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CALIBRE MINING CORP.

TECHNICAL REPORT ON THE EL LIMÓN MINE, LEÓN AND CHINANDEGO DEPARTMENTS, NICARAGUA

NI 43-101 Report

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1 SUMMARY

EXECUTIVE SUMMARY

Roscoe Postle Associates Inc. (RPA) was retained by Calibre Mining Corp. (Calibre) to prepare an independent Technical Report on the El Limón Mine (the Project or El Limón), located in León and Chinandego Departments, Nicaragua. The purpose of this report is to document updated Mineral Resource and Mineral Reserve estimates and to provide a summary of the current status of the mine. This Technical Report conforms to National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101). The effective date of this Technical Report is June 30, 2019, and information in this Technical Report is current as of that date unless otherwise specified. RPA visited the Project on April 29, 2019.

Calibre is a Vancouver-based company formed in January 1969. It is a reporting issuer in British Columbia and Alberta and is under the jurisdiction of the British Columbia Securities Commission. Its shares trade on the Toronto Venture Exchange under the symbol CXB.V.

Calibre is focussed on the exploration, development, and operation of gold-silver-copper deposits in Nicaragua. Calibre has extensive land holdings at various stages of exploration in the Borosi area and a number of other exploration projects in Nicaragua.

On July 2, 2019, Calibre announced that it had entered into a transaction with B2Gold Corp. (B2Gold) whereby it would acquire the producing El Limón and La Libertad gold mines as well as the Pavon gold project and other mineral concessions in Nicaragua held by B2Gold for an aggregate consideration of \$100 million, to be paid with a combination of cash, common shares and a convertible debenture. Following completion of the transaction, B2Gold will own an approximate 31% direct equity interest in Calibre.

The EI Limón mining exploitation permit covers an area of 12,000 ha and was granted by Ministerial Decree for a 25-year term in 2002. The Project also comprises the Bonete-Limón, Guanacastal III, San Antonio, and Guanacastal II exploration permits, which are contiguous with the exploitation permit and cover a total area of 8,147 ha, and Villanueva 2 exploration permit, which is located 12 km north of the exploitation permit and covers an area of 1,200 ha.



The Project is located approximately 100 km northwest of the capital of Managua and is accessible by road.

Mining operations use conventional open pit mining methods at the Limón Central open pit and a combination of top-down and bottom-up sequenced longitudinal open stoping (LOS) at the Santa Pancha underground mines. The El Limón processing plant consists of agitated cyanide leaching and carbon adsorption, followed by carbon elution, electrowinning, and doré production. The annual throughput is approximately 500,000 tonnes per annum (tpa) and the historical recovery is 94% to 95%.

In February 2004, RPA completed a technical report on the El Limón Mine on behalf of Glencairn Gold Corporation (Glencairn) to document Mineral Resource and Mineral Reserve estimates and review Glencairn's mine plan.

The Mineral Resources, effective June 30, 2019 for El Limón are summarized in Table 1-1. Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves (CIM (2014) definitions) were used for Mineral Resource classification.

Area	Tonnes (kt)	Grade (g/t Au)	Contained Au (koz)
Indicated			
Santa Pancha 1	893	5.21	150
Santa Pancha 2	445	4.13	59
Veta Nueva	505	4.07	66
Limón Central	2,016	4.24	274
Tailings	7,329	1.12	263
Total Indicated	11,188	2.26	812
Inferred			
Santa Pancha 1	388	4.83	60
Santa Pancha 2	166	3.63	19
Veta Nueva	83	3.59	9
Pozo Bono	977	6.29	197
Limón Sur	444	2.10	30
Limón Central	1,207	5.83	226
Limón Norte	836	5.43	146

TABLE 1-1MINERAL RESOURCES - JUNE 30, 2019Calibre Mining Corp. – El Limón Mine

Area	Tonnes (kt)	Grade (g/t Au)	Contained Au (koz)
Tigra/Chaparral	487	6.01	94
Total Inferred	4,588	5.29	781

Notes:

- 1. CIM (2014) definitions were followed for Mineral Resources.
- 2. Mineral Resources are based on 100% ownership.
- 3. Mineral Resources are estimated at cut-off grades of 1.25 g/t Au for the Limón open pit, 1.20 g/t Au for the Tailings, and 2.25 g/t Au for underground in Santa Pancha 1, Santa Pancha 2, and Veta Nueva.
- 4. Mineral Resources presented are inclusive of Mineral Reserves.
- 5. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
- 6. Mineral Resources are estimated using a long-term gold price of US\$1,500 per ounce.
- 7. Bulk density is from 1.86 t/m³ to 2.85 t/m³ for the Limón open pit material, 2.50 t/m³ for the Santa Pancha 1, and Veta Nueva underground material, from 2.45 t/m³ to 2.50 t/m³ for the Santa Pancha 2, and from 1.29 t/m³ to 1.33 t/m³ for tailings material.
- 8. Numbers may not add due to rounding.

RPA is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

The Mineral Reserves, effective June 30, 2019, for El Limón underground and surface mines, are summarized in Table 1-2.

Mine	Category	Tonnage (kt)	Grade (g/t Au)	Contained Au (koz)
Santa Pancha 1	Probable	350	3.82	43
Santa Pancha 2	Probable	88	3.34	9
Veta Nueva	Probable	350	5.66	64
Sub-total Underground	Probable	787	4.58	116
Limón Central	Probable	1,472	4.09	193
Sub-total Open Pit	Probable	1,472	4.09	193
Total Open Pit and Underground	Probable	2,259	4.25	309

TABLE 1-2MINERAL RESERVES – JUNE 30, 2019Calibre Mining Corp. – El Limón Mine

Notes:

1. CIM (2014) definitions were followed for Mineral Reserves.

2. Underground Mineral Reserves are estimated at a cut-off grade of 2.75 g/t Au.

3. Open pit Mineral Reserves are estimated at a cut-off grade of 1.32 g/t Au, and incorporate estimates of dilution and mining losses. Mineral Reserves are reported in dry tonnes.



- 4. Mineral Reserves are estimated using an average long-term gold price of US\$1,350 per ounce
- 5. Minimum mining widths of 4 m, 5 m, and 3 m were used for Santa Pancha 1, Santa Pancha 2, and Veta Nueva, respectively.
- 6. A minimum mining width of 30 m was used for Limón Central.
- 7. Bulk density is 2.5 t/m³ for underground and 2.26 t/m³ for open pit reserves.
- 8. Numbers may not add due to rounding.
- 9. A mining extraction factor of 95% was applied to the underground stopes. Where required a pillar factor was also applied for sill or crown pillar. A 100% extraction factor was assumed for development.

RPA is not aware of any mining, metallurgical, infrastructure, permitting, or other relevant factors that could materially affect the Mineral Reserve estimate.

All currency in this report is US dollars (US\$) unless otherwise noted.

CONCLUSIONS

GEOLOGY AND MINERAL RESOURCES

- The El Limón deposits are low-sulphidation epithermal deposits hosted by volcanic lithologies.
- The sampling, sample preparation, analyses, security, and data verification meet industry standards and are appropriate for Mineral Resource estimation.
- The composites are of regular lengths and located within mineralized wireframes for each domain in every deposit, except in Veta Nueva, where composites are whole length composites inside the mineralized domains, which may have smoothed the grade distribution. Composite lengths are reasonable in all deposits except Veta Nueva.
- The mineralization and lithology wireframes are adequate for the style of mineralization and are suitable to constrain the block model.
- There is a risk that additional previously mined out areas may exist as they were built based only on drill hole intercepts.
- Block sizes are unnecessarily small for the style of mineralization and mining methods but appropriate when reblocked to a larger size.
- Capping levels are reasonable.
- The grade interpolation strategies are appropriate for the style of mineralization.
- The parameters, assumptions, and methodology used for Mineral Resource estimation are appropriate for the style of mineralization.
- Total Mineral Resources at El Limón, as of June 30, 2019, inclusive of Mineral Reserves, are:
 - o Indicated 11.4 million tonnes, grading 2.25 g/t Au, containing 827,000 oz Au
 - o Inferred 4.5 million tonnes, grading 5.21 g/t Au, containing 763,000 oz Au



- The overall Mineral Resource classification is reasonable and conforms to CIM (2014) definitions.
- There is potential to outline additional Mineral Resources with an exploration program testing extension of known resources and nearby targets.

MINING AND MINERAL RESERVES

- All Mineral Reserves at El Limón are classified as Probable Mineral Reserves. Mineral Reserves as of June 30, 2019 include
 - Limón Central pit 1.5 million tonnes, grading 4.09 g/t Au, containing 193,000 oz Au
 - Santa Pancha 1 (SP1) and Santa Pancha 2 (SP2) mines 438,000 t, grading 3.72 g/t Au, containing 52,300 oz Au
 - Veta Nueva 350,000 t, grading 5.66 g/t Au, containing 63,600 oz Au
- The Limón Central pit has been operational as of December 2018. Since then, a substantial portion of the overlying barren rock has been removed in a pre-stripping phase to expose the initial ore for production. The ore zone consisting of vein or quartz breccia and stockwork zones is mined selectively.
- Open pit development includes three pit phases to be mined in twelve metre high benches with ore mining in two six metre high flitches for greater ore control selectivity.
- The open pit operating life extends to mid-2023, for a total of 4.5 years.
- The contractor-operated mining is carried out using conventional open pit methods, consisting of the following activities:
 - Drilling performed by conventional production drills.
 - Blasting using ammonium nitrate/fuel oil (ANFO) and emulsion explosives and a downhole delay initiation system.
 - Loading and hauling operations performed with hydraulic shovel, and articulated haulage trucks.
- The owner's employees monitor the mining contractor and provide engineering support including survey and grade control. Operations run 24 hours per day, seven days a week, on a 12-hour shift rotation.
- Production at EI Limón underground mines uses a combination of top-down and bottom-up sequenced LOS stoping methods for production. Top-down sequencing and open stoping accelerates ore availability, however, remnant rib and sill pillars reduce extraction percentages.
- Extreme high temperature conditions (up to 70°C) in SP1 are the result of a geothermally influenced aquifer and can have a significant impact on mine operator performance.
- Geotechnically challenging zones have been identified in SP2, which has resulted in increased dilution estimates for stoping methods.



• In recent operating history, underground mining has been required to contribute the majority of plant feed. Underground production shortfalls have negatively impacted overall production rates. Going forward, combined production from surface and underground mining is expected to meet plant feed requirements.

PROCESS

- Modifications planned for the processing plant in 2019 to resolve downtime related to wear in the classification components of the grinding circuit should allow the plant to achieve an overall utilization of 92% to 94%. This is an increase of up to 5% from the recent historical average (excluding downtime due to blockades in 2018).
- In addition to the improved plant utilization, increases to the number of teeth on the ball mill pinion (from 23 to 24 teeth) in the first half of 2019 are expected to enable the processing plant to achieve a throughput of approximately 500,000 tpa.
- Recent historical gold recoveries at El Limón have averaged between 94% and 95%, however, test work on samples of Limón Central and Santa Pancha ore has indicated that finer grinding is required in order to achieve recoveries similar to historical recoveries. Without the implementation of finer grinding, test work indicates that gold recovery from Limón Central and Santa Pancha ore will average approximately 88% and 92%, respectively.
- Gold recovery when re-treating tailings from the historical Santa Barbara and Santa Rosa tailing storage facility (TSF) improves with finer grinding, with 80% passing (P₈₀) 10 µm to 20 µm giving the best recoveries. A feasibility study conducted by Lycopodium considered a P₈₀ of 20 µm, using a vertical stirred mill to achieve this grind size. Gold recoveries of 85% for Santa Barbara tailings and 78% for Santa Rosa tailings were achieved in test work.

ENVIRONMENTAL, PERMITTING AND SOCIAL CONSIDERATIONS

- Permits to operate the site appear to be in place and social issues and stakeholder consultation are carried out in line with International Best Practice.
- The El Limón Mine site is currently operating with the San José TSF which is nearing completion. The San José TSF is a lined facility and one more raise of this facility is planned before all tailings deposition is switched to the proposed future TSF (San Pancho).
- The proposed Site Wide Closure Plan (SWCP) includes the construction of closure spillways and covers for operating (San José) and future (San Pancho) TSFs. El Limón closure costing is based on existing staff salaries and not third-party contractors as is typically done.
- No analyses have been reviewed considering the stability of the cutback slope around the edge of the San Pancho TSF. A landslide in the TSF could result in a wave overtopping the facility dam and potentially leading to a loss of containment.
- The mine waste rock on the Project is non-acid generating and has been stored in a number of waste rock dumps around the open pits.



• The total estimated cost to complete the El Limón Mine closure and reclamation program in 2018 is \$23.6 million.

RECOMMENDATIONS

GEOLOGY AND MINERAL RESOURCES

- Complete additional drilling in Inferred Mineral Resources in unsurveyed mined out areas at El Limón that contain grade-bearing material to determine a more accurate extent of the openings and material grades.
- Carry out further review of the methodology for estimation of tonnage and grade in grade-bearing material backfill classified as Inferred Mineral Resources.
- Complete a Mineral Resource estimate using 1.0 m composites for Veta Nueva so that a comparison against the existing whole length composite estimate can be made to determine if a reduction in grade smoothing is applicable.
- Conduct a two-phase exploration program to test extensions of known resources and nearby targets with Phase 2 contingent on the results of Phase 1.
 - Phase 1 8,000 m diamond drilling and related studies C\$3 million.
 - Phase 2 12,000 m diamond drilling and related studies C\$5 million.

MINING AND MINERAL RESERVES

- Carry out a full reconciliation of actual plant feed and gold production versus mine plan prediction on an ongoing basis in order to more accurately determine the mining dilution and ore loss parameters.
- Given the availability of surface mine ore to supplement feed to the process plant, evaluate adopting underground bottom-up sequencing of underground production to optimize extraction percentage.
- Evaluate stoping method and ground support alternatives in geotechnically challenging areas in SP2 to maximize ore extraction.

PROCESS

• Conduct additional variability test work on samples for the expansion study.

ENVIRONMENTAL CONSIDERATIONS

- Continue to implement the adopted Environmental Policy (2018), Biodiversity Policy (2018), and site Environmental Management Plan, which monitors and manages potential environmental impacts resulting from the site to inform the closure plan and permit applications.
- Review existing flora and fauna studies within the mine area and the area of influence, with the aim of informing the closure plan and siting studies for future operations and site infrastructure development.



- Continue to ensure all necessary permits are obtained for operating the site in the medium and long term.
- Continue to evaluate noise and vibration impacts resulting from the mine to ensure operations are within International Best Practices.
- Implement a water balance for ongoing operations to be updated by mine operations personnel using meteorological and water monitored data on a regular basis. The water balance is an important tool to track trends and conduct short-term predictions through simulation of variable operating and/or climatic scenarios to support decision making associated with pond operation (e.g., maintaining adequate freeboard at all times) and water discharge.
- Design and construct emergency overflow spillways for the San José TSF and the future San Pancho TSF for the operations phase to mitigate potential dam overtopping and the associated dam failure risks.
- Conduct a risk assessment of the proposed San Pancho TSF facilities to identify and control risks to the mine associated with tailings disposal. Verify stability of the cutback and natural slopes around the San Pancho TSF to prevent landslides from displacing the TSF pond and potentially overtopping the dam.
- Revisit the tailings deposition plan for active and future TSFs to determine if the closure cover volume requirements can be reduced. The current San Pancho TSF closure plan calls for placement of a minimum one metre soil cover over wet tailings, which involves schedule and cost risks due to material sourcing and construction on wet tailings.
- Review El Limón closure costing and respective Asset Retirement Obligations (ARO) in detail.
- The 2014 SWCP makes the following recommendations, which are supported by RPA:
 - It is important that a priority list for closure be established and that a detailed condemnation drilling plan be created to define which areas will not be further mined. This will aid in implementing a final closure plan for each facility, including pits, tailings, waste rock dumps, and other civil structures.
 - Hydrogeological conditions in the areas of SP1 and SP2 underground operations were not well defined at the time of preparation of the SWCP. Prior to closure, engineering and hydrologic evaluations will be necessary to determine long-term hydrogeologic conditions (e.g., discharge to surface) at closure. The evaluations should also consider the potential for subsidence.
 - On a case-by-case basis, it may be necessary to conduct surface and groundwater studies such as a water balance, water quality modelling, and Screening Level Ecological Risk Assessments (SLERAs) for some of the open surface pits that will not be backfilled. These studies will evaluate the potential for, and risks associated with, pit lake formation at closure. The timing of such studies will vary and will likely be most appropriate once pit development has advanced to a point that allows a more accurate assessment to be made. Pits that should undergo the recommended additional studies include Veta Nueva, Santa Emilia, Pozo 4 North and South, and Pozo 5.



ECONOMIC ANALYSIS

A cash flow projection has been generated from the Life of Mine (LOM) production schedule and capital and operating cost estimates, and is shown in Table 1-3. A summary of the key criteria is provided below.

ECONOMIC CRITERIA

REVENUE

- 1,435 tonnes per day (tpd) processing (502,000 tpa).
- Mill recovery by zone, as indicated by production history, averaging 93.7%.
- Gold at refinery 99.95% payable.
- Exchange rate: Modelled in US dollars
- Metal price: US\$1,350 per ounce gold.
- Net Smelter Return (NSR) includes doré transport, refining, and insurance costs totalling \$2.36/oz doré.

COSTS

- Mine life: 4.5 years beginning in the second half of 2019.
- Mine life sustaining and expansion capital totals \$23.7 million.
- Final closure/reclamation cost totals \$23.6 million
- Average operating cost over the mine life is \$99.79 per tonne milled. Including off-site costs such as refining, community projects, and royalties/taxes, the total production cost over the mine life is \$108.73 per tonne milled.

TAXATION AND ROYALTIES

The Project is subject to the following encumbrances:

- 3% NSR royalty payable to Royal Gold Inc.
- Mining Concession Surface Tax of \$228,000 per year calculated by total concession area of 21,347 ha multiplied by unit rate per hectare.
- RPA has relied upon Calibre management for inputs for Nicaraguan corporate income taxes (CIT) which are as follows:
 - Three-year straight-line depreciation beginning in year when placed into service with opening balance of \$31 million as of July 2019.
 - Net operating losses can be carried forward for a maximum of three years with opening balance of \$35.7 million as of July 2019.
 - Annual income tax payable amounts are the maximum of 1) standard income tax calculation at 30% tax rate or, 2) ad valorem tax rate of 3% of net revenue.



TABLE 1-3 CASH FLOW SUMMARY Calibre Mining Corp. – El Limón Mine

Oslandar Vasa				0040	0000	0004	0000	0000	0004	0005
Calendar Year				2019	2020	2021	2022	2023	2024	2025
Project Timeline in Years			Cold Aria / Total	1	2	3	4		6	1
Time Until Closure In Years		US\$ & Metric Units	LUM AVy / Total	5	4	3	2		-1	-2
Market Prices										
Gold		US\$/oz	\$1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350
Silver		US\$/oz	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
Physicals										
Total Ore Mined		kt	2,260	298	492	498	530	442		-
Total Waste Mined		kt	28,899	5.771	11 359	9.828	1 649	293	_	_
Total Material Mined		kt	31,159	6.069	11 850	10.326	2 179	734	-	-
Strin Patio		WO	12 79	19.34	23 10	19 74	3 11	0.66	-	-
Total Ore Processed		۲۲.۲ kt	2 260	251	502	502	502	502	- -	-
Cold Crade Processed		alt	4 26	3.48	4.01	4 12	4 72	4 58	_	
Contained Cold Processed		yr.	300	28	4.01	-1.12	4.72	4.50	-	
Passyorable Cold Processed		koz	290	20	61	62	70	69	-	-
Average Recovery Cold		%	93.7%	03.3%	03.8%	03.8%	03.7%	Q4 0%	-	-
Average Recovery, Gold		/0 KOZ	290	90.070 26	93.070 61	93.070 62	53.7 /0	54.070 69		
Payable Silver Sold		koz	-	-	-	-	-	-	-	_
		No.								
Cash Flow										
Gold Gross Revenue	100.0%	\$000s	391,384	35,407	81,899	84,085	96,246	93,747		-
Silver Gross Revenue		\$000s	-	-	-	-	-	-	-	-
Gross Revenue Before By-Product Credits	100.0%	\$000s	391,384	35,407	81,899	84,085	96,246	93,747		-
Gold Gross Revenue		\$000s	391,384	35,407	81,899	84,085	96,246	93,747	-	-
Silver Gross Revenue		\$000s	-	-	-	-		-	-	-
Gross Revenue After By-Product Credits		\$000s	391,384	35,407	81,899	84,085	96,246	93,747	-	-
Mining Cost		\$000s	(119,234)	(19,814)	(38,803)	(35,001)	(14,657)	(10,958)	-	-
Process Cost		\$000s	(66,567)	(7,396)	(14,793)	(14,793)	(14,793)	(14,793)	-	-
G&A Cost		\$000s	(39,313)	(4,368)	(8,736)	(8,736)	(8,736)	(8,736)	-	-
Concurrent Reclamation		\$000s	(450)	(50)	(100)	(100)	(100)	(100)	-	-
CSR Projects		\$000s	(7,798)	(866)	(1,733)	(1,733)	(1,733)	(1,733)	-	-
Dore Freight/Refining Cost		\$000s	(685)	(62)	(143)	(147)	(168)	(164)	-	-
Royalty		\$000s	(11,721)	(1,060)	(2,453)	(2,518)	(2,882)	(2,808)	-	-
Subtotal Cash Costs Before By-Product Credits		\$000s	(245,767)	(33,617)	(66,761)	(63,028)	(43,070)	(39,291)	-	-
By-Product Credits		\$000s	-			-	-	-	-	-
Total Cash Costs After By-Product Credits		\$000s	(245,767)	(33,617)	(66,761)	(63,028)	(43,070)	(39,291)	-	- 1
Operating Margin	37%	\$000s	145,617	1,790	15,138	21,057	53,176	54,456	-	-
		******	(07.694)	(1.060)	(0.452)	(0 510)	(44.080)	(7 564)		
		\$000s	(∠7,001)	(1,000)	(2,453)	(2,518)	(14,089)	(7,501)	-	-
Working Capital		\$000s	-	-	1,539	(227)	(992)	C00	(215)	(970)
Operating Cash Flow		\$000s	117,936	729	14,224	18,312	38,095	47,760	(215)	(970)
Sustaining Capital		\$000s	(23,728)	(5,087)	(7,177)	(5,972)	(5,492)	-	-	-
Closure/Reclamation		\$000s	(23,600)	-	-	-	-	(11,800)	(11,800)	-
Total Capital		\$000s	(47.328)	(5.087)	(7.177)	(5,972)	(5.492)	(11,800)	(11,800)	
			(,,	(-, ,	(.,,	(-,,	(-,,	(,,	(,,	
Cash Flow Adj./Reimbursements		\$000s	-	-	-	-	-	-	-	-
I OM Metrics										
Economic metrics										
Discount Factors		EOP @ 5%		1.0000	0.9524	0.9070	0.8638	0.8227	0.7835	0.7462
		-								
a) Pre-Tax		* ****	00.000	(0.007)	0.500	11050	10.004	10 500	(10.045)	(070)
Free Cash Flow		\$000s	98,289	(3,297)	9,500	14,858	46,691	43,522	(12,015)	(970)
Cumulative Free Cash Flow		\$000s	05 000	(3,297)	6,203	21,061	67,752	111,274	99,259	98,289
NPV @ 5%		\$000s	85,228	(3,297)	9,047	13,477	40,334	35,805	(9,414)	(724)
Cumulative NPV		\$000s		(3,297)	5,750	19,227	59,561	95,366	85,952	85,228
b) After-Tax										
Free Cash Flow		\$000s	70,608	(4,357)	7,047	12,340	32,603	35,960	(12,015)	(970)
Cumulative Free Cash Flow		\$000s		(4,357)	2,690	15,030	47,632	83,593	71,578	70,608
NPV @ 5%		\$000s	61,157	(4,357)	6,711	11,193	28,163	29,585	(9,414)	(724)
Cumulative NPV		\$000s		(4,357)	2,354	13,547	41,710	71,295	61,881	61,157
Contraction During Mining Disease		• •		· · ·			,	,		
Operating Metrics During Mining Phase		Veere								
Mine Lire		Years	5 650.75	70.00	77.05	20.69	00.49	01.00		
Mining Cost		\$/tmilled	\$02.10 \$00.45	10.09	11.20	09.00	29.10	21.02	-	-
Total GRA Cost		¢/tmilleu ¢/tmilled	₹23.40 \$17.30	29.40	29.40	29.40	29.40	29.40	-	-
Total G&A Cost		\$/tmileu ¢/tmilled	\$17.35 \$0.20	17.39	0.20	17.39	0.20	0.20	-	-
Concurrent Reclamation		\$/tmiled	\$0.20 \$00.70	125.03	124.20	0.20 116 72	0.20 76.22	0.20	-	-
Subiolal Operating Costs		\$/tmilled	\$55.75	120.93	124.29	0.20	0.22	00.00	-	-
CSR Preight/Relining Cost		\$/tmilled	\$0.30	0.25	0.29	0.29	0.34	0.33	-	-
CSR Plojects		\$/tmilled	\$3.45 ¢5.40	3.43	3.40	5.45	5.45	5.45	-	-
Total Costs During Mining		\$ / t milled	\$0.19 \$109.72	4.22	4.00	125.49	0.74 95.75	0.09 79.00	-	-
Total Costs During Mining		ې ر milleu	\$100.73	133.65	132.91	120.40	65.75	10.22	-	
Sales Metrics		kez	200	26	61	60	71	60		
LOW Cook Coot (nhm)		RUZ ©000a	290	20	66 761	62 029	12 070	20.201	-	-
		\$000s	\$245,767	33,617	55,751	63,028	43,070	39,291	-	-
		\$000s	\$293,095	38,704	73,937	69,000	48,562	51,091	11,800	-
		\$ / oz Au	\$848	1,282	1,100	1,012	604	200	-	-
LOW AND ADDUCT AU		\$ / 02 Au	\$1,UT1 50	1,470	1,219	1,100	001	730	-	-
LOW Avg. Annual Au Sales		KOZ / yi	50							



CASH FLOW ANALYSIS

Considering the Project on a stand-alone basis, the undiscounted after-tax free cash flow totals \$71 million over the mine life.

The World Gold Council Adjusted Operating Cost (AOC) is US\$848 per ounce of gold. The mine life sustaining capital cost, including both operating and final closure/reclamation costs, is US\$192 per ounce, for an All in Sustaining Cost (AISC) of US\$1,011 per ounce of gold. Average annual gold production during the five-year operation is 58,000 ounces per year.

The after-tax Net Present Value (NPV) at a 5% discount rate is \$61 million using end-of-period (EOP) discounting.

SENSITIVITY ANALYSIS

Project risks can be identified in both economic and non-economic terms. Key economic risks were examined by running cash flow sensitivities:

- Head grade
- Gold recovery
- Gold price
- Operating costs
- Capital costs

NPV sensitivity over the base case has been calculated for -20% to +20% variations for gold grade and price, -10% to +10% variations for operating and capital costs, and -20% to +6% variations for gold recovery. The sensitivities are shown in Figure 1-1 and Table 1-4. The Project is equally most sensitive to gold grade, price, and recovery followed by operating and capital costs.





