

NI 43-101 TECHNICAL REPORT SILVER SAND PROPERTY POTOSI, BOLIVIA

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Prepared for:

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1 SUMMARY

1.1 Introduction

New Pacific, through its wholly-owned subsidiary Minera Alcira S.A., acquired exploration and mining rights over an area of approximately 60 square kilometers covering the Silver Sand project and its surrounding areas. The silver Sand area has been intermittently mined for silver from the narrow high-grade mineralized veins in the Cretaceous sandstone since early 1500's, even earlier than the mining activities in the nearby world-famous Cerro Rico giant silver mine in Potosi. New Pacific has organized extensive and intensive exploration programs in the Silver Sand Property since October 2017.

The Qualified Persons, Mr. Ruijin Jiang, P.Geo, Mr. Andy Holloway, P.Eng, and Mr. Yongming (Alex) Zhang, P.Geo were commissioned by New Pacific to prepare an updated Technical Report for the Silver Sand Property in Potosi Department, Bolivia to disclose the scientific and technical information on its on-going exploration programs. The previous publicly released Technical Report, dated August 15, 2017, was prepared by Donald J. Birak. The Qualified Persons are members in good standing of appropriate professional institutions and two of them are independent and one is non-independent. One independent Qualified Person, Ruijin Jiang, visited the Property in August 2019 and examined all aspects of the on-going exploration programs.

1.2 Property Description and Ownership

The Silver Sand Property is situated in the Colavi District of Potosi Department in southwestern Bolivia, 25 km northeast of Potosi city, the department capital. The approximate geographic center of the Property is 19°22' 4.97" S latitude and 65°31' 22.93" W longitude at an elevation of 4072 m above sea level.

According to the current 2014 and 2016 mining laws in Bolivia, exploration and mining rights in Bolivia are granted by the Jurisdictional Mining Administrative Authority (AJAM) through Administrative Mining Contracts ("AMC") between an operator and the AJAM. Operators can also acquire interests in exploration and mining rights by signing Mining Production Contracts ("MPC") on a certain area with a state-owned mining company that holds these exploration and mining rights of the area. New Pacific, through its wholly-owned subsidiary Minera Alcira S.A., acquired exploration and mining rights over an approximate 60 square kilometer continuous area in which 6.75 square kilometers are fully-owned AMC covered area and the remaining is MPC-covered areas. The AMC-covered and MPC-covered areas are collectively called the Silver Sand Property in this report.

1.3 Geology and Mineralization

Silver Sand Property is located in the most productive south section of the Tin Polymetallic Belt in the Eastern Cordillera of the Central Andes, Bolivia. Widespread evident ruins of historic mining activities such as abandoned mining adits and miner villages can be seen across the Property. Bedrock in the Property area mainly consists of slightly deformed Cretaceous continental sandstone, siltstone, and mudstone and strongly deformed Paleozoic marine sedimentary rocks. The Cretaceous sedimentary sequence forms an open syncline with an axis gently plunged NNW.

The unconformity contact between the para-horizontally bedded Cretaceous sandstone and the highly deformed Paleozoic sedimentary units is observed in the southeastern part of the Property. The Cretaceous syncline is bounded with NW-trending thrust faults on both sides.

The dominant Cretaceous sedimentary sequence is divided into two formations: the lower La Puerta Formation and the upper Tarapaya Formation. The La Puerta Formation consists of sandstones with different structures and unconformably overlies the highly folded Paleozoic marine sedimentary rocks. The Tarapaya Formation comprises siltstone and mudstone and conformably capped the La Puerta sandstones in the central part of the Property. The Paleozoic sedimentary rocks consist of tightly folded and thrust-faulted sandstone, siltstone, shale, and mudstone. Both the Cretaceous and Paleozoic sedimentary sequences are intruded by numerous small Cenozoic subvolcanic dacitic porphyry intrusions.

Silver mineralization is hosted by faults, fractures, fissures, and crackle breccia zones in the Cretaceous La Puerta sericitization-bleached brittle sandstone and dacitic porphyry dikes, laccolith, and stocks. In the mineralized sandstone, open spaces are filled with silver-containing sulfosalts and sulfides in forms of sheeted veins, stockworks, and veinlets, as well as breccia fillings and dissemination. Most silver mineralization in the Property is both stratabound and structurally controlled. The intensity and extensity of mineralization depend on the density of various mineralized vein structures developed in the host rocks. Densely distributed mineralized veinlets may form continuous mineralization zones in the structurally-favorable locations. The most common silver-bearing minerals include freibergite, miargyrite, polybasite, bournonite, andorite, boulangerite, and bismuthinite. The mineralized zones have been oxidized to a vertical depth of more than 210 meters. At the lower portion of the oxidized zone, there are lots of sulfide and mixed oxide-sulfide zones indicating a very irregular and jagged boundary due to fracture control. Oxide minerals are dominated by jarosite, derived from pyrite, both occurring as vein replacement and as pervasive impregnation staining of sandstone.

Ten mineralization prospects, including Silver Sand, El Fuerte, South and North Snake Hole, Esperanza, North Plain, San Antonio, Jisas, El Bronce, Mascota, and Aullagas, have been identified in the Property. Silver Sand is the best defined by exploration drilling, and the other nine prospects are preliminarily verified and defined by chip and grab sampling of ancient and modern artisanal mining works and dumps. Four mineralization types have been recognized in the Property, including (1) sandstone-hosted silver mineralization, (2) dacitic porphyry-hosted silver mineralization, (3) hydrothermal breccia-hosted silver mineralization, and (4) manto-type tin and base metal mineralization. The first three mineralization types were developed in an epithermal environment during the late stage of the Cenozoic orogenic movement in the Eastern Cordillera and are typical of the Bolivian polymetallic vein-type deposits represented by the famous giant Cerro Rico silver mine in Potosi. The manto-type tin and base metal mineralization was formed by metasomatic replacement associated with a mesothermal environment during the early stage of the Cenozoic orogenic event.

1.4 Status of Exploration

Before the acquisition of the Silver Sand Property by New Pacific in 2017, the previous owner drilled eight diamond holes with a total of 2334 meters of HQ core between 2009 and 2015 at the

Silver Sand zone, the core area of the Silver Sand Property. Limited surface and underground sampling were also conducted by the previous owner. New Pacific drilled 4 testing holes during its due diligence study to verify the previous owner's drilling results.

Since October 2017, New Pacific has carried out an extensive property-scale reconnaissance investigation program by surface and underground sampling of the mineralization outcrops and the accessible ancient underground mining works across the Property and an intensive diamond drilling program over the Silver Sand core area to define the spatial extensions of the known mineralization zones.

1.4.1 Surface and Underground Sampling

Surface Chip Sampling:

19 outcrops have been mapped and sampled and 904 chip samples collected along sample lines with a total length of 1,340 meters. Most of the investigated outcrops are located above or near the old mine works. Continuous chip samples are collected at 1.5-meter intervals along lines roughly perpendicular to the strike direction of the mineralization zones.

Underground Chip Sampling:

Underground mapping and chip sampling are carried out in some of the accessible old mine works distributed along major mineralization zones. Previous mining in these old works was focused on the high-grade narrow veins. The purpose of underground mapping and sampling is to investigate the mineralization potential of the wall rocks between the mined-out high-grade veins. Continuous chip samples are collected at a 1-meter interval along walls of the available tunnels that cut across the mineralization zones. 42 old mine works with a total of 4,912-meter tunneling have been mapped and 964 chip samples collected.

Dump Sampling:

Most of the dump material from the old mine works is wall rocks of the mined-out high-grade narrow veins. Sampling and assaying dump samples can provide direct evidence for the existence of silver mineralization in the wall rocks of the underground mine works, especially for the inaccessible ones. 1,339 grab samples were collected from dump piles across the Property during this reporting period. 572 of the 1,339 samples contain silver of more than 30 g/t with an average grade of 190 g/t Ag.

Assay results of underground chip samples and surface mine dump grab samples show that silver mineralization widely occurs in the wall rocks of the previously mined-out high-grade veins in the abandoned ancient underground mining works. This kind of mineralization may form continuous zones from several meters to several tens of meters in width in host rocks, the bleached sandstone, and dacitic porphyry.

1.4.2 Drilling

From October 2017 to August 2019, New Pacific drilled 255 HQ diamond holes with a total meterage of 69,071 meters in the core area of the Silver Sand Property with three to four drill rigs and collected 49,373 core samples. Holes are drilled to delineate the spatial extensions of the major mineralized zones defined by surface and underground sampling in the Silver Sand area. The drilling programs have covered an area of approximately 1,600 meters long in the north-south direction and 800 meters wide in the east-west direction.

A basic drilling grid of 50m X 50m is adopted to define the mineralized structures, and the drilling grid is infilled to 25m X 25m to further increase the geological confidence in areas where the mineralized structures are defined. The holes are drilled from the surface along northeast-bearing (N60° E) sections with hole azimuth 060° NE and inclination -45° in order to intercept the principal trend of the mineralized vein structures, with HQ-sized (64mm) core recovered. The recovery rate of the drill core is from 95 to 100%.

Among the 255 completed holes, 249 holes intersected silver mineralization. A northwest-trending mineralization zone of more than 1,600 meters in length and from several tens to more than 400 meters in width is defined by the 2017-2019 drilling programs, and the defined mineralization zone has been traced from surface to more than 300 meters in depth. The mineralization zone is still open in both strike and downdip directions.

In the Qualified Persons' opinion, the exploration methods and the sampling procedures adopted by New Pacific for its 2017 to 2019 exploration programs at the Silver Sand Property meet accepted industry standards.

1.5 Sample Preparation, Assay and QA/QC

Drill core is handled, logged and sampled in a core yard with logging, sampling and storage facilities at Betanzos, a local town 21 kilometers to the south of Silver Sand. Core, chip and grab samples are shipped in securely sealed bags to ALS Global in Oruro, Bolivia for preparation. At the preparation lab, samples are processed with the following procedures: (1) crush to 70% less than 2mm; (2) riffle split off 250g; and (3) pulverize split to better than 85% passing a 75-micron sieve. The pulverized pulps are shipped to ALS Global Lab in Lima, Peru for geochemical analysis, and the rejects are trucked back to New Pacific's storage facility in Betanzos, Bolivia.

In the 2017-2018 drill season, all samples are first analyzed by ore grade method for silver, lead and zinc using ALS code OG46 and samples with more than 1,500 g/t Ag (the upper detection limit of OG46) are further analyzed by gravimetric analysis (ALS code GRA21). In the 2019 drill season, all samples are first analyzed by a multi-element ICP package (ALS code ME-MS41), samples with more than 100 g/t Ag (upper detection limit of ME-MS41) are analyzed for silver, lead and zinc using ALS code OG46, and samples with more than 1,500 g/t Ag are further analyzed by gravimetric analysis (ALS code GRA21).

New Pacific's QA/QC program in the years from 2017 to 2019 comprised the following:

- Certified Standard samples and blanks are regularly inserted at a rate of one standard and one blank per 20 sample batch to monitor the accuracy of assay results and the possible contamination from sample preparation procedures.
- Quarter core duplicates of approximately 5% of the mineralized samples are prepared and assayed at the ALS Global lab to monitor sampling bias and evaluate the homogeneousness of mineralization.
- One coarse rejects duplicate per 20 sample batch is sent to a second accredited lab, the Actlabs Skyline in Lima, Peru, for external check by similar assay procedures to monitor lab bias.

The Qualified Persons consider the sample preparation procedures and the adopted QA/QC program are in accordance with the common industry practice.

1.6 Metallurgical Testing

A metallurgical testwork program started in 2018 examined several metallurgical composites of oxide, transition and sulphide mineralization from two areas of the Silver Sand deposit. The composites were prepared from samples of available half - core. A geo-metallurgical sampling approach was used and was designed to highlight the effect of differences in silver grade, degree of oxidation and lithology.

Four independent geo-metallurgical test work programs (mineral characterization, comminution, froth flotation and cyanide leaching) were carried out on the different metallurgical composites. Six metallurgical domains were identified for the flotation and leaching test work and six geological domains were branded for the comminution work. Comminution, flotation and leaching programs were completed by SGS Mineral Services in Lima, Peru, while the mineral characterization work was completed by the Research Center for Mining and Metallurgy (CIMM) and Oruro Technical University (OUT) in Bolivia.

The results of the test work suggest that the mineralized materials from the Silver Sand Project would be amenable to processing using conventional flotation or whole ore cyanidation at atmospheric pressure at large scale. This preliminary metallurgical testing program has demonstrated that good silver extraction rates are possible using these simple extraction methods and that further improvements and refinements should be possible in future programs after fine - tuning the various test parameters. Highlights of the completed test program are as follows:

- Composite samples of sulphide, transition, and oxide mineralization were submitted for laboratory-scale rougher-scavenger flotation testing and this achieved up to 96.0%, 86.8% 92.0% silver recovery respectively.
- Composite samples of sulphide, transition and oxide mineralization were submitted for bottle roll cyanidation testing and this achieved up to 96.7%, 97.0%, and 96.3% silver extraction respectively.

- Samples of oxide mineralization were submitted for coarse column leach cyanidation testing and this achieved up to 88.3% silver extraction.
- High recoveries achieved during cyanidation tests indicate that silver-bearing minerals within the sulphide and transition composite samples tested can be considered non-refractory in nature.
- Composite samples were found to be mostly in the soft to medium grindability range with low to medium values of abrasion index.

1.7 Development and Operations

There are no mining or metal recovery operations underway by New Pacific or the prior owner at the Property. There are a few local contract miners conducting underground, small - scale, artisanal mining intermittently on the Property. Evidence of historic mining, commencing in Spanish Colonial times, is demonstrated by numerous adits, declines, pits and drifts, rail tracks and small - scale dumps scattered around the Property. There are no known records of past production from these activities.

1.8 Mineral Resources and Mineral Reserve Estimates

There are neither historical nor current Mineral Resources and Mineral Reserves on the Property.

1.9 Conclusions and Recommendations

Logging, mapping, sampling, and analyzing procedures of New Pacific's on-going exploration programs follow common industry practice. Results of QA/QC programs are deemed satisfactory by the Qualified Persons.

The silver mineralization type in the ten mineralization prospects, including Silver Sand, El Fuerte, South and North Snake Hole, North Plain, San Antonio, Esperanza, Jisas, El Bronce, Mascota, and Aullagas identified in the Property belongs to the Bolivian polymetallic vein-type deposits represented by the famous giant Cerro Rico silver mine in Potosi. Silver Sand is the best defined by exploration drilling and has been traced for more than 1,600 meters along strike with a maximum width of about 500 meters and a dip extension of more than 300 meters. The major Silver Sand mineralization zone is open to both strike and downdip directions. The Qualified Persons believe that there is very good potential to define sizable mineralization similar to that of Silver Sand core area by exploration drilling in some of the other nine prospects.

The results of a preliminary metallurgical test program suggest that the mineralized materials from the Silver Sand Project would be amenable to processing using conventional flotation or whole ore cyanidation at atmospheric pressure at large scale.

Overall, the Qualified Persons deem that the on-going exploration program and the exploration and testing data obtained thus far will warrant a resource estimation for the Silver Sand zone by early 2020 and further intensive exploration activities on the other regional prospects.

Recommended work plans for the fourth Quarter of 2019 and the year 2020 are as follows:

- **Infill and Step-out Drilling and Mineral Resource Estimation for the Silver Sand Zone:**
 - (1) continue the on-going drilling program by infilling the drilling grid to 25m X 25m to further increase the geological confidence in areas where the mineralized structures are defined and step-out drilling to trace the strike and downdip extensions of the major mineralized structures. Estimated drilling meterage in the Fourth Quarter of 2019: 17,500 meters.
 - (2) carry out a mineral resource estimation for the Silver Sand core area in early 2020.
- **Exploration Drilling in regional prospects identified by surface and underground chip sampling: Drilling Meterage of 39,000 meters is recommended to define the along-strike and downdip extensions of the mineralization exposed near the surface, including:**
 - (1) El Fuerte Zone: 4,000 meters.
 - (2) Snake Hole Zone: 5,000 meters.
 - (3) Esperanza Zone: 4,000 meters.
 - (4) Jisas Zone: 4,000 meters.
 - (5) El Bronce Zone: 5,500 meters.
 - (6) Mascota Zone: 10,500 meters.
 - (7) Aullagas Zone: 1,500 meters.
 - (8) North Plain: 4,500 meters
- **Reconnaissance Surveying: It is recommended to continue the current property-scale reconnaissance investigation by mapping and sampling the mineralized outcrops and the accessible underground works.**
- **Optimization of the Current QA/QC Program:**
 - (1) Stop using the coarse rejects duplicates to monitor lab bias: The performance of the certificated reference materials adopted has been stable and reliable in monitoring accuracy and lab bias. It is not necessary to use rejects duplicates to double monitor the lab bias.
 - (2) Prepare core duplicates by cutting 1/4 core sample to ensure half core left after sampling. It is understandable that the current practice by cutting 1/4 of the mineralized samples after having received the assay results is a reasonable and cautious measure to avoid duplicating background samples, but the disadvantage of this practice is only 1/4 core left after sampling and duplicating.

(3) More strict measures should be taken in selecting sources of blank material to avoid unbarren blanks being used.

- Metallurgical Testwork Development

(1) Continue to characterize various metallurgical composite samples from the property, with the objective of providing robust performance predictions and process flowsheet options.

Budget for the recommended exploration programs is listed in Table 1.1.

Table 1.1 Budget for the Recommended Programs

| Account Category | Budget Totals (CAD) |
|---|----------------------------|
| Camp Costs (Repairs, cook/meals, fuel, supplies, and logistics) | 400,000 |
| Geology & Project Administration (Contractors, Consultants) | 300,000 |
| Diamond Drilling (30,000 meters) | 5,700,000 |
| Assay (250,000 samples) | 1,500,000 |
| Technical Consulting & Reporting (NI 43-101 technical report and resource estimate) | 200,000 |
| Phase 2 Metallurgical Test Work | 100,000 |
| Contingency | 800,000 |
| GRAND TOTAL | 9,900,000 |

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2 INTRODUCTION

New Pacific Metals Corp. ("New Pacific" hereafter) is a Canadian mining company, in the business of exploring and developing precious metal mining properties in Bolivia, Canada, and China. The Qualified Persons were commissioned by New Pacific to prepare an updated technical report for the Silver Sand Property in Potosi Department, Bolivia to disclose the scientific and technical information on its on-going exploration programs. This report will cover all the exploration programs conducted in the Property by New Pacific from September 2017 to August 2019 and provides an overall review on all the aspects of the completed and on-going exploration programs. The previous publicly released technical report dated August 15, 2017, was prepared by Donald J. Birak.

This Technical Report has been prepared in accordance with the Standards of Disclosure for Mineral Projects as contained in NI 43-101 and accompanying policies and guidelines. In preparing this report, the Qualified Persons relied on various geological data and internal reports provided by New Pacific, the previous publically released technical report and publically available literature. All currency amounts are in Canadian dollars and quantities are stated in metric (SI) units.

This report is endorsed by the following Qualified Persons as defined by NI 43-101: Mr. Ruijin Jiang, Mr. Andrew Holloway, and Mr. Yongming (Alex) Zhang (the "Qualified Persons"). The Qualified Persons are members in good standing of appropriate professional institutions and are responsible for specific sections as shown in Table 2-1.

Table 2.1 Qualified Person's Responsibilities

| Qualified Persons | Position | Employer | Independent or not | Professional Designation | Sections of Report |
|--------------------------|-----------------------------|-----------------------------|---------------------------|---------------------------------|---------------------------|
| Ruijin Jiang | Consulting Geologist | Self Employed | Yes | P.Geo, M.Sc | 1 to 12 and 14 to 27 |
| Andy Holloway | Principal Process Engineer | AGP Mining Consultants Inc. | Yes | P.Eng | 13 |
| Yongming (Alex) Zhang | Vice President, Exploration | New Pacific Metals Corp. | No | P.Geo, M.Eng, M.Sc | part of 4, part of 26 |

Ruijin Jiang visited the Silver Sand Property from August 1 to 12, 2019. All aspects of the on-going exploration programs were examined by the Qualified Person, including drill core, core

handling procedures, logging and storage facilities, exploration sites, prospect areas, ancient underground works and dumps, and QA/QC management.

Alex Zhang is the vice president, exploration, of New Pacific and is mainly based in the field camp of the Silver Sand Property. He has been responsible for the routine technical management and supervision of the exploration programs since 2017.

Andy Holloway didn't visit the Silver Sand Property in connection with the preparation of this Technical Report as there is no processing facility in the Property.

3 RELIANCE ON OTHER EXPERTS

Mr. Gustavo Miranda Pinaya, a lawyer having practiced law in Bolivia since 1996, prepared a due diligence report to New Pacific with regard to the Bolivian mining laws and regulations and the property title of Silver Sand Project on February 3, 2017 (Miranda, 2017) (the "Due Diligence Report"). The source of information on Bolivian mining laws and regulations presented in Section 4 of this Technical Report was mainly based on Miranda's Due Diligence Report and other publically available literature.

