



HPQ SILICON RESOURCES INC.

MANAGEMENT DISCUSSION AND ANALYSIS

For the Period ended December 31, 2019

INTRODUCTION

This management discussion and analysis (“MD&A”), prepared as at May 8, 2020, contains information as at December 31, 2019 and should be read in conjunction with the Financial Statements for the year ended December 31, 2019 of HPQ Silicon Resources Inc. (“HPQ-Silicon”, the “Corporation” or “HPQ”). The Notes referred to in this MD&A refer back to the Notes in the Consolidated Financial Statements. The Consolidated Audited Financial Statements are presented in compliance with the International Financial Information Standards (IFRS). All amounts are in Canadian dollars.

The consolidated Financial Statements of December 31, 2019, were audited by the Corporation’s Auditors Raymond Chabot Grant Thornton, LLP.

The consolidated Financial Statements were not adjusted in regard to the accounting value of Assets and Liabilities, Revenues and Expenses and to the classification used in the preparation of the Consolidated Cash Flow Statement under the hypothesis of the Corporation’s ability to continue as a going concern. These adjustments could be significant.

HPQ Silicon Resources Inc. was incorporated on December 20, 1996, under the Canada Business Corporations Act. The Corporation’s shares are part of the Emerging Corporation category and are publicly traded on the TSX-Venture Exchange (“TSX-V”) under the symbol: “HPQ”. It is a reporting issuer under the securities laws of the provinces of Quebec, Alberta and British Columbia. HPQ Silicon’s Head Office is located at 3000, Omer-Lavallée Street, Suite 306, Montréal, Québec, Canada, H2Y 1R8.

The Corporation regularly presents supplementary information on its activities which are filed on (SEDAR) (www.sedar.com).

FORWARD LOOKING STATEMENTS

This MD&A contains forward-looking statements that are based on the Company’s expectations, estimates and projections regarding its business, the mining industry in general and the economic environment in which it operates as of the date of the MD&A. These statements are reasonable but involve a number of risks and uncertainties, which are identified in the regular filings done by the Corporation with the Canadian Regulatory Authorities and there can be no assurance that they will prove to be accurate and the final results as well as future events could vary in a material manner and contradict the results expected under these Statements. Therefore, actual outcome and results may differ materially from those expressed in or implied by these forward-looking statements.

The Forward Looking Statements are influenced by a variety of risks, uncertainties and other factors which could significantly alter the results and actual events. When used in this document the words such as “could”, “plan”, “estimate”, “intention”, “potential”, “should” and similar expressions are Forward Looking Statements.

Even though the Corporation believes that the expectations expressed in these Forward Looking Statements are reasonable, these statements are subject to risks and uncertainties and there is no assurance given by the Corporation that the expected results will correspond to the Forward Looking Statements.

Many risks exist which could render these Forward Looking Statements erroneous such as the price movements in the metals markets, the fluctuations in the foreign exchange and interest rate, of under or over estimated reserves, environmental risks (ever increasing regulations), unforeseen geological situations, negative extraction conditions, changes in government regulations and policies, the inability to obtain the needed permits and government approvals, First Nations issues, or any other risk tied to exploration and development.

The Corporation's ability to continue its operations is subject to securing additional financings needed to continue the exploration of its mineral properties and to the continuous support of suppliers and creditors. Even though the Corporation was able to secure such financings in the past there is no guarantee it will be able to do so in the future.

The Corporation commits to update its Forward-Looking Statements and to advise its shareholders if circumstances, estimates or opinions issued by Management must be changed.

NATURE OF ACTIVITIES

The Corporation's objectives are the exploration and discovery of industrial mineral properties possibly leading to viable commercial exploitation and to become the lowest cost producer of Silicon (Mg-Si), High Purity Silicon (Si), Porous Silicon Wafers and Solar Grade Silicon Metal (SoG-Si). The company activities are centred on becoming vertically integrated using its proprietary PUREVAP™ "Quartz Reduction Reactors" (QRR) (patent pending) process. A process which will allow the transformation of quartz (SiO₂) and refinement of silicon into Silicon (Si) at prices that will propagate its renewable energy potential.

To date HPQ Silicon hasn't determined: if the mineral assets it's currently exploring contain mineral reserves which could be extracted profitably; if it will be able to secure the needed financings to continue the development of its exploration assets, the development of its technologies and to start commercial production, or realize profits from the disposal of such assets.

OVERALL PERFORMANCE DURING 2019

- On December 23, 2019, HPQ completed private placements resulting in the issuance of 3,000,000 units for gross proceed of \$210,000 to the corporation. Each unit consisting in one (1) common share at \$0.07 and one (1) warrant giving the holder the right to acquire an additional common share at a price of \$0.10 for three (3) years.
- On December 9, 2019, the Company announced the postponement of the royalties payable to the minimum royalties payable for 2018 and 2019 as from the financial year 2020.
- On December 19, 2019, the Company has extended 4,152,000 warrants until January 2022.