FIGURE 1-1 AFTER-TAX NPV SENSITIVITY ANALYSIS

Percent Change From Base Case

TABLE 1-4	AFTER-TAX SENSITIVITY ANALYSES
Cali	bre Mining Corp. – El Limón Mine

Factor	Gold Grade (g/t Au)	NPV at 5.0% (\$000)
0.80	3.41	9,115
0.90	3.83	37,082
1.00	4.26	61,157
1.10	4.68	88,831
1.20	5.11	115,485
Factor	Gold Recovery	NPV at 5.0%
	(%)	(\$000)
0.80	75.0	9,115
0.90	84.4	37,082
1.00	93.8	61,157
1.05	98.4	75,478
1.06	99.4	78,342
Fastar	Gold Price	NPV at 5.0%
Factor	(US\$/oz Au)	(\$000)
0.80	1,080	9,001
0.90	1,215	37,041
1.00	1,350	61,157
1.10	1,485	88,878
1.20	1,620	115,578



Factor	Operating Cost (\$000)	NPV at 5.0% (\$000)	
0.90	210,026	79,882	
0.95	221,694	70,831	
1.00	233,362	61,157	
1.05	245,030	53,030	
1.10	256,698	45,392	
Factor	Capital Cost (\$000)	NPV at 5.0% (\$000)	
0.90			
0.00	42,595	65,239	
0.95	42,595 44,962	65,239 63,198	
0.95 1.00	42,595 44,962 47,328	65,239 63,198 61,157	
0.95 1.00 1.05	42,595 44,962 47,328 49,694	65,239 63,198 61,157 59,117	

TECHNICAL SUMMARY

PROPERTY DESCRIPTION AND LOCATION

Access to the El Limón Mine area is by paved road approximately 125 km from Managua and approximately 15 km by all-season gravel road to the Village of El Limón. The total road distance from Managua is 140 km. The Talavera underground mine is situated approximately four kilometres west of the Village of El Limón, and the Santa Pancha deposit is situated approximately five kilometres east of that village. Both areas are accessible by gravel roads from the El Limón Mine site.

LAND TENURE

The Project consists of five contiguous blocks covering an aggregate area of 20,147 ha and the Villanueva 2 exploration permit covering an area of 1,200 ha located approximately 12 km to the north. The 12,000 ha El Limón exploitation permit is adjacent to the 5,000 ha Bonete-Limón exploration permit. Additional contiguous exploration permits include Guanacastal III, San Antonio, and Guanacastal II, which are contiguous with Bonete-Limón block, combine for a total area of 3,147 ha.

On July 2, 2019, Calibre announced that it had entered into a transaction with B2Gold whereby it would acquire the producing EI Limón and La Libertad gold mines as well as the Pavon gold project and other mineral concessions in Nicaragua held by B2Gold for an aggregate consideration of \$100 million, to be paid with a combination of cash, common shares, and a convertible debenture.



EXISTING INFRASTRUCTURE

Since El Limón has been in operation for many years, the infrastructure is well developed.

- A conventional processing plant consisting of agitated cyanide leaching and carbon adsorption, followed by carbon elution, electrowinning, and doré production, with an annual throughput of 500,000 tpa.
- Electrical power obtained from the national grid system with backup generators at the mine site.
- Well established transportation network.
- A conventional TSF located near the plant and office area.
- A number of waste disposal areas around the open pits.
- Industrial and potable water drawn from local sources.
- Miscellaneous infrastructure supporting mining and processing activities including warehouses, administration buildings, dry facilities, and maintenance shops.

HISTORY

Historic mining and prospecting activities in the El Limón district of northwestern Nicaragua, which hosts the El Limón and other gold deposits, date back to the late 1850s.

Modern mining and exploration started in 1918. Mine production was intermittent from the 1850s to 1941, and the exact amount of gold production is unknown for this period. Since 1941, continuous production over 67 years has amounted to more than 3.0 million ounces of gold and an unrecorded quantity of silver (as a by-product) has been produced. Much of this production was when the mine was under the control of Noranda Mining Company from 1941 to 1979. Production rates in this period started at 200 tons per day and increased to 345 tons per day.

The Sandinistas confiscated and subsequently nationalized the mine in 1979. Production under national control was reported as 280,000 ounces of gold from an estimated 1.9 million tonnes of ore. The Limón Mine remained under national control until privatization in April 1994 at which time Triton Mining Corporation (TMC), a Canadian exploration and mining company acquired control. TMC increased production to 1,000 tpd in 1995. In May 1998, TMC was acquired by Black Hawk Mining Inc. (Black Hawk), resulting in Black Hawk having a 95% interest in the Limón Mine. Production following TMC taking possession to the end of 2002 totalled 447,000 ounces of gold from 2.6 million tonnes of ore.



Within the El Limón Mine concession, gold production has come from three sources. These are:

- Limón vein system
- Santa Pancha vein system
- Talavera vein system

Minor production has also come from three other sources: Atravesada (within Limón concession, with production of approximately 11,000 oz Au); Rincon de Garcia (approximately 23,800 oz Au), and Mina de Agua (approximately 46,600 oz Au). Mina de Agua and Rincon de Garcia are located in the Villanueva 2 concession approximately 20 km north of the El Limón Mine. There was also small-scale production in the 1920s at the La Grecia Mine located in the San Juan de Limay-La Grecia concession.

GEOLOGY AND MINERALIZATION

The El Limón Mine is located along the eastern edge of the Nicaragua graben within an area of low hills that contrast with the level plain of the graben floor. Approximately 50% of the area in the general vicinity of the mine is covered by a thin layer of Quaternary to Recent deposits of volcanic ash and alluvium.

The El Limón Mine mineral concession is underlain predominantly by volcanic strata that are correlated with the Miocene-Pliocene Coyol Group that is present over extensive areas of western Nicaragua. Coyol Group rocks, exposed on the Mina El Limón mineral concession, range from intermediate to felsic volcanic and volcaniclastic rocks that are cut by minor intermediate to felsic hypabyssal intrusive bodies. From lowest to highest in stratigraphic section, these rocks are as follows:

- Interstratified, massive porphyry flows and coarse volcaniclastic rocks of intermediate composition
- Intermediate to felsic flows, domes and minor tuffs and epiclastic rocks
- Weakly stratified, intermediate to felsic tuffs and epiclastic rocks
- Massive to flow-banded, intermediate porphyritic flows

The above units appear to be conformable and generally strike east to northeast and dip gently south with local variability common.





Deformation is dominated by normal faulting with little evidence for significant internal deformation of intervening fault blocks. The faults commonly trend northeast with moderate to steep dips to the northwest as well as southeast. A second group of faults strikes north to west-northwest, dipping steeply to the east and/or northeast. Apparent displacements on these faults are tens to several hundreds of metres.

Gold mineralization in the Limón district is typical of low-sulphidation, quartz-adularia, epithermal systems. These deposits were formed at relatively shallow depth, typically from just below the surface to a little over one kilometre deep, from reduced, neutral-pH hydrothermal fluids with temperatures of <150°C to 300°C. The volcano-plutonic arc of western Nicaragua is a common tectonic setting for these deposits.

EXPLORATION STATUS

Exploration methods include prospecting, geological mapping, geophysical and geochemical surveys, trenching, and drilling.

In RPA's opinion, there is potential to outline additional resources in the following areas:

- Extension to currently producing areas:
 - Limón Central
 - o Santa Pancha
 - o Veta Nueva
 - o Mercedes
- Existing Resource areas not currently producing;
 - o Limón Norte
 - o Pozo Bono
 - o Tigra/Chaparral
 - o Atravesada
 - o Historically Placed Tailings
- Advanced Targets:
 - o Panteon
 - o San Antonio
 - o Cacao
 - o Ramadas
 - o Lourdes
 - o Guanacastal
- Conceptual Targets

Calibre has planned a two-phase exploration program to explore for and potentially outline additional Mineral Resources at El Limón. Phase 1, at a cost of C\$3 million, would take place over 12 months. The Phase 2 program, C\$5 million over 12 months, would depend on the results of Phase 1. Diamond drilling and assaying accounts for approximately 55% of the total cost while the remainder is for salaries, support, and technical studies. RPA concurs with the recommended program and budget.

MINERAL RESOURCES

The June 30, 2019 El Limón Mineral Resources are summarized in Table 1-1. CIM (2014) definitions were used for Mineral Resource classification.

The Mineral Resources at the El Limón Mine were estimated by B2Gold and reviewed and accepted by RPA. The Mineral Resources are contained in ten operating or proposed open pit and underground mining areas, as well as a tailings storage area.

To fulfill the CIM requirement of "reasonable prospects for eventual economic extraction" of open pit scenarios, RPA prepared a preliminary open pit shell for each mineralized zone to constrain the block model for resource reporting purposes. Each preliminary pit shell was generated using Whittle software. For deposits being, or proposed to be, mined by underground methods, a cut-off grade of 2.25 g/t Au was used that reflects the mining costs based on the mining method, processing costs, and gold price. The Limón open pit and Tailings Mineral Resource estimates used cut-off grades of 1.25 g/t Au and 1.20 g/t Au respectively.

El Limón Mineral Resources are based on approximately 45,000 assays from approximately 164,000 m of diamond drilling in 985 holes.

RPA is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

MINERAL RESERVES

The Mineral Reserve estimates as of June 30, 2019 for the El Limón underground and surface mines are shown in Table 1-2. Underground Mineral Reserves have been estimated for the



SP1, SP2, and Veta Nueva deposits using cut-off grades of 2.75 g/t Au. Surface Mineral Reserves have been estimated for the Limón Central deposit using a cut-off grade of 1.32 g/t Au. The underground and surface Mineral Reserves are all considered to be Probable Mineral Reserves. The total Probable Mineral Reserves are estimated to be 2.26 million tonnes grading 4.25 g/t Au containing 309,000 ounces of gold. Based on the current Mineral Reserve estimate, the LOM is 4.5 years, with an average daily production rate of 1,380 tpd.

MINING METHODS

El Limón mining units include the SP1, SP2, and Veta Nueva underground mines and the Limón Central open pit mine. All underground mines are ramp accessed using a variation of the LOS stoping method for ore production. Production from underground and surface mines is combined to feed the El Limón processing plant with a nominal capacity of 500,000 tpa. For the remaining LOM, underground mines combine to produce 500 tpd, Limón Central production rates range from 850 tpd to 1,150 tpd, and the El Limón process plant is fed at a rate of approximately 1,450 tpd.

The Limón Central pit is a conventional open pit mine, with drill and blast rock breakage and truck and loader materials handling. The vein and stockwork zones will be mined selectively.

MINERAL PROCESSING

The El Limón processing plant is a conventional processing plant consisting of agitated cyanide leaching and carbon adsorption, followed by carbon elution, electrowinning, and doré production. The annual throughput is approximately 500,000 tpa and the historical recovery is 94% to 95%.

ENVIRONMENTAL, PERMITTING, AND SOCIAL CONSIDERATIONS

Permits to operate the mine appear to be in place and exploration permits seem to be obtainable within reasonable and foreseeable timeframes.

Social issues and stakeholder consultations are carried out in line with international best practice.

Daily water quality sampling takes place in the Underdrain System Collection Pond to assess if it meets water quality standards for direct discharge to the environment. According to



monthly environmental reports, there were no water contamination incidents resulting from the Underdrain System Collection Pond.

The mine includes two closed TSFs (San Rosa and Santa Barbara) and the currently operating and lined, TSF (San José) which has one additional lift planned before all tailings deposition is switched to the proposed future TSF (San Pancho). The mine waste rock is non-acid generating and has been stored in a number of waste rock dumps around the open pits.

No analyses have been reviewed considering the stability of the cutback slope around the edge of the San Pancho TSF. A landslide in the TSF could result in a wave overtopping the facility dam and potentially leading to a loss of containment.

The total estimated cost to complete the El Limón Mine closure and reclamation program in 2018 is \$23.6 million, inclusive of miscellaneous contingency factors.

CAPITAL AND OPERATING COSTS

A summary of the LOM capital costs for the Project is given in Table 1-5.

Item	Total (\$000)
Sustaining Capital Costs Summary	22,017
Mining	12,649
Process Plant	7,980
Site General	248
Distributable	793
G&A	348
Expansion Capital Costs Summary	1,709
Mining	800
Process Plant	350
Site General	170
Distributable	184
G&A	130
External Projects	75

TABLE 1-5 LIFE OF MINE CAPITAL COSTS Calibre Mining Corp. – El Limón Mine

Total mine closure costs are estimated to be \$23.6 million.



The LOM unit operating costs for the Project are listed in Table 1-6. The operating cost estimates are prepared based on recent operating performance and the current operating budget.

TABLE 1-6 LIFE OF MINE OPERATING COSTS Calibre Mining Corp. – El Limón Mine

ltem	Units	Total
Underground Mining	\$/t milled	55.00
Surface Mining	\$/t moved	2.50
Processing	\$/t milled	29.45
General and Administrative	\$/t milled	12.11



2 INTRODUCTION

RPA was retained by Calibre to prepare an independent Technical Report on El Limón, located in León and Chinandego Departments, Nicaragua. The purpose of this report is to document updated Mineral Resource and Mineral Reserve estimates and to provide a summary of the current status of the mine. This Technical Report conforms to National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101).

Calibre is a Vancouver-based company formed in January, 1969. It is a reporting issuer in British Columbia and Alberta and is under the jurisdiction of the British Columbia Securities Commission. Its shares trade on the Toronto Venture Exchange under the symbol CXB.V.

Calibre is focussed on the exploration, development, and operation of gold-silver-copper deposits in Nicaragua. Calibre has extensive land holdings at various stages of exploration in the Borosi area and a number of other exploration projects in Nicaragua.

On July 2, 2019, Calibre announced that it had entered into a transaction with B2Gold whereby it would acquire the producing El Limón and La Libertad gold mines as well as the Pavon gold project and other mineral concessions in Nicaragua held by B2Gold for an aggregate consideration of \$100 million, to be paid with a combination of cash, common shares and a convertible debenture. Following completion of the transaction, B2Gold will own an approximate 31% direct equity interest in Calibre.

The EI Limón mining exploitation permit covers an area of 12,000 ha and was granted by Ministerial Decree for a 25-year term in 2002. The Project also comprises the Bonete-Limón, Guanacastal III, San Antonio, and Guanacastal II exploration permits, which are contiguous with the exploitation permit and cover a total area of 8,147 ha, and Villanueva 2 exploration permit, which is located 12 km north of the exploitation permit and covers an area of 1,200 ha. The Project is located approximately 100 km northwest of the capital of Managua and is accessible by road.

Mining operations use conventional open pit mining methods at the Limón Central open pit and a combination of top-down and bottom-up sequenced longitudinal open stoping (LOS) at the Santa Pancha underground mines. The El Limón processing plant consists of agitated





cyanide leaching and carbon adsorption, followed by carbon elution, electrowinning, and doré production. The annual throughput is approximately 500,000 tonnes per annum (tpa) and the historical recovery is 94% to 95%.

SOURCES OF INFORMATION

A site visit to El Limón was carried out by Scott C. Ladd, P.Eng., RPA Principal Mining Engineer, Lance Engelbrecht, RPA Principal Metallurgist, and Stephan Theben, Dipl-Ing., SLR Consulting (Canada) Ltd. (SLR) Mining Sector Lead and Managing Principal, on April 29, 2019.

During the visit, discussions were held with personnel from B2Gold:

- Dale Craig, Vice President Operation
- Omar Vega, Country Manager
- Jorge Marin, Country Operations Manager
- Thomas Lee, Corporate Affairs Manager
- Alejandro Dominguez Mejia, General Manager

José M. Texidor Carlsson, M.Sc., P.Geo., RPA Senior Geologist, and Wayne W. Valliant, P.Geo., RPA Principal Geologist, visited the B2Gold Vancouver office and held discussions relating to the geology and resource estimation for the mine. During the visit, discussions were held with the following personnel from B2Gold:

- Brian Scott, Vice-President, Geology and Technical Services
- Tyler McKinnon, Senior Resource Geologist
- Susan Meister, Manager, Technical Services
- Maggie Harder, Resource Modeller
- Kevin Pemberton, Chief Engineer

This report was prepared by Scott C. Ladd, P.Eng., Wayne W. Valliant, P.Geo., Brenna J.Y. Scholey, P.Eng., RPA Principal Metallurgist, José M. Texidor Carlsson, M.Sc., P.Geo., and Stephan Theben, Dipl.-Ing. Mr. Ladd is responsible for overall preparation of the Technical Report and specifically for Sections 15, 16, 18, 19, 21, 22, and 24. Mr. Valliant prepared Sections 4 to 12. Mr. Texidor Carlsson prepared Section 14. Ms. Scholey prepared Sections 13 and 17 and was assisted by Mr. Engelbrecht. Mr. Theben prepared Section 20. All authors shared responsibility for Sections 1, 2, 3, 25, 26, and 27.



The documentation reviewed, and other sources of information, are listed at the end of this report in Section 27 References.

LIST OF ABBREVIATIONS

Units of measurement used in this report conform to the metric system. All currency in this report is US dollars (US\$) unless otherwise noted.

μ	micron	kVA	kilovolt-amperes
μ q	microgram	kW	kilowatt
a	annum	kWh	kilowatt-hour
A	ampere	L	litre
bbl	barrels	lb	pound
Btu	British thermal units	L/s	litres per second
°C	degree Celsius	m	metre
C\$	Canadian dollars	М	mega (million): molar
cal	calorie	m²	square metre
cfm	cubic feet per minute	m³	cubic metre
cm	centimetre	MASL	metres above sea level
cm ²	square centimetre	m³/h	cubic metres per hour
d	day	mi	mile
dia	diameter	min	minute
dmt	dry metric tonne	μm	micrometre
dwt	dead-weight ton	mm	millimetre
°F	degree Fahrenheit	mph	miles per hour
ft	foot	MVA	megavolt-amperes
ft ²	square foot	MW	megawatt
ft ³	cubic foot	MWh	megawatt-hour
ft/s	foot per second	oz	Troy ounce (31.1035g)
g	gram	oz/st, opt	ounce per short ton
G	giga (billion)	ppb	part per billion
Gal	Imperial gallon	ppm	part per million
g/L	gram per litre	psia	pound per square inch absolute
Gpm	Imperial gallons per minute	psig	pound per square inch gauge
g/t	gram per tonne	RL	relative elevation
gr/ft ³	grain per cubic foot	S	second
gr/m³	grain per cubic metre	st	short ton
ha	hectare	stpa	short ton per year
hp	horsepower	stpd	short ton per day
hr	hour	t	metric tonne
Hz	hertz	tpa	metric tonne per year
in.	inch	tpd	metric tonne per day
in ²	square inch	US\$	United States dollar
J	joule	USg	United States gallon
k	kilo (thousand)	USgpm	US gallon per minute
kcal	kilocalorie	V	volt
kg	kilogram	W	watt
km	kilometre	wmt	wet metric tonne
km ²	square kilometre	wt%	weight percent
km/h	kilometre per hour	yd ³	cubic yard
kPa	kilopascal	yr	year



3 RELIANCE ON OTHER EXPERTS

This report has been prepared by RPA for Calibre. The information, conclusions, opinions, and estimates contained herein are based on:

- Information available to RPA at the time of preparation of this report, and
- Assumptions, conditions, and qualifications as set forth in this report.

For the purpose of this report, RPA has relied on ownership information provided by Calibre. This opinion is relied on in Section 4 and the Summary of this report. RPA has not researched property title or mineral rights for the El Limón Mine and expresses no opinion as to the ownership status of the property.

RPA has relied on Calibre for guidance on permitting, applicable taxes, royalties, and other government levies or interests, applicable to revenue or income from the Project.

Except for the purposes legislated under provincial securities laws, any use of this report by any third party is at that party's sole risk.



4 PROPERTY DESCRIPTION AND LOCATION

The property lies within the boundary of the municipalities of Larreynaga and Telica of the Department of León and the municipalities of Chinandega and Villa Nueva of the Department of Chinandega, approximately 100 km northwest of the capital city of Managua. The El Limón exploitation permit is centred at approximately 1,409,000mN and 525,500mE (UTM NAD 27, Zone 16). A map showing the Project location is presented in Figure 4-1.

LAND TENURE

The Project consists of five contiguous blocks covering an aggregate area of 20,147 ha and the Villanueva 2 exploration permit covering an area of 1,200 ha located approximately 12 km to the north. The 12,000 ha El Limón exploitation permit is adjacent to the 5,000 ha Bonete-Limón exploration permit. Additional contiguous exploration permits include Guanacastal III, San Antonio, and Guanacastal II, which are contiguous with Bonete-Limón block, combine for a total area of 3,147 ha.

Table 4-1 lists the concessions involved and their relevant tenure data. Figure 4-2 illustrates the locations of the concessions.

Concession Name	Certified and Applicable Ministerial Agreement	Title Holder	Effective Tax Date	Area (ha)	Tax Year
Mina El Limón	185-RN-MC/2002	TMSA	16-Apr-02	12,000	17
Bonete-Limón	600-RN-MC/2006	TMSA	17-Oct-07	5,000	13
Villanueva 2	562-RN-MC-2006	TMSA	17-Oct-07	1,200	12
Guanacastal II	079-DM-550-2014	Lirios	01-Sep-14	1,052	5
Guanacastal III	082-DM-456-2013	Lirios	04-Nov-13	1,094	6
San Antonio	026-DM-412-2013	Glencairn	29-May-13	1,000	6
Total				21,347	

TABLE 4-1 TENURE DATA Calibre Mining Corp. – El Limón Mine

Notes:

1. Lirios: Minera Los Lirios Honduras, S. de R. L. sucursal Nicaragua

2. TMSA: Triton Minera, S. A.

3. Glencairn: Minera Glencairn S.A.

4. The titles to Guanacastal II and Guanacastal III were transferred from Lirios to TMSA on October 24, 2018.



On July 2, 2019, Calibre announced that it had entered into a transaction with B2Gold whereby it would acquire the producing EI Limón and La Libertad gold mines as well as the Pavon gold project and other mineral concessions in Nicaragua held by B2Gold for an aggregate consideration of \$100 million, to be paid with a combination of cash, common shares, and a convertible debenture. Following completion of the transaction, B2Gold will own an approximate 31% direct equity interest in Calibre.



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4-4



MINING RIGHTS

Exploration and exploitation of mineral deposits in Nicaragua are defined and regulated in the 2001 Mining Code (the Mining Code) and overseen by the *Ministerio de Fomento, Industria y Comercio* (MIFIC) of the government of Nicaragua.

Under the Mining Code and regulations, the new mineral concessions have a term of 25 years. Each concession is subject to an agreement (Acuerdo Ministerial) issued by the government of Nicaragua. The Mining Code allows for amalgamation, division, and reduction of the concessions. Mineral concessions are subject to surface taxes *cánon* payments due as two advanced instalments in January and July of each year, and adjusted for any reductions in concession area, according to the rates shown in Table 4-2.

TABLE 4-2NICARAGUA EXPLORATION/MINING CONCESSION CANON
PAYMENT SCHEDULE

Calibre Mining Corp.– El Limón Mine

Year	Fee (\$/ha)
1	0.28
2	0.75
3 & 4	1.50
5&6	3.00
7 & 8	4.00
9 & 10	8.00
11 to 25	12.00

The total payment required to renew all of the Project concessions upon their respective anniversary dates for 2019 is \$228,000.

Under the Mining Code all mineral concessions include the rights to explore, develop, mine, extract, export, and sell the mineral commodities found and produced from the concession. Concession holders are required to submit annual reports of its activities and production statistics to the government, as well as quarterly reports on its exploration activities.

SURFACE RIGHTS

TMSA is the direct owner of the surface rights that underlie all of its current mining, milling, tailings, and related facilities and infrastructure at the EI Limón Mine. When necessary, access agreements are negotiated and signed with the individual surface owners for other areas within the concession not owned by the B2Gold.



ROYALTIES AND OTHER ENCUMBRANCES

Production from the EI Limón Mine and concessions within a ten kilometres radius of the mine

are subject to the following royalties:

- A 3% Net Smelter Return (NSR) royalty to Royal Gold Inc. (Royal Gold), on the mineral production from the EI Limón Mine and any other production revenue in the future, obtained from the EI Limón Mine concession and the other mineral concessions, including La India, that were formerly part of the original EI Limón-La India exploration concession. The Royal Gold royalty does not apply to the Espinito-San Pablo and Espinito-Mendoza concessions comprising the Mestiza property nor does it apply to concessions outside the ten kilometres radius of the El Limón Mill.
- All concessions are subject to a 3% NSR on gold production, payable to the government of Nicaragua.

PERMITTING

REQUIRED PERMITS AND STATUS

To carry out exploration activities such as geophysics, geo-chemistry, trenching and drilling, permits are required in Nicaragua from the Ministry of Natural Resources and Environment (MARENA).

RPA is not aware of any environmental liabilities on the property. Calibre has all required permits to conduct the proposed work on the property. RPA is not aware of any other significant factors and risks that may affect access, title, or the right or ability to perform the proposed work program on the property.


5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

ACCESSIBILITY

Managua is the capital city of Nicaragua and daily flights to international destinations are available. Access to the EI Limón property is via paved roads from Managua to the village of EI Limón, a distance of approximately 125 km. From the village of EI Limón, an all-weather gravel road connects with the mine at a distance of approximately 15 km. The Santa Pancha underground mines are situated approximately five kilometres east of the Village of EI Limón, the Veta Nueva underground mine is located four kilometres to the west of the village, and the Limon Central mine is located 0.5 km northeast of the village. All three areas are accessible by gravel roads from the EI Limón Mine site.

CLIMATE

The climate in northwestern Nicaragua is tropical with a hot, wet season from May through November and hotter, dry season from December through April. The mean annual temperature is 27° C with an average annual precipitation of two metres. The El Limón Mine operates year-round and is not normally affected by the typical seasonal climatic variations.

LOCAL RESOURCES

The city of León, the second largest city in Nicaragua, is situated some 45 km southwest of the El Limón Mine, and the city of Esteli is situated approximately 100 km (by road) northeast from the mine. Both are agro-industrial cities. Numerous towns and villages are located throughout the area and are used as a local base for exploration activities on the various concessions. Infrastructure support and availability of trained miners proximal to the various concessions is limited, except in the areas immediately adjacent to the Limón mining operations.

The three villages of El Limón, Santa Pancha, and Minvah, all located within the mine concession, have a population of approximately 10,000 people including many of the mine employees. Transportation to the El Limón Mine is by private vehicles and public and company buses.



INFRASTRUCTURE

The El Limón Mine is an active mining operation located in the town of Mina El Limón, Larreynaga Municipality, León Department, in northwestern Nicaragua. Access to the El Limón Mine area is via mostly paved road and approximately 15 km via all-season gravel road to the village of El Limón, allowing road access to provide overland movement of all required supplies and materials.

Nicaragua in general has a moderately developed infrastructure of telecommunications, roads, airports, and seaports and there is a fairly high literacy rate among the population with an ample supply of skilled and unskilled labour.

The city of León, the second largest city in Nicaragua, is situated approximately 45 km southwest of the El Limón Mine, and the city of Esteli is situated approximately 100 km (by road) northeast from the mine. Both of them are agro-industrial cities. Numerous towns and villages are located throughout the area and are used as a local base for exploration activities on the various concessions. Infrastructure support and availability of trained miners proximal to the various concessions is limited, except in the areas immediately adjacent to the El Limón mining operations.

The villages of Limón, Santa Pancha, and Minvah, all located within the mine concession, have a combined population of approximately 6,000 people, including many of the mine employees. Transportation to the El Limón Mine is via private vehicles and public and company buses.

Project infrastructure is described in Section 18 of this Technical Report.

PHYSIOGRAPHY

The El Limón mineral concession is in an area of low to moderate relief that offers flat areas for mine infrastructure. Elevations of the mine property range from 40 to 300 MASL. Outcrops are not common in the area but do occur along road cuts. Overburden thickness ranges from one metre to three metres with an average thickness of approximately 1.5 m. Overburden consists of unconsolidated conglomerate with pebbles and boulders of volcanic rocks in a matrix of sand and minor clay. A layer of recent volcanic ash may also comprise part of the overburden.



