection, amongst others, with its water and air discharges and a permit to operate bank accounts for each currency in which the joint venture does business in Cuba.

## **Marketing and Sales**

ICCI owns and sells the nickel and cobalt toll refined by CRC. ICCI continues to use both the LME and Fastmarkets MB cobalt prices as reference prices for sales contracts in 2019, as the transition to the LME cobalt prices has not been fully adopted. For further information on LME and Fastmarkets MB pricing, please refer to "Description of the Business – Nickel Operations – Market Overview – Cobalt". Sherritt may act, from time to time, as a distributor for ICCI.

ICCI's primary markets for nickel and cobalt products are Europe and Asia. Products are transported by truck, rail and ship.

The following table sets out the Corporation's 50% share of sales volumes from the Moa Joint Venture, as well as its average-realized prices for the periods indicated:

# Sales Volumes (50% Basis) and Average-realized Prices

	Year Decemi	Ended ber 31, 2019	D	Year Ended ecember 31, 2018
Sales (tonnes)				
Nickel	10	6,698		15,273
Cobalt		1,766		1,572
Average-realized Prices (dollars per pound)				
Nickel	\$	8.37	\$	7.75
Cobalt	\$	17.80	\$	46.23

# **Properties**

Certain information with respect to the Moa Joint Venture, being the Central Moa nickel laterite operations and the La Delta and Cantarrana nickel laterite properties (collectively referred to as the **"Eastern Satellites"**), is contained in *Schedule 'B' – Technical Information* attached hereto.

#### **FERTILIZERS**

The Fort Site is comprised of Sherritt's 100%-owned fertilizer and utilities operation located in Fort Saskatchewan which provide inputs for the metals refinery and produces agricultural fertilizer for sale in western Canada.

## Canada

The Fort Site produces ammonia, sulphuric acid and utilities for use in the refinery's hydrometallurgical process and for sale to third parties. The refining of nickel and cobalt produces as a by-product crystalline ammonium sulphate, a fertilizer. Additionally, Sherritt produces a premium grade, granular ammonium sulphate fertilizer for the agricultural market. The Fort Site also serves as a back-up hydrogen supply for CRC's refinery.

Revenue from the Fort Site is derived from the sale of ammonia and fertilizers principally into the Western Canadian market. Fertilizer revenue also includes third party sulphuric acid sales and the sale of  $CO_2$ , a by-product of ammonia production. Demand for fertilizer products is seasonal, consisting of a spring season and a fall season. Sales volumes are usually higher during the spring.

The posted reference price for Sherritt ammonia averaged \$812 per tonne during 2019, 15% higher than the price for 2018 of \$705 per tonne. The average Western Canadian price for Sherritt's ammonium sulphate fertilizer product (ammonium super sulfate) was \$419 per tonne during 2019, lower than the 2018 price of \$428 per tonne.

Including ammonia, granular ammonium sulphate and 50% of the ammonium sulphate from CRC's refinery, Sherritt's Canadian operations sold 165,162 tonnes of fertilizer products in 2019. Nitrogen fertilizer prices in Western Canada are strongly influenced

by world prices. Ammonia and ammonium sulphate prices in Western Canada are driven by market conditions in Western Canada and the U.S. Pacific Northwest. These products are transported in bulk by surface means.

#### MINERAL RESERVE AND MINERAL RESOURCE ESTIMATES

#### **Moa Joint Venture**

## Mining Concessions

Moa Nickel received its original mining concessions in the province of Holquin near the town of Moa pursuant to a decree of the Executive Committee of the Council of Ministers of the Republic of Cuba dated November 30, 1994 (the "1994 Decree"). The mining concessions initially included a land area of 4,964 ha. Further concessions of 14,548 ha were granted through 2006 and further concessions of 1,323 ha were granted in 2011, 2012 and 2013. As a result of the original concessions, as well as concessions granted subsequent to the 1994 Decree, the current area of the resource concessions at Moa as at December 31, 2019 are as follows:

	Concession	Area	
Central Moa Project	Type	(ha)	Expiry
Moa Occidental <sup>(1)</sup>		1,193	
Zona A and Zona Septentrional <sup>(2)</sup>	Exploitation	943	_
Scrap Yard <sup>(2)</sup>	Exploitation	2	_
Extension to Zona A, Sector II	Exploitation	8	2032
Extension to Block O-30	Exploitation	9	2032
Sector 5 Block Periferia 33 and Sector North of Zona Sur(2)	Exploitation	142	_
Sector 11 Block of Yamaniguey Cuerpo (2)	Exploitation	89	_
Moa Oriental <sup>(2)(3)</sup>	Exploitation	1,531	_
Yagrumaje Oeste	Exploitation	569	2038
Limestone Mud <sup>(2)</sup>	Exploitation	805	_
Camarioca Norte	Exploitation	2,007	2030
Camarioca Sur	Exploitation	2,367	2030
Playa la Vaca-Zona Septentrional II <sup>(4)</sup>	Exploration	754	-
Eastern Satellites Project			
La Delta <sup>(5)</sup>	Exploitation	1,300	2043
Cantarrana	Exploitation	871	2043
Santa Teresita <sup>(6)</sup>	Exploration	925	2019
Total		12,322	

Notes:

- (1) Moa Occidental sub-totaled for clarity of expiry dates.
- (2) The rights expire when the resources inside the concession are depleted.
- (3) The decrease in hectares is due to the exclusion of the area for the new Slurry Preparation Plant.
- Exploration program was completed. Moa Nickel will present an application for exploitation to the ONRM during Q1 2020.
- In the South Sector of La Delta, the agreement limits the exploitation until 20 years after the initial approval for environmental reasons.
- Conversion to a concession for exploitation is pending the evaluation of the exploration results followed by ONRM approval.

The expansion of both the Moa and Fort Site facilities, pursuant to the terms and conditions of an expansion agreement dated March 3, 2005 between GNC and the Corporation (the "Expansion Agreement"), is based upon the commitment by GNC to ensure that a competent Cuban governmental authority grants mineral concessions of economic limonite reserves in the Moa area sufficient to permit Moa Nickel to operate at the expanded capacity for a period of no less than 25 years. In 2013, additional concessions in the Central Moa area (Yagrumaje Oeste and Playa la Vaca-Zona Septentrional II) were granted to Moa Nickel.

Moa Nickel pays the Cuban state a royalty calculated on the basis of 5% of the net sales value (free on board Moa port, Cuba) of its production of nickel and cobalt contained in mixed sulphides, and an annual canon of US\$2.00, US\$5.00 or US\$10.00 for each hectare of each concession depending on whether the area is a prospecting, exploration or exploitation area.

## Mineral Reserves and Mineral Resources

The Mineral Resources and Reserves data below are derived from the technical report entitled "NI 43-101 Technical Report – Moa Nickel Project, Cuba" dated June 6, 2019 (the "Moa Technical Report") and updated exploration drill results. Resource models have been reviewed by Bryce Reid, P.Eng., a "qualified person" (as such term is defined in NI 43-101) who is an employee of the Corporation.

The following table provides a summary of the Proven and Probable Reserves for the consolidated Moa Joint Venture (100% basis) as of December 31, 2019. (1)

				Con	tained Metal
Reserve Classification <sup>(2)</sup>	Tonnage	Ni	Co	Ni	Со
	(millions of tonnes)	(%)	(%)	(000 t)	(000 t)
Proven					
Moa Project	41.5	1.17	0.13	485.7	54.7
Probable					
Moa Project	9.6	1.13	0.12	108.9	11.7
Total Proven and Probable Reserves	51.1 <sup>(3)</sup>	1.16	0.13	595.1	66.8

#### Notes:

- (1) Proven and Probable Reserve estimate, as at December 31, 2019, was 51.1 million tonnes.
- (2) Cut-off grades vary. All assumptions, parameters, and methods used to estimate the mineral resources and reserves are disclosed in the Central Moa Technical Report and the Eastern Satellites Technical Report.
- (3) Totals may not sum exactly due to each component number being rounded to its nearest decimal.

This year the estimated tonnage for the Proven and Probable Reserves is 3.8 million tonnes lower than as at the end of the prior year, due to mining, drilling and updates to the model. Depletion of the reserve material was actually 2.4 million tonnes, while the additional reduction in reserve material resulted from the difference in reserve estimation between the historic block model and the updated block model created for the Moa Technical Report.

Moa Nickel has rights to additional Mineral Resources which have not been sufficiently drilled to allow for the detailed technical and economic analysis required to qualify as Mineral Reserves. Measured and Indicated Resources account for environmental encumbrances by excluding them from the resource base. Further work is planned in 2020 to review encumbered mineral resources.

Moa Nickel also recovers material deposited into reject ponds that is not included in the Mineral Reserve estimates as some of it was previously accounted for as depleted material in the Reserve base. In 2019, approximately 0.1 million tonnes were mined from the reject ponds, and when added to previously recovered material from the reject ponds there is an estimated 1.1 million tonnes of recoverable material remaining as at December 31, 2019.

The following table provides a summary of the Mineral Resources that are inclusive of Mineral Reserves for the consolidated Moa Joint Venture (100% basis) as of December 31, 2019.

Moa Joint Venture Mineral Resources Inclusive of Mineral Reserves

Project	Resources Classification(1)	Tonnage	Ni	Co	Ni	Co
		(millions of tonnes)	(%)	(%)	(000 t)	(000 t)
Moa Project	Measured	109.5	1.03	0.13	1,123.9	140.6
Moa Project	Indicated	45.8	0.94	0.12	433.1	54.4
Total Measured and						
Indicated		155.3	1.00	0.13	1,557.0	195.0
Moa Project	Inferred	32.6	0.89	0.13	291.4	41.9

Note:

In 2013, Moa Nickel was granted the right to mine some of the saprolite underlying limonite in many of its deposits, for feed to the process plant. This recognizes current practices of including planned dilution at the bottom of the limonite ore zone to maximize ore recovery subject to the ability of the plant to process the material. The available quantity of saprolite is unknown, but exceeds the amount that can be economically processed with the limonite ore. The saprolite has not been quantified and included in the resources statements as the permit only allows it to be extracted in relation to processing capability. Moa Nickel believes that the capacity for including saprolite in the process will diminish, and therefore has not reported it as a Mineral Resource.

Due to the uncertainty which may be attached to Inferred Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Resource as a result of continued exploration. Confidence in the estimate is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability.

Historically, Sherritt has reported Moa Nickel's Mineral Resources using a cutoff that conforms to the approach used by Cuba's Oficina Nacional de Recursos Minerals ("ONRM"), which defines the limonite zone as the layer of ore where nickel concentration exceeds 1% and iron concentration exceeds 35%. As described in detail in the current Moa Technical Report, the project's resources are now defined using an economic cutoff that takes into account the revenue generated by both nickel and cobalt, as well as the costs incurred as a result of deleterious elements, principally Mg and Al. This change in cutoff definition is the main reason for the large increase in Mineral Resources since the filing of the previous Annual Information Form. With the increase in Mineral Resources, Moa's mine life has the potential for significant extension if the estimates are upgraded to Proven and Probable Mineral Reserves categories. For additional information in relation to the Moa Technical Report and increased resources, please see the Corporation's press release dated June 26, 2019 entitled "Sherritt Confirms Mineral Reserves and Outlines Increased Mineral Resources at Moa Joint Venture".

Sherritt continues to use the 1%Ni /35%Fe cutoff for reporting the Mineral Reserves of the Moa Joint Venture, except in the Zone A and Moa Oriental concessions where ONRM has approved the use of a 0.9%Ni /35%Fe cutoff. A program has been initiated to evaluate the use of an economic cut-off grade and define what constitutes economic ore. The program consists of metallurgical test work and an engineering study to evaluate the processing of saprolites and low grade limonite. The program is expected to take two years to complete.

Moa Nickel has been producing successfully from the Central Moa Concessions since 1994. At a similar annual production rate as in the recent past, Moa Nickel is continuing its mining operations onto contiguous concessions that contain geologically similar deposits.

The current Mineral Reserves provide very strong assurances of adequate plant feed for years to come. Cost control is well managed by virtue of Sherritt's and GNC's management of the Moa Joint Venture. At current world prices for nickel and cobalt, the

<sup>(1)</sup> All assumptions, parameters, and methods used to estimate the mineral resources and reserves are disclosed in the Moa Technical Report.

nickel equivalent cutoff being used to define the limonite zone for mining purposes yields a head grade of nickel plus cobalt that is above the economic breakeven cutoff where revenue meets operating, processing and general and administrative costs.

The Mineral Reserve and Resource estimates also assume that the exploration concessions currently held by Moa Nickel on the Eastern Satellites Project will be converted by the ONRM into exploitation concessions.

For further detail regarding the extent to which the estimates of Mineral Resources and Reserves may be materially affected by external factors, please refer to section 3.8 "Risk Factors – Uncertainty of Resources and Reserve Estimates".

# **Ambatovy Joint Venture**

For information on the Mineral Reserve and Resource data related to the Ambatovy Joint Venture, please refer to section 3.7 "Investment in the Ambatovy Joint Venture".

# 3.2 Oil and Gas

The Corporation explores for, develops and produces oil and gas from fields in Cuba and Spain. In 2019, the Corporation sold its 15.79% working-interest in an exploitation concession covering the Badar gas field, located in the Indus Basin in central Pakistan. In 2019, approximately 76% of the Corporation's worldwide oil and gas production was produced in Cuba with the remainder produced from its interests in several oil fields off the coast of Spain and from the gas field in Pakistan.

In 2019, the Corporation's Oil and Gas operations generated revenues of \$29.7 million compared with \$44.9 million during 2018, resulting in a loss from operations of \$25.7 million during 2019, compared to a loss from operations of \$17.0 million during 2018. The Corporation invested \$29.7 million in Oil and Gas capital projects during 2019 and \$26.4 million during 2018, all of which were funded by cash flows generated by the Corporation's Oil and Gas operations.

While the Corporation continues to fund its Oil and Gas operations through internally-generated cash flows, it may consider strategic partnerships in connection with the funding future development costs for new and existing projects.

The disclosure regarding the Corporation's Oil and Gas activities in this Annual Information Form is required under NI 51-101, with an effective date of December 31, 2019 and a preparation date of January 31st, 2020.

#### **WORLDWIDE PRODUCTION**

The following table sets out the average daily production volumes of crude oil and natural gas for the Corporation for the past three years.

## Production Volumes (boepd)

Year Ended December 31			
2019	2018	2017	
4,175	4,839	13,479	
335	664	769	
4,510	5,503	14,248	
856	947	1,857	
226	598	5,230	
1,082	1,545	7,087	
335	664	769	
1,417	2,209	7,856	
	2019 4,175 335 4,510 856 226 1,082 335	2019     2018       4,175     4,839       335     664       4,510     5,503       856     947       226     598       1,082     1,545       335     664	

#### **OPERATIONS IN CUBA**

Within Cuba, the Corporation holds and operates exploration and production rights under PSCs with CUPET, the Cuban state oil company. As operator under the terms of the PSCs, SICOG Oil and Gas Limited ("SICOG") enters into long-term leasehold arrangements with the Cuban state for the use of all land required for petroleum operations for the duration of the term of the  $PSCs. \ The \ Corporation \ indirectly \ holds \ 100\% \ working-interests \ in \ four \ PSCs \ in \ Cuba, \ as \ described \ in \ the \ following \ table, \ covering \ a$ total of approximately 175,171 net ha:

Block	Location	Current Status
Puerto Escondido/Yumuri	Fold and thrust region – north coast of Cuba	Exploitation phase – development of Puerto
		Escondido and Yumuri oil fields
Block 8A	Central Cuba	Exploration Phase
Block 10	Fold and thrust region – north coast of Cuba	Exploration Phase
Block 6A	Fold and thrust region – north coast of Cuba	Exploration Phase

The term of the Puerto Escondido/Yumuri PSC, which was set to expire in March 2018, was extended on new contract terms until March 20, 2021. The Corporation will have no rights or obligations in respect of crude oil production from those properties following March 20, 2021.

Since 1992, the Corporation's Cuban Oil operations have produced over 225 million barrels of heavy oil on a gross workinginterest basis. The Corporation has a strong track record in directional drilling in the fold and thrust belt located along the north coast of Cuba. All of the Corporation's producing wells are directionally drilled from onshore locations along the north coast of Cuba between Havana and Cárdenas. These directional wells target oil reservoirs situated offshore below the adjacent seabed. These oil bearing reservoirs typically produce at depths ranging from 1,200 metres to 2,000 metres below sea level. Using current equipment and technology, the Corporation has drilled directional wells up to 5,660 metres in length, extending laterally up to 4,700 metres from the surface location.

## **Principal Commercial Oil Fields**

Notes:

The following table summarizes key information regarding the Corporation's principal commercial oil fields, all of which are located in Cuba:

	Puerto	
	Escondido	Yumuri
Working-Interest	100%	100%
Total Proved Reserves (MMbbl):(1)		
Gross reserves	0.7	1.4
Net reserves	0.5	.06
Average Daily Production (bopd):(2)		
Gross Working-Interest Production	588	3587
Net Working-Interest Production	234	848
Oil Quality (API)	12	11.5
Number of Operated Wells	14	22

(1) The estimates of reserves for Puerto Escondido and Yumurí are based on the December 31, 2019 McDaniel Report (see section 3.3 - "Oil and Gas - Oil and

(2) Production rates are daily averages for the year ended December 31, 2019.

The following table summarizes the Corporation's immediate and near-term development plans for its principal commercial oil fields:

**Puerto Escondido** No new development wells are planned in 2020.

**Yumuri** No new development wells are planned for 2020.

# **Exploration Prospects**

During 2014 the Corporation was awarded two new PSCs, with effective dates of January 9, 2015, covering Blocks 8A and 10 in Cuba (see section 3.2 "Properties with no Attributed Reserves"). The Corporation completed the reprocessing of seismic data in Block 10 and elected to drill an exploratory well entering into the Second Exploration Subperiod on July 9, 2016. An exploration well was started in August 2016 and finished drilling in February 2017. The well did not reach its intended target due to unexpected geological complexities which led to wellbore instability. This resulted in drilling problems and the lower section of the well had to be abandoned. A sidetrack was drilled from the existing wellbore to evaluate the potential of the upper secondary zone. The resulting sidetrack well was tested and produced oil but not at commercial rates. On August 9, 2017, the Corporation commenced drilling a sidetrack from the existing well in order to reach the original target. On December 16, 2017, the Corporation suspended the well due to continued geological complexities including lost circulation and flowing asphaltene. The Corporation evaluated options as to how to deal with the lost circulation and asphaltene problems and utilized technology which had not been used in Cuba previously. The well resumed drilling in July 2018 and the lost circulation was successfully dealt with. Additional hole stability issues were encountered in a zone between the upper and lower reservoirs which resulted in the need to suspend the well short of the target on December 23, 2018. Drilling of the well LT-100 continued in stages throughout 2019. Third-party industry experts completed detailed laboratory analysis of rock cuttings collected during previous operations on Block 10. Results of the lab analysis indicated that the rock formation between the upper and lower target reservoirs has unanticipated and unique characteristics. Based on these analyses, drilling parameters were modified including the characteristics of the drilling fluid and the utilization of Pressure Managed Drilling (PMD). The unstable formations were drilled successfully and casing was placed in the hole to isolate the unstable formation prior to drilling to the final total depth. Upon commencing drilling, an unexpected lost circulation zone was encountered above the target reservoir. Additional analyses by third party experts was undertaken and it was determined that Pressurized Mud Cap Drilling (PMCD) would be required to drill through the reservoir to total depth. This was undertaken successfully between October and December of 2019 and the well is currently being tested.

On January 9, 2015 the Corporation was awarded a new PSC, Block 8A, in the west central part of Cuba to the immediate southeast of Havana. It is currently in its first exploration subperiod with work commitments including 100km of 2D seismic. This seismic is anticipated to be acquired in 2021. In January 2020, an extension to the Block was granted with an expiry of January 2022 and a contract term of 27 years.

On November 1, 2017, the Corporation was awarded a new PSC, Block 6A, on the north coast of Cuba, west of Havana. The commitments during the First Subperiod consist of the collection of existing geological and geophysical information and the reprocessing and interpretation of approximately 267 kilometres of 2D seismic. Based upon results of the interpretation, the Corporation will either continue into the next subperiod or relinquish the Block. An extension to Block 6A has been executed with a new expiry date of July 2021 with a contract term of 26 years.

## **Production Sharing Contracts**

Under the terms of its constitution, the Cuban state is the unconditional owner of all land and natural resources lying within Cuban territory. Pursuant to its foreign investment law, the government of Cuba is authorized to enter into international economic associations with foreign investors for the exploitation of natural resources and the development of industrial projects in Cuba. Law 118 provides a variety of guarantees for foreign investors including: (1) a guarantee that their assets cannot be expropriated, except if required in the public interest, and in such case that indemnification must be provided in freely convertible currency equal to the commercial value of the property taken, (2) the right to have such "commercial value" determined by an expert if the parties to such international economic association cannot agree on such a price, and (3) a guarantee of the free transference

abroad in freely convertible currency of net profits or dividends received from the investment as well as funds received by way of indemnification from the Cuban state.

Cuban oil and natural gas exploration and production are governed by various PSCs between CUPET and foreign investors or "contractors" such as the Corporation. Under the PSCs, the contractor has the right to produce crude oil from the contract area until the end of the term and any extensions thereto. Each of the PSCs has a defined term, ranging from 15 to 25 years at the time of grant, subject to earlier termination if a declaration of commerciality is not made or if the contractor does not fulfill its work commitments on a timely basis.

Under the terms of a PSC, the contractor is obliged to supply all capital, machinery, installations, equipment, technology and personnel necessary to carry out operations in accordance with the terms of the contract. During the exploration period, the contractor is obliged to carry out a specified minimum exploration program, which may be divided into two or more subperiods. At the end of each subperiod, the contractor may elect to enter the next sub-period provided it has fulfilled the exploration work commitments for the current subperiod.

If the contractor discovers crude oil within the contract area during the exploration period, the contractor may conduct an appraisal program to determine whether the discovery can be economically exploited. Any crude oil production during the appraisal period must be delivered to CUPET and the contractor is only entitled to share in such production if a declaration of commerciality is approved by regulatory authorities following completion of the appraisal program. Upon such approval, the contractor is entitled to share retroactively in all cumulative production from the discovery and appraisal wells in the field, and to receive revenue from the sale of that production. Upon approval of a declaration of commerciality, the contractor is obliged to implement a development plan for the field in question.

Once a declaration of commerciality has been made, the contractor is allocated cost-recovery oil as reimbursement for approved capital and operating costs, including any costs accumulated in cost-recovery pools since the inception of the contract. The volume of cost-recovery oil for each PSC is determined by dividing the balance of approved capital and operating costs in the cost-recovery pool by the average net selling price per barrel of oil produced during such quarter. Allocation of cost-recovery oil may not exceed a specified percentage of total production for a fiscal quarter. However, any unrecovered cost-recovery pool amounts are carried forward to future periods. The remaining profit oil is allocated between the parties in accordance with agreed percentages which may vary depending on oil quality and production rates. The volume of profit oil is calculated by subtracting the cost-recovery oil from gross working-interest production.

Such PSCs are authorized as "international economic association contracts" pursuant to Law 118. Resolutions confirming the authorization and validity of each of these contracts were issued by the Executive Committee of the Council of Ministers. SICOG has a local branch registered with the Chamber of Commerce of Cuba and is also registered with the Office of National Tax Administration. Supplies and materials are imported under license with CUPET as required under Resolution 146, a Cuban regulation regarding imports for international economic associations contracts, although SICOG maintains ownership of the goods. The Cuban government also requires SICOG to obtain environmental licenses and a permit to operate bank accounts for each currency in which SICOG does business in Cuba. As contractor under the terms of the PSCs, SICOG enters into long-term lease arrangements with the Cuban state for surface land rights necessary for oil and gas production facilities and for the performance of petroleum operations.

## Sales to Cuba

Historically, all profit oil and cost-recovery oil allocated to SICOG under the PSCs has been sold to agencies of the government of Cuba at the first point of sale. In 2019, the selling prices for the Corporation's share of production have been based on 74% to 75% of the USGC HSFO reference price. In prior years, selling prices were based on a similar discount to the GCFO6 reference price. The USGC HSFO reference price reflects consumption and supply of heavier oil products (such as heating oil, fuel oil and transportation fuels) in the U.S. Gulf Coast region and global consumption and supply of crude oil. The selling contracts are typically made for one-year terms and are re-negotiated on an annual basis.

The following table sets out average historical oil prices for USGC HSFO, WTI and the realized price from sales by the Corporation to agencies of the government of Cuba since 2017.

	Year Ended December 31			
	2019	2018	2017	
Prices (\$ per bbl):				
WTI Benchmark (US\$)	56.97	65.20	50.78	
USGC HSFO Benchmark (US\$)	53.58	61.45	46.97	
Realized price (US\$)	40.42	49.48	33.04	

## **Cuban Payment Arrangements**

During 2019, SICOG received US\$36.5 million from the applicable Cuban government agency for oil payments, resulting in an overdue balance at December 31, 2019 of US\$19.6 million. As at December 31, 2018, the overdue amount was US\$37.7 million.

#### OTHER INTERNATIONAL OPERATIONS

#### Spain

The Corporation holds a 14.5% working-interest in the Casablanca oil field and a 15.6% working-interest in the Rodaballo oil field, a 29% working-interest in the Boquerón oil field, and an 18.4% working-interest in the Barracuda oil field, all located in the Gulf of Valencia, offshore Spain. There are minor amounts of gas produced in association with the light crude oil, which is either used as fuel for power generation or is flared.

During 2019, these fields produced a combined average of approximately 107 bopd of light crude oil, net to the Corporation, using the Casablanca production platform and pipeline infrastructure. The Corporation, in conjunction with its joint venture partners, has completed the reprocessing of existing 3D seismic data over the Casablanca oil field and adjacent lands in order to delineate additional development and exploration opportunities. The interpretation of the 3D seismic data has identified two features that have the potential of being reached from the existing platform. The operator is conducting a feasibility study to determine future operations. On December 28, 2018, the Spanish government extended the production licenses for an additional ten years to December 2028.

The Corporation initiated a claim against the government of Spain in respect of certain exploration licenses in the Alborán Sea which were relinquished in 2015 for reimbursement of expenditures made by the Corporation up to the time of relinquishment in 2015. A final decision was received in 2019 where it was ruled that the Government of Spain was within their rights to refuse environmental permits required under the exploration permits and thus the Corporation did not receive any damages.

## **Pakistan**

In 2019, the Corporation sold its 15.79% working-interest in an exploitation concession covering the Badar gas field, located in the Indus Basin in central Pakistan for cash proceeds of \$0.7M, which did not differ materially from the carrying value of the assets sold.

During 2019, prior to the closing of the sale, the Badar field produced approximately 2.76 MMcfpd of conventional natural gas, net to the Corporation.

## **OIL AND GAS RESERVES**

The following is a summary of the Corporation's estimated oil and gas reserves and the estimated net present values of future net revenue from those reserves. For the purpose of stating the Corporation's oil and gas reserves publicly, Sherritt retained the services of McDaniel & Associates Consultants Ltd. ("McDaniel & Associates"), who are independent qualified reserves evaluators appointed by the Corporation pursuant to NI 51 – 101, to conduct independent evaluations of all of the Corporation's oil and gas properties. McDaniel & Associates has provided the Corporation with an evaluation (the "McDaniel Report") prepared on January 31st, 2020 in compliance with NI 51-101 in respect of the Corporation's oil and gas reserves as at December 31, 2019.

The Corporation determines and reports reserves information in accordance with NI 51-101, using terminology, definitions and categories prescribed therein and in the COGE Handbook. Disclosure of reserves or of sales of oil, gas or associated by-products has been made only in respect of marketable quantities, reflecting the quantities and prices for the product in the condition (upgraded or not upgraded, processed or upprocessed) in which it is to be, or was, sold at the first point of sale.

The estimated future net revenue figures contained in the following tables do not necessarily represent the fair market value of the Corporation's reserves. There is no assurance that the forecast price and cost assumptions contained in the McDaniel Report will be attained and variances could be material. Other assumptions relating to costs and other matters are included in the McDaniel Report. The recovery and reserves estimates attributed to the Corporation's properties described herein are estimates only. The actual reserves attributed to the Corporation's properties may be greater or less than those calculated.

The determination of oil and gas reserves involves the preparation of estimates that have an inherent degree of associated uncertainty. For further information, see section 3.8 - "Risk Factors - Uncertainty of Resources and Reserve Estimates". Categories of proved and probable reserves have been established to reflect the level of these uncertainties and to provide an indication of the probability of recovery. The estimation and classification of reserves requires the application of professional judgment combined with geological and engineering knowledge to assess whether or not specific reserves classification criteria have been satisfied. Knowledge of concepts including uncertainty and risk, probability and statistics, and deterministic and probabilistic estimation methods is required to properly use and apply reserves definitions. These concepts are presented and discussed in greater detail within the guidelines in Section 5.5 of the COGE Handbook.

#### Rounding

Please note that columns in certain of the following tables may not add up due to rounding.

#### Reserves

The following definitions apply to both estimates of individual reserve entities and the aggregate of reserves for multiple entities:

"Reserves", as referred to in section 3.2 of this document, are estimated remaining quantities of oil and natural gas and related substances anticipated to be recoverable from known accumulations, as of a given date, based on:

- analysis of drilling, geological, geophysical and engineering data;
- the use of established technology; and
- specified economic conditions, which are generally accepted as being reasonable, and which are disclosed.

Reserves are classified according to the degree of certainty associated with the estimates:

- "Proved reserves" are those reserves that can be estimated with a high degree of certainty to be recoverable. It is likely that the actual remaining quantities recovered will exceed the estimated proved reserves.
- "Probable reserves", as referred to in section 3.2 of this document, are those additional reserves that are less certain to be recovered than proved reserves. It is equally likely that the actual remaining quantities recovered will be greater or less than the sum of the estimated proved plus probable reserves.

## **Development and Production Status**

Each of the reserves categories (proved and probable) may be divided into developed and undeveloped categories:

- "Developed reserves" are those reserves that are expected to be recovered from existing wells and installed facilities or, if facilities have not been installed, that would involve a low expenditure (for example, when compared to the cost of drilling a well) to put the reserves on production. The developed category may be subdivided into producing and non-producing.
- "Developed producing reserves" are those reserves that are expected to be recovered from completion intervals open at the time of the estimate. These reserves may be currently producing or, if shut-in, they must have previously been on production, and the date of resumption of production must be known with reasonable certainty.
- "Developed non-producing reserves" are those reserves that either have not been on production, or have previously been on production, but are shut-in, and the date of resumption of production is unknown.

**"Undeveloped reserves"** are those reserves expected to be recovered from known accumulations where a significant expenditure (for example, when compared to the cost of drilling a well) is required to render them capable of production. They must fully meet the requirements of the reserves category (proved, probable) to which they are assigned.

In multi-well pools it may be appropriate to allocate total pool reserves between the developed and undeveloped categories or to subdivide the developed reserves for the pool between developed producing and developed non-producing. This allocation should be based on the estimator's assessment as to the reserves that will be recovered from specific wells, facilities and completion intervals in the pool and their respective development and production status.

### **Levels of Certainty for Reported Reserves**

The qualitative certainty levels referred to in the definitions above are applicable to "individual reserve entities", which refers to the lowest level at which reserves calculations are performed, and to "reported reserves", which refers to the highest level sum of individual entity estimates for which reserve estimates are presented. Reported reserves should target the following levels of certainty under a specific set of economic conditions:

- at least a 90% probability that the quantities actually recovered will equal or exceed the estimated proved reserves; and
- at least a 50% probability that the quantities actually recovered will equal or exceed the sum of the estimated proved plus probable reserves.

A quantitative measure of the certainty levels pertaining to estimates prepared for the various reserves categories is desirable to provide a clearer understanding of the associated risks and uncertainties. However, the majority of reserves estimates will be prepared using deterministic methods that do not provide a mathematically derived quantitative measure of probability. In principle, there should be no difference between estimates prepared using probabilistic or deterministic methods.

#### **Significant Factors or Uncertainties**

Aside from the potential impact of material fluctuations in commodity prices and foreign exchange rates, other significant factors or uncertainties that may affect either the Corporation's reserves or the future net revenue associated with such reserves include:

- Certain newly drilled or developed properties may be considered less predictable insofar as estimating reserves and future net revenue are concerned until more historical production performance data is available; and
- Changes to existing taxation, fiscal terms, and regulations may occur.

See section 3.8 "Risk Factors - Depletion of Reserves" and "Risk Factors - Uncertainty of Resources and Reserve Estimates".