OVERALL PERFORMANCE DURING 2019 (continued)

- On November 25, 2019, the Company announced that it is actively evaluating a joint venture with PyroGenesis to manufacture nanoscale (Si) silicon powders for next-generation Li-ion Si batteries.
- On November 7, 2019, HPQ announced that HPQ and its partner Apollon Solar SAS, acting as a party, have signed a confidentiality agreement ("NDA") with a manufacturer of Li-ion batteries in order to exchange technical information and the sending of test material.
- On September 25, 2019, HPQ announced the extension the agreement with Apollon Solar SAS, ("Apollon"). The agreement now includes evaluating manufacturing porous Silicon wafers for solid-state Li-Ion batteries.
- On September 4, 2019, HPQ announced that a new provisional patent application covering a critical part of the PUREVAP™ Quartz Reduction Reactor (QRR) process has been filed.
- During July and August 2019, HPQ completed private placements resulting in the issuance of 3,600,000 units for gross proceed of \$360,000 to the corporation. Each unit consisting in one (1) common share at \$0.10 and one (1) warrant giving the holder the right to acquire an additional common share at a price of \$0.15 for three (3) years.
- On July 11, 2019, HPQ announced that PyroGenesis calculated that the maximum scaled up size of a single PUREVAP™QRR reactor would allow the production of 2,500 metric tonnes ("MT") of Silicon Metal per year. The total capacity of any PUREVAP™ QRR plant is therefore scalable by increments of 2,500 MT per year.
- On June 17, 2019, HPQ announced that the PUREVAP™ QRR process could significantly reduce the cost of raw materials for silicon manufacturing, thereby reducing the number of operations compared to the sector.
- On April 25, 2019, HPQ announced an evolution through tests on the commercial feasibility validation on GEN2 PUREVAP™ and identified a new operational parameter.
- On February 26, 2019, HPQ annouced that GEN2 PUREVAP™ Commercial Scalability Proof of Concept tests demonstrated that semi-continuous operation improves the PUREVAP™ QRR Production Yield.
- On February 14, 2019, the Company has extended 4,375,000 warrants until March 2021.
- During the period, the Company paid \$ 69,878 for the patents and \$ 336,550 for its alliance with Apollon Solar.
- During the period, the Company settled a debt to a supplier in the amount of \$ 131,500 through the issuance of 750,000 units consisting of one common share and one warrant and 715,480 common shares.

SUMMARY OF CURRENT ASSETS AND EXPLORATION WORK

- As at December 31, 2019, the Corporation held cash in an amount of \$ 77,618, \$ 90,000 in marketable securities in a quoted company, \$ 30,768 in Goods and Services tax receivables, \$ 46,186 royalties receivable, \$ 1,950,000 in a deposit on a contract granted and \$ 100,000 in prepaid expenses.
- For the period ended December 31, 2019, HPQ completed exploration work on its properties for a total of \$2,904.

EXPLORATION ACTIVITIES AND PROJECTS

QUARTZ/SILICON

PROJECT: RONCEVAUX

The Roncevaux property is made-up of 27 map designated cells (“CDCs”) covering a total of 2,068 ha in 2 blocks. The main block covers some 24 CDCs for a total area 1,895.76 hectares and is host to the Roncevaux quartz vein occurrence. The second block consists of 3 CDCs covering 172.40 hectares some 2.2 km north of the main block. The property is located in the Matapedia region of Gaspé about 75 km south of Causapscal.

The Roncevaux Project lies within the southern domain in the central portion of the Connecticut Valley-Gaspé synclinorium. It is bound to the north by the Shickshock-South fault and to the south by the Restigouche fault. This basin is filled with fine to very coarse grained siliciclastic rocks, various types of limestones, felsic to mafic volcanic and intrusive rocks. The rocks of the Roncevaux vein area belong to the Fortin Group and the few outcrops visited by the INRS-ETE technical team in September 2015 were made-up of sandstones and siltstones with lesser units of shales and mudstones. The rocks are folded faulted and fractured. Bedding (So) appears sub-vertical (85o) with an average strike of N231o.

During the last quarter of the year of 2017, the Corporation completed a 2,000 meters diamond drilling program. This program consisted in 32 holes, each to a depth of 50 m, along the known 400 meter Quartz outcrop. Assays and characterization tests will be undertaken on the drill cores.

The Corporation has granted to Beauce Gold Fields Inc. the Roncevaux Specific Mining and exploration rights except for Quartz in exchange for 100,000 shares at a deemed price of \$ 0.10 each and a 5% NSR. Up to 4% of this royalty can be bought back by paying \$ 100,000 for each 0.10% NSR up to a maximum of \$4 million.

During for the period of 2019, the Corporation completed exploration and development work for a value of \$ 2,904 and the devalued the property for \$ 262,565.

PROJECT: MARTINVILLE

The Martinville Property (the “Property”) is located in the Eastern Townships 180 km east of Montreal and 30 km south of Sherbrooke. Private forests and small farms mostly cover the region. The property consists of 4 claims of which an area of 2.42 km² is available for exploration. The initial 2 Claims cover the area where the exploration work has been carried out and they host quartz veins that were historically worked on.

The quartz is made up of Schist encased hydrothermal quartz veins. A 1995 geophysical survey shows an exploration potential of more than 1,000,000 tonnes SiO₂ using a surface length quartz vein of 200 m, averaging 2 to 23 meters in width while assuming a depth of up to 30 m (GM53696 : Pierre Vincent, “géosciences de l’établissement”. 1995.). While pertinent this data is non-NI 43-101 compliant. To validate these estimates the Corporation plans on undertaking an exploration program that will be Ni-43-101 compliant.

During 2019, the Corporation did not perform any exploration work on the property and the devalued for \$ 262,565..

HIGH PURITY QUARTZ/SILICON

Silicon (Si) also known as silicon metal, is one of today’s strategic materials needed to fulfil the Renewable Energy Revolution (“RER”) presently under way. Silicon does not exist in its pure state; it must be extracted from quartz (SiO₂), in what has historically been a capital and energy intensive process.

[HPQ](#) is building a portfolio of unique high value silicon products needed for the RER. But since Silicon is extracted from quartz (SiO₂), HPQ started in that by pathways by first acquiring quartz exploration concessions.