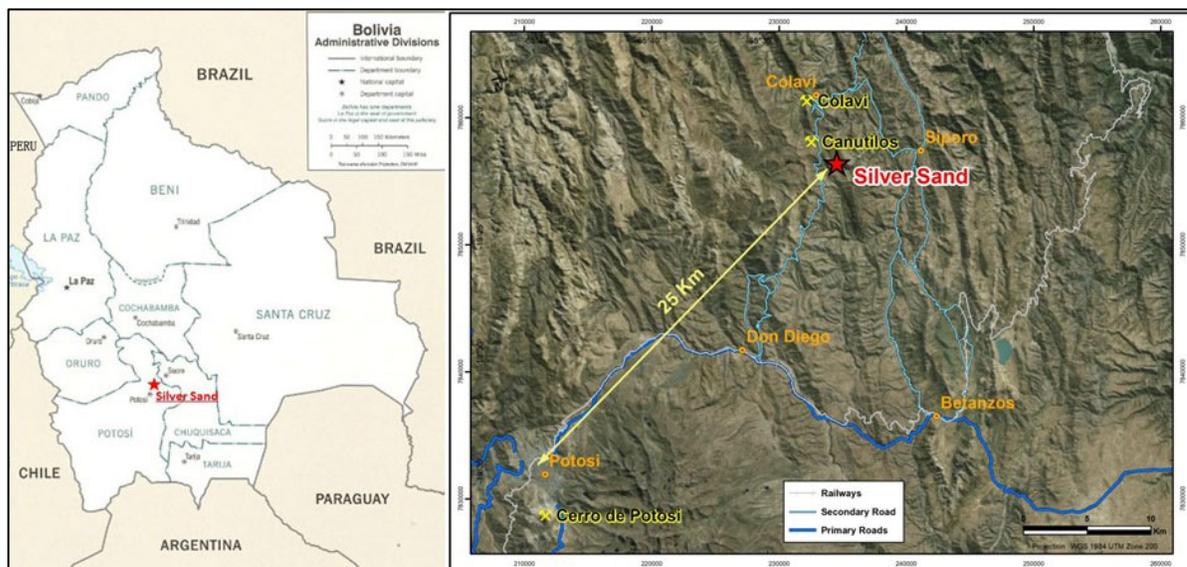
The Property title has changed a lot since 2017 due to the new-mining-law-required re-registration of the previous mining concessions and New Pacific's acquisition of new exploration and mining rights in the adjacent areas of the original Silver Sand Project. The Qualified Persons have fully relied upon and disclaims responsibility for the information provided by New Pacific regarding the current property ownership and mineral tenures for the Silver Sand Property and presented in Section 4 of this Technical Report.

4 PROPERTY DESCRIPTION AND LOCATION

4.1 Property Location

The Silver Sand Property is situated in the Colavi District of Potosi Department in southwestern Bolivia, 25 km northeast of Potosi city, the department capital (Figure 4.1). The approximate geographic center of the Property is 19°22' 4.97" S latitude and 65°31' 22.93" W longitude at an elevation of 4072 m above sea level.

Figure 4.1 Location of Silver Sand Property



4.2 Exploration and Mining Permits

According to the current 2014 and 2016 mining laws of Bolivia which are described in detail in section 4.3, exploration and mining rights in Bolivia are granted by the Jurisdictional Mining Administrative Authority (Autoridad Jurisdiccional Administrativa Minera, “AJAM”) under the Ministry of Mines and Metallurgy through Administrative Mining Contracts (“AMC”) between an operator and the AJAM. Operators can also acquire interests in exploration and mining rights by signing Mining Production Contracts (“MPC”) on a certain area with a state-owned mining company that holds these exploration and mining rights of the area.

The Silver Sand Property originally consisted of 17 Temporary Special Authorizations (ATE’s) for a total area of 3.15 square kilometers (Table 4.1). According to the new Mining and Metallurgy Law 535 enacted in May 2014 in Bolivia, all ATE’s must be consolidated to new 25 hectare-sized concessions called “Cuadriculas” and must be converted to AMCs with AJAM. New Pacific submitted to AJAM all required documents for the consolidation and conversion through its wholly-owned subsidiary Minera Alcira S.A. in February 2018, and

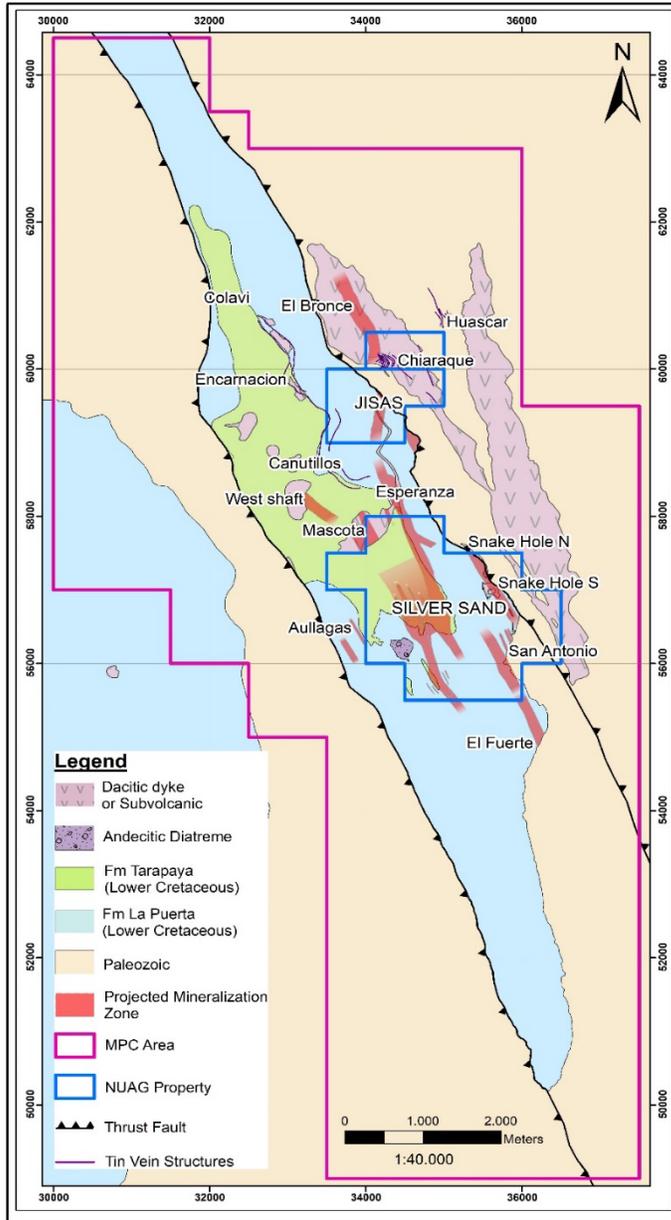
currently, the consolidation and conversion has been initially approved by AJAM, and the process is expected to complete with approval by Bolivia national legislative body by the end of 2019 or 2020. The core area of the Silver Sand Property will be expanded to five square kilometers consisting of twenty Cuadriculas after the consolidation. In addition, New Pacific acquired 100% interest of a local private miner who owned two mineral concessions called Jisas Jardan for an area of 1.75 square kilometers about one kilometer to the north of Silver Sand in July 2018. The total area under full control of New Pacific will be 6.75 square kilometers in 27 Cudriculas.

Table 4.1 Original Mineral Tenures of Silver Sand Project

| Concession Number | National Registry | Name | Size (hectares) | Titleholder | |
|-------------------|-------------------|------------------------|-----------------|--------------------|-------------------------------|
| 4694 | 503-01271 | La Sombra | 66 | Minera Alcira S.A. | |
| 4695 | 503-01275 | San Marcos Evangelista | 16 | | |
| 4696 | 503-02424 | El Carmen | 6 | | |
| 4697 | 503-01276 | Escuadra | 35 | | |
| 4698 | 503-02423 | Perfecta | 16 | | |
| 4699 | 503-01270 | Reintegrante | 3 | | |
| 4700 | 503-01269 | Félix | 10 | | |
| 4701 | 502-01266 | Seis de Agosto | 6 | | |
| 4702 | 503-02425 | Olvidada | 15 | | |
| 4703 | 503-01267 | Moria | 20 | | |
| 4704 | 503-01268 | El Rodero | 37 | | |
| 4705 | 503-01272 | Kirigin | 10 | | |
| 4706 | 503-02426 | San Antonio | 8 | | |
| 4707 | 503-02427 | Nieves | 8 | | |
| 4708 | 503-02428 | Londres | 8 | | |
| 4709 | 503-01273 | Santa Micaela | 31 | | |
| 4710 | 503-01274 | Bertha | 20 | | |
| 13235 | 503-02753 | Jisas | 125 | | Empresa Jisas – Jardan SRL |
| 13257 | 503-02734 | Jardan | 50 | | |
| 19 | TOTALS | | 490 | | |

New Pacific, through its wholly-owned subsidiary Minera Alcira S.A., entered a Mining Production Contract (“MPC”) with the Bolivian Mining Corporation (“COMIBOL”) in Potosi, Bolivia on January 11, 2019. The MPC covers 29 ATEs and 201 Cuadriculas which are owned by COMIBOL, for a total area of about 57 square kilometers surrounding the Silver Sand core area. Therefore, New Pacific has full exposure to the district potential of silver mineralization in a broad area of more than sixty square kilometers including the concessions fully owned by New Pacific and the concessions owned by COMIBOL (Figure 4.2). Both the AMC-covered and MPC-covered areas described above are collectively called the “Silver Sand Property” in this report.

Figure 4.2 Mineral Concessions and MPC Areas



The MPC with COMIBOL is valid for 45 years. According to the terms of MPC, New Pacific has an investment commitment of US\$6 million during the first five years of exploration. New Pacific will pay COMIBOL 4% gross sales value when the mineral concessions covered by the MPC are in commercial production stage.

New Pacific has successfully obtained environment permits from local authorities of Bolivia to conduct mineral exploration and drilling activities in the mineral concessions fully owned by New Pacific and the MPC areas owned by COMIBOL. There are no known significant

factors or risks that might affect access or title, or the right or ability to perform work on the Property, including permitting and environmental liabilities to which the project is subject.

AJAM employed a special tax unit “UFV” to calculate the annual fee which mineral concession holders have to pay to the government. Depending on the type and size of mineral concessions, the number of UFVs varies between 375 and 692 UFVs per Cuadrícula (unit price), each UFV equivalent to 2 Bolivianos (coefficient) in the year 2019. The unit price and the coefficient may change slightly year by year.

For the year 2019, New Pacific paid to the government 11,644 Bolivianos of annual fee, equivalent to US\$1,687 for the 17 ATEs of the Silver Sand concession, 6,468 Bolivianos, equivalent to US\$937 for the 7 Cuadrículas of Jisas Jadan concessions and 3,215 Bolivianos, equivalent to US\$466 for 7 ATEs of the 29 ATEs covered by the MPC with COMIBOL. New Pacific does not have to pay any fees to the government for the rest 22 ATEs owned by COMIBOL and covered by the MPC as the 22 ATEs are nationalized concessions. However, according to the terms of MPC, New Pacific will have to pay to government annual fees when COMIBOL is granted the 201 Cuadrículas in the frozen zone set up by AJAM. In addition, New Pacific will pay COMIBOL a management fee of US\$10,000 per month for all the concessions covered by the MPC.

4.3 Regulatory Framework for Exploration and Extraction of Mineral Resources in Bolivia

Contents of this section are excerpted and reorganized from Aguirre’s overview of mining law in Bolivia (2018), Bufete Aguirre Soc. Civ.’s Basics of Mining Law in Bolivia (2017), and Miranda’s Updated Due Diligence Report on Lease, Joint Venture Agreements that outlines current mining laws and regulations applicable to the Silver Sand Property.

4.3.1 Current Mining Law and Regulatory Authorities

Bolivia began opening the mining industry to private investment in the 1980s. In 1997 a complete new Mining Code, governing most matters relating to mining activities was enacted. The 1997 Code followed the concession system considering mining concessions as real estate property which as such could be transferred, contributed to the capital of companies, mortgaged, bartered, sold and the like and subject to inheritance laws under the Civil Code.

A new and complete Mining and Metallurgy Law No 535 (the 2014 Mining Law) was introduced on May 28, 2014, to substitute the 1997 Mining Code, based on the mining chapter in the new Constitution and following the enactment of other interim rules. Modifications to the 2014 Mining Law were approved by means of Law No. 845 of October 24, 2016 (the 2016 Mining Law) by Bolivian Congress.

The 2014 and 2016 Mining Laws set out rules in relation to:

- The procedures for the granting of new mining rights.
- The procedures for a change from the old mining concession system to the new system of Administrative Mining Contracts (“AMC”) mandated by the new legislation based on the Constitution.

In relation to mining, the 2014 Mining Law recreated the AJAM under the Ministry of Mines and Metallurgy. AJAM is responsible for various regional directions and is tasked with recognizing previously-acquired rights and granting new rights by granting AMCs to operators.

4.3.2 Permitting and Terms

AMCs by conversion from current concessions will recognize existing full rights of exploration and/or exploitation and development, which include treatment, foundry refining and/or trading. Such contracts as well as new contracts when with private companies will have a term of thirty years (which could extend for an additional thirty years). Each contract will require continuous working and investment plans which the applicant must submit to the Authority.

The rights of exploitation, development and so on are acquired through AMCs. Certain forms of association and production agreements with the state mining companies or between mining producers are permitted for the purposes of operation and development. In the case of association agreements, the state must have majority participation and control. Production agreements (Mining Production Contract “MPC”) between private companies and state mining companies on rights held by the latter can provide for a negotiable percentage of production sharing.

4.3.3 Requirements for Environment Protection

Depending on the nature and scope of the activities to be conducted, the operator may need a certain type of license or dispensation from the environmental authorities under the Ministry of Environment and Water or the Departmental Governorships. This applies to projects that may require specific consultation with a population that could be affected by the project. The main law governing environmental protection in general is Law 1333 of 27 April 1992, which is regulated by various Supreme Decrees of the Executive Branch. The special Decree containing the mining rules is of primary importance. Strict parameters must be followed for the protection of the environment. Breach of environmental obligations may even trigger criminal liabilities under the Constitution.

Licenses must be updated depending on the changes as triggered by the ongoing activities and operations. An Environmental Impact Assessment (“EIA”) is normally required in order to obtain the appropriate license. Specialized environmental authorities follow up and control compliance. As required under the licenses, any impact on the environment must be notified to the authorities. Remediation measures and rehabilitation projects are compulsory. For closure, the operator must create a financial reserve that is maintained on an annual basis. A final closing study on the effect on the environment would be required in due time. Under a special law known as the “Mother Earth Law”, a certain requirement of restitution must be met.

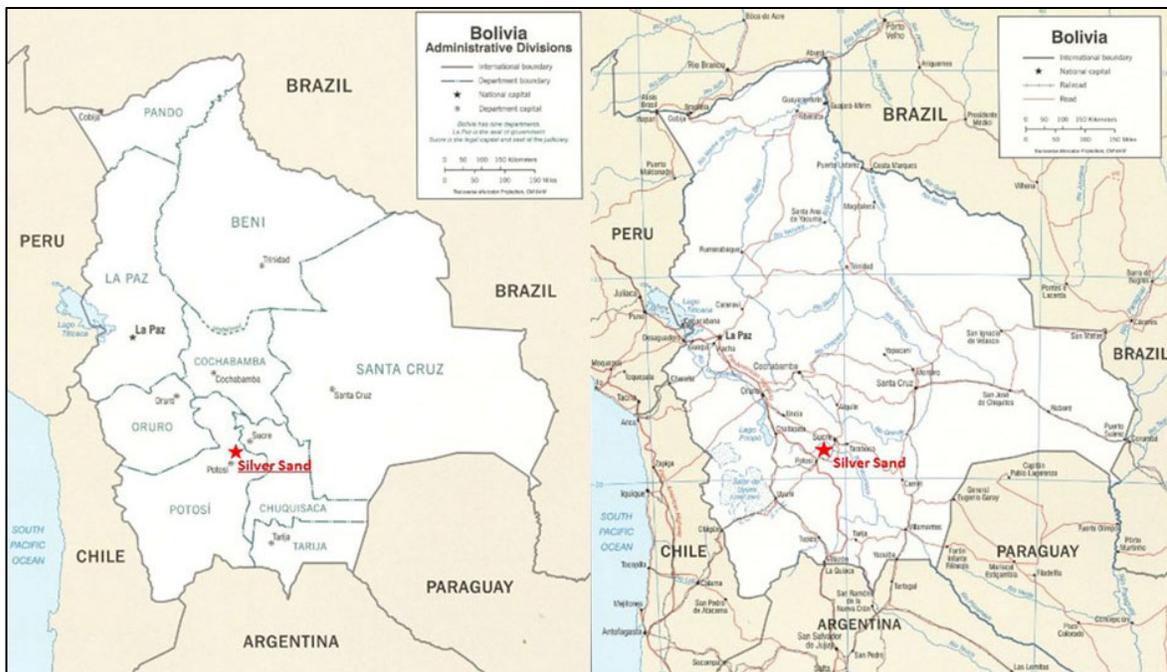
5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Accessibility

Silver Sand Property is located approximately 30 km northeast of the world-famous Cerro Rico silver and base metal mine near Potosi. The Property is about 46 km direct distance southwest of Sucre (population 250,000), the constitutional capital of Bolivia and the capital city of Chuquisaca department, and 25 km northeast of Potosi (population 141,000), the capital city of Potosi department. Potosi is connected to La Paz, the capital city of Bolivia, by way of the Pan American highway and to the Chilean port cities of Arica and Iquique by all-weather roads, and Sucre is connected to major Bolivian cities and beyond by highways and commercial air flights.

The Property is connected to both Potosi and Sucre with paved Highway 5 and a 27 kilometer year-round gravel road between Highway 5 and the Property. The Property can be easily reached by 129 km of Highway 5 southwestwards from Sucre, and 29 km of Highway 5 northeastwards from Potosi to the administrative community of Don Diego. Upon reaching Don Diego, travel continues another 27 kilometers northwards on an all-weather gravel road to the Property area.

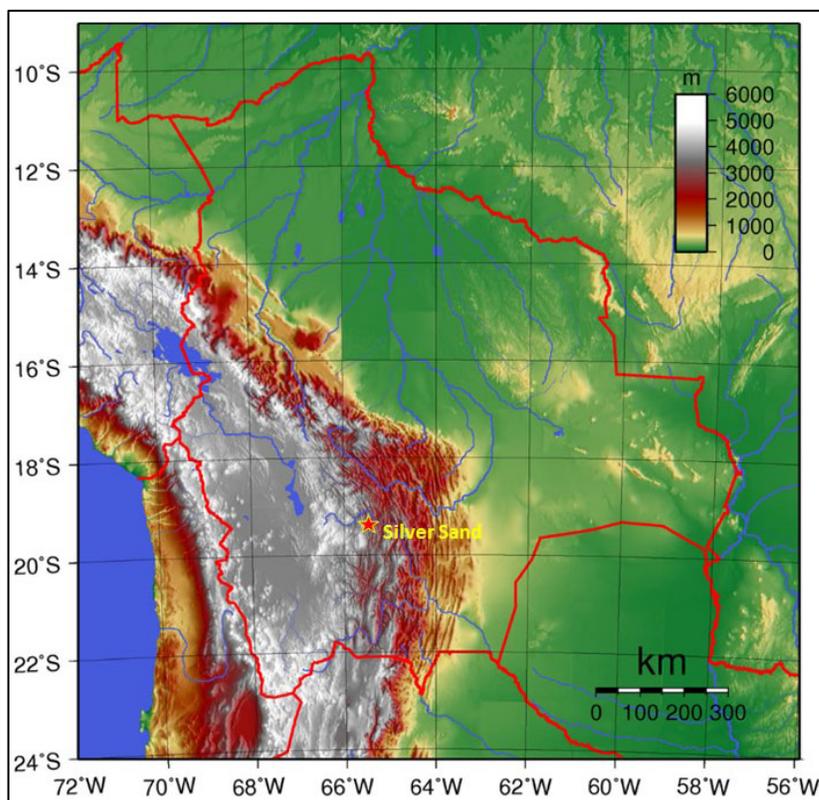
Figure 5.1 Administrative Location and Transportation Access of Silver Sand Property



5.2 Physiography

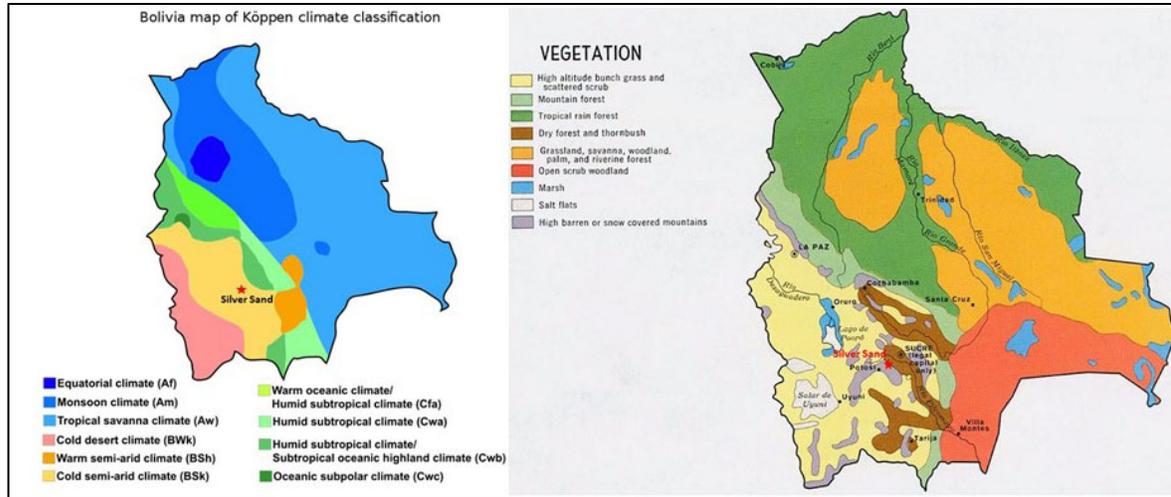
Physiographically Bolivia is divided into five northwest-trending zones from east to west (Figure 5.2), including Amazon Basin in green, Sub-Andean in red, Eastern Cordillera (or Cordillera Oriental) in white, Altiplano in gray, and Western Cordillera (or Cordillera Occidental) in white. The Eastern Andes Mountain ranges bisect Bolivia roughly from north to south. To the east of the mountain chain are lowland plains of the Amazon Basin, and to the west are the Altiplano highland plateau and the Bolivian part of the Western Cordillera.