In addition, the Corporation may incur significant abandonment and reclamation costs in connection with its oil and gas operations. The following criteria have been utilized in determining the abandonment and reclamation costs to be taken into account in the calculation of the future net revenue attribution to the Corporation's reserves:

- Generally, the Corporation is responsible for its share of abandonment and reclamation costs for oil and gas wells and for related facilities and infrastructure. The Corporation's financial statements include provisions for these environmental rehabilitation obligations in accordance with generally accepted accounting principles.
- In Cuba, the PSCs permit the Corporation to recover abandonment and reclamation costs from producing contract areas. The Corporation is obligated to abandon and reclaim all of its wells in Cuba together with related facilities and infrastructure. However, agencies of the Cuban government have historically taken over the ownership and operation of most wells that the Corporation has determined to be uneconomic, thereby releasing the Corporation from its associated liabilities for abandonment and reclamation costs. The Corporation estimates abandonment and reclamation costs based on the expectation that it will be responsible for abandonment and reclamation of 15% of all remaining wells in Cuba.
- In Spain, the Corporation's share of the estimated abandonment and reclamation costs of the production platform in the Casablanca oil field, and related oil wells, is currently estimated to be 34.0 million Euros. The cost estimate is based on information provided by the operator of the properties who is ultimately responsible for carrying out the abandonment and reclamation program. Based on current production, anticipated production from new wells in the vicinity (in which the Corporation holds no interest) and selling price forecasts, it is anticipated that abandonment and reclamation activities will be

postponed until approximately 2028 upon the identification of further development drilling locations in the Casablanca oil field and adjacent lands. For further information, please see the section entitled "Other International Operations - Spain" above.

The following table summarizes the Corporation's estimates of abandonment and reclamation costs for surface leases, wells, facilities and pipelines, net of estimated salvage value. As at December 31, 2019, there were 35.8 net wells to be abandoned in Cuba, 3.1 net wells in Spain, for a total of 38.9. net wells to be abandoned.

# Summary of Estimated Future Abandonment and Reclamation Costs December 31, 2019

	Heavy Crude Oil (Cuba)	Light and Medium Crude Oil (Spain)	Total
	(\$millions)	(\$millions)	(\$millions)
Estimated costs, without discount	1.7	46.0	47.7
Estimated costs, 10% discount	1.5	23.9	25.4
Costs not deducted from future net revenue <sup>(1)</sup>	1.0	42.2	43.2
Costs not deducted from future net revenue, 10% discount(1)	1.0	22.1	23.1
Costs expected to be paid within three years	1.7	0.0	1.7
Costs expected to be paid within three years, 10% discount	1.5	0.0	1.5
Note:			

<sup>(1)</sup> Future abandonment and reclamation costs not deducted from future net revenue include the costs of abandoning gathering systems and reclaiming

The Corporation estimates that future abandonment and reclamation costs will be \$47.7 million on an undiscounted basis. These costs are reflected in Sherritt's audited consolidated financial statements as at December 31, 2019 as an environmental rehabilitation obligation of \$51.2 million.

## **Reserves Data**

The following tables provide information regarding the Corporation's oil and gas reserves as at December 31, 2019 using forecast prices and costs and information regarding the estimated net present value of future net revenue related thereto. The Corporation produces heavy crude oil in Cuba and light crude oil in Spain.

# Summary of Oil and Gas Reserves Forecast Prices and Costs December 31, 2019

Heavy Cruc	Light and Medium Crude Oil		
Cuba	Spain		
Gross	Net	Gross	Net
(Mbbl)	(Mbbl)	(Mbbl)	(Mbbl)
1,437	614	48	48
_	_	271	271
_	_	_	
1,437	614	319	319
65	11	335	335
1,502	625	654	654
	Cuba Gross (Mbbl)  1,437  1,437 65	Gross Net (Mbbl) (Mbbl)  1,437 614   1,437 614 65 11	Cuba         Spain           Gross         Net         Gross           (Mbbl)         (Mbbl)         (Mbbl)           1,437         614         48           -         -         271           -         -         -           1,437         614         319           65         11         335

# Summary of Net Present Value of Future Net Revenue Attributable to Oil and Gas Reserves Forecast Prices and Costs December 31, 2019

Net Present Values of Future Net Revenue

					Net Present	sent values of Future Net Revenue					
	Bet	fore Income	Taxes Discou	nted at (%/ye	ar)	At	ter Income T	axes Discour	ited at (%/yea	ar)	
Reserves Category	0	5	10	15	20	0	5	10	15	20	Unit Value <sup>(1)</sup> before Income Tax Discounted at 10%/year
neserves category	(US	(US	(US	(US	(US	(US	(US	(US	(US	(US	(US\$/bbl)
	\$millions)	\$millions)	\$millions)	\$millions)	\$millions)	\$millions)	\$millions)	\$millions)	\$millions)	\$millions)	(US\$/boe)
CUBA											
Proved developed producing	3.4	3.3	3.2	3.1	3.1	2.8	2.8	2.7	2.6	2.6	5.23
Proved developed non-producing	-	_	_	_	-	-	_	-	_	-	-
Proved undeveloped	_	_	_	_	_	_	_	_	_	_	
Total proved reserves	3.4	3.3	3.2	3.1	3.1	2.8	2.8	2.7	2.6	2.6	5.23
Probable	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	16.52
Total Proved Plus Probable											
Reserves	3.6	3.5	3.4	3.3	3.2	3.0	2.9	2.8	2.8	2.7	5.43
SPAIN											
Proved developed producing	(1.2)	(1.2)	(1.2)	(1.1)	(1.1)	(1.2)	(1.2)	(1.2)	(1.1)	(1.1)	(24.37)
Proved developed non-producing	4.1	3.9	3.7	3.6	3.4	4.1	3.9	3.7	3.6	3.4	-
Proved undeveloped	_	-	-	_	-	-	-	-	-	-	_
Total Proved reserves	2.9	2.7	2.6	2.4	2.3	2.9	2.7	2.6	2.4	2.3	8.04
Probable	5.6	4.6	3.7	3.1	2.5	5.6	4.6	3.7	3.1	2.5	11.18
Total Proved Plus Probable											
Reserves	8.5	7.3	6.3	5.5	4.8	8.5	7.3	6.3	5.5	4.8	9.65
TOTAL											
Proved developed producing	2.2	2.1	2.0	2.0	1.9	1.6	1.6	1.5	1.5	1.5	3.02
Proved developed non-producing	4.1	3.9	3.7	3.6	3.4	4.1	3.9	3.7	3.6	3.4	_
Proved undeveloped	_	_	_	_	-	_	_	-	_	_	_
Total Proved reserves	6.3	6.0	5.8	5.6	5.3	5.7	5.5	5.3	5.0	4.9	6.22
Probable	5.8	4.8	3.9	3.2	2.7	5.8	4.7	3.9	3.2	2.6	11.28
<b>Total Proved Plus Probable</b>											
Reserves	12.1	10.8	9.7	8.8	8.0	11.5	10.2	9.1	8.2	7.5	7.59

Note:

<sup>(1)</sup> Unit values are calculated using estimated net present value of future net revenue before income taxes using a discount rate of 10%. Unit values are presented on a US\$/bbl basis for heavy crude oil reserves in Cuba and light and medium crude oil reserves in Spain. The unit values for the Corporation's total reserves are presented on a US\$/boe basis. (see "Glossary of Terms" for information regarding presentation of boe information)

# Total Future Net Revenue (Undiscounted) as of December 31, 2019 Forecast Prices and Costs

			Operating	Development	Abandonment and Reclamation	Future Net Revenue before		Future Net Revenue after
Reserves Category	Revenue	Royalties	Costs	Costs	Costs	Income Taxes	Income Taxes	Income Taxes
	(US\$millions)	(US\$millions)	(US\$millions)	(US\$millions)	(US\$millions)	(US\$millions)	(US\$millions)	(US\$millions)
HEAVY CRUDE OIL (Cuba)								
Proved Reserves	25.6	_	21.7	_	0.5	3.4	0.6	2.8
Proved Plus Probable Reserves	26.0	_	21.9	_	0.5	3.6	0.6	3.05
LIGHT AND MEDIUM CRUDE OIL								
(Spain)								
Proved Reserves	21.7	-	16.8	_	2.0	2.9	_	2.9
Proved Plus Probable Reserves	46.1	_	34.7	_	2.9	8.5	-	8.5
TOTAL								
Proved Reserves	47.3	_	38.5	_	2.5	6.3	0.6	5.7
Proved Plus Probable Reserves	72.2	_	56.6	_	3.5	12.1	0.6	11.5

# Future Net Revenue by Product Type as of December 31, 2019 Forecast Prices and Costs

	Total	9.7	7.6
	Conventional Natural Gas	_	
	Light and Medium Crude Oil	6.3	9.6
Proved Plus Probable Reserves	Heavy Crude Oil	3.4	5.4
	Total	5.8	6.2
	Light and Medium Crude Oil	2.6	8.0
Proved Reserves	Heavy Crude Oil	3.2	5.2
		(US\$millions)	(US\$/bbl) (US\$/Mcf) (US\$/boe)
Reserves Category	Product Type <sup>(1)</sup>	Future Net Revenue before Income Taxes (Discounted at 10%/Year)	Unit Value <sup>(2)</sup>

## Notes:

- (1) Includes associated by-products for each product type.
- (2) Unit values are calculated using estimated net present value of future net revenue before income taxes using a discount rate of 10%. Unit values are presented on a US\$/bbl basis for heavy crude oil reserves in Cuba and light and medium crude oil reserves in Spain. The unit values for the Corporation's total reserves are presented on a US\$/boe basis. See "Glossary of Terms" for information regarding presentation of boe information.

# **Forecast Prices Used in Estimates**

The forecast benchmark reference product price and inflation rate assumptions reflected in the reserves data, together with the Corporation's weighted average historical prices during 2019, are summarized below. All product price assumptions are stated in US\$ and therefore no exchange rate assumptions are required. These forecast assumptions were provided in the McDaniel Report, including McDaniel & Associates price forecasts as of January 1, 2020. For information on the sales price of heavy oil in Cuba, see "Operations in Cuba - Sales in Cuba" above.

# Summary of Pricing Assumptions and Inflation Rate December 31, 2019 Forecast Prices and Costs

Year	Heavy Crude Oil (Cuba)	Light and Medium Crude Oil (Spain)	WTI Benchmark	Gulf Coast HSFO	Inflation Rates
2019 (actual weighted average)	(US\$/bbl) <b>40.42</b>	(US\$/bbl) <b>60.79</b>	(US\$/bbl) <b>56.97</b>	(US\$/bbl) <b>53.58</b>	(%/Year)
2020	41.58	66.44	61.00	57.34	2
2021	43.12	67.26	63.24	59.45	2
2022		68.74	65.55	61.62	2
2023	_	70.13	67.39	63.35	2
2024		71.54	68.73	64.61	2
Thereafter		+2.0%/year	+2.0%/year	+2.0%/year	2

# **Reconciliation of Reserves**

The following table provides information regarding the reconciliation of the Corporation's gross reserves by product type during 2019:

# Reconciliation of Corporation Gross Reserves by Product Type

	Не	Heavy Crude Oil (Cuba)			Light and Medium Crude Oil (Spain)			
Factors	Gross Proved	Gross Probable	Gross Proved Plus Probable	Gross Proved	Gross Probable	Gross Proved Plus Probable		
-	(Mbbl)	(Mbbl)	(Mbbl)	(Mbbl)	(Mbbl)	(Mbbl)		
December 31, 2018	2,781	236	3,0174	264	169	432		
Extensions and Improved Recovery	_	_	_	_	_	_		
Technical Revisions	199	(171)	27	256	167	422		
Discoveries	_	_	_	_	_	_		
Acquisitions	_	_	_	_	_	_		
Dispositions	_	_	_	_	_	_		
Economic Factors	_	_	_	_	_	_		
Production	(1,543)	_	(1,543)	(201)	_	(201)		
December 31, 2019	1,437	65	1,502	319	335	654		

## **Undeveloped Reserves**

All of the Corporation's proved and probable undeveloped reserves are located in Cuba. In general, the Corporation will attribute proved and probable reserves only for a maximum of one step-out development drilling location and for any infill development locations where there is satisfactory evidence of reservoir continuity. The Corporation does not intend to drill any additional development wells in the Puerto Escondido and Yumuri oil fields in Cuba in 2020. The following table discloses for each of the Corporation's product types, the volumes of proved undeveloped reserves and probable undeveloped reserves that were first attributed in each of the three most recent financial years. All properties in respect of which undeveloped reserves have been attributed are currently under production. The information under the "Booked" columns represents the Corporation's booked undeveloped reserves as of December 31 of the applicable year.

# Undeveloped Reserves by Product Type

	,	Heavy Crude Oil (Cuba)		Light and Medium Oil (Spain)		Conventional Natural Gas (Pakistan)	
Proved Undeveloped	First Attributed	Booked	First Attributed	Booked	First Attributed	Booked	
	(MMbbl)	(MMbbl)	(MMbbl)	(MMbbl)	(MMcf)	(MMcf)	
2017	_	_	_	_	_	-	
2018	_	_	_	_	_	_	
2019	_	_	_	_	_	-	
Probable Undeveloped	First Attributed	Booked	First Attributed	Booked	First Attributed	Booked	
	(MMbbl)	(MMbbl)	(MMbbl)	(MMbbl)	(MMcf)	(MMcf)	
2017	_	_	_	_	_	-	
2018	_	_	_	_	_	-	
2019	_	_	_	_	_	_	

# **Future Development Costs**

A summary of the estimated development costs, on an undiscounted basis, deducted in the estimation of future net revenue attributable to the proved and the proved plus probable reserves categories, using forecast prices and costs, is presented below.

# Summary of Estimated Future Development Costs Attributable to Reserves December 31, 2019

	Heavy Crude Oil (Cuba)	Light and Medium Crude Oil (Spain)	Total
	(US\$millions)	(US\$millions)	(US\$millions)
Proved Reserves			
2020	_	_	_
2021	_	_	_
2022	_	_	_
2023	_	_	_
2024	_	_	_
Thereafter	-	_	_
Total Future Development Costs	0.0	0.0	0.0
Proved and Probable Reserves			
2019	_	_	_
2020	_	_	_
2021	_	_	_
2022	_	_	_
2023	_	_	_
Thereafter	-	-	_
Total Future Development Costs	0.0	0.0	0.0

The Corporation expects no further development costs on the PSC Puerto Escondido Yumuri. Any costs the Corporation may incur in connection with the sale of equity or assets or from borrowing against bank debt facilities are not expected to be material relative to the incremental revenue stream generated.

# **Producing and Non-Producing Wells**

The following table provides information regarding the Corporation's interests in producing and non-producing wells as at December 31, 2019. For additional information regarding the Corporation's principal properties, see "Operations in Cuba" above.

# Summary of Producing and Non-Producing-Wells December 31, 2019

	Heavy Crude Oil (Cuba)	Light and Medium Oil (Spain)	Total
C W.H(1)	(wells)	(wells)	
Gross Wells <sup>(1)</sup>			
Producing <sup>(3)</sup>	27	2	29
Non-producing <sup>(4)</sup>	11	16	27
Total Gross Wells	39	18	56
Net Wells <sup>(2)</sup>			
Producing <sup>(3)</sup>	26.8	0.4	27.2
Non-producing <sup>(4)</sup>	9	2.7	11.7
Total Net Wells	35.8	3.1	38.9

#### Notes:

- (1) "Gross Wells" represent the number of wells in which the Corporation has a working-interest.
- "Net Wells" represent the number of wells obtained by aggregating the Corporation's working-interests in each of its Gross Wells.
- "Producing" includes wells presently producing and contributing revenue or wells presently producing that are expected to contribute revenue in the foreseeable future through the sale of presently produced oil.
- "Non-Producing" includes wells that are presently non-producing or wells presently producing but are not expected to contribute revenue in the foreseeable future through the sale of presently produced oil.

## **Properties with No Attributed Reserves**

The Corporation believes that certain of its undeveloped oil and gas properties have the potential to contain commercial oil and gas deposits even though the Corporation has not assigned proved or probable reserves to such properties.

During 2014, the Corporation was awarded two new PSCs covering Blocks 8A and 10 in Cuba comprising approximately 121,750 gross ha (121,750 net ha) of undeveloped oil and gas properties. The initial work commitments on these blocks included the review and reprocessing of existing seismic data and the acquisition and processing of new seismic data during the initial two years of the term of the contract at an estimated cost of \$8.4 million. In relation to Block 10, the Corporation, has fulfilled all required work commitments under the Exploration Period as outlined in the contract. For information regarding the results for the exploration well, please see the section entitled "Description of the Business - Oil and Gas - Operations in Cuba - Exploration Prospects". In relation to Block 8A, the Corporation plans to acquire 2D seismic data in 2021, as required under the initial work commitment. Following the completion of the initial work commitments, the Corporation will elect to proceed to the next subperiod or terminate the PSC. On November 1, 2017, the Corporation was awarded a new PSC covering Block 6A comprising approximately 46,871 gross ha (46,871 net ha). The initial work commitment on this block includes the review and reprocessing of existing 2D seismic data and the subsequent integration into a geophysical and geological model. Block 6A PSC initial exploration term was extended until July 2021 and all work commitments have been fulfilled for the first exploration subperiod. Based upon the results of the interpretation, the Corporation will either enter into the Second Subperiod or terminate the Block 6A PSC. Total net area of the three exploration blocks is 168,621 gross ha (168,621 net ha).

The Corporation indirectly holds approximately 12,672 gross ha (2,550 net ha) of undeveloped oil and gas properties in the Gulf of Valencia, offshore of Spain. These undeveloped oil and gas properties have no associated work commitments. The Corporation is working with the operator to develop several prospects on these lands for future drilling. None of the Corporation's rights to these properties are scheduled to expire during 2020.

There are no significant abandonment and reclamation costs, unusually high development costs or operating costs or contractual obligations to produce and sell a significant portion of production at subsidized prices that could be reasonably expected to affect the anticipated development or production activities in relation to the Corporation's undeveloped oil and gas properties.

#### **Forward Contracts**

The Corporation is not party to any forward contracts regarding the sale of its oil and gas production (see "Operations in Cuba – Sales to Cuba" above).

## **Costs Incurred**

The following table provides information regarding the Corporation's costs incurred in relation to its oil and gas properties:

# Summary of Costs Incurred Year Ended December 31, 2019

	Cuba	Spain	Pakistan	Other(1)	Total
	(\$millions)	(\$millions)	(\$millions)	(\$millions)	(\$millions)
Acquisition of Proved properties	_	_	_	_	_
Acquisition of Unproved properties	_	_	_	_	_
Total property acquisition costs	_	_	_	_	_
Exploration costs	29.7	_	_	_	29.7
Development costs	(0.2)	0.2	0.0	0.0	0.0
Total Capital Expenditures	29.5	0.2	0.0	0.0	29.7

<sup>(1)</sup> IT purchases and capitalized G&A offset by non-core asset disposal

## **Exploration and Development Activities**

The following table provides information regarding the Corporation's oil and gas exploration and development drilling activities in Cuba and Spain during 2019.

Summary of Exploratory and Development Wells Drilled

	Cuba		Spain		2019 Total	
Type of Well	Gross Wells <sup>(1)</sup>	Net Wells <sup>(2)</sup>	Gross Wells <sup>(1)</sup>	Net Wells <sup>(2)</sup>	Gross Wells <sup>(1)</sup>	Net Wells <sup>(2)</sup>
Exploratory						
Oil	1	1	_	_	1	1
Gas	_	_	_	_	_	_
Service	_	_	-	_	_	_
Dry	_	_	_	_	_	_
Stratigraphic Test	_	_	_	_	_	
Total Exploratory	_	_	_	_	-	_
Development						
Oil	_	_	_	_	_	_
Gas	_	_	_	_	_	_
Service	_	_	_	-	_	_
Dry	_	_	_	-	_	-
Stratigraphic Test	_	_	_	_	_	
Total Development	_	_	_	_	_	_
Oil	1	1	_	_	1	1
Gas	_	_	_	_	_	_
Service	_	_	_	_	_	_
Dry	_	_	_	_	_	_
Stratigraphic Test	_	_	_	_	_	
Total Drilled	1	1	_	_	1	1

Notes:

<sup>(1)</sup> Gross Wells represent the total number of wells in which the Corporation has a working-interest.

<sup>(2)</sup> Net Wells represent the number of wells obtained by aggregating the Corporation's working-interests in each of its Gross Wells.

## **Production Estimates**

Estimated production volumes for the first year of the estimates of future net revenue prepared in conjunction with the Corporation's reserves data (and included in the McDaniel Report) are provided in the following table. The Yumuri field in Cuba is estimated to account for more than 80% of estimated production.

## Summary of 2020 Production Estimates

	Heavy Crude Oil	Light and Medium Oil
Forecast Prices and Costs	(Cuba)	(Spain)
	(Mbbls)	(Mbbls)
Proved reserves - Gross Working-Interest		
Yumuri (Cuba)	1,039	-
Other	192	91
Total Estimated 2020] Production from Proved Reserves - Gross Working-		
Interest	1,231	91
Probable reserves - Gross Working-Interest		
Yumuri (Cuba)	35	
Other	6	1
Total Estimated 2020 Production from Probable Reserves - Gross Working-		
Interest	41	1
Proved and probable reserves - Gross Working-Interest		
Yumuri (Cuba)	1,074	_
Other	198	92
Total Estimated 2020 Production from Proved and Probable Reserves - Gross		
Working-Interest	1,272	92

## **Production History**

The following table provides information regarding the Corporation's share of average daily oil and gas production and the average netbacks to the Corporation for the periods indicated:

## Summary of Production and Netbacks

	Year Ended December 31,2019					
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Yearly Average	
Heavy Crude Oil (Cuba)						
Net Working-Interest Production (bopd)						
Yumuri	1,002	780	839	773	848	
Other	248	235	221	232	234	
Total	1,250	1,016	1,061	1,006	1,082	
Average netback (\$ per bbl)						
Revenue	71.54	73.58	61.43	52.46	65.05	
Royalties	_	_	_	_	_	
Production costs <sup>(1)</sup>	(75.34)	(86.71)	(81.90)	(91.17)	(83.33)	
Netback <sup>(2)</sup>	(3.80)	(13.13)	(20.47)	(38.71)	(18.28)	
Light and Medium Crude Oil (Spain)						
Net Working-Interest Production (bopd)	64	48	138	176	107	
Average netback (\$ per bbl)						
Revenue	87.86	53.57	75.24	89.65	80.67	
Royalties	(0.91)	(1.30)	(0.75)	(0.77)	(0.84)	
Production costs <sup>(1)</sup>	(208.05)	(275.09)	(143.12)	(263.77)	(217.56)	
Netback <sup>(2)</sup>	(121.10)	(222.83)	(68.63)	(174.89)	(137.73)	
Conventional Natural Gas (Pakistan)						
Net Working-Interest Production (MMcfpd)	2.8	2.8	0	0	2.8	
Average netback (\$ per Mcf)						
Revenue	1.77	1.78	0	0	1.77	
Royalties	(0.20)	(0.17)	0	0	(0.18)	
Production costs <sup>(1)</sup>	(0.69)	0	0	0	(0.41)	
Netback <sup>(2)</sup>	0.88	1.61	0	0	1.18	
Note:						

<sup>(1)</sup> Calculated using net production costs in accordance with NI 51-101. For the calculation of the Corporation's gross production costs please see page 22 of the Corporation's Management Discussion and Analysis for the year ending December 31, 2019, available at www.sedar.com.

<sup>(2)</sup> Netbacks are calculated by subtracting royalties and production costs from revenue.

## 3.3 Power

#### **CUBA**

The Corporation holds a one-third interest in Energas, a Cuban joint venture corporation established to operate facilities for the processing of raw natural gas and the generation of electricity for sale and delivery to the Cuban national electrical grid system. The remaining two-thirds interest in Energas is held equally by two Cuban agencies, CUPET and UNE.

The Corporation has financed, constructed and commissioned each of the four integrated gas treatment and three power generation facilities as well as all expansions to the facilities which are located near the Varadero, Boca de Jaruco, and Puerto Escondido oil fields located in Cuba. As at December 31, 2019, these facilities had a total capacity of 506 MW.

The Energas joint venture is authorized as an international economic association pursuant to foreign investment laws in Cuba to engage in the generation of electricity for sale to the Cuban electrical grid. Resolutions confirming the authorization and validity of the establishment of Energas and its capacity to construct and operate electrical power generation plants and to sell electricity to Cuban agencies have been issued by the Executive Committee of the Council of Ministers. Energas is registered with the Chamber of Commerce of Cuba and has obtained a customs registration number that allows it to import supplies and materials to the country during the construction phase or expansion of any project and has also registered with the Office of National Tax Administration. The Cuban government also requires that Energas obtain environmental licenses relating to the commissioning and operation of the plant sites operated by Energas and a permit to operate bank accounts for each currency in which Energas does business in Cuba.

#### **Association Agreement**

The establishment and operation of Energas is governed by an association agreement entered into among Sherritt, CUPET and UNE, the joint venture partners of Energas ("Association Agreement"). The terms of the Association Agreement specify the obligations of each of the joint venture partners – the Corporation provides financing for the capital costs associated with the procurement, construction and commissioning of each power generation project that is approved by the shareholders of Energas and authorized by the Executive Committee of the Council of Ministers. CUPET, as part of their obligations under the Association Agreement, supplies gas as feedstock for the facilities at no cost to Energas, and UNE purchases the electricity produced by Energas under long-term fixed-price contracts.

Under the terms of the Association Agreement, all management decisions concerning Energas require the unanimous agreement of the joint venture partners. Day-to-day operations of Energas are the responsibility of the General Manager of Energas, who is appointed by Sherritt, until such time as it has recovered all its financing costs, and thereafter by mutual agreement of the joint venture partners.

On December 15, 2016, the Executive Committee of the Council of Ministers of the Republic of Cuba issued a Resolution extending the operating term of the Energas Varadero power generation facilities, and the related land rights until 2023.

The following table provides information in respect of each phase of development of the power generation facilities operated by Energas.

		Start	End of	Capacity	Economic	
Phase	Location	Date	Term	(MW)	Unit	Description
1	Varadero	1998	2023	65	Base	2 gas turbines, gas processing facility
2	Varadero	1998	2023	33	Base	1 gas turbine, gas processing facility
3	Varadero	2003	2023	75	Base	Combined cycle facility with supplementary firing
4	Boca de Jaruco	1999	2023	33	Base	1 gas turbine, gas processing facility
6	Puerto Escondido	2006	2023	20	Expansion	1 gas turbine, gas processing facility
6	Boca de Jaruco	2006	2023	65	Expansion	2 gas turbines, pipeline
7	Boca de Jaruco	2007	2023	65	Expansion	2 gas turbines
8	Boca de Jaruco	2014	2023	150	<b>Expansion</b>	Combined cycle facility with supplementary firing
Tota	l capacity			506		

Pursuant to the terms of the Association Agreement, the operations of Energas have been divided into two economic units. The first economic unit ("Base") comprises phases 1 through 4 noted above and the second economic unit ("Expansion") comprises Phases 6 through 8 noted above.

The profits from each of the Base and Expansion economic units are paid out in the following order of priority: first, to the Corporation in repayment of financing costs for the construction of the facilities; second, to the government of Cuba for land rights granted in connection with the power plant sites; and finally, subject to mutual agreement, to the Energas shareholders in the form of dividends. In the event there is a shortage in the supply of natural gas that results in the curtailment of operations at the Expansion facilities, the joint venture partners of Energas have agreed to contribute their respective dividends from the Base facilities, to the extent required, to ensure that the Corporation recovers its financing costs pertaining to the Expansion facilities.

During 2005, Energas completed the repayment of financing in respect of the construction of the Base facilities. Subsequently, payment was made to the government of Cuba for the land rights to these facilities. As a result, the profits from the Base facilities are distributed to the joint venture partners of Energas in the form of dividends. Regular dividend payments commenced during 2006 and profits from the Base facilities are subject to a Cuban profit tax.

As for the Expansion economic unit, the profits from the Expansion facilities are used for repayment to the Corporation for all financing costs for the construction of the facilities and an agreed annual amount is paid to the government of Cuba for land rights during the term of the Association Agreement.

The Corporation believes that, to the extent its share of dividends from Energas are reinvested in construction of the Expansion facilities, the Corporation is entitled to receive reinvestment credits. Such credits are payable in cash directly to the Corporation funded by income taxes paid by Energas to the extent of the Corporation's one third interest. The Cuban tax authority has indicated they will make payments to Sherritt in accordance with the Cuban tax authority's interpretation of the amount entitled, however during 2019, no payments were received.

Energas and UNE have entered into an agreement providing for the purchase by UNE of all of the electric power generated by Energas from the Base facilities up to a maximum of 1,680 GWh per year. The purchase obligation commenced in October 1998, when the first phase of the Varadero facility commenced commercial production, and will continue as long as the Association Agreement is in effect. The electricity tariff was US\$0.045/kWh prior to completion of the repayment of financing and payment of land rights. The tariff is now US\$0.038/kWh. A second agreement provides for the purchase by UNE of all of the electricity generated from the Expansion facilities up to a maximum of 1,180 GWh per year. Under this second agreement, the electricity tariff is set at US\$0.045/kWh during the period prior to repayment of financing for the Expansion facilities and payment of land rights. Subsequently, the tariff will be US\$0.038/kWh.

In addition to the agreements with UNE, Energas has entered into agreements with other agencies of the government of Cuba, on the basis of international reference prices, for the purchase and sale of sulphur, LPG and natural gas condensates which are recovered from the processing of raw gas.

During 2019, the Corporation's Power division had earnings from operations of \$1.8 million on revenue of \$45.3 million compared to earnings from operations of \$2.8million in 2018 on revenue of \$47.2 million. Total non-expansion capital expenditures during 2019 in respect of power operations were \$0.4 million and were primarily directed towards sustaining capital for Cuban operations.

### Locations

Energas does not own the surface land rights for its power facilities in Cuba, but has entered into leases with the Cuban State for the duration of the term of the joint venture.

## Varadero

The Varadero facility is located approximately 140 kilometres east of Havana, Cuba. The facility consists of two integrated raw gas processing plants, three gas turbines and associated electric generators, a heat exchange system for generating high-pressure

steam, and a steam turbine and associated electric generator. In addition, the Varadero site includes an electrical substation and transformers to facilitate connection of the facility to the Cuban national grid system and an integrated maintenance facility. The aggregate net power capacity of this facility is approximately 173 MW. Sherritt's share of 2019 electricity sales was 244,427 MWh. In 2018, Sherritt's share of electricity sales was 276,328 MWh.

The two integrated gas plants at the Varadero site have a combined rated capacity of approximately 50 MMcfpd of raw gas inlet, which would yield approximately 43 MMcfpd of sweet gas, 60 Tpd of sulphur, 438 bopd of LPG, and 226 bopd of condensate.

## Boca de Jaruco and Puerto Escondido

The Boca de Jaruco facilities, located approximately 50 kilometres east of Havana, Cuba, consist of a raw gas processing plant and five gas turbines and associated electric generators, a heat exchange system for generating high pressure steam and a steam turbine and associated electric generator. The aggregate net power capacity of this facility is approximately 313 MW. The gas plant has a rated capacity of approximately 12 MMcfpd of raw gas inlet, which would yield approximately 10 MMcfpd of processed natural gas and 58 bopd of condensate. The Boca de Jaruco site also includes an electrical substation and transformers to facilitate connection to the Cuban national grid system and an integrated administrative and maintenance facility.

The Puerto Escondido facilities, located approximately 75 kilometres east of Havana, Cuba consist of two integrated raw gas processing plants and a gas turbine and associated electrical generator with a net power capacity of 20 MW. The gas plant has a rated capacity of 70 MMcfpd of raw gas inlet, yielding approximately 61.5 MMcfpd of processed natural gas, 400 bopd of condensate and 475 bopd of LPG. The Puerto Escondido site also includes an electrical substation and transformers to facilitate connection to the Cuban national grid system.

In 2019, Sherritt's share of electricity sales at the Boca de Jaruco and Puerto Escondido sites was 491,827MWh. In 2018, Sherritt's share of electricity sales was 505,138 MWh. The reduction in sales was largely due to reduced gas supply in 2019.

Under the terms of the Association Agreement, Energas has assumed responsibility for the processing of all the gas produced in the regional vicinity of the Yumuri, Puerto Escondido and Seboruco oil fields, including the portion of gas used by CUPET for the supply of domestic fuel to Havana for which CUPET pays a tariff to Energas.

## **Cuban Payment Arrangements**

During 2019, Sherritt received payment of US\$37.1 million for overdue receivables, resulting in an overdue balance at December 31, 2019 of US\$138.8 million. As at December 31, 2018, the overdue amount was US\$114.8 million.

In 2019, Sherritt's Cuban partners ratified a new overdue receivables agreement (the Agreement) under which Sherritt will receive Cuban energy payments from Energas averaging US\$2.5 million per month effective May 2019. The Agreement recognized and acknowledged 100% of the amounts owed at this time to Sherritt. In addition, the Agreement provides that Sherritt will receive 100% of available distributions from the Moa Joint Venture once each partner has received a minimum amount of dividend. The minimum dividend threshold for 2019 was US\$34 million per partner, however, the threshold was not reached in 2019. The is no dividend threshold for 2020. During 2019, Sherritt received US\$21.1 million under this agreement, which is included in the US\$37.1 million total payment. Subsequent to year end, Sherritt received a commitment from its Cuban partners for an incremental US\$5.0 million per month, which will be used to fund Energas operations and reduce amounts owed to the Corporation.