The area is covered with sparse vegetation consisting predominantly of grasslands and scrub brush with widely spaced trees. The land around the El Limón Mine is used for agriculture. The villages in the area use the land to raise cattle, but it is not used to grow crops. Wildlife in the area includes various species of insects, lizards, snakes, armadillos, birds, and small mammals.



6 HISTORY

OWNERSHIP AND DEVELOPMENT HISTORY

The following history of the El Limón Mine was provided by Calibre.

1522–1523: Spanish conquistadors Gil González Dávila and Pedrarias Dávila initiate expeditions in Nicaragua, evangelizing and searching for gold. Over the next several years seven mining villages are established in the northern region known today as Nueva Segovia. By 1583, the colonial government has exported approximately 53,000 troy ounces of gold from Nicaragua to Spain.

1850–1860: During the California Gold Rush, US business magnate Cornelius Vanderbilt founds the Accessory Transit Company to carry *forty-niners* from the east coast to the west. Passengers travel from New York to Nicaragua by steamship, cross the country by boat and carriage, and continue up the Pacific coastline by steamship to California. Some adventurers remain in Nicaragua to seek out potential gold deposits. Small mines are opened in what are now the Nicaraguan departments of León, Matagalpa, and Nueva Segovia.

1870s: Additional gold deposits are discovered in León and Chinandega, including El Obraje (Minas de Agua Caliente), La India, and El Limón. Artisanal work in the El Limón Mining District in the late nineteenth century reaches semi-industrial levels by 1920.

1935–1936: Compañía Minera La India, a subsidiary of the Montreal-based Noranda Mining Company (Noranda), stakes several mining claims in the department of León. La India Mine enters into production in 1938 with a 100 tonne mill. Noranda then establishes another subsidiary, Empresa Minera de Nicaragua (EMDEN) to obtain a 17 km² concession near El Limón, some 45 km west of La India.

1941: EMDEN sinks a 315 m shaft at El Limón and puts a 200 tonne mill into operation, producing between 3,000 ounces and 5,000 ounces of gold per month. Another prospect is discovered approximately five kilometres east of El Limón, and EMDEN acquires the 18 km² Santa Pancha concession on which four deposits were ultimately developed: Santa Pancha, San Luis, Mercedes, and Panteon.



1953: The mining of Santa Pancha begins. Within an area of four square kilometres, nine shafts are sunk to between 215 m and 335 m to minimize drifting and crosscutting and control the flow of hot water in the workings.

1960: The mining concession agreement held by EMDEN expires. A new Nicaraguan company, Empresa Minera de El Setentrion, is established to hold the concession and take over operations at El Limón and Santa Pancha. From 1960 to 1970, the mill at El Limón treats an average of 121,300 tonnes of ore per year, producing an average of 60,000 ounces of gold.

1969: Gold deposits are discovered in the sector of La Tigra in the El Limón Mining District. In the early 1970s, vertical shafts of up to 120 m are sunk to mine high grade ore in areas known as Mina de Agua and Rincón de García, approximately 27 km northwest of El Limón.

Mid-1970s: Facing technical difficulties with the dewatering of the Santa Pancha mine and foreseeing political instability in the country, Noranda begins to reduce its mining and exploration investments in Nicaragua. Production at El Limón begins to drop.

From the beginning of its operations at the El Limón Mine in June 1941 until June 1978, Noranda treats 4.1 million tonnes of ore to produce 2,025,000 ounces of gold. Production rates during this period start at 200 tonnes per day (tpd) and increase to 345 tpd.

1979: Three weeks before the triumph of the Sandinista Revolution, on June 22, 1979, insurgents take control of El Limón Mine. In the resulting confusion, a supervisor in charge of the Santa Pancha Mine dewatering system abandons his post and leaves the pumps unattended. The mine floods, with hot water levels reaching almost to surface.

The new revolutionary government passes the Mining Sector Nationalization Law in November 1979. Mines in Nicaragua are expropriated and remain nationalized throughout the 1980s. Attempts are made to dewater the flooded Santa Pancha mine, however, these efforts are hampered by damage to infrastructure and a shortage of equipment and spare parts brought about by the economic embargo imposed against Nicaragua by the United States. Seeking to maintain production levels, El Limón reopens higher underground levels that had been abandoned by Noranda due to their lower profitability.



Mid 1980s: Financing and technical assistance from Sweden make it possible to mine a deposit known as the Talavera vein. For the first time in Central America, an inclined drift is opened for underground mining. The four-by-four-metre ramp reaches a vertical depth of 250 m at a 1:8 gradient, allowing diesel trucks to enter the mine and thereby increasing productivity. The capacity of the processing plant at El Limón increases from 345 tpd to 600 tpd.

1990-1994: Violeta Barrios de Chamorro is elected president of Nicaragua, the Mining Sector Nationalization Law is repealed, and a bidding process initiated to privatize the state's mining assets. In 1994, Minera de Occident S.A., which subsequently became Triton Minera S.A. (TMSA), acquires a 95% interest in El Limón Mine, including the 12,000 ha concession and productive centres of Santa Pancha and Rincón de García. TMSA is owned by Triton Mining Corporation (TMC) (47.5%), Triton USA (47.5%), with the remaining 5% of the El Limón Mine held by Inversiones Mineras S.A. (IMISA), a holding company representing unionized mine workers in Nicaragua (5%). The company Minera de Occidente is established to operate the mine.

1995: The capacity of the processing plant at El Limón Mine increases to 1,000 tpd.

1998: TMC becomes a wholly-owned subsidiary of Toronto-based Black Hawk Mining Inc. (Black Hawk).

2003: Glencairn Gold Corporation (renamed Central Sun Mining Inc. in 2007) merges with Black Hawk, giving Glencairn a 95% interest in El Limón Mine.

2009: B2Gold acquires a 95% interest in El Limón Mine, increasing the processing plant capacity to 1,100 tpd in 2011, 1,250 tpd in 2012, 1,350 tpd in 2013, and 1,400 (nom) tpd in 2014.

2018: B2Gold purchases the remaining 5% interest in El Limón Mine, thereby increasing its ownership interest in El Limón to 100%.

HISTORICAL RESOURCE ESTIMATES

There have been several historical Mineral Resource and Mineral Reserve estimates prepared by previous operators. These estimates are historical in nature and should not be relied upon.



The most recent Mineral Resource and Mineral Reserve estimates were prepared with an effective date of December 31, 2018. The December 31, 2018 Mineral Resources and Mineral Reserve estimates are superseded by the estimates presented in Section 14 of this report.

PAST PRODUCTION

Historical production from EI Limón is summarized in Table 6-1.

Operator	Period	Ore Processed Tonnes (kt)	Production Au (koz)
Noranda	1941 - 1979	4,100	2,025
Sandinistas	1979 - 1994	1,900	280
TMC/Black Hawk	1994 – 2002	2,600	447
Glencairn / Central Sun	2003 - 2009	2,069	273
B2Gold	2010 - 2018	3,890	431
Total		14,559	3,456

TABLE 6-1 HISTORICAL PRODUCTION Calibre Mining Corp. – El Limón Mine

HISTORICAL EXPLORATION

Extensive exploration has been completed on the Project and includes work completed by previous owners and successive exploration programs by B2Gold every year since acquisition in 2009. Exploration and target definition completed on the Project has consisted of extensive surface mapping and sampling programs, geochemical analyses, and geophysical surveys with follow-up trenching on priority targets. Drilling has tested numerous priority targets defined by the exploration and has resulted in a series of discoveries including several deposits which are being mined or have been mined over the last number of years and others which host existing Inferred Mineral Resources.

GEOLOGICAL MAPPING

B2Gold has completed extensive geological mapping covering much of the Project. Surface mapping is severely constrained by the limited natural outcrop in the area. Topography is gentle to moderate and oxidation has resulted in the formation of saprolite and thin to moderate but extensive soil coverage. While natural outcrops are rare, exposures can be found in drainages as well as in workings associated with artisanal miner activity. Rock float including



quartz blocks and lag associated with veins and silicified structures is typical and provides a useful tool for mapping. Additional exposures are created by trenching.

GEOPHYSICAL SURVEYS

A series of geophysical surveys have been completed to assist in the exploration of the Project. A magnetic survey was competed over the entire main concession block. Veins and silicified structures are often associated with magnetic lows interpreted to be related to destruction of magnetic minerals in the host rocks surrounding the mineralized structures.

GEOCHEMICAL SURVEYS

SOIL SAMPLING

Soil sampling and geochemical analyses is one of the best exploration methods for the identification of gold-bearing veins and structures in the El Limón area. Moderate topography and moderate oxidation with a well-developed but shallow soil horizon result in conditions where most near surface gold bearing veins and structures are identifiable using moderately spaced soil sampling programs and gold analyses. Dispersion away from the veins and structures is moderate but sufficient to generate anomalies at appropriately spaced surveys. The current database contains 14,622 soil samples and results greater than 100 ppb gold have outlined all of the known deposits as well as numerous additional targets.

ROCK SAMPLING

Extensive rock sampling programs have been completed often following up on geochemical anomalies generated by soil sampling.

Additionally, augers have been used to penetrate the near surface cover, extending two to five metres and in some cases as much as eight metres with the collection of a "rock-soil" sample at the bottom of the hole. These samples provide geochemical results for the exact position of the auger drill hole with limited to no effect of dispersion. The current database contains 4,144 rock samples and results greater than 250 ppb gold have outlined all of the known deposits as well as numerous additional targets notably Lourdes and Ramadas.

TRENCHING

Geochemical anomalies generated by soil and rock sampling are often followed up by trenching. Trenching was completed by hand to a depth of two to three metres below surface depending on the local soil and weathering profile. Material sampled was often oxidized except



in the cases of veins and silicified vein breccias which often extend to surface or close to surface. Continuous chip samples were collected of vein and wall rock material with the aid of a rock saw where required.

In some cases, trenches were completed on exposures which had been created by artisanal mining activity. The edges of trenches and active artisanal workings were sampled as trenches where safe to do so. The current database contains 682 trench and channel sample locations which outline the distribution of several of the existing deposits and numerous additional vein and structural trends.



7 GEOLOGICAL SETTING AND MINERALIZATION

REGIONAL GEOLOGY

Nicaragua is located in the southern part of the Chortis Block, one of the several major structural units forming the Caribbean Plate.

McBirney and Williams (1965) divided Nicaragua into four physiographical provinces that closely correspond to geological provinces. From west to east these are the Pacific Coastal Plain, the Nicaraguan Depression, the Interior Highlands, and the Atlantic Coastal Plain. The El Limón Mine is located along the eastern edge of the Nicaragua Depression (Pearson and Speirs, 2009).

The northwest-southeast trending Nicaraguan Depression is a graben 500 km long and 50 km wide, partly covered by the Nicaragua and Managua Lakes. The alluvial sediments and volcanic rocks filling the depression may be up to 2,000 m thick in the southwest thinning towards the northeast. The active volcanic chain of Nicaragua is located along the floor of the depression, which lies about 50 m above sea level.

The regional geology is illustrated in Figure 7-1. Figure 7-2 illustrates the regional stratigraphic column.



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Age		Thickness (m)	Un	it	Lithology				
	iocene	300	oup	Jpper	Rh	yolitic Ignimbrites and Tuffs			
		100	yol Gi			Basaltic Flows			
	cene	300	Co	Lower		Basaltic and Andesitic Flows			
TERTIARY	Mio	110	a Group			Pyroclastic and			
	Oligocene	120	Matagalpa			Volcaniclastic Rocks			
	Eocene	0	tagalpa Caracol n.	oer		Cherts and			
	Paleocene		Pre-Mai Group El Fr	Upl		Shales			
Figure 7-2									
	Calibre Mining Corp. El Limón Mine León and Chinandego Departments, Nicaragua Regional Stratigraphic Column								
August 20	019 Sou l	rce: Chlumskv. Armbrus	at and Mever. 20	003.					



LOCAL AND PROPERTY GEOLOGY

The following is taken from Roscoe, Clow, and Lalonde (2003).

The El Limón Mine is located along the eastern edge of the Nicaragua graben within an area of low hills that contrast with the level plain of the graben floor. Approximately 50% of the area in the general vicinity of the mine is covered by a thin layer of Quaternary to Recent deposits of volcanic ash and alluvium. The El Limón Mine concession is underlain predominantly by volcanic strata that are correlated with the Miocene-Pliocene Coyol Group that is present over extensive areas of western Nicaragua. Figure 7-3 illustrates the geology and veins of the El Limón concession.

Coyol Group rocks exposed on the El Limón concession range from intermediate to felsic volcanic and volcaniclastic rocks that are cut by minor intermediate to felsic hypabyssal intrusive bodies. Several generations of mapping in the El Limón district have roughly divided the Coyol rocks into locally mappable units that from lowest to highest in section are as follows:

- Interstratified, intermediate composition, massive porphyry flows and coarse volcaniclastic rocks.
- Intermediate to felsic flows, domes and minor tuffs and epiclastic rocks.
- Weakly stratified, intermediate to felsic tuffs and epiclastic rocks.
- Massive to flow-banded, intermediate porphyritic flows.

The above units appear to be conformable and generally strike east to northeast and dip gently south with local variability common.

A relatively flat-lying and younger volcanic package unconformably overlies the volcanic and volcaniclastic rocks described above. This younger unit occurs in the southern half of the concession and consists mainly of breccias and conglomerates with clasts of the underlying units. It is uncertain if this younger sequence is part of the Coyol Group.

Deformation is dominated by normal faulting with little evidence for significant internal deformation of intervening fault blocks. The most abundant faults strike northeast and dip moderately to steeply. A second group of faults strikes north to west-northwest, dipping steeply to the east to northeast. Apparent displacements on these faults are tens to several hundreds of metres.





MINERALIZATION

The following is taken from Pearson and Speirs (2009).

Gold mineralization in the Limón district is structurally controlled and forms veins that occupy pre-existing fault structures and extensional openings formed during mineralization. The veins are quartz dominant with lesser and variable quantities of calcite, and minor adularia. Pyrite is the predominant sulphide, but with a content of less than one percent. Trace amounts of chalcopyrite, sphalerite, arsenopyrite, altaite, gold tellurides, and native gold are also reported to occur. Gold is present in both the banded quartz and silicified breccias that form the veins. Gold is very fine-grained within the quartz vein, and is relatively uniformly distributed throughout the higher-grade parts of the veins; only once has visible gold been reported on the El Limón Mine concession.

The productive vein systems are approximately one to two kilometres long, with vein widths from less than one metre up to 25 m. Individual mineralized shoots within the veins range from 60 m to 450 m long horizontally, and from 40 m to 290 m vertically. Strike orientations vary from north-northwest through northeast to east-west, and dips are from 40° to nearly vertical. All economic gold mineralization discovered and mined to date lies within 400 m of surface. The productive and prospective elevations within the vein systems vary across the district. Post-mineral faults locally disrupt and offset the vein.

The gold-bearing veins and attendant alteration are hosted within volcanic flows, volcaniclastic strata, and possibly hypabyssal intrusions of the lowest volcanic unit. The other three gently dipping volcanic units are variously altered by the same hydrothermal fluids that deposited the gold veins, locally quartz stringers with low gold values are found in the massive porphyritic andesite flows that immediately underlie the unconformity contact with the youngest flat-lying unit. The youngest volcanic unit appears to post-date gold mineralization because no veins or vein-related alteration has, as yet, been identified within this unit.

The most extensive areas of argillic and quartz alteration form a corridor that crosses the El Limón mineral concession along a roughly west to east trend, this alteration corridor is mostly located to the south of the Talavera, Limón, and Santa Pancha-Panteón vein systems and is partially capped by the young, flat-lying volcaniclastic unit. Much of this alteration is part of the upper, near-paleosurface component of the low-sulphidation epithermal system that formed



the productive gold veins. Preliminary mapping indicates the presence of both distal and proximal alteration facies related to the epithermal system.

The identification of the proximal alteration facies, combined with the presence of auriferous quartz vein boulders and silicified, steeply inclined structures, provide exploration guides for the discovery of new gold-bearing vein systems, and increase the exploration potential along this corridor.



8 DEPOSIT TYPES

According to Pearson and Speirs (2009), the El Limón vein system is classified as a low sulphidation epithermal system. The following is a description of this type of mineralization.

Low sulphidation epithermal Au-Ag + Cu deposits develop from near neutral dilute fluids, which are dominated by meteoric waters within cells of circulating hydrothermal fluids, commonly driven by the intrusive source rocks for metals, at considerable depth. Low sulphidation deposits therefore tend to dominate in reactivated dilational structural settings, and so are commonly characterized by banded veins comprising many individual events of hydrothermal mineral deposition. Some events of mineral deposition will be dominated by Au-bearing fluids derived from the magmatic source, deep circulating meteoric waters will entrain a magmatic component and so may exhibit lower grade Au mineralization, while shallow circulating meteoric waters are sometimes barren. Ground waters may collapse into the hydrothermal system or otherwise interact with the hydrothermal cells as an important feature of the ore deposition process.

Varying mechanisms of mineral deposition are apparent within multi-generational veins. While boiling or phase separation by rapid pressure drop has long been proposed as a possible mechanism of mineral deposition, detailed character sampling has often failed to identify the bulk of Au-Ag mineralization in the minerals deposited at this stage – adularia, bladed calcite, quartz pseudo-morphing calcite, and to a certain extent chalcedony. Rather, these minerals constitute much of the gangue mineralogy. Some workers (Corbett and Leach, 1998) have proposed that Au deposition may be promoted by rapid cooling of the ore fluid, enhanced by wall rock reaction, or mixing with varying ground waters. Rapid cooling of an ore fluid, which promotes high-grade Au deposition, is often evidenced by the presence of Au within chalcedony, while fluid mixing is apparent from the presence of kaolin for low pH acid sulphate waters, manganese oxide for bicarbonate waters, and hypogene hematite and jarosite for oxygenated ground waters.

Varying styles of low sulphidation epithermal Au deposits, which commonly form in different geological environments, are distinguished on the basis of vein mineralogy. The group of low sulphidation Au-Ag deposits with higher sulphide contents, although in many instances only in the order of one to two per cent, display a closer association with intrusive source rocks. These



display transitional relationships and vary spatially and temporally from early to later in a vein paragenetic sequence, and generally from deeper to shallower levels from: quartz-sulphide Au + Cu, to carbonate-base metal Au, and epithermal quartz Au-Ag deposits.

Corbett (2004) further sub-divides the low sulphidation epithermal gold deposits into the following sub-types:

- Quartz-sulphide Au + Cu deposits,
- Carbonate base metal Au,
- Epithermal quartz Au Ag,
- Sediment-hosted replacement Au, and,
- Adularia-sericite banded epithermal Au-Ag quartz vein deposits

The reader is referred to Corbett (2004) for a description of these sub-types.

Examples of low sulphidation gold deposits include Hishikari (Japan), Sleeper (Nevada), and Round Mountain (Nevada). Figure 8-1 is a schematic illustration of a low sulphidation deposit.





9 EXPLORATION

Exploration at the Mine, for the most part, comprises drilling as described in Section 10, Drilling. Other exploration methods include prospecting, geological mapping, geophysical and geochemical surveys, and trenching. All exploration to date was performed by previous owners as discussed in Section 6, History.

EXPLORATION POTENTIAL

In RPA's opinion, there is potential to outline additional resources in the following areas:

- Extension to currently producing areas:
 - Limón Central
 - o Santa Pancha
 - o Veta Nueva
 - o Mercedes
- Existing resource areas not currently producing;
 - o Limón Norte
 - o Pozo Bono
 - o Tigra/Chaparral
 - o Atravesada
 - o Historically Placed Tailings
- Advanced Targets:
 - o Panteon
 - o San Antonio
 - o Cacao
 - o Ramadas
 - o Lourdes
 - o Guanacastal
- Conceptual Targets

EXPLORATION TARGET HIGHLIGHTS

Exploration completed to date on the El Limón property has identified a series of targets at various stages of advancement with positive results, which warrant further work.

PANTEON

Panteon is located 100 m west of the producing Santa Pancha vein. Drilling on this structure in 2019 returned positive results including hole LIM-19-4401, for which assays are pending, intersected a mineralized zone 5.44 m wide (true width), including wall rock breccias,



hydrothermal breccia, and quartz vein. The quartz vein consists of colloform and crustiform banded quartz with minor vuggy quartz and includes traces of sulphosalts and adularia. LIM-19-4400 intersected three closely spaced structures returning 2.83 g/t Au over 6.35 m (main structure), 8.66 g/t Au over 3.4 m (footwall), and 10.62 g/t Au over 5.44 m (hanging wall) including 18.33 g/t Au over 2.20 m.

ATRAVESADA

The Atravesada target is located north and along strike from the Veta Nueva deposit. The most recent drilling at Atravesada was successful with drill intercepts including 51.65 g/t Au over 1.19 m, 5.71 g/t Au over 1.24 m, 4.12 g/t Au over 5.05 m, 5.50 g/t Au over 5.14 m, 18.42 g/t Au over 4.07 m, 31.48 g/t Au over 2.68 m, and 5.85 g/t Au over 5.55 m. Additional potential exists along strike and down dip.

RAMADAS

The Ramadas target is located in the central portion of the EI Limón property. First pass drilling is planned in the second half of 2019 at the Ramadas Target, which consists of multiple sub-parallel veins with gold anomalies.

LOURDES

The Lourdes Target is located to the west of the main El Limón structure. The main Lourdes structure extends for 2.2 km and the adjacent San Nicolás structure, for 1.9 km. Extensive exploration has been completed including 78 trenches totalling 2,749 m. Results from the trench sampling include; 1.21 g/t Au over 1.0 m, 1.00 g/t Au over 5.11 m, 1.81 g/t Au over 1.0 m, 1.20 g/t Au over 2.45 m, 1.00 g/t Au over 3.53 m, 1.16 g/t Au over 0.45 m, 0.53 g/t Au over 1.61 m, and 0.29 g/t Au over 7.41 m. Within the trenches, the structure averages 1.0 m to 2.0 m, with wider stockwork zones up to 5.0 m made of druzy and massive quartz. Drilling is ongoing.

SANTA PANCHA SUR

The Santa Pancha Sur Target is located 200 m to 400 m south of the operating Santa Pancha 1 (SP1) mine. The target consists of a strong magnetic anomaly associated with gold anomalous soil and rock samples. A first pass drilling program has been planned.

GUANACASTAL

<u>Guanacastal</u> is a newly acquired area on the eastern limit of the Project where first pass mapping, soil sampling, and prospecting are underway.



Calibre has planned a two-phase exploration program to explore for and potentially outline additional Mineral Resources at El Limón. Phase 1, at a cost of C\$3 million, would take place over 12 months. The Phase 2 program, C\$5 million over 12 months, would depend on the results of Phase 1. Diamond drilling and assaying accounts for approximately 55% of the total cost while the remainder is for salaries, support, and technical studies. RPA concurs with the recommended program and budget as summarized in Table 9-1.

Phase 1 (12 months)		
Item	Work Program	Cost (C\$)
Diamond Drilling	8,000 m @ \$200/m	1,600,000
Assays	3,000 samples @ \$40/sample	120,000
Salaries / Technical Support	-	500,000
Other Exploration	soils, rock, trenching	300,000
Permitting	-	100,000
Metallurgical Testing	-	40,000
Additional Technical Studies	geotechnical, hydrogeological, etc.	90,000
Surveying	-	20,000
Resource Update / Technical Report	-	80,000
Consumable Supplies and Camp Costs	-	150,000
Total	-	\$3,000,000

TABLE 9-1EXPLORATION BUDGETCalibre Mining Corp. - El Limón Mine

Phase 2 (12 months)

Item	Work Program	Cost (C\$)
Diamond Drilling	12000 m @ \$200/m	2,400,000
Assays	5,000 samples @ \$40/sample	200,000
Salaries / Technical Support	-	600,000
Other Exploration	soils, rock, trenching	800,000
Permitting	-	20,000
Metallurgical Testing	-	100,000
Additional Technical Studies	geotechnical, hydrogeological, etc.	400,000
Surveying	-	40,000
Economic Study / Technical Report	-	200,000
Consumable Supplies and Camp Costs	-	240,000
Total	-	\$5,000,000



10 DRILLING

The El Limón Mineral Resources are based on approximately 45,000 assays from approximately 164,000 m of diamond drilling in 985 holes, as well as channels in Santa Pancha 1 (SP1) and Santa Pancha 2 (SP2). In Limón and Veta Nueva drilling was conducted almost exclusively from surface, with the exception of a small number of diamond drill holes from underground. In Tailings, "direct push" drilling was conducted from surface. In SP1 and SP2, diamond and reverse circulation (RC) drilling was conducted from surface.

RC drilling and diamond drilling was conducted on 30 m to 40 m spacing for the El Limón, SP1, SP2, and Veta Nueva deposits and on 60 m spacing for the Tailings. Trench samples are occasionally used, however, their influence is restricted.

The drilling for 1984 through 2017 is summarized in Table 10-1 and illustrated in Figures 10-1 through 10-5.

	Limón		SP1		SP2		Veta Nueva		Tailings		Total	
Year	Holes	Length (m)	Holes	Length (m)	Holes	Length (m)	Holes	Length (m)	Holes	Length (m)	Holes	Length (m)
1950-1980			12	2,536			1	229			13	2,765
1954-1957					6	654					6	654
1960-1978					11	1,866					11	1,866
1980-1990			6	1,283			5	684			11	1,967
1990-2000			2	85			83	12,659			85	12,744
2000-2007			73	12,161			9	1,731			82	13,892
1995	8	626									8	626
1996	27	2,760									27	2,760
1997					24	1,286					24	1,286
1998	8	821									8	821
1999					33	1,740					33	1,740
2000	11	1,145									11	1,145
2003	5	391									5	391
2004	15	975			26	3,127					41	4,102
2007	11	1,075									11	1,075
2008			20	5,856							20	5,856
2009			4	436	14	1,185					18	1,621
2010			37	7,624			3	252			40	7,876
2011	15	1,613	7	358	22	1,830	14	1,114			58	4,915

TABLE 10-1DRILLING SUMMARYCalibre Mining Corp. - El Limón Mine



	Limón		SP1		SP2		Veta Nueva		Tailings		Total	
Year	Holes	Length (m)	Holes	Length (m)	Holes	Length (m)	Holes	Length (m)	Holes	Length (m)	Holes	Length (m)
2012					53	12,072					53	12,072
2013			3	966	59	11,652					62	12,618
2014			10	1,808	23	6,487					33	8,295
2015			33	7,254			4	611			37	7,865
2016	23	3,301	7	2,136	10	1,422					40	6,859
2017	130	23,881	9	2,969	6	1,875			95	1,037	240	29,762
2018	103	19,733							179	2,185	182	21,918
Total	356	56,321	223	45,472	287	45,196	119	17,280	274	3,222	1,259	167,491

The assay and geological database cut-off date for the Limón Central, SP1, and SP2 was December 31, 2018. Historical drill holes were not included in the model due to possible hole location issues. As well, suspect assay results were not included in the databases. RC drill holes and most of the underground exploration holes were also excluded from the Mineral Resource database. The assay and geological database cut-off date for the Veta Nueva deposit was June 30, 2015. The assay and geological database cut-off date for the Tailings was June 30, 2018.

The exploration drilling database is maintained in MS Access, underground sampling data is stored in MS Excel, and underground mapping lines are maintained in AutoCAD.

Diamond drill holes are surveyed by a contractor using a Sokia Total Station and downhole surveys are taken every 25 m using a multi- or single-shot Reflex EZ-Shot or Reflex EZ-Trac instrument.