Figure 5.2 Physiographic Zones of Bolivia



Silver Sand Property is situated approximately at the central section of the Eastern Cordillera zone. The Property consists of barren rolling hills with elevation ranging from 3,700 to 4,300 meters above sea level. Due to the high elevation, the Property area has a cold semi-arid desert climate despite the region's location at about 19 degrees south of the equator. Vegetation on the Property is poorly developed and mainly consists of sparsely scattered low grasses and shrubs (Figure 3). In valleys below the 4000 meter elevation, some eucalyptus trees are grown in local villages. Animals such as alpacas, llamas, vicunas, guanacos are common in the Cordillera Oriental and the local people herds both llamas and alpacas for food and wool.

Figure 5.3 Climate and Vegetation Map



There is not much difference in daytime temperature year-round but the temperature at night may fall below the freezing point from May to September. The region experiences a rainy season in the warmer summer months from December to March which contributes about 80% of the average annual precipitation of 393mm. The driest period is from May to August with very few precipitation (Table 5.1). None of these climate factors preclude operations from being conducted on a year-round basis.

Table 5.1 Annual Weather Average in Potosi Region

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Avg. Temperature (°C) | 10.6 | 10.9 | 10.6 | 8.4 | 8 | 4.6 | 5.4 | 6.6 | 8.5 | 11 | 12.4 | 11.9 |
| Min. Temperature (°C) | 4.1 | 4.6 | 4.1 | 0.3 | -1.2 | -5.6 | -4.6 | -3.1 | -0.6 | 2 | 4.3 | 5.1 |
| Max. Temperature (°C) | 17.2 | 17.2 | 17.2 | 16.5 | 17.2 | 14.8 | 15.5 | 16.4 | 17.6 | 20.1 | 20.5 | 18.7 |
| Precipitation (mm) | 102 | 79 | 50 | 13 | 3 | 2 | 0 | 3 | 9 | 21 | 34 | 77 |

Note: Data adapted from www.climate-data.org

5.3 Local Resources and Infrastructures

Intensive mining for silver, tin, lead and zinc has occurred in various locations around the city of Potosi ever since the discovery of the largest silver deposit Cero Rico (the Rich Hill) in 1545. As a result, many residents of Potosi are employed in mines or mining-related businesses, providing a potential source of workers and services that may be needed at the Silver Sand Property.

A high voltage power line is available at the adjacent Canutillos mine and Colavi mine west and northwest of the Property. Water has not been a concern at the Property though the greater Potosi area has experienced a drought in recent years. Water for domestic use can be obtained from a small lake, approximately 3.5 km northwest of the Property. Water for drilling can be sourced from nearby drainages that may, with further investigation and successful development, satisfy larger consumption needs such as those of new mining operations.

6 HISTORY

6.1 Previous Ownership

In 2009, Ningde Jungie Mining Industry Co. Ltda. (“NJ Mining”) bought Empresa Minera Alcira SA which owns the Silver Sand Project from Tirex. New Pacific closed the acquisition of Empresa Minera Alcira, which controls the Silver Sand property amongst others, from NJ Mining, pursuant to the terms announced on April 10, 2017, and disclosed the final acquisition terms on July 20, 2017.

6.2 Mining

Mining activities of different scales have been going on intermittently in the Silver Sand Property and its direct adjacent areas by various operators since the early 16th century. There are widespread small mine works and numerous abandoned miners’ villages in the Property. Machacamarca is a historic silver mine in the Property. Silver was mined at the Machacamarca mine from colonial times until the price declined in about 1890. Since then local mining activities have been focused on tin mineralization at the adjacent Colavi and Canutillos mines. Historical mining activities had mainly followed high-grade vein structures in the Property.

6.3 Exploration

In spite of the long history of mining in the Silver Sand Property and its adjacent areas, there is no serious historical exploration work recorded in the Property area before 2009. The only traceable exploration campaign is the exploration program of the previous owner NJ Mining between 2009 and 2015.

After it acquired the Property in 2009, NJ Mining carried out a comprehensive exploration program at the Silver Sand Property. Exploration conducted during this period includes geological mapping, surface and underground sampling, trenching and drilling (Table 6.1). All exploration samples were analyzed at NJ Mining’s lab facilities near Potosi, Bolivia for silver and, in some cases, tin.

Table 6.1 Exploration Work Completed by NJ Mining from 2009 to 2015

| Type of Exploration | Work Completed |
|---------------------------------------|---------------------------------------|
| 1:5,000 geological mapping | 3.15 km ² |
| 1:1,000 geological traverse surveying | 7,272 m in 15 NE-SW exploration lines |
| Topographic survey | 8 survey points |
| Mapping historic workings | 208 m |
| Diamond core drilling and logging | 2,334 m in 8 holes |
| Trenching | 40 m |

| | |
|---|--------------------------|
| Reconnaissance mapping | 292 points |
| Reconnaissance sampling | 1,202 samples |
| Mineralogy and lithology identification | 19 thin sections |
| Petrography study | 9 thin sections |
| Channel sampling | 1,628 m with 546 samples |
| Core sampling | 504 samples |
| Specific gravity measurement | 31 samples |
| QA/QC | 215 samples |

Five mineralization zones (Zone I, II, III, IV, and V) were defined from results of the exploration programs, with the Zone I mineralization extending over 1,500 meters long and up to 125 meters in width.

6.4 Surface and Underground Channel Sampling

Channel samples were collected from outcropped mineralization at the surface or exposed mineralization in the abandoned underground works along southwest trending exploration lines across the northwest-trending mineralized zones. The exploration lines are spaced at 100 meters between lines and 14 lines were sampled between Lines 76 and 50 over a strike length of 1,300 meters. Channels were cut with a diamond saw in a horizontal orientation and were approximately 10 cm wide, 2 to 3 cm deep, and 1 to 2.5 meters in length. Significant results from channel sampling are listed in Table 6.2.

Table 6.2 Selected Result of Historical Surface Sampling Program

| Section* Number | Sample Location | Zone Intersected | Interval (m) | Average Silver Grade (g/t) | Number of Samples |
|----------------------------|----------------------------|-----------------------------|---------------------|---------------------------------------|------------------------------|
| 50 | Surface | Zone I | 62.7 | 174 | 31 |
| 54 | Surface | Zone I | 112 | 127 | 59 |
| 58 | Surface | Zone I | 83 | 93 | 44 |
| | Underground | Zone II | 21.4 | 263 | 10 |
| 62 | Surface | Zone I | 90.7 | 233 | 48 |
| | Underground | Zone I | 72.1 | 207 | 36 |
| 66 | Surface | Zone I | 71.9 | 145 | 38 |
| 70 | Surface | Zone I | 33.8 | 131 | 18 |
| | Surface | Zone II | 6.7 | 141 | 4 |
| 72 | Surface | Zone III | 16.9 | 198 | 9 |

*Relative locations of exploration lines are shown in Figure 10.2.

6.5 Test Drilling

NJ Mining conducted two test drilling programs consisting of 8 diamond holes to evaluate the spatial extensions of the mineralization zones defined at the surface in 2012 and 2015 respectively. Two short, vertical diamond drill holes, targeting the shallowly-dipping tin mineralization, were drilled in 2012 but did not intersect silver mineralization. Two angled holes drilled in the same period but in the footwall at the west side of the zone did not intercept the silver mineralization. Four holes totalling 1,558 meters were drilled in 2015. Three angled holes drilled from the hanging wall at the east side of the Zone I mineralization intersected significant silver mineralization. One vertical hole collared in the footwall of Zone I missed the silver mineralization zones. The mineralization intersections from the three historic drill holes are listed in Table 6.3.

Table 6.3 Selected Historical Drill Intersections

| Hole Number | Section Number | Average Sample Length (m) | Mineralized Interval | | | |
|-------------|----------------|---------------------------|----------------------|--------|------------|----------|
| | | | From (m) | To (m) | Length (m) | Ag (g/t) |
| ZK4601 | 46 | 1.28m | 83.3 | 85.6 | 2.3 | 60 |
| | | | 122 | 277.2 | 155.2 | 179 |
| | | <i>Incl.</i> | 122 | 145.4 | 23.4 | 261 |
| | | <i>Incl.</i> | 170.9 | 231.3 | 60.4 | 266 |
| | | <i>Incl.</i> | 258.6 | 277.2 | 18.6 | 290 |
| ZK5401 | 54 | 1.27 m | 151.1 | 346.4 | 195.3 | 168 |
| | | <i>Incl.</i> | 151.1 | 177.9 | 26.8 | 302 |
| | | <i>Incl.</i> | 195.2 | 249.5 | 54.3 | 303 |
| | | <i>Incl.</i> | 304 | 321.7 | 17.7 | 284 |
| | | <i>Incl.</i> | 336.4 | 346.4 | 10 | 321 |
| ZK6601 | 66 | 1.33 m | 51.9 | 243.2 | 191.3 | 246 |
| | | <i>Incl.</i> | 51.9 | 108.1 | 56.2 | 329 |
| | | <i>Incl.</i> | 132.1 | 182.6 | 50.5 | 316 |
| | | <i>Incl.</i> | 200.3 | 243.2 | 42.9 | 283 |

6.6 Historical Resource and Reserve Estimate

There are no known NI 43-101-compliant estimates of Mineral Resources or Mineral Reserves at the Property.

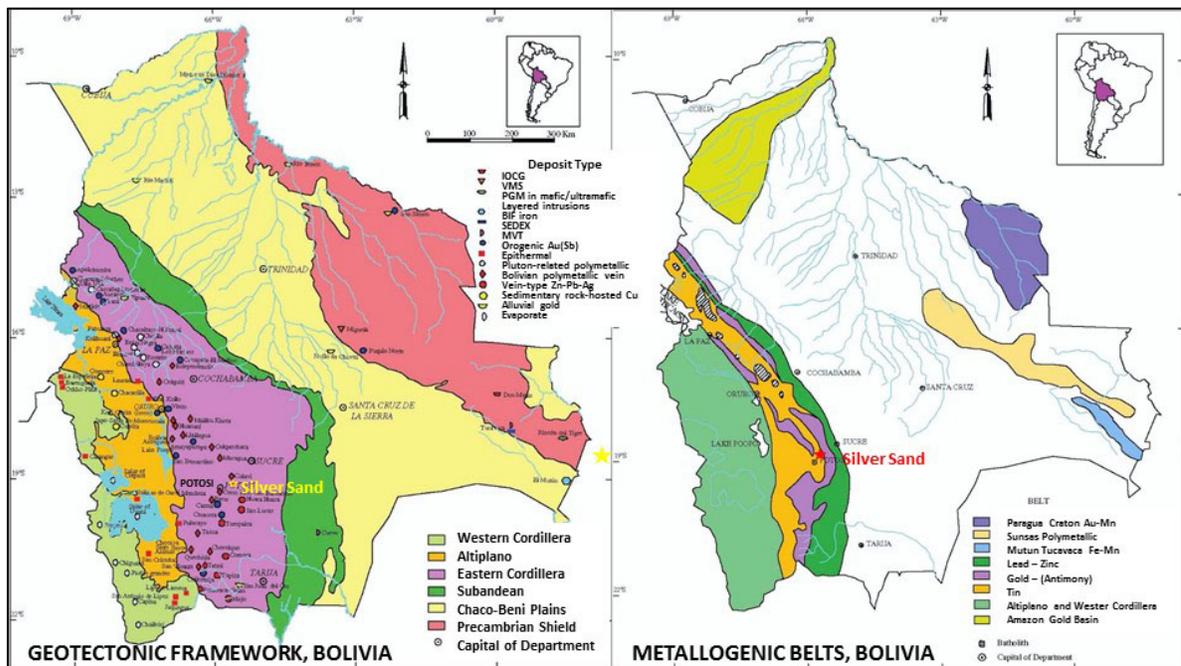
7 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology and Metallogeny

7.1.1 Geotectonic Framework of Bolivia

Similar to the distribution of its physiographic zones, the regional geological and tectonic framework of Bolivia can be divided into six geotectonic belts from east to west, including the Precambrian Shield, the Chaco-Beni Plains, the Subandean, the Eastern Cordillera, the Altiplano, and the Western Cordillera (Figure 7.1).

Figure 7.1 Geotectonic Framework and Metallogenic Belts, Bolivia



Adapted from Arce-Burgoa and Goldfarb (2009)

7.1.2 Geology of Central Andes

The Central Andes in Bolivia comprises the west four geotectonic belts (Arce-Burgoa and Goldfarb, 2009) which has been configured by the Mesozoic-Cenozoic orogeny as a result of persistent compressive deformation from the subduction of the oceanic Nazca plate beneath the South American plate since the Cretaceous.

1. Subandean Belt

The Subandean belt is a series of north- and north-west-trending mountain ranges with elevations ranging from 500 to 2,000 meters above sea level. The bedrock of the Subandean

belt consists of Paleozoic marine siliciclastic sedimentary rocks and Mesozoic and Tertiary continental sedimentary rocks.

2. Eastern Cordillera Belt

West of the Subandean belt, the mountains of the Eastern Cordillera rise progressively to elevations over 4000 meters above sea level. The bedrock of the Eastern Cordillera comprises thick (up to 10km) and intensively deformed sequences of Paleozoic marine clastic sedimentary rocks and thin (<3 km) and much less-deformed Cretaceous and Cenozoic continental sedimentary rock sequences. Plutonic rocks of granodiorite and adamellite occur mostly in the northern part of the Eastern Cordillera as batholith and laccolith. Permian to Triassic igneous rocks found in the middle and southern parts of the cordillera are mainly hypabyssal and volcanic types and appear as stocks and volcanic necks spatially associated with Paleozoic sedimentary sequences. Tertiary andesitic volcanic rocks and related hypabyssal rocks associated with the Andean orogenic movement were seen along the western portion of the Eastern Cordillera.

3. Altiplano Belt

To the west of Eastern Cordillera lies the 200 km wide Altiplano high plateau region with subdued relief at an average elevation of about 3,800 meters above sea level. The Altiplano has the Proterozoic to Paleozoic basement extensively covered by formations of vast volcanic products and continental sediments of the Cretaceous to the recent times. Andesitic effusive activity continued during the Miocene time in the southern part and effusive activity of rhyolitic pyroclastic rocks continued from the Miocene to Pliocene time in the northern part.

4. Western Cordillera Belt

The Western Cordillera is an active volcanic arc consisting of spaced Miocene and Quaternary andesitic volcanoes and small volcanic centers. Volcanic cones rise over 2000 meters above the general land surface, reaching elevations over 6000 meters above sea level (Lamb et al, 1997). Shale and sandstones were deposited on the Paleozoic basement during a period of extensional tectonism from late Jurassic to the early Cretaceous time. The Western Cordillera is extensively covered by Tertiary to recent volcanic rocks that effused along the uplifting axis in the N-S direction of the Mesozoic to Paleozoic basement rocks, where continental sediments lie between the volcanic bodies.

7.1.3 Regional Metallogeny of Central Andes

The abundant metallic ore deposits in the Central Andes have been the source of most historic and current mineral production in Bolivia. There is a diverse series of ore deposits and metallogenic belts across the Central Andes (Figure 7.1). These include the Miocene to

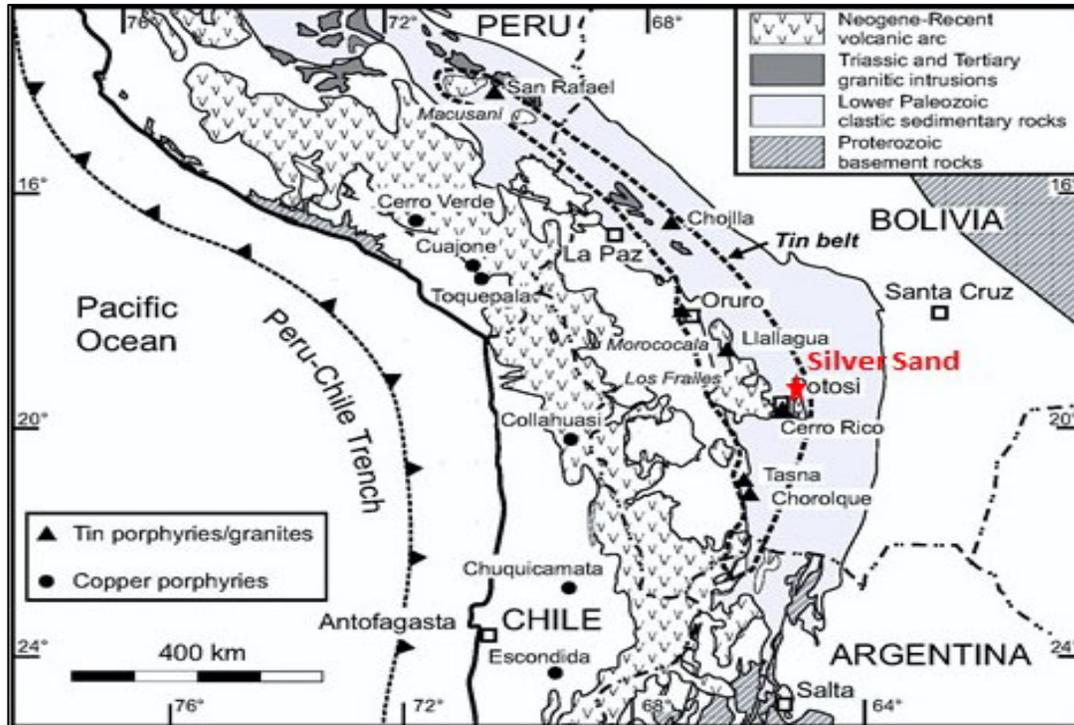
Pliocene red-bed copper deposits and epithermal Ag-Au-Pb-Zn-Cu deposits in the Altiplano and Western Cordillera, and the Mesozoic and Cenozoic tin belt, Paleozoic gold antimony belt and the poorly dated lead-zinc belt in the Eastern Cordillera.

Among the metallogenic belts in the Central Andes of Bolivia, the 900km long Bolivian Tin belt is the most prolific geologically and economically (Figure 7.2). Mineralization of the tin belt is related to the main orogenic and magmatic processes of the region and has evolved over a long interval from late Paleozoic to late Tertiary. The most important mineralization epochs include Triassic-Jurassic and Miocene in the northern part of the belt, where the pluton-associated tin-tungsten mineralization are abundant, and the Miocene to Pliocene period in the central and southern part of the belt, where both the pluton-related Sn-W mineralization and the subvolcanic rock-related Sn-Ag and Sn-Zn mineralization occur (Rivas, 1979). Deposits of the tin belt can be divided into four groups: (1) porphyry-associated tin deposit; (2) volcanic rock-associated Sn-Ag-Pb-Zn deposit which includes bonanza-type Ag and Sn; (3) sedimentary rock-hosted Sn-Ag-Pb-Zn deposit; and (4) distinct pluton-related Sn-Au-W-Zn deposit. Types 2 and 3 are collectively defined as Bolivian polymetallic vein deposits which are mainly located in the southern half of the Bolivian tin belt (Arce-Burgos, 2009).

Bolivian Polymetallic vein-type ore deposits are shallow and are assumed to be genetically related to Miocene and Pliocene subvolcanic intrusions. Mineralization occurs as veins, veinlet, stockwork, and disseminated ores hosted in Paleozoic and Mesozoic sedimentary rocks, Cenozoic volcanic rocks, and Paleozoic to Mesozoic plutons. The shallower erosion levels in the southern part of the belt results in the partial preservation of the upper silver-rich parts of deposits.

Two world-class silver and tin deposits, the Cerro Rico de Potosi deposit, assumedly the largest silver deposit in the world, and the Llallagua deposit, probably the largest vein-type tin deposit discovered to date, both belong to the Bolivian polymetallic vein type. Silver Sand Property is located about 30 km northeast of the Cerro Rico de Potosi deposit and 150 km southeast of the Llallagua deposit in the same tin metallogenic belt.

Figure 7.2 Major Ore Deposits in the Bolivian Tin Belt



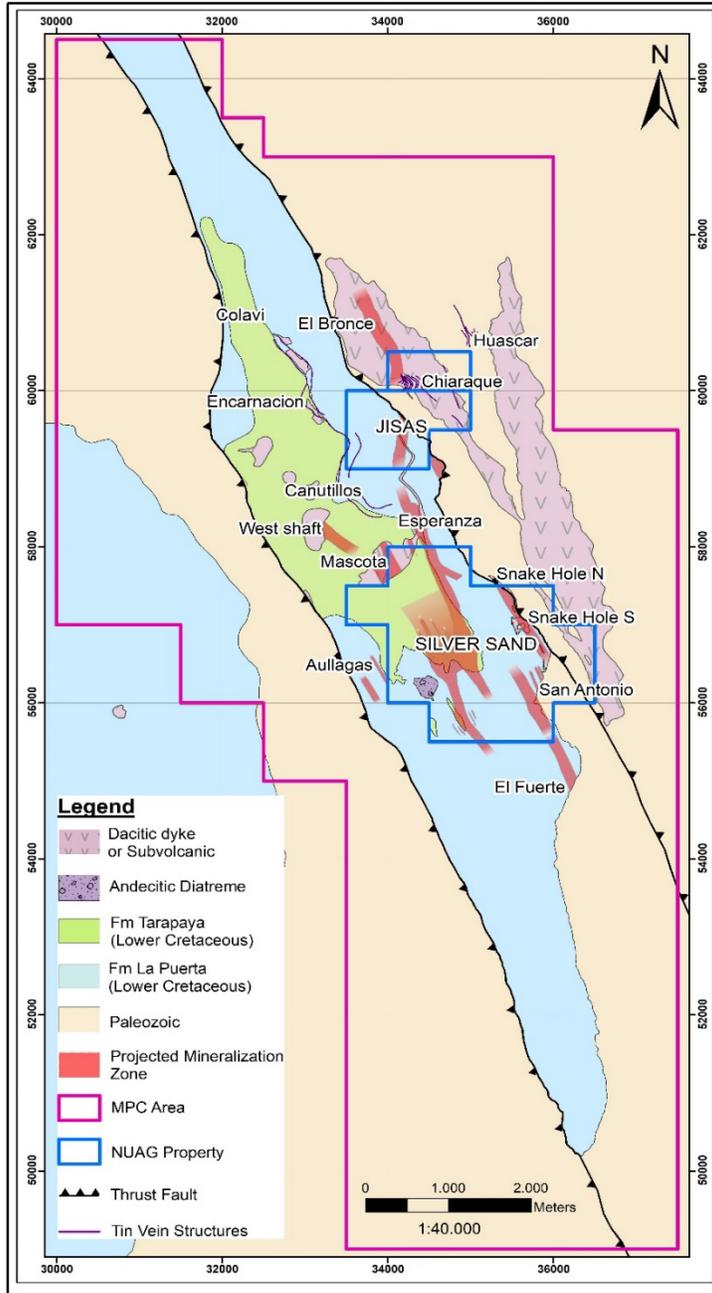
Adapted from Dietrich et al (2000)

7.2 Property Geology and Mineralization

7.2.1 Property Geology

Silver Sand Property is located in the most productive south section of the Tin Polymetallic Belt in the Eastern Cordillera. Widespread evident ruins of historic mining activities such as abandoned mining adits and miner villages can be seen across the Property area. The general geology of the Property is shown in Figure 7.3.