## **Gas Supply from CUPET**

Under the terms of the Association Agreement, CUPET is obligated to supply, at no cost to Energas, gas that is owned by CUPET and is produced in association with crude oil from oil fields in the regional vicinity of the Varadero, Boca de Jaruco, Yumuri and Puerto Escondido plant sites (the "Oilfields") up to maximum plant capacity. CUPET's obligation to supply such gas is subject to its pre-existing obligation to supply clean, processed gas from the Puerto Escondido, Yumuri and Canasí fields for domestic fuel to Havana. Energas does not own the gas reserves in the Oilfields, nor does it control the rate or manner in which such gas reserves

are produced. Continuing shortages in gas supply occurred throughout 2019 at both the Varadero and Boca de Jaruco plant sites (see section 3.8 "Risk Factors - Uncertainty of Gas Supply to Energas").

## 3.4 Technologies

Technologies is comprised of project managers, research scientists, engineers, technologists and support staff focused on the development and commercial application of hydrometallurgical technologies and the use of high pressure autoclave technologies in other applications in support of the Corporation's business units as well as provision of such technologies to existing and emerging external producers. The group also aids in identifying opportunities for the Corporation as a result of its international activities and research and development activities. More than 40 commercial plants worldwide have adopted Technologies' hydrometallurgical processes for the treatment of a wide range of ores, concentrates, mattes and other feed materials for the recovery of non-ferrous and precious metals. Hydrometallurgical and high pressure autoclave processes are developed, tested and demonstrated extensively at Technologies' laboratory and pilot plant facilities, the data from which forms the basis for Technologies' engineers to design commercial plants. The Ambatovy Joint Venture, for example, features Technologies' proprietary process technology for nickel and cobalt recovery from laterite ores, which has been successfully applied at the commercial scale for more than half a century. Technologies continues to provide technical assistance to the Ambatovy Joint Venture.

In addition to technologies for extracting and refining nickel and cobalt, proprietary technologies for the recovery of gold, silver and other precious metals, and for copper, zinc and other industrial metals from sulphidic feeds have been widely commercialized by many of the world's major non-ferrous mining companies, Sherritt's technologies for sulphidic materials can provide an environmentally preferable option to conventional processing as there is not a corresponding production of sulphur dioxide. The group remains active in the development of commercial facilities for gold, copper and zinc projects in China, Brazil, the Middle East, South Africa, Canada and Chile and in the development and application of hydrometallurgical and associated technologies to other resource-based industries.

With Sherritt's divestiture of its coal business in early 2014, Technologies is no longer focused on the development of clean coal initiatives. However, Technologies is continuing to examine the application of the use of high pressure autoclave technology to add value to hydrocarbon processing.

## 3.5 Environment, Health and Safety and Sustainability

Enterprise oversight of Environment, Health, Safety & Sustainability ("EHS&S") is provided by the Sustainability Department and the Corporate Director of EHS&S, who reports to the Chief Operating Officer. The EHS&S functions are managed within a sustainability framework introduced in 2013.

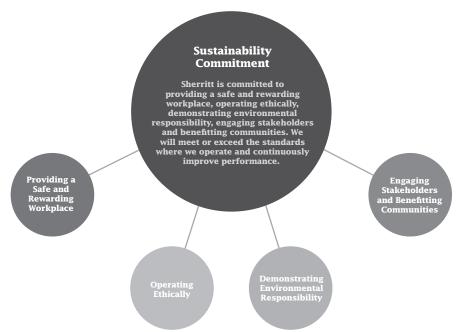
### SUSTAINABILITY FRAMEWORK

Sherritt's sustainability framework (the "Framework") provides a focused and practical approach to prioritizing, managing and measuring sustainability performance. The Framework consists of a core commitment to sustainability and a series of issuespecific commitments, which are supported by management systems with standards and guidelines to inform planning, implementation, measurement, reporting and assurance of sustainability efforts across Sherritt. All of the Corporation's operations are in the process of ensuring they meet the requirements of these minimum standards for sustainability management.

The Framework addresses the sustainability issues most material to the achievement of the Corporation's goals and future business needs. To develop the Framework sustainability issues important to the Corporation's business were identified based on potential risks, corporate policies and a review of current and emerging sustainability issues facing the natural resources sector.

Each issue was analysed on the basis of the level of expected business impact and degree of stakeholder interest. Generally, the most material sustainability issues are addressed in individual commitments in the Framework shown below. These issues are reviewed periodically to ensure emerging issues are properly identified and captured in the Framework. In early 2019, Sherritt updated its assessment of material sustainability issues to reflect that the Corporation no longer considers the Ambatovy Joint

Venture as an operating segment of the business for sustainability disclosure moving forward and to align with the requirements of the Global Reporting Initiative, an internationally recognized industry reporting standard that Sherritt applies. As a result, issues that were more material in the context of Ambatovy are now less material; however, the key issues for the Corporation remain largely unchanged. In 2019, Sherritt began to update policies and procedures with the intention of maintaining best practices and alignment with the industry at large. This process will continue into 2020-2021 as new standards emerge and external expectations evolve.



The standards designed to support the Framework align with international good practice, including the requirements of the Towards Sustainable Mining (**"TSM"**) program, the Voluntary Principles on Security and Human Rights, the Extractive Industries Transparency Initiative, the International Finance Corporation's Performance Standards, the Incident Command System, and the United Nation's Awareness and Preparedness of Emergencies at the Local Level Programme. In Madagascar, the Ambatovy Joint Venture's biodiversity management approach aligns with the principles of the Business and Biodiversity Offsets Programme. Sherritt's approach to sustainability is also informed by the International Council on Mining and Metals' Principles, the Sustainable Development Goals, the Global Compact, the Equator Principles, and the Organization of Economic Co-Operation and Development.

### **Five Year Goals and Targets**

As an integral part of Sherritt's overall framework, the Corporation has launched a suite of goals to drive environmental, health, safety and sustainability performance. The goals are as follows:

- Goal 1 Achieve Level A requirements in Towards Sustainable Mining (TSM) protocols across all operations
- Goal 2 Strengthen our safety culture, behaviour and performance
- Goal 3 Improve water, energy and emissions management across operations
- Goal 4 Create community benefit footprints that support local priorities and the Sustainable Development Goals
- Goal 5 Be recognized as a "supplier of choice" for responsibly produced, high-quality products
- Goal 6 Improve diversity at all levels throughout the company

Sherritt's divisions then set targets, which are supported by annual sustainability plans. Performance against the goals will be reported in the annual sustainability report. The goals will be re-evaluated on five year cycles.

### Memberships

Sherritt is a member of the Mining Association of Canada ("MAC"). As a condition of membership, the Corporation is required to implement and report on TSM at its Canadian operations. TSM's management protocols and associated guidance cover the following areas: Indigenous and Community Relations, Energy and Greenhous Gas Emissions' Management, Tailings Management, Biodiversity Conservation Management, Safety and Health, Crisis Management and Communications Planning, Child and Forced Labour, Mine Closure, and Water Stewardship. As Sherritt's Framework was initially designed to align with TSM, the Corporation has already made progress on implementing TSM at facilities in Canada and Cuba. Sherritt first began to report on implementation progress to MAC in 2019. External verification on TSM conformance will occur in 2021, when site-level results will be made public through MAC.

The Corporation also gleans insights into sustainability trends and developments through its membership in Fertilizer Canada, the Devonshire Initiative, the Prospectors and Developers Association of Canada, the Nickel Institute, and the Cobalt Institute; and meets the membership obligations of the Voluntary Principles Initiative and the Extractive Industries Transparency Initiative. In addition, a number of Sherritt employees hold committee or Board positions within these organizations.

## **EHS&S Committee of the Board**

The Corporation's EHS&S Committee assists Sherritt's board of directors (the "Board") in its oversight of EHS&S issues by providing corporate direction to, and monitoring and reviewing of, environment, health and safety, security, stakeholder relations, tailings facility performance, and other sustainability management systems, policies, programs and targets. The mandate of the EHS&S Committee can be found on the Corporation's website.

### **Sustainability Reporting**

The Corporation publishes its sustainability performance in an online report available at sustainability.sherritt.com. The latest report, which contains 2018 data, was prepared in accordance with the Global Reporting Initiative's Standards (Core Option). Sherritt's 2019 sustainability report will be published in June 2020 and be made available at sustainability.sherritt.com.

Given Sherritt's 12% interest and reduced operational influence in the Ambatovy Joint Venture in 2019, it was determined by the Corporation that Ambatovy would no longer be considered an operating segment of Sherritt for sustainability reporting purposes. This transition will be evidenced in the next published report. The Ambatovy Joint Venture will continue to publish an annual sustainability disclosure, independent of Sherritt.

#### **ENVIRONMENT, HEALTH AND SAFETY**

## **Environmental**

In addition to meeting the voluntary commitments articulated in Sherritt's Framework, the Corporation's operations are also subject to certain EH&S laws and conventions in various jurisdictions. These laws and conventions cover areas such as employee health and safety; air quality; soil quality; ground water quality; water quality and availability; the protection and enhancement of the environment (including the protection of plants and wildlife); development approvals; the generation, handling, use, storage, transportation, release, disposal and cleanup of regulated materials, including wastes; and the reclamation and restoration of mining properties after mining is completed, among others. The consequences of a breach of EH&S laws can be serious and could include the temporary suspension of operations, the imposition of fines, other penalties (including administrative penalties and regulatory prosecution), and government orders, which could potentially have a material adverse effect on operations.

The Corporation's compliance with relevant environmental laws begins with its assessment of environmental impacts before it initiates major new projects or undertakes significant changes to existing operations and how compliance will be demonstrated and managed. Once planning and development have been completed, the Corporation's various operations must remain in compliance with their licenses, permits and the relevant environmental laws. Throughout its operations, the Corporation actively

investigates and implements continuous improvement opportunities to mitigate any effects of the operations on the environment as well as on the health and safety of workers and adjacent residents. The Corporation is in material compliance with the applicable environmental laws and conventions relating to its current operations.

In Cuba, Moa Nickel has been working under specific operating standard regimes since 1994, which provide for Moa Nickel to work with the Cuban authorities in understanding, assessing and mitigating Moa Nickel's effects on the environment. Cuban agencies conduct periodic inspections to ensure that Moa Nickel is in compliance with the site-specific operating standard issued by the Cuban regulatory authorities.

At the Corporation's Oil, Gas and Power operations, a Cuban agency conducts ground water and air quality surveys several times per year to monitor compliance with emission standards under Cuban law.

The Corporation holds an operating approval under the *Alberta Environmental Protection and Enhancement Act* for the refinery in Fort Saskatchewan which originally expired on January 31, 2019. A renewal application was submitted in 2018 and a permit is pending review by relevant government parties. Due to a significant quantity of approval renewals currently being processed by Alberta Environment and Parks, a one-year extension was granted in December 2018, allowing the Corporation to continue operating at the Fort Site under the existing conditions through January 31, 2020. An additional extension to the one granted in 2019 has been approved by the provincial regulators as a result of the ongoing processing delays. The Fort Saskatchewan refinery continues to operate in compliance with its original permit conditions in the meantime. Environmental management activities are coordinated with other companies in the Fort Saskatchewan area through the refinery's active involvement with the Northeast Capital Industrial Association ("NCIA"). The NCIA endorses principles which promote sustainable industrial growth and high quality of life, and works with provincial authorities. Anticipated and actual changes to federal and provincial legislation regarding emission, which will require that certain air emissions from the refinery be reduced, which will require capital expenditures on the part of the Corporation. For more information on some of these requirements, see "*Greenhouse Gas Emission Frameworks*" below.

For information regarding the Ambatovy Joint Venture's compliance with applicable EH&S laws and standards, please see Schedule 'B' – Technical Information – Ambatovy Joint Venture

The Corporation includes provisions in its financial statements for environmental rehabilitation obligations based on estimates of future site restoration costs, estimated remaining lives of properties, environmental laws and regulations, and estimated lives of reserves. The current estimate of the Corporation's share of the total anticipated undiscounted future cost of abandonment and reclamation costs to be incurred over the life of the Corporation's various assets and investments is estimated at approximately \$138.8 million (excluding operating expenses). See Note 17 to the Corporation's audited consolidated financial statements as at December 31, 2019. The Corporation's reclamation of its mine sites is continuous and on-going. The Corporation has received certain indemnifications from its predecessor, Viridian Inc., with respect to any claims for environmental damage relating to the operations at the Fort Site prior to 1994 and with respect to any claims in relation to the Corporation's fertilizer business prior to 1996. The Corporation has assumed Viridian's obligations to GNC in respect of environmental indemnities, but has also received indemnification from Viridian to the same extent, with respect to matters occurring prior to the commencement of operations of the Moa Joint Venture in 1994.

The Corporation and Moa Nickel have been indemnified by GNC with respect to a number of environmental matters. More particularly, damage arising from claims concerning identified or latent conditions relating to the operation of Moa Nickel facilities prior to the formation of the Moa Joint Venture, including health-related claims and required remediation of environmental damage done prior to the formation of the Moa Joint Venture, are subject to indemnification by GNC.

Moa Nickel is obliged to maintain a financial reserve for the purpose of reforestation of the areas that Moa Nickel has mined. Moa Nickel is not responsible for the reforestation of areas mined prior to November 30, 1994.

The Power division's Varadero, Boca de Jaruco and Puerto Escondido plant sites are subject to regulation under Cuban environmental laws. The area in the vicinity of these sites has been used for the development and production of petroleum and natural gas and other industrial activity for many years. Baseline environmental surveys conducted prior to commencement of

operations have confirmed the presence of pre-existing ground water contamination at each of the Varadero, Boca de Jaruco and Puerto Escondido plant sites. The Corporation believes that Energas has no liability under Cuban law for any pre-existing contamination at these sites.

For information on the Corporation's abandonment and reclamation costs for its oil and gas business, see "Oil and Gas Reserves -Abandonment and Reclamation Costs" above.

The voluntary commitments articulated in Sherritt's Framework that relate to the environment include the implementation of the TSM Tailings Management and Water Stewardship protocols and the implementation of ISO 140001 environmental management system (EMS) standard.

Following the catastrophic tailings dam failure at the Córrego do Feijão mining facility in Brumadinho, Brazil, a group of institutional investors including the Church of England and the Council on Ethics of the Swedish National Pension Funds wrote to 726 extractive companies requesting specific disclosure on Tailings Storage Facilities. Sherritt did not receive a written request but has studied the request and believes that greater transparency is good practice on this important issue. A detailed disclosure on tailings management facilities operated by Sherritt along the Church of England guidelines is being prepared for the 2019 Sustainability Report.

## **Health and Safety**

In addition to meeting the voluntary commitments articulated in Sherritt's sustainability Framework, the Corporation is also subject to legal requirements governing the health and safety of the workforce. The Corporation believes that safe operations are essential for a productive and engaged workforce and sustainable growth. The Corporation is committed to workplace incident prevention and makes expenditures towards the necessary human and financial resources and site-specific systems to ensure compliance with its health and safety policies. Sherritt continuously enhances health and safety and tailings management systems to improve how significant risks are identified, controlled, and monitored.

Sherritt's approach to workplace health and safety includes involving its stakeholders, such as Sherritt's employees and the communities in which it operates, along with customers, investors, partners and service providers. The Corporation's commitment to health and safety extends throughout the entire enterprise, starting with the Board.

The Corporation continuously enhances its enterprise-wide program to eliminate fatalities and improve the safety culture through fatality prevention standards, visible felt leadership, and management systems implementation. The Total Recordable Injuries frequency rate was 0.23 and its Lost-Time Injuries frequency rate was 0.08, compared to targets of 0.25 and 0.12, respectively. Although this constitutes peer leading performance, the Corporation endeavours to continually improve its management systems, capabilities, and performance.

The voluntary commitments articulated in Sherritt's Framework that relate to health and safety include the implementation of the TSM Safety and Health protocol and the implementation of ISO 45001 occupational health & safety management system (HSEMS) standard.

In addition, Sherritt is implementing recognized process safety management standards, such as the CSA Z67 Process Safety Management Standard at applicable sites to minimize catastrophic risks related to operations processes.

## **Greenhouse Gas Emission Frameworks**

### Federal

The most recent periodic conferences of the parties to the United Nations Framework Convention on Climate Change (the "Convention") have not resulted in a legally binding GHG emissions reduction commitment to succeed the Kyoto Protocol, which expired at the end of 2012. However, most nations, including China, Brazil, India and Canada entered into a commitment referred to as the Paris Agreement in December 2015, under which countries submit voluntary mitigation targets and plans and revisit those targets and plans every five years. Under the Paris Agreement, the Canadian federal government has proposed to reduce its emissions by 30% below 2005 levels by 2030.

On December 9, 2016, the Government of Canada, eight provinces (including Alberta) and three territories signed the Pan-Canadian Framework on Clean Growth and Climate Change (the "Climate Change Framework"). The key feature of the Climate Change Framework is a federal benchmark for pricing greenhouse gas emissions. To meet the benchmark, provinces and territories can implement either: (i) an explicit price-based system (e.g., a carbon tax, or Alberta's carbon levy tied to a performance-based emissions system); or (ii) a cap-and-trade system. For price-based systems, the benchmark carbon price would start at a minimum of \$10 per tonne in 2018, rising to \$50 per tonne in 2022. In contrast, jurisdictions that adopt cap-and-trade are expected to achieve: (i) emissions reductions of at least 30% below 2005 levels by 2030; and (ii) declining annual caps to at least 2022 that correspond, at a minimum, to the projected emissions reductions resulting from the carbon price that year in price-based systems. As a backstop, the federal government adopted the *Greenhouse Gas Pollution Pricing Act in 2018* which is in effect in provinces and territories that do not meet the benchmark.

The federal backstop has two parts:

- 1. a pollution price on fuel, known as the fuel charge; and
- 2. a pollution price for industry, known as the Output-Based Pricing System ("OBPS")

The federal fuel charge took effect in April 2019 in Ontario, New Brunswick, Manitoba, and Saskatchewan, and began to apply in Alberta on January 1, 2020.

On June 28, 2019, the Government of Canada published the *Output-Based Pricing System Regulation*. The OBPS regulation took effect on January 1, 2019, in Ontario, New Brunswick, Manitoba, and Prince Edward Island, and covers two sectors in Saskatchewan. The federal price on carbon pollution (both the fuel charge and the OBPS) came into effect on July 1, 2019, in the Yukon and Nunavut.

#### Alberta

The Carbon Competitiveness Incentive Regulation ("CCIR") became effective on January 1, 2018 and sets output-based intensity allocations for large emitters. This regulation sets benchmarks based on 2013-15 performance of either the mix of Alberta facilities producing the same product, or the facility emissions intensity for unique producers. The CCIR includes both direct emissions and indirect ones related to the import of electricity, process heat, or hydrogen using Alberta-specific standard intensities.

For the 2019 compliance period, the CCIR reduction obligation for the Moa Joint Venture refinery in Fort Saskatchewan and the Fort Site was based on the defined output-based performance standards for metals (nickel + cobalt) and ammonia. The 2019 GHG emissions by the refinery and the Fort Site will not be available until later in the year. In 2018, the GHG emissions by the refinery and the Fort Site were 317 kt CO2e in total or 28 kt CO2e greater than the legislated limit. Accordingly, the refinery and the Fort Site purchased 28 kt of credits.

The Technology Innovation Emissions Reduction Regulation ("TIER") became effective January 1, 2020, replacing CCIR. TIER continues the output-based intensity allocation approach for large emitters as well as the inclusion of indirect emissions. Facility-specific benchmarks are based on 2013-2015 performance. High performance benchmarks are also available to the top 10% of producers within an industry. For 2020 the carbon price has been set at \$30/tonne. Future prices have not been announced. It is anticipated that for the next several years, the refinery and the Fort Site will continue to comply with TIER by purchasing credits and will consider emerging GHG emission efficiency options as they are developed.

### Other Jurisdictions

The Power division has registered a project with the United Nations clean development mechanism which allows GHG emission-reduction projects in developing countries to earn certified emission reduction ("CER") credits, each equivalent to one tonne of CO2. These CERs can be traded and sold, and used to meet certain emission reduction targets. The mechanism is intended to stimulate sustainable development and emission reductions and to provide flexibility in meeting certain emission reduction targets. The Energas Varadero Conversion from Open Cycle to Combined Cycle Project, United Nations Framework Convention on

Climate Change Project 0918, achieved a verified GHG reduction of 342,235 metric tonnes CO2 equivalent from January 2007 to June 2008. Verification of a further 638,392 CER credits for the period from July 1, 2008 to December 31, 2010 has been completed. Verification of CER credits for the period from January 1, 2011 to the present has been suspended for the time being as a result of low market prices for CERs. No sales of CERs were recorded in 2019.

The process of registering the 150 MW Boca de Jaruco Combined Cycle Project with United Nations authorities has been suspended until market prices for CERs have improved. This suspension remained in effect in 2019.

Over the course of the year, emissions regulations remained in a state of flux, with some clarity for some jurisdictions coming towards the end of the calendar year. With greater clarity, the Corporation can better plan for impacts to operations. That being said, the regulation of greenhouse gasses is a topic of global importance and will be in discussion nationally and internationally for the foreseeable future. It remains that the Corporation's Canadian operations involve large facilities, so the setting of emissions targets (whether in the manner described above or otherwise) may well affect them and may have a material adverse effect on the Corporation's business, results of operations and financial performance. In addition to directly emitting GHGs, the Corporation's operations require large quantities of power. Current or future taxes on or regulation of power producers or the production of oil and gas or other fuel products may also add to the Corporation's operating costs. The increased regulation of GHG emissions may also reduce the demand for the Corporation's products.

To monitor the potential impact of, and opportunities arising out of, climate change, the Corporation has conducted a number of meetings with politicians and regulators at both the federal and provincial levels and closely monitors the regulatory activities of these governments. The Corporation's facilities have implemented programs for the collection of emissions data as part of an overall environmental monitoring system. Any eventual costs related to emissions targets may be partially offset by credits earned through internal measures and research and development projects. The Corporation has already engaged in one such project utilizing waste exhaust heat to generate power for Energas facilities in Cuba, resulting in a reduction of GHG emissions. The environmental benefits achieved through the reduction of GHG emissions at the Energas operations were recognized by the granting of Kyoto Clean Development Mechanism status for the Phase 3 facilities of Energas pursuant to the provisions of the Kyoto Protocol.

## **COMMUNITY INVESTMENT**

Sherritt's Community Investment initiatives focus on projects which support socio-economic development, public health and safety and natural and cultural heritage in the communities in which the Corporation operates.

In 2019, the long-standing Cuba Community Investment program continued to provide support for public infrastructure and community development in Moa, Cárdenas, Matanzas, Santa Cruz del Norte and in several smaller communities near the Corporation's operating sites. Recent projects undertaken include the installation of public lighting, the purchase of used buses for public transportation, the procurement of heavy equipment for community improvements, the refurbishment of hospitals, the donation of freezers to food rationing outlets and daycare facilities, and the provision of materials and equipment to improve water quality. In 2019, the Corporation continued its partnership with UNICEF Canada to fund a multi-year road safety program for youth in Cuba.

The refinery in Fort Saskatchewan, which is a well-developed city near Edmonton, Alberta, administers a modest community investment budget to support worthwhile local initiatives and employee engagement. As the first major investor in the city more than 60 years ago, Sherritt has been an active and supportive development partner to Fort Saskatchewan for decades, contributing to many public, health, cultural and educational facilities and institutions. In 2019, the Corporation contributed to a local project to complete a local section of the Trans Canada Trail.

## 3.6 Employees

At December 31, 2019, the Corporation, including its subsidiaries and joint ventures, employed 3,308 individuals as set forth in the following table:

Total	3,308
Corporate <sup>(4)</sup>	79
Technologies	47
Power <sup>(3)</sup>	301
Oil and Gas <sup>(2)</sup>	252
Moa Joint Venture and Fort Site <sup>(1)</sup>	2629

Notes:

- (1) Includes Sherritt and GNC employees seconded to the Moa Joint Venture (100% basis)
- (2) Includes employees of the entities through which the Corporation carries on its Oil and Gas business.
- (3) Includes employees of Energas.
- (4) Includes employees in the Havana corporate office.

The table above does not include contractors or service providers.

Sherritt's operations require employees and contractors with a high degree of specialized technical, management and professional skills, such as engineers, trades people and plant and equipment operators. In some geographic areas, the Corporation competes with other local industries for these skilled workers. For example, in its Cuba operations, the Corporation is dependent on the government for the provision of skilled workers.

## 3.7 Investment in the Ambatovy Joint Venture

## **AMBATOVY JOINT VENTURE**

The Ambatovy Joint Venture is a vertically-integrated nickel and cobalt mining, processing, refining and joint venture between subsidiaries of Sherritt, Sumitomo and KORES. Sherritt now holds a 12% interest in the Ambatovy Joint Venture. Located in Madagascar, the Ambatovy Joint Venture is the largest finished nickel and finished cobalt operation from lateritic ore in the world.

Commissioning and start-up of the plant facilities were completed in 2012. In February 2014, the Ambatovy Joint Venture reached commercial production. The Ambatovy Joint Venture (12% basis) incurred a loss from operations of \$33.54 million on revenue of \$87.22 million for the year end December 31, 2019 compared to a loss from operations of \$40.86 million on revenue of \$101.16 million for the year ended December 31, 2018. Capital spending of \$12.5 million (12% basis) at the Ambatovy Joint Venture focused on improving plant reliability and addressing corrosion issues, purchasing mining equipment, completing mine development works, continuing construction of the tailings management facility, and completing process improvement projects. Full year production in 2019 (100% basis) was 33,733 tonnes of finished nickel. Annual production rates are projected to vary throughout the life of the mine, largely dependent on ore grades and timing of major plant maintenance events.

The Ambatovy Joint Venture is comprised of (i) a mine and an ore preparation plant located in the immediate vicinity of the ore bodies near Moramanga in eastern central Madagascar, (ii) a pipeline, approximately 220 kilometres long, to transport the mined laterite ore in the form of prepared slurry from the ore preparation plant at the mine to the processing plant which is located just south of the port city of Toamasina, (iii) a processing plant, including a refinery, that produces LME-grade finished nickel, as well as cobalt metal and (iv) port operations at the Port of Toamasina.

## **Ownership and Financing**

The Corporation acquired its former 40% interest in the Ambatovy Joint Venture through its acquisition of Dynatec in 2007. As at December 31, 2019, the Ambatovy Joint Venture was considered to be an associate of the Corporation. As such, the Corporation's 2019 audited consolidated financial statements, including comparative figures, include the Corporation's equity interest in the

Ambatovy Joint Venture's assets and earnings (loss) as a single line item on the statement of financial position and statement of comprehensive income, respectively.

The Ambatovy Joint Venture initially borrowed US\$2.1 billion (US\$1.6 billion as at December 31, 2019) to finance construction under the Ambatovy Financing Agreements. All of the Ambatovy Joint Venture's assets and the interests of its shareholders in the Ambatovy Joint Venture have been pledged as security for this financing. In 2015, the outstanding project financing debt became non-recourse to the Ambatovy Partners, including the Corporation, subject to the senior lenders of the Ambatovy Joint Venture (the "Ambatovy Senior Lenders") continuing security interest in the Ambatovy Joint Venture's assets and the interests of its shareholders therein.

In September 2019, the Ambatovy Joint Venture financing lenders agreed to defer principal repayments until June 2022. The maximum amount eligible for deferral is US\$1,130 million (100% basis) and is subject to an additional 2% accrued interest calculated from June 2019 onwards. If the maximum amount is deferred, semi-annual principal repayments of US\$94.0 million (100% basis) will recommence in June 2022 through to June 2024, increasing to US\$188.0 million (100% basis) semi-annually in December 2024 through to June 2027. The Ambatovy Joint Venture continues to pay semi-annual interest payments in June and December. Deferred principal and 2% accrued interest amounts may be repaid earlier based on Ambatovy Joint Venture cash flow generation. Total interest payments of US\$81.3 million were made to the lenders during the year ended December 31, 2019 (US\$76.2 million for the year ended December 31, 2018). Sumitomo and KORES have committed up to US\$335.0 million of funding to the Ambatovy Joint Venture during the deferral period.

A portion of the Corporation's pro rata shareholder funding for the Ambatovy Joint Venture construction was initially provided by the other Ambatovy Partners through subordinated partner loans with a 15-year term at an interest rate of LIBOR plus 1.125% (the "Initial Partner Loans"). The Initial Partner Loans (\$142.5 million, in principal, as at December 31, 2019) are generally repayable by Sherritt at maturity in August 2023 and are secured by Sherritt's interest in the Ambatovy Joint Venture, which is subordinate to the security interests therein held by the Ambatovy Senior Lenders.

On June 24, 2009 the Corporation finalized arrangements with the other Ambatovy Partners to fund a further portion of the Corporation's pro rata share of shareholder funding for the Ambatovy Joint Venture. The arrangements created a mechanism by which the other Ambatovy Partners provided new loans to a wholly-owned subsidiary of Sherritt to fund a portion of the Corporation's pro rata shareholder funding obligations (the "Additional Partner Loans", together with the Initial Partner Loans, the "Partner Loans").

Sherritt ceased funding the Ambatovy Joint Venture in December 2015 and over the course of 2015 through 2017, Sherritt undertook discussions with the other Ambatovy Partners to restructure its interest in the Ambatovy Joint Venture. On December 12, 2017, Sherritt announced the closing of the Ambatovy Restructuring, a restructuring of the Ambatovy Joint Venture that resulted in the transfer by Sherritt of a 28% interest in the Ambatovy Joint Venture and the elimination of the Additional Partner Loans from Sherritt's balance sheet. Sherritt retains a 12% ownership interest in the Ambatovy Joint Venture, which will continue to secure the Initial Partner Loans. The Initial Partner Loans can be repaid in cash at any time through to maturity. As a result of modifications to repayment terms effected by the restructuring referenced below, at maturity, Sherritt can elect to: (i) repay the loans in cash, (ii) repay the loans in shares or a combination of cash and shares at 105% of the amount then due, or (iii) repay in 10 equal semi-annual principal installments (plus interest) commencing in December 2024, at an interest rate of LIBOR +5% applied from the original August 2023 maturity date. For additional information please see the risks entitled "Risks Related to Sherritt's Investment in the Ambatovy Joint Venture" and "Restrictions in Debt Instruments, Debt Covenants and Mandatory Repayments", and "Risks Related to Non-Implementation of the Transaction" in section 3.8 "Risk Factors".

In March 2019, as a result of management's decision not to fund a cash call by the Ambatovy Joint Venture, Sherritt became a defaulting shareholder under the Ambatovy Shareholders Agreement. As a result of such default, among other things, the following: (a) Sherritt is not receiving any Ambatovy Joint Venture distributions; (b) Sherritt has lost its voting rights at the Ambatovy Joint Venture's Executive Committee, its corporate boards of directors and its shareholder meetings; (c) Sherritt has lost its right to attend and be represented at meetings of the Ambatovy Joint Venture's Executive Committee and its corporate boards of directors (although as a matter of fact, it presently continues to be invited to such meetings); (d) Sherritt may be required to

offer its 12% shareholder interest pro rata to the other Ambatovy Partners who have the right to purchase at the lower of fair market value and book value; (e) the other Ambatovy Partners can elect to cure Sherritt's funding deficit by funding on Sherritt's behalf, in which case such funding is deemed to be a loan to Sherritt, payable on demand, which accrues interest at LIBOR +3% and is limited recourse to Sherritt's interest in the Ambatovy Joint Venture and repayable from future distributions; (f) the other Ambatovy Partners can elect to dilute Sherritt's interest by converting such deemed loans or by funding on Sherritt's behalf and electing dilution of Sherritt's interest, without any deemed loan; and (g) the other Ambatovy Partners can elect to fund additional subordinated debt to the Ambatovy Joint Venture, which accrues interest at a preferential rate and is repaid in priority to all other shareholder distributions ("Preferred Debt"). In the event that any of the other Ambatovy Partners elect to purchase the Corporation's interest pursuant to paragraph (d), there can be no assurance that the Corporation will receive any proceeds once such purchase price is offset against amounts outstanding under the Initial Partner Loans. Preferred Debt lenders under paragraph (g) can also elect to exercise an enhanced dilution remedy entitling them to an equivalent amount of subordinated shareholder loans (and to the extent such loans are not available, equity) held by the defaulting shareholder for nil consideration. This enhanced dilution mechanism may not alter the defaulting shareholder's equity interest, but could have a significant adverse effect on other shareholders' future distributions from the Ambatovy Joint Venture and its effective economic interest therein. Sherritt is not expecting to resume funding of the Ambatovy Joint Venture, and therefore, subject to discussions and agreement to the contrary with the other Ambatovy partners, it is expected that Sherritt will continue to be a defaulting shareholder under the Shareholders Agreement. During the 12 months ended December 31, 2019, Sherritt did not fund cash calls received from the Ambatovy Joint Venture totalling US\$27.0 million based on its 12% share of total cash calls to the Ambatovy Joint Venture partners.

Sherritt has been appointed operator of the facilities under an operating agreement and has committed in that agreement to remain as operator of the Ambatovy joint venture until at least 2024. However, its role is subject to the provisions of the agreement and the direction of the Ambatovy Executive Committee, and as a result of the reduction of Sherritt's interest in the Ambatovy Joint Venture to 12% and the loss of its voting rights described immediately above, Sherritt's operational and financial influence at Ambatovy is now limited.

As discussed in Section 1.1 "Three-Year History", the Corporation has announced a Transaction that would, among other things, exchange the Ambatovy Joint Venture assets for the Ambatovy Joint Venture Initial Partner Loans, or exchange the Initial Partner Loans for amended loans with the same principal but without recourse to Sherritt. If approved, and Sherritt exchanges its Ambatovy Joint Venture assets, Sherritt would no longer have an ownership interest in the Ambatovy Joint Venture and could cease to be operator of the facilities.