Drill core is logged by a geologist noting lithology, alteration, weathering/oxidation, mineralization, structure, recovery, and mined-out areas. Mineralized intervals, e.g., quartz veins, silicified breccia units, and silicified rock, are sampled and assayed. Sample lengths range from 0.5 m to 1.5 m and continue approximately two metres into unmineralized rock. Selected intervals are sawn or split.

Since 2012, B2Gold routinely collected density measurements on drill core samples using the wax-coated water-immersion method. Mean densities in Limón vary from 1.38 t/m³ to 3.15 t/m³ with a mean of 2.31 t/m³. In SP1, SP2, and Veta Nueva, densities are not modelled and an average density of 2.5 t/m³ was used for those models. The Tailings densities were analyzed and a mean density of 1.33 t/m³ was determined.



In RPA's opinion, there are no drilling, sampling, or recovery factors that could materially impact the accuracy and reliability of the results and the drilling data is appropriate for estimation of Mineral Resources.



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11 SAMPLE PREPARATION, ANALYSES AND SECURITY

Sample preparation is carried out at the site assay laboratory and comprises the following steps:

- Dry at 100°C
- Crush to 85% minus 2 mm
- Riffle split 800 g
- Pulverize to 85% minus 74 microns

Sample pulps used for Mineral Resource estimation were shipped to Bureau Veritas Minerals, previously Acme Labs, in Vancouver, BC for analysis. Bureau Veritas Minerals is certified by ISO 9001 and is independent of B2Gold. Core samples are analyzed for Au using fire assay with an atomic absorption finish (protocol FA430). Samples returning values greater than 10 g/t Au are re-assayed using fire assay with a gravimetric finish (protocol FA530).

In RPA's opinion, the sample preparation, analysis, and security procedures at the Mine are adequate for use in the estimation of Mineral Resources.

QUALITY ASSURANCE/QUALITY CONTROL

Exploration geological staff use an industry standard system for quality assurance/quality control (QA/QC) including the insertion of standard reference materials (SRM), blanks, and duplicates. The El Limón site employs a database manager whose responsibilities include monitoring the QA/QC programs. The results are forwarded to a corporate database manager for review and corporate reporting. RPA reviewed the QA/QC results for 2017 and 2018.

Each batch of 39 samples includes an SRM, a blank sample, a field duplicate (split core), a reject duplicate, and a pulp duplicate. In the event of a failed QA/QC sample the entire batch was re-assayed.

BLANK SAMPLES

Blank samples are sourced from a basalt quarry. A failure was declared if the assay was greater than ten times the detection limit of 0.05 g/t Au. During 2017-2018, there were no failures returned from 558 samples submitted.



STANDARD REFERENCE SAMPLES

SRMs were purchased from CDN Resource Laboratories in Vancouver, BC. During 2017-18 El Limón used twelve different standard reference samples with expected values ranging from 0.71 to 14.90 g/t Au representing the range of probable grades expected at El Limón. An SRM was considered a failure if it returned a value greater than three times the expected standard deviation (SD) or greater than twice the expected SD in two consecutive batches. During 2017-2018 the exploration department submitted 553 SRMs with batches of diamond drill core and had 17, or 3.1%, failures.

FIELD DUPLICATES

Field duplicates are made from split core and are compared with the original assay value using scatter plots. The results for 2017-2018 show a good correlation.

In RPA's opinion, the QA/QC program as designed and implemented by EI Limón is adequate and the assay results within the database are suitable for use in a Mineral Resource estimate.

In RPA's opinion, the data generated from drilling, sampling, sample preparation, and analysis is appropriate for the estimation of Mineral Resources.



12 DATA VERIFICATION

SOFTWARE VALIDATION AND AUDIT OF DRILL HOLE DATABASE

RPA conducted a number of digital and visual queries on the resource database. RPA inspected the drill hole traces, reviewed the drill hole traces in 3D, level plan, and vertical sections and found no unreasonable geometries. RPA also confirmed that there are no duplicate sample numbers and that sample numbers are available for every assayed interval.

RPA compared four drill holes from the El Limón Mine to Assay Certificates from Bureau Veritas Minerals or Acme Labs. No discrepancies were found.

In addition, a number of standard data integrity checks were performed within the software programs on the El Limón drill hole database such as:

- Property boundary limits for each deposit.
- Intervals exceeding the total hole length (from-to issue).
- Negative length intervals (from-to issue).
- Out-of-sequence and overlapping intervals (from-to issue; additional sampling/QA/QC/check sampling included in table).
- No interval defined within analyzed sequences (not sampled or missing samples/results).
- Inconsistent drill hole labelling between tables and duplicate drill hole numbers.
- Invalid data formats and out-of-range values.
- Unusual assay results, including excessively long high grade assay intervals.

RPA reviewed the error reports generated by GEOVIA's Surpac and imported the drill hole databases for EI Limón, SP1, SP2, Tailings, and Veta Nueva into Leapfrog Geo version 4.5. RPA identified a limited number of holes missing lithological information. No discrepancies were found.



QUALITY ASSURANCE/QUALITY CONTROL

B2Gold conducts an industry standard QA/QC program. RPA reviewed the protocols and QA/QC results for 2017 and 2018. The results of the review are described in Section 11, Sample Preparation, Analyses, and Security.

In RPA's opinion, the database is adequate for Mineral Resource estimation.



13 MINERAL PROCESSING AND METALLURGICAL TESTING

The El Limón processing plant is a conventional processing plant consisting of agitated cyanide leaching and carbon adsorption, followed by carbon elution, electrowinning, and doré production.

Gold recovery from 2015 to 2018 ranged between 94% and 95%, with recovery in the first quarter of 2019 dropping to 93.7% (Figure 13-1). Test work on samples from Limón Central and Santa Pancha has indicated that recoveries of approximately 88% and 92%, respectively can be expected. RPA notes that silver data is not reported in the Limón monthly reports. Silver extraction during test work varied from 31% to 99%, with an average of approximately 80%.

Stripping of the new Limón Central pit began in December 2018, with ore production in the first quarter of 2019. Ore from the Limón Central pit contributes 65% of the ore to be processed by the El Limón processing plant over the Life of Mine (LOM) plan, with the remainder coming from the SP1 and SP2, and Veta Nueva orebodies.



FIGURE 13-1 EL LIMÓN GOLD RECOVERY



TEST WORK

In 2018, SGS Mineral Services (SGS) conducted a test work program on five composite samples (described as "3 Domain Composites and 2 Santa Pancha Composites") and 27 variability samples, identified as originating from B2Gold's Limón expansion deposit. The program focused on the amenability of the samples to a whole-ore cyanidation flow sheet, and optimization of key process parameters. A comminution study that included grinding circuit design was also completed in addition to mineralogy, geotechnical, and environmental test work completed on one of the composite samples. Results from this work, as well as work conducted by other consultants and equipment suppliers such as FLSmidth (thickening and gravity circuit modelling) and Metso (grindability), were used to support a feasibility study completed by Lycopodium in 2018. The feasibility study examined options including the expansion of the current plant throughput and finer grinding to improve recoveries, as well as the installation of a completely new processing plant to run in parallel with the existing plant for a combined throughput of 1.0 Mtpa. The study concluded that upgrading the existing processing plant to process 0.6 Mtpa at a final grind of 30 µm produced the best economic outcome of the scenarios studied.

Tailings characterization work on samples of tailings from the Santa Barbara and Santa Rosa historical tailings disposal facilities (TSF) was carried out from June 2010 to May 2012 under the direction of Transmin Metallurgical Consultants (Transmin), and later at SGS Lakefield in Canada in 2014. The locations from which the 2010 to 2012 samples were taken are shown in Figure 13-2. RPA was not able to ascertain the representativeness of the samples used in this test work. The majority of the test work was conducted in the El Limón laboratory and aimed at optimizing liberation (grind size) and metallurgical parameters, as well as variability testing based on varying feed grades. Subsequent test work completed at SGS Lakefield in Canada in 2014 on a bulk sample focused on the potential environmental impacts of retreating the tailings. Limited metallurgical test work was conducted on sub-samples of the bulk sample to confirm findings from the earlier test work.

Variability test work was only conducted on Santa Rosa samples. Test work was conducted at a grind size of 20 µm and leach residence time of 48 hours with a cyanide concentration of 0.3 mg/L, and indicated that an overall gold recovery of 76.5% could be achieved from a calculated gold head grade of 1.06 g/t. These results were supported by the 2014 test work, conducted on bulk tailings samples to prepare material for environmental testing and


geotechnical characterisation. An average gold recovery of 77% was achieved from a calculated gold head grade of 1.0 g/t, with the following test conditions: grind size of 20 μ m and a leach residence time of 36 hours with a cyanide concentration of 0.3 mg/L. An earlier series of tests on a composite made up of samples from both the Santa Rosa and Santa Barbara TSFs exhibited a strong correlation between cyanide concentration and gold extraction. Increasing the leach cyanide concentration from 0.2 g/L to 0.5 g/L at a grind of 20 μ m, resulted in gold extraction increasing from 83.7% to 93.7%.

Additional test work was conducted by SGS in 2018 and results were provided to Lycopodium via e-mail (EI Limón Expansion Study Addendum Report, 2018) for consideration in its tailings retreatment study. A master composite for each TSF was tested, and an additional 51 variability samples from the Santa Barbara TSF and 27 variability samples from the Santa Rosa TSF were tested using a standardized set of test conditions for the intended flowsheet. RPA was not able to ascertain the representativeness of the samples used in this test work. All tests were conducted at a grind of 80% passing (P_{80}) of 20 µm with a leach retention time of 36 hours, cyanide concentration of 0.3 g/L, and a dissolved oxygen concentration maintained at 15 mg/L. Pre-aeration for eight hours was incorporated into selected tests, but reportedly did not affect gold extraction or reagent consumption appreciably. The average gold extraction for the variability tests was 85.7% for the Santa Barbara samples and 78.5% for the Santa Rosa samples.

Representativity of the samples used for the 2018 expansion feasibility study and the 2018 tailings re-processing study was not provided in either of the reports describing this work. The number of samples tested to support the expansion study is small for a feasibility study, and RPA recommends that additional variability test work be conducted. A significant number of variability samples for each of the two historical TSFs were tested in addition to the master composites for each TSF in the most recent test work. The results from the latest and the historical test work support the recovery figures used in the 2018 tailings re-processing study. No deleterious elements were noted in significant amounts in any of the samples tested.

COMMINUTION TEST WORK

In 2016, two samples were provided to Metso and Laboratorio De Tecnologia Mineral (LTM) and subjected to a number of comminution tests. The significance of the samples, identified as "SAG Feed" and "CL-001", was not provided. Key results included SMC Test parameters,



A x b, of 50.0 and 48.5, Bond ball mill work indices of 18.24 kWh/t and 21.99 kWh/t, and abrasion indices of 0.40 g to 0.764 g.



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14 MINERAL RESOURCE ESTIMATE

Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Definition Standards for Mineral Resources and Mineral Reserves (CIM (2014) definitions) were used for Mineral Resource classification.

The Mineral Resources at El Limón Mine were estimated by B2Gold and reviewed and accepted by RPA. The Mineral Resources are contained in ten operating or proposed open pit and underground mining areas, as well as a tailings storage area.

To fulfill the CIM requirement of "reasonable prospects for eventual economic extraction" of open pit scenarios, RPA prepared a preliminary open pit shell for each mineralized zone to constrain the block model for resource reporting purposes. Each preliminary pit shell was generated using Whittle software. For deposits being, or proposed to be, mined by underground methods, a cut-off grade 2.25 g/t Au was developed that reflects the mining costs based on the mining method, processing costs, and gold price. The Limón open pit and Tailings Mineral Resource estimates used cut-off grades of 1.25 g/t Au and 1.20 g/t Au respectively.

The Mineral Resources, effective June 30, 2019 for El Limón are summarized in Table 14-1.

Area	Tonnes (kt)	Grade (g/t Au)	Contained Au (koz)
Indicated			
Santa Pancha 1	893	5.21	150
Santa Pancha 2	445	4.13	59
Veta Nueva	505	4.07	66
Limón Central	2,016	4.24	274
Tailings	7,329	1.12	263
Total Indicated	11,188	2.26	812
Inferred			
Santa Pancha 1	388	4.83	60
Santa Pancha 2	166	3.63	19
Veta Nueva	83	3.59	9

TABLE 14-1 MINERAL RESOURCES – JUNE 30, 2019 Calibre Mining Corp. – El Limón Mine

Area	Tonnes (kt)	Grade (g/t Au)	Contained Au (koz)
Pozo Bono	977	6.29	197
Limón Sur	444	2.10	30
Limón Central	1,207	5.83	226
Limón Norte	836	5.43	146
Tigra/Chaparral	487	6.01	94
Total Inferred	4,588	5.29	781

Notes:

- 1. CIM (2014) definitions were followed for Mineral Resources.
- 2. Mineral Resources are based on 100% ownership.
- 3. Mineral Resources are estimated at cut-off grades of 1.25 g/t Au for the Limón open pit, 1.20 g/t Au for the Tailings, and 2.25 g/t Au for underground in Santa Pancha 1, Santa Pancha 2, and Veta Nueva.
- 4. Mineral Resources presented are inclusive of Mineral Reserves.
- 5. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
- 6. Mineral Resources are estimated using a long-term gold price of US\$1,500 per ounce.
- 7. Bulk density is from 1.86 t/m³ to 2.85 t/m³ for the Limón open pit material, 2.50 t/m³ for the Santa Pancha 1, and Veta Nueva underground material, from 2.45 t/m³ to 2.50 t/m³ for the Santa Pancha 2, and from 1.29 t/m³ to 1.33 t/m³ for tailings material.
- 8. Numbers may not add due to rounding.

RPA notes that the EI Limón Mineral Resources are based on block models completed from September 2018 to May 2019, and the Veta Nueva estimate is based on a June 2016 block model.

RPA is not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect the Mineral Resource estimate.

RESOURCE DATABASE

The exploration drilling database is maintained in MS Access, underground sampling data is stored in MS Excel, and underground mapping lines are maintained in AutoCAD.

El Limón Mineral Resources are based on approximately 45,000 assays from approximately 164,000 m of diamond drilling in 985 holes. At Limón the drilling was conducted almost exclusively from surface, with the exception of a small number of diamond drill holes completed from underground.

The database for Mineral Resources consists primarily of RC drilling and diamond drilling on 30 m to 40 m spacing for the Jabalí deposit and on 40 m to 60 m spacing for the Mojón, San



Juan, and Tope deposits. Trench samples are occasionally used, however, their influence is restricted.

The assay and geological database cut-off date is May 31, 2019 for the Limón deposit, April 25 and 30, 2019 for the SP1 and SP2 deposits, respectively, September 24, 2018 for the Tailings, and June 30, 2016, for the Veta Nueva deposit. Some historical drill holes were not included in the models due to possible hole location issues. As well, suspect assay results were not included in the databases. RC drill holes and most of the underground exploration holes were also excluded from the Mineral Resource database.

CUT-OFF GRADE AND OPEN PIT OPTIMIZATION

To fulfill the CIM requirement of "reasonable prospects for eventual economic extraction", B2Gold prepared a preliminary open pit shell for Limón to constrain the block model for resource reporting purposes. The preliminary pit shell was generated using Whittle software.

In the open pit scenario for Limón, a cut-off grade (COG) of 1.25 g/t Au was used in 2019 for reporting open pit Mineral Resources from optimized preliminary pit shells. Table 14-2 lists the parameters used to calculate the cut-off grades and items used to optimize a preliminary pit shell to report open pit Mineral Resources. Metal prices used for Mineral Reserves are based on consensus, long term forecasts from banks, financial institutions, and other sources. For Mineral Resources, metal prices used are slightly higher than those used for Mineral Reserves.



Parameter	Units	Value
Gold Price	\$/oz	1,500
Dore Freight	\$/oz produced	1.98
Refining Cost	\$/oz produced	4.76
Ad Valorem Tax	\$/oz produced	40.97
Royalties	\$/oz produced	36.88
Total Selling Cost	\$/oz produced	84.58
Processing Gold Recovery	%	88.1
Operating Costs		
Ore Mining Cost	\$/t of ore	2.50
Waste Mining Cost	\$/t waste	2.50
Ore Overhaul to Plant	\$/t of ore	0.39
Process Cost	\$/t of ore	29.45
Site General Cost	\$/t of ore	12.11
Tailings Facility Cost	\$/t of ore	3.16
Sustaining Capital Cost	\$/t of ore	2.19
Mining Concession Tax	\$/t of ore	0.29
Tax Advance (Minimum Tax)	\$/t of ore	0.00
Total Operating Cost	\$/t of ore	47.74
Marginal Plant Cut-off Grade	g/t Au	1.18

TABLE 14-2 2019 LIMÓN OPEN PIT COG PARAMETERS Calibre Mining Corp. – El Limón Mine

A COG of 2.25 g/t Au was used for the underground SP1, SP2, and Veta Nueva mines. The Tailings use a COG of 1.20 g/t Au.

GEOLOGICAL INTERPRETATION

All El Limón Mineral Resource estimates are based on interpretations of vein/quartz breccia, stockwork, and mined out openings. Solid models are built using a combination of Leapfrog and Datamine software, while the more recent models are built with Leapfrog with significant controls to the solids. Block model grade estimates are controlled by the geological/grade zone interpretations. RPA notes that there is good correspondence between diamond drill data, wireframes, and blocks.



RPA



RPA reviewed the blocks related to the high grade veins and noticed that in Limón some areas close to the openings (galleries) have been extended more than half of the distance between holes. In general, the areas are very narrow from 0.5 m to 2.0 m, however, in some cases their thickness is 4.0 m to 6.0 m. There is a risk that more openings could exist as they were built based only on drill hole intercepts. Overall, RPA is of the opinion that the mineralization and lithology wireframes are adequate for the style of mineralization and are suitable to constrain the block model.

CAPPING OF HIGH GRADE ASSAYS

Capping of high grade gold assays was applied by resource area and domain. In Limón, the domains are lithology based: vein, stockwork, and underground fill. In SP1 and SP2, the domains are the footwall (FW) and hanging wall (HW) mineralization, which are based on a combination of grade and lithology. In the Tailings resource area, all of the tailings material above hard rock is considered to be mineralization, which is divided into two tailings deposits: Santa Bárbara and Santa Rosa. In Veta Nueva the domains are based on vein sectors (eastern, central, western, breccia). Capping levels for each domain were determined using decile analysis and lognormal probability plots. Raw assays were capped prior to compositing. The capping levels are summarized in Table 14-3.

RPA performed an independent capping analysis on gold for veins, stockwork, and gallery domains (1,000, 2000, and 8000) in the Limón model, FW and HW domains (100, 200) in SP1 and SP2, Eastern vein (110, 150) and Central vein (111, 201) domains in Veta Nueva, and the Santa Rosa and Santa Bárbara domains in the Tailings, as well as visual validation of the block models in section and plan view.

In RPA's opinion, capping levels are reasonable.



	Capping Level								
Deposit		(g/t /	Au)						
	Mineralization	Vein	Stockwork	UG Fill					
Limón									
Tigra	N/A	30-40	3-5	15-20					
Norte	N/A	30-45	3	3					
Central	N/A	30-50	3.5-5.0	30-40					
Sur	N/A	10-12	4	6					
Pozo Bono	N/A	35-60	3	20					
SP1									
FW	20	N/A	N/A	N/A					
HW	20-25	N/A	N/A	N/A					
SP2									
FW	28-30	N/A	N/A	N/A					
HW	16-24	N/A	N/A	N/A					
Tailings									
Santa Barbara	None	N/A	N/A	N/A					
Santa Rosa	2-4	N/A	N/A	N/A					
Veta Nueva									
Eastern Vein, Central Vein	20.0	N/A	N/A	N/A					
Western Vein	8.0	N/A	N/A	N/A					
Breccia	3.0	N/A	N/A	N/A					

TABLE 14-3CAPPING LEVELSCalibre Mining Corp. – El Limón Mine

Table 14-4 summarizes uncapped assay statistics for gold in Limón.

TABLE 14-4 UNCAPPED ASSAY STATISTICS – GOLD Calibre Mining Corp. – El Limón Mine

	Limón	SP1	SP2	Tailings	Veta Nueva
No. of cases	11,352	5,213	7,175	2,407	628
Minimum	0.000	0.000	0.000	0.007	0.000
Maximum	413.3	222.5	344.1	11.1	313.7
Median	0.65	1.12	2.16	0.99	1.92
Arithmetic Mean	3.17	3.44	4.29	1.12	5.22
Weighted Mean	0.65	3.29	4.36	0.91	5.05
Standard Deviation	10.87	7.82	9.11	0.69	15.35
Coefficient of Variation	3.42	2.27	2.08	0.62	2.94



COMPOSITING

In Limón, the composites were created at 3.0 m. In SP1, SP2, and Tailings, samples were composited to 1.0 m beginning at each domain. In Veta Nueva, composites were full vein width. The dominant sample lengths in Limón, SP1, SP2, Tailings, and Veta Nueva are between 0.5 m and 1.0 m (Figures 14-2 to 14-6) with block heights in Limón, SP1-SP2, and Tailings of 6.0 m, 5.0 m, and 2.0 m, respectively. In Veta Nueva, composites are full length width and typically between 2.0 m and 6.0 m, with a block height of 5.0 m. RPA recommends that the Veta Nueva assays also be composited to 1.0 m as is done in the other EI Limón deposits, to minimize the potential for grade smoothing from using full width composites. In RPA's opinion, the composite lengths are reasonable.



FIGURE 14-2 LIMÓN ASSAY LENGTH HISTOGRAM

Calibre Mining Corp. – El Limón Mine, Project #3132 Technical Report NI 43-101 –August 30, 2019



FIGURE 14-3 SANTA PANCHA 1 ASSAY LENGTH HISTOGRAM







FIGURE 14-4 SANTA PANCHA 2 ASSAY LENGTH HISTOGRAM





FIGURE 14-5 TAILINGS ASSAY LENGTH HISTOGRAM









Uncapped and capped composite statistics for gold are summarized in Tables 14-5 and 14-6, respectively.

	-	-			
	Limón	SP1	SP2	Tailings	Veta Nueva
No. of cases	2,456	2,666	6,057	2,399	125
Minimum	0.003	0.000	0.000	0.021	0.062
Maximum	115.4	66.9	272.2	9.1	36.4
Median	0.85	1.86	2.60	1.00	2.39
Arithmetic Mean	3.24	4.07	4.45	1.12	4.54
Weighted Mean	3.26	4.06	4.43	1.12	5.05
Standard Deviation	7.88	6.26	7.92	0.65	6.43
Coefficient of Variation	2.43	1.53	1.78	0.58	1.42

TABLE 14-5 UNCAPPED COMPOSITE STATISTICS – GOLD Calibre Mining Corp. – El Limón Mine

TABLE 14-6 CAPPED COMPOSITE STATISTICS – GOLD Calibre Mining Corp. – El Limón Mine

	Limón	SP1	SP2	Tailings	Veta Nueva
No. of cases	2,456	2,666	6,057	2,399	125
Minimum	0.003	0.000	0.000	0.021	0.062
Maximum	65.0	25.0	30.0	4.7	15.9
Median	0.85	1.86	2.60	1.00	2.39
Arithmetic Mean	2.81	3.70	4.03	1.11	3.43
Weighted Mean	2.83	3.69	4.02	1.11	3.75
Standard Deviation	5.36	4.60	4.49	0.60	3.26
Coefficient of Variation	1.91	1.24	1.11	0.55	0.95

VARIOGRAPHY

All the deposits in El Limón were estimated using inverse distance (ID). B2Gold investigated variography in Limón and SP1, and ran an estimate with ordinary kriging (OK) in Limón. Based on the poor variography observed in Limón and SP1, in addition to the oversmoothing observed in Limón when estimated by OK, B2Gold decided to estimate all block models in El Limón by ID.



SEARCH STRATEGY AND GRADE INTERPOLATION PARAMETERS

Grade interpolation into parent blocks used inverse distance cubed (ID³) for the Limón, SP1, and Veta Nueva deposits, and inverse distance squared (ID²) for the SP2 deposit and Tailings. SP2 used four passes, Limón and SP2 used three passes, while Tailings and Veta Nueva used two passes. In RPA's opinion, the estimation strategies are appropriate for this type of deposit.

In Limón, SP1, SP2, and Veta Nueva, search ellipses for grade interpolation were oriented using dynamic anisotropy, with the longest axis parallel to strike and the second longest axis down-dip. To mitigate the unwanted effect of very local extreme orientations, inputs were limited to values within +/- 30° of the regional structural orientation. In Tailings, search angles were based on the average orientation for the Santa Bárbara (SB) and Santa Rosa (SR) domains (Table 14-7). The slight slope of the Santa Bárbara Tailings reflects the underlying topography, and the search parameters were selected to mimic the sub-horizontal emplacement of the tailings. Search distances ranged from 20 m to 130 m (Table 14-8) and number of composites varied from one to 24 (Table 14-9) depending on deposit and pass number.

Domain	Search Angles (X-Y-Z)
SB Zone 1	180 x -0.86 x 0
SB Zone 2	225.24 x -0.5 x 0
SB Zone 3	192.87 x -1.32 x 0
Santa Rosa	0 x 0 x 0

TABLE 14-7 TAILINGS DOMAIN ORIENTATION Calibre Mining Corp. – El Limón Mine



TABLE 14-8 SEARCH DISTANCES Calibre Mining Corp. El Limón Mine

	1 st Pass			2	2 nd Pass			3 rd Pass			4 th Pass		
Deposit	X- axis (m)	Y- axis (m)	Z- axis (m)	X- axis (m)	Y- axis (m)	Z- axis (m)	X- axis (m)	Y- axis (m)	Z- axis (m)	X- axis (m)	Y- axis (m)	Z- axis (m)	
Limón	65	65	17	97.5	97.5	25.5	130	130	34	-	-	-	
SP1	20	15	5	40	50	8	60	60	16	90	90	24	
SP2	20	20	5	60	60	16	90	90	24	-	-	-	
Tailings	60	60	5	120	120	10	-	-	-	-	-	-	
Veta Nueva	50	50	30	95	95	40	-	-	-	-	-	-	

TABLE 14-9 COMPOSITES SELECTION Calibre Mining Corp. – El Limón Mine

	1 st Pass		2 nd Pa	2 nd Pass		3 rd Pass		Pass	Max por
Deposit	Min No.	Max No.	Min No.	Max No.	Min No.	Max No.	Min No.	Max No.	DDH
Limón	3	12	3	12	1	8	-	-	2
SP1	8	24	4	12	4	12	3	12	3
SP2	6	24	4	12	3	12	-	-	3
Tailings	5	20	3	12	-	-	-	-	3
Veta Nueva	4	4	4	2	-	-	-	-	1

BULK DENSITY

Density measurements were, in general, collected on drill core samples every 20 m down hole (Figure 14-7). Samples were weighed, coated with wax, weighed in air, then suspended in water and weighed again. Noticeable erroneous data was removed from the dataset prior to calculating averages.

The density of mineralized materials in Limón was calculated from the average density for each vein and each material. In SP1, SP2, and Veta Nueva, the densities, regardless of material, were observed to be very similar, and hence these were homogenized to 2.50 t/m³ in both mineralization and waste material. The density in the Tailings resource area was based on the average densities of samples in the Santa Bárbara and Santa Rosa tailings (Tables 14-10 and 14-11) from drill holes drilled solely for the purpose of determining density values. Domains without sample representation (e.g., overburden in Limón, waste) were based on regression from other domains or assumptions by material type.





In RPA's opinion, the density values are reasonable for this type of mineralization.