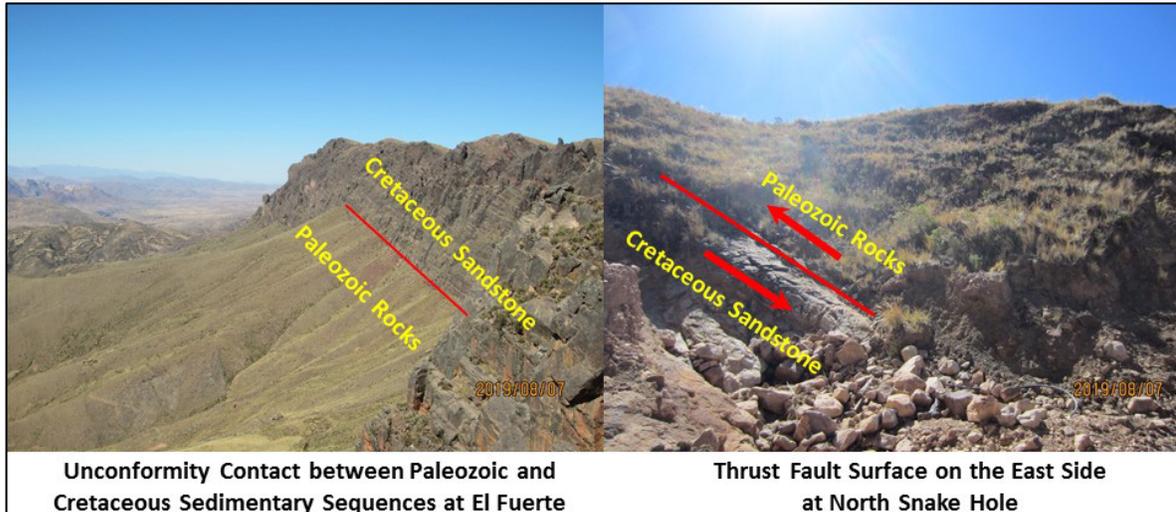
Figure 7.3 General Geology of Silver Sand Property



Bedrock in the Property area mainly consists of slightly deformed Cretaceous continental sandstone, siltstone, and mudstone and strongly deformed Paleozoic marine sedimentary rocks. The Cretaceous sedimentary sequence forms an open syncline with an axis gently plunged NNW. The unconformity contact between the para-horizontally bedded Cretaceous sandstone and the highly deformed Paleozoic sedimentary units is observed in the

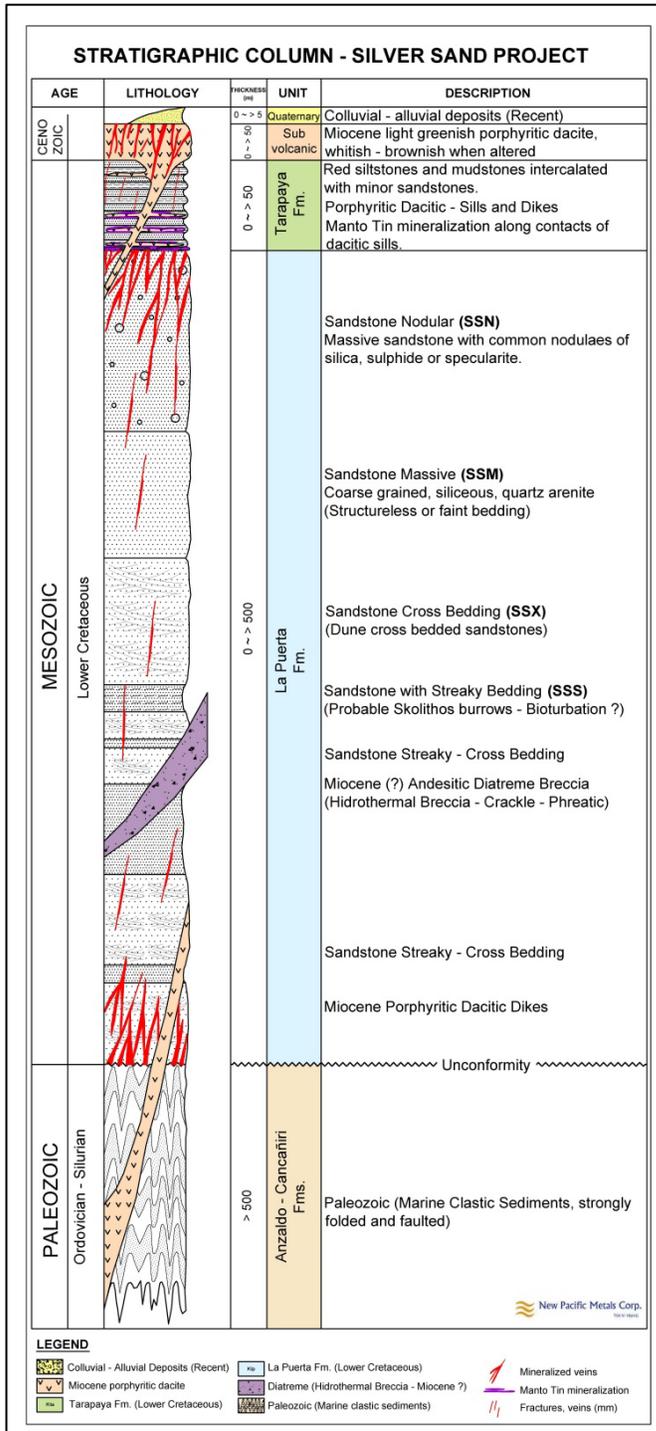
southeastern part of the Property. The Cretaceous syncline is bounded with NW-trending thrust faults on both sides (Figure 7.4).

Figure 7.4 Unconformity and Thrust Fault Contacts



The dominant Cretaceous sedimentary sequence is divided into two formations: the lower La Puerta Formation and the upper Tarapaya Formation. The La Puerta Formation consists of sandstones with different structures and unconformably overlies the highly folded Paleozoic marine sedimentary rocks. The Tarapaya Formation comprises siltstone and mudstone and conformably capped the La Puerta sandstones in the central part of the Property. The Paleozoic sedimentary rocks consist of tightly folded and thrust-faulted sandstone, siltstone, shale, and mudstone. A stratigraphic column of the Property area has been established (Figure 7.5).

Figure 7.5 Stratigraphic Column



Both the Cretaceous and Paleozoic sedimentary sequences are intruded by numerous small Cenozoic subvolcanic dacitic porphyry intrusions. Dacitic porphyry forms the top of the landmark San Cristobal Hill at Mascota and has the form of a laccolith (mushroom form

similar to some other tin polymetallic systems in the southern tin belt) overlying the Cretaceous Tarapaya siltstones. At the thrust contact between Cretaceous and Paleozoic rock units on the east side, dacitic porphyry dikes are exposed in some mine works. Two elongated stocks up to 5 kilometer long occur in the Paleozoic sedimentary rocks to the east of the Cretaceous sequence.

A large, oval body of andesitic diatreme breccia cutting La Puerta Formation sandstone outcrops close to the west side of the Silver Sand mineralization core area in the south part of the Property. It is mapped as about 300 meter long by about 200 meter wide and is oriented NNW. An ENE-striking sub-vertical hydrothermal breccia dike of about 13 meters in width outcrops at Aullagas, about 500 meters west of the diatreme outcrop. It has welded tuff and sandstone clasts and is cemented by abundant limonite (Figure 7.6).

Figure 7.6 Hydrothermal Breccia at Aullagas



7.2.2 Alteration and Mineralization

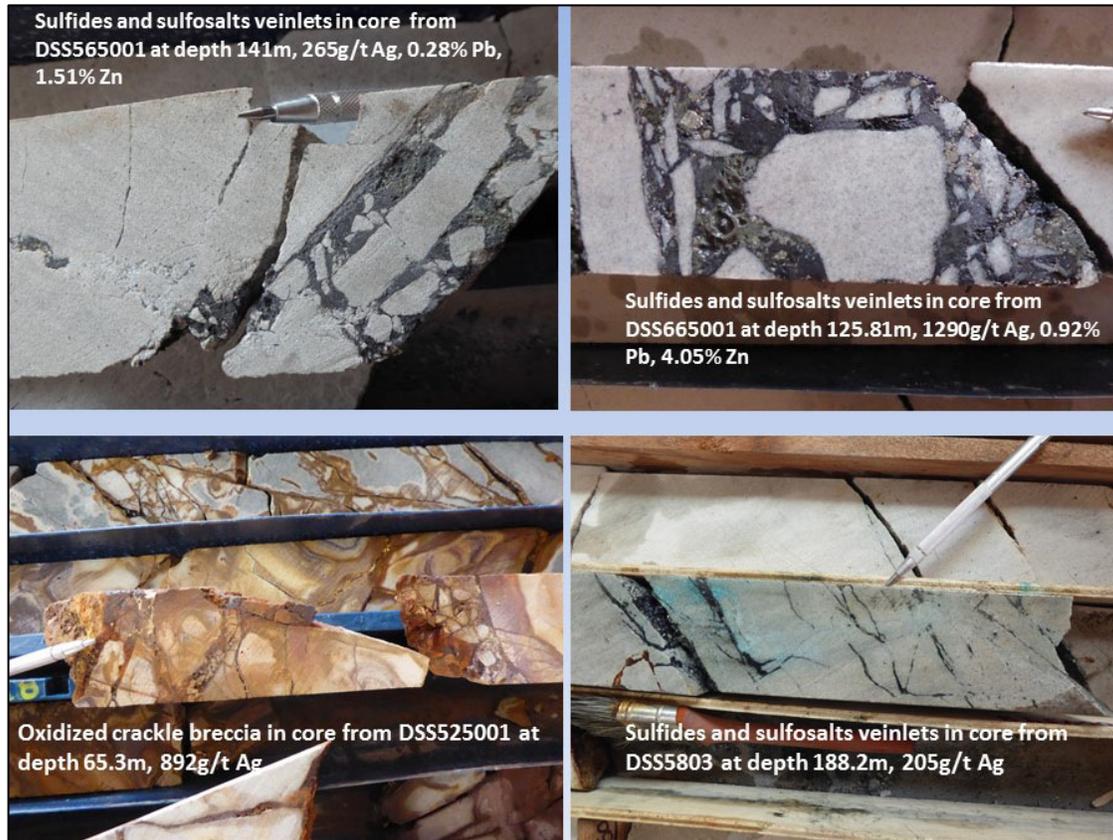
Moderate- to high-angle northwest-trending fractures and faults are well developed in the Cretaceous sandstone and dacitic porphyry intrusions in the Property. These structures may have acted as pathways for hydrothermal fluids to access the porous and laminated sandstone, which resulted in the strong fracture-controlled and stratabound alteration and silver mineralization in the La Puerta sandstone and dacitic porphyry. Manto-type tin mineralization are formed in the much less permeable Tarapaya siltstone and mudstone by metasomatic replacement. All the magmatic and hydrothermal activities which have resulted in the various types of alteration and mineralization are considered consanguineous in the Silver Sand Property. It is believed that the manto-type tin mineralization and the stratabound and structure-controlled silver mineralization have been formed in two stages representing an early mesothermal environment and a later epithermal environment respectively during a same metallogenic epoch in the most recent orogeny of the Eastern Cordillera.

1. The earlier stage of alteration and mineralization most likely took place in a mesothermal environment associated with a not-known-yet pluton system at depth. Alteration and mineralization in this stage are characterized by extensive sericitization, silicification (recrystallization and enlargement of quartz sand grains), pyrite veinlet, and disseminated pyrite and sphalerite in the La Puerta sandstones and the development of manto-type tin mineralization in the overlying Tarapaya siltstone and mudstone. Bleaching of the ferruginous cement, sericitization, and silicification have decolored the La Puerta red sandstone and further increased its brittleness. The manto-type mineralization is resulted from the metasomatic replacement of some calcareous horizons at the base of the overlying siltstone and mudstone of Tarapaya Formation. Dacitic porphyry dykes has displaced the manto-type mineralization zones at the Colavi mine (Rivas, 1979). The manto-type mineralization comprised an obvious high-temperature mineral assemblage including cassiterite, pyrite, magnetite, ankerite, siderite, and barite. The high-temperature mineral assemblage and widespread metasomatic replacement indicate a mesothermal environment.
2. With the persistent uplifting and erosion of the Eastern Cordillera during the Cenozoic orogenic events, a later stage of silver mineralization with freibergite and other silver sulfides and sulphosalts took place in an epithermal environment. Hydrothermal activities at this stage have resulted in the extensive fracturing, hydrothermal brecciation, and reopening of previous mineralized structures in the bleached and silicified brittle sandstone and dacitic porphyry dikes, laccolith and stocks. This later stage silver mineralization has superimposed on the earlier sericite alteration, pyritization, and silicification at structurally favorable locations in the bleached sandstone and dacitic porphyry intrusions. Veins of silver sulfides and sulphosalts crosscut earlier pyrite veinlets, and pyrite in druses are coated with later silver minerals. Silver mineralization

zones are spatially associated with dacitic porphyry intrusions but are formed at a later stage than the porphyry intrusion. The mineralized hydrothermal breccia at Aullagas implies that the silver mineralization and hydrothermal brecciating may have happened simultaneously. The abundance of low-temperature silver sulphosalts in silver veins and the widespread mineralized hydrothermal and structural breccia suggest an epithermal environment.

Silver mineralization is hosted by faults, fractures, fissures, and crackle breccia zones in the Cretaceous La Puerta sericitization-bleached brittle sandstone and dacitic porphyry dikes, laccolith, and stocks. In the mineralized sandstone, open spaces are filled with silver-containing sulfosalts and sulfides in forms of sheeted veins, stockworks, and veinlets, as well as breccia fillings and dissemination (Figure 7.7). The most common silver-bearing minerals include freibergite $[(Ag,Cu,Fe)_{12}(Sb,As)_4S_{13}]$, miargyrite $[AgSbS_2]$, polybasite $[(Ag,Cu)_6(Sb,As)_2S_7][Ag_9CuS_4]$, bournonite $[PbCuSbS_3]$ (some lattices of copper may be replaced by silver), andorite $[PbAgSb_3S_6]$, boulangerite $[Pb_5Sb_4S_{11}]$ (some lattices of lead may be replaced by silver) and bismuthinite $[Bi_2S_3]$ (some lattices of bismuth may be replaced by silver). Most silver mineralization in the Property is both stratabound and structurally controlled. The intensity and extensity of mineralization depend on the density of various mineralized vein structures developed in the host rocks.

Figure 7.7 Silver Mineralization in Drill Cores



The mineralized zones have been oxidized to a vertical depth of more than 210 meters (Figure 7.8). At the lower portion of the oxidized zone, there are lots of sulfide and mixed oxide-sulfide zones indicating a very irregular and jagged boundary due to fracture control. Oxide minerals are dominated by jarosite, derived from pyrite, both occurring as vein replacement and as pervasive impregnation staining of sandstone. Goethite and minor hematite are also present as a vein replacement.

Figure 7.8 Oxidized Mineralization Exposed in Adit



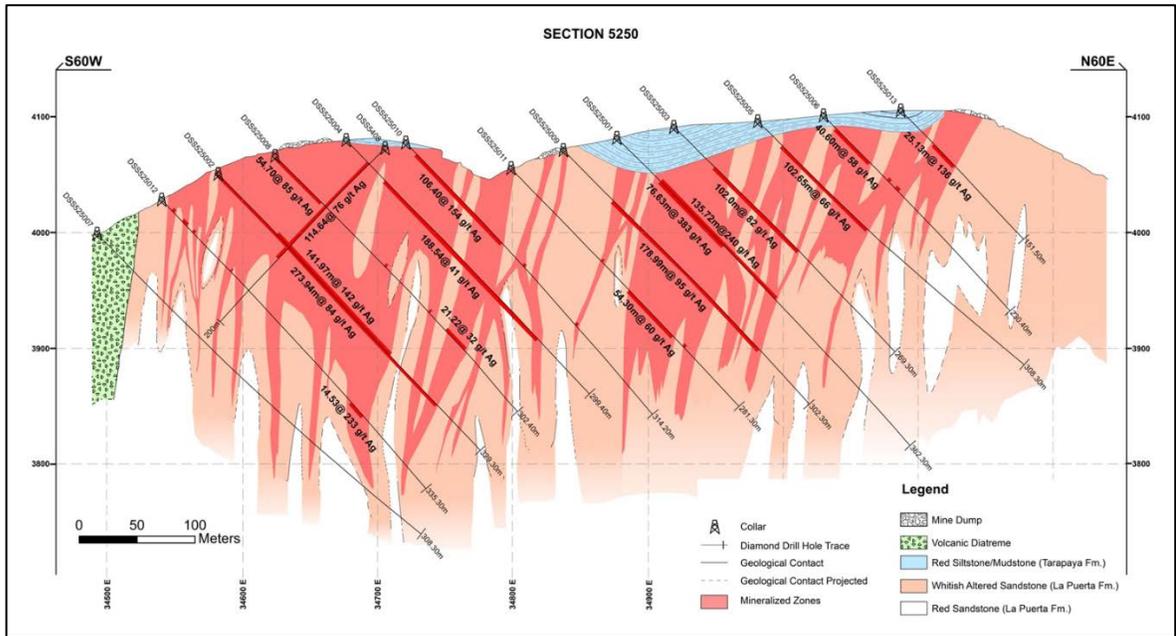
7.2.3 Major Mineralization Types and Prospects

Ten mineralization prospects, including Silver Sand, El Fuerte, South and North Snake Hole, North Plain, San Antonio, Esperanza, Jisas, El Bronce, Mascota, and Aullagas, have been identified in the Silver Sand Property (Figure 7.3). The Silver Sand Zone is the best defined by test drilling, and the other nine prospects are preliminarily verified and defined by chip and grab sampling of ancient and modern artisanal mining works and dumps. The silver and tin mineralization recognized so far in the Property can be categorized into four types according to their host rocks and structure controls as follows:

1. Sandstone-hosted Silver Mineralization: This is the dominant and the most economically potential silver mineralization type in the Silver Sand Property. Mineralized zones of this type include Silver Sand, El Fuerte, South and North Snake Hole, Esperanza, Jisas, San Antonio and likely North Plain. Silver mineralization in these zones is mainly controlled by northwest- and north-trending sub-vertical fractures that form zones of several tens to hundreds of meters in width. The current exploration drilling program has been focused on the Silver Sand core area which has been traced for more than 1,500 meters along strike with a maximum width of about 500 meters and a dip extension of more than 200

meters (Figure 7.9). Other zones have been preliminarily verified with grab sampling of mining dumps. Both the El Fuerte and the South and North Snake Hole zones have been traced for a strike length of more than 1000 meters with grab samples.

Figure 7.9 Cross Section 5250, Silver Sand



2. Dacitic Porphyry-hosted Silver Mineralization: This type of mineralization is seen in the Mascota and the El Bronce zones. Extensive artisanal mining activities are observed over dacitic porphyry stocks and laccolith. Strong alteration and well-developed stockwork are seen on the outcrops of dacitic porphyry (Figure 7.10). Systematic grab sampling on mining dumps returned silver grade from 50 to 500 g/t Ag. The El Bronce zone has been traced with grab sampling for more than 1,000 meters along strike. In Jisas area, tin mining is also conducted along northeast-trending veins in dacitic porphyry dike. Grab samples from tin mining dump contain 20 to 120 g/t Ag. It is considered that tin mineralization veins in the dacitic porphyry dike are formed at the same hydrothermal stage as silver mineralization in the Property area.

Figure 7.10 Stockworks in Altered Dacitic Porphyry



3. Hydrothermal Breccia-hosted Silver Mineralization: This type of mineralization is observed in the Aullagas zone. From surface observation, it is a northeast-trending dike-like breccia body of about 40 meters long and 13 meters wide hosted by bleached sandstone. Breccia fragments consist of ignimbrite and sandstone cemented with highly ferruginous material. Grab samples from surface return silver grade from 50 to 298 g/t Ag. Further investigation needs to be conducted to define the size and potential of the mineralized hydrothermal breccia (possible mineralized breccia pipe or diatreme).
4. Manto-type Tin and base metal Mineralization: Manto-type mineralization occurs as metasomatic replacement of the calcareous horizons in the siltstone and mudstone at the base of the Tarapaya Formation. Very fine-grained cassiterite is accompanied by abundant pyrite and some ankerite, siderite, and barite in the stratiform manto. Mining for the manto-type tin mineralization has been going on along the contact between the La Puerta sandstone and the Tarapaya siltstone and mudstone since 1890. Some drill holes in the current exploration drilling program have also intersected the manto-type mineralization horizon in the north part of the Silver Sand zone.