#### **Joint Venture Costs**

The Ambatovy Joint Venture has required ongoing shareholder funding, due to, among other reasons, weak nickel prices and production rates.

As part of the Ambatovy Restructuring, Sherritt provided funding for its 12% interest retroactively to December 2015 and at closing of the Ambatovy Restructuring paid approximately US\$38 million to fulfill non-funding to closing, including accrued interest. Sherritt also made a payment at closing of approximately US\$10 million into an escrow account to cover potential future funding requirements of the Ambatovy Joint Venture.

In 2018, US\$9.6 million (\$12.2 million), of post-financial completion funding was provided to the Ambatovy Joint Venture and the escrow account was fully depleted in satisfying these calls for partner financing.

Ambatovy cash calls due during the year ended December 31, 2019 amounted to US\$224.7 million (100% basis), with funding of US\$197.7 million provided by Ambatovy Joint Venture partners Sumitomo and KORES. Sherritt did not fund its 12% share of cash calls of US\$27.0 million during the year ended December 31, 2019. As a result, Sherritt is a defaulting shareholder and does not hold Ambatovy Joint Venture voting rights.

If additional cash funding is required, Sherritt does not anticipant providing any such funding based on Ambatovy's current debt structure. For additional information please see the risks entitled Risks Related to Sherritt's Investment in the Ambatovy Joint

Venture", "Restrictions in Debt Instruments, Debt Covenants and Mandatory Repayments", and Risks Related to Non-Implementation of the Transaction in section 3.8 "Risk Factors".

### **Property**

Certain technical information with respect to the Ambatovy Joint Venture project, being the Ambatovy and Analamay deposits, is contained in Schedule 'B' - Technical Information attached hereto.

### **Ambatovy Joint Venture**

## Mining Concessions

The Ambatovy Joint Venture was granted a mining permit for the mine site on September 7, 2006. This permit is valid for 40 years. The permit allows for the extraction of nickel, cobalt, copper, platinum, zinc, and chrome. An annual permit fee of approximately US\$72,340 (253,562,400 MGA) (plus VAT) was paid to the Malagasy Government in 2019.

#### Mineral Reserves and Mineral Resources

The Mineral Reserve and Resource data below is derived from the NI 43-101 compliant technical report entitled "NI 43-101 Technical Report on the Ambatovy Nickel Project in Madagascar" with an effective date of June 30, 2018 (the "Ambatovy **Technical Report"**) and has been reviewed by Bryce Reid, P.Eng., a "qualified person(s)" (as such term is defined in NI 43-101), who is an employee of the Corporation. Changes to the Mineral Reserve and Resource estimates from those contained in the Ambatovy Technical Report reflect adjustments made for depletion and stockpile movements.

The Mineral Resource and Reserve Estimates set out below are based on an updated block model, which is referred to in the Ambatovy Technical Report. The updated block model includes data from drilling results from 2009 onward and divides the resource into eight difference ore types, based on nickel and cobalt price, as well as cost of acid for extraction to allow for more efficient mining and a more detailed understanding of the resource. The Mineral Resource and Reserve Estimates included in this AIF have a lower mineral grade and lower tonnage compared to the previous Ambatovy Mineral Resource and Reserve Estimates. The reserves reported in the 2018 AIF were based on Run of Mine (ROM) estimates while the reserves reported in the current AIF are based on Run of Plant (ROP). The ROM mineral reserve is the portion of the mineral resource that has been shown to be economically mineable, while the economics are determined on the basis of the ROP. Losses in the Ore Preparation Plant account for the majority of the difference between ROM and ROP. The estimates are based on a 10-year average weighted price of US\$6.82/lb for nickel, as compared to the base price of US\$7.37/lb used in the previous estimates. The updated model is expected to run through 2040. For more information regarding the Ambatovy Mineral Resource and Reserve Estimates please refer to the Ambatovy Technical Report.

The following table provides a summary of the Proven and Probable Reserves for the Ambatovy Joint Venture (100% basis), as of December 31, 2019.

				Co	ntained Metal
Reserve Classification(1)(2),(3)(4)(5)	Tonnage	Ni	Со	Ni	Со
	(millions of tonnes)	(%)	(%)	(000 t)	(000 t)
Proven	39.2	0.89	0.08	349.5	30.4
Probable	85.3	0.87	0.08	738.9	68.9
Total Proven and Probable Reserves	124.5	0.88	0.08	1,096.0	99.6

#### Notes:

- (1) Mineral Reserve estimates are based on a cut-off grade of 0.45% nickel. All assumptions, parameters and methods used to estimate the Mineral Reserves are disclosed in the Ambatovy Technical Report. Cobalt grade does not enter into the definition of reporting cut-off grade since the majority of the Ambatovy Joint Venture's revenue comes from nickel.
- (2) Totals may not sum exactly due to each component number being rounded to its nearest decimal.
- (3) Mineral Reserves include materials that have been mined and stockpiled at the mine site, and that, as of December 31, 2019, had not yet been slurried and pumped down the pipeline to the processing plant at Toamasina.

- (4) Mineral Reserves are based upon an average mill processing rate of 6.1 Mt/y.
- Mineral Reserves were calculated on a 10 year weighted average price of US\$6.82/lb and a cobalt price of US\$25.23/lb.

The Ambatovy Joint Venture also has rights to additional Mineral Resources which have not been sufficiently drilled to allow for the detailed economic analysis required to qualify as Mineral Reserves. Measured and Indicated Resources exclusive of the Mineral Reserves also include encumbrances, some of which may eventually be economically mineable and will be reviewed in the course of the Ambatovy Joint Venture's five-year planning process.

The following table provides a summary of the Mineral Resources that are inclusive of Mineral Reserves for the Ambatovy Joint Venture (100% basis) as of December 31, 2019.

Resource Classification (inclusive of the					
Mineral Reserves)	Tonnage	Ni	Co	Ni	Co
	(millions	(%)	(%)	(000 t)	(000 t)
	of tonnes)				
Measured	46.3	0.96	0.08	444.5	37.0
Indicated	126.9	0.91	0.08	1,154.8	101.5
Stockpiles	12.7	0.77	0.06	97.8	7.6
Total Measured and Indicated					
Resources <sup>(1)</sup>	185.9	0.91	0.08	1,697.1	146.2
Inferred	68.7	0.85	0.08	584.0	55.0
Note:					

Mineral Resource estimates are based on a cut-off grade of 0.45% nickel. Cobalt grade does not enter into the definition of reporting cut-off grade since the majority of the Ambatovy Joint Venture's revenue comes from nickel. All assumptions, parameters and methods used to estimate the Mineral Reserves are disclosed in the Ambatovy Technical Report.

Due to the uncertainty which may attach to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Resource will be upgraded to an Indicated or Measured Resource as a result of continued exploration. Confidence in the estimate is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability.

The majority of the Inferred Resource at the Ambatovy Joint Venture is attributable to limonite material on the fringes of the ore body and saprolite material that is located at the base of the limonite material.

For details regarding the extent to which the estimates of mineral resources and reserves may be materially affected by external factors, please see section 3.8 "Risk Factors - Uncertainty of Resources and Reserve Estimates".

## 3.8 Risk Factors

Before making any investment decision, investors should carefully consider all the information contained in this Annual Information Form. An investment in securities of the Corporation is subject to certain risks, including risks related to the business of the Corporation, risks related to mining operations and oil and natural gas operations and risks related to the Corporation's securities described below and in this Annual Information Form. These risks may not be the only risks faced by the Corporation. Additional risks and uncertainties not presently known by the Corporation or which are presently considered immaterial may also adversely impact the Corporation's business, results of operations, and financial performance.

## MARKET CONDITIONS AND LIQUIDITY

## **Commodity Risk**

Sherritt's principal businesses include the sale of several commodities. Revenues, earnings and cash flows from the sale of nickel, cobalt, oil and gas, and fertilizers are sensitive to changes in market prices, over which the Corporation has no control. The Corporation's earnings and financial condition depend largely upon the market prices for nickel, cobalt, oil, gas, fertilizer and

other commodities, which are volatile. Significant reductions in commodity prices or sustained low commodity prices could have a material adverse effect on the Corporation's business, results of operations and financial performance. The prices for commodities produced by the Corporation can be affected by numerous factors beyond the Corporation's control, including expectations for inflation, speculative activities, relative exchange rates to the U.S. dollar, production activities of mining and oil and gas companies, global and regional supply and demand, supply and market prices for substitute commodities, international trade dynamics and disputes, political and economic conditions, and production costs in major producing regions. The prices for these commodities have fluctuated widely in recent years. Forecasts of commodity prices can prove to be inaccurate as factors such as supply and demand fundamentals (including the potential growth in the electric vehicle market), speculative market participation by financial entities, and structural and economic changes may not behave as predicted.

Sherritt's current businesses are dependent upon commodity inputs such as natural gas, sulphur, sulphuric acid, coal, electricity, fuel oil, diesel, limestone and related products, and materials that are subject to prevailing commodity prices. Costs and earnings from the use of these products are sensitive to changes in market prices over which Sherritt has no control.

#### **Securities Market Fluctuations and Price Volatility**

The securities markets in Canada and elsewhere can experience significant price and volume volatility which can affect the prices of Sherritt's securities. The prices of Sherritt's securities have been, and may continue to be, affected by this market volatility, as well as varying in response to a number of other events and factors. These factors may include, but are not limited to: the price of commodities; political and macro-economic factors; Sherritt's operating performance; the public's reaction to the Corporation's press releases, other public announcements and the Corporation's filings with the various securities regulatory authorities; and changes in earnings estimates or recommendations by research analysts who trade the Shares or the shares of other companies in the resource sector.

Securities of the Corporation listed on these markets or traded over the counter can experience wide fluctuations which are not necessarily related to the operating performance, underlying asset values or prospects of the Corporation. Such securities can be affected by a number of factors outside the Corporation's control and which affect the price and value of securities more generally, these factors may include, but are not limited to: changes in interest rates, tax policy, international trade dynamics and disputes, political and macro-economic factors and economic growth rates. As such, the Corporation's securities have been, and could continue to be, subject to significant volatility in trading volumes and market prices. There can be no assurance that the market price of the Corporation's securities will accurately reflect the value of the Corporation's underlying assets and future business prospects at any time (including the value of its interests in commodities and their current and forecasted market prices).

## Liquidity and Access to Capital

Sherritt's ability to fund its capital and operating expenses and to meet its financial obligations depends on being able to generate sufficient cash flow from its operations and its ability to obtain additional financing and/or refinance its existing credit facilities and loans on terms that are acceptable to the Corporation. As noted in the risk factor entitled "Commodity Risk" above, Sherritt's earnings and financial condition are highly dependent upon the market prices for nickel, cobalt, oil, gas and other commodities, which are highly volatile in nature. Depending upon commodity prices in particular, Sherritt may find itself unable to access sufficient capital to fund its operations in the manner required for the long-term viability of the business and/or remain in compliance with its debt covenants. There can be no assurance that Sherritt will have sufficient funds to repay its Debentures at maturity, nor can there be any assurance that Sherritt will be able to refinance its Debentures or raise funds in the equity capital markets on terms and conditions that would be acceptable. Failure to provide adequate funds to its operations, execute growth strategies, replace depleted reserves or meet or refinance its financial obligations could have a material adverse effect on Sherritt's business, results of operations and financial performance.

We are currently monitoring the potential short and medium-term impacts of the COVID-19 virus, including for example supplychain, mobility, workforce, market and trade flow impacts, as well as the resilience of Canadian, Cuban and other global financial markets to support recovery. Any longer term impacts will also be considered and monitored, as appropriate. The Chinese market is a significant source of global demand for commodities, including nickel and cobalt. A sustained slowdown in China's growth or demand, or a significant slowdown in other markets, in either case, that is not offset by reduced supply or increased demand from

other regions could have an adverse effect on the price and/or demand for our products. The COVID-19 virus and efforts to contain it may have a significant effect on commodity prices and demand and potentially broader impacts on the global economy. There can be no assurance that COVID-19 will not have a material adverse effect on Sherritt's business, results of operations and financial performance.

Sherritt's current financing includes, among other things, the Syndicated Facility. The total available draw under the Syndicated Facility is based on eligible receivables and inventory. If prices for nickel and cobalt decline, this could result in a material reduction in the amount of funding available under the Syndicated Facility. Certain debt covenants under the Syndicated Facility are based on ratios involving the Corporation's EBITDA and/or interest expense and other covenants require the maintenance of minimum cash balances. The Corporation's ability to satisfy these covenants could also be negatively affected by decreases in commodity prices. As a result, there can be no assurance that this Syndicated Facility can be extended or renewed at any time, or otherwise replaced with a different credit facility on similar terms, or that required consent or waivers under the Syndicated Facility will be provided without concessions on the part of the Corporation or at all.

Agencies of the Cuban government have significant payment obligations to the Corporation in connection with the Corporation's Oil and Gas, Moa Joint Venture and Power operations in Cuba. This exposure to the Cuban government and its potential inability to timely or fully pay such amounts could have a material adverse effect on the Corporation's financial condition and results of operations. Please see the risk factor entitled "Risks Related to Sherritt's Operations in Cuba" for additional information.

Please see the risk factor entitled "Restrictions in Debt Instruments, Debt Covenants and Mandatory Repayments" for more information on Sherritt's loans and borrowings and on the effect of non-compliance with certain debt covenants.

#### Risks Related to Non-Implementation of the Transaction

As disclosed in the "Three-Year-History" section of this Annual Information Form, subsequent to year end, the Corporation announced a Transaction aimed at improving the Corporation's liquidity, reducing debt levels and building balance sheet strength. The Corporation cautions that it can make no assurances as to whether the Transaction will be completed and if not, whether an agreement with respect to an alternative transaction may be reached, or the terms or timing of any such potential transaction.

Future liquidity and operations of the Corporation are dependent on the ability of the Corporation to repay its debt obligations and to generate sufficient operating cash flows to fund its on-going operations. If the Corporation does not complete the reduction of debt contemplated by the Transaction, it may be necessary to pursue other options or alternatives that could have a negative effect on the Corporation. Certain risk factors relating to the non-implementation of the Transaction include: (a) the Corporation may have limited ability to raise additional capital on market terms with its current capital structure, (b) the Corporation's existing capital structure with existing maturities may limit the options and alternatives for the Corporation to maximize value to all stakeholders or to pursue various operational improvements or other strategic initiatives, and (c) the Corporation may incur a number of significant costs related to the Transaction, including professional fees, regardless of whether or not the Transaction is consummated.

In the event that the Transaction is not implemented, the Corporation's total debt would not be reduced by approximately \$414 million, the associated reduction in debt service costs would not be achieved and the Corporation would need to evaluate all of its options related to any future court proceedings or other alternatives to address liquidity and leverage issues which exist today. In the event the Transaction is not completed, the value available to stakeholders may be significantly reduced. Counterparties to agreements with the Corporation and/or its subsidiaries may take the position that the CBCA Proceedings, the Transaction and/or related steps or actions taken by the Corporation in respect thereof may result in potential defaults under agreements to which the Corporation and/or its subsidiaries are a party. The Interim Order (defined below) granted in the CBCA Proceedings provides a stay of proceedings until the earlier of the closing of the Transaction or the termination of the CBCA Proceedings, staying, among other things, any action with respect to any default or event of default under the Debentures (including, without limitation, any non-payment of interest or other amounts payable), any default or event of default under the Initial Partner Loans, or any default under any other agreement with Sherritt or any of its direct or indirect wholly-owned subsidiaries as a result of the CBCA Proceedings, the Transaction or any cross-default due to a default under the Debentures or Initial Partner Loans, provided that the stay of proceedings under the Interim Order does not apply to the lenders or administrative

agent under the Corporation's Syndicated Facility. Third parties may take steps in connection with any defaults under the Corporation's or the Corporation's subsidiaries' agreements, including debt agreements, in the event the CBCA Proceedings are terminated and the Transaction has not been implemented.

## RESTRICTIONS IN DEBT INSTRUMENTS, DEBT COVENANTS AND MANDATORY REPAYMENTS

Sherritt is a party to certain agreements in connection with the Syndicated Facility, as well as the trust indenture governing the Debentures (collectively, the "Indenture"). Sherritt is also a party to various agreements with the Ambatovy Senior Lenders relating to the Ambatovy Financing Agreements. In addition, Sherritt is a debtor under the Initial Partner Loans that were used to fund part of Sherritt's contributions to the Ambatovy Joint Venture. These agreements and loans contain covenants which could have the effect of restricting Sherritt's ability to react to changes in Sherritt's business or to local and global economic conditions. In addition, Sherritt's ability to comply with these covenants and other terms of its indebtedness may be affected by changes in the Corporation's business, local or global economic conditions or other events beyond the Corporation's control. Failure by Sherritt to comply with any of the covenants contained in the Indenture, the Syndicated Facility, the Ambatovy Financing Agreements, the Initial Partner Loans or any future debt instruments or credit agreements, could materially adversely affect the Corporation's business, results of operations, and financial performance.

The Initial Partner Loans (\$142.5 million, in principal, as at December 31, 2019) are generally repayable by Sherritt at maturity in August 2023 and are secured by Sherritt's interest in the Ambatovy Joint Venture, which is subordinate to the security interests therein held by the Ambatovy Senior Lenders. Certain events under the Initial Partner Loans trigger a mandatory prepayment of the loans within 30 trading days of such event, including an enforcement by the Ambatovy Senior Lenders of their security interests over the Ambatovy Joint Venture shares following a default under the Ambatovy Financing Agreement. In such cases, Sherritt has the option to prepay in cash or in Shares, provided its Shares are trading on the TSX at the time of payment and subject to applicable TSX rules (including applicable shareholder approval requirements) or with a mix of cash and Shares. The Initial Partner Loans can be repaid in cash at any time through to maturity. At maturity, Sherritt can elect to: (i) repay the loans in cash, (ii) repay the loans in shares or a combination of cash and shares at 105% of the amount then due, or (iii) repay in 10 equal semi-annual principal installments (plus interest) commencing in December 2024, at an interest rate of LIBOR +5% applied from the original August 2023 maturity date.

Should the Ambatovy Joint Venture not be able to make the required interest or principal payments under, or is otherwise in default of, the Ambatovy Financing Agreements and the Ambatovy Senior Lenders elect to enforce any of their security interests over the Ambatovy Joint Venture shares, this would trigger the mandatory pre-payment of the Initial Partner Loans and otherwise potentially give rise to an event of default under the Initial Partner Loans with the resulting obligation to repay any outstanding Initial Partner Loans. In such a circumstance, Sherritt has the option to repay in cash or, provided its Shares are trading on the TSX at the time of payment and subject to applicable TSX rules, including shareholder approval requirements, in Shares. Unless the lenders otherwise agree, the Initial Partner Loans also require repayment in cash within five business days in the event of the sale of all or substantially all of the assets of Sherritt, the acquisition of more than 50% of the Shares or a corporate restructuring of Sherritt. Repayment of the Initial Partner Loans in cash could have significant consequences for Sherritt's liquidity and would materially adversely affect the Corporation's business, results of operations and financial performance. In those cases where it has the option, if Sherritt repays all or any portion of the Initial Partner Loans in Shares this could result in significant dilution to existing shareholders depending on the prevailing Share price at the time of payment.

The Ambatovy Senior Lenders' recourse under the Ambatovy Joint Venture Financing Agreements, including for repayment of semi-annual principal and interest, is limited to the Ambatovy Joint Venture and Sherritt's and the other Ambatovy Partners' interests therein.

Under the terms of the Initial Partner Loans, if Sherritt becomes a defaulting shareholder under the terms of the Ambatovy Joint Venture Shareholders Agreement (the "Shareholders Agreement"), for example, by failing to fund a cash call, a cross-default to the Initial Partner Loans would be triggered and the lenders under such loans could, among other things, elect to accelerate repayment. In March 2019, as a result of management's decision not to fund a cash call by the Ambatovy Joint Venture, Sherritt became a defaulting shareholder under the Ambatovy Shareholders Agreement and it has remained a defaulting shareholder thereafter. Due to the limited recourse nature of the Initial Partner Loans in such circumstances, any acceleration as a result of this

default will not require Sherritt to repay the loans until maturity and the lenders' recourse is effectively limited to their subordinated security interest over Sherritt's interest in, and future distributions from, the Ambatovy Joint Venture until that time. As at the date hereof, the Initial Partner Loan lenders have not accelerated the Initial Partner Loans or indicated any intention to do so. However, there can be no assurance that they will not do so in the future.

Furthermore, if Sherritt is a defaulting shareholder under the terms of the Shareholders Agreement, triggering a cross-default to the Initial Partner Loans, this could trigger a cross-default under the Syndicated Facility. Similarly, a cross-default under the Syndicated Facility could also be triggered if there was an event of default under the Initial Partner Loans or Ambatovy Financing Agreements. As noted above, Sherritt has become a defaulting shareholder under the Shareholders Agreement, triggering a cross-default to the Initial Partner Loans. This could trigger a cross-default under the Syndicated Facility, however, the Corporation has obtained a waiver under the Syndicated Facility, to the maturity thereof, from all cross-defaults under the Initial Partner Loans and the Syndicated Facility that could be triggered by Sherritt having become a defaulting shareholder under the Shareholders Agreement. However, a cross-default under the Syndicated Facility could be triggered if there was another event of default under the Initial Partner Loans or an event of default under the Ambatovy Financing Agreements.

If a cross-default to the Initial Partner Loans is triggered by a breach of the Shareholders' Agreement, and the lenders under those loans were to accelerate repayment, although generally such acceleration would not require repayment by Sherritt until after maturity, it could in turn trigger a cross-default under the Indenture. An event of default under the Initial Partner Loans, including the failure to make a mandatory prepayment, would also trigger a cross-default under the Indenture. Such a cross-default under the Indenture could result in acceleration of the Debentures unless the default is cured by repaying the Initial Partners Loans or is waived in accordance with the Indenture. Sherritt may not have sufficient cash and short term investments to repay all or any portion of the amounts outstanding under any or all series of outstanding Debentures (in the aggregate, \$588.1 million principal amount as at December 31, 2019) and there can be no assurance that Sherritt could refinance such amounts. An acceleration of the Debentures would, in turn, trigger an event of default under the Syndicated Facility. Accordingly, acceleration of any one or more series of Debentures could materially adversely affect the Corporation's business, results of operations, and financial performance.

The Interim Order granted by the Ontario Superior Court of Justice (Commercial List) on February 26, 2020 (the "Interim Order") in the CBCA Proceedings in connection with the Transaction provides a stay of proceedings until the earlier of the closing of the Transaction or the termination of the CBCA Proceedings, staying, among other things, any action with respect to any default or event of default under the Debentures (including, without limitation, any non-payment of interest or other amounts payable), any default or event of default under the Initial Partner Loans, or any default under any other agreement with Sherritt or any of its direct or indirect wholly-owned subsidiaries as a result of the CBCA Proceedings, the Transaction or any cross-default due to a default under the Debentures or Initial Partner Loans, provided that the stay of proceedings under the Interim Order does not apply to the lenders or administrative agent under the Corporation's Syndicated Facility.

In connection with the Transaction, the Corporation does not anticipate making further scheduled interest payments in respect of the Debentures, and all accrued and unpaid interest in respect of the Debentures shall be addressed as part of the exchange of the Debentures pursuant to the Transaction. Pursuant to the terms of the Indenture, the non-payment of interest would result in a default under the Indenture following the expiry of the applicable cure period. The Interim Order granted in the Corporation's CBCA Proceedings, among other things, stays any actions in respect of any such default under the Indenture. In addition, third parties may not respect the Interim Order under the CBCA Proceedings and may take steps to violate or contest the Interim Order, in particular related to the stay in connection with any defaults under the Corporation's or the Corporation's subsidiaries' agreements, including debt agreements.

## RISKS RELATED TO SHERRITT'S INVESTMENT IN THE AMBATOVY JOINT VENTURE

In March 2019, as a result of management's decision not to fund a cash call by the Ambatovy Joint Venture, Sherritt became a defaulting shareholder under the Ambatovy Shareholders Agreement. As a result of such default, among other things, the following: (a) Sherritt is not receiving any Ambatovy Joint Venture distributions; (b) Sherritt has lost its voting rights at the Ambatovy Joint Venture's Executive Committee, its corporate boards of directors and its shareholder meetings; (c) Sherritt has lost its right to attend and be represented at meetings of the Ambatovy Joint Venture's Executive Committee and its corporate boards

of directors (although as a matter of fact, it presently continues to be invited to such meetings); (d) Sherritt may be required to offer its 12% shareholder interest pro rata to the other Ambatovy Partners who have the right to purchase at the lower of fair market value and book value; (e) the other Ambatovy Partners can elect to cure Sherritt's funding deficit by funding on Sherritt's behalf, in which case such funding is deemed to be a loan to Sherritt, payable on demand, which accrues interest at LIBOR +3% and is limited recourse to Sherritt's interest in the Ambatovy Joint Venture and repayable from future distributions; (f) the other Ambatovy Partners can elect to dilute Sherritt's interest by converting such deemed loans or by funding on Sherritt's behalf and electing dilution of Sherritt's interest, without any deemed loan; and (g) the other Ambatovy Partners can elect to fund Preferred Debt. In the event that any of the other Ambatovy Partners elect to purchase the Corporation's interest pursuant to paragraph (d), there can be no assurance that the Corporation will receive any proceeds once such purchase price is offset against amounts outstanding under the Initial Partner Loans. Preferred Debt lenders under paragraph (g) can also elect to exercise an enhanced dilution remedy entitling them to an equivalent amount of subordinated shareholder loans (and to the extent such loans are not available, equity) held by the defaulting shareholder for nil consideration. This enhanced dilution mechanism may not alter the defaulting shareholder's equity interest, but could have a significant adverse effect on other shareholders' future distributions from the Ambatovy Joint Venture and its effective economic interest therein. Although Sherritt remains Operator of the Ambatovy Joint Venture through an operating agreement, its role is subject to the provisions of that agreement and the direction of the Ambatovy Executive Committee, and as a result Sherritt's operational and financial influence at Ambatovy is now limited. Sherritt is not expecting to resume funding of the Ambatovy Joint Venture, and therefore, subject to discussions and agreement to the contrary with the other Ambatovy partners, it is expected that Sherritt will continue to be a defaulting shareholder under the Shareholders Agreement. During the 12 months ended December 31, 2019, Sherritt did not fund cash calls received from the Ambatovy Joint Venture totalling US\$27.0 million based on its 12% share of total cash calls to the Ambatovy Joint Venture partners. Please see the risk factor entitled "Restrictions in Debt Instruments, Debt Covenants and Mandatory Repayments" for more information about other risks associated with Sherritt's non-funding of the Ambatovy Joint Venture.

The Ambatovy Joint Venture borrowed US\$2.1 billion (US\$1.6 billion as at December 31, 2019) under the Ambatovy Financing Agreements and all of the Ambatovy Joint Venture's assets and the interests of its shareholders in the Ambatovy Joint Venture have been pledged as security for the financing. In September 2019, the Ambatovy Joint Venture financing lenders agreed to a three-year principal deferral and an extension to June 2027. In conjunction with this deferral, Sumitomo and KORES have committed up to US\$335.0 million of funding to the Ambatovy Joint Venture during the deferral period. Nevertheless, there can be no assurance that the Ambatovy Joint Venture will not require additional financing in the future. Although the Ambatovy Joint Venture has successfully secured sufficient financing from its shareholders and third party lenders in the past, there can be no assurance that it will be successful in securing additional financing or creditor concessions when required or on favourable terms. If the Ambatovy Joint Venture is unable to continue operations, this would have a material adverse effect on Sherritt's investment in the Ambatovy Joint Venture, and could have a material adverse effect on the Corporation's business, results of operations and financial performance.

Due to the Ambatovy Joint Venture's current and projected funding requirements, in a persistently low nickel price environment there can be no certainty that Sherritt will receive any distributions from the Ambatovy Joint Venture. Whether as a result of Sherritt not funding future cash calls or otherwise, Sherritt's interest in the Ambatovy Joint Venture and entitlements to future distributions could be at risk and there is no assurance that it will be able to retain all or any portion of its 12% interest or entitlement to future distributions, which could have a materially adverse effect on the Corporation's business, results of operations, and financial performance.

As a result of Sherritt's indirect 12% interest in the Ambatovy Joint Venture Sherritt is indirectly subject to the political, economic and social risks related to Ambatovy's operations in Madagascar.

In 2002, the government of Madagascar passed the LGIM, which is legislation to manage large-scale mining projects. The Ambatovy Joint Venture is the first and currently the only project to be developed under the LGIM's terms and provisions, which have been largely untested. Although the Ambatovy Joint Venture has received its eligibility certification under the LGIM, it is possible that the LGIM could be interpreted or amended in a manner that has a material adverse effect on the Ambatovy Joint Venture. In addition, there can be no assurance that the Malagasy Mining Code will not be amended in a manner which could adversely affect the Ambatovy Joint Venture.

Madagascar has a history of political instability and there is no assurance that continuing political stability will be achieved. The Malagasy government may continue to have direct or indirect impact on the Ambatovy Joint Venture and may adversely affect the Corporation's business. Any changes in regulations or shifts in political attitudes are beyond the control of Sherritt and may adversely affect its business. Operations may be affected in varying degrees by the Government of Madagascar's regulations with respect to production, price controls, export controls (including the recent requirement for the registration of imports and exports), income taxes or investment tax credits, tax reimbursements, royalties and fees, expropriation of property, environmental legislation, land use, water use and mine and plant safety or changes to the LGIM.

Madagascar is one of the poorest countries in the world, with low levels of economic activity and high levels of unemployment. These conditions are conducive to social unrest and instability that could, under certain circumstances, have an impact on the Ambatovy Joint Venture's ability to produce and export its products. The Ambatovy Joint Venture continues to foster active working relations with relevant Malagasy authorities and civil society to mitigate social risk, maintain its social license, and facilitate operational activities.

In addition, the operations of the Ambatovy Joint Venture in Madagascar are conducted in environmentally sensitive areas. In particular, the mine footprint is partly on first growth forest and portions of the pipeline traverse environmentally sensitive areas. Although the Ambatovy Joint Venture believes it is currently in material compliance with applicable laws, there can be no guarantee that it will remain in compliance or that applicable laws or regulations will remain the same.

Please see the risk factors entitled "Market Conditions – Commodity Risk", "Depletion of Reserves", "Mining, Processing and Refining Risks", "Operating Risks", "Transportation", "Reliance on Key Personnel and Skilled Workers", Equipment Failure and Other Unexpected Failures", "Uncertainty of Resources and Reserve Estimates", "Environmental Risks and Liabilities", "Project Operations", "Foreign Exchange and Pricing Risks", "Environment, Health and Safety", "Climate Change/Greenhouse Gas Emissions", Community Relations and Social License to Grow and Operate", "Shortage of Equipment and Supplies", "Competition in Product Markets", Future Market Access", "Interest Rate Changes", "Insurable Risk", "Labour Relations", "Legal Rights", "Legal Contingencies", "Accounting Policies", "Government Permits", "Risks to Information Technologies Systems and Cybersecurity", "Government Regulation", which are risks that are also applicable to the Ambatovy Joint Venture, other than as they relate to oil and gas or Cuban operations.

## RISKS RELATED TO SHERRITT'S OPERATIONS IN CUBA

The Corporation directly or indirectly holds significant interests in mining, metals processing, exploration for and production of crude oil and the generation of electricity in Cuba. The operations of the Cuban businesses and the ability of the Cuban government to fulfil payment obligations to the Corporation may be affected by economic and other pressures on Cuba. Risks include, but are not limited to, fluctuations in official or convertible currency exchange rates, access to foreign exchange, and high rates of inflation and the impact of the COVID-19 virus on Cuba and the Cuban tourist industry. In addition, the incumbent U.S. administration has increased its sanctions against Cuba and its trading partners and these measures have had an adverse impact on Cuba and its economy, as well as its ability to conduct international trade. Changes in regulations and political attitudes are beyond the control of Sherritt and may adversely affect its business. Operations may be affected in varying degrees by such factors as Cuban government regulations with respect to currency conversion, production, project approval and execution, price controls, import and export controls, income taxes or reinvestment credits, expropriation of property, environmental legislation, land use, water use and mine and plant safety.

Operations in Cuba may also be affected by the fact that, as a Caribbean nation, Cuba regularly experiences hurricanes and tropical storms of varying intensities. The risk of damage is dependent upon such factors as intensity, footprint, wind direction and the amount of precipitation associated with the storm and tidal surges. While the Corporation, its joint venture partners and agencies of the Government of Cuba maintain comprehensive disaster plans and the Corporation's Cuban facilities have been constructed to the extent reasonably possible to minimize damage, there can be no guarantee against severe property damage and disruptions to operations.

There is increased demand from downstream customers that electronics, automotive and other manufactures demonstrate that their product supply chains are ethical and responsible. Such responsible sourcing requirements are affecting the metals sector

broadly. Requests for assurance of a responsible cobalt supply chain from the refinery to the mine site are increasingly being received by downstream customers of the Corporation. The Corporation believes that its supply of minerals is ethical and responsible and in order to demonstrate this the Corporation is engaged in activities to implement policies and due diligence systems to independently verify that its mineral supply chain conforms with internationally accepted best practices. While the Corporation is committed to demonstrating a responsible supply of minerals, the Corporation has no control over the purchasing decisions of its customers or the factors on which they are based and there is no quarantee that the Corporation's efforts will mitigate this potential risk. Please see also the risk factor entitled "Risks Related to U.S. Government Policy Towards Cuba - The U.S. Embargo".