Working with PyroGenesis Canada Inc, (“PyroGenesis”) a high-tech company that designs, develops, manufactures and commercializes plasma - based processes, HPQ is developing:

- The **PUREVAP™ “Quartz Reduction Reactors” (QRR)**, an innovative process (patent pending), which will permit the one step transformation of quartz (SiO₂) into high purity silicon (Si) at reduced costs, energy input, and carbon footprint that will propagate its considerable renewable energy potential;

HPQ is in the process of becoming the lowest cost (Capex and Opex) producer of silicon (Si) and high purity silicon (3N – 4N Si);

HPQ is the owner of the PUREVAP™ QRR Intellectual Property

- The **PUREVAP™ Silicon Nano Reactor (SiNR)**, a new proprietary process that can use different purities of silicon (Si) as feedstock, to make spherical silicon nanopowders and nanowires;

HPQ objective is to become the lowest cost manufacturer of spherical Si nanopowders and silicon-based composites needed by manufacturers of next-generation lithium-ion batteries;

HPQ is also working with industry leader Apollon Solar of France to:

- Use their patented process and develop a capability to produce commercially porous silicon (Si) wafers and porous silicon (Si) powders. The collaboration will allow HPQ to become the lowest cost producer of porous silicon wafers for all-solid -state batteries and porous silicon powders for Li-ion batteries.

HIGH PURITY QUARTZ/SILICON (continued)

Below you will find a summary of the latest progress achieved during fiscal 2019 and subsequent period on our ongoing development of our PUREVAP™ project:

On April 15, 2020, HPQ announced promising results emanating from electrochemical performance tests performed on materials produced with our *GEN2 PUREVAP™ Quartz Reduction Reactor ("QRR")*.

Tests conducted at the Institut National de Recherche Scientifique (INRS), on material produced with the *GEN2 PUREVAP™ QRR ("GEN2")*, demonstrated its potential to advantageously replace graphite in Lithium-ion (Li-ion) batteries while limiting the disadvantages inherent to silicon anodes.

The tests on material produced with the GEN2 are part of a series of initiatives being undertaken by HPQ in order to become a producer of silicon (Si) materials suitable for the next generation Li-Ion batteries. The tests were completed at the Centre Énergie Matériaux Télécommunications (EMT) of the INRS by Professor Lionel ROUÉ under an NSERC Engage Grant and a NSERC Engage plus Grant.

The exact composition of the material produced with the GEN2 as well as how the electrodes used in the tests were prepared are trade secrets of HPQ. HPQ will take the necessary steps to protect this invention. As part of this research project, HPQ retains all intellectual property rights in relation to this invention.

On January 15, 2020, HPQ announced that the *PUREVAP™ GEN 2* reactor has been modified and has successfully produced spherical nano-powders from silicon metal with a primary size <500 nanometers (<0.5 µ).

On October 31, 2019, HPQ announced a collaboration with Professor Lionel Roué of the National Institute for Scientific Research (INRS) in the context of projects to assess the electrochemical performance of different materials as anode for the Li-ion battery market and in the second phase, the electrochemical performance of the porous silicon wafers.

On September 4, 2019, HPQ announced that a new provisional patent application covering a critical part of the PUREVAP™ Quartz Reduction Reactor (QRR) process has been filed. This is the second distinct patent filing for HPQ and PyroGenesis Canada Inc. since the 2015 commencement of the Company's quest to improve the global economics and supply concerns of the Silicon (Si) market. The first patent filing is currently pending and covers the entire novel PUREVAP™ QRR process usage of a plasma arc within a vacuum furnace for the one step production of Silicon (Si) from Quartz (SiO₂). This new provisional filing is focused on a new and novel process for continuous operations of the plasma arc furnace under vacuum.

On July 11, 2019, HPQ announced that the maximum scaled up size of a single PUREVAP™QRR reactor would allow the production of 2,500 metric tonnes ("MT") of Silicon Metal per year.

HIGH PURITY QUARTZ/SILICON (continued)

On April 25, 2019, HPQ announced that GEN2 PUREVAP™ Commercial Scalability Proof of Concept tests identified new operational parameter that increases the Pure Silicon (Si Nugget) Production Yield of the PUREVAP™ QRR and that a test using these new parameters was completed which together provided the following information:

- The PUREVAP™ reactor can be modified from a stationary reactant mixtures load to a dynamic one, without affecting other key operational parameters of the reactor which, as a result, improves production yield significantly;
- That changing the reactant mixture load to a dynamic flow positively affects Production Yield;
- That it is feasible to modify the GEN3 PUREVAP™ Pilot Plant to integrate these advantages into the new design.

On February 26, 2019, HPQ announced that GEN2 PUREVAP™ Commercial Scalability Proof of Concept tests demonstrated that semi-continuous operation improves the PUREVAP™ QRR Production Yield. Scaling up from GEN1 to GEN2 in semi-continuous mode, production yield increased from ~ 1% to 34% (February 15 and April 19, 2018 releases). The following points put into perspective the significance of the results:

- While 2018 test were mostly focussed on testing components and processes for the final design of GEN3 PUREVAP™, the GEN2 testing also demonstrated that production yield is crucial to the final purity of the Silicon Metal (Si) produced by the PUREVAP™;
- Of significant interest is the fact that one GEN2 PUREVAP™ test provided 17.9% production yield and 99.83% total impurity removal efficiency compared to a GEN1 test under similar operating conditions, that provided 3% production yield and 97.14 % total impurity removal efficiency. PyroGenesis was able to validate that production yield does play an important role in the impurity removal efficiency of the process and final purity of Si.
- Using data from both GEN1 and GEN2 tests, PyroGenesis repeated the 2017 extrapolation exercise and concluded that, even using low purity feedstock (98.84% SiO₂), the carbothermic part of the PUREVAP™QRR process should allow HPQ to reach the 4N+ Si (99.99+% Si) purity threshold, assuming a production yield of +90% (or commercial scale production yield of traditional Metallurgical Grade Si (MG-Si) smelters (98.5% - 99.5% Si)).
- These results exceed 2017 Gen1 base extrapolations that indicated then that the carbothermic part of the PUREVAP™ QRR process could only reach the 3N+ Si (99.9+% Si) threshold using low purity feedstock (98.84% SiO₂), and furthermore this required a 100% production yield (November 1, 2017 release).