Motorial	Deposit							
	Limón	SP1	SP2	Tailings	Veta Nueva			
Vein	230	75	160/25 ¹	N/A	24			
Stockwork	173	10	N/A	N/A	N/A			
UG Mined	0	N/A	N/A	N/A	N/A			
Waste	1,019	226	N/A	N/A	N/A			
Tailings	N/A	N/A	N/A	9/10 ²	N/A			

TABLE 14-10 NUMBER OF DENSITY VALUES Calibre Mining Corp. – El Limón Mine

Notes:

1. SP2 vein densities are for FW and HW.

2. Tailings samples are from Santa Bárbara and Santa Rosa.

TABLE 14-11DENSITY VALUES IN EL LIMÓNCalibre Mining Corp. – El Limón Mine

Motorial	Deposit								
Wateria	Limón	SP1	SP2	Tailings	Veta Nueva				
Vein	2.37	2.50	2.50/2.45 ¹	N/A	2.50				
Stockwork	2.39	2.50	N/A	N/A	N/A				
UG Mined	1.80	N/A	N/A	N/A	N/A				
Waste	2.29	2.50	2.50	N/A	2.50				
Tailings	N/A	N/A	N/A	1.29/1.33 ²	N/A				

Notes:

1. SP2 vein densities are for FW and HW.

2. Tailings samples are from Santa Bárbara and Santa Rosa.

BLOCK MODELS

The block sizes for Indicated and Inferred Mineral Resource estimations are between 2.0 m and 6.0 m (Table 14-12). Some of the mineralized wireframes are very narrow in some places in Limón. RPA recommends that minimum thickness constraints should be applied to wireframes in the Limón deposit, where required. RPA considers the block model sizes appropriate for the mining methods and the dip of the veins.



	ВМ Туре	Parent Block Size			Sub-block Size			Rotation
Deposit		X-axis (m)	Y-axis (m)	Z-axis (m)	X-axis (m)	Y-axis (m)	Z-axis (m)	Z-axis (°)
Limón	Sub-blocked	3	6	6	0.05	2.00	0.10	330.0
SP1	Partial Percentage	2	5	5	N/A	N/A	N/A	20.6
SP2	Partial Percentage	2	5	5	N/A	N/A	N/A	0.0
Tailings	Sub-blocked	5	5	2	2.50	2.50	0.50	0.0
Veta Nueva	Partial Percentage	5	2	5	N/A	N/A	N/A	0.0

TABLE 14-12 BLOCK SIZES Calibre Mining Corp. - El Limón Mine

VOLUMETRIC COMPARISON

Comparisons between block and wireframe volumes in selected domains were performed for wireframes in Limón and SP1, and no material differences were observed.

CLASSIFICATION

Definitions for resource categories used in this report are consistent with those defined by CIM (2014) and adopted by NI 43-101. In the CIM classification, a Mineral Resource is defined as "a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction". Mineral Resources are classified into Measured, Indicated, and Inferred categories. A Mineral Reserve is defined as the "economically mineable part of a Measured and/or Indicated Mineral Resource" demonstrated by studies at Pre-Feasibility or Feasibility level as appropriate. Mineral Reserves are classified into Proven and Probable categories.

In Limón, SP1, SP2, and Veta Nueva, Mineral Resources were classified based on the distance to the nearest data points. In Limón, Indicated Mineral Resources required two drill holes within 40 m and Inferred Mineral Resources required two drill holes within 60 m. In SP1, SP2, and Veta Nueva, Indicated Mineral Resources required two drill holes within 30 m to 35 m and Inferred Mineral Resources required two drill holes within 60 m. The average drill spacing of the Tailings' drill holes is approximately 60 m, and almost one hundred percent of all Tailings material is within 60 m of a drill hole. As the Tailings are composed of previously mined material that has a low internal variability, the drill spacing and sampling are considered sufficient for classification of all Tailings material to be Indicated.



The classification was then refined to smooth classification boundaries and reduce isolated classification outliers using wireframes. Wireframe models delineating the Indicated and Inferred categories were prepared in local long section projections in the plane of the vein using a 17.5 m radius around drill holes for Indicated and a 30 m radius for Inferred. Figures 14-8 and 14-9 show the final classification in Limón and SP1.

In Limón, there is added uncertainty related to areas that have been previously mined (underground and open pit) and to the extent of ore-grade backfill. All material in mined out wireframes and within five metres of previously mined areas have been classified as Inferred, even if the drill hole spacing was within the 40 m described above. A study regarding the reconciliation of backfill was not available for review. RPA recommends a reconciliation study of backfill material.

In RPA's opinion, the overall classification is reasonable.







BLOCK MODEL VALIDATION

RPA imported the Limón, SP1, SP2, Tailings, and Veta Nueva block models into Leapfrog software and viewed gold grades and proportions relative to the blocks, drilled grades, composites, and modelled solids. RPA observed that the block grades showed general accord with drilling and sampling, and did not appear to smear significantly across sampled grades (Figure 14-10).

B2Gold verified the models using a combination of visual comparison of block grades to drill hole composites, swath plots, global bias checks, and model to true thickness comparisons (Figure 14-11). RPA produced comparative statistics and swath plots for Limón, SP1, and Veta Nueva and found that average composite grades were within +/- 10% of block grades (Figures 14-12 to 14-13). Swath plots generally showed good correlation with block grades being somewhat smoothed relative to composite grades, as expected. There were some areas where composite grades varied more than 10% from block grades. RPA suggests that these areas may indicate isolated high grades, which could be controlled by a combination of distance restriction and separate domains, if applicable.

RPA visually examined the mined solids in context of the block model and the result is reasonable in context of the work described by B2Gold.





FIGURE 14-11 B2GOLD SWATH PLOTS BY EASTINGS – SANTA PANCHA 1







FIGURE 14-12 RPA SWATH PLOTS - LIMÓN





FIGURE 14-13 RPA SWATH PLOTS – VETA NUEVA







15 MINERAL RESERVE ESTIMATE

SUMMARY

El Limón mining units include the SP1, SP2, and Veta Nueva underground mines and the Limón Central open pit mine. Production from underground and surface mines is combined to feed the El Limón processing plant with a nominal capacity of 0.5 Mtpa. For the remaining LOM, underground mines combine to produce 500 tpd, Limón Central production rates range from 850 tpd to 1,150 tpd, and the El Limón process plant is fed at a rate of approximately 1,450 tpd.

The Santa Pancha underground mines have been in operation since 2005. Mining is planned to a depth of approximately 270 m at Santa Pancha and 145 m at Veta Nueva. The remaining Santa Pancha LOM consists of operations in the deep portions of SP1, and remnants and crown pillar stopes throughout SP1 and SP2. Veta Nueva is currently being developed under the depleted Veta Nueva pit, and is scheduled to start production in 2020. Production is by LOS, with top down mining used historically with sill pillars left at regular intervals, and bottom up mining without sill pillars used in newer areas.

Stripping of the Limón Central open pit began in December of 2018, and ore production started in the first quarter of 2019. Open pit mining uses conventional surface mining on six metre benches. Waste is hauled to the Limón Central waste dump, which is southeast of the Limón Central pit and south of the San Jose TSF.

The Mineral Reserves, effective June 30, 2019, for El Limón underground and surface mines are summarized in Tables 15-1 and 15-2 respectively.



TABLE 15-1 UNDERGROUND MINES MINERAL RESERVES – JUNE 30, 2019 Calibre Mining Corp. – El Limón Mine

Mine	Category	Tonnage (kt)	Grade (g/t Au)	Contained Au (koz)
Santa Pancha 1	Probable	350	3.82	43
Santa Pancha 2	Probable	88	3.34	9
Veta Nueva	Probable	350	5.66	64
Total	Probable	787	4.58	116

Notes:

- 1. CIM (2014) definitions were followed for Mineral Reserves.
- 2. Mineral Reserves are estimated at a cut-off grade of 2.75 g/t Au.
- 3. Mineral Reserves are estimated using an average long-term gold price of US\$1,350 per ounce
- 4. Minimum mining widths of 4 m, 5 m, and 3 m were used for Santa Pancha 1, Santa Pancha 2, and Veta Nueva respectively.
- 5. Bulk density is 2.5 t/m³.
- 6. Numbers may not add due to rounding.
- 7. A mining extraction factor of 95% was applied to the underground stopes. Where required a pillar factor was also applied for sill or crown pillar. A 100% extraction factor was assumed for development.

TABLE 15-2SURFACE MINES MINERAL RESERVES – JUNE 30, 2019Calibre Mining Corp. – El Limón Mine

Mine	Category	Tonnage (kt)	Grade (g/t Au)	Contained Au (koz)
Limón Central	Probable	1,472	4.09	193
Total	Probable	1,472	4.09	193

Notes:

- 1. CIM (2014) definitions were followed for Mineral Reserves.
- 2. Open pit Mineral Reserves are estimated at a cut-off grade of 1.32 g/t Au, and incorporate estimates of dilution and mining losses. Mineral Reserves are reported in dry tonnes.
- 3. Mineral Reserves are estimated using an average long-term gold price of US\$1,350 per ounce.
- 4. A minimum mining width of 30 m was used.
- 5. Bulk density averages 2.26 t/m³.
- 6. Numbers may not add due to rounding.

RPA is not aware of any mining, metallurgical, infrastructure, permitting, or other relevant factors that could materially affect the Mineral Reserve estimate.

EL LIMÓN UNDERGROUND MINES

Underground Mineral Reserves have been estimated for the SP1, SP2, and Veta Nueva deposits. The underground Mineral Reserves are all considered to be Probable Mineral Reserves. The underground Mineral Reserves summary, by deposit, is shown in Table 15-1. The locations of the underground deposits relative to one another is shown in Figure 15-1.



The underground deposits at El Limón are located beneath mined out open pits and are currently accessed via declines from the pits. Underground mining operations will be completed using mechanized equipment.

The underground Mineral Reserve estimates were generated based on mine designs applied to the December 31, 2018 Mineral Resource model. Selection of stoping methods applied to each deposit was primarily based on current methods, geometry, geotechnical considerations, extraction percentage, and operating parameters.

Stopes were generated using a stope optimization software, with inputs including stope geometry, cut-off grade, and external dilution. The generated stopes were then reviewed for proper wireframe shapes and overlap with existing stopes and development. The edited stopes were then evaluated against the Mineral Resource block model.

Capital and operating development designs were primarily based on existing development location and support the production plan. Stopes with resulting grades below cut-off or isolated stopes with low grades were excluded from the mine plan. Uneconomic stopes were excluded from the LOM plan. The economics of the overall deposits were assessed and a LOM plan was generated.

The underground development and production schedule were prepared using mine scheduling software. Activity rates used were based on operational performance and are considered reasonable. The underground production schedule objectives included sustainable underground production over the remaining LOM to supplement surface mining process plant feed.





MODIFYING FACTORS

Given the considerable history of the sub-level stoping (SLS) mining method applied at El Limón, modifying factor estimates are primarily based on historical data. RPA considers the dilution and extraction estimates for SLS to be reasonable and consistent with the current operating performance and orebody properties.

DILUTION

Underground stope shapes were generated using Deswik Stope Optimizer (DSO). The key inputs used to create the stope shapes include 20 m vertical height, minimum mining width of two metres, and a cut-off grade of 2.75 g/t of gold. Dilution skins ranging between 0.5 m to 2.0 m were specified in DSO depending on the deposit.

The resultant average dilution from the HW and FW is 23%, 45%, and 20% for SP1, SP2, and Veta Nueva respectively. An additional 5% floor dilution was added to stopes that will be mined on top of a mined out and filled stopes.

EXTRACTION

The mining extraction factors were 95% for the underground stopes and 100% for development. A sill pillar factor of 30%, equivalent to seven vertical metres, was assumed for stopes that were mined underneath a planned or mined out stope. A crown pillar of 10 m was left in for stopes directly below the surface topography.

CUT-OFF GRADE

The cut-off grade calculations for underground mining were estimated using historical mill recoveries, off-site costs, and operating costs realized at El Limón. The cut-off grade inputs are presented in Table 15-3.



TABLE 15-3 UNDERGROUND CUT-OFF GRADE INPUTS AND ESTIMATION Calibre Mining Corp. – El Limón Mine

Parameter	Units	Value
Plant recovery	%	93.5%
Payable	%	99.95%
Taxes	%	3%
Gold Price	US\$/oz	1,350
Realized Gold price	US\$/oz	1,309
Realized Gold price	US\$/g	42.08
Selling Costs	\$/g	0.08
Net Gold Revenue	\$/g	42.00
Mining Cost	\$/t milled	55.00
Plant Cost	\$/t milled	29.45
G&A and other	\$/t milled	12.11
Sustaining Capital Expenditures	\$/t milled	10.00
Total Cost	\$/t milled	106.56
Cut-Off Grade	Au g/t	2.75

Metal prices used for reserves are based on consensus, long term forecasts from banks, financial institutions, and other sources. For resources, metal prices used are slightly higher than those for reserves.

EL LIMÓN – LIMÓN CENTRAL OPEN PIT

DILUTION AND EXTRACTION

RPA has estimated external dilution utilizing the El Limón regularized model (i.e., block size 3 m x 6 m x 6 m). External edge dilution is based on an analysis of the waste blocks in contact with ore blocks. It is estimated that a dilution of approximately 0.5 m will be incurred at the contacts with waste rock during the vein excavation by the ore loading units (i.e., $5 m^3$ hydraulic excavators). The MineSight routine "gndiln.dat" (GNDLN) was utilized to calculate the number of dilution edges (i.e., waste block contacts with an ore block) on a bench by bench basis. The maximum number of waste contacts for an ore block on a particular bench can be four.

It is assumed that ore blocks with only one waste contact have a minimum mining dilution (10%) and ore blocks with two, three, or four waste contacts will incur dilution of 20%, 30%, and 40% respectively. Isolated ore blocks completely surrounded with waste are considered ore loss. In addition, ore loss includes allowances for misdirected truckloads and occasional losses where excessive dilution during excavation reduces the mining grade below the cut-off



grade. Weighted external dilution is then calculated on the remaining blocks. External dilution and ore loss inside the Limón Central reserve pit, based on the Indicated Mineral Resources only and at a cut-off grade of 1.32 g/t Au, are estimated at 10% and 3%, respectively.

In conclusion, since the resource model has inherited approximately 31% dilution due to selective mining unit (SMU) regularization, the additional external dilution, normally incurred at the contacts with waste rock during the vein excavation, was considered excessive.

CUT-OFF GRADE

The marginal mill cut-off grade of 1.32 g/t Au at the Limón Central pit was used to separate ore from waste and forms the basis for the Mineral Reserve estimate. This cut-off grade calculation excludes full mining costs. By-product credits are not included for silver sales. The cut-off grade calculation is summarized in Table 15-4.

Parameter	Units	Value
Gold Price	\$/oz	1,350
Dore Freight	\$/oz produced	1.98
Refining Cost	\$/oz produced	4.76
Ad Valorem Tax	\$/oz produced	36.45
Royalties	\$/oz produced	33.19
Total Selling Cost	\$/oz produced	76.38
Processing Gold Recovery	%	88.1
Operating Costs		
Ore Mining Cost	\$/t of ore	2.50
Waste Mining Cost	\$/t waste	2.50
Ore Overhaul to Plant	\$/t of ore	0.39
Process Cost	\$/t of ore	29.45
Site General Cost	\$/t of ore	12.11
Tailings Facility Cost	\$/t of ore	3.16
Sustaining Capital Cost	\$/t of ore	2.19
Mining Concession Tax	\$/t of ore	0.29
Tax Advance (Minimum Tax)	\$/t of ore	0
Total Operating Cost	\$/t of ore	47.74
Marginal Plant Cut-off Grade	g/t Au	1.32

TABLE 15-4 LIMÓN CENTRAL PIT CUT-OFF GRADE ESTIMATE Calibre Mining Corp. – El Limón Mine


16 MINING METHODS

INTRODUCTION

El Limón mining units include the SP1, SP2, and Veta Nueva underground mines and the Limón Central open pit mine.

All underground mines are ramp accessed using a variation of the LOS method for ore production. The Santa Pancha mine currently experiences groundwater at 70°C and inflow rates of up to 95 litres per second, while the SP2 and Veta Nueva mines do not experience significant groundwater inflows. An underground mine dewatering system has been installed at SP1 to manage groundwater inflows. The SP1 mine operates at elevated temperatures as a result of the hot groundwater and virgin rock temperatures, and mine ventilation is used to cool the mine and remove contaminants. Fresh air enters the mine at the portal, is drawn down the ramp, onto the main levels, and exhausts from the mine via ventilation raises.

The Limón Central pit will be a conventional open pit mine with 6 m bench height, using drill and blast for rock breakage and excavators and trucks for materials handling. The vein and stockwork zones will be mined selectively. The pit ramps were designed at 10% maximum gradient and 17 m width for double lane traffic, with the exception of the last four benches of the ramp in the pit bottom, where the ramp is narrowed to a width of 11 m, and suitable for single lane traffic. The ultimate pit bottom is planned at the -18 m elevation. The highest pit wall of 200 m will be achieved in Phase 3. The design premise was to mine the pits to a minimum mining width of 30 m with the pit bottom as a narrow bench excavated with a backhoe to reduce the mining width 20 m.

Production from underground and surface mines is combined to feed the El Limón processing plant with a nominal capacity of 500,000 tpa. For the remaining LOM, underground mines combine to produce 500 tpd, Limón Central production rates range from 850 tpd to 1,150 tpd, and the El Limón process plant is fed at a rate of approximately 1,450 tpd.



MANPOWER

As of June 2019, the El Limón Mine employed a total of 1,293 workers including 537 permanent employees and 756 contractors. Hourly employees belong to one of three unions, whose bargaining agreements are negotiated every two years.

UNDERGROUND MINING

Underground mine production is scheduled to come from the SP1, SP2, and Veta Nueva mines. There have been extensive underground mining operations on the El Limón property since the 1940s. The Santa Pancha mines began development in 2005 and have been a significant source of plant feed over the past few years. Veta Nueva ore production is scheduled to start in 2020.

Recent underground production is summarized in Table 16-1.

		2016		20	2017		2018	
	Unit	Actual	Budget	Actual	Budget	Actual	Budget	
Santa Pancha 1								
Ore tonnes	t	7,167	18,886	129,475	208,314	148,911	162,779	
Gold Grade	g/t	3.44	3.46	4.16	3.84	3.48	3.78	
Gold ounces	ΟZ	793	2,101	17,303	25,690	16,661	19,782	
Santa Pancha 2								
Ore tonnes	t	137,058	169,124	223,149	248,993	88,966	135,751	
Gold Grade	g/t	3.77	4.58	2.82	3.72	2.95	3.74	
Gold ounces	ΟZ	16,613	24,904	20,238	29,777	8,438	16,323	
Total								
Ore tonnes	t	144,225	188,010	352,624	457,307	237,877	298,530	
Gold Grade	g/t	3.75	4.47	3.31	3.77	3.28	3.76	
Gold ounces	oz	17,406	27,005	37,541	55,467	25,099	36,105	

TABLE 16-1 UNDERGROUND THREE YEAR PRODUCTION HISTORY Calibre Mining Corp. – El Limón Mine

UNDERGROUND MINE DESIGN

The Santa Pancha deposits extend to 300 m below surface. The orebodies are generally steeply dipping with the dip varying between 65° and 70°. Underground mining at the Santa



Pancha mines will be carried out using a combination of top-down sequenced LOS with sill pillars and bottom-up SLS with backfill.

The Veta Nueva deposit is a steeply dipping orebody extending 150 m below surface. The orebody thickness ranges from 3 m to 10 m. The deposit has been designed and scheduled to use SLS in a bottom-up fashion

LOS will be accessed from the FW with ore drives developed along the veins. The stopes will be drilled and mucked from the undercut retreating towards the access drift. SLS stopes will be accessed by an undercut drift and a topcut drift. Production drilling is accomplished from the top cut and mucking from the undercut. Each level will be mined using a retreat approach where on vein development progresses centre out and stope production starts at the end and retreats towards the access point. Stopes on a given level will be completely mined and filled with unconsolidated fill prior to mining progressing to the next level. Waste rock for backfill will be sourced from underground development waste and surface waste stockpiles.

Figure 16-1 and 16-2 show the longitudinal sections of Santa Pancha and Veta Nueva respectively and Figures 16-3 and 16-4 show plan views of Santa Pancha and Veta Nueva respectively.



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Stopes at all three mines were designed using DSO using 20 m sub-levels, 10 m lengths on strike, and varying overbreak depths depending on the deposit. Table 16-2 lists the parameters used to generate stopes in DSO. Overbreak depths are based on historical operating experience and are considered reasonable by RPA.

TABLE 16-2 DSO DESIGN PARAMETERS Calibre Mining Corp. – El Limón Mine

Parameter	Unit	Santa Pancha 1	Santa Pancha 2	Veta Nueva
Stope height	m	20	20 to 30	20
Stope length	m	10	10	10
Minimum mining width	m	2	2	2
HW/FW dilution	m	1.1 / 1.1	2.0 / 1.1	0.5 / 0.5
Effective minimum mining width	m	4.2	5.1	3.0
Stope cut-off grade	g/t Au	2.75	2.75	2.75

The HW dilution at SP2 is higher due to reported HW issues. RPA notes that some stopes may experience ground issues in areas where the HW is weak. In the occurrence of high HW dilution, RPA recommends evaluating alternative mining or HW support methods to reduce HW overbreak.

MATERIAL HANDLING

Ore will be mucked from stopes using load-haul-dump (LHD) trucks. Wherever possible, the mucking activity will be in manual control, however, much of the mining will be in mining areas with unsupported backs where mucking will be undertaken with remote control LHDs. LHDs will transfer ore from the stopes to remucks or to be directly loaded to haul trucks. All of the ore and waste material to be removed from the underground mines will be loaded into haul trucks for transport to surface facilities. Ground support supplies, explosives, and fuel will be transported into the mines using utility vehicles.

DEWATERING

The SP1 underground mine experiences high temperatures due to water inflows from a geothermally active aquifer. SP1 currently encounters water inflow rates of up to 95 L/s, with water temperatures reaching 70°C in several areas of the mine. Underground dewatering systems and pumps have been installed to manage water entering the mine. The primary pumping system at the Santa Pancha mines is currently comprised of four 1,200 gpm pumps. The dewatering system at Santa Pancha is illustrated in Figure 16-5.





VENTILATION

Fresh air enters the mine at the portal, is drawn down the ramp, onto the main levels, and exhausts from the mine via ventilation raises. Surface exhaust fans are 250 hp and 72 in. diameter. Auxiliary ventilation fans draw air from the primary ventilation loop to ventilate working areas. Drop raises are installed to move air from level to level as required.

GROUND CONDITIONS AND GROUND SUPPORT

SP1 ground conditions in the FW and in the ore were observed by RPA to be good. Santa Pancha mines have parallel structures in the HW that contribute to poorer rock quality and contribute to increased stope HW dilution. Veta Nueva is expected to have similar rock mass quality in the FW and ore zones as the Santa Pancha mines with improved rock quality in the HW. Development ground support in the mine is provided by the use of welded wire mesh installed with patterned friction bolts, and grouted rebar in areas of high temperature and humidity to control corrosion.

UNDERGROUND EQUIPMENT

The major underground mine equipment is listed in Table 16-3. The equipment is currently on site and available to use for all mines. RPA does not anticipate any additional requirement for underground mine equipment over the LOM.

Make	Model	Туре	Units
Atlas Copco	MT416	Truck	1
Atlas Copco	T1601	Truck	1
CAT	730CC	Truck	2
Atlas Copco	ST1030	LHD	1
Atlas Copco	ST1530	LHD	1
Tamrock	Toro 400D	LHD	2
CAT	1700G	LHD	2
Atlas Copco	S1 D	Jumbo	2
Troidon	Troidon 55	Jumbo	1
Resemin	77D/88D	Bolter	2
Cubex	L6200	Longhole drill	1
Atlas Copco	S7D	Longhole drill	1
Resemin	Raptor 44XP	Longhole drill	1

TABLE 16-3 UNDERGROUND MINE EQUIPMENT Calibre Mining Corp. – El Limón Mine



UNDERGROUND LIFE OF MINE PLAN

The underground mine production plan is summarized in Table 16-4. Production for the second half of 2019 will continue at the Santa Pancha mines. SP2 Mineral Reserves will be mined out by the second quarter of 2020. Development at Veta Nueva is scheduled to commence in May 2020 and production is planned at the end of Q2 2020 as SP2 is being depleted.

	Units	Total	2019 H2	2020	2021	2022	2023
Production Summary							
Santa Pancha 1							
Ore tonnes	kt	350	45	79	85	71	71
Au grade	g/t	3.82	3.11	4.17	3.72	3.78	4.01
Santa Pancha 2							
Ore tonnes	kt	88	44	44	-	-	-
Au grade	g/t	3.34	3.48	3.19	-	-	-
Veta Nueva							
Ore tonnes	kt	350	-	51.8	90	105	103
Au grade	g/t	5.66	-	5.44	5.05	5.80	6.16
Total UG Production							
Ore tonnes	kt	787	88	175	175	175	174
Au grade	g/t	4.58	3.29	4.30	4.40	4.98	5.29
Development Summary							
Santa Pancha 1							
Operating Development	m	1,461	609	853	-	-	-
Capital Development	m	1,644	679	865	101	-	-
Vertical Development	m	105	-	105	-	-	-
Conto Donoho 2							
Santa Pancha 2		645	000	000			
Operating Development	m	615 007	308	308	-	-	-
Capital Development	m	397	199	199	-	-	-
Vertical Development	m	-	-	-	-	-	-
Veta Nueva							
Operating Development	m	2,372	-	698	677	997	-
Capital Development	m	1,989	-	746	805	438	-
Vertical Development	m	410	-	145	86	179	-

TABLE 16-4 UNDERGROUND MINE EQUIPMENT Calibre Mining Corp. – El Limón Mine



OPEN PIT MINING

The El Limón open pit deposits are subdivided into five zones; Tigra/Chaparral, Limón North, Limón Central, Limón South, and Pozo Bono. The Limón Central deposit contains Mineral Resources classified as Indicated and Inferred, while the Mineral Resources at the remaining deposits are classified as Inferred. The Limón Central Mineral Reserves in this report are based on Indicated Mineral Resources only, above a cut-off grade of 1.32 g/t Au, contained between the end of June 2019 surface and the ultimate pit design.

The ore zone consisting of vein/quartz breccia and stockwork zones is mined selectively.

A scoping level mine design and production schedule was developed for the Limón Central deposit based on an open pit mining method. Mining will be undertaken by contractor using conventional truck and loader equipment. Mining through the backfilled underground workings is a manageable risk, however, it may result in unplanned delays and additional costs.

The mine plan for the open pit mine results in production of approximately 300,000 tpa mill feed. The Limón Central pit has been operational since December 2018, and a substantial portion of the overlying barren rock has been removed in a "pre-stripping" phase to expose the initial ore for production.

The Limón Central pit is located in close proximity to the El Limón plant facility and administrative infrastructure as shown in Figure 16-6.





FIGURE 16-6 MINE GENERAL ARRANGEMENT

MINE PLANNING BLOCK MODEL

Resource model 190315_mod_4share, provided for this study, is a sub-cell model with a block size of 3 m x 6 m x 6 m and parent cells with various dimensions that could be 0.04 m in the X direction, 2 m in the Y direction, and 0.09 m in the Z direction.

RPA is of opinion that the resource model parent block size is rather small and impractical for the open pit mining operations. To achieve the best possible match between the resource and the actual production, a minimum practical size dig block or, SMU of 3 m x 6 m x 6 m was chosen. In addition, consideration was given to the style of mineralization, a prospect for mineralized block selective extraction, and production bench height that can be practically mined by mining equipment sized to match the scale of operation.