The Cuban government has allowed, for more than two decades, foreign entities to repatriate profits out of Cuba. However, there can be no assurance that allowing foreign investment and profit repatriation will continue or that a change in economic conditions will not result in a change in the policies of the Cuban government or the imposition of more stringent foreign investment or foreign exchange restrictions. Such changes are beyond the control of Sherritt and the effect of any such changes cannot be accurately predicted.

All sales of Sherritt's oil production in Cuba are made to an agency of the Government of Cuba, as are all electricity sales made by Energas. The access of the Cuban government to foreign exchange is severely limited. As a consequence, from time to time, the Cuban agencies have had difficulty in discharging their foreign currency obligations. During such times, Sherritt has worked with these agencies in order to ensure that Sherritt's operations continue to generate positive cash flow to the extent possible. However, there is a risk, beyond the control of Sherritt, that receivables and contractual performance due from Cuban entities will not be paid or performed in a timely manner, or at all. Notwithstanding efforts by Sherritt, overdue receivables owed by Cuban entities to Sherritt increased from US\$152.5 million at the beginning of 2019 to US\$158.4 million as at December 31, 2019. In addition, if any of these agencies or the Cuban government are unable or unwilling to conduct business with Sherritt, or satisfy their obligations to Sherritt, Sherritt could be forced to close some or all of its Cuban businesses, which could have a material adverse effect upon Sherritt's results of operations and financial performance.

Sherritt is entitled to the benefit of certain assurances received from the Government of Cuba and certain agencies of the Government of Cuba that protect it in many circumstances from adverse changes in law, although such changes remain beyond the control of the Corporation and the effect of any such changes cannot be accurately predicted.

## RISKS RELATED TO U.S. GOVERNMENT POLICY TOWARDS CUBA

The United States has maintained a general embargo against Cuba since the early 1960s, and the enactment in 1996 of the Cuban Liberty and Democratic Solidarity (Libertad) Act (commonly known as the "Helms-Burton Act") extended the reach of the U.S. embargo.

### The U.S. Embargo

In its current form, apart from the Helms-Burton Act, the embargo applies to most transactions involving Cuba, Cuban enterprises, and Cuban nationals and it bars all persons "subject to the jurisdiction of the United States" from participating in such transactions unless such persons have general or specific licenses from the U.S. Department of the Treasury ("U.S. Treasury") authorizing their participation in the transactions. Persons "subject to the jurisdiction of the United states" include U.S. citizens, U.S. residents, individuals or enterprises located in the United States, enterprises organized under U.S. laws and enterprises owned or controlled by any of the foregoing. Subsidiaries of U.S. enterprises are subject to the embargo's prohibitions. The embargo also targets dealings directly or indirectly involving entities deemed to be owned or controlled by Cuba and listed as specially designated nationals ("SDNs"). The three entities constituting the Moa Joint Venture in which Sherritt holds an indirect 50% interest have been deemed SDNs by U.S. Treasury. Sherritt, however, is not an SDN. The U.S. embargo generally prohibits persons "subject to the jurisdiction of the United States" from engaging in transactions involving the Cuban-related businesses of the Corporation. Furthermore, generally U.S.-origin technology, U.S.-origin goods, and many goods produced from U.S.-origin components or with U.S.-origin technology cannot under U.S. law be transferred to Cuba or used in the Corporation's operations in Cuba. Additionally, the embargo also prohibits imports into the United States of Cuban-origin goods, or of foreign goods made or derived, in whole or in part, of Cuban-origin goods, including Cuban nickel. In 1992, Canada issued an order pursuant to the Foreign Extraterritorial

*Measures Act* (Canada) to block the application of the U.S. embargo under Canadian law to Canadian subsidiaries of U.S. enterprises. However, the general embargo limits Sherritt's access to U.S. capital, financing sources, customers, and suppliers.

#### The Helms-Burton Act

Separately from the general provisions of the embargo summarized above, the Helms-Burton Act authorizes sanctions on non-U.S. individuals or entities that "traffic" in Cuban property that was confiscated from U.S. nationals or from persons who have become U.S. nationals. The term "traffic" includes various forms of use of Cuban property as well as "profiting from" or "participating in" the trafficking of others.

The Helms-Burton Act authorizes damage lawsuits to be brought in U.S. courts by U.S. claimants against those "trafficking" in the claimants' confiscated property. All Presidents of the United States in office since the enactment of the Helms-Burton Act have suspended the right of claimants for successive six-month periods until the incumbent U.S. administration ceased such suspensions and allowed Title III to come into effect on May 2, 2019. Since that time a number of lawsuits have been filed pursuant to Title III in the United States against companies in the U.S., Canada and elsewhere. The Corporation has received letters in the past from U.S. nationals claiming ownership of certain Cuban properties or rights in which the Corporation has an indirect interest, including in relation to claims certified by the U.S. Foreign Claims Settlement Commission. However, no lawsuits against Sherritt have been initiated or threatened. In the event that any such lawsuits were to be filed, Sherritt does not believe that its operations would be materially affected because Sherritt's minimal contacts with the United States would likely deprive any U.S. court of personal jurisdiction over Sherritt. Furthermore, even if personal jurisdiction were exercised, any successful U.S. claimant would have to seek enforcement of the U.S. court judgment outside the U.S. in order to reach material Sherritt assets. Management believes it unlikely that a court in Canada or in any country in which Sherritt has material assets would enforce a Helms-Burton Act judgment against it.

The Foreign Extraterritorial Measures Act (Canada) was amended as of January 1, 1997 to provide that any judgment given under the Helms-Burton Act will not be recognized or enforceable in any manner in Canada and certain other countries implemented "blocking statutes" at that time. The amendments to the Canadian statute permit the Attorney General of Canada to declare, by order, that a Canadian corporation may sue for and recover in Canada any loss or damage it may have suffered by reason of the enforcement of a Helms-Burton Act judgment abroad. In such a proceeding, the Canadian court could order the seizure and sale of any property in which the defendant (i.e., a claimant under the Helms-Burton Act) has a direct or indirect beneficial interest, or the property of any person who controls or is a member of a group of persons that controls, in law or in fact, the defendant. The property seized and sold could include shares of any company incorporated under the laws of Canada or a province.

The Government of Canada also responded to the Helms-Burton Act through diplomatic channels. Other countries, such as the members of the European Union and the Organization of American States, have expressed their strong opposition to the Helms-Burton Act as well.

Nevertheless, the threat of potential litigation creates a distraction from constructive business operations and may discourage some potential investors, lenders, suppliers and customers from doing business with Sherritt and there can be no assurance that any litigation against Sherritt pursuant to the Helms Burton Act would not ultimately be successful or have a material adverse effect on Sherritt's business, results of operations or financial performance.

In addition to authorizing private lawsuits, the Helms-Burton Act also authorizes the U.S. Secretary of State and the U.S. Attorney General to exclude from the United States those aliens who engage in certain "trafficking" activities, as well as those aliens who are corporate officers, principals, or controlling shareholders of "traffickers" or who are spouses, minor children, or agents of such excludable persons. The U.S. Department of State has deemed Sherritt's indirect 50% interest in Moa Nickel S.A. to be a form of "trafficking" under the Helms-Burton Act. In their capacities as officers of the Corporation, certain individuals have been excluded from entry into the U.S. under this provision. Management does not believe the exclusion from entry into the U.S. of such individuals will have any material effect on the conduct of the Corporation's business.

The U.S. Department of State has issued guidelines for the implementation of the immigration provision, which state that it is "not sufficient in itself for a determination" of exclusion that a person "has merely had business dealings with a person" deemed to be "trafficking". Also, the statutory definition of "traffics" relevant to the Helms-Burton Act's immigration provision explicitly excludes "the trading or holding of securities publicly traded or held, unless the trading is with or by a person determined by the Secretary of the Treasury to be a specially designated national".

The embargo has been, and may be, amended from time to time, including the Helms-Burton Act, and therefore the U.S. sanctions applicable to transactions with Cuba may become more or less stringent. The stringency and longevity of the U.S. laws relating to Cuba are likely to continue to be functions of political developments in the United States and Cuba, over which Sherritt has no control. The incumbent U.S. administration has increased its sanctions against Cuba and its trading partners and these measures have had an adverse impact on Cuba and its economy, as well as its ability to conduct international trade. The pace and extent of any future changes are uncertain and beyond Sherritt's control. There can be no assurance that the general embargo and the Helms-Burton Act will not have a material adverse effect on the Corporation's business, results of operations or financial performance.

#### **IDENTIFICATION AND MANAGEMENT OF GROWTH OPPORTUNITIES**

In order to manage its current operations and any future growth effectively, Sherritt must examine opportunities to replace and expand its reserves through the exploration of its existing properties and through acquisitions of interests in new properties or of interests in companies which own such properties. The development of Sherritt's business will be in part dependent on management's ability to identify, acquire and develop suitable acquisition targets in both new and existing markets. In certain circumstances, acceptable acquisition targets might not be available. Sherritt may also not be able to identify suitable partners with whom it could make such acquisitions. Acquisitions involve a number of risks, including: (i) the possibility that the Corporation, as a successor owner, may be legally and financially responsible for liabilities of prior owners; (ii) the possibility that the Corporation may pay more than the acquired company or assets are worth; (iii) the additional expenses associated with completing an acquisition and amortizing any acquired intangible assets; (iv) the difficulty of integrating the operations and personnel of an acquired business; (v) the challenge of implementing uniform standards, controls, procedures and policies throughout an acquired business; (vi) the inability to integrate, train, retain and motivate key personnel of an acquired business; and (vii) the potential disruption of the Corporation's ongoing business and the distraction of management from its day-to-day operations.

Additionally, the future viability of the Corporation will also depend on its ability to implement and improve its operational, financial and management information systems and to hire, train, motivate, manage and retain its employees. If and when any such growth occurs, there can be no assurance that the Corporation will be able to manage such growth effectively, that its management, personnel or systems will be adequate to support the Corporation's operations or that the Corporation will be able to achieve the increased levels of revenue commensurate with increased levels of operating expenses associated with this growth, and failure to do so could have a material adverse effect on the Corporation's business, financial condition and results of operations.

#### **DEPLETION OF RESERVES**

Subject to any future expansion or other development, production from existing operations at the Corporation's mines and wells will typically decline over the life of the mine or well. As a result, Sherritt's ability to maintain or increase its current production of nickel, cobalt and oil and gas and generate revenues therefrom will depend significantly upon the Corporation's ability to discover or acquire and to successfully bring new mines and wells into production and to expand mineral and oil and gas reserves at existing or new operations. Exploration and development of mineral and oil and gas properties involves significant financial risk. Very few exploratory properties are developed into operating mines or wells. Whether a deposit will be commercially viable depends on a number of factors, including: the particular attributes of the deposit, such as size, grade and proximity to infrastructure; commodity prices, which are highly cyclical; political and social stability; and government regulation, including regulations relating to prices, taxes, royalties, land tenure, land use, importing and exporting of natural resources and supplies and environmental protection. Even if the Corporation identifies and acquires an economically viable deposit, several years may elapse from the initial stages of development. Significant expenses could be incurred to locate and establish reserves, to develop the required extractive processes and to construct mining facilities, drill wells and construct oil and gas processing facilities.

In November 2017 the PSC for Block II (Varadero West) reverted to the Cuban Government. Furthermore, the PSC for the PE-Yumuri Block will revert to the Cuban Government on March 20, 2021 and there is no assurance that this PSC can be further extended or replaced. The majority of future oil and gas production will depend on new reserves in Blocks 10, 8A and 6A and/or the ability to obtain and develop additional PSCs. Sherritt cannot provide assurance that its exploration or development efforts will result in any new commercial operations or yield new mineral or oil and gas reserves to replace or increase current reserves. Failure to obtain significant oil production on Blocks 10, 8A and 6A to replace Sherritt's currently declining and expiring production volumes could have a material adverse effect on Sherritt's financial condition and operations.

### **RELIANCE ON PARTNERS**

The Corporation holds its interest in certain projects and operations through joint ventures or partnerships. A failure by a partner to comply with its obligations under applicable partnership or similar joint venture arrangements, to continue to fund such projects or operations, a breakdown in relations with its partners or the decision of a partner to adopt a competing strategy could have a material adverse effect on the Corporation's business, results of operations and financial performance.

## MINING, PROCESSING AND REFINING RISKS

The business of mining, processing and refining involves many risks and hazards, including environmental hazards, industrial accidents, labour-force disruptions, supply problems and delays, unusual or unexpected geological or operating conditions, geology-related failures, change in the regulatory and geopolitical environment, weather conditions, floods, earthquakes and water conditions. Such occurrences could result in damage to, or destruction of, mineral properties or production facilities, personal injury or death, environmental damage, delays in mining, monetary losses and possible legal liability. As a result, Sherritt may incur significant liabilities and costs that could have a material adverse effect upon its business, results of operations and financial performance. In addition, failure to maintain high levels of safety, health and security could adversely affect the Corporation's operations, financial performance, reputation and social license to operate.

Other risks and uncertainties which could impact the performance of mining projects include factors such as the ore characteristics; adverse impacts from construction or commissioning activities on ongoing operations; and difficulties with commissioning, changing geological conditions and integrating the operations of newly constructed mines and processing facilities.

The Corporation's business is also inherently subject to the risk of disruptive successful technological change in nickel and cobalt processing or otherwise and to market shifts to substitute products.

### **OPERATING RISKS**

Variability in production at Sherritt's operations in Cuba is most likely to arise from the following categories of potential risk: (i) Parts and Equipment – the inherent risk that parts and equipment may fail or fail to perform in accordance with design due to mechanical or engineering issues (given the location and associated logistics, replacement components may not be immediately available); (ii) Operational Risk – production is directly affected by the performance of core operators and maintenance teams; (iii) Weather and Natural Disasters – risks related to increased frequency of severe weather events, including hurricanes in Cuba, and other natural disasters that can impede operations before, during and after such events; and (iv) Supply of Critical Commodities – production may be impacted by the availability of critical commodities to operate the facility.

Please see the Risk Factors entitled "Risks Related to Sherritt's Operations in Cuba" and "Climate Change/Greenhouse Gas Emissions" for additional information.

## **TRANSPORTATION**

Sherritt's operations depend on an uninterrupted flow of materials, supplies, equipment, services and finished products. Due to the geographic location of many of Sherritt's properties and operations, this flow is highly dependent on third parties for the provision of rail, port, marine, shipping and other transportation services. Sherritt negotiates prices for the provision of these services in circumstances where it may not have viable alternatives to using specific providers, or have access to regulated rate setting mechanisms. Contractual disputes, demurrage charges, classification of commodity inputs and finished products, rail,

marine and port capacity and infrastructure issues, availability of vessels and rail cars, weather problems, labour disruptions or other factors could have a material adverse effect on Sherritt's ability to transport materials according to schedules and contractual commitments and could have a material adverse effect on the Corporation's business, results of operations and financial performance.

In particular, the Corporation's metals process plants rely on access to rail, port and marine shipping for certain raw material inputs and for the export of products and fertilizers. These services are owned and operated by third parties, and in the case of rail and port access and in certain other circumstance, the Corporation may rely on a single supplier with no commercially reasonable alternative.

#### **UNCERTAINTY OF GAS SUPPLY TO ENERGAS**

Energas does not own the gas reserves contained in the Oilfields located in the vicinity of the Energas plant sites, nor does it control the rate or manner in which such gas reserves are produced. CUPET reserves the right to produce crude oil from such fields at such rates as the Government of Cuba deems appropriate in the national interest, which may affect the future supply of gas to Energas. Although the Corporation believes that generation of electricity will remain a key priority of the Government of Cuba and that the Oilfields will be operated in a manner which optimizes gas production, gas reserves are being depleted and there can be no certainty that sufficient quantities of gas will be available to operate the Energas facilities at maximum or economic capacity for the duration of the term of the Energas joint venture. Adequate future supplies of gas may depend, in part, upon the successful development of new oil fields in the vicinity of the Energas plant sites as the existing fields are being depleted or access to other viable fuel resources and the continuation of production practices designed to optimize the recovery of oil and gas reserves. No independent reserve report has been prepared with respect to gas reserves in Cuba, due to a lack of available technical information from CUPET.

### **RELIANCE ON KEY PERSONNEL AND SKILLED WORKERS**

Sherritt's operations require employees and contractors with a high degree of specialized technical, management and professional skills, such as engineers, trades people and plant and equipment operators. In some geographic areas, the Corporation competes with other local industries for these skilled workers. For example, in its Cuba operations, the Corporation is dependent on the government for the provision of skilled workers. This challenge is further intensified by high expectations, from the Cuban government and local communities, for Sherritt to provide local employment.

If Sherritt is unable to find an adequate supply of skilled workers, a decrease in productivity or an increase in costs may result which could have a material adverse effect on the Corporation's business, results of operations and financial performance. The success of Sherritt's operations and activities is dependent to a significant extent on the efforts and abilities of its senior management team, as well as outside contractors, experts and its partners. The loss of one or more members of senior management, key employees, contractors or partners, if not effectively replaced in a timely manner, could have a material adverse effect on the Corporation's business, results of operations and financial performance.

## **EQUIPMENT FAILURE AND OTHER UNEXPECTED FAILURES**

Interruptions in Sherritt's production capabilities would be expected to increase its production costs and reduce its profitability. The Corporation may experience material shutdowns or periods of reduced production because of equipment failures and this risk may be increased by the age of certain of the Corporation's facilities or facilities of third parties in which the Corporation's products are processed. In addition to equipment failures, the Corporation's facilities are also subject to the risk of loss due to unanticipated events such as fires, explosions or adverse weather conditions. Shutdowns or reductions in operations could have a material adverse effect on the Corporation's business, results of operations and financial performance. Remediation of an interruption in production capability could require the Corporation to make large expenditures. Further, longer-term business disruptions could result in a loss of customers. All of these factors could have a material adverse effect on the Corporation's business, results of operations and financial performance.

#### **UNCERTAINTY OF RESOURCES AND RESERVE ESTIMATES**

Sherritt has reserves of nickel, cobalt, oil and gas. Reserve estimates are imprecise and depend partly on statistical inferences drawn from drilling, which may prove to be unreliable. Future production could differ from reserve estimates for the following reasons:

- mineralization or formations could be different from those predicted by drilling, sampling and similar examinations;
- declines in the market price of nickel, cobalt, oil and gas or increases in operating costs and processing costs may render the production of some or all of Sherritt's reserves uneconomic;
- the grade or quality of reserves may vary significantly from time to time and there is no assurance that any particular level of nickel, cobalt, oil or gas may be recovered from the reserves; and
- legislative changes and other political changes in jurisdictions in which Sherritt operates may result in changes to Sherritt's ability to exploit reserves.

Any of these or other factors may require Sherritt to reduce its reserve estimates, reduce its production rates, or increase its costs. Past drilling results are not necessarily indicative of future drill results. Should the market price of any of the above commodities fall, or unit operating costs prove to be higher than expected, Sherritt could be required to materially write down its investment in its resource properties or delay or discontinue production or the development of projects.

#### **ENVIRONMENTAL RISKS AND LIABILITIES**

The Corporation is subject to risks related to environmental liability, including liability for reclamation costs and related liabilities, tailings facility failures and toxic gas releases. Mining, like many other extractive natural resource industries, is subject to potential risks and liabilities associated with the effects on the environment resulting from mineral development and production. Environmental regulation and increasing environmental awareness is broadening the scope of environmental stewardship responsibilities. The Corporation may be held responsible for the costs of addressing contamination at, or arising from, current or former activities. The costs associated with such responsibilities and liabilities may be substantial. The payment of such liabilities would reduce funds otherwise available and could have a material adverse effect on the Corporation.

Sherritt has estimated environmental rehabilitation provisions which management believes will meet current regulatory requirements. These future provisions are estimated by management using closure plans and other similar plans which outline the requirements that are expected to be carried out to meet the provisions. The provisions are dependent on legislative and regulatory requirements which could change. Because the estimate of provisions is based on future expectations, a number of assumptions and judgments are made by management in the determination of these provisions which may prove to be incorrect. As a result, estimates may change from time to time and actual payments to settle the provisions may differ from those estimated and such differences may be material.

The provision for costs incurred due to the October 31, 2013 breach at the Obed Mountain mine is subject to uncertainties. Such uncertainties are caused by the dynamic nature of a response effort, the range of remediation alternatives available and the corresponding costs of various cleanup methodologies and uncertainty regarding the extent and nature of the cost of remediation activities that may be necessary to meet the Corporation's obligations. While the Corporation's remediation activities are nearing completion, various factors such as adverse weather and temperature changes, could still escalate remaining costs.

The Corporation has an obligation under applicable mining, oil and gas and environmental legislation to reclaim certain lands that it disturbs during mining, oil and gas production or other industrial activities. The Corporation is required to provide financial security to certain government authorities or third parties for some of its future reclamation costs. Currently, the Corporation provides this reclamation security by way of bank guarantees, corporate guarantees and irrevocable letters of credit issued under its senior credit facilities. The Corporation may be unable to obtain adequate financial security or may be required to replace its existing security with more expensive forms of security, including cash deposits, which would reduce cash available for operations. In addition, any increase in costs associated with reclamation and mine closure or termination of oil and gas field operations resulting from changes in the applicable legislation (including any additional bonding requirements) could have a material adverse effect on the Corporation's business, results of operations and financial performance.

In 2002 Dynatec acquired Highwood Resources and in 2007 Sherritt International acquired Dynatec and its assets. This purchase included liabilities and reclamation obligations for three closed mine assets that are being administered by Sherritt International Corporation. Reclamation, monitoring, reporting, and contact with regulators is ongoing for each of the sites.

#### **RISKS RELATED TO SHERRITT'S CORPORATE STRUCTURE**

The Corporation holds its interest in certain operating companies, joint ventures or partnerships in Canada, Cuba, Madagascar, Spain, and Pakistan through one or more wholly-owned intermediary holding companies located in jurisdictions outside Canada, including the Bahamas, British Virgin Islands, Barbados, Spain and the Netherlands. Certain payments, including payment of dividends or other distributions by these subsidiaries to the Corporation is subject to statutory regimes applicable to those entities. There can be no assurance that the applicable Canadian government, or some or all of the holding company jurisdictions will not adopt laws and/or regulations more restrictive than those currently in effect which could have a material adverse effect on the Corporation's financial performance. Furthermore, the Corporation's offshore subsidiaries may face heightened scrutiny from tax authorities from time to time. While these jurisdictions have experienced political stability for some time, the Corporation continues to regularly monitor changes to applicable laws and regulations.

## POLITICAL, ECONOMIC AND OTHER RISKS OF FOREIGN OPERATIONS

Sherritt has operations located in Cuba and Spain, as well as corporate entities located in various other jurisdictions. There can be no assurance that assets of companies operating in industries which are deemed of national or strategic importance in the countries in which the Corporation operates or has assets, including energy, mineral and petroleum exploration, development and production, will not be nationalized. Changes in policy that alter laws regulating the mining, oil and gas or energy sectors could have a material adverse effect on the Corporation. There can be no assurance that the Corporation's assets in these countries will not be subject to nationalization, requisition or confiscation, whether legitimate or not, by an authority or body.

Sherritt is also subject to other political, economic and social risks relating to foreign operations which include, but are not limited to, forced modification or cancellation of existing contracts or permits, currency fluctuations and devaluations, unfavourable tax enforcement, changing political conditions, political unrest, civil strife, uncertainty regarding the interpretation and/or application of applicable laws in foreign jurisdictions, reliance on foreign advisors and consultants, and changes in governmental regulations or policies with respect to, among other things, currency, production, price controls, profit repatriation, export controls, labour, taxation, trade, and environmental, health and safety matters or the personnel administering those regulations or policies. Any of these risks could have a material adverse effect on the Corporation's business, results of operations and financial performance.

### **PROJECT OPERATIONS**

### Generally

Sherritt's business includes the operation of large mining, metals refining projects and electrical generation projects. Unforeseen conditions or developments could arise during the course of these projects that could affect the current and projected level of production, the sustaining capital requirements or operating cost estimates relating to the projects. Such conditions or developments may include, without limitation, shortages of equipment, materials or labour; delays in delivery of equipment or materials; customs issues; labour disruptions; poor labour productivity; community protests; difficulties in obtaining necessary services; delays in obtaining regulatory permits; local government issues; political events; regulatory changes; investigations involving various authorities; adverse weather conditions; unanticipated increases in equipment, material and labour costs; unfavourable currency fluctuations; access to financing; natural or man-made disasters or accidents; and unforeseen engineering, technical and technological design, geotechnical, environmental, infrastructure or geological problems. Any such event could affect production and cost estimates.

These risks and uncertainties could have a material adverse effect on the Corporation's business, results of operations and financial performance.

## **Capital and Operating Cost Estimates**

Capital and operating cost estimates made in respect of the Corporation's operations and projects may not prove accurate. Capital and operating costs are estimated based on the interpretation of geological data, feasibility studies, anticipated climatic conditions and other factors. Any of the following, among the other events and uncertainties described herein, could affect the ultimate accuracy of such estimates: unanticipated changes in grade and tonnage to be mined and processed; incorrect data on which engineering assumptions are made; unanticipated transportation costs; the accuracy of major equipment and construction cost estimates; expenditures in connection with a failure to meet such scheduled dates; unsatisfactory construction quality resulting in failure to meet such scheduled dates; labour negotiations; unanticipated costs related to sustaining production; changes in government regulation (including regulations regarding prices, cost of consumables, royalties, duties, taxes, permitting and restrictions on production quotas or exportation of the Corporation's products); and unanticipated changes in commodity input costs and quantities.

#### FOREIGN EXCHANGE AND PRICING RISKS

Many of Sherritt's businesses operate in currencies other than Canadian dollars and their products may be sold at prices other than prevailing spot prices at the time of sale. Sherritt is also sensitive to foreign exchange exposures when commitments are made to deliver products quoted in foreign currencies or when the contract currency is different from the product-pricing currency. The Moa Joint Venture derives the majority of its revenue from nickel and cobalt sales that are typically based on U.S. dollar reference prices over a defined period of time and collected in currencies other than U.S. dollars in accordance with sales terms that may vary by customer and sales contract. Similarly, Oil and Gas and Power derives substantially all of their revenues from sales in denominated in U.S. dollars. Additionally, input commodities for the Moa Joint Venture, the Fort Site and other operating costs for the Moa Joint Venture, the Fort Site and the Corporation's other operations are denominated in U.S. dollars. Accordingly, fluctuations in Canadian dollar exchange rates and price movements between the date of sale and final settlement may have a material adverse effect on the Corporation's business, results of operations and financial performance.

#### **ENVIRONMENT, HEALTH AND SAFETY**

Legislative Risks

The Corporation's worldwide operations are subject to extensive EH&S laws including: employee health and safety; air quality; soil quality; ground water quality; water quality and availability; the protection and enhancement of the environment (including the protection of plants and wildlife); land-use zoning; development approvals; the generation, handling, use, storage, transportation, release, disposal and cleanup of regulated materials, including wastes; and the reclamation and restoration of mining properties after mining is completed. The Corporation's operations are regulated by a variety of federal, provincial or state legislation and local by-laws. A breach of EH&S laws may result in the temporary suspension of operations, the imposition of fines, other penalties (including administrative penalties and regulatory prosecution) and government orders, which could potentially have a material adverse effect on operations.

EH&S laws require the Corporation to obtain certain operating licenses and impose certain standards and controls on the Corporation's activities, and on the Corporation's distribution and marketing of its products. Compliance with EH&S laws and operating licenses can require significant expenditures, including expenditures for pollution control equipment, cleanup costs and damages arising out of contaminated properties or as a result of other adverse environmental occurrences. There can be no assurance that the costs to ensure future or current compliance with EH&S laws would not materially affect the Corporation's business, results of operations or financial performance.

Sherritt believes that its projects currently are in material compliance with applicable laws. The Corporation endeavours to comply with international best practice at all of its projects, however, not all applicable laws conform with international best practice and accordingly there can be no assurance that certain projects will comply with international best practice from time to time or that international best practice will remain the same.

New or amended EH&S laws may further require the protection and enhancement of the environment, and, as a consequence, mining activities may be even more closely regulated. Such legislation and changes to legislation, as well as future interpretations

of laws and increased enforcement, may require substantial increases in mining equipment and operating costs and delays, interruptions or a termination of operations, the extent of which cannot be predicted.

The potential impact of evolving regulations, including on product demand and methods of production and distribution. is not possible to predict. However, the Corporation closely monitors developments and evaluates the impact such changes may have on the Corporation's financial condition, product demand and methods of production and distribution. Independently and through involvement in various associations, the Corporation responds to potential changes to EH&S laws by participating, as appropriate, in the public review process, thus ensuring the Corporation's position is understood and considered in the decisionmaking process. The Corporation seeks to anticipate and prepare for public and regulatory concerns well in advance of such projects. Communication with regulators and the public is considered a key tool in gaining acceptance and approval for new projects.

## Risk of Injury and Environmental Damage

The Corporation believes that safe operations are essential for a productive and engaged workforce and sustainable growth. The Corporation is committed to workplace incident prevention and makes expenditures towards the necessary human and financial resources and site-specific systems to ensure compliance with its health and safety policies. Any injuries that may occur are investigated to determine root cause and to establish necessary controls with the goal of preventing recurrence. While the Corporation has implemented extensive health and safety initiatives to ensure the safety of its employees, contractors and surrounding communities, there can be no assurance that such measures will eliminate the occurrence of accidents or other incidents which could result in personal injury or property damage or result in regulatory fines or civil suits.

There are certain risks associated with the failure of the tailings storage facilities or gas emissions which include but are not limited to: biological and land use impacts, material property and economic loss, serious health and safety impacts, regulatory censure, and public concern. The Corporation believes that it is taking every reasonable precaution to prevent such failures however, there can be no assurance that such incidents will not occur or that such incidents would not have a material adverse effect on the Corporation's business, results of operations or financial performance.

## **CLIMATE CHANGE/GREENHOUSE GAS EMISSIONS**

The Corporation's operations are subject to various laws regarding greenhouse gas emissions and climate change in the jurisdictions in which it operates. In Alberta, where the Moa Joint Venture's refinery is located, the Climate Leadership Plan, imposes a \$30/tonne carbon price which is to increase in real terms every year. These and similar requirements could significantly increase the cost of the operations either through the investment in pollution reduction equipment or carbon price payments. Alberta has also adopted a carbon levy which applies to the sale, importing, flaring etc. of fuels and committed to phasing-out coal-fired electricity by 2030, which could increase the Corporation's operating costs directly, through the purchase of electricity and indirectly should similar changes impact the Corporation's suppliers and customers in Alberta and elsewhere. In addition, uncertainty around when and how regulations may change or be adopted is not an ideal operating environment.

Over the last few years the frequency and impact of extreme weather events, such as hurricanes in Cuba pose increasing operating risks to the Corporation's facilities. The risk of damage is dependent upon such factors as intensity, footprint, wind direction and the amount of precipitation associated with the storm and tidal surges. While the Corporation maintains comprehensive disaster plans and its facilities have been constructed to the extent reasonably possible to minimize damage, there can be no guarantee against severe property damage and disruptions to operations.

Please refer to the section "Greenhouse Gas Emissions Framework" for more information on this topic.

## COMMUNITY RELATIONS AND SOCIAL LICENSE TO GROW AND OPERATE

The Corporation's relationship with the communities in which it operates is critical to ensure the future success of its existing operations and the further development of its projects. There is an increasing level of public concern relating to the perceived effect of mining activities on the environment and on communities impacted by such activities. Certain organizations and individuals are vocal critics of the resource industries and their practices. Adverse publicity generated by such organizations or

individuals related to extractive industries generally, or to the Corporation's operations specifically, could have an adverse effect on the Corporation's reputation or financial condition and may impact its relationship with the communities in which it operates. While the Corporation is committed to sustainable practices and has implemented certain initiatives with respect thereto, there is no quarantee that the Corporation's efforts will mitigate this potential risk.

#### **CREDIT RISK**

Sherritt's sales of nickel, cobalt, oil, gas, fertilizers and electricity expose the Corporation to the risk of non-payment by customers. Sherritt manages this risk by monitoring the creditworthiness of its customers, covering some exposure through receivables insurance, documentary credit and seeking prepayment or other forms of payment security from customers with an unacceptable level of credit risk. There are also certain credit risks that arise due to the fact that all sales of oil and electricity in Cuba are made to agencies of the Cuban government (see "Risks Related to Sherritt's Operations in Cuba"). Although Sherritt seeks to manage its credit risk exposure, there can be no assurance that the Corporation will be successful in eliminating the potential material adverse impacts of such risks.

## **SHORTAGE OF EQUIPMENT AND SUPPLIES**

The global demand for some of the equipment and related goods used in Sherritt's operations vary and may exceed supply. If equipment or other supplies cannot be procured on a timely or competitive basis, Sherritt's growth activities, production, development or operations could be negatively affected. Additionally, due to the location and nature of its operations, the Corporation may sometimes rely on a single supplier, with no commercial reasonable alternative available. Furthermore, due to increased U.S. sanctions on Cuba the Corporation's ability to obtain certain equipment and supplies, including fuel, in that country may be limited.