8 DEPOSIT TYPES

Silver and base metal mineralization in the Silver Sand Property is formed during the regional uplifting and erosion process associated with the Tertiary orogenic events in the Eastern Cordillera. The genetic model of silver and tin mineralization in the Property is a magmatic-hydrothermal system related to a not-known-yet deep-seated magmatic center. The mineralization-forming process in the Property are outlined as follows:

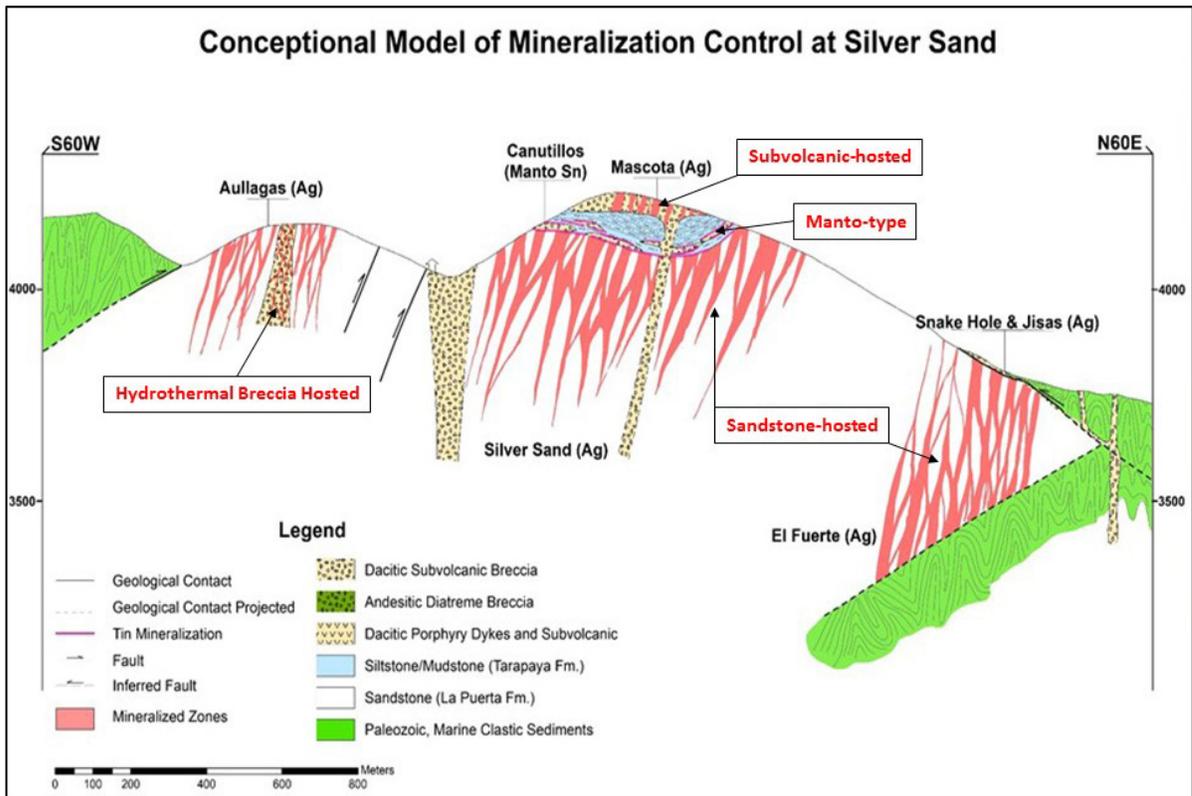
1. Tin-bearing hydrothermal solutions derived from the magmatic center moved upwards through major faults cutting through the Paleozoic and Mesozoic sedimentary sequences in a mesothermal environment at the early stage of orogeny.
2. The ductile and impermeable red siltstone and mudstone of the Tarapaya Formation overlying the porous and permeable La Puerta sandstone acted as a barrier to the upward movement of the high-temperature tin-bearing hydrothermal solution. This early hydrothermal activity resulted in the extensive sericitization and silicification of the La Puerta sandstone and the formation of the stratiform metasomatic replacement (manto-type) tin and base metal mineralization at the base of the Tarapaya siltstone and mudstone.
3. With persistent uplifting and erosion, the hydrothermal system evolved into an epithermal environment and subvolcanic activities became popular in the Property area. Dacitic porphyry intrusions cut through Paleozoic and Mesozoic sedimentary sequences and displaced the manto-type mineralization in the Tarapaya siltstone and mudstone. The subvolcanic activities might have caused intensive fracturing, faulting, and brecciating of the previously bleached brittle La Puerta sandstone.
4. Following the dacitic porphyry intrusions, a later silver-rich and tin-bearing hydrothermal solution injected into the subvolcanic-prepared faults, fractures, and breccia fissures in the La Puerta sandstone and dacitic porphyry intrusions both beneath and above the Tarapaya Formation. This later stage hydrothermal activity is characterized by typical epithermal features such as hydrothermal brecciation and a low-temperature mineral assemblage.
5. The continuous uplifting and erosion of the region has exposed all the mineralization to the present surface and resulted in the deep oxidation of the mineralized zones.

The stratiform metasomatic replacement tin mineralization formed in the earlier hydrothermal event is manto-type tin and base metal mineralization which is unique in the Bolivia Tin Belt. The silver and tin mineralization formed in the later hydrothermal event is typical of the Bolivian polymetallic vein-type deposits represented by the famous Cerro Rico de Potosi giant silver mine. The Bolivian polymetallic vein-type mineralization in the Property includes

three subtypes, the sandstone-hosted, the subvolcanic-hosted and the hydrothermal breccia-hosted mineralizations.

A conceptual model of mineralization controls in the Property is established from the above discussion (Figure 8.1).

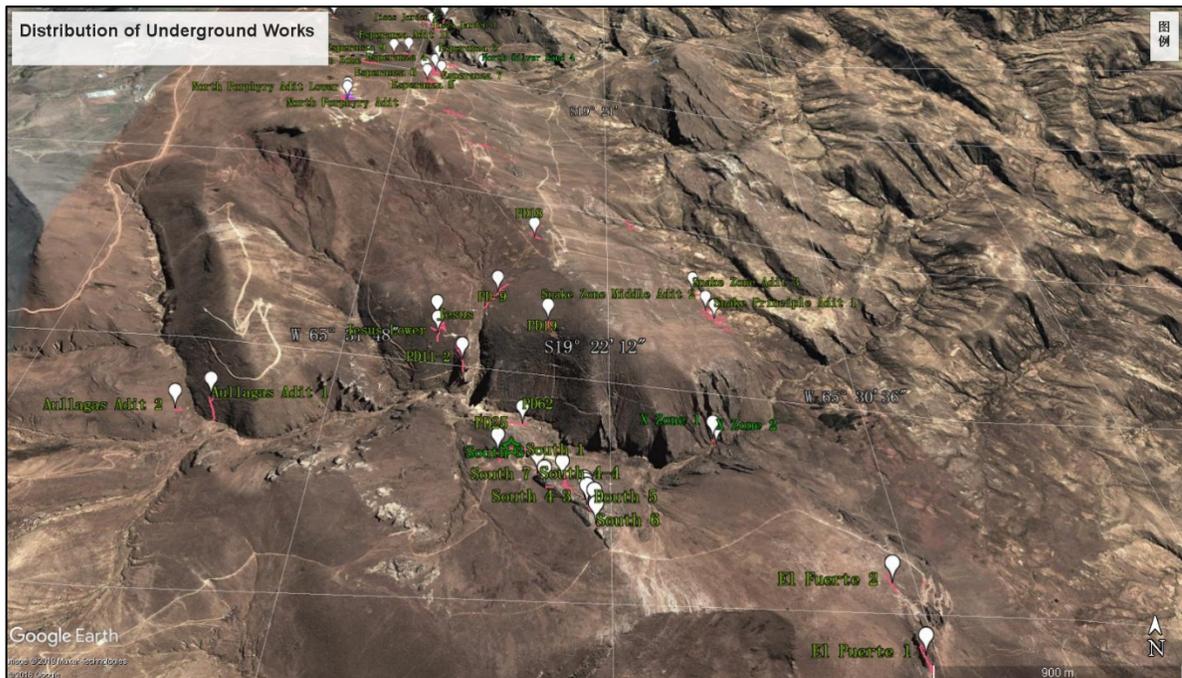
Figure 8.1 Conceptual Model of Mineralization Controls at Silver Sand



9 EXPLORATION

Bedrock is well outcropped at the relatively low-relief surface in the Silver Sand Property. Artisanal mining for the high-grade narrow veins since the early 1500s has left lots of adits and tunnels across the Property (Figure 9.1). Many of these old mining works are still partially accessible for underground investigation. Since 2017, New Pacific has carried out detailed mapping and chip sampling of outcrops of mineralized zones and old mine tunnels, and grab sampling of old mine dumps. The distribution of the investigated old mine works roughly coincides with a 3 km long and 2 km wide zone of host rocks, the Cretaceous La Puerta red sandstone intruded by dacitic porphyry dikes and laccolith. From October 2017 to August 2019, a total of 3,207 underground and surface samples are collected. All exploration samples are analyzed for multi-elements with Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES). Continuous silver mineralization has been defined in wall rocks of the mined-out high-grade narrow veins in some underground mine works.

Figure 9.1 Distribution of Investigated Old Mine Works

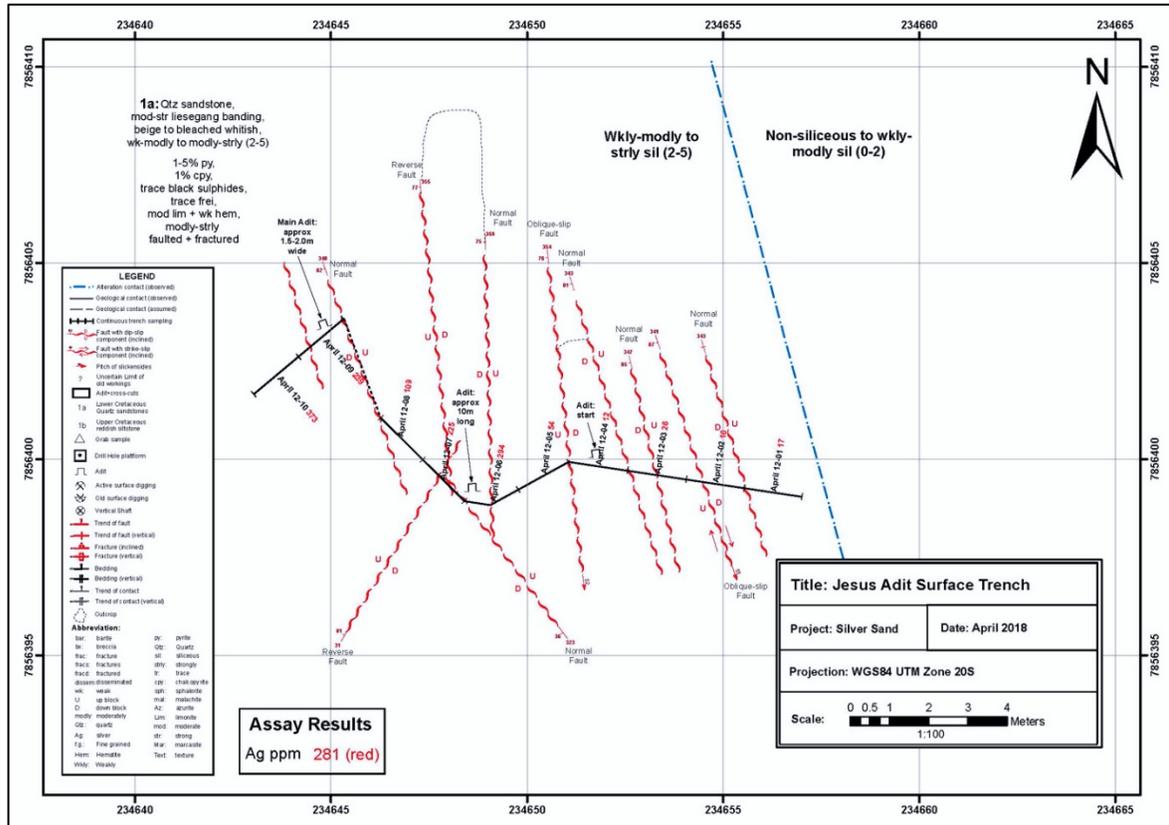


9.1 Surface Chip Sampling

Surface sampling and mapping are conducted on some outcrops of mineralized zones. Continuous chip samples are collected at 1.5-meter intervals along lines roughly perpendicular to the strike direction of the mineralization zone. Information on sample type, location, lithology, alteration, mineralization, and assay results are documented in an Excel exploration dataset and displayed on a detailed map of the sampled area. 19 outcrops have

been mapped and sampled and 904 chip samples collected along sample lines with a total length of 1,340 meters. Most of the investigated outcrops are located above or near the old mine works. Figure 9.2 shows a typical outcrop map with surface surveying and sampling results.

Figure 9.2 Outcrop Map with Surface Surveying and Sampling Results



9.2 Underground Chip Sampling

Underground mapping and chip sampling are carried out in some of the accessible old mine works distributed along major mineralization zones. Previous mining in these old works was focused on the high-grade narrow veins. The purpose of underground mapping and sampling is to investigate the mineralization potential of the wall rocks between the mined-out high-grade veins. Continuous chip samples are collected at a 1-meter interval along walls of the available tunnels that cut across the mineralization zones. Observed geological features and assay results are documented in an Excel dataset and displayed on individual maps as shown in Figure 9.3.

During the current reporting period, 42 old mine works with a total of 4,912-meter tunneling have been mapped and 964 chip samples collected. Selected results of the underground sampling program are listed in Table 9.1.

Table 9.1 Selected Underground Sampling Results of the Silver Sand Property

| Name of Adit | Length (m) | Sample Type | Number of Samples | Mineralized Samples | | | Host Rock |
|-----------------------------|------------|-------------|-------------------|---------------------|----------------------|------------------------|---------------------|
| | | | | Number | Grade Range (g/t Ag) | Average Grade (g/t Ag) | |
| El Fuerte Adit 2 | 73 | Chips | 7 | 5 | 86-589 | 261 | Sandstone |
| Jesus Adit Lower | 145 | Chips | 31 | 14 | 31-2710 | 371 | Sandstone |
| Jisas Jarden Adit 1 | 275 | Chips | 35 | 18 | 31-281 | 108 | Sandstone, Porphyry |
| North Porphyry Adit Lower | 385 | Chips | 45 | 36 | 30-1365 | 220 | Porphyry |
| North Porphyry Adit Upper | 290 | Chips | 16 | 11 | 31-812 | 219 | Porphyry |
| PD_25 | 250 | Chips | 98 | 26 | 33-666 | 114 | Sandstone |
| PD_62 | 177 | Chips | 77 | 24 | 34-750 | 179 | Sandstone |
| Snake Hole Principle Adit 1 | 188 | Chips | 8 | 6 | 85-433 | 251 | Sandstone |
| Snake Zone Adit 3 | 82 | Chips | 4 | 4 | 34-495 | 164 | Sandstone |
| South Adit 1 | 300 | Chips | 47 | 10 | 34-767 | 240 | Sandstone |
| South Adit 4 Level 1-4 | 113 | Chips | 23 | 23 | 38-1500 | 583 | Sandstone |
| Esperanza Adit 1 | 55 | Chips | 13 | 8 | 75-830 | 337 | Sandstone |
| Esperanza Adit 2 | 153 | Chips | 41 | 19 | 39-568 | 150 | Sandstone |
| Esperanza Adit 3 | 195 | Chips | 24 | 10 | 32-536 | 234 | Sandstone |
| El Bronce Main Adit 1 Upper | 120 | Chips | 11 | 7 | 37-785 | 331 | Porphyry |
| El Bronce Adit 2 | 30 | Chips | 9 | 7 | 49-318 | 108 | Porphyry |
| El Fuerte Adit 1 | 100 | Chips | 12 | 8 | 34-214 | 100 | Sandstone |

9.3 Dump Sampling

Mining dumps from old mine works are widespread along major mineralized zones in the Property. Most of the dump material is wall rocks of the mined-out high-grade narrow veins. Sampling and assaying dump samples can provide direct evidence for the existence of silver mineralization in the wall rocks of the underground mine works, especially for the inaccessible ones. 1,339 grab samples were collected from dump piles of old mine works across the Property during this reporting period. 572 of the 1,339 samples contain silver of more than 30 g/t with an average grade of 190 g/t Ag.

9.4 Summary of Underground and Surface Sampling Programs

Assay results of underground chip samples and surface mine dump grab samples show that silver mineralization widely occurs in the wall rocks of the previously mined-out high-grade veins in the underground mine works. This kind of mineralization may form continuous mineralized zones from several meters to several tens of meters in width in host rocks, the

bleached sandstone and dacitic porphyry. Table 9.2 is a general summary of the results of the mapping and sampling programs from 2017 to 2019. The average silver grades of both the underground chip samples and the grab dump samples are comparable, while that of the surface chip samples is significantly lower. The significant difference of silver grades in underground and surface chip samples may have resulted from weathering, oxidizing and leaching of silver sulfides and sulfosalts from the host rocks since they are exposed to the surface. This factor should be considered when interpreting the results of surface chip samples.

Table 9.2 Summary of Underground and Surface Sampling Programs

| Sample Type | Total Samples | Average Grade (g/t Ag) | Number of Mineralized Samples | Grade Range (g/t Ag) | Average (g/t Ag) |
|-------------------|---------------|------------------------|-------------------------------|----------------------|------------------|
| Underground Chips | 964 | 80 | 339 | 31-2710 | 211 |
| Surface Chips | 904 | 14 | 67 | 30-840 | 141 |
| Dump Grab | 1339 | 85 | 572 | 32-3290 | 190 |

10 DRILLING

Prior to the acquisition of the Silver Sand Property by New Pacific in July 2017, eight diamond core holes were drilled with a total meterage of 2,334 meters by the previous owner and four due diligence holes were drilled with a total of 1,546 meters by New Pacific. Since the acquisition of the Property, New Pacific has carried out two diamond core drilling campaigns from October 2017 to August 2019 with a total meterage of 69,071 meters in 255 holes and a total of 49,373 core samples collected. Holes are drilled to delineate the spatial extensions of the major mineralized zones defined by surface and underground sampling in the Silver Sand area. The drilling programs have covered an area of approximately 1,600 meters long in the north-south direction and 800 meters wide in the east-west direction.

10.1 Drilling Method

The diamond core drilling is conducted by contractor drillers from Leduc Drilling SRL based in La Paz, Bolivia under the strict supervision of New Pacific's geologists. The contractor has mobilized three to four drill rigs during the two drilling programs. The holes are drilled from the surface along northeast-bearing (N60° E) sections with hole azimuth 060° NE and inclination -45° in order to intercept the principal trend of the mineralized vein structures, with HQ-sized (64mm) core recovered (Figure 10.1). A basic drilling grid of 50m X 50m is adopted to define the mineralized structures, and the drilling grid is infilled to 25m X 25m to further increase the geological confidence in areas where the mineralized structures have been defined.

Figure 10.1 Operating Drill Rig in the Silver Sand Property



The drill collars are surveyed by a New Pacific surveyor with a differential GPS. Downhole surveys are conducted by contractor drillers with a REFLEX multishot unit to record the azimuth and dip information. Two downhole surveys are carried out for each hole. The first one is taken at a depth of approximately 20 meters from the surface. When the hole is completed, the second survey is conducted by taking readings about every 30 meters upwards from the end of the hole. Drill collars are well marked by a cement monument with plastic pipe in the drill collar and hole information inscribed in the cement.

Drill cores are carefully collected in the correct order and orientation and placed in core boxes at the end of each drill run by drillers. Drill meterage, run number, and hole ID are properly recorded on core blocks at the end of each drill run. Hole ID and hole depth are recorded at the start and the end of each core box by drillers using permanent marker. Cores are placed at a safe location within the immediate drilling area before handing over to New Pacific geologists.

10.2 Logging Procedures

A quick log is made daily at the drill site by project geologists. Natural breaks are marked on the core, mineralized veins and veinlets are analyzed with a portable XRF analyzer and analyzed results of silver are recorded beside the analyzed point on the core, and photographs are taken of the core boxes.