Therefore, to facilitate reserve estimation and open pit mine plan, the El Limón resource model was regularized (i.e., re-blocked) to 3 m x 6 m x 6 m block size. Special consideration was given to block classification during the model regularization by implementation of a complex re-blocking methodology. It considers a majority rule only on Indicated (class 2) and Inferred (class 3) blocks, irrespective of the proportion of unclassified blocks (class 4). Only blocks with 100% class 4 remain as class 4. Re-blocking rules are illustrated in Figure 16-7.





FIGURE 16-7 REGULARIZED BLOCKS CLASSIFICATION

Table 16-5 summarizes the effect of the SMU regularized model versus the original irregular block model.

The model regularization incorporates approximately 31% dilution in the El Limón Indicated Mineral Resources and 48% dilution in the Inferred Mineral Resources with lower (i.e., diluted) gold grades and an insignificant change in gold content. The regularized model was used for mine planning and reserve estimation purposes in this study.



Classification	Mineralized Tonnes (kt)	Grade AUCD_ID (g/t Au)	Contained Gold (koz)
Sub-Cell Block Model			
Indicated (2)	3,511	2.69	303
Inferred (3)	18,608	1.81	1,081
Unclassified (4)	1,443,753	0.03	1,393
Total	1,465,871	0.06	2,777
Regularized Model			
Indicated (2)	4,597	2.06	304
Inferred (3)	27,484	1.23	1,090
Unclassified (4)	1,433,789	0.03	1,383
Total	1,465,870	0.06	2,777
Difference			
Indicated (2)	31%	-23%	0.2%
Inferred (3)	48%	-32%	0.8%
Unclassified (4)	-1%	0%	-0.7%
Total	0%	0%	0.0%

TABLE 16-5 REGULARIZED VS. SUB-CELL BLOCK MODEL Calibre Mining Corp. – El Limón Mine

GEOTECHNICAL PARAMETERS

Bench geometry recommendations including bench face angle, bench height, berm width, and inter-ramp angle were developed by DCR Ingenieros and provided by El Limón technical services in the file Projecto Tajo Limón Central Parametros de Diseno, Octubre 2017. The overall slope angle based on the expected haulage ramp configuration, at 10% maximum gradient, was estimated by RPA. Pit slope parameters are summarized in Table 16-6.

TABLE 16-6PIT SLOPE PARAMETERSCalibre Mining Corp. – El Limón Mine

Bench Face Angle (º)	Bench Height (m)	Berm Width (m)	Inter- ramp Angle (º)	Pit Wall Height (m)	Two-way Ramps (#)	Two-way Ramp Width (m)	Single Lane Ramps (#)	Single Lane Ramp Width (m)	Overall Slope Angle (º)
70	12	7.6	45	200	2	17	1	11	41

PIT OPTIMIZATION

Limón Central pit optimization was conducted in Whittle software utilizing the Lerchs-Grossmann algorithm to generate a pit shell that provides the maximum operating margin



(before capital, taxes, or discounting), based on a reserve model and a set of input economic and technical parameters summarized in Table 15-4. The overall pit slope angle (OSA) used in the optimization process was 41° in both saprolite material and fresh rock.

The Whittle software can generate two discounted cash flow estimates based on two extreme mining sequences. The "best case" mining sequence simulates mining the interior nested pit shells sequentially until the pit is mined out. The "worst case" mining sequence mines to the final pit outline bench by bench. Actual results during the operation are expected to fall between these two extremes (achieved by sequencing smaller pits and sub-dividing larger pits), so the average of the two cases is considered more meaningful and is displayed in Figure 16-8. Pit Shell 26 is the base case or "breakeven" shell generated utilizing the input parameters summarized in Table 15-4. Pit Shell 17, generated utilizing a revenue factor of 0.82, provides the maximum cash flow or operating margin on a discounted basis (Net Present Value at 5% (NPV_{5%})) for the Limón Central deposit.



FIGURE 16-8 PIT OPTIMIZATION RESULTS



RPA notes that beyond Pit 17 the average NPV_{5%} does not change significantly, however, Pit Shell 22 has a slightly better stripping ratio than Pit Shell 17 and adds a small amount of cash flow. Analysis of the results shows that the incremental cash flow or operating margin on shells larger than Pit Shell 22 is less than 0.50/t mined. For these reasons, Pit Shell 22 was chosen to guide the pit design. Run of mine (ROM) ore quantities and grades within selected Whittle Pit Shell 22 are summarized in Table 16-7.

Revenue Factor	ROM Diluted (kt)	Gold Grade g/t	Waste Rock (kt)	Strip Ratio W:O	Total Rock (kt)
0.92	1,483	4.13	26,924	18.15	28,407

TABLE 16-7 SELECTED PIT SHELL QUANTITIES Calibre Mining Corp. – El Limón Mine

PIT DESIGN

Open pit mine design criteria are based on a conventional surface mine operation using 3.5 m³ backhoe excavator for loading a fleet of 36 t capacity trucks. Mining at the Limón Central pit will be accomplished with three phases to achieve the final pit limits. The ultimate and phase pits slope designs are based on geotechnical criteria presented in Table 16-6. A bench height of 6 m, matching the vertical dimension of the reserve blocks, was utilized. Pit walls are designed with berms at 12 m intervals (i.e., double benched). The pit ramps were designed at 10% maximum gradient for the largest hauling equipment. For double lane traffic, the minimum overall width, including shoulder berm and ditch, is 17 m. For the last four benches of the ramp in the pit bottom, the haul road is narrowed to a width of 11 m, suitable for single lane traffic.

The ultimate pit bottom is planned at the -18 m elevation. The highest pit wall of 200 m will be achieved in Phase 3. The design premise was to mine the pits to a minimum mining width of 30 m, then use a backhoe for the final narrow bench of the pit. The ultimate and phase pit designs are illustrated in Figure 16-9.

Cross-sections A-A and B-B through the Limón Central phase pits show the ore blocks above a cut-off grade of 1.32 g/t Au (Figures 16-10 and 16-11).





FIGURE 16-9 LIMÓN CENTRAL ULTIMATE AND PHASE PITS

FIGURE 16-10 CROSS SECTION A-A THROUGH LIMÓN PHASE PITS







FIGURE 16-11 CROSS SECTION B-B THROUGH LIMÓN PHASE PITS

WASTE ROCK DUMP

The waste rock dump (WRD) designed capacity is 17 million loose cubic metres, which is sufficient to accommodate the entire waste rock volume to be mined from the open pits. A swell factor of 30% was used for the capacity estimate. It is anticipated that the WRD will be constructed in a bottom-up configuration consisting of 6 m vertical lifts. Individual lift slope is designed at 27° (i.e., 2H:1V) with the berm width of 6 m and the overall slope angle of 18°.

The WRD is located to the southeast of the pit at the same footprint of the existing dump designed as close as practical to minimize the haul truck cycle time. WRD top elevation is at 198 MASL for a total height of approximately 80 m. The WRD layout and location relative to the Limón Central pit is illustrated in Figure 16-12.





FIGURE 16-12 WASTE ROCK DUMP LAYOUT

ESTIMATE OF MINEABLE QUANTITIES

In the LOM plan ROM ore quantities and plant feed estimates are based on Indicated Mineral Resources only. Inferred Mineral Resources are included within the waste rock stripping quantities and are identified separately for sensitivity analysis purposes.

Mining quantities are defined as material below the end of the June 2019 topography to the ultimate pit limits after applying allowances for dilution and mining losses and utilizing a cut-off grade of 1.32 g/t Au. Mining quantities are summarized by pit phase in Table 16-8. ROM ore quantities total 1.472 million tonnes at an average grade of 4.09 g/t Au. LOM open pit waste rock mined will total 28.9 million tonnes yielding an overall average strip ratio of 19.63:1.



Pit Phase	ROM Ore (kt)	Gold Grade (g/t)	Inferred Waste (kt)	Gold Grade (g/t)	Other Waste (kt)	Total Waste (kt)	Strip Ratio (W:O)	Total Mined (kt)
1	210	3.52	31	6.42	695	726	3.46	937
2	453	4.15	229	6.20	10,684	10,912	24.08	11,365
3	809	4.19	411	5.56	16,849	17,260	21.33	18,069
Total	1,472	4.09	671	5.82	28,228	28,899	19.63	30,371

TABLE 16-8 PIT MINING QUANTITY ESTIMATES Calibre Mining Corp. – El Limón Mine

The mining quantities in Table 16-8 were compared to contained quantities within the selected pit optimization shell that guided the pit designs. The designed ultimate pit contains virtually the same ROM quantities as the pit shell, however, at an 8% higher strip ratio. The lower strip ratio in the pit shell is believed to be due to approximations of the impact of pit ramps that were incorporated in the pit shell overall slopes.

It is recognized that Inferred Mineral Resources represent approximately 31% of the total Mineral Resources within the ultimate pit limits. However, Inferred Mineral Resources within the open pit are included as part of waste stripping to meet standards for public reporting of Mineral Reserves.

PRODUCTION SCHEDULE

The principal production scheduling objective is to satisfy, in conjunction with planned underground production, the target processing plant feed requirements of 500,000 tpa. Other open pit production scheduling objectives include the smoothening or normalizing of the overall open pit mining rate and the truck fleet size as much as possible in order to minimize fluctuations in the pit workforce size and minimize haulage truck fleet size.

The open pit production starts in the second half of 2019 and represents a continuation of the existing Limón Central pit operation. The production schedule shows completion of open pit mining at the end of the first half of 2023. The open pit will supply approximately two thirds of the annual plant feed over the four year mine life. Table 16-9 presents a detailed production schedule on an annual basis.



TABLE 16-9 LIMÓN CENTRAL LIFE OF MINE PIT PRODUCTION SCHEDULE Calibre Mining Corp. – El Limón Mine

Pit Production	Units	Total	2019	2020	2021	2022	2023
ROM	kt	1,472	210	317	323	355	268
Au Grade	g/t	4.09	3.52	3.87	3.97	4.47	4.41
Contained Au	koz	193	24	39	41	51	38
Waste Rock	kt	28,899	5,771	11,359	9,828	1,649	293
Strip Ratio	W:O	19.63	27.47	35.86	30.42	4.65	1.09
Total Mined	kt	30,371	5,981	11,675	10,151	2,004	560
Mine Days	Days	1,643	183	365	365	183	183
Pit Mining Rate	ktpd	21	33	32	28	11	3

Annual ore and waste rock mining quantities and gold grades are illustrated in Figure 16-13.

FIGURE 16-13 LIMÓN CENTRAL PIT ANNUAL PRODUCTION AND GOLD GRADES



The production schedule is based on mining the ultimate pit within three phases. Phase 1 (i.e., the starter pit) is the lowest strip ratio pit since most of the stripping was completed in the first



half of 2019. The utilization of the starter pit smoothens waste stripping requirements and supports the target plant rate in 2020, 2021, and 2022. Total ore and waste mined peaks at 11.7 million tonnes in year 2020.

The pit will be mined in 12 m high benches with ore mining in two 6 m high flitches necessary for ore control. The higher bench height in waste rock will increase the pit production rate. In general, one 12 m bench per month is planned to be mined. The production schedule shows a maximum pit sinking rate of 80 m in year 2020. Mining rates will average approximately 31,000 tpd from 2019 to 2021 during the Phase 2 and Phase 3 pit pre-stripping operations. The ROM stockpile quantity is projected to be minimal, i.e., 10 kt to 30 kt.

Annual production quantities, by pit phase and mining rates, are illustrated in Figure 16-14.



FIGURE 16-14 LIMÓN CENTRAL PIT PRODUCTION BY PIT PHASE AND MINING RATE



The combined open pit and the underground plant feed is shown in Table 16-10. It starts in the second half of 2019 and extends the plant life over 4.5 years. The target processing rate of 500,000 tpa has been maintained in 2020, 2021, and 2022.

	Units	Total	2019	2020	2021	2022	2023
Pit Plant Feed							
ROM	kt	1,472	200	325	325	325	298
Au Grade	g/t	4.09	3.52	3.86	3.97	4.47	4.42
Contained Au	koz	193	23	40	41	47	42
Underground Plan	t Feed						
ROM	kt	787	88	175	175	175	174
Au Grade	g/t	4.58	3.29	4.30	4.40	4.98	5.29
Contained Au	koz	116	9	24	25	28	30
Plant Feed							
Process Days	days	1,643	183	365	365	365	365
Total Feed	kt	2,260	288	500	500	500	471
Au Grade	g/t	4.26	3.45	4.01	4.12	4.65	4.74
Contained Au	koz	309	32	65	66	75	72

TABLE 16-10 LIFE OF MINE PLANT PRODUCTION SCHEDULE Calibre Mining Corp. – El Limón Mine

OPEN PIT OPERATION

MODE OF OPERATION

The principal mining functions of drilling, blasting, loading, hauling, and road and dump maintenance will be performed by a mining contractor. The owner's employees will monitor the contractor and provide engineering support including survey and grade control. Operations are assumed to run 24 hours per day, seven days a week, on a 12-hour shift rotation.

During 2022 and 2023, the final two years of the open pit operation, two 12-hour shifts for a half of year operation is proposed, due to the lower mining rates. Alternatively, the last two years could be consolidated in one year of mining, at the bottom of Phase 3 pit, if the stockpile is able to accommodate approximately 300,000 tonnes of ROM.

DRILLING AND BLASTING

Production drilling will be carried out using a fleet of diesel powered rotary drills. The drill-blast pattern was determined based on the medium to strong unconfined compressive strength (UCS) of the rock, different burden spacing parameters based on ore-waste rock densities,



and blasthole depth. The spacing and burden for the ore zone is tighter to produce better fragmentation and selectivity for mining in two 6 m high flitches. Blastholes drilled in the vicinity of expected ore (including those drilled in the adjacent waste rock) will be sampled and assayed for grade control purposes. It is anticipated that rock blasting will utilize 70% bulk emulsion explosives and 30% ANFO, at a powder factor of 0.32 kg/t and 0.35 kg/t in ore and waste respectively. Table 16-11 presents the drilling and blasting parameters.

Parameter	Units	Ore	Waste
Hole Diameter	mm	152	251
Burden	m	3.4	6.0
Spacing	m	3.9	6.9
Bench Height	m	6.0	12.0
Sub-Grade Depth	m	1.0	1.7
Rock Density, Average	t/m³	2.37	2.25
Drill Yield	t/blasthole	188	1119
Drill Yield	t/m drilled	27	81
% Anfo	%	30	30
Explosives powder factor, average	kg/t	0.32	0.32
Stemming collar	m	3.3	6.0
Drill Productivity*	m/op hour	26	22
Additional drilling**	%	10	10
Productivity including additional drilling	t/m drilled	24	74
Productivity including additional drilling	t/op hour	630	1600
Mechanical Availability	%	80	80
Use of Availability	%	80	80

TABLE 16-11 PIT DRILLING-BLASTING PARAMETERS Calibre Mining Corp. – El Limón Mine

Notes:

* allowance for drill move/setup/sampling and operational delays (blasts, fueling, change pattern, bits, etc.) ** allowance for pre-split and buffer rows, fill-in holes and re-drills

It is estimated that a fleet of two Sandvik D90 KS production rotary drills or similar will meet anticipated waste drilling requirements. The drill is capable of drilling 10 in. (254 mm) diameter holes and 12 m benches including two metres of sub-grade in a single pass, thereby improving productivity by reducing lost time in joining drill rods. The planned drilling equipment also includes one rotary drill Sandvik DR540 or similar, capable of drilling 6 in. (150 mm) diameter holes for the ore zone. Alternatively, to standardize the drilling equipment, a fleet of five 6 in. drill rigs could be utilized for both ore and waste rock drilling.



LOADING AND HAULING

The loading and hauling units utilized in this study are a Komatsu PC-600 hydraulic excavator with a bucket capacity of 3.5 m³ and Caterpillar AT740 articulated trucks with a capacity of 36 t, both currently in use at the Limón Central open pit operation. The truck loading parameters and productivity estimate are summarized in Table 16-12.

Truck Model	Caterpillar AT740
Loader Model	Komatsu PC600
Bucket Capacity m ³	3.5
Bucket Fill Factor, %	95
Rock In-Situ Density, t/m ³	2.25
Swell Factor in Bucket, %	45
Loose Density, t/m ³	1.55
Bucket Capacity, t	5.2
Truck Capacity, t	36
No. of Passes	7
Cycle Time per Bucket, sec	30
Spot Time, sec	20
Truck Load Time, min	3.83
Waiting for Truck, sec	30
Total Load Time, min	4.33
Job Efficiency, min/op hour	50
Loader Productivity, t/op hour	415

TABLE 16-12 PIT TRUCK LOADING PARAMETERS Calibre Mining Corp. – El Limón Mine

Haulage profiles were estimated from the active mining benches to the plant and the waste rock dump locations for all three pit phases and for both material types (waste rock and ore). The process plant and the waste dump locations are illustrated in Figure 16-1. Waste haul distances range from 1.36 km to 2.59 km and ROM haul distances range from 1.69 km to 3.37 km over the LOM. The uphill portion of the haulage profiles gradually increases due to an increasing pit depth and a higher waste dump, which necessitates haulage fleet additions over the mine life. The annual average haul distances relative to the pit mining quantities are illustrated in Figure 16-15.





FIGURE 16-15 LIMON CENTRAL PIT LOM HAULAGE DISTANCES

The proposed 36 t articulated haulage truck fleet size is projected to reach 20 units in year 2020 and year 2021.

Table 16-13 shows the loading and hauling equipment currently in use at the Limón Central mine.



TABLE 16-13 CURRENT PIT LOADING AND HAULING EQUIPMENT Calibre Mining Corp. – El Limón

Equipment	Model	Bucket (m ³)	Truck Payload (m ³)
Hydraulic Excavator	Caterpillar 320D	1.20	
Hydraulic Excavator	Caterpillar 336D	2.14	
Hydraulic Excavator	Case 470B	2.50	
Hydraulic Excavator	Komatsu PC-600	3.50	
Haul Truck			13
Haul Truck	Mack		14
Haul Truck	Astra		16
Haul Truck	Caterpillar AT 740		24
Haul Truck	Caterpillar 775		36

The currently used loading and hauling fleet is deemed sufficient for the remaining mine life. However, the backhoe excavators with 1.20 m³ to 2.50 m³ bucket capacity and trucks with 13 m³ to 16 m³ payloads are considered to be "light class" mining equipment in terms of productivity and do not have a good match in terms of the number of bucket passes per truck load.

SUPPORT EQUIPMENT

The equipment required to maintain the pits, roads, dumps, and service equipment includes:

- Three tracked dozers, 410 hp power
- One grader, 14 ft (4.26 m) blade
- One water truck
- One blasting truck
- One fuel/lube truck
- One maintenance service truck
- One utility backhoe loader
- One tire manipulator

Other smaller auxiliary equipment units, such as pickup trucks, light towers, dewatering pumps, etc., are also required.



17 RECOVERY METHODS

The Limón processing plant is a conventional processing plant consisting of agitated cyanide leaching and carbon adsorption, followed by carbon elution, electrowinning, and doré production.

The processing plant consists of the following unit operations:

- Single-stage crushing with a jaw crusher capable of processing approximately 100 tonnes per hour (tph) and a crushed ore stockpile.
- Two-stage grinding to 90% passing 75 µm utilizing a conventional semi-autogenous grinding (SAG)-ball mill circuit (without a pebble crusher); the SAG and ball mills are 17.5 ft x 6.7 ft and 745 kW and 12 ft x 16 ft and 1,050 kW, respectively. Pebbles are periodically returned to the grinding circuit.
- Pre-leach thickening to 43% solids, followed by leaching in five leach tanks (2 x 1,100 m³ and 3 x 955 m³) with oxygen addition, and carbon adsorption in eight 40 m³ carbon-in-pulp (CIP) tanks.
- Tailings disposal by pumping to the lined San Jose TSF. The San Jose TSF reportedly has remaining capacity for the disposal of current processing plant tailings until mid-2022.
- Stripping of loaded carbon at 2,000 g/t to 3,000 g/t gold loading using a pressure-Zadra stripping process, typically four times a week, resulting in stripped carbon with residual gold of 40 g/t to 150 g/t returned to the adsorption circuit after regeneration in a kiln.
- Gold recovery from the pregnant elution solution by electrowinning. The precipitate is smelted once every week in a liquefied petroleum gas (LPG) fired furnace to produce 20 kg to 28 kg doré bars, containing typically 70% to 85% gold and 15% to 30% silver. Doré is sent to the US for refining.
- Tailings return water is treated to remove heavy metals and by cyanide destruction using sodium hypochlorite, prior to release to the environment.
- Energy, water, and process material specific consumptions are not anticipated to change materially in the processing plant from its current configuration. However, if expansion options described in the 2018 expansion feasibility study are implemented, these would affect consumption of energy and consumables as detailed in the 2018 expansion feasibility report

A simplified flowsheet is presented in Figure 17-1.





The processing plant has undergone numerous modifications and improvements since B2Gold's acquisition of the mine in 2009, including the addition of two leach tanks and two CIP tanks, and a larger SAG mill motor. These modifications and improvements contributed to increases in throughput and recovery between 2009 and 2015 (Figure 17-2). The most recent history indicates that the processing plant is capable of achieving a throughput rate of 60 tph (this is the approximate processing rate achieved during 2016, 2017, and 2018).



FIGURE 17-2 PROCESSING PLANT THROUGHPUT AND RECOVERY

In April 2016, over a period of approximately 13 days, the feed head and ring gear of the ball mill were replaced and the SAG mill ring gear and pinion gear were also replaced. In 2018, production was negatively affected by blockades and ball mill downtime related to the ball mill motor. The blockades resulted in 25 days of lost production in June and July 2018, while the ball mill motor caused three days of lost production in December 2018. A spare ball mill motor has been ordered and delivery is expected in Q1 2020. Other significant downtime experienced at EI Limón is due to wear on cyclone feed pumps, piping, and the cyclone feed distributor. This issue is expected to be addressed in 2019 by reducing the velocities and thus, wear in these items by replacing them with larger pumps, piping, and a redesigned distributor. New cyclones and cyclone discharge piping to the ball mill and trash screen will also be installed. The switch-over will take place during an annual 40-hour maintenance shutdown in



order to minimize disruption to production. It is expected that this modification, as well as a ball mill pinion change (from 23 to 24 teeth) will allow the plant to achieve an annual throughput of up to 500,000 t.

In 2016 and 2017, plant availability and utilization combined (referred to as utilization from this point) was 89%; resolution of the wear issues could result in up to approximately 5% additional utilization. At a processing rate of 60 tph, the annual throughput of the plant could then be up to approximately 494,000 t. In RPA's opinion, processing plant utilization of 92% to 94% should be achievable. The mill pinion change will allow for a slight increase in mill throughput while maintaining grind, allowing for an annual throughput of approximately 500,000 t.



18 PROJECT INFRASTRUCTURE

El Limon currently operates four mines and has all required infrastructure necessary for a mining complex including:

- Three underground mines: Santa Pancha 1, Santa Pancha 2, and Veta Nueva.
- One surface mine: Limon Central.
- A conventional processing plant with agitated cyanide leaching and carbon adsorption, followed by carbon elution, electrowinning, and doré production with a current nominal capacity of 500,000 tpa.
- Mine and mill infrastructure including warehouses, administration buildings, dry facilities, and maintenance shops.
- The lined San José TSF that has one more raise planned before all tailings deposition will transition to the proposed future San Pancho TSF.
- Electrical power from the national grid system with backup generators at the mine site.
- Water, both industrial and potable, is drawn from local sources.
- Mine ventilation fans and ventilation systems.
- Haulage roads from the mines to the plant.
- Stockpile areas.
- Maintenance facilities.
- Administrative office facilities.
- Core storage and exploration offices.
- Security gates and manned security posts at mine entries.
- Access road network connecting the mine infrastructure to the town site and to public roads.



18-2



19 MARKET STUDIES AND CONTRACTS

The principal commodity at El Limón is freely traded, at prices that are widely known, so that prospects for sale of any production are virtually assured.

CONTRACTS

TMC presently has a collective agreement with the workers union that is valid until October 22, 2020.

TMC also has an existing contract for haulage of surface ore and waste with Constructora Santa Fe, which is considered a material contract to Calibre.



20 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

ENVIRONMENTAL STUDIES

The El Limón Mine is located in northwestern Nicaragua, approximately 100 km northwest of the country's capital, Managua. EL Limón is a historic mine, which has been in operation as an underground and open pit mine since 1941.

Several environmental studies have been carried out in recent years to support the Exploration Environmental Impact Assessments (EIA).

TOPOGRAPHY

The mine area is generally located at elevations between 300 MASL and 600 MASL, and topography indicates slopes ranging between 10% to 50%. The relief is comprised of rolling mountain ranges, and valleys. Soils are generally rocky and very poor in terms of nutrient content. Ancient rain forests have all but disappeared in the area, due to harvest of precious woods, giving way to the deciduous forests.

HYDROLOGY AND HYDROGEOLOGY

The main drainage network in the mine area is the Tecomapa River, which belongs to the Estero Real watershed. The Estero Real watershed drains northwest towards the Pacific Ocean. The Tecomapa River receives water contributions from the Galilao, Quebrada La Chácara, Mayocunda, La Presa, and La Palmita rivers. The total area of the Tecomapa River basin is 713.56 km².

The mine is located in close proximity to a multitude of active volcanos. Due to the geological characteristics of the environment and the rocks that make up the subsoil in the area, secondary aquifers predominate. They form an anisotropic hydrogeological medium, with secondary permeability as a result of cooling cracks and faulting of tectonic origin. In many cases these cracks, faults, and fractures allow deep water rises with residual mineralization. It is common to find sulphate or chlorine-rich groundwater with high contents of silica, boron,


fluorine, iron, manganese, and arsenic. The salinity concentrations of samples taken in the area have maximum values of approximately 1,700 mg/L.

CLIMATE

According to the Koeppen climate classification, the region is considered AW1, with pronounced wet and dry seasons.

The rainy season occurs in the months of May to October, referred to locally as "winter; the dry season, from November to April is known locally as "summer". In the middle of the rainy season, in the months of July to August, there is a relatively dry period known as "veranillo" or "canícula". The mean annual temperature is 27°C and the average annual precipitation is in the order of 1,500 mm.

BIOLOGICAL ENVIRONMENT

Due to the fact that the mine has been in operation for several decades, the flora and fauna within the direct mine area footprint is highly disturbed. Recent flora or fauna studies have been carried out to determine potential impacts resulting from the Project.

PERMITTING

Based on discussions with the site environmental manager during a site visit in April 2019, all permits to operate the site in the near future are in place.

Exploration permits require the submission of a semi-detailed Environmental Impact Assessment (Evaluaciones de Impactos Ambientales semi-detallado, or EIAsd). No set timeframe for Nicaraguan exploration permits could be found or determined. The process appears to be dependent on engagement and relationship with the community and regulators. El Limón has the technical records to support exploration efforts and has received permit approvals within fairly consistent timeframes.

In summary, to obtain exploration permit approval, it would be reasonable to assume that it would take the proponent approximately one month to prepare scope of exploration and potential impacts and thereafter up to five additional months for the review by government



authorities and additional information requests, to a total of six months, until the exploration permit is approved.

At El Limón, exploration permits seem to be obtainable within reasonable and foreseeable timeframes.

To start the exploitation permit process, the proponent requires: a project Terms of References (términos de referencia, or TdR), legal representation, construction company for development, public deed of ownership, mining concession, and declaration of the project. The timeline to gather this information is unknown. Once the TdR have been submitted and accepted by regulators the proponent has approximately six months to complete and submit the required EIA based on the TdR. There is an opportunity for an extension of three months, however the process for this request is unclear. If the EIA is accepted, public consultation is fourteen working days with two additional weeks for comments to be provided to regulators. If the EIA is not accepted, the proponent has three months to re-submit as an addendum for approval, then ten working days for MARENA to review and then proceed to public consultation. Once all comments are received, the timeline to resolve and issue the Exploitation Permit is approximately sixty working days.