On January 24, 2019, HPQ issue a comprehensive review of the Milestones reached since the start of the project.

HIGH PURITY QUARTZ/SILICON (continued)

As per the scheduling established for the design, manufacturing, assembly, cold start-up and the start of operations, no remittance has been made by the Company. The follow-up stages will consist of the hot start-up of the equipment for \$520,000, and the 10 months start-up and breaking-in phase for a value of \$2,310,000. The total investment was \$5,240,000 as of December 31, 2018 of which \$1,000,000 for the acquisition of the intellectual property. During August 2018, the Corporation made a \$1,950,000 deposit to be used as payment for the star-up of the equipment.

EXPLORATION AND EVALUATION EXPENSES

The deferred exploration expenses the quarter ending on December 30, 2019 totalled \$ 2,296 compared to \$ 67,739 for the same period last year.

The deferred exploration expenses (before exploration credits and mining rights) for the year ending on December 31, 2019 totalled \$ 2,904 compared to \$ 79,714 for last year, for a decrease of \$76,810.

Here is a detailed exploration and evaluation comparative analysis of costs and expenses for the period ending on December 31, 2019 and 2018.

	For the quarter ending on December 31		Period ending December 31	
	2019	2018	2019	2018
	\$	\$	\$	\$
Beginning balance	1,191,184	1,273,699	1,190,576	1,261,724
Add:				
Location	-	1,969	608	3,767
Analysis	2,296	65,770	2,296	75,947
	<u>2,296</u>	<u>67,739</u>	<u>2,904</u>	<u>79,714</u>
Balance before write-offs and devaluation	1,193,480	1,341,438	1,193,480	1,341,438
Less : Write-offs	-	150,862	-	150,862
Devaluation	260,835	-	260,835	-
	<u>260,835</u>	<u>150,862</u>	<u>260,835</u>	<u>150,862</u>
Ending balance	<u>932,645</u>	<u>1,190,576</u>	<u>932,645</u>	<u>1,190,576</u>

SELECTED FINANCIAL INFORMATION FOR THE QUARTER

The following table presents Selected Financial Information for the last eight quarters.

	Fiscal 2019				Fiscal 2018			
Quarter finishing on:	12/31	09/30	06/30	03/31	12/31	09/30	06/30	03/31
	\$	\$	\$	\$	\$	\$	\$	\$
Operating	513,279	280,828	288,221	257,294	474,795	350,920	396,682	294,794
Net Loss	229,086	296,783	491,046	367,426	393,298	470,294	592,373	189,458
Loss per share (basic and diluted)	(0.01)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)
Current Assets	2,294,572	2,420,938	2,424,188	2,775,249	3,022,683	5,381,473	2,655,484	2,805,441
Total Assets	10,854,176	11,168,641	10,946,356	11,231,970	11,391,633	13,217,610	9,664,041	9,693,622
Current Liabilities	656,765	881,085	868,070	851,244	824,286	995,091	758,490	512,003
Non-Current Liabilities	3,665,427	3,372,391	3,954,275	3,493,778	3,326,348	3,004,678	2,395,256	2,342,814
Shareholders' Equity	6,531,984	6,555,165	6,484,011	6,886,948	7,240,999	9,217,841	6,510,295	6,838,805

DISCUSSION ON THE FINANCIAL INFORMATION OF THE SELECTED QUARTER

- TOTAL PERFORMANCE**

For the last quarter of 2019, the Company saw decrease in its Net Loss of \$ 164,212 (42%) (\$ 229,086 vs \$ 393,298), while operational costs increased by \$ 38,484 (8%) (\$ 513,279 vs \$ 474,795) while during the last seven quarters the respective averages were \$ 400,097 and \$ 334,791.

DISCUSSION ON THE FINANCIAL INFORMATION OF THE SELECTED QUARTER (continued)

• NET LOSS ANALYSIS

The decrease in Net loss of \$ 164,212 (42%)(\$ 229,086 vs \$ 393,298), in comparison to the same period in 2018, corresponds to a gain on the modification of the royalties payable of \$ 350,000, costs restructuring of \$ 120,540 for 2018; and a reduction in salaries and benefit charges due to the change of present value of the installments on a due to directors and officers of \$ 130,822.

There was an increase in costs operations of \$ 38,484 (8%) (\$ 513,279 vs \$ 474,795). This decrease is related to the lower restructuring costs of \$ 63,192 (or 100%) (\$ 0 versus \$ 63,192). This increase is linked to several elements; Salaries and benefits charges increased by \$ 98,492 (\$ 115,952 vs \$ 17,460). This difference is related to the present value of the due to directors and officers of \$ 130,822 for the same period of 2018. During this period, the Company devalued exploration and evaluation assets for a value of \$ 262,565 and write-off for \$ 173,616 of exploration and evaluation assets for 2018. There was a decrease of \$ 120,540 in restructuring costs compared to 2018 (\$ 0 vs \$ 120,540). These costs were related to the planning and setting of the plan of arrangement for the sale of gold assets to its subsidiary which was finalized in December 2018 as well as a decrease in other operating costs of \$ 28,333 (17%) (134,592 \$ vs \$ 162,925).