The core boxes are sent to a secured core yard (Figure 11.1) in Betanzos for logging, sampling, and storage on a daily basis. On arrival at the core yard, the core boxes are cleaned, checked and recorded in a core handover form that is signed by the receiver. Core boxes are then moved to the logging shack. Geologists process the cores in the logging shack in the following procedures:

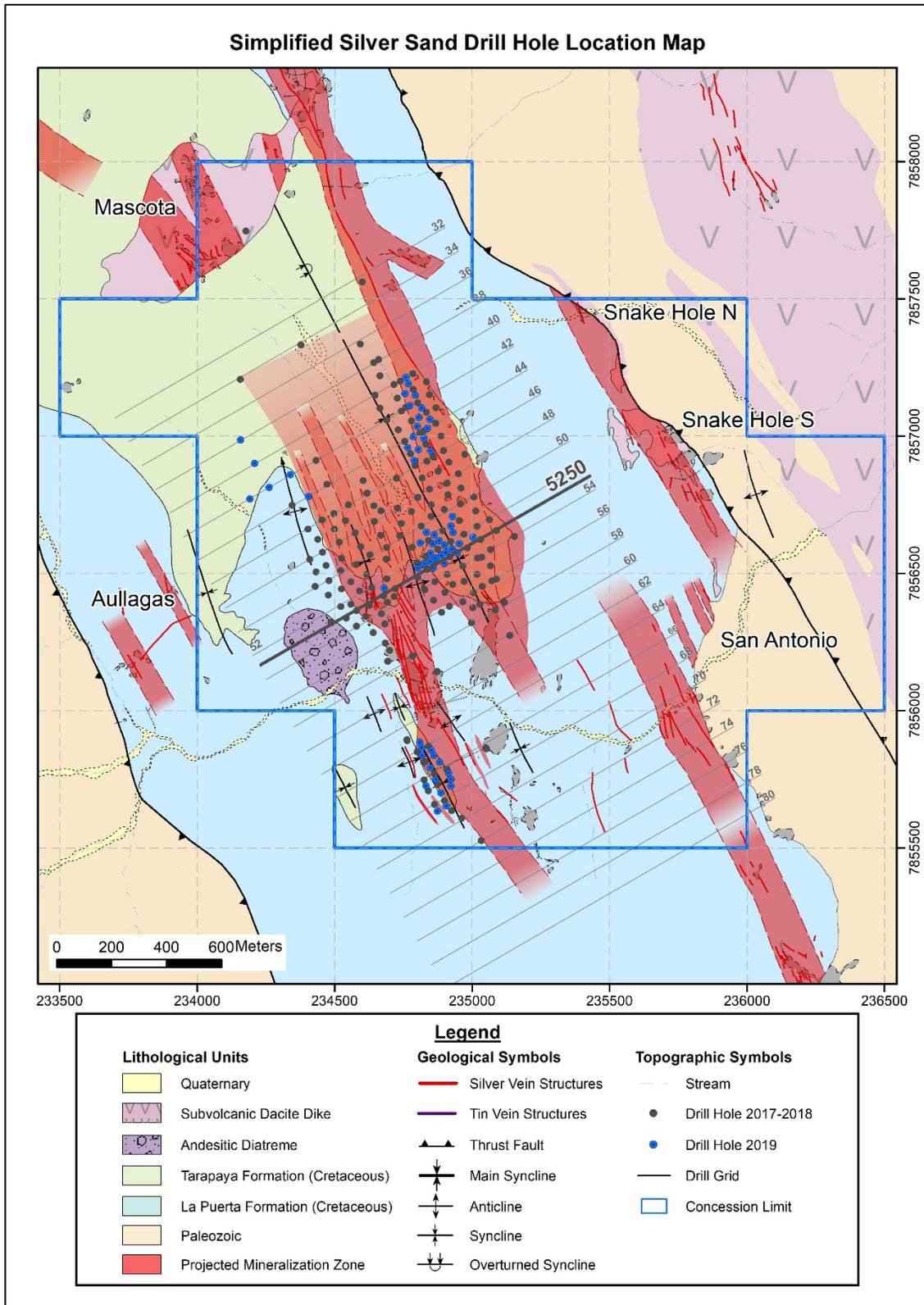
1. Drill core is reconnected together and the length of the recovered core is measured for each run. Downhole depth is marked on the core with permanent marker.
2. Core recovery and RQD are calculated and recorded.
3. Lithology, color, alteration, structure, mineralization, and oxidation are recorded on a standard logging form. The data is subsequently digitized in an Excel format.
4. Geologist determines cores to be sampled and marks a cutting line based on the observed mineralization, structure, and lithology. The sample length varies from 1.0 to 1.5 meters.
5. One specific gravity measurement is conducted for approximately every 15 samples.
6. Prior to core cutting, photos of wet cores are taken using a high definition camera.

10.3 Results of the 2017-2018 Drilling Program

The 2017-2018 diamond core drilling program was initiated in mid-October 2017 and ended in mid-December 2018 with a total of 55,010 meters in 195 HQ-sized drill holes completed. Hole length ranges from 26 to 545 meters with an average length of 281 meters. Figure 10.2 shows drill hole locations of the 2017-2018 drilling program.

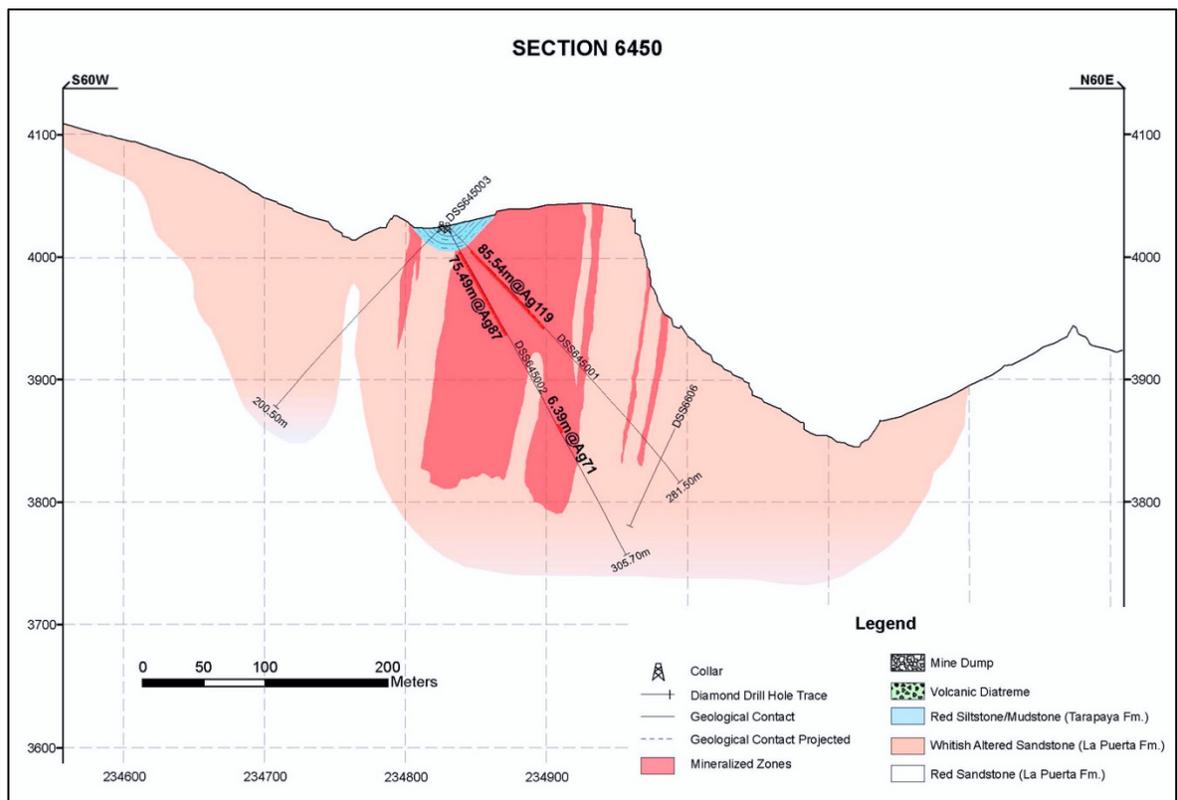
Near-surface silver mineralization is intercepted in 190 holes out of the total 195 holes completed. A mineralization zone of more than 1,600 meters in length and from several tens to more than 400 meters in width is defined by the 2017-2018 drilling program, and the defined mineralization zone extends from surface to more than 300 meters in depth. The major part of the mineralization zone is defined by a 50m X 50m drilling grid. The mineralization zone is open both northwards and southwards along strike and downdip.

Figure 10.2 Location Map of Drill Holes in the 2017-2018 Drilling Program



To the south of Section 60, the massive whitish altered and fractured sandstones of the La Puerta Formation, the known host rock of silver mineralization, exposed at the surface, and widespread mining remains such as adits, drifts, and stopes from the early 1500s to the modern times scattered along the mineralized structures. Drilling in this area has hit many of these ancient underground workings. Silver mineralization to the south of section 60 was outlined by drilling an area of approximately 500 meters long and 150 meters wide within the altered quartz sandstones of the La Puerta Formation. Figure 10.3 shows a typical cross-section of the defined mineralization zone to the south of Section 60.

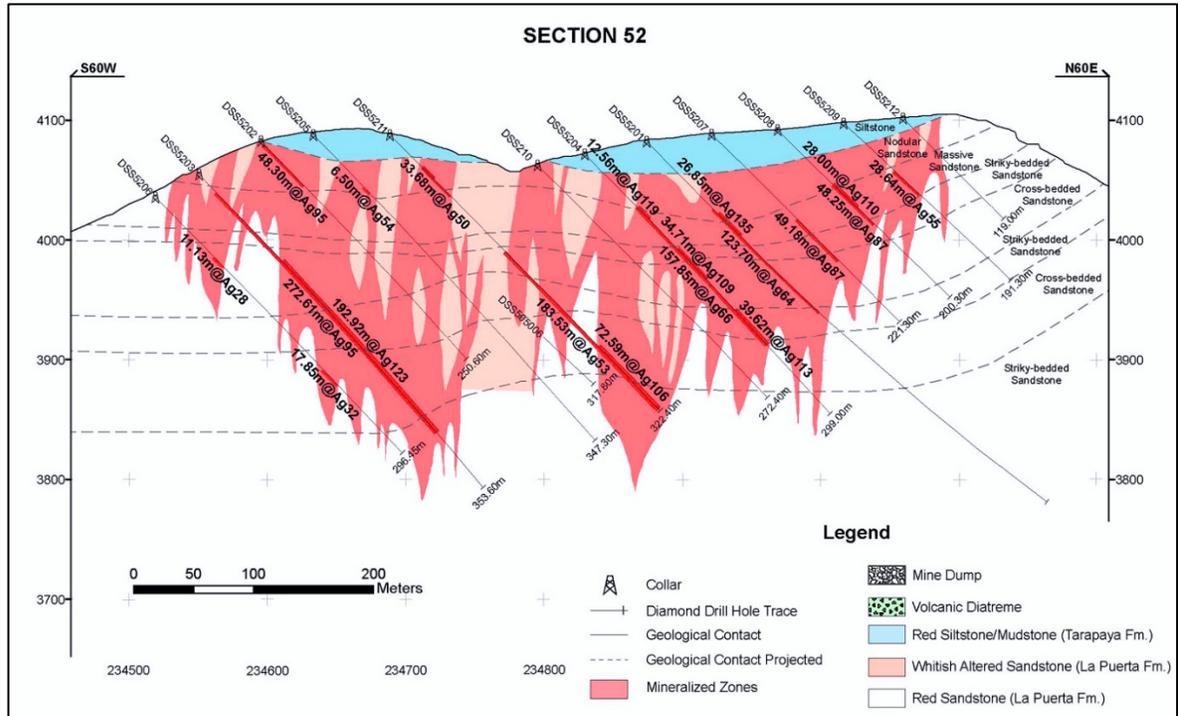
Figure 10.3 Cross Section 6450, Silver Sand Area



To the north of section 60, drilling covered an area of approximately 1,100 meters long in the north-south direction and 800 meters wide in the east-west direction. Drilling in this area intercepted mineralized fracture zones right beneath the Tarapaya reddish siltstones and mudstones. The drill holes usually penetrate first through an up to 50 m thick layer of reddish siltstone and mudstone unit of the Cretaceous Tarapaya Formation, then into massive altered whitish sandstones of the Cretaceous La Puerta Formation in which silver mineralization occurs. At the contact of the Tarapaya and La Puerta Formations, massive pyrite mineralization of less than two meters in thickness typically occurs in the siltstone and

mudstone. The silver mineralization could extend from near-surface to a depth up to more than 250 meters and the width of the mineralization zone is up to more than 400 meters (Figure 10.4). In comparison to the south of section 60, only a few ancient underground mining workings were encountered during drilling.

Figure 10.4 Cross Section 52, Silver Sand Area



Part of significant intersections from the 2017-2018 drilling program are listed in Table 10.1.

Table 10.1 Selected Intersections from the 2017-2018 Drilling Program

| Hole_id | Section | Mineralized Intervals | | | | | |
|-----------|------------------|-----------------------|--------|------------|--------|------|------|
| | | From (m) | To (m) | Length (m) | Ag g/t | Pb % | Zn % |
| DSS525001 | 5250 | 50.8 | 186.52 | 135.72 | 240 | | |
| | <i>including</i> | 50.8 | 127.43 | 76.63 | 383 | 0.08 | 0.01 |
| DSS525002 | 5250 | 148.5 | 204.8 | 56.3 | 216 | 0.32 | |
| DSS525010 | 5250 | 12 | 118.4 | 106.4 | 154 | 0.04 | 0.03 |
| DSS5407 | 54 | 64.07 | 140.1 | 76.03 | 205 | 0.09 | 0.01 |
| | <i>including</i> | 64.07 | 124.96 | 60.89 | 251 | 0.1 | 0.01 |
| DSS5803 | 58 | 18 | 190 | 172 | 110 | 0.03 | 0.03 |
| | <i>including</i> | 18 | 101.5 | 83.5 | 192 | 0.04 | |
| DSS6201 | 62 | 119.93 | 189.6 | 69.67 | 116 | 0.07 | 0.02 |
| DSS645001 | 6450 | 27.46 | 113 | 85.54 | 119 | 0.06 | 0.01 |
| | <i>including</i> | 27.46 | 53.5 | 26.04 | 189 | 0.05 | |

| | | | | | | | | |
|-----------|------|------------------|--------|--------|--------|-----|------|------|
| DSS645002 | 6450 | | 23.21 | 77.7 | 54.49 | 111 | 0.04 | 0.01 |
| DSS6603A | 66 | | 7.9 | 73.15 | 65.25 | 181 | 0.08 | 0.1 |
| | | <i>including</i> | 7.9 | 39.9 | 32 | 304 | 0.08 | 0.15 |
| DSS665001 | 6650 | | 44.23 | 134 | 89.77 | 115 | 0.12 | 0.31 |
| | | <i>including</i> | 44.23 | 48.68 | 4.45 | 394 | 0.06 | 0.01 |
| DSS405002 | 4050 | | 99.22 | 146.46 | 47.24 | 117 | 0.02 | |
| DSS4204 | 42 | | 86.6 | 155 | 68.4 | 148 | 0.03 | |
| DSS425002 | 4250 | | 97.23 | 133.09 | 35.86 | 277 | 0.04 | |
| DSS4402 | 44 | | 69.85 | 214.7 | 144.85 | 86 | 0.03 | 0.05 |
| | | <i>including</i> | 129.5 | 178 | 48.5 | 211 | 0.03 | 0.03 |
| DSS4609 | 46 | | 63.38 | 147.3 | 83.92 | 116 | 0.07 | 0.1 |
| | | <i>including</i> | 84.3 | 94.7 | 10.4 | 398 | 0.28 | 0.04 |
| | | <i>including</i> | 138.4 | 147.3 | 8.9 | 414 | 0.15 | 0.02 |
| DSS505003 | 5050 | | 59.85 | 285.67 | 225.82 | 116 | 0.05 | 0.01 |
| | | <i>including</i> | 185.76 | 285.67 | 99.91 | 244 | 0.09 | 0.01 |
| DSS505004 | 5050 | | 73.5 | 168.7 | 95.2 | 162 | 0.06 | 0.13 |
| | | <i>including</i> | 117.7 | 134.4 | 16.7 | 703 | 0.1 | |
| DSS5203 | 52 | | 100.77 | 293.7 | 192.93 | 123 | 0.07 | 0.02 |
| | | <i>including</i> | 100.77 | 118.2 | 17.43 | 329 | 0.03 | 0.09 |
| | | <i>including</i> | 219.64 | 293.7 | 74.06 | 191 | 0.08 | 0.02 |
| DSS5211 | 52 | <i>including</i> | 248.34 | 320.93 | 72.59 | 106 | 0.06 | 0.04 |
| DSS5409 | 54 | | 96.9 | 139.86 | 42.96 | 101 | 0.03 | |
| DSS5604 | 56 | | 39.92 | 119.4 | 79.48 | 135 | 0.06 | 0.01 |
| | | <i>including</i> | 39.92 | 62.65 | 22.73 | 330 | 0.05 | 0.01 |
| DSS565003 | 5650 | | 21.95 | 85.22 | 63.27 | 141 | 0.08 | |
| DSS5807 | 58 | | 7 | 55.63 | 48.63 | 148 | 0.15 | |

Note: True width of the mineralization is not known yet, but based on the current understanding of the relationship between drill direction and the mineralized structures it is estimated that true width will approximate 80% of the downhole interval length.

10.4 Results of the 2019 Drilling Program

Based on the success of its 2018 drilling program, New Pacific organized its second diamond drilling campaign in late April of 2019. The 2019 drilling program is focused on (1) infilling the hole density to approximately 25 meters by 25 meters spacing in areas where major mineralization zone has been defined by the 2017-2018 drilling program, and (2) investigating the strike extension of the major mineralization zones under the Tarapaya siltstone and mudstone by test drilling the area north of Section 44. As of August 31, 2019, a total of 14,061 meters in 60 holes has been completed. The lengths of the completed holes vary from 98 meters to 365 meters with an average length of 234 meters. Locations of the completed holes in 2019 are shown in Figure 10.2. 59 of the 60 completed holes intercepted silver mineralization, and selected mineralized intersections are listed in Table 10.2. Results of the 2019 drilling program thus far further verified the continuity of the major mineralization zone

along strike and downdip. Figure 10.5 shows a cross section updated with the 2019 infill drilling results.

Table 10.2 Selected Intersections from the 2019 Drilling Program

| Hole_id | Section | Mineralized Intervals | | | | | |
|-----------|---------|-------------------------|--------|------------|--------|------|------|
| | | From (m) | To (m) | Length (m) | Ag g/t | Pb % | Zn % |
| DSS522501 | 5225 | 65.22 | 209.44 | 144.2 | 169 | 0.06 | 0.01 |
| | | <i>including</i> 65.22 | 138.43 | 73.21 | 243 | 0.08 | 0.01 |
| DSS525014 | 5250 | 48.7 | 125.02 | 76.32 | 150 | 0.06 | 0 |
| | | 171.19 | 183.85 | 12.66 | 99 | 0.09 | 0.08 |
| DSS642501 | 6425 | 23.15 | 137.38 | 114.23 | 117 | 0.06 | 0.02 |
| | | <i>including</i> 23.15 | 31.4 | 8.28 | 265 | 0.01 | 0 |
| | | <i>including</i> 46.2 | 53.1 | 6.89 | 313 | 0.13 | 0.01 |
| | | <i>including</i> 103.83 | 107 | 3.17 | 1,105 | 0.21 | 0.06 |
| DSS4006 | 40 | 108.1 | 150.5 | 42.4 | 174 | 0.04 | 0.01 |
| DSS422501 | 4225 | 41.7 | 146.2 | 104.5 | 183 | 0.05 | 0.11 |
| | | <i>including</i> 80.25 | 146.2 | 65.95 | 282 | 0.05 | 0 |
| DSS507502 | 5075 | 82.1 | 165.52 | 83.42 | 116 | 0.03 | 0.04 |
| | | <i>including</i> 82.1 | 108.65 | 26.55 | 242 | 0.06 | 0.05 |
| | | <i>including</i> 145.38 | 165.52 | 20.14 | 155 | 0.02 | 0 |
| DSS507503 | 5075 | 98.5 | 155.86 | 57.36 | 354 | 0.11 | 0.02 |
| | | <i>including</i> 98.5 | 116.94 | 18.44 | 403 | 0.16 | 0.01 |
| | | <i>including</i> 142.7 | 146.3 | 3.6 | 3,378 | 0.72 | 0.05 |
| DSS522503 | 5225 | 62.95 | 244.22 | 181.27 | 100 | 0.04 | 0.01 |
| | | <i>including</i> 128.05 | 222.23 | 94.18 | 177 | 0.06 | 0.01 |
| | | <i>including</i> 205.55 | 222.23 | 16.68 | 754 | 0.2 | 0.01 |
| DSS662502 | 6625 | 11.5 | 61.38 | 49.88 | 184 | 0.07 | 0.07 |
| DSS427501 | 4275 | 71.1 | 146.9 | 75.8 | 128 | 0.03 | 0 |
| | | <i>including</i> 71.1 | 74.6 | 3.5 | 746 | 0.13 | 0 |
| | | <i>including</i> 87.5 | 97.8 | 10.3 | 266 | 0.05 | 0 |
| | | <i>including</i> 114.7 | 126.49 | 11.79 | 293 | 0.06 | 0 |
| DSS4408 | 44 | 38.29 | 179 | 140.71 | 109 | 0.01 | 0.02 |
| | | <i>including</i> 38.29 | 52.53 | 14.24 | 362 | 0.02 | 0.02 |
| | | <i>including</i> 134.3 | 144.1 | 9.8 | 548 | 0.03 | 0.01 |
| DSS447502 | 4475 | 66.5 | 135.18 | 68.68 | 153 | 0.06 | 0.1 |
| | | <i>including</i> 66.5 | 71 | 4.5 | 1,140 | 0.16 | 0.02 |
| | | <i>including</i> 87.75 | 91 | 3.25 | 851 | 0.15 | 0.01 |
| | | 183.7 | 185.13 | 1.43 | 122 | 0.02 | 0 |
| DSS522506 | 5225 | 73.8 | 239.3 | 165.5 | 204 | 0.06 | 0.01 |
| | | <i>including</i> 73.8 | 167.3 | 93.5 | 336 | 0.1 | 0 |
| | | <i>including</i> 116.3 | 161.3 | 45 | 641 | 0.19 | 0.01 |

11 SAMPLE PREPARATION, ANALYSES AND SECURITY

11.1 Sampling Methods

11.1.1 Core Sample

HQ-sized drill cores (64 mm in diameter) are recovered from mineralized zones. Drill core is transported daily by the company's vehicles from drill sites to a core yard with logging, sampling and storage facilities at Betanzos, a local town 21 kilometers to the south of Silver Sand. Drill cores are logged and photographed in detail at a core shack (Figure 9.1). Core sample intervals are marked by a geologist with priority given to geological contacts and visible mineralization with a sample length from 1 to 1.5 meters. A cut-line and sample number are marked on the core. Prior to core cutting, every core box is photographed with a high resolution digital camera. The core is cut by a diamond saw with one half put in a plastic sample bag and the other half returned to the core box and stored in a secured core storage facility for future reference. Sample numbers are from printed sample ticket books with consecutive numbers on tear-off tags. The sample number is written on the outside of the bag with an indelible marker and a sample tag is put inside.

Figure 11.1 Logging and Storage Facilities at Betanzos Core Yard



11.1.2 Chip Sample

Chip samples are collected from outcrops of mineralized zones and old underground mine works. On the outcrops of the mineralization zones, continuous chip samples are collected at a 1.5-meter interval along lines roughly perpendicular to the strike direction of the mineralization zone. In the accessible old mine works, continuous chip samples are collected at a 1-meter interval along walls of the available tunnels that cut across the mineralization zones.