#### **COMPETITION IN PRODUCT MARKETS**

The business of mining, processing and refining is intensely competitive and even if commercial quantities of mineral resources are developed, a profitable market may not exist for the sale of these commodities. Sherritt competes with companies that may have greater assets and financial resources, and may be able to sustain larger losses than Sherritt to develop or continue business. The Corporation's competitive position is determined by its costs in comparison to those of other producers in the world. If Sherritt's costs increase relative to its competitors, its earnings may be adversely affected.

#### **FUTURE MARKET ACCESS**

Sherritt's access to markets in which it operates may be subject to ongoing interruptions and trade barriers due to policies and tariffs of individual countries and the actions of interest groups to restrict the import of certain commodities. There can be no assurance that Sherritt's access to these markets will not be restricted.

## **INTEREST RATE CHANGES**

The Corporation's exposure to changes in interest rates results from investing and borrowing activities undertaken to manage its liquidity and capital requirements. The Corporation has incurred indebtedness that bears interest at fixed and floating rates. There can be no assurance that the Corporation will not be adversely affected by interest rate changes.

### **INSURABLE RISK**

Sherritt employs risk management practices to reduce and mitigate operational risks and other hazard risks and exposures, although it is impossible to completely protect its operations from all such risks. The Corporation places types and an amount of insurance that it considers consistent with industry practice to the extent coverage is available and cost effective. Such coverage includes third party liability insurance and property and business interruption insurance. Such insurance, however, contains exclusions and limitations on coverage. Accordingly, the Corporation's insurance policies may not provide coverage for all losses related to the Corporation's business. The occurrence of losses, liabilities or damage not covered by insurance policies could have a material adverse effect on the Corporation's business, results of operations and financial performance.

Sherritt cannot be certain that insurance will be available to the Corporation, that appropriate insurance will be available on terms and conditions acceptable to the Corporation. The difficulty in obtaining certain levels of insurance has increased over time as a result of severe tailings losses, reduced market capacity due to the limited participation of insurers in certain industries and also to Cuba-based risks. To the extent that the occurrence of "natural catastrophes" world-wide has increased, coverage for weatherrelated events such as hurricanes and cyclones may become more difficult to obtain on terms and conditions satisfactory to the Corporation. In some cases, coverage is not available or considered too expensive relative to the perceived risk. The Corporation may also become liable for damages arising from unforeseen events which it cannot insure or chooses to self-insure. Costs incurred to repair uninsured damage or to pay associated liabilities may have a material adverse effect on the Corporation's business, results of operation and financial performance.

#### LABOUR RELATIONS

Some of the Corporation's employees are unionized. Strikes, lockouts or other work stoppages could have a material adverse effect on the Corporation's business, results of operations and financial performance. In addition, any work stoppage or labour disruption at key customers or service providers could impede the Corporation's ability to supply products, to receive critical equipment and supplies for its operations or to collect payment from customers encountering labour disruptions. Work stoppages or other labour disruptions could increase the Corporation's costs or impede its ability to operate one or more of its operations.

#### **LEGAL RIGHTS**

In the event of a dispute arising in respect of Sherritt's foreign operations, Sherritt may be subject to the exclusive jurisdiction of foreign courts or arbitration tribunals or may not be successful in subjecting foreign persons to the jurisdiction of courts in Canada or international arbitration. If Sherritt is unsuccessful in enforcing its rights under the agreements to which it is a party, it could have a material adverse effect on Sherritt's business, results of operations and financial performance.

### **LEGAL CONTINGENCIES**

Sherritt may become party to legal claims arising in the ordinary course of business, including as a result of activities of joint ventures in which it has an interest. There can be no assurance that unforeseen circumstances resulting in legal claims will not result in significant costs.

#### **ACCOUNTING POLICIES**

The Corporation's audited consolidated financial statements for the year ended December 31, 2019, filed on SEDAR, were prepared using accounting policies and methods prescribed by IFRS as issued by the International Accounting Standards Board. Significant accounting policies under IFRS are described in more detail in the notes to the audited consolidated financial statements.

Sherritt has internal controls over financial reporting. These controls are designed to provide reasonable assurance that transactions are properly authorized, assets are safeguarded against unauthorized or improper use, and transactions are properly recorded and reported. These controls cannot provide absolute assurance with respect to the reliability of financial reporting and financial statement preparation.

### **GOVERNMENT PERMITS**

Government approvals and permits are currently required in connection with a number of the Corporation's activities and further approvals and permits may be required. The duration and success of the Corporation's efforts to obtain permits are contingent upon many variables outside of the Corporation's control. Obtaining government permits may increase costs and cause delays depending on the nature of the activity to be permitted and the interpretation of applicable requirements implemented by the permitting authority. There can be no assurance that all necessary permits will be obtained and, if obtained, that the costs involved will not exceed the Corporation's estimates or that the Corporation will be able to maintain such permits. To the extent such approvals are not obtained or maintained, the Corporation may be prohibited from proceeding with planned drilling,

exploration, development or operation of properties which could have a material adverse effect on the Corporation's business, results of operations and financial performance.

#### RISKS TO INFORMATION TECHNOLOGIES SYSTEMS AND CYBERSECURITY

The Corporation may be negatively affected by cybersecurity incidents or other IT systems disruption. The Corporation relies heavily on its information technology systems including, without limitation, its networks, equipment, hardware, software, telecommunications, and other information technology (collectively, "IT systems"), and the IT systems of its vendors and third party service providers, to operate its business as a whole, including mining operations. Although the Corporation has not experienced any material losses to date relating to cybersecurity, or other IT systems disruptions, there can be no assurance that the Corporation will not incur such losses in the future. Despite the Corporation's mitigation efforts including implementing an IT systems security risk management framework, the risk and exposure to these threats cannot be fully mitigated because of, among other things, the evolving nature of cybersecurity threats. As a result, cybersecurity and the continued development and enhancement of controls, processes and practices designed to protect IT systems from cybersecurity threats remain a priority. As these threats continue to evolve, the Corporation may be required to expend additional resources to continue to modify or enhance protective measures or to investigate and remediate any cybersecurity vulnerabilities. Any cybersecurity incidents or other IT systems disruption could result in production downtimes, operational delays, destruction or corruption of data, security breaches, financial losses from remedial actions, the theft or other compromising of confidential or otherwise protected information, fines and lawsuits, or damage to the Corporation's reputation. Any such occurrence could have an adverse impact on the Corporation's financial condition and operations.

The Corporation may also be negatively impacted by the rise of disruptive technologies including robotics, automation, and data analytics should it not adapt to these technological advancements in a timely manner.

### **GOVERNMENT REGULATION**

The Corporation's activities are subject to various laws governing exploration, development, production, environment, taxes, labour standards and occupational health, mine safety, toxic substances and other matters. Mining, drilling and exploration activities are also subject to various laws and regulations relating to the protection of the environment. Although the Corporation believes that its activities are currently carried out in all material respects in accordance with applicable rules and regulations, no assurance can be given that new rules and regulations will not be enacted or that existing rules and regulations will not be applied in a manner that could limit or curtail production or development of the Corporation's properties or otherwise have a material adverse effect on the Corporation's business, results of operations and financial performance.

### **ANTI-CORRUPTION AND BRIBERY**

Sherritt is subject to Canada's *Corruption of Foreign Public Officials Act* (**"CFPOA"**), as well as various local anti-corruption laws. The CFPOA prohibits Canadian (and Canadian-controlled) corporations and their intermediaries from making or offering to make an improper payment of any kind to any kind of foreign public official, or any other person for the benefit of foreign public official, where the ultimate purpose is to obtain or retain a business advantage.

Sherritt's Anti-Corruption Policy prohibits the violation of the CFPOA and other applicable anti-corruption laws. Some of the Corporation's operations are located in jurisdictions where governmental and commercial corruption presents a significant risk. The Corporation uses a risk-based approach to mitigate risks associated with corruption which includes training for employees and the logging of government payments and interactions. Despite the safeguards the Corporation has put in place, there can be no assurance that violations of the CFPOA or other applicable anti-corruption law by the Corporation, its employees or agents will not occur. Such violations of the CFPOA could result in substantial civil and criminal penalties and could have a material adverse effect on the business, operations or financial results of the Corporation.

#### **Controls Relating to Corporate Structure Risk**

The Corporation has adopted several measures to ensure control of its wholly-owned subsidiaries and oversight of its non-controlled joint ventures. These measures are overseen by the Board, and implemented by the Corporation's senior management. Some of these measures are listed below.

#### Corporation's Control and Oversight of Subsidiaries and Joint Ventures

The Corporation's corporate structure has been designed to ensure that the Corporation controls, or has a measure of direct oversight over the operations of its subsidiaries and material joint ventures. Sherritt's subsidiaries which are engaged in its Oil and Gas and Power businesses in Cuba and elsewhere are wholly-owned by the Corporation and the Corporation directly controls the appointment of all the directors of these subsidiaries. In the case of the Corporation's material joint venture in Cuba, the Corporation directly controls the appointment of a number of directors which reflects its proportional ownership interest of its subsidiaries. The directors of the Corporation's subsidiaries or joint ventures who are appointed by the Corporation are ultimately accountable to the Corporation (as the shareholder appointing him or her), and therefore are accountable to the Board and senior management.

#### Appointment of Local Management

The Corporation's foreign subsidiaries which are engaged in its Oil and Gas and Power businesses are typically managed by a senior officer or employee of the Corporation who holds the most senior title or second most senior title in the local organization.

In addition, in the case of its material joint ventures, Sherritt has personnel seconded from the Corporation to the local organization and resident in the local jurisdiction, which provides a degree of oversight and control in the day-to-day operations which would not be present in a passive investment.

#### Strategic Direction

The Board is responsible for the overall stewardship of the Corporation and, as such, supervises the management of the business and affairs of the Corporation. More specifically, the Board is responsible for reviewing the strategic business plans and corporate objectives, and approving acquisitions, dispositions, investments, capital expenditures and other transactions and matters that are thought to be material to the Corporation including those of its material subsidiaries and joint ventures.

## Internal Controls over Financial Reporting

For significant operations in the foreign jurisdictions over which the Corporation has operational control ("foreign operations"), internal controls over financial reporting are designed to operate in accordance with Canadian business, accounting and internal control standards and practices. These foreign operations are subject to the same internal reporting processes, policies and timelines as the Corporation's domestic operations, specifically:

- (i) Foreign operations, specifically in Cuba, are under the senior leadership of persons or expatriates familiar with Canadian business, accounting and internal control standards and practices;
- (ii) The Corporation has established and oversees entity-wide policies and procedures which are generally applicable to all domestic and foreign operations;
- (iii) Each of the Corporation's foreign operations has its own audit committee which includes representation from the Corporation's management or from Canadian-based senior management;
- (iv) Foreign operations have a compliance department which undertakes periodic reviews of operations in accordance with the Corporation's compliance program. This program is directly overseen by corporate management who report to the Corporation's Audit Committee;

## 3. Description of the Business (cont.)

- (v) Each of the Corporation's foreign operations has an established National Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings* (**"NI 52-109"**) internal control over financial reporting evaluation program (overseen by corporate management) designed to address risks and identify controls specific to the local business, cultural and accounting environment;
- (vi) As part of its quarterly reporting process, the Corporation's foreign operations' management are required to provide corporate management with certifications based on Form 52-109F2, quarterly, and Form 52-109F1, annually. These certifications confirm that internal controls over financial reporting for the foreign operations are designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements of the foreign operations in accordance with the Corporation's generally accepted accounting principles. In addition, the foreign operations' management are required to report to corporate management any material weaknesses in internal control over financial reporting design and/or operating effectiveness;
- (vii) Internal control over financial reporting design and operating effectiveness at the foreign operations is evaluated annually by applying the Committee of Sponsoring Commissions of the Treadway Commission (COSO-2013) framework consistent with the Corporation's domestic operations;
- (viii) The Corporation's management reviews the foreign operations' reporting documents, certifications, disclosure controls and procedures checklists and internal control over financial reporting design/results of effectiveness testing memos and provides reports, as necessary, to the Board;
- (ix) Reporting documents containing material information of the foreign operations are reviewed quarterly by the Corporation's senior management and the Audit Committee;
- (x) Management undertakes independent, periodic reviews of the foreign operations' NI 52-109 compliance and reports to the Audit Committee;
- (xi) Periodic internal control reviews of the foreign operations are initiated by the Board using the Corporation's independent internal audit department (separate from the Corporation's NI 52-109 internal control over financial reporting compliance program) in accordance with identified priorities as per the annual internal audit plan; and
- (xii) The Corporation has established, among other policies governing operating activities, a code of conduct, reportable concerns and foreign anti-corruption policies which are applicable to the foreign operations.
- (xiii) As a result of management's decision not to fund a cash call by the Ambatovy Joint Venture, Sherritt became a defaulting shareholder under the Ambatovy Shareholders Agreement, resulting in, among other things, loss of Sherritt's voting rights at the Ambatovy board level. Although Sherritt remains operator of the Ambatovy Joint Venture through an operating agreement, its role is subject to the provisions of that agreement and the direction of the Ambatovy Executive Committee and, as a result, Sherritt's operational and financial influence at Ambatovy is now limited.

The Corporation has also taken steps to ensure that it is collecting the information required to comply with the *Extractive Sectors Transparency Measures Act* (**"ESTMA"**) which came into force on June 1, 2015 and applies to the parts of the Corporation's business engaged in extractive activities.

### Fund Transfers to the Corporation

Cash management is overseen by the Corporation's Canadian-based treasury department and in accordance with the Corporation's Delegation of Authority Policy. In addition to the internal control procedures identified above, the Corporation has implemented the following controls specific to the flow of funds between Canada and its foreign operations:

- (i) the Corporation's treasury department oversees or reviews the cash management policies specific to the foreign operations; and
- (ii) annually, operating effectiveness of cash management controls for the Corporation and its foreign operations are evaluated and, as necessary, results are reported to the Board as part of the Corporation's annual CEO/CFO certification process.

The Corporation's Anti-Corruption Policy contains specific references to prohibited uses of funds in foreign countries. Funds are transferred by the foreign subsidiaries to the Corporation pursuant to a variety of methods. In the case of wholly-owned subsidiaries, the Corporation has majority control of the boards of directors and therefore through the actions of the shareholders or boards of directors, is able to determine if and when funds are distributed. Funds are typically distributed, when available and appropriate, to the shareholders by way of dividends. Other distributions are made to repay principal and interest in accordance with various agreements between the Corporation and the subsidiaries or joint ventures.

In addition, the foreign subsidiaries may transfer funds to the Corporation for chargeback of costs undertaken on behalf of the foreign subsidiaries via intercompany invoices by the Corporation and repayment of loans related to project funding. The method of transfer varies and is dependent on the funding arrangement established between the Corporation and the applicable foreign subsidiary.

#### Removal of Directors of Subsidiaries

The removal of directors of subsidiaries is done in accordance with the laws of the jurisdiction in which the particular subsidiary is incorporated.

The agreements governing the operations of the Corporation's joint ventures set out the rights of the shareholders relating to the appointment and removal of directors of the applicable boards which are generally based on the Corporation's proportional ownership interest in each joint venture company.

#### Records Management of the Corporation and its Subsidiaries

The original minute books and corporate seals, where applicable, of the material foreign subsidiaries and joint ventures are kept at the offices of their representative agent in the local jurisdiction and/or the Corporation's head office in Toronto.

The corporate records of the material foreign subsidiaries and joint venture are maintained at their registered offices or operating sites. In certain circumstances, e.g., transaction record books, copies are also maintained at the Corporation's head office in Toronto.

## 4. Dividends

Dividends are payable on the Shares of the Corporation if and when declared by the Board.

Dividends are, and future dividends will be, designated as "eligible dividends" within the meaning given to that term in subsection 89(1) of the Income Tax Act (Canada).

As part of a comprehensive initiative to manage liquidity, the Board suspended the \$0.01 per share quarterly dividend, effective September 2015. The Corporation has not declared any dividends since that time.

## 5. Capital Structure

The Corporation's authorized share capital consists of an unlimited number of Shares. Each Share is entitled to one vote with respect to matters brought before shareholders for approval. In the event of dissolution, liquidation or winding up of the Corporation, whether voluntary or involuntary, or any other distribution of assets of the Corporation among its shareholders for the purpose of winding up its affairs, holders of the Shares will be entitled to receive the remaining property and assets of the Corporation.

## 5. Capital Structure (cont.)

The Corporation also has several series of senior unsecured Debentures outstanding:

- (a) the 8.00% Debentures (\$400 million in aggregate principal) issued November 2, 2011 pursuant to a trust indenture dated November 2011 between the Corporation and Computershare Trust Company of Canada, as trustee (as amended or supplemented, the "2011 Indenture") and a first supplemental indenture dated November 2, 2011. On October 10, 2014 the Corporation completed the purchase of \$150 million of the 8.00% Debentures and certain amendments to the 2011 Indenture (the "2014 Amendments") were adopted. In June 2016, the Corporation completed the repurchase of \$30 million of the 8.00% Debentures. On July 29, 2016 the maturity date of the 8.00% Debentures was extended by three years until November 15, 2021 pursuant to a court approved plan of arrangement under the *Canada Business Corporations Act*. The 2014 Amendments were amended and restated to reflect the extended maturity date (the "2016 Indenture"). The Corporation completed the purchase of \$50 million of the 8.00% Debentures on February 16, 2018 through the Dutch Auction.
- (b) the 7.50% Debentures (\$500 million in aggregate principal) issued September 24, 2012 pursuant to the 2011 Indenture and a second supplemental indenture dated September 24, 2012, as amended by the 2014 Amendments (the "Amended Indenture"). The Corporation completed the purchase of \$250 million of the 7.50% Debentures on October 10, 2014. On July 29, 2016 the maturity date of the 7.50% Debentures was extended by three years until September 24, 2023 pursuant to a court approved plan of arrangement under the *Canada Business Corporations Act*. The Amended Indenture was amended by the 2016 Indenture. The Corporation completed the purchase of \$44 million of the 7.50% Debentures on February 16, 2018 through the Dutch Auction and purchased an additional \$10 million of the 7.50% Debentures in May 2018.
- (c) the 7.875% Debentures (\$250 million in aggregate principal) issued October 10, 2014, pursuant to the Amended Indenture. On July 29, 2016 the maturity date of the 7.875% Debentures was extended by three years until October 11, 2025 pursuant to a court approved plan of arrangement under the *Canada Business Corporations Act*. The Amended Indenture was amended by the 2016 Indenture. The Corporation completed the purchase of \$27 million of the 7.875% Debentures on February 16, 2018 through the Dutch Auction.

As of December 31, 2019, \$169.6 million principal amount of the 8.00% Debentures, \$197.8 million principal amount of the 7.50% Debentures and \$220.7 million principal amount of the 7.875% Debentures were outstanding. The Amended Indenture under which the Debentures are issued contains covenants limiting the Corporation's ability and that of certain of its material subsidiaries to incur indebtedness, create certain security interests and sell assets, and restricting its ability and that of certain of its material subsidiaries to amalgamate or merge with a third party or transfer all or substantially all of its assets. The Indentures also contain covenants requiring an offer to purchase in a change in control.

The Amended Indenture contains optional redemption provisions and provide for customary events of default, which include non-payment of principal or interest, failure to comply with covenants, the bankruptcy or insolvency of the Corporation or a material subsidiary, unsatisfied final judgment against the Corporation or a material subsidiary in excess of 5% of the Corporation's net worth, and failure by the Corporation or a material subsidiary to pay or otherwise comply with the terms of other indebtedness which singly or in the aggregate is in excess of 5% of the net worth of the Corporation, which default results in an acceleration of such indebtedness.

The Debentures are direct, unsecured obligations of the Corporation which rank equally and rateably with each other and all other unsecured and unsubordinated indebtedness of the Corporation, except to the extent prescribed by law.

## Ratings

On February 27, 2020, following the Corporation's announcement of the Transaction, DBRS downgraded Sherritt's Issuer Rating to Selective Default from B and the Debenture rating to Default from CCC (high) with the related Recovery Rating discontinued and withdrawn. If the proposed Transaction is successfully completed, it is the Corporation's intention to seek a new rating from DBRS for the Issuer Rating for Sherritt and the Second Lien Notes.

DBRS's rating system ranges between "AAA" to "D". The definitions of the B and CCC ratings are published on DBRS's web site and are defined as follows:

B - "highly speculative credit quality. There is a high level of uncertainty as to the capacity to meet financial obligations."

CCC/CC/C - "very highly speculative credit quality. In danger of defaulting on financial obligations."

Credit ratings are not recommendations to purchase, sell or hold a financial obligation in as much as they do not comment on market price or suitability for a particular investor. Ratings are subject to revision or withdrawal at any time by the rating organization. Sherritt has paid DBRS its customary fees in connection with the provision of the above credit ratings. The Corporation has not made any payments to DBRS unrelated to the provision of their rating services for the past two years.

## 6. Market for Securities

Sherritt's Shares are listed and posted for trading on the TSX under the symbol "S". The Corporation's 8.00% Debentures, the 7.50% Debentures and the 7.875% Debentures trade in the over-the-counter bond market.

The following table sets out the 2019 monthly price ranges and volume data for the Shares and the price ranges for the 8.00% Debentures, the 7.50% Debentures and the 7.875% Debentures.

	Shares			8.00% Debentures <sup>(1)</sup>		7.50% Debentures <sup>(1)</sup>		7.875% Debentures <sup>(1)</sup>	
2019	High(\$)	Low(\$)	Volume	High(\$)	Low(\$)	High(\$)	Low(\$)	High(\$)	Low(\$)
January	0.53	0.40	25,961,200	81.00	80.00	73.00	72.00	68.00	67.00
February	0.53	0.41	18,353,400	81.00	80.00	72.00	71.00	67.00	66.00
March	0.50	0.40	19,347,200	81.00	80.00	72.00	70.00	67.00	65.00
April	0.46	0.19	41,276,400	80.00	68.00	70.00	60.00	65.00	55.00
May	0.25	0.18	65,197,100	58.00	25.00	50.00	22.00	50.00	22.00
June	0.21	0.17	16,121,300	47.00	41.00	34.00	29.00	33.00	28.00
July	0.33	0.20	25,982,700	47.00	44.00	35.00	33.00	33.00	32.00
August	0.32	0.22	21,155,200	47.00	40.00	35.00	27.00	33.00	25.00
September	0.37	0.29	13,987,100	48.00	43.00	35.00	32.00	33.00	29.00
October	0.32	0.24	9,796,200	46.00	46.00	35.00	35.00	33.00	33.00
November	0.25	0.18	11,435,300	46.50	43.00	33.00	32.00	31.00	30.00
December	0.20	0.17	13,464,700	46.00	37.00	32.00	22.00	30.00	19.00
Notes:									

<sup>(1)</sup> The highs and the lows for the 8.00% Debentures, the 7.50% Debentures and the 7.875% Debentures are provided by a particular dealer and therefore may not reflect all trading in such Debentures. Volume data is not available.

## 7. Directors and Officers

The following table sets forth, as at March 19, 2020, the names, place of residence and principal occupation of the directors of the Corporation and the period of service as a director of the Corporation.

ne and Place of Residence	Principal Occupation	Director Since	
Sir Richard Lapthorne(2)(3)	Chairman, Corporate Director	September 2011	
(London, England)			
Adrian Loader <sup>(1)(3)(5)</sup>	Corporate Director	July 2013	
(London, England)			
Timothy Baker <sup>(1)(3)(4)(5)</sup>	Corporate Director	May 2014	
(Ontario, Canada)			
David Pathe	President and Chief Executive Officer of the Corporation	January 2012	
(Ontario, Canada)			
Lisa Pankratz <sup>(1)(2)(3)(5)</sup>	Corporate Director	November 2013	
(British Columbia, Canada)			
John Warwick <sup>(2)(3)(4)</sup>	Corporate Director	June 2017	
(Ontario, Canada)			
Maryse Bélanger <sup>(1)(3)(4)</sup>	Corporate Director	February 2018	
(British Columbia, Canada)			
	(London, England) Adrian Loader <sup>(1)(3)(5)</sup> (London, England) Timothy Baker <sup>(1)(3)(4)(5)</sup> (Ontario, Canada) David Pathe (Ontario, Canada) Lisa Pankratz <sup>(1)(2)(3)(5)</sup> (British Columbia, Canada) John Warwick <sup>(2)(3)(4)</sup> (Ontario, Canada) Maryse Bélanger <sup>(1)(3)(4)</sup>	Sir Richard Lapthorne <sup>(2)(3)</sup> (London, England) Adrian Loader <sup>(1)(3)(5)</sup> (London, England) Timothy Baker <sup>(1)(3)(4)(5)</sup> Corporate Director (Ontario, Canada) David Pathe President and Chief Executive Officer of the Corporation (Ontario, Canada) Lisa Pankratz <sup>(1)(2)(3)(5)</sup> Corporate Director (British Columbia, Canada) John Warwick <sup>(2)(3)(4)</sup> Corporate Director (Ontario, Canada) Maryse Bélanger <sup>(1)(3)(4)</sup> Corporate Director	

#### Notes:

- (1) Member of the Reserves, Operations & Capital Committee.
- (2) Member of the Audit Committee.
- (3) Member of the Nominating and Corporate Governance Committee.
- (4) Member of the Environment, Health, Safety and Sustainability Committee.
- (5) Member of the Human Resources Committee.

Directors hold office until the next annual meeting of the shareholders of the Corporation.

The following sets out as at March 19, 2020 the principal occupations of the directors for the past five years and provides additional information about the directors:

**Timothy Baker** has served as a director of the Corporation since May 2014. Mr. Baker currently serves as a director of Antofagasta PLC as well as being the Chairman of Golden Star Resources Ltd. Mr. Baker also sits on the Compensation Committee of Antofagasta PLC. He retired from his positions as Executive Vice President and Chief Operating Officer of Kinross Gold Corporation in October 2010. Prior to joining Kinross in 2006, Mr. Baker was with Placer Dome, where he served in several key roles including Executive General Manager of Placer Dome Chile and of Placer Dome Tanzania, and Senior Vice President of the copper producing Compañia Minera Zaldivar. Mr. Baker also served as a director of Pacific Rim Mining Corp. (until November 2013), Augusta Resource Corporation (until October 2014), Eldorado Gold Corporation (until December 2012), and Alio Gold (formerly Rye Patch Gold) (until July 2019). Mr. Baker holds a B.Sc. (Geology) and the ICD.D certification from the Institute of Corporate Directors.

Maryse Bélanger has served as a director of the Corporation since February 2018. Ms. Bélanger has more than 30 years of experience in the global mining sector, with proven strengths in operational excellence, technical services and efficiency. Ms. Belanger also sits on the board of directors, and the compensation committees, of Plateau Energy Metals and Sigma Lithium Resources. She has also recently become a director of Pure Gold Mining. Previously, Ms. Bélanger served as the Chief Executive Officer and Managing Director of Mirabela Nickel Ltd., where she led the restructuring of the Santa Rita open pit nickel operations in Brazil. Ms. Bélanger holds a Bachelor of Science in Geology from Université du Québec à Chicoutimi and a graduate certificate in Geostatistics.

June 2014 to June 2016, Ms. Bélanger was the Chief Executive Officer and a member of the board of directors of Mirabela Nickel Limited (Mirabela). In September 2015, Mirabela filed for voluntary administration in Australia. Under the rules of the Australian Stock Exchange, there is a requirement for the directors of a listed company to confirm the entity will be a going concern for at

least 18 months looking forward. The significant decline in nickel prices and Mirabela's inability to secure third-party financing that it had been discussing with potential financiers made it economically impossible for Mirabela to continue trading. As a result, the board of directors of Mirabela decided to enter into voluntary administration.

Sir Richard Lapthorne has served as a director of the Corporation since September 2011. Sir Richard has served as a Finance Director or as Chairman of various FTSE 100 and non-quoted companies in the United Kingdom since 1986. He is currently the Chairman of CPP Group plc. global financial assistance product provider listed on the London Stock Exchange. He was the Chairman of Cable & Wireless Communications plc and Cable & Wireless plc. until 2016. Between June 2009 and April 2010, he served as Chairman of McLaren Group Limited. From 1996 to May 2003 he was Chairman of Amersham International plc (now GE Healthcare) having joined its board as a Non-executive Director in 1989. He was Finance Director of British Aerospace plc from July 1992 and Vice Chairman from April 1998 until his retirement in 1999. He is also a fellow of each of the Chartered Institute of Management Accountants, Chartered Institute of Certified Accountants and the Institute of Corporate Treasurers in the United Kingdom.

Adrian Loader has served as a director of the Corporation since July 2013. Mr. Loader has extensive international experience from Royal Dutch Shell in energy management, projects, strategy, business development and new market entry. He held regional responsibility for Royal Dutch Shell's operations in Latin America/Africa, Middle East/Far East and Europe. He was subsequently the Royal Dutch Shell Director responsible for Strategy and Business Development, as well as for Scenarios, Group Planning, Health, Safety & Environment, and External Affairs. Before retiring from Royal Dutch Shell at the end of 2007, Mr. Loader served as President and Chief Executive Officer of Shell Canada ("Shell Canada") where he was responsible, inter alia, for Shell Canada's oil sands open pit mining activities and their expansion. Mr. Loader has served on the following public company boards - Alliance-Unichem, Shell Canada Ltd., Alliance-Boots, Candax Energy Inc. and Compton Petroleum. In January 2008, he joined the Board of Toronto-based Candax Energy Inc. and was Chairman until June 2010. He then served as Chairman of Compton Petroleum, Calgary, until August 2012 and was also Chairman of the Board of Directors of Oracle Coalfields PLC, London (an international coal developer in Pakistan) from 2011 to 2016. He is currently a director of LarfargeHolcim Ltd. (a Swiss global supplier of cement and aggregates) and Alderon Iron Ore Corp. (a Canadian iron ore project developer), as well as the Chairman of Resero Gas Limited (a private UK company developing LNG to power projects). Mr. Loader is a Fellow of the Chartered Institute of Personnel and Development and holds a Master's degree in History from Cambridge University, England.

Lisa Pankratz has served as a director of the Corporation since November 2013. Ms. Pankratz has over 30 years' experience in the investment industry and capital markets in both executive and advisory capacities working with multinational and international companies. For over 18 years, she has served as a board member of corporations in the financial services and global media industries. Ms. Pankratz currently serves as Chair of the board of UBC Investment Management Trust Inc. Ms. Pankratz is also a member of the HSBC Independent Review Committee of HSBC Global Asset Management (Canada) Limited is a member of the Investment Committee and the Audit and Finance Committee of the Vancouver Foundation.

She previously served on the boards of IA Clarington Investments Inc. (2012-2018), The Canadian Museum for Human Rights (2009-2018), Canwest Media, Inc. (2005-2008), The Insurance Corporation of British Columbia (2001-2007), and was a member of the Accounting Policy and Advisory Committee advising the Ministry of Finance for the Province of British Columbia (2002-2004). From 2006 to 2010, Ms. Pankratz served as the President of Mackenzie Cundill Investment Management Ltd. and from 2002 until 2006 as the President, Chief Compliance Officer and Director of Cundill Investment Research Ltd. and the Chief Compliance Officer of The Cundill Group.

Ms. Pankratz is a Fellow of the Institute of Chartered Professional Accountants of British Columbia and a Chartered Financial Analyst charter holder. She received an Honours Bachelor of Arts in Business Administration from the Richard Ivey School of Business at the University of Western Ontario.

David Pathe has served as a director of the Corporation since January 2012. Mr. Pathe was appointed as President and Chief Executive Officer of the Corporation effective January 1, 2012 and was Chairman of the Corporation from June 13, 2017 to June 26, 2019. Prior to that, he served as Senior Vice President, Finance and Chief Financial Officer of the Corporation from

## 7. Directors and Officers (cont.)

March 2011, as Senior Vice President, General Counsel and Corporate Secretary from July 2009, as Vice President, General Counsel and Corporate Secretary from October 2008 and as Assistant General Counsel and Assistant Corporate Secretary from June 2007.

**John Warwick** has served as a director of the Corporation since June 2017. Mr. Warwick is a special advisor to Paradigm Capital Inc., as well as being a director and Chairman of NorZinc Ltd. where he is member of both the Compensation and Nominating and Governance committees. Prior to 2015, he was the Managing Director, Investment Banking, founding partner and Head of Corporate Finance of Paradigm Capital Inc. where he advised and assisted companies on financing and capital structure matters.

Prior to 1999, Mr. Warwick was Executive Vice President and Vice Chairman of Gordon Capital Corporation and previously a mining analyst at Burns Fry, where he was a top ranked base metals analyst, and Gardner Watson. Mr. Warwick is a CFA and holds an MBA from the University of Toronto.

The following table sets forth as at March 19, 2020 the names, province of residence and office of the executive officers of the Corporation.