The exploitation permit process is well documented as per MARENA. The process includes checklists for application stages, timeframes for response from both the proponent and regulators, along with next steps and costing.

In summary, it takes a minimum of 11 months from the submission of the TdR until the EIA is approved. If there are additional comments from the regulator review or consultation, this timeframe can increase by three months to 14 months.

SOCIAL OR COMMUNITY REQUIREMENTS

The mine has adopted an Environmental Policy (2018) and a Biodiversity Policy (2018) designed to ensure environmental risks are adequately addressed while committing to environmental protection for all its activities. In addition, the mine has established an Occupational, Health and Safety Policy (2018) aimed at minimizing risks to its workers.



These policies are, in part, implemented through mine Health, Safety and Environment Management System (HSEMS). This system provides mine staff with a clear understanding of the company's expectations regarding how to effectively manage the key risks associated with Health, Safety and Environment (HSE). The HSEMS is based on 18 standards. These standards are:

- 1. Leadership and Commitment
- 2. Hazard Identification and Assessment of HSE Risks
- 3. Planning and Organizing
- 4. Legal Obligations and Evaluation of Compliance
- 5. Resources, Responsibilities and Accountabilities
- 6. Competency and Awareness
- 7. Consultation and Participation
- 8. HSE Documentation, Document Control and Records Management
- 9. Operational Planning and Control
- 10. Crisis and Emergency Preparedness and Response
- 11. Change Management
- 12. Outsourcing, Procurement and Contractor Management
- 13. HSE Monitoring, Measurement and Reporting
- 14. Incident Reporting and Investigation
- 15. Non-conformances, Corrective Action Management and Improvement
- 16. Planned Inspections and Task Observations
- 17. Auditing
- 18. Management Review

This management system is based on international standards including compliance with incountry regulations, relevant International Organization for Standardization (ISO) and Occupational Health, Safety and Security standards, and reliance on the International Finance Corporation (IFC) Performance Standards and international best practices in cases where national regulatory systems are not sufficiently stringent.

The mine has established a Corporate Social Responsibility policy that commits it to engage openly and respectfully with community stakeholders and make meaningful and sustainable contributions to their host communities.



Management at El Limón have developed and implemented a Social Management System for the identification and management of risks and impacts in a structured and constant manner with the aim of promoting sustainable social performance that leads to positive financial, environmental, and social outcomes. The system is described in a manual (March 2018) and is based on a set of eight standards that describe the processes, practices, and tools to be applied.

These standards are:

- 1. Relationship with Actors
- 2. Community Grievance Management
- 3. Community Investment
- 4. Access to Land and Resettlement
- 5. Local Content
- 6. Human rights
- 7. Artisanal and Small-scale Mining
- 8. Social Closure

The management system, including its processes, practices and tools, is intended to be dynamic in nature and subject to periodic reviews by the management team. The procedures included in the 2018 manual are to be reviewed regularly, at least once every three years.

The key to successful identification and management of critical social risks is the way the mine develops constructive relationships with its key stakeholders. This is being accomplished at the El Limón Mine by identifying and maintaining a register of potentially affected stakeholders within the sphere of influence of the site. The site analyzes the key characteristics of the stakeholders, including their rights and claims, relevant, attitudes towards the business turn (support), their ability to influence (power) and how much can be affected by the business (impact), as well as relationships with other stakeholders (network) and potential drivers and triggers of tension or conflicts. This analysis supports environmental and social risk assessments of the El Limón operations.

El Limón has developed and continues to implement its Community Grievance Management process (Standard 2), aimed at receiving, investigating and responding to grievances from neighbouring communities. The process is intended to identify, manage and mitigate impacts in a timely, respectful and locally appropriate manner. The site is required to demonstrate that



its Grievance Mechanism meets the principles for good practice as supported by the IFC and is compatible with the United Nation's Guiding Principles for Business, and the systems recommended by the by International Council on Mining & Metals (ICMM) for handling and resolving local concerns and grievances.

LABOUR AND WORKING CONDITIONS

The collective bargaining agreement covering the workers at El Limón is effective until October 22, 2020.

The mine staff perform pre-employment, annual employment and post-employment medical examinations, which allow them to identify potential occupational health risk factors, detect the onset of potential occupational diseases, mitigate occupational exposures, and provide care as necessary to the workforce.

The El Limón Mine continues to develop its HSE management system. The HSE management system and performance includes annual internal auditing by independent experts. HSE committees are in place at the mine to provide a forum for employees and contractors to address HSE related issues. El Limón met injury reduction frequency rates in 2017, reducing its lost time incident (LTI) frequency rate by 14%, from 2.58 in 2016 to 2.23 in 2017.

COMMUNITY HEALTH AND SAFETY

El Limón has developed and continues to implement its Community Investment policy (Standard 3) aimed at meeting commitments made to make meaningful, positive and sustainable contributions to the communities where they operate. All Community Investment activities are to meet relevant Canadian and in country legal requirements. Community investment activities prioritize opportunities for improving community health, education, and livelihoods and are aimed at contributing to wider long-term development in the host community, while not creating a dependency culture.

Local needs are identified through written requests or participatory meetings that include a range of stakeholders. Community investment projects are developed and implemented in collaboration with the municipality, Ministry of Education, Ministry of Health, Ministry of Mines, church representatives, and other stakeholders including political and community leaders, local NGOs, and community organizations that represent vulnerable groups such as impoverished children, women, elderly, youth, people with disabilities, and small farmers.



In 2018, the mine invested over \$1,500,000 at the El Limón operational area, providing support for the provision of electricity for the Town of Limón; programs to improve access to potable water, provide specialized attention for the chronically ill residents; provide access to internet for teachers and students at the Insituto El Limón; support to access to education; expanded access to quality seeds; and support for roads infrastructure and water system improvements.

The Local Content policy (Standard 5) aims to support economic development in the communities where they operate through the implementation of local content strategies to generate employment and procurement opportunities in a local region, building the capacity of local people, employees, businesses, and organizations.

In support of this policy, the mine recognizes the legitimate role of artisanal miners in the community and promotes improvements in their working conditions.

LAND ACQUISITION AND INVOLUNTARY RESETTLEMENT

A resettlement policy (Standard 4) which aims to ensure that all land access and acquisition activities avoid and minimise involuntary resettlement has also been adopted. Where involuntary resettlement is unavoidable, any economic or physical displacement is to be mitigated by improving or restoring livelihoods and standards of living. El Limón has committed that all resettlement and land access activities will be carried out in accordance with relevant national legislation and embody the principles of IFC Performance Standard 5 – Land Acquisition and Involuntary Resettlement.

Resettlement is required to advance the El Limón Mine. As of 2017, El Limón operations have resettled 84 households, with 435 people resettled or pending resettlement. Resettlement has occurred in the recent past and seems to have been well executed.

INDIGENOUS PEOPLES

Based on available information regarding existing land and resource uses on and near the El Limón properties, IFC Performance Standard 7 does not appear to be applicable. Even though the area is abundant in natural resources, there is no evidence of Indigenous populations living in the area, probably due to the lack of access, topography of the area, etc.



CULTURAL HERITAGE

No information was available regarding the presence of known or registered archaeological sites or other cultural heritage features on the El Limón properties.

SOCIAL UNREST

From April to July 2018, Nicaragua saw significant social unrest. Gold production at El Limón was temporarily impacted by illegal road blockades related to local employment issues for the community. While regular operations at El Limón have resumed since the onset of social unrest, there is the risk that the mine operations could be materially impacted by further work stoppages due to illegal road blockades or social conflict in the future.

OWNERSHIP

In 1990, the Mining Sector Nationalization Law was repealed in Nicaragua and a bidding process was initiated to privatize the state's mining assets.

RESETTLEMENT

Resettlement is required to advance El Limón. The reported main challenges have included the completion of negotiated agreements within a compensation framework and continuing the resettlement process without any social conflict. Negotiations continue with those whose expectations surpass the terms included in the compensation framework. The compensation framework was not available for review.

GRIEVANCES

A total of 103 grievances were filed in 2017, of which 100 were addressed and resolved. Most of the complaints in Nicaragua relate to blasting, dust from trucks, and contractor behaviour. Ongoing mining in areas close to human settlements can be expected to result in further grievances that will require resolution.

ARTISANAL MINING

In Nicaragua, there is a long history of small scale miner activity throughout the country. Nicaraguan law provides that 1% of a mining concession be available for artisanal (non-mechanized) activity. Areas of the El Limón Mine are subject to significant small scale and artisanal mining activity. The number of artisanal miners is increasing. There is a risk of



conflict with the small-scale miners that may require to be relocated. To mitigate this risk, several agreements have been executed with local cooperatives, and artisanal miner relationships are managed by a specific specialized group at El Limón with the aim of maintaining co-existence within the concession.

HUMAN RIGHTS AND SANCTIONS

On November 27, 2018, US President Donald Trump issued an Executive Order creating a new sanctions program that targets certain persons who are found to be involved in serious human rights abuses, political repression, or public corruption in Nicaragua, as well as all persons who have served as Nicaraguan Government officials since January 10, 2007 (the Nicaraguan EO).

WATER MANAGEMENT

WATER MANAGEMENT SYSTEM

No acid rock drainage (ARD) potential nor metal leaching concerns are identified in the documentation available for review.

Water supply for the mine operation comes from mine dewatering and collection of contact water within the mine site area. The water management system is comprised of the following main facilities:

- San José TSF pond
- Underdrain System Collection Pond
- Diversion channels
- Structures for surface runoff control

Water from the TSF is reclaimed directly to the process plant. Two TSF barge pumps control the volume of supernatant water stored in the tailings pond. Seepage from the TSF is collected and either pumped back to the tailings pond or released to the environment if it meets water quality standards. The has TSF operated without discharging water from the tailings pond to the environment and seasonal excess water collected in the tailings pond had to be contained until it could be used for mine operations. The water levels are controlled through pumping slurry to the TSF, cycling reclaim water to the mill and evaporation. Control methods are enhanced during seasons with excess water. According to the October 2018 monthly monitoring report, a Detox water treatment plant was installed to treat and discharge excess



water from the TSF pond. The treatment involves lowering concentrations of cyanide through the application of sodium hypochlorite in a detoxification tank and utilizing carbon columns to collect contaminants.

San José TSF is lined with a linear low-density polyethylene (LLDPE) geomembrane and geosynthetic clay liner (GCL) to minimize infiltration from the facility into the ground. The TSF has an underdrain system to intercept infiltrations from the facility and groundwater, and it is comprised of perforated high-density polyethylene (HDPE) pipes surrounded by gravel. The underdrain system drains by gravity to the Underdrain System Collection Pond located downstream of the TSF north dam. This pond is equipped with a spillway to control the water discharge to the environment, downstream of the TSF.

Daily water quality sampling takes place in the Underdrain System Collection Pond to assess if it meets water quality standards for direct discharge to the environment. Depending on the results the water is pumped back to the TSF or released to the environment.

Two diversion channels located east and west of the TSF reduce the catchment area of the TSF to minimize the amount of contact water to be collected and used at the mine site. The structures for surface runoff control are located in areas where there is a concentration of runoff water, between the diversion channels and the edge of the TSF liner, to limit the amount of sediment and / or debris entering the TSF. The structures are built with gabions and have a lower section that acts as a weir to convey runoff from storm events.

The stormwater management design criteria are as follows:

- The TSF was designed to store 50% of the 24-hour Probable Maximum Precipitation.
- Minimum freeboard of one meter.
- Recovering of 70% of water from the slurry discharge from the process plant to the TSF.
- The Underdrain System Collection Pond was designed to contain the runoff resulting from the 100-year rainfall storm event plus approximately 48 hours of underdrain flow.

The TSF is not equipped with an overflow emergency spillway during the operation phase. Hence, prevention of dam overtopping relies on maintaining adequate storage capacity available through operation procedures (i.e., pumping to and from the TSF) to be able to store the runoff resulting from storm events.



According to the Operation, Maintenance, and Surveillance (OMS) manual for the TSF, water balance modelling was conducted for stages 1, 2, and 3A of the TSF expansion considering average, wet and dry annual precipitation conditions. The main conclusion of the water balance is that water recirculation from the tailings pond to the mill must be maximized to manage the excess water.

A water balance has been developed in linked spreadsheets to account for inflows and outflows, and track water volumes managed at the mine site. It is unclear if the water balance is used during operation to support decision making associated with water management.

Expansion of the El Limón Mine operation involves the development of a new tailings disposal facility, the San Pancho TSF. A feasibility level design was completed in 2018. Water management for the proposed TSF involves upstream water diversion to reduce the amount of runoff entering the TSF, water reclaim to the process plant, and conveyance of excess water to a water treatment plant (if required) prior to being discharged to the environment. A water balance model was developed for the San Pancho TSF to confirm the available water for reclaim to the plant site for re-use in the milling process and the excess water volume required to be removed from the TSF. No emergency spillway is proposed for operation, only for closure.

WATER MANAGEMENT STANDARDS

The following standards related to water management have been developed:

- <u>Cyanide Management</u>. The standard defines the requirements to ensure that the on-site storage, handling, and use of cyanide are protective of human health and the environment. The standard applies to the purchase, transportation, handling, mixing, storage, and the operation of on-site cyanide mixing and storage facilities. It is largely derived from the July 2012 version of the International Cyanide Management Code and includes controls to manage cyanide at sites.
- <u>Tailings Management</u>. The standard defines the requirements for the characterization of tailings, protection of groundwater and surface water, prevention of uncontrolled releases to the environment, the management of process water, and monitoring requirements.
- <u>Water Management</u>. The standard defines the requirements for effectively managing water at sites, including site water balances, process water, stormwater, discharges, and mine dewatering activities and monitoring to ensure that no loss of beneficial use occurs and that human health and the environment are protected. Additional water management requirements related to mining infrastructure are included in the Environmental and Biodiversity Performance Standard.



WATER ENVIRONMENTAL MONITORING

Water monitoring results are documented in monthly environmental reports. Reports for the period January 2018 to March 2019 were available for review.

Environmental sampling is currently conducted by El Limón environmental personnel, relevant government employees and personnel employed by contracted analytical laboratories. The Ministry of the Environment documents some of the requirements and data relating to compliance sampling.

El Limón's contracted laboratory conducts the sampling and interpretation of the results and compiles the report that is submitted to the government.

Relevant external laboratory reports received by El Limón are forwarded to the Ministry. Draft laboratory reports are forwarded to El Limón's Environment Manager for review and comparison to data from previous months. Once checked, final laboratory reports are issued, and a covering letter is drafted for the data to be sent to the Ministry. El Limón's contracted laboratory is responsible for recording comparisons of the data with relevant statutory standards. The daily maximum permissible limits are established in Decree No. 21-2017 Article 55 "Maximum permissible values and ranges for discharges of residual water coming from the metallic mining industry" (the Decree) published in 2017.

According to the figures available for review showing monitoring stations in the area of influence of El Limón Mine, the water monitoring program is conducted at eight locations for surface water and two locations for groundwater.

Pursuant the Decree the required monitoring frequency in the surrounding receiving environment of the site is biannual, with the most recent sampling for El Limón taking place in October 2018 and March 2019. Some parameters at certain locations exceeded the applicable maximum permissible limits.

Water samples are taken daily for the analysis of total cyanide and free cyanide in the San José TSF. Results of the monitoring program during the reviewed period showed presence of total cyanide up to 2.2 mg/L, and pH ranging between 7.31 and 8.70. Detected free cyanide levels ranged from 0.080 to 1.967 ppm. Maximum permissible limits established in the Decree



are not applicable to these samples because the water is not discharged directly to the environment.

Water samples are taken daily for the analysis of total cyanide and free cyanide at the exit of the TSF underdrain system. Results of the monitoring program during the reviewed period showed presence of total cyanide under the limit of 1 mg/L, and pH ranging between 6.00 and 8.90. The admissible pH range is 6.00 to 9.00 according to the Decree. Free cyanide levels were either not detected or were under limits (0.1 ppm).

In October 2018 water samples started to be taken daily for the analysis of total cyanide and free cyanide in the Detox system. Results of the monitoring program during the reviewed period showed the presence of total cyanide under the limit of 1 mg/L, and pH ranging between 7.10 and 9.00. Free cyanide levels ranged from 0.00 to 0.10 ppm.

Water temperature is monitored in Quebrada El Pescador where dewatering from the Santa Pancha underground mine is discharged at high temperatures. Results of the monitoring program during the reviewed period showed average water temperatures varying from 31.2°C to 81.5°C. It is understood that the stream receiving the water on surface cools naturally over distance.

According to the monthly environmental reports, there were no water contamination incidents and no erosion or subsidence incidents during the reviewed period.

MINE WASTE AND TAILINGS

The EI Limón Mine site includes two closed TSFs (San Rosa and Santa Barbara) and the currently operating TSF (San José), which is nearing completion and was observed during a site visit. The San José TSF is a lined facility and one more raise of this facility is planned before all tailings deposition is switched to the proposed future TSF (San Pancho).

The San Pancho TSF facility will be a downstream construction lined dam that will be built out of locally sourced borrow material and rockfill in two stages. A spillway channel is planned for closure of the future TSF, but not during operation. Given that the San Pancho TSF is planned to be built in two stages, it would not be difficult to implement a spillway during operation of this facility, which would reduce some risks associated with conventional tailings deposition.



Similarly, for the current San José TSF, if the facility is being raised to its final elevation, the closure spillway could be installed during the construction of the final raise and this would reduce project risk and the closure cost.

Additional geotechnical investigations and design activities for the San Pancho TSF are ongoing, but no documents since the feasibility study design have been reviewed. Furthermore, no analyses have been reviewed considering the stability of the cutback slope around the edge of the San Pancho TSF, if a landslide occurred and entered the TSF pond, the resulting wave could over top the facility dam and potentially lead to a loss of containment. A risk assessment for the proposed TSF would be beneficial to identify and control risks to the project. No documents concerning the design, progress, or cost of the final Santa José TSF raise were available for review.

Technical documentation regarding the management and stability of waste rock facilities on the site have not been reviewed. However, the waste rock has been determined to be nonacid generating and successful operation of the site for decades suggests that management of this waste is not an issue for the Project.

CLOSURE

To inform this section, the "B2Gold Corporation, El Limón Mine, Site Wide Closure Plan" dated April 24, 2014 was reviewed.

The overall objectives of the Site Wide Closure Plan (SWCP) include:

- Development of a closure strategy, which meets or exceeds current Nicaraguan environmental regulations. To the extent specific guidelines and protocols may not exist, the SWCP has been developed in accordance with the industry "best practice" approach and Canadian standards.
- Restoration of the mine-impacted land to a self-sustaining, natural state which is visually acceptable and compatible with the surrounding topography.
- Establishment of physical and chemical stability of the mine components.
- Identification of opportunities for the transfer/annexation of selected facilities to the local community for continued use, or for historic preservation status.
- Optimization of post-closure monitoring/maintenance requirements following completion of reclamation activities. For purposes of the SWCP the proposed monitoring program provides for post-closure monitoring for five years and will be



adjusted as necessary. The program is divided into an initial 18-month "active closure and reclamation period" and a subsequent 42-month "abandonment period."

With the exception of structures deemed desirable for transfer/annexation to the local community(ies) or those to be retained for historic preservation purposes, general best management practices will be utilized to decommission and to remove buildings and ancillary facilities.

As mining continues, some of the pits will remain open at closure due to the lack of waste rock material to be used as backfill. Safety berms will be strategically placed around major access points of these pits (i.e., points where natural topography does not block access to the open pit) to secure them from access by the public. The berms will be revegetated.

Most mine roads will remain in place to facilitate post-closure monitoring and to provide access to public housing and other public areas. If any roads are to be reclaimed, they will be ripped to loosen the compacted soil. Once ripped, roads will be regraded to blend with the surrounding topography, limit erosion, and promote natural drainage.

Review of the TSF closure documents found that the planning and costing of closure did not appear to be robust or clear, some items of concern are:

- Asset Retirement Obligations (ARO) increase from \$21.3 million to \$23.6 million in 2017-2018;
- TSF water treatment increase from 350,000 to 800,00 m³; and
- Estimates based on employee labour costs.

Furthermore, closure of the San Pancho TSF involves placement of a one metre soil cover over wet tailings, with the thickness greatest over the area of the operating pond (blue area in Figure 20-1). Installation of the proposed closure cover may be difficult and could result in cost or schedule overruns, revised tailings deposition planning to reduce the closure cover volume requirements should be considered. The spillway for closure is in natural ground and away from the dam which is the preferred method in best practices. Based on the information reviewed, it is believed that there is a chance that the closure costs/ARO are not adequately funded.



A post-closure monitoring program is proposed to verify the success of the closure and reclamation measures implemented to stabilize the mine, and to minimize unacceptable environmental impacts that would prevent the site from being finally abandoned. The post-closure monitoring program is proposed for the active reclamation period (18 months) when infrastructure demolition, site grading, disposal of wastes, re-vegetation, etc., will be conducted. Site personnel will conduct monitoring as appropriate. Following the reclamation period, the abandonment period (42 months) will have less mine staff, however monitoring and review of the site will be maintained on a regular but reduced schedule. Monitoring during the active reclamation period will include the groundwater piezometric stations, water chemistry analysis of surface water and groundwater, geotechnical monitoring of the tailings dams and waste rock dumps, reclaimed ground surface erosion monitoring, dust and climate data monitoring, and re-vegetation observations.

The total estimated cost to complete the El Limón Mine closure and reclamation program in 2018 is \$23.6 million, inclusive of miscellaneous contingency factors.



21 CAPITAL AND OPERATING COSTS

CAPITAL COSTS

A summary of the LOM capital costs for the Project is given in Table 21-1.

Item	Total (\$000)
Sustaining Capital Costs Summary	22,017
Mining	12,649
Process Plant	7,980
Site General	248
Distributable	793
G&A	348
Expansion Capital Costs Summary	1,709
Mining	800
Process Plant	350
Site General	170
Distributable	184
G&A	130
External Projects	75

TABLE 21-1 LIFE OF MINE CAPITAL COSTS Calibre Mining Corp. – El Limón Mine

Movement of waste in Limón Central has not been treated as an operating expense in the financial model. The capitalized underground mine development has been included in the mining sustaining capital shown in Table 21-1.

The sustaining and expansionary capital costs for EI Limón support LOM requirements based on the current LOM and appear to be reasonable to RPA. Approximately \$22 million is expected to be spent over the remaining LOM for sustaining capital, including underground mine development, TSF expansion and infrastructure. An additional \$1.7 million is expected to be spent on expansion capital over the remaining mine life, which is primarily associated with mine expansion projects.

Total mine closure costs are estimated to be \$23.6 million.



The following are excluded from the capital cost estimate:

- Project financing and interest charges
- Working capital
- Sunk costs

OPERATING COSTS

The unit operating costs for the Project are listed in Table 21-2.

TABLE 21-2 LIFE OF MINE OPERATING COSTS Calibre Mining Corp. – El Limón Mine

Item	Units	Total \$
Underground Mining	\$/t milled	55.00
Surface Mining	\$/t moved	2.50
Processing	\$/t milled	29.45
General and Administrative	\$/t milled	12.11

The operating cost estimates are prepared based on recent operating performance and the current operating budget. RPA considers these operating cost estimates to be reasonable, as long as the production targets are realized.



22 ECONOMIC ANALYSIS

A cash flow projection has been generated from the LOM production schedule and capital and operating cost estimates, and is shown in Table 22-1. A summary of the key criteria is provided below.

ECONOMIC CRITERIA

REVENUE

- 1,435 tpd processing (502,000 tpa).
- Mill recovery by zone, as indicated by production history, averaging 93.7%.
- Gold at refinery 99.95% payable.
- Exchange rate: Modelled in US dollars
- Metal price: US\$1,350 per ounce gold.
- NSR includes doré transport, refining, and insurance costs totalling \$2.36/oz doré.

COSTS

- Mine life: 4.5 years beginning in the second half of 2019.
- Mine life sustaining and expansion capital totals \$23.7 million.
- Final closure/reclamation cost totals \$23.6 million
- Average operating cost over the mine life is \$99.79 per tonne milled. Including off-site costs such as refining, community projects, and royalties/taxes, the total production cost over the mine life is \$108.73 per tonne milled.

TAXATION AND ROYALTIES

The Project is subject to the following encumbrances:

- 3% NSR royalty payable to Royal Gold Inc.
- Mining Concession Surface Tax of \$228,000 per year calculated by total concession area of 21,347 ha multiplied by unit rate per hectare.
- RPA has relied upon Calibre management for inputs for Nicaraguan corporate income taxes (CIT) which are as follows:
 - Three-year straight-line depreciation beginning in year when placed into service with opening balance of \$31 million as of July 2019.
 - Net operating losses can be carried forward for a maximum of three years with opening balance of \$35.7 million as of July 2019.
 - Annual income tax payable amounts are the maximum of 1) standard income tax calculation at 30% tax rate or, 2) ad valorem tax rate of 3% of net revenue.