11.1.3 Grab Sample

Grab samples are collected from dump piles from the old underground mine works. The number of samples being taken from each pile depends on the size of the pile. Wherever possible, efforts are made to make the samples evenly distributed on each pile.

11.2 Sample Preparation and Analysis

Core, chip and grab samples are shipped in securely sealed bags to ALS Global in Oruro, Bolivia for preparation. At the preparation lab, samples are processed with the following procedures: (1) crush to 70% less than 2mm; (2) riffle split off 250g; and (3) pulverize split to better than 85% passing a 75-micron sieve. The pulverized pulps are shipped to ALS Global Lab in Lima, Peru for geochemical analysis, and the rejects are trucked back to New Pacific's storage facility in Betanzos, Bolivia.

In the 2017-2018 drill season, all samples are first analyzed by ore grade method for silver, lead and zinc using ALS code OG46 and samples with more than 1,500 g/t Ag (the upper detection limit of OG46) are further analyzed by gravimetric analysis (ALS code of GRA21). In the 2019 drill season, all samples are first analyzed by a multi-element ICP package (ALS code ME-MS41), samples with more than 100 g/t Ag (upper detection limit of ME-MS41) are analyzed for silver, lead and zinc using ALS code OG46, and samples with more than 1,500 g/t Ag are further analyzed by gravimetric analysis (ALS code of GRA21).

11.3 Sample Security

Sample security is carried out according to standard industry practice. Core boxes are accumulated at drill sites and then moved to the drill camp. A drilling supervising geologist makes a daily quick log, marks the natural breaks, analyses veinlets with a portable XRF analyzer, and photographs the entire core boxes at each drill site as a precaution against damage or accident. The core is transported daily by company vehicles from the drill camp and drill sites to the core yard in Betanzos.

The core yard is a secure site surrounded by a brick wall and has a locked gate and a 24-hour security guard. Within the yard, there are separate and locked logging, sampling and storage facilities where core logging, sample cutting, and core storage are carried out.

11.4 Quality Assurance and Quality Control

New Pacific's QA/QC program in the years from 2017 to 2019 comprised the following:

- Certified Standard samples and blanks are regularly inserted at a rate of one standard and one blank per 20 sample batch to monitor the accuracy of assay results and the possible contamination from sample preparation procedures.

- Quarter core duplicates of approximately 5% of the mineralized samples are prepared and assayed at the ALS Global lab to monitor sampling bias and evaluate the homogeneousness of mineralization.
- One coarse rejects duplicate per 20 sample batch is sent to a second accredited lab, the Actlabs Skyline in Lima, Peru, for external check by similar assay procedures to monitor lab bias.

New Pacific has used four certified standards CDN-ME-1501, CDN-ME-1603, CDN-ME-1605, and CDN-ME-1810 to monitor the low grade, the intermediate grade and the high-grade mineralized samples in its 2018 and 2019 exploration programs. The certified standards are purchased from the CDN Resource Laboratories Ltd in Langley, BC, Canada. The certified values of silver, lead, and zinc and the two standard deviations for each standard are listed in Table 11.1.

Blank samples are prepared from barren quartz sands collected from Potosi area by New Pacific geologists.

11.4.1 Assay Results of Standards

2514 standard samples, including 108 of CDN-ME-1501, 1,378 of CDN-ME-1603, 948 of CDN-ME-1605, and 80 of CDN-ME-1810, are used in New Pacific’s 2018 and 2019 exploration programs. Precision, accuracy, and failures of assay results for each standard are listed in Table 11.1. Assay-number weighted accuracies of assay results for silver, lead and zinc in the four standards are -1.12%, -1.01%, and -1.84% respectively, which are considered acceptable according to the industry standard. The negative accuracies of the assay results indicate that the reported assay data of the exploration samples are biased slightly lower for silver, lead and zinc.

Assay results greater or less than 3 times of standard deviation are considered failed assays. Among the 2,514 assays of the Certified Standards, there are 112 failed assays for silver, 28 for lead, and 38 for zinc that form a 4% failure rate for silver, 1% for lead, and 1.5% for zinc. In sample batches with failed assays of standards, samples with grades within the control range of the failed standards are reanalyzed, and the data are replaced by the new assay data in the database.

Table 11.1 Assay Results of Silver, Lead and Zinc in Standard Samples

| Standard | Certified Values | | | Number of Assays | Average | Standard Deviation | Precision % | Accuracy % | Failures | | |
|----------|------------------|----------|---------|------------------|-----------|--------------------|-------------|------------|----------|------|--------|
| | Element | Grade | 2SD | | | | | | >3SD | <3SD | Rate % |
| ME-1501 | Ag | 34.6 g/t | 2.3 g/t | 108 | 34.28 g/t | 1.22 g/t | 3.57 | -0.92 | 1 | 1 | 2 |
| | Pb | 0.39% | 0.02% | 108 | 0.38% | 0.01% | 2.94 | -1.3 | 0 | 3 | 3 |
| | Zn | 0.25% | 0.01% | 108 | 0.24% | 0.01% | 2.97 | -5.14 | 0 | 11 | 10 |

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| | | | | | | | | | | | |
|---------|----|---------|-------|------|-----------|----------|------|-------|----|----|-----|
| ME-1603 | Ag | 86 g/t | 3 g/t | 1378 | 84.94 g/t | 2.33 g/t | 2.74 | -1.24 | 17 | 65 | 6 |
| | Pb | 1.34% | 0.05% | 1378 | 1.32% | 0.03% | 1.96 | -1.49 | 3 | 15 | 1 |
| | Zn | 0.45% | 0.03% | 1378 | 0.44% | 0.01% | 2.64 | -2.22 | 0 | 8 | 0.6 |
| ME-1605 | Ag | 274 g/t | 9 g/t | 948 | 271 g/t | 6.14 g/t | 2.27 | -1.1 | 3 | 25 | 3 |
| | Pb | 4.45% | 0.15% | 948 | 4.43% | 0.09% | 2.1 | -0.35 | 3 | 4 | 0.7 |
| | Zn | 2.15% | 0.07% | 948 | 2.13% | 0.05% | 2.27 | -0.94 | 3 | 16 | 2 |
| ME-1810 | Ag | 154 g/t | 9 g/t | 80 | 154.7 g/t | 4.4 g/t | 2.85 | 0.43 | 0 | 0 | 0 |
| | Pb | 1.46% | 0.07% | 80 | 1.46% | 0.03% | 1.83 | -0.22 | 0 | 0 | 0 |
| | Zn | 0.96% | 0.04% | 80 | 0.94% | 0.02% | 2.33 | -1.57 | 0 | 0 | 0 |

Figures 11.2, 11.3, and 11.4 show the performance of three Certified Standards that represent the cutoff grade, the intermediate grade, and the high grade ranges respectively.

Figure 11.2 Results of 108 Assays of CDN-ME-1501

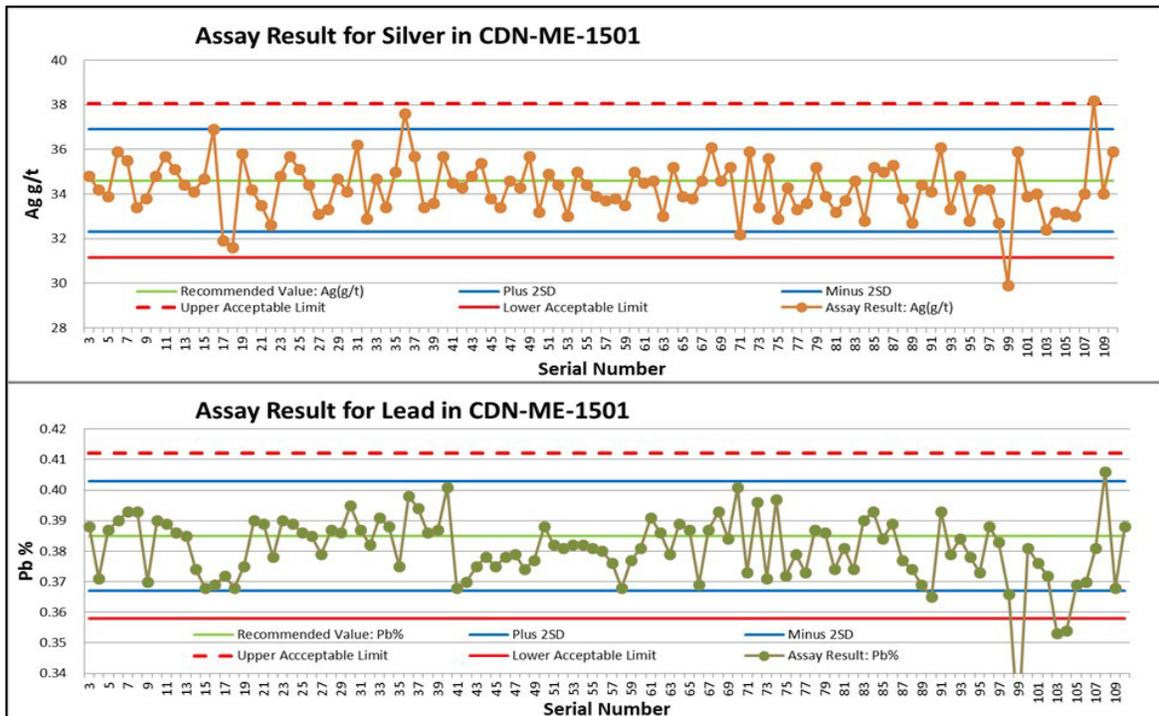


Figure 11.3 Results of 80 Assays of CDN-ME-1810

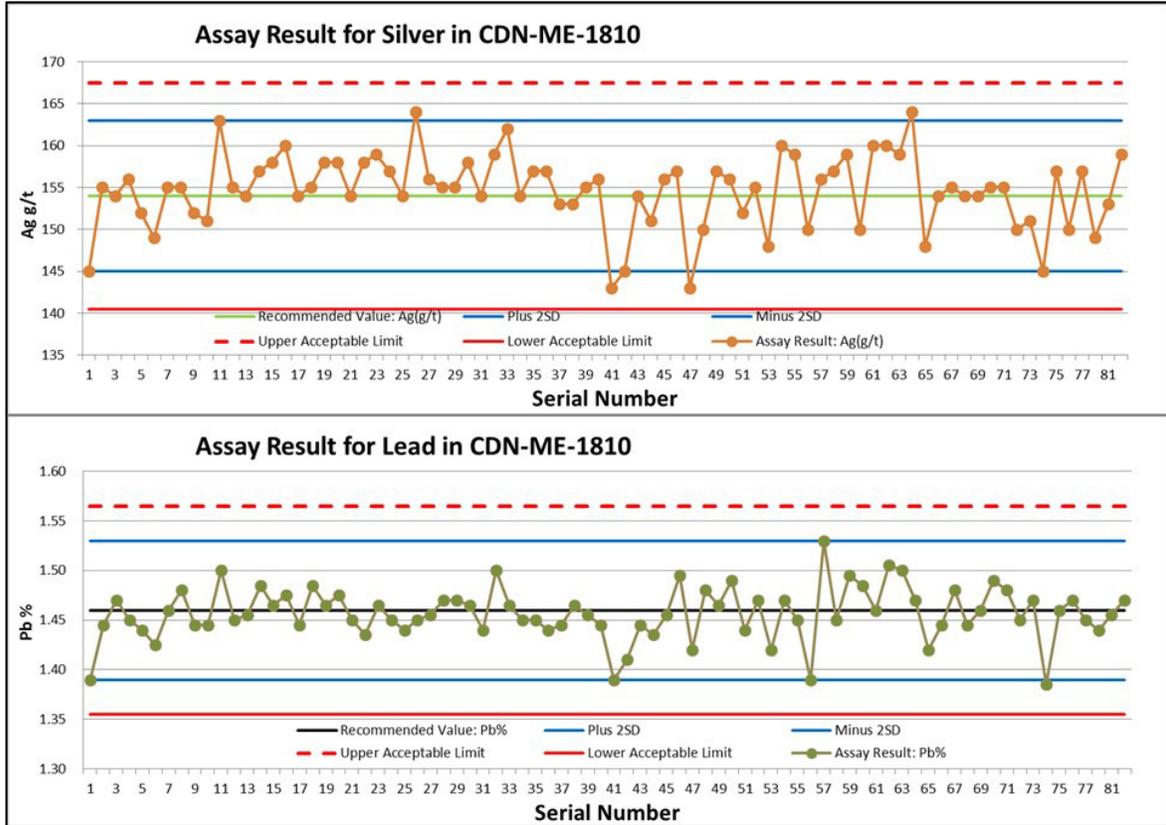
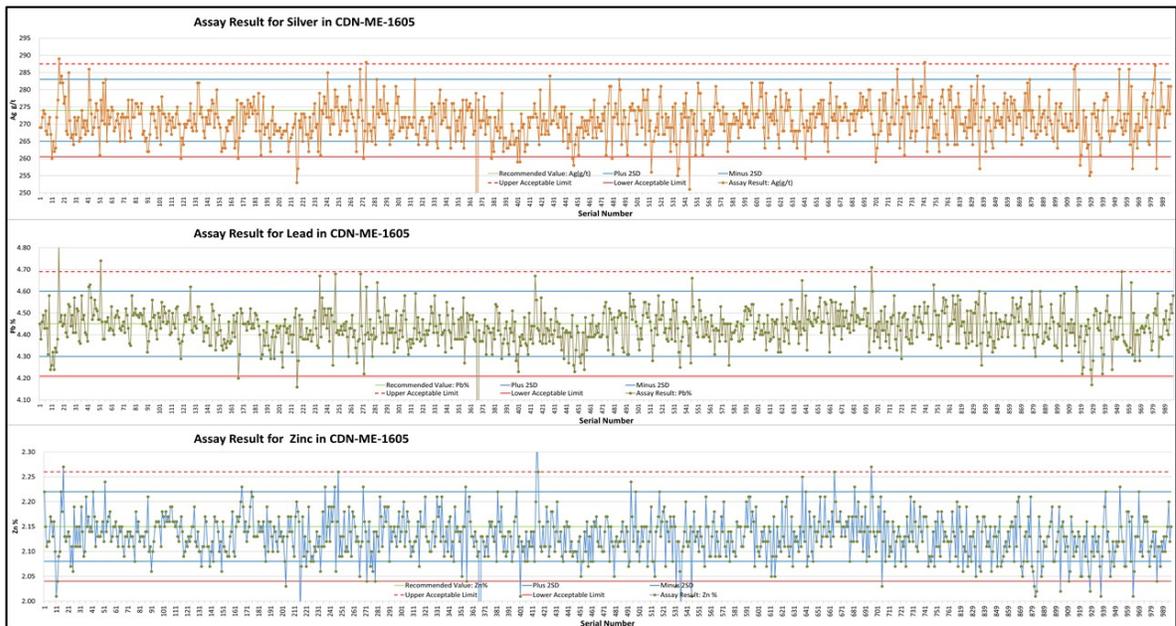


Figure 11.4 Results of 948 Assays of CDN-ME-1605



11.4.2 Assay Results of Blanks

A total of 2,341 blank samples were inserted into the sample batches generated during the 2018 and 2019 exploration programs. A preliminary statistical analysis was conducted on the assay data of the 2,341 blanks, and the basic statistical parameters of the overall dataset are summarized in Table 11.2.

Table 11.2 Summary of Assay Results of the 2,341 Blanks

| Parameters | Ag g/t | Pb ppm | Zn ppm |
|-------------------------|--------|--------|--------|
| Number of Assays | 2341 | 2341 | 2341 |
| Detection Limit | 0.01 | 0.2 | 2 |
| Mean | 0.41 | 20 | 57 |
| Maximum | 10 | 1890 | 890 |
| Minimum | 0.01 | 0.2 | 2 |
| Standard Deviation (SD) | 0.8 | 50 | 238 |

A visual check on the assay dataset of blanks shows the variability of silver results seems stable, while those of lead and zinc results heavily fluctuate. The high variability of the assay results of lead and zinc has mainly resulted from blank materials prepared before August 8, 2018. Some of the blank sources before August 2018 contain anomalous lead and zinc. New Pacific changed the source of blank material when the anomalous lead and zinc data were observed. Assay results of lead and zinc in blanks have been relatively stable since August 8, 2018.

Background concentrations of silver, lead, and zinc in blank materials are calculated by removing samples with anomalous assay results from the 2341 blank raw dataset. The calculated background parameters are listed in Table 11.3.

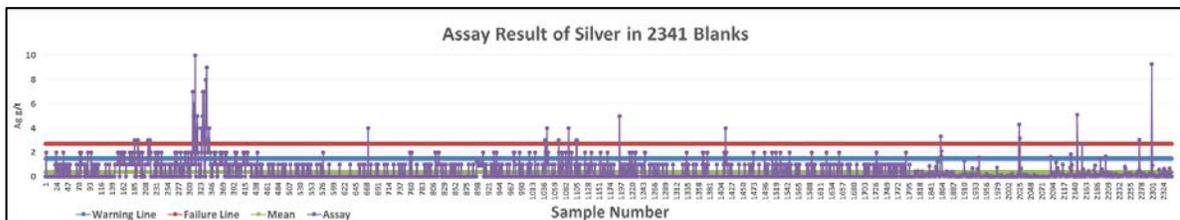
Table 11.3 Background Concentrations of Silver, Lead, and Zinc in Blank Materials

| Parameters | Ag g/t | Pb ppm | Zn ppm |
|--------------------------|--------|--------|--------|
| Number of Assays | 2184 | 1483 | 1264 |
| Background Concentration | 0.25 | 8.4 | 8.9 |
| Maximum | 1.22 | 14.3 | 14 |
| Minimum | 0.01 | 0.2 | 2 |
| Standard Deviation (SD) | 0.41 | 2.5 | 2.1 |

Blank samples with a concentration of 3SD plus background for any element are considered anomalous and need to investigate whether they have resulted from contamination in sample preparation process or un-barren blank material source, and blanks with a concentration of

6SD plus background are considered failed assay which needs immediate action. Among the 2,341 assays of blanks, 152 blanks are anomalous in silver among which 35 blanks are failed assays (Figure 11.5). Assay results for silver in blanks are considered acceptable. However, there are 852 blanks anomalous in lead and 1,068 blanks anomalous in zinc, which suggests that some of the blank material sources used are neither barren nor homogeneous in these elements. Most of the blanks with anomalous lead and zinc are from blank materials used before August 2018. Since then, assay data of lead and zinc have been greatly improved and become stable, which coincides with the change of a new source of blank material.

Figure 11.5 Assay Results of Silver in 2,341 Blanks



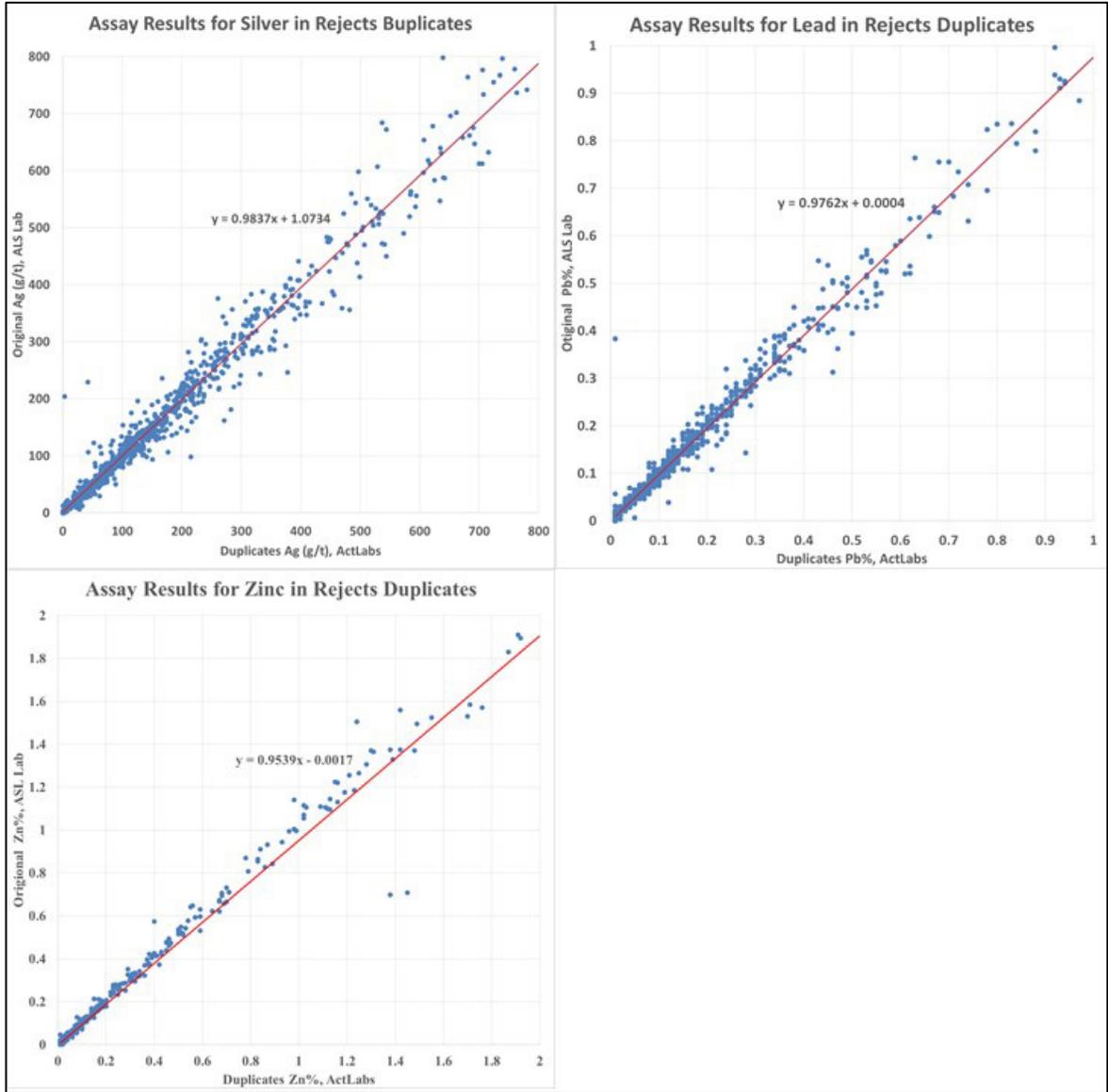
11.4.3 Assay Result of Duplicates

Drill core duplicates and coarse rejects duplicates have been used to monitor sampling bias and lab bias respectively in New Pacific's 2018 and 2019 exploration programs.