Name and Province of Residence		Office with the Corporation
1.	David Pathe	President and Chief Executive Officer
	(Ontario, Canada)	
2.	Stephen Wood	Executive Vice-President and Chief Operating Officer
	(Ontario, Canada)	
3.	Elvin Saruk	Senior Vice President, Oil & Gas and Power
	(Alberta, Canada)	
4.	Edward (Ward) Sellers	Senior Vice President, General Counsel and Corporate
	(Ontario, Canada)	Secretary
5.	Andrew Snowden	Senior Vice President and Chief Financial Officer
	(Ontario, Canada)	
6.	Karen Trenton	Senior Vice President, Human Resources
	(Ontario, Canada)	

The following sets out as at March 19, 2020, the principal occupations of the executive officers (other than Mr. Pathe, in respect of whom information is provided above) for the past five years:

**Elvin Saruk** was appointed Senior Vice President, Oil & Gas and Power effective April 3, 2012, having previously served as Senior Vice President, Ambatovy Construction from August 2009, and as Senior Vice President, Oil & Gas and Power from July, 2007.

**Edward (Ward) Sellers** was appointed Senior Vice President, General Counsel and Corporate Secretary effective October 9, 2013. Prior to joining the Corporation, Mr. Sellers was a partner in a major Canadian law firm from 1996, serving in various capacities, including as Co-Chair of the firm's M&A group, and as head of its Montreal office and corporate department.

**Andrew Snowden** was appointed Senior Vice President and Chief Financial Officer effective January 1, 2017. Mr. Snowden joined Sherritt in 2012 and progressed through a number of senior roles, including controller and Vice-President, Finance. Prior to starting at Sherritt, he had 12 years' experience with Ernst & Young in the UK, Australia and Canada specializing in public company reporting and complex accounting matters. Mr. Snowden is a Chartered Professional Accountant, a member of the Institute of Chartered Professional Accountants of Ontario.

**Karen Trenton** was appointed Senior Vice President, Human Resources effective February 2014. Prior to this appointment, Ms. Trenton served as Vice President, Human Resources from February 2007.

**Steve Wood** was appointed Executive Vice-President and Chief Operating Officer in April 2015. Prior to joining the Corporation, Mr. Wood served as the President and CEO of ArcelorMittal Mining Canada G.P. from February 2013 and Vice-President, ArcelorMittal from November 2011 until January 2013.

The number and percentage of voting securities of the Corporation beneficially owned, directly or indirectly, or over which control or direction is exercised by all directors and executive officers of the Corporation as a group, as at March 19, 2020, was as follows:

Common shares	1,364,760	0.34%%
Security	securities	securities <sup>(1)</sup>
	voting	voting
	Number of	outstanding
		percentage of
		Approximate

<sup>(1)</sup> Sherritt had 397,284,433 Shares issued and outstanding as of March 18, 2020.

Effective September 19, 2014, the non-executive director shareholder requirement increased from three times to five times, the cash component of non-executive director annual remuneration which is required to be held in either common shares or director deferred share units ("DDSUs"). Each non-executive director has 5 years from the later of: (1) the date of election or appointment to the board; and (2) the date of the policy change to comply with the policy. For purposes of determining compliance with the non-executive director share ownership policy Shares owned and/or controlled by the non-executive director along with DDSUs are valued using the greater of the acquisition/grant date value and the market value on December 31. The number of DDSUs granted to each non-executive director is calculated by dividing the compensation value of the award by the market price in respect of the specific acquisition/grant date. The number of DDSUs held by all non-executive directors, as at March 19, 2020, was as follows:

Security	Number of securities
Directors' Deferred Share Units	3,276,329

# 8. Transfer Agent and Registrar

The Corporation's transfer agent and registrar for its Shares is AST Trust Company (Canada) ("AST"). The Corporation's transfer agent and registrar for its Debenture is Computershare Trust Company of Canada ("Computershare"). The location at which transfer of the Corporation's securities may be affected by AST or Computershare (as applicable) is as follows:

Security	Transfer Locations
Shares	Toronto, Montreal, Calgary and Vancouver
8.00% Debentures	Toronto
7.50% Debentures	Toronto
7.875% Debentures	Toronto

## 9. Material Contracts

Set out below are descriptions of Sherritt's material contracts, as filed on SEDAR www.sedar.com.

Warrant Indenture dated January 25, 2018 between Sherritt and AST in connection with the Corporation's public offering in January 2018.

Fourth Amendment and Restatement of the Shareholders Agreement dated October 18, 2006, among Sherritt, Madagascar Mineral Investments Ltd. ("MMI"), KORES, Sumitomo, Summit Ambatovy Mineral Resources Investment B.V. ("SAMRI"), Ambatovy Holdings Limited, DMSA and AMSA dated December 11, 2017, which relates to, among other things, the Ambatovy Restructuring. and governs, among other things, the management of the Ambatovy Joint Venture.

Development Carry Finance Agreement among Sherritt, MMI, the Export-Import Bank of Korea (**"K-EXIM"**) and KORES dated March 26, 2008, as amended by the Supplemental Agreement dated June 24, 2009, which relates to, among other things, financing provided by K-EXIM to Sherritt in connection with the Ambatovy Joint Venture.

Development Carry Finance Agreement among Sherritt, MMI, SAMRI and Sumitomo dated March 26, 2008, as amended by the Supplemental Agreement dated June 24, 2009, and amended and restated on December 11, 2017, which relates to, among other things, financing provided by SAMRI to Sherritt in connection with the Ambatovy Joint Venture.

Development Carry Finance Agreement among Sherritt, MMI, SAMRI (previously assigned from SNC-Lavalin Inc. ("**SNC**")) and Sumitomo dated March 26, 2008, as amended by the Supplemental Agreement dated June 24, 2009, and amended and restated on December 11, 2017, which relates to, among other things, financing provided by SAMRI to Sherritt in connection with the Ambatovy Joint Venture.

Implementation Agreement dated November 10, 2017 among Sherritt, MMI, KORES, Sumitomo, SAMRI, DMSA, and AMSA, which relates to, among other things, the Ambatovy Restructuring.

Second Amended and Restated Indenture dated July 29, 2016 among Sherritt, certain Sherritt subsidiaries (as guarantors) and Computershare regarding the Debentures.

Warrant Indenture dated July 29, 2016 between Sherritt and AST in connection with the Extension.

# 10. Interest of Experts

#### **Auditors**

Deloitte LLP are the Corporation's auditors and have issued an opinion with respect to Sherritt's consolidated financial statements as at and for the year ended December 31, 2019.

Deloitte LLP is independent of the Corporation within the meaning of the Rules of Professional Conduct of the Chartered Professional Accountants of Ontario.

## **Qualified Persons**

The technical information regarding the Moa Joint Venture and the Ambatovy Joint Venture included in this AIF has been approved by Bryce Reid, P.Eng., in the case of the Mineral Resource and Reserve Estimates, Scott McPherson, P.Eng., in the case of the information regarding the Moa Joint Venture contained in Schedule 'B' – Technical Information and Bryce Reid, P.Eng., in the case of the information regarding the Ambatovy Joint Venture contained in Schedule 'B' – Technical Information. Messrs. Reid and McPherson are a "qualified person" as such term is defined in NI 43-101 and are employees of the Corporation. Cam Boulton, P.Eng., of McDaniel & Associates prepared a report pursuant to NI 51-101 relating to the Corporation's oil and gas reserves presented in this AIF.

The Corporation has been advised that each of the foregoing experts holds less than 1% of the securities of any class issued by the Corporation.

## 11. Additional Information

Additional information relating to Sherritt may be found on SEDAR at www.sedar.com.

### 11.1 Additional Documents

Additional information, including directors' and officers' remuneration and indebtedness, principal holders of the Corporation's securities and securities authorized for issuance under equity compensation plans, is contained in the Corporation's information circular dated May 24, 2019 for its most recent annual meeting of shareholders held June 24, 2019 and involving the election of directors.

Additional financial information is provided in the Corporation's financial statements and management's discussion and analysis for the 2019 financial year, filed on SEDAR and available at www.sedar.com.

## 11.2 Audit Committee

The Audit Committee may from time to time request that an audit service proposal be sent to certain select audit firms, including the incumbent, and make a recommendation to the Board to propose the appointment by shareholders of a certain auditor. In early 2006, the Audit Committee received proposals. Following a review of the proposals, the Board accepted the recommendation of the Audit Committee to propose the appointment by shareholders of Deloitte, as auditor, which was approved by shareholders at the annual meeting held on May 25, 2006. The Corporation annually proposes, at shareholder meetings, the appointment of its auditor by shareholders.

The mandate of the Audit Committee, along with the mandates of the Board and all other committees of the Board, are reviewed annually. The current mandate of the Audit Committee is attached as Schedule C.

#### **COMPOSITION OF THE AUDIT COMMITTEE**

The members of the Audit Committee are: Ms. Lisa Pankratz (Chair), Sir Richard Lapthorne and Mr. John Warwick. Each member is independent and financially literate as those terms are defined in National Instrument 52-110 - Audit Committees.

#### **EDUCATION AND EXPERIENCE**

Ms. Lisa Pankratz has served as chair of the Audit Committee since June 2017 and has been a member of the Audit Committee since November 2013. Ms. Pankratz is a Chartered Professional Accountant and a Chartered Financial Analyst. She is a Fellow of the Institute of Chartered Professional Accountants of British Columbia, and a member of the Institute of Chartered Professional Accountants of Ontario, the Vancouver Society of Financial Analysts, and the CFA Institute.

Sir Richard Lapthorne has served as a member of the Audit Committee since 2011. Sir Richard holds a Bachelor of Commerce, specialized in accounting and served as a Finance Director at various FTSE 100 companies between 1986 and 1998. He is also a fellow of each of the Chartered Institute of Management Accountants, Chartered Institute of Certified Accountants and the Institute of Corporate Treasurers in the United Kingdom.

John Warwick has served as a member of the Audit Committee since June 13, 2017. Mr. Warwick is a Chartered Financial Analyst. He holds an MBA from the University of Toronto and has 40 years of experience in investment research and banking.

## PRE-APPROVAL POLICIES AND PROCEDURES

In accordance with its mandate, the Audit Committee pre-approves the nature and fees of all non-audit services provided by the external auditor.

# 11. Additional Information (cont.)

### **AUDIT FEES**

The following table sets out total fees paid to the Corporation's external auditor, Deloitte relating to audit fees, audit-related fees, tax fees and other fees for 2019 and 2018:

	2019	2018
Audit fees <sup>(1)</sup>	\$ 2,670,000	\$ 2,600,000
Audit-related fees <sup>(2)</sup>	\$ 0	\$ 0
Tax-related fees <sup>(3)</sup>	\$ 165,000	\$ 273,000
Other fees <sup>(4)</sup>	\$ 0	\$ 125,000
Total fees	\$ 2,835,000	\$ 2,998,000

#### Notes:

- (1) Audit fees consist of fees for the audit and review of the Corporation's annual and quarterly consolidated financial statements, respectively, or services that are normally provided in connection with statutory and regulatory filings or engagements. During 2019 and 2018, the services provided in this category included research of accounting and audit-related issues and assurance audits.
- (2) Audit-related fees consist of fees for assurance and related services that are reasonably related to the performance of the audit or review of the Corporation's consolidated financial statements and are not reported as audit fees.
- (3) Tax-related fees consist of fees for assistance and advice in relation to the preparation of corporate income tax returns and expatriate services, other tax compliance and advisory services.
- (4) Other fees related to training and development, and strategy consulting services.

## SCHEDULE A

#### GLOSSARY OF TERMS

The following are brief explanations of certain terms and abbreviations used in this document:

"abandonment and reclamation costs" means all costs associated with the process of restoring a reporting issuer's property that has been disturbed by oil and gas activities to a standard imposed by applicable government or regulatory authorities.

"API" or "degrees API" refers to the generally accepted measurement standard for the density of oil using the American Petroleum Institute Scale.

"appraisal program" means a series of activities, including drilling of wells, necessary to determine whether a discovery of hydrocarbons can be developed for commercial production.

"bbl" means barrel or 34.962 imperial gallons or 42 U.S. gallons or 158.987 litres.

"block" or "Block" means a geographic area that is subject to a production-sharing contract or other form of oil and gas permit.

"boe" means barrels of oil equivalent derived by converting gas to oil in the ratio of six thousand cubic feet of gas to one barrel of oil (6 Mcf: 1 bbl). Expressing natural gas volumes in boe may be misleading, particularly if used in isolation. A boe conversion ratio of 6 Mcf: 1 bbl is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead.

"boepd" means barrels of oil equivalent per day.

"bopd" means barrels of oil per day.

"Co" means cobalt.

"CO2" means carbon dioxide.

"COGE Handbook" means the "Canadian Oil and Gas Evaluation Handbook" prepared by the Society of Petroleum Evaluation Engineers (Calgary Chapter), as amended from time to time.

"condensate" means a mixture of pentanes and heavier hydrocarbons recovered as a liquid from field separators, scrubbers or other gathering facilities or at the inlet of a processing plant before gas is processed.

"conventional natural gas" means natural gas that has been generated elsewhere and has migrated as a result of hydrodynamic forces and is trapped in discrete accumulations by seals that may be formed by localized structural, dispositional or erosional geologic features.

"cost-recovery oil" means the crude oil allocated to the Corporation under a production-sharing contract in respect of eligible capital and operating expenses.

"cost recovery pool" means, in respect of a production-sharing contract, cumulative eligible capital expenditures and operating expenses, less the value of cumulative cost-recovery oil allocated from past production, which may be recovered against future crude oil production.

"crude oil" or "oil" means a mixture consisting mainly of pentanes and heavier hydrocarbons that exists in the liquid phase in reservoirs and remains liquid at atmospheric pressure and temperature. Crude oil may contain small amounts of sulphur and other non-hydrocarbon compounds but does not include liquids obtained from the processing of natural gas.

"development well" means a well drilled inside the established limits of an oil or gas reservoir, or in close proximity to the edge of the reservoir, to the depth of a stratigraphic horizon known to be productive.

## SCHEDULE A (cont.)

"directional drilling" or "directional well" means the intentional deviation of the trajectory of an oil and gas well to a target that is not located vertically beneath a drilling rig.

The **"Equator Principles"** is a risk management framework, adopted by financial institutions, for determining, assessing and managing social and environmental risk in projects. It is primarily intended to provide a minimum standard for due diligence to support responsible risk decision-making.

"exploratory well" means a well that is not a development well, a service well or a stratigraphic test well.

"Fe" means iron.

"field" means a defined geographic area consisting of one or more oil pools.

"first point of sale" means the first point after initial production at which there is a transfer of ownership of a product type.

**"fold and thrust belt"** means a geological trend where geological formations have undergone compressional stress and have been either thrust over one another so that they are repeated, or bent into large scale folds.

"forecast prices and costs" means future prices and costs that are: (a) generally accepted as being reasonable outlook of the future; (b) if, and only to the extent that, there are fixed or presently determinable future prices or costs to which the reporting issuer is legally bound by contractual or other obligation to supply a physical product, including those for an extension period of a contract that is likely to be extended, those prices or costs rather than the prices and costs referred to in subparagraph (a).

"free on board" means that the seller pays for transportation of the goods to the port of shipment, plus loading costs. The buyer pays the cost of marine freight transport, insurance, unloading, and transportation from the arrival port to the final destination.

**"future net revenue"**, in the context of Oil and Gas, means a forecast of revenue, estimated using forecast prices and costs, arising from the anticipated development and production crude oil, net of associated royalties, operating costs, development costs and abandonment and reclamation costs.

"gas" or "natural gas" means a naturally occurring mixture of hydrocarbon gases and other gases.

"GCFO6" means U.S. Gulf Coast Fuel Oil No.6, 3% Sulphur, a benchmark residual fuel oil.

**"GHG"** means greenhouse gas and, more specifically, can be any of the commonly used gasses that are known to have the potential to add to global warming. These are carbon dioxide ( $CO_2$ ), methane ( $CH_4$ ), nitrous oxide ( $N_2O$ ), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride ( $SF_6$ ). Some of these have subcategories. Each GHG has a global warming potential in relation to  $CO_2$ .

**"gross reserves"** means a working-interest (operating or non-operating) share of oil and gas reserves before deduction of royalty obligations and of reserves to be allocated to government authorities under a production-sharing contract or other oil and gas permit and without including any royalty interests of the Corporation.

"gross wells" means the total number of wells in which the Corporation has a working interest.

**"gross working-interest production"** means a working-interest (operating or non-operating) share of gross oil and gas production before deduction of royalty obligations and of production to be allocated to government authorities under a production-sharing contract or other oil and gas permit.

"GW" means gigawatt; equivalent to one million kilowatts.

"GWh" means a gigawatt hour; equivalent to one million kilowatt hours.

"ha" means hectares, a metric unit of land measure equal to 10,000 square metres or 2.47 acres.

"heavy crude oil" means crude oil with a relevant density greater than 10 degrees API and less than or equal to 22.3 degrees API.

"hydrocarbon" means a compound consisting of hydrogen and carbon, which, when naturally occurring, may also contain other elements such as Sulphur.

"Indicated Resource" is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered from locations such as outcrops, trenches, pits, workings, and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.

"Inferred Resource" is that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings, and drill holes.

"kW" means a kilowatt; equivalent to 1,000 watts of electric power.

"kWh" means kilowatt hour; equivalent to the supply of one kilowatt of electric power for a continuous one hour period.

"laterite" means a soil layer that is rich in iron oxide and derived from a wide variety of rocks weathering under strongly oxidizing and leaching conditions.

"LIBOR" means the London Inter-Bank Offer Rate.

"light crude oil" means crude oil with a relative density greater than 31.1 degrees API.

"limonite" means the yellow-brown clay-like material that is the principal ore-bearing layer in nickel laterite deposits, synonymous with ferralite.

"LPG" means liquefied petroleum gases consisting predominantly of propane, butanes and ethane.

"Mbbl" means thousands of barrels.

"Mcf" means thousand cubic feet.

"Measured Resource" is that part of a Mineral Resource for which quantity, grade or quality, shape, and physical characteristics are so well established that it can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters to support production, planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings, and drill holes that are spaced closely enough to confirm both geological and grade continuity.

"medium crude oil" means crude oil which a relative density greater than 22.3 degrees API and less than or equal to 31.1 degrees API gravity.

"Metal Bulletin Low Grade" means metallic cobalt typically 99.3% to 99.6% in cobalt content.

"Mineral Resource" means, in respect of mineral properties, an Inferred, Indicated or Measured Resource.

"Mineral Reserve" means, in respect of mineral properties, a Proven or Probable Reserve.

"MMbbl" means millions of barrels.

"MMcf" means million cubic feet.

"MMcfpd" means millions of cubic feet per day.

## SCHEDULE A (cont.)

"MT" means millions of tonnes.

"MW" means a megawatt; equivalent to one thousand kilowatts.

"MWh" means a megawatt hour; equivalent to one thousand kilowatt hours.

"net reserves" means a working-interest (operating or non-operating) share of oil and gas reserves after deduction of royalty obligations and of reserves to be allocated to government authorities under a production-sharing contract or other oil and gas permit plus including the Corporation's royalty interests in reserves.

"net wells" represents the number of wells obtained by aggregating the Corporation's working-interest in each of its gross wells.

"net working-interest production" means a working-interest (operating or non-operating) share of oil and gas production after deduction of royalty obligations and of production allocated to government authorities under a production-sharing contract or other oil and gas permit plus the Corporation's interest in production. Under a production-sharing contract, "net working-interest production" equals the sum of the volume of cost-recovery oil and the share of profit oil allocated to the contractor.

"Ni" means nickel.

"overburden" means materials that overlie a mineral deposit.

"pool" means a subsurface oil accumulation.

**"production sharing contract"** or **"PSC"** means a form of contract between a contractor and an agency of the government of the Republic of Cuba under which the contractor acquires the right to explore for and develop hydrocarbon deposits within a specified geographic area.

"profit oil" means the volume of oil to be allocated under a production-sharing contract after cost-recovery oil has been allocated to the contractor.

**"Probable Reserve"** means, in a context other than oil and gas, the economically mineable part of an Indicated Resource and, in some circumstances, a Measured Resource demonstrated by at least a preliminary feasibility study. This study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified.

**"Proven Reserve"** means, in a context other than oil and gas, the economically mineable part of a Measured Resource demonstrated by at least a preliminary feasibility study. This study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction is justified.

**"reservoir"** means a porous and permeable subsurface rock formation that contains a separate accumulation of petroleum that is confined by impermeable rock or water barriers and is characterized by a single pressure system.

"saprolite" – means a soft, decomposed rock that is rich in clay; a secondary ore – bearing layer in nickel laterite deposits that lies beneath limonite and that has high magnesium, making it undesirable as feed to a PAL process.

"service well" means a well drilled or completed for the purpose of supporting production in an existing field. Specific purposes of service wells include gas injection, water injection, steam injection, air injection, salt water disposal, water supply for injection, observation or injection for combustion.

"stratigraphic test well" means a drilling effort, geologically directed, to obtain information pertaining to a specific geologic condition. Ordinarily such wells are drilled without the intention of being completed for hydrocarbon production. They include wells for the purpose of core tests and all types of expendable holes related to hydrocarbon production.

"sulphur" for the purposes of the Oil and Gas business, means elemental sulphur recovered by the conversion of hydrogen sulphide and other sulphur compounds extracted from crude oil or natural gas.

"supernatant liquid" means the usually clear liquid overlying material deposited by settling, precipitation, or centrifugation.

"Tpd" means tonnes per day.

"USGC HSFO" means U.S. Gulf Coast High Sulfur Fuel Oil, a benchmark residual fuel oil and has replaced GCF06 as a reference benchmark as of January 3, 2017.

"working-interest" means the interest held by the Corporation in an oil or gas property, which interest normally bears its proportionate share of the costs of exploration, development and operation as well as any royalties or other production burdens, including the allocation of crude oil to government authorities under a production-sharing contract.

"workover" means the re-entry of an existing well to conduct various operations intended to restore or increase production.

"WTI" means West Texas Intermediate, a benchmark crude oil.

## TECHNICAL INFORMATION

#### **MOA JOINT VENTURE**

#### **Properties**

Resource information set out below is derived from the technical report entitled "NI 43-101 Technical Report – Moa Nickel Project, Cuba" dated June 6, 2019 (the **"Moa Technical Report"**). The technical information in this Annual Information Form regarding Moa Joint Venture has been reviewed by Bryce Reid, P.Eng., a Qualified Person under NI 43-101. Mr. Reid is an employee of the Corporation.

#### **Moa Project**

### **Property Description, Location and Access**

The Central Moa property consists of six separate mineral concessions which cover approximately 9,226 ha (see the section entitled "Mineral Reserves and Resources – Moa Joint Venture" for more information) and are located approximately four kilometres to the south and southeast of the city of Moa in the province of Holguin in northeastern Cuba at an elevation of approximately 25 metres. The main open pit lateritic ore mines lie south of the city. The Moa nickel plant site, which processes the mined ore into mixed sulphides using high-pressure acid leaching, lies on the southern edge of the residential area of the city of Moa.

The operating mining areas are connected to the plant site through a well-developed network of secondary paved roads and dirt roads. The processing plant and the technical and administrative offices can be accessed from Moa city streets. The City of Moa is connected to the provincial capital of Holguin by both paved highway and a small commercial airport with limited schedules to other Cuban cities. The closest large international airports are at Holguin and Santiago de Cuba.

Of the six separate mineral concessions comprising the Central Moa Concessions, Moa Occidental and Moa Oriental were granted under the 1994 Decree; Camarioca Norte and Camarioca Sur were granted under Resolution 40/2005 and Yagrumaje Oeste and Playa La Vaca-Zona Septentrional were granted under Agreements 7361 and 7401, respectively, in 2013.

The Eastern Satellite property is comprised of the La Delta, Cantarrana and Santa Teresita mineral concessions which lie 10 to 15 kilometres southeast of the Moa Nickel processing plant and cover approximately 3,096 ha (see the section entitled "Mineral Reserves and Resources – Moa Joint Venture" for more information). These concessions can be accessed by network of secondary dirt roads that provide access from the paved coastal highway, although accessibility can be difficult in the wet season.

In Cuba, mineral rights are the property of the state. Mineral exploration and mining rights are granted under decrees or resolutions administered by the ONRM, the Cuban government agency that oversees and regulates mining activity. In the case of the rights granted to Moa Nickel, the key features of the decrees and resolutions are:

- Moa Nickel has the right to mine the limonite, along with normal mining dilution at the top and bottom of the limonite horizon;
- Moa Nickel has received official approval to mine and utilize in the existing process a portion of the saprolite underlying the limonite ore in the deposit areas. Moa Nickel has the right to utilize saprolite underlying the Moa Oriental deposit and portions of the Moa Occidental deposit (total 1,193 ha), and to utilize saprolite with more than 1% nickel and 25% to 35% iron underlying the Camarioca Norte and Camarioca Sur deposits (total 4,374 ha); and
- when the property rights revert to the ONRM, the mining rights to the saprolite may be granted to another company.

## **History**

Viable nickel and cobalt resources in eastern Cuba were first identified in the 1940s. By the late 1950s, just prior to the Cuban Revolution, open pit mining had begun on the nickel laterites near Moa.

From the early 1960s to the early 1990s, the Cuban government's state mining company mined the Moa Occidental concession. In 1994, the Corporation and GNC formed Moa Nickel. Moa Nickel was granted mining rights on December 1, 1994. It continued mining operations at the Moa Occidental concession and initiated mining operations at Moa Oriental in 2000.

The Camarioca Concessions were first explored in the early to mid-1970s by Soviet geologists. Evaluation of the Camarioca Concessions was resumed by Empresa Geominera Oriente, the Cuban state contractor for geological and exploration activities, ("Geominera") in 2003. In 2005, Moa Nickel was granted the right to continue the exploration and evaluation of the Camarioca Concessions deposits.

Moa Nickel obtained its rights to the Yagrumaje Oeste and Playa La Vaca-Zona Septentrional II deposits in 2013, with data regarding previous exploration results provided to the Moa Nickel by the ONRM. Parts of the Yagrumaje Oeste deposit had been mined prior to Moa Nickel obtaining its rights and mineralized zone had been drilled on a 33 metre grid.

Cantarrana and La Delta were first explored in the 1960s. A second exploration program was conducted by Geominera for Gencor Ltd. in 1996 (the "Gencor Campaign") as a due diligence check on the earlier work. In 2018, the Cantarrana and La Delta deposits were approved as concessions for exploitation.

## **Geological Setting Mineralization and Deposit Types**

The Central Moa Concessions are situated on the Moa-Baracoa complex. The Moa-Baracoa complex is composed primarily of a tectonised harzburgite that is highly depleted by 20 - 30% partial melting. To the east of the Central Moa Concessions, a number of podiform chromitite bodies lie along a west-northwest trending line. Several intersections of chromitite also exist in the northwest extremity of Camarioca Norte. The region also contains several bodies of gabbros and north-east trending gabbroic dikes.

The nickeliferous laterite deposits in the Moa region occur as a thick surface blanket of residual soils, clays and partially decomposed rock. The thickest and most homogenous laterite deposits are generally associated with rounded ridge crests and spurs representing the least eroded portion of the laterite blanket.

The upper zone of the commercial laterite profile called limonite is defined either by a nickel cut-off of 1% and an iron cut-off of 35% or, in certain deposits, by a 'nickel equivalent' grade cut-off that reflects the relative long-term price expectations for nickel and cobalt. The nickel equivalent cut-off grade typically ranges between 1.25% and 1.35%, depending mainly upon the ore haulage distance and overburden stripping ratios for the ore body. The limonite zone as defined typically varies from three to seven metres in thickness, locally increasing to a thickness of up to 20 metres. The lower contact of the limonite zone is defined by the 35% iron grade cut-off and is highly irregular with frequent 'ribs' and 'pinnacles' of decomposing bedrock material projecting up into the limonite. Saprolite zone mineralization is usually encountered below the limonite zone. The original mining concession granted the right to mine in the limonite zone only. However, the ONRM has granted the Moa Joint Venture the rights to mine the upper portions of the saprolite zone on certain mineral concessions.

The Cantarrana ultramafic body is surrounded by gabbro and the same gabbro body sets the eastern limit of the La Delta ultramafic. Isolated in the ultramafic is a small body of gabbro, approximately 2x1 kilometres, which limits the southern extent of the La Delta deposit.

The analysis of mineralization of the Eastern Satellites concessions is based on the assays taken from the drilling programs discussed in "Exploration and Drilling" below. The drilling campaign conducted in the 1960s assayed for Fe, Ni and Co. The Gencor Campaign analyzed for Fe, Ni, Co, Mg, Mn, Al, Si and Ca and the moisture content of each sample was also reported. The 2008 campaign (as described below) assayed for Fe, Ni, Co, Mg, Mn, Al, Cr and Si.

## **Exploration and Drilling**

The drilling campaigns conducted at the Central Moa Project have generally been carried out on surveyed square grid patterns, using continuous-spiral and hollow-stem auger drills to extract samples from each metre of penetration in vertical holes.

The majority of the deposits were drilled prior to the formation of the Moa Joint Venture using progressively closer grid spacings from 300 to 33 metres. In addition, test pits were excavated to yield information on mineralogy, moisture content and tonnage factors. Drilling campaigns conducted by the Moa Joint Venture have generally drilled exploration on grids of 100 metres and 33-35 metres-spacings and drilled exploration grids at 16 metre-spacing for definition of the overburden thickness, grade control

## SCHEDULE B (cont.)

and metallurgical characterization of the ore. In 2019, 750 drillholes were completed on the 16 metre grid for Camarioca Norte and 19 drillholes were completed in Camarioca Sur (offset 35 metre grid, to complete the exploitation  $25 \times 25$  metre grid.).

In addition to drilling, Moa Nickel also dug several dozen criollo pits in four of the mineral concession areas prior to production and conducted field trials of ground penetrating radar technology in the Camarioca Concessions.

Exploration on the Eastern Satellites concessions began in the 1960s and included drilling on a 100 metre square grid. The Gencor Campaign in-filled a number of the existing lines to 33 metre spacing. In 2008, Moa Nickel undertook a drilling campaign (conducted by Geominera) in certain regions where the historical data suggested high laterite block mineralization. The 2008 drilling was done on a square 100 metre grid, offset from the historical grid, creating a regular grid with hole spacing of approximately 70 metres along the diagonals of the grid. All stages of drilling used truck-mounted spiral augers. Additional exploration work has been conducted by Centro Internacional de La Habana S.A., an external contractor.

### Sampling, Analysis and Data Verification

### Sample Preparation

Drill cuttings are logged manually by field geologists in a notebook at the drill site. Logged notes are then later entered into a computer data base in the office. Each interval, usually 1 metre, is divided in half, one part for chemical analysis and the other for metallurgical test work, including sedimentation tests. The samples are removed from the auger spirals, placed in plastic bags and tagged with the sample number. The sample numbers are simple sequences without the borehole number. In selected holes, a composite sample of 3-4 kilograms is taken for leaching tests. For every tenth sample, the geologist takes a duplicate assay sample for use as an internal control and another duplicate sample for use as an external control.

When external contractors, like Geominera, have been contracted to perform the drilling and sampling, a Moa Nickel geologist checks the contractor's activities in the field. Additional surveying has also been conducted by Ceproniquel, Centro Internacional de La Habana S.A. and Geocuba Oriente Sur.

Through early September 2007, samples were shipped by truck to Geominera's facilities in Santiago de Cuba. Since September 2007, assay pulp preparation has been carried out at a new facility in Moa and the pulps shipped to Santiago de Cuba for assay at the Elio Trincado Figueredo Laboratory operated by Geominera. An independent consultant retained by the Corporation has examined the sample preparation facilities and the Geominera assay laboratory and reviewed their procedures, and believes that they are satisfactory. The Geominera work at the new sample preparation facility in Moa has been directly monitored by a Moa Nickel geologist.

#### Sample analyses

Analysis of Ni, Co,  $Al_2O_3$ ,  $Cr_2O_3$ ,  $Fe_2O_3$ , MgO, MnO and  $SiO_2$  are done by sodium carbonate fusion inductively coupled plasma atomic emission spectroscopy (ICP-AES), an emission spectrophotometric technique that uses the fact that excited electrons emit energy at a given wavelength as they return to their ground state. The quality assurance and quality control program used to monitor the reliability of the analyses is externally reviewed annually. For the past many years, the annual production reconciliations have confirmed that there is no systematic bias in resources and reserves calculated from the drill hole data.

From time to time, Fe is checked volumetrically by titration with potassium dichromate.

Routine assays are done by the Geominera assay laboratory in Santiago de Cuba; external check assays have been done by Laboratorios Isaac del Corral in Havana and by SGS Labs in South Africa. In the producing areas of the mine, check analyses are also done at the Moa Nickel process control laboratory where routine production sampling of trucks and thickener slurry is done. The process control lab uses pressed pellet XRF analysis calibrated regularly by atomic absorption analysis.

## Security of Samples

The lateritic material from auger holes is laid on the polyethylene sheet at the drill site and visually logged to record its geological characteristics. The clayey material is then cut into samples 1 metre in length, numbered and sealed in polyethylene bags. The

sample bags are transported by truck from the field directly to the processing facility operated by Geominera in Moa. At no point are the bags re-opened until the laboratory begins its preparation work. If bags are broken, have become unsealed or appear to be contaminated with other material, which occurs very rarely, the laboratory does not process the sample and no analytical data is available for that sample interval.