Other incomes and expenses increased by \$ 272,051 (\$ 284,193 versus \$ 12,142). This increase corresponds to a gain on the modification of the royalties payable of \$ 350,000. The change corresponds to a two-year postponement of our minimum fees payable for the years 2020 and 2021. There has been a decrease in the change in fair value of marketable securities in a quoted company of \$ 58,593 compared to the same quarter in 2018.

SELECTED FINANCIAL INFORMATION FOR THE 2019 PERIOD

The following table presents Selected Financial Information for fiscal 2019, 2018, 2017 and 2016.

	FISCAL 2019	FISCAL 2018	FISCAL 2017	FISCAL 2016
	12/31/19	12/31/18	12/31/17	12/31/16
	\$	\$	\$	\$
Operating expenses	1,339,622	1,517,191	2,905,454	2,502,220
Net loss	1,384,341	1,645,423	2,616,243	2,589,682
Results per share (basic and diluted)	(0.01)	(0.01)	(0.02)	(0.02)
Current Assets	2,294,572	3,022,683	2,843,366	3,497,544
Total Assets	10,854,176	11,391,633	9,602,391	7,840,995
Current Liabilities	656,765	824,286	480,468	735,418
Non-current Liabilities	3,665,427	3,326,348	2,289,959	2,069,876
Shareholders' Equity	6,531,984	7,240,999	6,831,964	5,035,701

GENERAL DISCUSSION ON FINANCIAL INFORMATION FOR THE 2019 PERIOD

- **OVERALL PERFORMANCE**

In 2019, in comparison to 2018, the Company saw a decrease in its Net Loss of \$ 261,082 (16 %) (1,384,341 \$ vs 1,645,423 \$), while operational costs decreased by \$ 177,569 (12%) (\$ 1,339,622 vs \$ 1,517,191) while during the last three previous periods these costs averaged respectively \$ 2,283,783 and \$ 2,225,157.

- **DISCUSSION ON NET RESULTS**

The decrease in Net loss of \$ 261,082 (16%) (\$ 1,384,341 vs \$ 1,645,423), in comparison to the same period in 2018, corresponds to the decrease in the cost of operations of \$ 177,569 and other income and expenses of \$ 152,868.

There was a decrease in costs of operations of \$ 177,569 (12%) (\$ 1,339,622 compared to \$ 1,517,191). Salaries and employee benefits expense increased by \$ 99,356 (12%) (\$ 479,551 vs \$ 380,195). This difference is related to the present value of the due to directors and officers of \$ 130,822 for the period of 2018. The decrease in other operating expenses of \$ 105,211 (\$ 596,826 vs \$ 702,037) is mainly related to a decrease travel expenses for \$ 79,288 (\$ 12,252 vs \$ 91,540). There was a decrease in restructuring costs of \$ 260,324 (100%) (\$ Nil vs \$ 260,324). These costs were related to the planning and setting of the plan of arrangement for the sale of gold assets to its subsidiary which was finalized in December 2018 and an increase of \$ 88,949 (\$ 262,565 vs \$ 173,616) for the devaluation and write-off of exploration and evaluation assets.

Other income and expenses decreased by \$ 152,868 (- \$ 44,719 vs - \$ 197,587). During the period, there was a gain on the modification of the royalties payable of \$ 350,000 (nil in 2018), an increase relating to the convertible debenture costs of \$ 175,538 (\$ 245,347 vs \$ 69,809), a decrease in the interest expenses on the note payable of \$ 45,029 (\$ 0 vs \$ 45,029), the increase in derivative liabilities by \$ 86,592 (- \$ 10,614 versus \$ 75,978), the gain on the decrease of our participation in Beauce Gold Fields of \$ 15,426 and the Share of loss from equity-accounted investment in Beauce Gold Fields of \$ 88,672.

- **LIQUIDITIES AND CAPITAL RESOURCES**

The Corporation for the period ending in 2019 with a working capital of \$ 1,637,807 (\$ 2,198,397 as at December 31, 2018). The current assets totalled \$ 2,294,572: cash on hand \$ 77,618 (\$ 320,550 as at Dec. 31, 2018), marketable securities in a quoted company \$ 90,000 (\$ 364,000 as at Dec. 31, 2018), HST tax receivables \$ 30,768 (\$ 277,981 as at Dec. 31, 2018), Royalties receivable \$ 46,186 (nil as at Dec. 31, 2018), a deposit on a contract of \$ 1,950,000 (\$1,950,000 at December 31, 201) and prepaid expenses of \$ 100,000 (\$ 110,152 as at Dec. 31, 2018).

The marketable securities in a quoted company for a value of \$ 90,000 represent an investment in PyroGenesis. The HST receivable for \$ 30,768 comes from the payment of bills related mainly to suppliers during the last quarter. The royalty receivable of 46,186 represents the NSR according to the agreement with Beauce Gold Fields. The deposit on a contract of \$ 1,950,000 represents part of the start-up cost for the pilot plant equipment. The prepaid expenses of \$ 100,000 represents a payment for Testing of the System.

During the period, the Corporation acquired \$ 406,428 in intangible assets.

- **LIQUIDITIES AND CAPITAL RESOURCES (continued)**

Current liabilities totalling \$ 656,765 (\$ 824,286 as at Dec. 31, 2018) were made up of amounts owed to trade and others payables of \$ 447,052 (\$ 501,335 as at Dec. 31, 2018), due to Directors of \$80,000 (nil at December 31, 2018) and royalties payable of \$ 129,713 (\$ 322,951 at December 31, 2018). The non-current liabilities of \$ 3,665,427 (\$ 3,326,348 as at Dec. 31, 2018) represent due to Directors, Officers and a company controlled by a Director \$ 996,319 (Nominal value \$ 1,088,141) (\$ 992,319 as at Dec. 31, 2018), the convertible debenture and derivative financial liabilities and including accrued interests for a value of \$ 1,640,757 (nominal value \$ 1,929,709) (\$ 1,382,796 at December 31, 2018) as well as royalties payable of \$ 1,028,351 (\$ 949,233 as at Dec. 31, 2018).