TABLE 22-1 CASH FLOW SUMMARY Calibre Mining Corp. – El Limón Mine

Oslandan Vasa				0040	0000	0004	0000	0000	0004	0005
Calendar Year				2019	2020	2021	2022	2023	2024	2025
Project Timeline in Years			COM Asia / Total	1	2	3	4		6	1
Time Until Closure In Years		US\$ & Metric Units	LOW AVy / Total	5	4	3	2		-1	-2
Market Prices										
Gold		US\$/oz	\$1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350
Silver		US\$/oz	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
Physicals										
Total Ore Mined		kt	2.260	298	492	498	530	442		-
Total Waste Mined		kt	28,899	5.771	11 359	9.828	1 649	293	-	_
Total Material Mined		kt	31,159	6.069	11 850	10.326	2 179	734	-	- 1
Strin Patio		W·O	12 79	19.34	23 10	19 74	3 11	0.66	-	-
Total Ore Processed		kt	2 260	251	502	502	502	502	-	-
Cold Crade Processed		a/t	4 26	3.48	4 01	4 12	4 72	4 58	_	
Contained Cold Processed		9/1 koz	309	28		2	76	-4.00	_	_
Recoverable Gold, Processed		koz	290	26	61	62	71	69	_	_
Average Recovery Gold		%	93.7%	93.3%	93.8%	93.8%	93.7%	94.0%		
Pavable Gold Sold		koz	290	26	61	62	71	69	-	-
Pavable Silver Sold		koz	-	-	-		-	-	-	-
Cash Flow										
	400.00/	\$000a	201 204	05 407	04 900	04.005	00.046	00 747		
Gold Gross Revenue	100.0%	\$000s	391,304	35,407	81,899	84,085	96,240	93,747	-	-
Silver Gross Revenue		\$000s	-	-	-	-	-	-	-	-
Gross Revenue Before By-Product Credits	100.0%	\$000s	391,384	35,407	81,899	84,085	96,246	93,/4/	-	-
Gold Gross Revenue		\$000s	391,304	35,407	81,899	84,085	96,240	93,747	-	-
Silver Gross Revenue		\$000s	-	-	-	-	-	-	-	-
Gross Revenue After By-Product Credits		\$000s	391,384	35,407	81,899	84,085	96,246	93,/4/	-	-
Mining Cost		\$000s	(119,234)	(19,814)	(38,803)	(35,001)	(14,007)	(10,958)	-	-
Process Cost		\$000s	(100,00)	(1,390)	(14,793)	(14,793)	(14,793)	(14,793)	-	-
G&A Cost		\$000s	(39,313)	(4,300)	(8,730)	(8,730)	(8,730) (100)	(ö, / JO)	-	-
Concurrent Reclamation		\$000s	(450)	(00)	(100)	(100)	(100)	(100)	-	-
CSR Projects		\$000s	(1,190)	(000)	(1,733)	(1,733)	(1,733)	(1,733)	-	-
Dore Freight/Retining Cost		\$000s	(000) (11 701)	(02)	(143)	(147)	(100)	(104)	-	-
Royalty		\$000s	(11,721)	(1,000)	(2,400)	(2,010)	(2,002)	(2,000)	-	-
Subtotal Cash Costs Before By-Product Credits		\$000s	(245,707)	(33,017)	(101,00)	(03,028)	(43,070)	(39,291)	-	-
By-Product Credits		\$000s	- (245 767)	- (23.617)	-	-	- (42.070)	(20 201)	-	-
Total Cash Costs Aller By-Frouuct Creuts	270/	20005 \$000c	(240,101)	(33,017)	45 120	03,020	(43,070)	(39,291) EA AEC	-	-
Operating margin	31 70	\$000S	140,017	1,/90	15,130	21,057	53,170	54,400	-	-
Income Tax		\$000s	(27,681)	(1,060)	(2,453)	(2,518)	(14,089)	(7,561)	-	-
Working Capital		\$000s	-	-	1,539	(227)	(992)	865	(215)	(970)
Operating Cash Flow		\$000s	117,936	729	14,224	18,312	38,095	47,760	(215)	(970)
Sustaining Canital		\$000\$	(23 728)	(5.087)	(7 177)	(5.972)	(5 4 9 2)	_	_	-
Closure/Reclamation		\$000s	(23,600)	(0,007)	-	(0,072)	(0,402)	$(11\ 800)$	(11 800)	_
Total Canital		\$0006	(47 328)	(5.087)	(7 177)	(5.972)	(5 492)	(11,800)	(11,800)	-
		40003	(47,320)	(3,007)	(1,111)	(3,372)	(3,432)	(11,000)	(11,000)	-
Cash Flow Adj./Reimbursements		\$000s	-	-	-	-	-	-	-	-
LOM Metrics										
			-							
Economic Metrics										
Discount Factors		EOP @ 5%		1.0000	0.9524	0.9070	0.8638	0.8227	0.7835	0.7462
a) Dea Tau		-								
a) Pre-Tax		¢000a	00 200	(2.207)	0.500	14 050	46 601	43 533	(10.015)	(070)
Free Cash Flow		\$000s	90,209	(3,297)	9,500	14,000	40,091	43,322	(12,015)	(970)
NDV @ 5%		\$000s	05 220	(3,297)	0,203	21,001	40.224	25 905	99,259	90,209
NFV (g 576		\$0005	05,220	(3,297)	5,047	10,477	40,334	05 266	(9,414)	95 229
		\$000S		(3,297)	5,750	19,227	39,301	95,500	05,952	05,220
b) After-Tax										
Free Cash Flow		\$000s	70,608	(4,357)	7,047	12,340	32,603	35,960	(12,015)	(970)
Cumulative Free Cash Flow		\$000s		(4,357)	2,690	15,030	47,632	83,593	71,578	70,608
NPV @ 5%		\$000s	61,157	(4,357)	6,711	11,193	28,163	29,585	(9,414)	(724)
Cumulative NPV		\$000s		(4,357)	2,354	13,547	41,710	71,295	61,881	61,157
Operating Metrics During Mining Phase										
Mine Life		Years	5							
Mining Cost		\$ / t milled	\$52.75	78.89	77.25	69.68	29.18	21.82	-	-
Processing Cost		\$ / t milled	\$29.45	29.45	29.45	29.45	29.45	29.45	-	-
Total G&A Cost		\$ / t milled	\$17.39	17.39	17.39	17.39	17.39	17.39	-	-
Concurrent Reclamation		\$ / t milled	\$0.20	0.20	0.20	0.20	0.20	0.20	-	-
Subtotal Operating Costs		\$ / t milled	\$99.79	125.93	124.29	116.72	76.22	68.86	-	-
Dore Freight/Refining Cost		\$ / t milled	\$0.30	0.25	0.29	0.29	0.34	0.33	-	-
CSR Projects		\$ / t milled	\$3.45	3.45	3.45	3.45	3.45	3.45	-	-
Royalty/Production Taxes		\$ / t milled	\$5.19	4.22	4.88	5.01	5.74	5.59	-	-
Total Costs During Mining		\$ / t milled	\$108.73	133.85	132.91	125.48	85.75	78.22	-	-
Sales Metrics										
LOM Au Sales		koz	290	26	61	62	71	69	-	-
LOM Cash Cost (nbp)		\$000s	\$245,767	33,617	66,761	63,028	43,070	39,291		-
LOM AISC (nbp)		\$000s	\$293,095	38,704	73,937	69,000	48,562	51,091	11,800	-
LOM Cash Cost / oz Au		\$ / oz Au	\$848	1,282	1,100	1,012	604	566	-	-
LOM AISC / oz Au		\$ / oz Au	\$1,011	1,476	1,219	1,108	681	736	-	-
LOM Avg. Annual Au Sales		koz / yr	58							



CASH FLOW ANALYSIS

Considering the Project on a stand-alone basis, the undiscounted after-tax free cash flow totals \$71 million over the mine life.

The World Gold Council Adjusted Operating Cost (AOC) is US\$848 per ounce of gold. The mine life sustaining capital cost, including both operating and final closure/reclamation costs, is US\$192 per ounce, for an All in Sustaining Cost (AISC) of US\$1,011 per ounce of gold. Average annual gold production during the five-year operation is 58,000 ounces per year.

The after-tax NPV at a 5% discount rate is \$61 million using EOP discounting.

SENSITIVITY ANALYSIS

Project risks can be identified in both economic and non-economic terms. Key economic risks were examined by running cash flow sensitivities:

- Head grade
- Gold recovery
- Gold price
- Operating costs
- Capital costs

NPV sensitivity over the base case has been calculated for -20% to +20% variations for gold grade and price, -10% to +10% variations for operating and capital costs, and -20% to +6% variations for gold recovery. The sensitivities are shown in Figure 22-1 and Table 22-2. The Project is equally most sensitive to gold grade, price, and recovery followed by operating and capital costs.





FIGURE 22-1 AFTER-TAX NPV SENSITIVITY ANALYSIS

Percent Change From Base Case

TABLE 22-2	AFTER-TAX SENSITIVITY ANALYSES
Calib	re Mining Corp. – El Limón Mine

Factor	Gold Grade (g/t Au)	NPV at 5.0% (\$000)	
0.80	3.41	9,115	-
0.90	3.83	37,082	
1.00	4.26	61,157	
1.10	4.68	88,831	
1.20	5.11	115,485	
Factor	Gold Recovery (%)	NPV at 5.0% (\$000)	
0.80	75.0	9,115	-
0.90	84.4	37,082	
1.00	93.8	61,157	
1.05	98.4	75,478	
1.06	99.4	78,342	
Factor	Gold Price (US\$/oz Au)	NPV at 5.0% (\$000)	
0.80	1.080	9.001	-
0.90	1.215	37,041	
1.00	1,350	61,157	
1.10	1,485	88,878	
1.20	1.620	115,578	



Factor	Operating Cost (\$000)	NPV at 5.0% (\$000)	
0.90	210,026	79,882	
0.95	221,694	70,831	
1.00	233,362	61,157	
1.05	245,030	53,030	
1.10	256,698	45,392	
Factor	Capital Cost	NPV at 5.0%	
Factor	Capital Cost (\$000)	NPV at 5.0% (\$000)	
Factor	Capital Cost (\$000) 42,595	NPV at 5.0% (\$000) 65,239	
Factor 0.90 0.95	Capital Cost (\$000) 42,595 44,962	NPV at 5.0% (\$000) 65,239 63,198	
Factor 0.90 0.95 1.00	Capital Cost (\$000) 42,595 44,962 47,328	NPV at 5.0% (\$000) 65,239 63,198 61,157	
Factor 0.90 0.95 1.00 1.05	Capital Cost (\$000) 42,595 44,962 47,328 49,694	NPV at 5.0% (\$000) 65,239 63,198 61,157 59,117	



23 ADJACENT PROPERTIES

There are no adjacent properties to report in this section.



24 OTHER RELEVANT DATA AND INFORMATION

No additional information or explanation is necessary to make this Technical Report understandable and not misleading.



25 INTERPRETATION AND CONCLUSIONS

GEOLOGY AND MINERAL RESOURCES

- The El Limón deposits are low-sulphidation epithermal deposits hosted by volcanic lithologies.
- The sampling, sample preparation, analyses, security, and data verification meet industry standards and are appropriate for Mineral Resource estimation.
- The composites are of regular lengths and located within mineralized wireframes for each domain in every deposit, except in Veta Nueva, where composites are whole length composites inside the mineralized domains, which may have smoothed the grade distribution. Composite lengths are reasonable in all deposits except Veta Nueva.
- The mineralization and lithology wireframes are adequate for the style of mineralization and are suitable to constrain the block model.
- There is a risk that additional previously mined out areas may exist as they were built based only on drill hole intercepts.
- Block sizes are unnecessarily small for the style of mineralization and mining methods but appropriate when reblocked to a larger size.
- Capping levels are reasonable.
- The grade interpolation strategies are appropriate for the style on mineralization.
- The parameters, assumptions, and methodology used for Mineral Resource estimation are appropriate for the style of mineralization.
- Total Mineral Resources at El Limón, as of June 30, 2019, inclusive of Mineral Reserves, are:
 - o Indicated 11.4 million tonnes, grading 2.25 g/t Au, containing 827,000 oz Au
 - Inferred 4.5 million tonnes, grading 5.21 g/t Au, containing 763,000 oz Au
- The overall Mineral Resource classification is reasonable and conforms to CIM (2014) definitions.
- There is potential to outline additional Mineral Resources with an exploration program testing extension of known resources and nearby targets.

MINING AND MINERAL RESERVES CONCLUSIONS

- All Mineral Reserves at El Limón are classified as Probable Mineral Reserves. Mineral Reserves as of June 30, 2019 include
 - Limón Central pit 1.5 million tonnes, grading 4.09 g/t Au, containing 193,000 oz Au



- o SP1 and SP2 mines 438,000 t, grading 3.72 g/t Au, containing 52,300 oz Au
- Veta Nueva 350,000 t, grading 5.66 g/t Au, containing 63,600 oz Au
- The Limón Central pit has been operational as of December 2018. Since then, a substantial portion of the overlying barren rock has been removed in a pre-stripping phase to expose the initial ore for production. The ore zone consisting of vein or quartz breccia and stockwork zones is mined selectively.
- Open pit development includes three pit phases to be mined in twelve metre high benches with ore mining in two six metre high flitches for greater ore control selectivity.
- The open pit operating life extends to mid-2023, for a total of 4.5 years.
- The contractor-operated mining is carried out using conventional open pit methods, consisting of the following activities:
 - Drilling performed by conventional production drills.
 - Blasting using ANFO and emulsion explosives and a downhole delay initiation system.
 - Loading and hauling operations performed with hydraulic shovel, and articulated haulage trucks.
- The owner's employees monitor the mining contractor and provide engineering support including survey and grade control. Operations run 24 hours per day, seven days a week, on a 12-hour shift rotation.
- Production at El Limón underground mines uses a combination of top-down and bottom-up sequenced LOS stoping methods for production. Top-down sequencing and open stoping accelerates ore availability, however, remnant rib and sill pillars reduce extraction percentages.
- Extreme high temperature conditions (up to 70°C) in SP1 are the result of a geothermally influenced aquifer and can have a significant impact on mine operator performance.
- Geotechnically challenging zones have been identified in SP2, which has resulted in increased dilution estimates for stoping methods.
- In recent operating history, underground mining has been required to contribute the majority of plant feed. Underground production shortfalls have negatively impacted overall production rates. Going forward, combined production from surface and underground mining is expected to meet plant feed requirements.

PROCESS

• Modifications planned for the processing plant in 2019 to resolve downtime related to wear in the classification components of the grinding circuit should allow the plant to achieve an overall utilization of 92% to 94%. This is an increase of up to 5% from the recent historical average (excluding downtime due to blockades in 2018).



- In addition to the improved plant utilization, increases to the number of teeth on the ball mill pinion (from 23 to 24 teeth) in the first half of 2019 are expected to enable the processing plant to achieve a throughput of approximately 500,000 tpa.
- Recent historical gold recoveries at El Limón have averaged between 94% and 95%, however, test work on samples of Limón Central and Santa Pancha ore has indicated that finer grinding is required in order to achieve recoveries similar to historical recoveries. Without the implementation of finer grinding, test work indicates that gold recovery from Limón Central and Santa Pancha ore will average approximately 88% and 92%, respectively.
- Gold recovery when re-treating tailings from the historical Santa Barbara and Santa Rosa TSF improves with finer grinding, with 80% passing (P₈₀) 10 µm to 20 µm giving the best recoveries. A feasibility study conducted by Lycopodium considered a P₈₀ of 20 µm, using a vertical stirred mill to achieve this grind size. Gold recoveries of 85% for Santa Barbara tailings and 78% for Santa Rosa tailings were achieved in test work.

ENVIRONMENTAL CONSIDERATIONS

- Permits to operate the site appear to be in place and social issues and stakeholder consultation are carried out in line with International Best Practice.
- The El Limón Mine site is currently operating with the San José TSF which is nearing completion. The San José TSF is a lined facility and one more raise of this facility is planned before all tailings deposition is switched to the proposed future TSF (San Pancho).
- The proposed SWCP for San Pancho TSF includes the construction of closure spillways and covers for operating (San José) and future (San Pancho) TSFs. El Limón closure costing is based on existing staff salaries and not third-party contractors as is typically done.
- No analyses have been reviewed considering the stability of the cutback slope around the edge of the San Pancho TSF. A landslide in the TSF could result in a wave overtopping the facility dam and potentially leading to a loss of containment.
- The mine waste rock on the Project is non-acid generating and has been stored in a number of waste rock dumps around the open pits.
- The total estimated cost to complete the El Limón Mine closure and reclamation program in 2018 is \$23.6 million.



26 RECOMMENDATIONS

GEOLOGY AND MINERAL RESOURCES

- Complete additional drilling in Inferred Mineral Resources in unsurveyed mined out areas at El Limón that contain grade-bearing material to determine a more accurate extent of the openings and material grades.
- Carry out further review of the methodology for estimation of tonnage and grade in grade-bearing material backfill classified as Inferred Mineral Resources.
- Complete a Mineral Resource estimate using 1.0 m composites for Veta Nueva so that a comparison against the existing whole length composite estimate can be made to determine if a reduction in grade smoothing is applicable.
- Conduct a two-phase exploration program to test extensions of known resources and nearby targets with Phase 2 contingent on the results of Phase 1.
 - Phase 1 8,000 m diamond drilling and related studies C\$3 million.
 - Phase 2 12,000 m diamond drilling and related studies C\$5 million.

MINING AND MINERAL RESERVES

- Carry out a full reconciliation of actual plant feed and gold production versus mine plan prediction on an ongoing basis in order to more accurately determine the mining dilution and ore loss parameters.
- Given the availability of surface mine ore to supplement feed to the process plant, evaluate adopting underground bottom-up sequencing of underground production to optimize extraction percentage.
- Evaluate stoping method and ground support alternatives in geotechnically challenging areas in SP2 to maximize ore extraction.

PROCESS

• Conduct additional variability test work on samples for the expansion study.

ENVIRONMENTAL CONSIDERATIONS

- Continue to implement the adopted Environmental Policy (2018), Biodiversity Policy (2018), and site Environmental Management Plan, which monitors and manages potential environmental impacts resulting from the site to inform the closure plan and permit applications.
- Review existing flora and fauna studies within the mine area and the area of influence, with the aim of informing the closure plan and siting studies for future operations and site infrastructure development.



- Continue to ensure all necessary permits are obtained for operating the site in the medium and long term.
- Continue to evaluate noise and vibration impacts resulting from the mine to ensure operations are within International Best Practices.
- Implement a water balance for ongoing operations to be updated by mine operations personnel using meteorological and water monitored data on a regular basis. The water balance is an important tool to track trends and conduct short-term predictions through simulation of variable operating and/or climatic scenarios to support decision making associated with pond operation (e.g., maintaining adequate freeboard at all times) and water discharge.
- Design and construct emergency overflow spillways for the San José TSF and the future San Pancho TSF for the operations phase to mitigate potential dam overtopping and the associated dam failure risks.
- Conduct a risk assessment of the proposed San Pancho TSF facilities to identify and control risks to the mine associated with tailings disposal. Verify stability of the cutback and natural slopes around the San Pancho TSF to prevent landslides from displacing the TSF pond and potentially overtopping the dam.
- Revisit the tailings deposition plan for active and future TSFs to determine if the closure cover volume requirements can be reduced. The current San Pancho TSF closure plan calls for placement of a minimum one metre soil cover over wet tailings, which involves schedule and cost risks due to material sourcing and construction on wet tailings.
- Review El Limón closure costing and respective ARO in detail.
- The 2014 SWCP makes the following recommendations, which are supported by RPA:
 - It is important that a priority list for closure be established and that a detailed condemnation drilling plan be created to define which areas will not be further mined. This will aid in implementing a final closure plan for each facility, including pits, tailings, waste rock dumps, and other civil structures.
 - Hydrogeological conditions in the areas of SP1 and SP2 underground operations were not well defined at the time of preparation of the SWCP. Prior to closure, engineering and hydrologic evaluations will be necessary to determine long-term hydrogeologic conditions (e.g., discharge to surface) at closure. The evaluations should also consider the potential for subsidence.
 - On a case-by-case basis, it may be necessary to conduct surface and groundwater studies such as a water balance, water quality modelling, and Screening Level Ecological Risk Assessments (SLERAs) for some of the open surface pits that will not be backfilled. These studies will evaluate the potential for, and risks associated with, pit lake formation at closure. The timing of such studies will vary and will likely be most appropriate once pit development has advanced to a point that allows a more accurate assessment to be made. Pits that should undergo the recommended additional studies include Veta Nueva, Santa Emilia, Pozo 4 North and South, and Pozo 5.



27 REFERENCES

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28 DATE AND SIGNATURE PAGE

This report titled "Technical Report on the El Limón Mine, León and Chinandego Departments, Nicaragua" and dated August 30, 2019 (with an effective date of June 30, 2019) was prepared and signed by the following authors:

	(Signed & Sealed) Scott C. Ladd
Dated at Toronto, ON August 30, 2019	Scott C. Ladd, P.Eng. Principal Mining Engineer
	(Signed & Sealed) Wayne W. Valliant
Dated at Toronto, ON August 30, 2019	Wayne W. Valliant, P.Geo. Principal Geologist
	(Signed & Sealed) Brenna J.Y. Scholey
Dated at Toronto, ON August 30, 2019	Brenna J.Y. Scholey, P.Eng. Principal Metallurgist
	(Signed & Sealed) José M. Texidor Carlsson
Dated at Toronto, ON August 30, 2019	José M. Texidor Carlsson, M.Sc., P.Geo. Senior Geologist
	(Signed & Sealed) Stephan Theben
Dated at Toronto, ON August 30, 2019	Stephan Theben, DiplIng. Mining Sector Lead and Managing Principal SLR Consulting (Canada) Ltd.



29 CERTIFICATE OF QUALIFIED PERSON

SCOTT C. LADD

I, Scott C. Ladd, P.Eng., as an author of this report entitled "Technical Report on the El Limón Mine, León and Chinandego Departments, Nicaragua" prepared for Calibre Mining Corp. and dated August 30, 2019 (with an effective date of June 30, 2019), do hereby certify that:

- 1. I am Principal Mining Engineer with Roscoe Postle Associates Inc. of Suite 501, 55 University Ave., Toronto, ON M5J 2H7.
- 2. I am a graduate of the Laurentian University, Sudbury, Ontario in 1998 with a B.Eng. degree in Mining Engineering.
- 3. I am registered as a Professional Engineer in the Province of British Columbia (Reg. #167289). I have worked as a mining engineer for a total of 20 years since my graduation. My relevant experience for the purpose of the Technical Report is:
 - Principal Mining Consultant and Regional Manager responsible for Canadian operations with an Australian based mining consulting firm.
 - Preparation of scoping, prefeasibility, and feasibility level studies and reporting for due diligence and regulatory requirements.
 - Principal Mining Engineer with an international diamond corporation, responsible for technical and operational leadership, support, and guidance for all Canadian operating mines and projects.
 - Director, Operations Performance Management and Strategic Mine Planning with a major Canadian mining company.
 - Open Pit Mine Manager/Technical Services Superintendent at a coal mine in Alberta.
- 4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- 5. I visited the El Limón Mine on April 29, 2019.
- 6. I am responsible for overall preparation of the Technical Report, and specifically for Sections 15, 16, 18, 19, 21, 22, and 24 and related disclosure in Sections 1, 2, 3, 25, 26, and 27.
- 7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
- 8. I have had no prior involvement with the property that is the subject of the Technical Report.
- 9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.



10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 30th day of August, 2019.

(Signed & Sealed) Scott C. Ladd

Scott C. Ladd, P.Eng.



WAYNE W. VALLIANT

I, Wayne W. Valliant, P.Geo., as an author of this report entitled "Technical Report on the El Limón Mine, León and Chinandego Departments, Nicaragua" prepared for Calibre Mining Corp. and dated August 30, 2019 (with an effective date of June 30, 2019), do hereby certify that:

- 1. I am Principal Geologist with Roscoe Postle Associates Inc. of Suite 501, 55 University Ave Toronto, ON M5J 2H7.
- 2. I am a graduate of Carleton University, Ottawa, Ontario, Canada in 1973 with a Bachelor of Science degree in Geology.
- 3. I am registered as a Professional Geologist in the Province of Ontario (Reg. #1175). I have worked as a geologist for a total of 44 years since my graduation. My relevant experience for the purpose of the Technical Report is:
 - Review and report as a consultant on more than fifty mining operations and projects around the world for due diligence and resource/reserve estimation
 - General Manager of Technical Services for corporation with operations and mine development projects in Canada and Latin America
 - Superintendent of Technical Services at three mines in Canada and Mexico
 - Chief Geologist at three Canadian mines, including two gold mines
- 4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- 5. I did not visit the El Limón Mine. I visited the B2Gold Corp.'s office in Vancouver, BC on April 29-30, 2019.
- 6. I am responsible for Sections 4 to 12 and 23 and related disclosure in Sections 1, 2, 3, 25, 26, and 27 of the Technical Report.
- 7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
- 8. I have had no prior involvement with the property that is the subject of the Technical Report.
- 9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
- 10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 30th day of August, 2019.

(Signed & Sealed) Wayne W. Valliant

Wayne W. Valliant, P.Geo.



BRENNA J.Y. SCHOLEY

I, Brenna J.Y. Scholey, P.Eng., as an author of this report entitled "Technical Report on the El Limón Mine, León and Chinandego Departments, Nicaragua" prepared for Calibre Mining Corp. and dated August 30, 2019 (with an effective date of June 30, 2019), do hereby certify that:

- 1. I am Principal Metallurgist with Roscoe Postle Associates Inc. of Suite 501, 55 University Ave., Toronto, ON M5J 2H7.
- 2. I am a graduate of The University of British Columbia in 1988 with a B.A.Sc. degree in Metals and Materials Engineering.
- 3. I am registered as a Professional Engineer in the Province of Ontario (Reg. #90503137) and British Columbia (Reg. #122080). I have worked as a metallurgist for a total of 31 years since my graduation. My relevant experience for the purpose of the Technical Report is:
 - Reviews and reports as a metallurgical consultant on numerous mining operations and projects for due diligence and regulatory requirements.
 - Senior Metallurgist/Project Manager on numerous base metals and precious metals studies for an international mining company.
 - Management and operational experience at several Canadian and U.S. milling, smelting and refining operations treating various metals, including copper, nickel, and precious metals.
- 4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- 5. I did not visit the El Limón Mine.
- 6. I am responsible for Sections 13 and 17 and related disclosure in Sections 1, 2, 3, 25, 26, and 27 of the Technical Report.
- 7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
- 8. I have had no prior involvement with the property that is the subject of the Technical Report.
- 9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
- 10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 30th day of August, 2019.

(Signed & Sealed) Brenna J.Y.

Scholey Brenna J.Y. Scholey, P.Eng.



JOSÉ M. TEXIDOR CARLSSON

I, José M. Texidor Carlsson, M.Sc., P.Geo., as an author of this report entitled "Technical Report on the El Limón Mine, León and Chinandego Departments, Nicaragua" prepared for Calibre Mining Corp. and dated August 30, 2019 (with an effective date of June 30, 2019), do hereby certify that:

- 1. I am Senior Geologist with Roscoe Postle Associates Inc. of Suite 501, 55 University Ave., Toronto, ON M5J 2H7.
- 2. I am a graduate of University of Surrey, United Kingdom, in 1998 with a Master of Engineering, Electronic and Electrical degree and Acadia University, Nova Scotia, in 2007 with an M.Sc. degree in Geology.
- 3. I am registered as a Professional Geologist in the Province of Ontario (Reg. #2143). I have worked as a geologist for a total of 11 years since my graduation. My relevant experience for the purpose of the Technical Report is:
 - Mineral Resource estimation and NI 43-101 reporting for different types of deposits, including gold deposits.
 - Supervision of exploration properties and active mines in Canada, Mexico, and South America
 - Experienced user of geological and resource modelling software
- 4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- 5. I did not visit the El Limón Mine. I visited the B2Gold Corp.'s office in Vancouver, BC on April 29-30, 2019.
- 6. I am responsible for Section 14 and related disclosure in Sections 1, 2, 3, 25, 26, and 27 of the Technical Report.
- 7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
- 8. I have had no prior involvement with the property that is the subject of the Technical Report.
- 9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
- 10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 30th day of August, 2019.

(Signed & Sealed) José M. Texidor Carlsson

José M. Texidor Carlsson, M.Sc., P.Geo.


STEPHAN THEBEN

I, Stephan Theben, Dipl.-Ing., as an author of this report entitled "Technical Report on the El Limón Mine, León and Chinandego Departments, Nicaragua" prepared for Calibre Mining Corp. and dated August 30, 2019 (with an effective date of June 30, 2019), do hereby certify that:

- 1. I am Mining Sector Lead and Managing Principal with SLR Consulting (Canada) Ltd. at 36 King Street East, 4th floor, Toronto, M5C1E5.
- 2. I am a graduate of RWTH Aachen Technical University in 1997 with a Mining Engineering Degree. I also passed the State Exam for Mining Engineering in 2000.
- 3. I am registered as a Professional Member with the Society for Mining, Metallurgy and Exploration (Membership # 04231099). I have worked as a mining environmental professional for a total of 21 years since my graduation. My relevant experience for the purpose of the Technical Report is:
 - Responsible for the preparation and success approval of several Environmental Impact
 Assessment Reports
 - Responsible for environmental aspects of mine permitting for several projects
 - Responsible for the environmental and geotechnical components of several PEA, PFS and FS studies
 - Experience if reviewing and auditing environmental and permitting data for a multitude of projects
 - Work as a government official in Germany and as a technical expert for the European Union in the area of mine permitting
- 4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- 5. I visited the El Limón Mine on April 29, 2019.
- I am responsible for the preparation of Section 20 and related disclosure in Sections 1, 2, 3, 25, and 26 (environmental aspects) of the Technical Report.
- 7. I am independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.
- 8. I have had no prior involvement with the property that is the subject of the Technical Report.
- 9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.



10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, Section 20 of the Technical Report for which I am responsible contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 30th day of August, 2019.

(Signed & Sealed) Stephan Theben

Stephan Theben, Dipl.-Ing.