#### Data Verification

Quality assurance and quality control ("QA/QC") of the analytical data and the assay data bases is conducted by Geominera, who uses reference materials to monitor the accuracy of assay data and to detect systematic biases, and internal duplicates to monitor the precision or repeatability of assays. Additional duplicate samples checked by external labs provide additional data for monitoring the reliability of assay data. Blanks are currently not used; these would provide information on any crosscontamination that may be occurring during sample preparation.

Geominera's procedures for the analysis of this data, and the use of it to reject batches of unreliable assays, are not as rigorous and intensive as current international norms. The Corporation's personnel and consultants continue to work with Geominera, and the Corporation continues to conduct check assays at an external lab to ensure validity of results.

To address the specific weaknesses in Geominera's QA/QC protocols and procedures, the Corporation's consultants have met with the Geominera staff to discuss how to resolve certain issues. The Geominera staff have been willing to implement practical ideas to ensure alignment with approaches used by commercial assay laboratories faced with similar problems elsewhere in the world.

Despite the issues mentioned above, there is a general consistency between grades predicted from Geominera assay data and grades actually mined, as measured by Moa Nickel's own plant process control data, as well as with the external check assays.

### Mining and Processing, Refining, Expansion, Marketing and Sales

### **Mining Operations**

The mining method used by Moa Nickel consists of an excavator/truck operation. Bench mining is executed in opened deposits using hydraulic backhoe excavators and articulated mine haulage trucks. The mine operates 365 days per year, weather permitting.

Mining has been carried out within the area covered by the Moa Occidental concession for close to 60 years. Prior to the formation of the Moa Joint Venture, the property was operated by the Cuban state and, prior to the Cuban Revolution, private mining companies. Prior to the Moa Joint Venture, the annual mining rate averaged approximately 1.6 million tonnes of ore. In the past 20 years, improvements in mining operations and at the processing plant have allowed the annual production rate to rise. In 2019, a total of 4.55 million tonnes of ore was mined, as compared to 4.21 million tonnes in 2018.

## **Processing and Recovery Operations**

Ore is processed through the ore preparation plant where the ore is slurried with water and the resultant slurry is screened to reject partially or wholly unweathered material which has higher magnesium content. The oversize reject material is processed through a reject treatment circuit that achieves a high recovery of the limonite contained in the material. The final dry-rock reject is used for road construction or is deposited into mined-out areas.

The fine fraction of the screened ore is thickened and pumped to a pressure acid leaching circuit consisting of vertical, steamagitated pachucas (reactors). Sulphuric acid is added to dissolve nickel and cobalt from the ore. The leach discharge slurry is processed through a countercurrent decantation wash circuit to separate the nickel and cobalt-containing solution from the leach residue slurry that is impounded in an acid leach tailings facility ("ALTF") with surface water reclaimed for the process. Excess sulphuric acid in the solution is neutralized with calcium carbonate and the gypsum residue is processed through the wash circuit with the leach tailings. Nickel and cobalt are recovered from the solution by precipitation, at an elevated temperature and pressure, with hydrogen sulphide gas to produce mixed sulphides.

## SCHEDULE B (cont.)

The ALTF is currently in the closure stage. As mining progresses, additional tailings disposal capacity is required to accommodate the tailings generated from the life of mine ore. Additional tailings capacity has been designed and construction has commenced in new areas and Moa Nickel continues to examine long term solutions for tailings management.

In 2019, production of nickel and cobalt contained in mixed sulphides at Moa Nickel was 34,021 tonnes (100% basis), compared to production of 35,125 tonnes (100% basis) in 2018.

### Refining

In the refining process, which occurs in Fort Saskatchewan, nickel and cobalt present in the Moa mixed sulphides and various other feeds are blended and leached in an ammonia and ammonium sulphate solution. Nickel, cobalt and other metals are dissolved and sulphide sulphur is oxidized and combined with ammonia to form ammonium sulphate. Any unleached material is separated from the metal-rich solution, washed, filtered and shipped and recycled back through Moa Nickel's process.

Nickel is recovered in powder form. After washing and drying, powder can be packaged or compacted into briquettes, which can be sintered (passed through a furnace) or left unsintered. The relative proportion of powder, sintered and unsintered material changes and is based upon prevailing market conditions. Cobalt is also recovered in powder form and is compacted and sintered into briquettes or packaged as powder for sale.

The remaining, essentially metal-free, solution is evaporated to crystallize ammonium sulphate, which is dried and sold as fertilizer. The on-site ammonium sulphate plant has an annual capacity of approximately 190,000 tonnes. Other metals present in the feed, such as copper and zinc, are collected in the form of sulphide residues and sold.

In 2019, total production of finished nickel and cobalt was 33,108 tonnes and 3,376 tonnes (100% basis), respectively, compared to 30,708 tonnes and 3,234 tonnes (100% basis), respectively, in 2018.

The refinery updated its ISO 9001 certification to ISO 9001:2015 for nickel and cobalt production.

#### Expansion

The Expansion Agreement provides for an expansion of the annual production capacity at the Moa Nickel facilities by 16,000 tonnes of nickel plus cobalt in mixed sulphides, to a total of 49,000 tonnes, and a corresponding expansion of the CRC facilities to process the additional mixed sulphides. Following completion of basic engineering for the expansion in the fall of 2006 at both the Moa and Fort Saskatchewan facilities, the Corporation and GNC agreed to execute the expansion in phases.

The first phase of expansion was completed in 2008, increasing annual production capacity to a total of 37,000 tonnes of nickel plus cobalt contained in mixed sulphides. In response to weakening commodity markets, the Corporation announced a temporary suspension of capital contributions to the Moa/Fort Saskatchewan expansion in the fourth quarter of 2008. Demobilization of the construction workforce was substantially completed by the end of 2008 and equipment and material primarily on the Moa site are being preserved, where possible, to allow for completion of the remaining expansion circuits on an opportunistic basis using capital. While expansion at Moa Nickel remains an important growth initiative, no significant decisions have been made on the completion of expansion circuits beyond the completion of the new sulphuric acid plant in 2016 and the new slurry preparation plant dump pocket in 2019.

### Infrastructure, Permitting and Compliance Activities

The City of Moa has a population of approximately 75,000 (2016) and is the source, together with several surrounding towns, of most of the unskilled and semi-skilled labour required for both the mining and processing operations.

The water supply for the processing plant comes from a water-bore near the plant-site and from the Nuevo Mundo reservoir which feeds into the Moa river. Both the plant site and the mine site are served by the national electric power grid and grid power lines cross the mine site. Moa Nickel has the required surface rights and necessary infrastructure, including bridge access, roads, maintenance shops, power supplies and offices to support its current mining operations.

For information regarding Environment, Health and Safety and Community Investment please see the section 3.5 Environment, Health and Safety and Sustainability.

Resolutions 5859 and 5860, dated December 29, 2006, of the Executive Committee of the Council of Ministers of the Republic of Cuba granted Moa Nickel the right and obligation to evaluate the limonitic nickel mineralization on the La Delta and Cantarrana concessions. These Resolutions detail 28 obligations, most of which relate to: 1) geological education and safety of employees; 2) road construction, protection of environment near rivers, protection of forest cover; and 3) rehabilitation measures after work programs have been completed.

The Eastern Satellites concessions cover a total of 3,096 ha. The boundaries of the Eastern Satellites concessions are subject to review and potential adjustment every three years by the ONRM.

For mining to commence on the Eastern Satellites concessions, Moa Nickel will have to apply to the ONRM at the appropriate time to have the exploration concessions set out above converted to exploitation concessions.

In 2017, exploration reports were submitted by the Moa Joint Venture to ONRM for Playa la Vaca and Zona Septentrional. The application for exploitation will be presented in 2020. Exploitation permits for La Delta and Cantarrana were approved in 2018.

### AMBATOVY JOINT VENTURE

### **Property**

The technical information in this Annual Information Form regarding the Ambatovy Joint Venture has been prepared under the supervision of, or reviewed by, Bryce Reid, P.Eng., a Qualified Person under NI 43-101. Mr. Reid is an employee of the Corporation.

## **Project Description, Location and Access**

The Ambatovy Joint Venture consists of an open-pit mine located 11 kilometres north of the town of Moramanga in Eastern-Central in Madagascar and 80 kilometres east of the capital city of Antananarivo. It can be accessed via a major asphalt paved national road (120 kilometres) and high quality gravel road (11 kilometres).

The mine property covers 144 kilometres<sup>2</sup> and is divided into 368 blocks (carrés) of 625 metre by 625 metre for administrative purposes. AMSA, one of the two companies which form the Ambatovy Joint Venture, holds all of the necessary titles and permits for the mine.

The key permits and agreements include:

Permits/Agreements	Description
Exploitation Permit	(issued by the Ministry of Mines and Energy September 7, 2006) which grants AMSA the right to mine nickel, cobalt, copper, platinum, chrome and a zinc from the known nickel laterite deposits (the Ambatovy Deposit and the Analamay Deposit) on the mine site until September 6, 2046 and is conditional on AMSA filing an annual report with the Ministry of Mines, paying an annual administration fee of approximately US\$46,300 (107,345,600 MGA) and following an Environment and Social Management Plan ("ESMP"), which is attached as an appendix to the environmental permit.
50-year Surface Rights Lease	between AMSA and the Malagasy State which is registered with the Malagasy fiscal authority and the lease is registered at the appropriate local land titles registry. The lease is conditional upon AMSA paying annual fees, complying with stated land usage (mining) and establishing a forest conservation area in accordance with the mine site ESMP. The mine site property is also subject to a US\$250,000 annual fee (subject to adjustment every two years for inflation) for the term of the lease.

## SCHEDULE B (cont.)

The Ambatovy Joint Venture is also subject to the following additional payments under Malagasy law: Annual land tax (IFT) which is equivalent to 1% of the value of the land (land tax capped at approximately US\$100,000 pursuant to the LGIM); Annual property tax on buildings which is equivalent to 1% of the annual rental value of the buildings; and Mining royalties payable on the production which are equivalent to 1% of finished metal sales pursuant to the Mining Code and the LGIM.

#### **History**

The following table sets out the prior ownership of the Ambatovy mine site and ownership changes; the type, amount, quantity and general results of exploration and developmental work and any production from the mine site.

Parties	Description of Work/Ownership	Year
Malagasy Service Géologique	Discovered deposits. Conducted limited pitting and auger drilling.	1960
Société Le Nickel, Ugine Kuhlman, Anglo American and <i>Bureau des</i> <i>Recherches Géologiques et Minière</i> s	Drilled 368 vertical diamond drill holes, an aerial photographic survey, geological mapping and geochemical surveys	1970s
PD Madagascar SARL ("PD")	Drilled 442 vertical diamond drill holes, test pits, various surveys and metallurgical testwork. This work culminated in a feasibility study on Ambatovy West. Feasibility study.	1995 – 98
PD and Dynatec Corporation (Dynatec)	Dynatec acquires 53% of Joint Venture. Drilled 545 vertical diamond drill holes. Thorough feasibility study.	2003 – 2005
Dynatec and Sumitomo	Dynatec and Sumitomo acquire additional 17% and 25%, respectively, of Joint Venture. 100 HQ holes drilled for a total of 5,675 metres primary on Ambatovy Central sub-block. Received LGIM certification in 2007.	2006 – 2007
Sherritt and Sumitomo	Sherritt acquires Dynatec. 168 drill holes for a total of 8,605 metres on Ambatovy West sub-block	2008 – 2009
Sherritt, Sumitomo, KORES and SNC Lavalin	Financial Completion, which required an average of 90% production of nameplate capacity over a 90 day period, was achieved	2015

## **Geological Setting, Mineralization and Deposit Types**

The Ambatovy and Analamay deposits are large, thick and weathered ultramafic lateritic deposits located approximately 3 kilometres apart in the Ambatovy ore body (the "Ambatovy Deposit" and the "Analamay Deposit", or collectively, the "Deposits").

The regional geology consists of a north-south belt of basic gneisses and migmatites, which are part of the high grade metamorphic rocks underlying the eastern two-thirds of Madagascar. The Antampombato Complex, a large intrusive that cuts the metamorphic rocks, is the dominant feature of the geology of the Deposits. The intrusive is composed of gabbroic to syenitic rocks with two small outer ultramafic bodies rimming the intrusive. Exploration suggests that the complex represents multiple, magmatic intrusions that commenced with the ultramafic intrusive, then was followed by gabbroic intrusives and terminated with the more felsic intrusive.

The Ambatovy Deposit is approximately 3 kilometres by 2.4 kilometres and oriented in a WNW-ESE direction and is located toward the southern margin of the Antampombato Complex. A north-west trending gabbroic intrusive cuts the Ambatovy Deposit divided into three: Ambatovy West, Central and Southeast. The Analamay Deposit is approximately 4 kilometres by 2.8 kilometres, oriented north-south and occurs at the eastern margin of the Antampombato Complex. It is divided into

sub-blocks known as Analamay North, Central and South. Ambatovy West is cut by numerous block faults that strike northwest/southeast with a conjugate set, striking northeast/southwest. Evidence indicates that faulting continued during the laterization.

The Deposits cover an area of about 1,300 ha, and range in thickness from 20 to 100 metres, with the average thickness being approximately 40 metres. Within the lateritic profile, there are three distinct zones: Ferricrete is the uppermost layer, and forms an extremely hard, coherent crust of iron oxides up to 3 metres thick and acts as a deterrent to mechanical erosion; **Limonite**, referred to locally as ferralite, constitutes more than 90% of the economic grade nickel mineralization and is predominately a spongy mass with iron concentrations of 40 to 50%, predominately in goethite. Enriched nickel and cobalt grades are largely achieved by depletion of other elements through the weathering process, rather than additions to the system. The nickel grade of the laterite is influenced by the nickel content of the underlying bedrock; Saprolite lies at the base of the lateritic zone, on top of the bedrock.

### **Exploration and Drilling**

The Ambatovy Joint Venture has carried out continuous definition drilling on the property since 2009, focusing first in completion of 50-metre spacing diamond drill holes in Ambatovy West and Southeast to improve resources definition and increase information on the surrounding contacts with gabbroic material. This part of the deposit is expected to enter the mining sequence in 2021. From 2013 to 2019, definition drilling concentrated on infilling 70 metre spaced drillholes in the Deposits to enable the transfer of Inferred Mineral Resources to Indicated and Measured Mineral Resources.

Pre - production drillings are also conducted prior to mining. Twenty metre-spaced air core drill holes are drilled down to the bedrock and supplementary 10-metre spaced auger drill holes are implemented on the active benches for a depth of 12 metres. This combination of pre-production drilling data is used to design the mining panels, separating the different qualities of ore.

### Sampling and Analysis and Data Verification

At the mine site, the core is measured and the depths marked in metres, photographed and logged according to the principal lithologies and degrees of weathering. Sampling is done at one-metre intervals and broken at sub-metre intervals at significant lithological contacts with highly weathered core being split in half with a knife. For the boulder saprolite, the sections with minus 10 centimetre boulders and fines are divided in half and the boulders sawn. The plus 10 centimetre "fresh" boulders are measured and their percentage of interval recorded, but the boulders are not sampled.

Until 2009, the half-core samples were shipped to UltraTrace Analytical Laboratories ("UltraTrace") in Perth Australia after being placed in plastic bags, tagged and sealed in plastic drums. The remaining half-core sample was sheathed in polythene tubes, placed in a core box and sent to an on-site storage area. Since 2009, all analytical measures have been done by the AMSA laboratory with duplicate samples sent to UltraTrace for validation.

When the on-site lab became operational in 2009, there has been a continuous QA/QC program that uses certified standards and duplicates to monitor the accuracy and precision of the analytical data. In the years when the on-site laboratory has been operating, there has been no systematic problem with the reliability of the analytical data, and the data have been deemed reliable for resource and reserve evaluation by the qualified person, as defined by NI 43-101, responsible for that section of the Ambatovy Technical Report. Prior to 2009, the QA/QC program in place during the drilling coordinated by Dynatec was reviewed by the qualified persons, as defined by NI 43-101, of the technical report prepared in 2005, who found that these data were reliable for resource and reserve estimation. During the 2005 feasibility study, it was established through analysis of duplicates at umpire laboratories that there were small systematic biases in the aluminum and cobalt assays from the PD drilling campaign in the early 2000s. These biases have been corrected by making an across-the-board adjustment to the aluminum and cobalt assays from the PD drill holes.

As of 2005, the complete sample preparation has been done on site. The procedure for sample preparation remains equivalent to the UltraTrace procedure described above. The pulps produced during the sample preparation on site were shipped to Dynatec Fort Saskatchewan ("DYFS") in Canada and UltraTrace in Australia. The facility and the procedures were kept the same when the Corporation took over Dynatec.

## SCHEDULE B (cont.)

Samples at the Ambatovy Joint Venture are also collected for metallurgical pilot plant and batch tests. More than 26,000 total samples were processed at DYFS and UltraTrace with 14 analytical determinations carried out on each sample.

A QA/QC program has been implemented for the assays from the beginning by Dynatec. This specific QA/QC program was reviewed by AMEC in 2006. This review led to the introduction of a bench scale which directly measures the dry weight of core samples, as well as the weight when immersed in water, and led to improved consistency when calculating the moisture content and dry density of the samples.

The samples are collected and handled at the drill site by Ambatovy Joint Venture personnel. The samples are under the direct control of Ambatovy Joint Venture personnel from the drilling site to the on-site laboratory or until they are shipped to UltraTrace. This ensures control of custody by the Ambatovy Joint Venture from the drill sites to the analytical laboratory.

## **Processing and Recovery Operations**

The mine-site facilities includes, among other things, the ore preparation plant (the "OPP") and the slurry transfer pumping plant. These facilities are located between the Deposits.

Ore mined at the Ambatovy mine site is either directly fed to the ore preparation plant, or stockpiled for future processing.

Ore processed through the OPP is slurried with water in a rotary drum scrubber and the resultant slurry is screened at <0.8 millimetres to reject partially or un-weathered material with a high magnesium content. The screened oversize material is processed through a second scrubber and screening circuit that achieves high recovery of the limonite contained in the ore. The final reject material is used for road construction or is deposited into mined-out areas. The product ore slurry is thickened and transported down a 600 millimetre diameter pipeline that is approximately 220 kilometres to the Plant Site.

The route selected for the pipeline is as direct as practical, but some significant deviations were required to avoid environmentally and culturally sensitive areas.

The design for the pipeline was prepared by Pipeline Systems Incorporated, a Canadian company.

## **Processing Facilities**

The nickel and cobalt recovery process from lateritic ores that has been selected by the Ambatovy Joint Venture uses Sherritt-developed technology which is in operation at other facilities.

The Plant Site, includes, among other things, a pressure acid leaching plant, a metals refinery, and associated utility and ancillary plants including: water treatment, steam and power, hydrogen, hydrogen sulphide, sulphuric acid, air separation, limestone comminution, and lime-calcining and slaking. The Ambatovy Joint Venture holds several long-term leases for the land on which the plant and nearby tailings management facility are located. Such leases are registered at the appropriate local land titles registries.

At the processing plant, the slurry is thickened and pumped to an acid pressure leaching circuit consisting of horizontal, mechanically-agitated autoclaves. Sulphuric acid is added to the autoclaves to dissolve nickel and cobalt from the slurried ore. The discharged slurry is partially neutralized with limestone and processed through a counter-current decantation wash circuit to separate the nickel and cobalt-containing solution from the leach residue. The leach residue is impounded in a tailings pond, following further neutralization with limestone and lime. In the nickel and cobalt rich solution, any excess sulphuric acid is neutralized with limestone and the resulting gypsum residue is processed through the wash circuit. Nickel and cobalt are recovered from the solution by precipitation, at elevated temperature and pressure, with hydrogen sulphide gas to produce mixed sulphides.

In the refining process, nickel and cobalt present in the mixed sulphide feed are leached in an oxidizing solution in autoclaves at elevated temperature and pressure. From the mixed sulphides, cobalt, nickel and other metals are dissolved and the sulphur is oxidized. Following solution purification, nickel and cobalt are separated by solvent extraction. Nickel is then recovered in powder form, and, after washing and drying, is compacted into briquettes. Cobalt is also recovered in powder form and

compacted into briquettes or packaged as powder. The remaining, essentially metal-free, solution is evaporated to crystallized ammonium sulphate which is to be dried and sold as fertilizer. Ammonium sulphate fertilizer, a by-product of this refining process, is produced at an on-site ammonium sulphate plant, which is expected to have an annual output of approximately 210,000 tonnes. Other metals present in the feed, such as copper and zinc, are collected in sulphide residues and sold.

The TMF, located several kilometres inland from the plant site, has been designed to specific international standards as set out by the Canadian Dam Association, International Commission on Large Dams, and the Mining Association of Canada. The design provides for neutralization and precipitation of the tailings slurry with limestone and lime prior to discharge to the tailings basin. Construction of the third phase of the TMF is in progress.

Containment in the tailings basin is achieved by progressive elevation of embankments encompassing the tailings facility. Groundwater modeling indicates that due to the low permeability of the regional soils and subsequent tailings layer that will be present, seepage losses will be low. A network of groundwater interception wells is in place to identify and prevent any contaminant migration.

The entire tailings surface area will continue to be utilized through to the end of the life of the Ambatovy Joint Venture, at which point the surface will be contoured, drained and revegetated.

Various tests were completed to determine the characteristics of the tailings, and to estimate the in-situ density that will be achieved in the tailings basin after deposition. A dry density of 1.0 tonne/cubic metre was subsequently selected for the tailings.

Consideration of water management for the tailings basin is essential in this rainfall region. The water management plan involves containing supernatant and surface water run-off to allow for solids settlement to permit ultimate discharge to the ocean. A portion of this discharge is recycled back to the plant site for re-use. Extensive study produced a water management system design and discharge criteria that are established to result in no adverse effects on the local environment.

### Infrastructure, Permitting and Compliance Activities

#### Infrastructure

### **Mine Site**

In addition to the OPP and the slurry transfer pumping plant, the mine site facility includes three camps, mine infrastructure (including offices, workshops, change-house, clinic, etc.), the Mangoro pumping station.

Local resources include a small nearby aggregate quarry, the Mangoro River which is the water supply for the mine site (via a 600 mm diameter and 24 kilometre pipeline) and a 138 kV power line which passes approximately 8 kilometres south of the mine site property.

The Ambatovy Joint Venture has access to the requisite mining personnel through the use of the local population from the town of Moramanga (population of approximately 30,000) for unskilled and semi-skilled labour, as well as having on-site residential facilities for necessary expatriate and national senior staff employees. Buses run between Moramanga and the Mine site for the local employees.

#### **Pipeline**

As mentioned earlier, the slurry pipeline is approximately 220 kilometres and carries a prepared slurry from the Mine Site to the Plant Site. AMSA holds the necessary "rights-of-way" to allow the pipeline to pass through both private and government owned land either through contractual arrangements or a public grant (déclaration utilité publique). The pipeline is accessed by a series of "access roads" which run along the length of the pipeline.

## **Plant Site and Surrounding Area**

In addition to the structures mentioned in "Processing Facilities" above, the Plant Site includes: a coal fired steam and power facility (the "Power Plant") (to provide power to the Plant Site and the steam used in the Processing Plant), a permanent

## SCHEDULE B (cont.)

operations camp, a housing village for residential expatriate employees and office buildings, as well as an air strip and a rail linking the Plant Site to Port. Water for the Plant Site is provided by the Ivondro River pump station.

Naphtha, diesel fuel and Liquefied Petroleum Gas ("LPG") required for the operation of the Processing Plant are provided by third parties suppliers and delivered to the Plant Site via pipeline (in the case of naphtha) and trucks (in the case of diesel and LPG) to: two days tanks (for naphtha); dry tanks and then to a fuel dispensing stations (for diesel) and to bullets (for LPG).

The coal, sulphur and limestone used during processing are delivered by ocean vessels at the Port, and then transported by train to the Plant Site. These materials are stockpiled by a stacker and carried by front-end loaders to hoppers and feeding belt conveyors that deliver them to the Plant.

#### **Tailings Management Facility**

The TMF will be constructed in three phases, two of which have been completed, and will provide sufficient storage for the remaining mine life. The TMF has been designed in accordance with the Equator Principles, as well as the standards set out by the Canadian Dam Association, International Commission on Large Dams, and the Mining Associations of Canada and includes containing supernatant and run-off (which can be pumped to the Plant Site for re-use or pumped after being neutralized and diluted by rainwater for discharge into the ocean); a tailings pond where tailings slurry is neutralized with limestone and lime, prior to discharge to the tailings storage and dilution by rainfall.

The tailings area will be progressively reclaimed through the life of the Processing Plant.

## Permitting and Compliance

All material permits and rights to conduct operations at the Mine Site, Port, Pipeline and Plant Site have been obtained and are in good standing.

**Environmental Permit** (issued December 1, 2006 by the ONE) – The environmental permit covers the mine, Plant Site, TMF, pipeline and port site and is conditional upon the implementation of Environmental and Social Management Plans (**"ESMPs"**) relating to each site, which are subject to an annual review process. The mine site ESMP includes, among other things, the requirement for a 'no net loss' biodiversity strategy based on measures to avoid or minimize impacts, as well as requiring that off-sets be used to compensate for unavoidable biodiversity loss.

In addition to the environmental permit, the Ambatovy Joint Venture is also obliged to obtain forest cutting permits for each parcel cleared, as well as water usage permits are both the Plaint Site and the Mine.

Environmental management actions are accompanied by social support and compensation measures. A reclamation and closure plan has been prepared by consultants and will be put in place for all aspects of the Ambatovy Joint Venture. The cost of project remediation and reclamation in connection with the mine site is estimated at US\$39.0 million.

## MANDATE OF THE AUDIT COMMITTEE

#### **Mandate**

The mandate of the Audit Committee (the "Committee") of the Board of Directors (the "Board") of Sherritt International Corporation (the "Corporation") is to assist the Corporation in ensuring the integrity and accuracy of the Corporation's financial reporting and disclosure controls and procedures. The Committee shall fulfill its mandate by providing an open avenue of communication among management, the auditors (external and internal) and the Board.

#### **Duties and Responsibilities**

- (a) review and recommend for approval to the Board the Corporation's interim financial statements, MD&A and earnings press releases prior to disclosure and report to the Board thereon;
- (b) review and recommend for approval to the Board the Corporation's annual financial statements, MD&A and earnings press releases and report to the Board thereon;
- (c) ensure the adequacy of procedures for the review of other corporate disclosure that is derived or extracted from the financial statements and periodically assess the adequacy of those procedures;
- (d) ensure that management fulfills its responsibilities to maintain effective disclosure controls and procedures and an effective system of internal control over financial reporting; report any deficiencies to the Board;
- (e) ensure management adequately identifies, manages, monitors and discloses the principal financial and business risks that could impact the Corporation's financial results and reporting;
- (f) recommend and propose guidelines for the disclosure of information, such that relevant information is disclosed in a timely manner and is not selective;
- (g) ensure that, taken together, the work of the external and internal auditors provides an appropriate level of audit coverage and is effectively coordinated, to the extent appropriate;
- (h) oversee procedures for the receipt, retention and treatment of complaints received regarding accounting, internal controls or auditing matters, and procedures to allow confidential and anonymous submission of concerns regarding questionable accounting or auditing matters;
- (i) review all material public documents relating to the Corporation's financial performance, financial position or financial analyses prior to release, including the AIF, annual guidance and earnings call presentation;
- (j) review the accounting principles and practices to be applied and followed by the Corporation during the fiscal year and any significant changes from those applied and followed during the previous year;
- (k) review all litigation and claims involving the Corporation which could materially affect its financial position and which the auditors or General Counsel may refer to the Committee;
- (I) approve the Corporation's tax policy;
- (m) review, at least annually, the Corporation's tax status, significant tax issues and reviews by tax authorities
- (n) review, at least annually, management's IT strategy and assess the adequacy of the Corporation's cyber-security plan;
- (o) review the adequacy of insurance coverage;
- (p) ensure management undertake an appropriate enterprise risk management process and review management identification and evaluation of risks and risk mitigation procedures (including hedging);

## SCHEDULE C (cont.)

- (g) review other information provided by management relating to the financial affairs of the Corporation;
- (r) review, at least annually, the quality and sufficiency of the Corporation's accounting and financial personnel; and
- (s) perform any other duties or responsibilities expressly delegated to the Committee by the Board from time to time.

With regard to fulfilling their obligations as set out above, Committee members or the Board may request management, from time to time, to present information to the Committee on such matters relating to the financial affairs of the Corporation as deemed appropriate.

### **Relationship with External Auditors**

The external auditors report directly to the Committee and are accountable to the Board and the Committee. The Committee shall:

- (a) recommend for approval to the Board the appointment and oversee the work of the external auditors engaged for the purpose of preparing or issuing an auditors' report or performing other audit, review or attest services;
- (b) approve the audit plan (including scope, timing and materiality);
- (c) review the qualifications and performance of the external auditors and recommend approval of fees;
- (d) report to the Board regarding the nomination, remuneration and other material terms of the engagement of the external auditors as well as their performance;
- (e) review the results of the external auditors' work. The external auditors' report on the results of their work should include their views on the quality, not just the acceptability, of the implementation of generally accepted accounting principles, with a particular focus on the accounting estimates made by management and management's selection of accounting principles;
- (f) assess working relationships with management and resolve any disagreements between management and the external auditors about financial reporting;
- (g) pre-approve the nature and fees of non-audit services. The Chair has the authority to pre-approve proposals for services to be provided by the Company's auditors up to a value of C\$150,000 per engagement, and to report any such approvals to the Committee as a whole at the next Committee meeting and
- (h) review and approve the hiring policies regarding partners and employees and former partners and employees of the present and former external auditors.

The Committee should review and discuss written reports by the external auditors detailing all factors that might have an impact on the external auditors' independence, including all services provided and fees charged. The Committee should satisfy itself regarding the independence of the external auditors and report its conclusions and the basis for those conclusions to the Board.

The external auditors are entitled to receive notice of every meeting of the Committee and be heard thereat.

The external auditors are entitled to and are responsible for providing their views directly to the shareholders if they disagree with an approach being taken by the Committee.

#### **Relationship with Internal Auditors**

The Internal Audit function reports to the Chief Financial Officer and is accountable to the Committee. The Committee shall:

- (a) approve the mandate for the internal audit department and annually review its objectives and goals and staffing levels;
- (b) approve the internal audit charter;
- (c) approve the internal audit plan;

- (d) approve the internal audit budget and resource plan;
- (e) receive communications from the Internal Audit function on performance relative to its plan and other matters;
- (f) ensure that the Internal Auditor function has direct and open communication with the Committee with respect to progress on planned audits, significant audit findings, recommendations made and management's response;
- (g) approve the appointment or removal of the Chief Internal Auditor; and
- (h) review management's decisions related to the need for an internal audit.

## **Composition and Chair**

The members of the Committee shall, subject to appointments made as a result of resignations or retirements, be appointed annually by the Board on the recommendation of the Nominating and Corporate Governance Committee.

The Committee shall consist of not less than three directors, each of whom shall be "independent" as determined under applicable Canadian securities laws. All members of the Committee are required to be financially literate. The requirements for qualification of Committee members shall be determined and interpreted by the Board from time to time based upon recommendations by the Nominating and Corporate Governance Committee.

The Board shall annually designate a Committee Chair from among the Committee members on the recommendation of the Nominating and Corporate Governance Committee. If, in any year, the Board does not appoint a Chair, the Committee members shall appoint a Chair from their number.

### Meetings

The Committee shall meet as often as the Committee determines is necessary to fulfill its responsibilities and not less than four times a year.

Notice of every meeting will be given to each member.

A majority of the Committee members will constitute a quorum. No business may be transacted by the Committee except at meetings at which a quorum is present.

Any Board member not currently sitting on the Committee shall have a standing invitation to attend and participate in all Committee meetings.

The Committee may invite such members of management or such outside advisors as it may see fit from time to time to attend its meetings and assist in the discussion and consideration of any matter.

A meeting of the Committee may be convened by the Chair, any two Committee members or the Corporation's external auditor.

An in-camera session will be held at each regularly scheduled Committee meeting with the following groups:

- management;
- external auditors: and
- internal auditors

## Reporting

The Committee will:

■ regularly report to the Board on all significant matters it has addressed and with respect to such other matters that are within its responsibilities; and

## SCHEDULE C (cont.)

• oversee the preparation of any disclosure required under applicable Canadian securities laws with respect to matters that are within its responsibilities.

## **Resources and Authority of the Committee**

The Committee shall have the resources and authority appropriate to discharge its duties and responsibilities, including the authority to select, retain, terminate and approve the fees and other retention terms of special counsel or other experts or consultants, as it deems appropriate, provided that if the fees and expenses of any such special counsel or other experts or consultants retained by the Committee exceed, or are expected to exceed C\$150,000, the approval of the full Board will be obtained.

The Committee has the authority to communicate directly with the internal and external auditors.

The Committee may engage outside experts to provide education relevant to the mandate of the Committee.

The Committee must pre-approve any experts or consultants retained by the Corporation if such experts or consultants are currently or have previously been retained by the Committee.

#### Tenure

Each member shall hold office until his or her term as a Committee member expires or is terminated.

#### **Removal and Vacancies**

Any Committee member may be removed and replaced at any time by the Board and shall cease to be a Committee member upon ceasing to be a director. The Board shall fill vacancies in the Committee by appointment from among the members of the Board. If a vacancy exists on the Committee, the remaining members shall exercise all of the Committee's powers so long as a quorum remains in office.

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