- **WORKING CAPITAL**

As at December 31, 2019, the Corporation had a working capital of \$ 77,618 (\$ 320,550 for 2018).

The Cash Flow used for operational activities was \$ 668,432. The use of cash flow for operations is made up of the Net Loss of \$ 1,384,341. The other non-cash elements that have no influence on cash flow are composed of Depreciation for \$ 680, Devaluation of exploration and evaluation for \$ 262,565, Gain on modification of royalties payable of \$ 350,000, various accretion of \$ 355,524, Share of loss from equity-accounted investment for \$ 88,672, gain on the decrease of our participation in Beauce Gold Fields of \$ 155,426, Financial costs of \$ 93,922, salaries and benefits of \$ 156,115, the change in fair value of the derivative liability of \$ 10,614 as well as the variation in the value of the shares of a publicly traded company of \$ 1,413. The use of cash flow for operational working capital represents an amount of \$ 251,830 which comes from: decrease in HST receivables of \$ 247,213, decrease in royalties receivable of \$ 10,000, decrease in Prepaid expenses of \$ 10,152 as well as the increase in trade and other payables of \$ 15,535.

The use of cash flow for investing activities of \$ 118,326 is made up of increase in Exploration and Evaluation assets of \$ 14,791, an increase in Intangible Assets of \$ 376,122 and from the Disposition of negotiable investments of \$ 272,587.

The cash flow from financing activities of \$ 543,826 includes a private placement through the issuance of common share units for a value of \$570,000 and the share issuance costs of \$ 26,174. The Corporation decreased its cash flow of \$ 242,932 during the period.

The Corporation average quarterly cash requirements should vary between \$ 225,000 and \$ 250,000 according to each period's activities excluding exploration and evaluation costs and the addition to property equipment and intangible assets, as well as for restructuring costs.

As long as the Corporation is in an exploration and evaluation mode it will not generate cash flow from operations. The Corporation's ability to satisfy its current obligations and continue its development is fully dependent on Management's ability to raise the needed funds from private placements and other financing programs through the issuance of share capital.

Management is of the opinion that as long as important negative events do not occur on the financial markets, during the next year, the Corporation should be able to complete the needed placements and financings to advance its various projects.

In conclusion, the financial statements do not reflect the needed adjustments that would need to be made in the event it could not raise the funding to continue its activities. Investors are hereby advised that if such changes are needed they could be material.

FINANCIAL COMMITMENTS, CONTINGENCIES AND SUBSEQUENT EVENTS

The Company entered into agreements with subscribers whereby the Company had to incur \$ 245,000 of Canadian Exploration Expenses ("CEE") before December 31, 2012. The Company had incurred \$ 163,875 in CEE before December 31, 2012 and an approximate balance of \$77,000 of CEE renounced to the investors was not been incurred as at December 31, 2012 and was used for other purposes than exploration expenses. The maximal contingency for the Company, in relation to non-compliance with its obligations with subscribers, is approximately \$55,000. As at February 28, 2014, the Company had produced the reductions forms related to the amount of \$77,000 in CEE renounced to the investors and that have not been incurred as at December 31, 2012. As at December 31, 2019, an amount of \$ 8,131 pertaining to part XII.6 taxes is included in trade accounts.

The Company entered into agreements with subscribers whereby the Company had to incur \$1,245,000 of Canadian Exploration Expenses ("CEE") before December 31, 2017. The Company had incurred \$919,296 in CEE before December 31, 2017 and an approximate balance of \$293,000 of CEE renounced to the investors was not been incurred as at December 31, 2017 and was used for other purposes than exploration expenses. The maximal contingency for the Company, in relation to non-compliance with its obligations with subscribers, is approximately \$220,000. As at February 28, 2018, the Company had produced the reductions forms related to the amount of \$293,000 in CEE renounced to the investors and that have not been incurred as at December 31, 2017. As at December 31, 2019, an amount of \$34,642 pertaining to part XII.6 taxes is included in trade accounts.

The July 15, 2014, AGORACOM contract was extended by one year under the original conditions. HPQ will issue shares to AGORACOM for on-line advertising and marketing services and other related activities. The extension started on July 15, 2018 and the \$50,000 fees must be paid quarterly in \$12,500 payments plus HST. The number of shares to be issued at the end of each period is determined on the date when the invoice is issued using the closing price of the shares the previous day on the TSX Venture Exchange. The most recent twelve-month agreement started on July 15, 2018 and the services totaling \$50,000 must be paid quarterly by the Corporation through payments of \$12,500 plus HST.

On September 28, 2015, the Corporation concluded a Development and Exclusivity Agreement with PyroGenesis. In return for the Exclusive Right to use the PyroGenesis-developed technology, it must make the following payments:

- 2020, the highest between 10% of Si sales or \$150,000;
- 2021, the highest between 10% of Si sales or \$200,000;
- 2022 and after, the highest between 10% of Si sales or \$250,000.

As at December 31, 2019, the remaining total commitment for the purchase of the Pilot Plant Equipment was approximately \$2,540,000 of which an amount of \$1,950,000 is a deposit on a contract.

The Corporation has obtained the approval of the TSX-Venture Exchange for the line of credit on equity in an amount of \$1,500,000 agreed to by PyroGenesis. This line of credit is only to be used if there are any cost overruns that could be incurred for the pilot plant equipment after the end of the test period in 2019 and until December 31, 2020.

FINANCIAL COMMITMENTS, CONTINGENCIES AND SUBSEQUENT EVENTS (continued)

The terms of the line of credit stipulate that for costs overrun to be paid for it must be agreed to by the two party prior to the expenses being incurred. Once the expenses approved, the Corporation will need to submit a 30 days advance notice to PyroGenesis stating that it intends on using the line of credit to pay for an overrun. Once the completion of the approved work, PyroGenesis will submit an invoice for the work done and HPQ will arrange for the payment of the invoice through the issuance of a sufficient number of common shares of its share capital to pay the invoice, the whole in compliance with the TSX-V regulations. The shares being subject to a 10% discount to the market price of the shares on the invoice date.

On November 17, 2017, the Company entered into a service agreement with Apollon Solar in the development of its Silicon SoG production project. On January 9, 2020, an addendum was signed with Apollon Solar in the development of its project to produce porous silicon wafers that can be used in solid Li-ion batteries. Under this amendment, the Company undertakes to pay fees of € 120,000 over a period of 6 months from January 2020.

In March 2020, the World Health Organization declared the COVID-19 epidemic a pandemic. The situation is constantly evolving, and the measures put in place have numerous economic repercussions at the global, national, provincial and local levels. These measures, which include travel bans, solitary confinement or quarantine, voluntary or not, and social distancing, have caused significant disruption among businesses, globally and in Canada, due to the slowdown economic. Governments and central banks responded by implementing monetary and fiscal measures to stabilize the world economy; however, the current difficult economic climate may cause adverse changes in cash flow, the level of working capital and / or the search for future financing, which could have a direct impact on its future financial position. The financial impact on Company is not know at this time. The impacts will be adequately reflected in fiscal 2020.

On April 23, 2020, the Company completed a private financing for an amount of \$500,000. The Company issued 10,000,000 units consisting of one common share and one warrant. Each full warrant entitles the holder thereof to subscribe for an equivalent number of common shares of the Company at a price of \$0.10 per share, during a period of 36 months following the closing of the financing.

In addition, the Company recorded an amount of \$12,000 commission fees. The Company issued to the agent 240,000 warrants (for a value of \$8 973). Each warrant entitles the holder to subscribe to one common share of the Company at a price of \$0.10 per share for a period of 36 months from the date of closing of the financing.

SUMMARY OF ACCOUNTING POLICIES

The preparation of annual financial statements under IFRS requires that management use its judgment, makes assumptions and estimates and use hypotheses that influence the application of accounting methods, as well as having an effect on the book value of assets, liabilities, revenues and expenses. Final results could differ from these estimates.

The estimates and hypotheses are regularly reviewed. Any revision of accounting estimates are indicated during the period when the estimates are revised as well as any future periods affected by said revisions.

Information on the hypotheses and estimate uncertainties that present an important risk of creating a significant adjustment during the course of the next financial period are as follows:

- Recoverability of Exploration and Evaluation Assets;
- Evaluation of Income Tax Credits to receive on resources exploration and Mining Right Credits.
- Evaluation of the convertible debenture and derivative financial liability;

Management believes that the majority of the changes will be adopted in the Corporation's accounting methods during the first period starting after the effective date of each new change. The information on the new standards and interpretations as well as the new amendments, which are susceptible to be pertinent to the Corporation consolidated financial statements are supplied below.

FUTURE ACCOUNTING POLICIES

On January 1, 2018, the Company adopted IFRS 9 retrospectively, with the restatement of comparative data in accordance with the transitional provisions of IFRS 9. IFRS 9 defines the requirements for the recognition of financial assets and liabilities and replaces IAS 39, Financial Instruments: Recognition and Measurement.

The adoption of IFRS 9 had the effect of changing the classification of financial assets that were classified as loans and receivables but did not change the classification of other financial assets or financial liabilities. Cash, installments due to a company and installments on due to directors, officers and companies held by a director or officer classified as loans and receivables in accordance with IAS 39 are now classified at amortized cost in accordance with IFRS 9. The adoption of this new standard had no impact on the measurement of financial instruments; therefore, the comparative amounts have not been restated.

INFORMATION COMMUNICATION CONTROLS AND PROCEDURES

As the Corporation is an emerging issuer, management does not need to attest to the establishment and maintenance of Information Communication Controls and Procedures and internal controls relating to financial information as defined under Regulation 52-109.

The Signing Officers of the Issuer are responsible to ensure that there are processes in place allowing them to gather sufficient information for the statements made in the Certificates.

FINANCIAL INSTRUMENTS

Financial Assets used by the Corporation consist of: cash, royalties receivable and the deposit on contract are part of the loans and receivables category.

The financial liabilities of the Corporation include supplier and creditor payables (excluding salaries and personnel related expenses), the amounts Due to Directors, the amounts Due to Directors, Officers and to a corporation held by a Director (excluding salaries and Personnel expenses) royalties payable, the interest payable on the convertible debenture, the convertible debenture and its derivative financial liability.

The fair value of royalties receivable; of due to Directors, Officers and corporations, controlled by a Director or Officer; of the convertible debenture and derivative financial liabilities, of the Royalties payable, are estimated using an analysis of the discounted cash flows using an interest rate for similar instruments. The fair value of royalties payable approximates the carrying amount at the end of the year, while the fair value of the due to directors, officers and a corporation held by a director is \$ 996,319 and the convertible debenture is \$ 1,081,674 (excluding derivative financial liabilities).

The fair value of the marketable securities of a quoted company was estimated based on the market price at the balance sheet date. Marketable securities of a quoted company measured at fair value in the consolidated statements of cash flows as at December 31, 2019.

As at December 31, 2019, the corporation cash was held in Canadian funds in an interest-bearing account at Bank of Montreal.

INFORMATION ON SHARE CAPITAL

- **Information on financings**

On December 31, 2019, the Corporation had 230,537,866 shares issued and outstanding (222,284,053 on December 31, 2018), Nil shares to be issued (188,333 on December 31, 2018), 70,628,000 warrants (75,178,000 as at December 31, 2018), 650,150 Broker's Warrants (717,250 on December 31, 2018), 175,000 Broker's Units (175,000 as at December 31, 2018) and 12,400,000 Options (12,400,000 as of December 31, 2018). The number of shares on a diluted basis is 314,566,016.

- **Information on outstanding shares**

As at May 8, 2020, the Corporation had 240,905,827 shares issued and outstanding, 80,628,000 warrants, 890,150 Broker's Warrants, 175,000 Broker's Units and 12,400,000 options. The number of fully diluted shares is 335,173,977. The Corporation's share capital consists of an unlimited number of common shares with No Par Value.

RELATED PARTY TRANSACTIONS

For the period ending on December 31, 2019, the sum of \$150,000 (\$150,000 on December 31, 2018) was accounted for as management fees under a contract between the Corporation and a corporation controlled by the Chairman of the Board as part of a consulting agreement with the Corporation and \$ Nil (\$14,200 on December 31, 2018) was accounted for by a corporation managed by a member of the board of Directors as part of consulting services rendered to the Corporation.

These activities are part of the normal course of business for the Corporation and are established based on their exchange value as agreed to by the parties.

Accounts payable and other payables include \$ 223,209 due to officers and a corporation held by a director (\$ 141,418 as at December 31, 2018).

The Corporation owes to Directors and Officers salaries and remuneration with a nominal value of \$1,168,141. The Corporation has obtained confirmation that payment of an amount of \$1,088,141, under certain conditions, will not be demanded for a minimum of 12 months and one day after December 31, 2019.

MANAGEMENT'S REPORT ON CONTROLS AND PROCEDURES ON INFORMATION TO BE SUPPLIED

Under the dispensations granted in November 2007 by each of the Securities Commissions of Canada, the CEO and the CFO must produce a « Certificate of Filings-Emerging Issuer » relating to financial information presented in the annual and interim filings, including Management Discussion and Analysis.

When compared with the « Schedule 52-109A2-Certificate of Annual and Interim documents », the « Basic Certificate relating to an Emerging Issuer » includes a "Notice to reader" which declares that the CEO and CFO make no declaration regarding the establishment and maintenance of Controls and Procedures on the Communication of Information (CPCI) and the Internal Controls of the Financial Information (ICFI), as outlined in Regulation 52-109.

RISK FACTORS

- **Inherent risks in mineral exploration and evaluation**

The Corporation's activities consist in the acquisition and exploration of mining properties with the hope of discovering mining sites with economic potential. The Corporation's properties are currently at the exploration stage and do not hold any known commercial deposit. It is very unlikely that the Corporation will realize any short or mid-term benefits from these properties. Any future profitability of the Corporation's operations is conditional on the discovery of an economic ore body. In addition, if such a case would arise, nothing guarantees that such an ore body could be put into profitable commercial production.

RISK FACTORS (continued)

- **Environmental regulations and commitments**

The Corporation's activities require that it obtains permits from various governmental authorities and are regulated by laws and regulations on the exploration, development, extraction, production, exports, income tax, labor regulations and workplace safety as well as environmental issues and other topics.

Additional costs and delays could be caused by the need to comply with laws and regulations. If the Corporation cannot obtain or renew its permits or approvals, it could be forced to reduce or cease its Exploration Evaluation and Development activities.

- **First Nations relations**

The Corporation regularly initiates exploration work in areas where First Nations could make claims. These claims could slow down the work to do or could increase its costs. The effect of these factors cannot be precisely determined.

- **Financing needs**

The exploration, evaluation, development, extraction and production from the Corporation's properties will necessitate very substantial additional financial resources. The only sources of funds available are through the issuance of share capital and borrowing. There is no assurance that such financings will be available, neither would they be available at favorable conditions or will respond sufficiently to the project's needs. This could have a negative effect on the Corporation's business and financial situation. The impossibility of obtaining a sufficient financing could delay or postpone indefinitely exploration evaluation or production activities on one or all the Corporation's properties, and even see the Corporation lose its participation in some or all of its properties.

- **Metal prices**

The Corporation's share price, its financial results as well as its exploration and evaluation, production and development activities have been affected in the past and could very well be very negatively affected in the future by a fall in the price of precious and base metals.

RISK FACTORS (continued)

- **Non insured risks**

The Corporation's activities are subject to certain risks and dangers, including difficult environmental conditions, industrial accidents, labor conflicts, unusual or unexpected geological conditions, landslides, rock falls and other natural phenomenon such as unfavorable meteorological conditions, floods and earthquakes. Such events could result in bodily injuries or death, environmental damages or other damages to the properties or the production facilities or to the properties of other corporations, delays in mining production, monetary losses, and possibly legal liabilities.

- **Corporate permanence**

The Corporation's future depends on its ability to finance its activities and to develop its assets. The failure to obtain sufficient financing could create a situation where it could not continue its activities, realize its assets and settle its liabilities in the normal course of business within a foreseeable future.

(s) Bernard J Tourillon, President and Chief Executive Officer

(s) François Rivard, Chief Financial Officer

Montreal, May 8, 2020