11.4.3.1 Assay Results of Coarse Rejects Duplicates

1,842 coarse rejects duplicates are sent to a second certified laboratory, the ActLabs Skyline in Lima, Peru for analysis of Ag, Pb and Zn by similar assay procedures to monitor lab bias. Scatter plots of the assay results for Ag, Pb, and Zn show an obvious linear relationship with no bias between labs (Figure 11.6).

Figure 11.6 Scatter Plots of 1,842 Rejects Duplicates for Silver, Lead, and Zinc

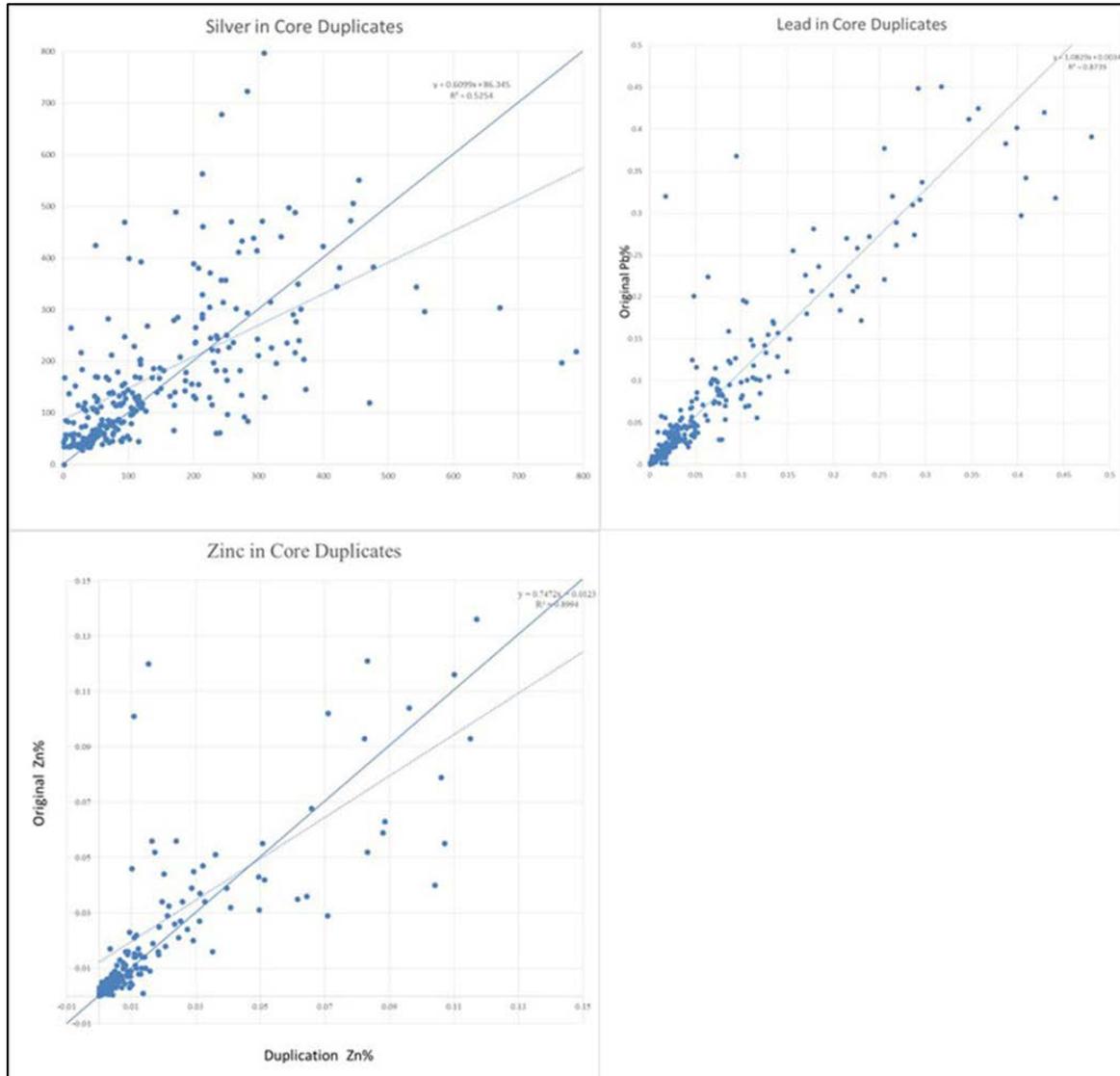


11.4.3.2 Assay Results of Drill Core Duplicates

273 quarter-core duplicates of mineralized core samples are prepared by New Pacific geologists and processed and assayed by the same ALS labs to monitor sampling bias and evaluate homogeneousness of the mineralization. The duplication pairs show a random distribution in the scatter diagram, which demonstrates an unhomogeneous nature of silver distribution in the mineralized rocks. The assay results of core duplicates coincide with the mineralization features observed in drill cores. Silver grade is positively correlated with the

density of the unevenly distributed mineralized veinlets in host rocks. The project geologists should be instructed to try their best to avoid biased sampling for this kind of mineralization.

Figure 11.7 Scatter Plots of 273 Core Duplicates for Silver



11.5 Specific Gravity Measurement and Results

Specific gravity (SG) is measured at the core shack by the company geologists with water displacement method. One sample is taken for SG measurement approximately every 15 core samples and a total of 3,361 SG measurements are conducted. Among the 3,361 measured samples, 487 are mineralized samples and 2,854 are non-mineralized. Samples are taken of about 10 cm from the whole core, dried in the sun, and weighed in air and in water.

11.5.1 SG Measurements for the Mineralized Samples

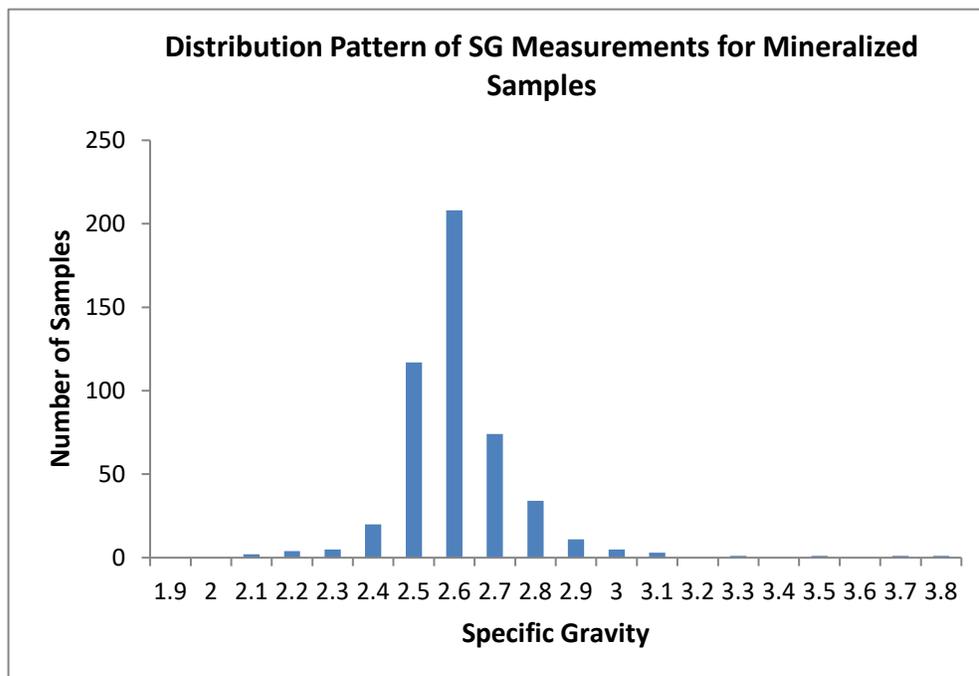
The 487 mineralized samples contain silver from 30 to 6,920 g/t with an average grade of 273 g/t Ag. Some statistical parameters of the SG measurements for the mineralized samples are listed in Table 11.4.

Table 11.4 Statistical Parameters of the SG Measurements for the Mineralized Samples

| | |
|--------------------|------|
| Number of Samples | 487 |
| Average SG | 2.55 |
| Median | 2.51 |
| Maximum | 3.74 |
| Minimum | 2.03 |
| Standard Deviation | 0.15 |

Figure 11.8 shows the distribution pattern of the 487 SG measurements for the mineralized samples.

Figure 11.8 Distribution Pattern of SG Measurements for the Mineralized Samples



11.5.2 SG Measurements for the Non-mineralized Samples

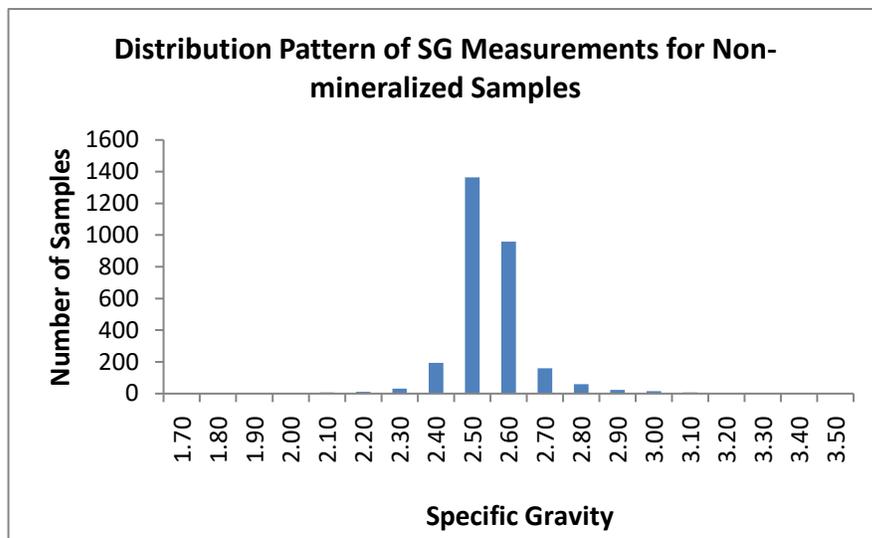
The 2,854 non-mineralized samples contain silver from 0.01 to 29.9 g/t with an average content of 3.39 g/t Ag. Three outliers with SG value ranging from 3.69 to 4.02 are from the uneconomic manto-type massive pyrite mineralization and have been removed from the dataset for statistical analysis. Some statistical parameters of the SG measurements for the non-mineralized samples is listed in Table 11.5.

Table 11.5 Statistical Parameters of the SG Measurements for the Non-mineralized Samples

| | |
|--------------------|-------|
| Number of Samples | 2,851 |
| Average SG | 2.50 |
| Median | 2.49 |
| Maximum | 3.49 |
| Minimum | 1.67 |
| Standard Deviation | 0.11 |

Figure 11.9 shows the distribution pattern of the 2,851 SG measurements for the non-mineralized samples.

Figure 11.9 Distribution Pattern of SG Measurements for the Non-mineralized Samples



11.6 Comments and Suggestions

In the Qualified Persons' opinion, the sampling procedures and the QA/QC measurements adopted by New Pacific for its 2017 to 2019 exploration programs at the Silver Sand Property meet accepted industry standards. A sufficient amount of data is being collected for specific gravity, the measurements are carried out to industry standard practice, and results appear to be reliable.

It is recommended that the Current QA/QC Program be further optimized as follows:

- (1) Stop using the coarse rejects duplicates to monitor lab bias: The performance of the certificated reference materials adopted in the exploration programs has been stable and reliable in monitoring accuracy and lab bias. It is not necessary to use rejects duplicates to double monitor the lab bias.
- (2) Prepare core duplicates by cutting 1/4 core sample to ensure half core left after sampling. It is understandable that the current practice by cutting 1/4 of the mineralized samples after having received the assay results is a reasonable and cautious measure to avoid duplicating background samples at the early stage of exploration, but the disadvantage of this practice is only 1/4 core left after sampling and duplicating.
- (3) More strict measures should be taken in selecting sources of blank material to avoid un-barren blanks being used. It is suggested to identify a source of blank material away from Potosi area where the background concentrations for silver, lead and zinc in rocks and soils are too high to be used as a blank material source.

12 DATA VERIFICATION

A site visit to the Silver Sand Property was conducted by independent Qualified Person, Ruijin Jiang, P.Geol, from August 1 to 11, 2019. All aspects of the Property and on-going exploration programs were examined and verified during the visit, including drill core, logging and storage facilities, mineralization types, drill sites, data collection and verification procedures, and data storage. The QA/QC program adopted in the current exploration programs and its results were fully reviewed.

Nine prospect areas with different mineralization types were visited within the Property, and mineralization exposed at surface and in the underground mine works were examined. Drill cores from selected drill holes were inspected at the core yard in Betanzos. The selected drill cores represent all the mineralization types discovered so far in the Property.

The Qualified Person was satisfied that the adopted QA/QC program was adequate in guaranteeing the quality of sampling and analyzing procedures in the exploration programs conducted in the Property and the observed mineralization was generally consistent with the assays reported.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

13.1 Introduction

The metallurgical testwork completed to date on samples of mineralization from the Silver Sand Project suggests that the majority of silver-bearing minerals are amenable to extraction using simple mineral processing techniques at reasonable grinds. A program of scoping level testwork was completed recently at the SGS Lima metallurgical facilities in Peru, with support work by CIMM (Centro de Investigacion Minero Metalurgico, managed by the Corporacion Minera de Bolivia) and UTO (Universidad Técnica de Oruro).

Highlights of the 2018/19 metallurgical program are given below:

- Samples of sulphide, transition and oxide mineralization were submitted for laboratory-scale rougher-scavenger flotation testing and this work achieved up to 96.0%, 86.8% and 92.0% silver recovery respectively.
- Samples of sulphide, transition and oxide mineralization were submitted for bottle roll cyanidation testing and this achieved up to 96.7%, 97.0% and 96.3% silver extraction respectively.
- Samples of oxide mineralization were submitted for coarse column leach cyanidation testing and this achieved up to 88.3% silver extraction.
- Samples submitted for comminution testing were found to be mostly in the soft to medium grindability range with low to medium values of abrasion index.

The metallurgical program is discussed in more detail within the following sections.

13.2 Initial Metallurgical Study – SGS Lima, 2018

Approximately 400 kilograms of core and coarse reject material were selected from a population of samples generated by the 2018 drilling program. The selected material was used to compile various composites of oxide, transition and sulphide mineralization from two discrete areas of the Silver Sand deposit.

An initial geometallurgical characterization was defined by metallurgists, which considered differences in silver grade, degree of oxidation and lithology. Given that lithology type is mainly sandstone, the set of geometallurgical composites assembled represented a specific oxidation level and a silver grade (high or low):

- **MET1:** < 100 g/t of Ag and oxidized ore type
- **MET2:** < 100 g/t of Ag and transition ore type

- **MET3:** < 100 g/t of Ag and sulphide ore type
- **MET4:** >100 g/t of Ag and oxidized ore type
- **MET5:** >100 g/t of Ag and transition ore type
- **MET6:** >100 g/t of Ag and sulphide ore type

In addition, six geological domains were defined to describe different physical properties, based on rock lithology, degree of oxidation and degree of alteration:

- **GEO1:** Transition ore type, Sandstone hosted, weak alteration
- **GEO2:** Transition ore type, Sandstone hosted, intense alteration
- **GEO3:** Sulphide ore type, sandstone hosted, weak alteration
- **GEO4:** Sulphide ore type, sandstone hosted, intense alteration
- **GEO5:** Oxide ore type, sandstone hosted, very weak alteration
- **GEO6:** Oxide ore type, siltstone hosted, very weak alteration

Four independent test work programs were carried out on these composites as described within this section. The work programs included mineral characterization, comminution, froth flotation and cyanide leaching. Crushed material from each of six metallurgical domains (MET1 to MET6) were identified for flotation and leaching test work, while coarser samples of ½ core from the six geological domains (GEO1 to GEO6) were submitted for the comminution test work.

Comminution, flotation and leaching programs were completed by SGS Mineral Services in Lima, Peru, while the mineral characterization work was completed by the Research Centre for Mining and Metallurgy (CIMM) and Oruro Technical University (OTU) in Bolivia. Results from the individual test work programs are summarized below.

13.2.1 Mineral Characterization Testwork

An initial program of mineral characterization was completed, which included the following tests:

- Size fraction assays.
- Heavy liquids testing.

- Quantitative mineralogy, using QEMScan.

These tests were completed on crushed charges of composite MET1-6 material from two discrete areas of the deposit (i.e. 12 composite charges in total). Composite details and characterization test results are given below.

13.2.1.1 Size Fraction Assaying

Twelve 2-kg composites were prepared for size fraction assays as shown in Table 13.1 below.

Table 13.1 SFA Head Assays

| ID | Type | DDH | m from-to | Silver Grade, from interval assays, g/t | Silver Grade from SFA's, g/t |
|-----------|-------------|--------|-------------|---|------------------------------|
| MET-1, Z1 | LG Oxide | 6802 | 208.5-213.0 | 48 | 58.4 |
| MET-2, Z1 | LG Trans. | 6802 | 127.8-133.4 | 56 | 56.4 |
| MET-3, Z1 | LG Sulphide | 6608 | 239.2-246.1 | 50 | 57.0 |
| MET-4, Z1 | HG Oxide | 6802 | 87.5-92.8 | 217 | 223.1 |
| MET-5, Z1 | HG Trans. | 6608 | 131.9-138.7 | 145 | 156.4 |
| MET-6, Z1 | HG Sulphide | 6608 | 103.7-109.0 | 189 | 158.7 |
| MET-1, Z2 | LG Oxide | 5407 | 117.4-121.0 | 45 | 48.0 |
| MET-2, Z2 | LG Trans. | 505001 | 68.3-74.3 | 55 | 53.6 |
| MET-3, Z2 | LG Sulphide | 505001 | 120.8-124.6 | 42 | 56.8 |
| MET-4, Z2 | HG Oxide | 505001 | 78.9-82.2 | 185 | 183.0 |
| MET-5, Z2 | HG Trans. | 5002 | 262.1-265.3 | 147 | 152.8 |
| MET-6, Z2 | HG Sulphide | 5407 | 70.1-73.6 | 131 | 111.7 |

Comparing the silver grade calculated using DDH interval assays with the grade calculated using size fraction assay results shows good agreement, adding confidence to the results.

Each composite was split into two 1-kg charges, with 1-kg used for size fraction assaying and 1-kg used for heavy liquid testing (discussed in the following section). For the size fraction assay work, each 1-kg charge was screened into seven size fractions, before weighing and assaying each fraction to obtain a distribution of silver content by size. Mass splits to the seven size fractions are given in Table 13.2 below.

Table 13.2 Mass Fractions by size

| Sample | Size Fraction, microns | | | | | | |
|--------|------------------------|----------------|------------|-----------|-----------|----------|-----|
| | +2000 | -2000 +1150 | -1150 +600 | -600 +300 | -300 +150 | -150 +75 | -75 |
| | | | | | | | |

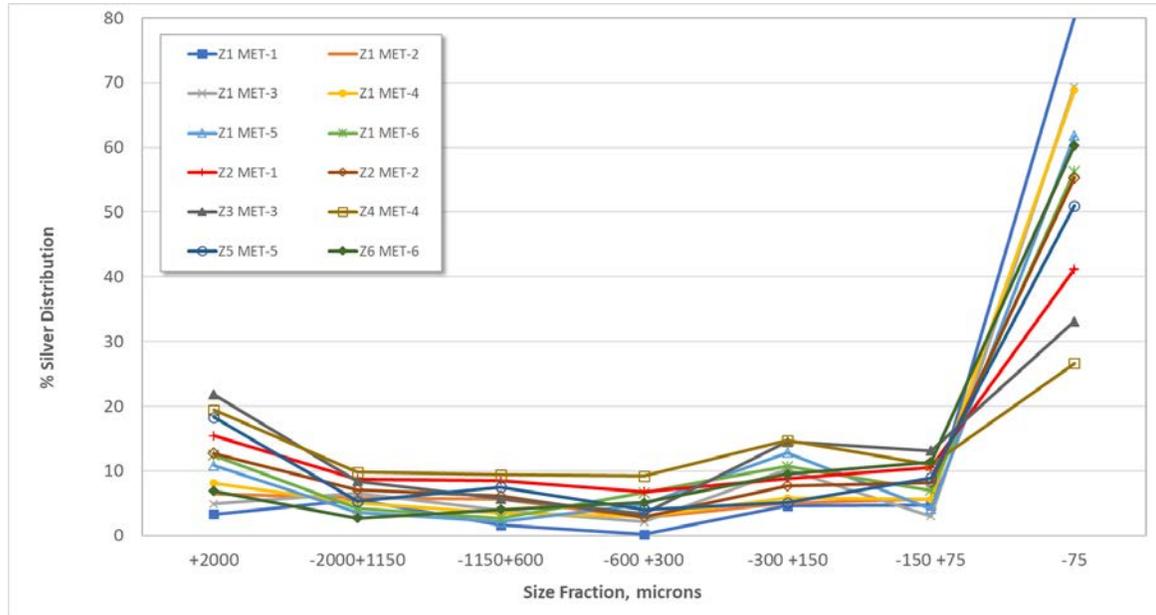
| | | | | | | | |
|------------------|------|------|------|------|------|------|------|
| MET-1, Z1 | 8.1 | 13.3 | 8.5 | 5.9 | 19.3 | 19.5 | 25.4 |
| MET-2, Z1 | 10.3 | 11.4 | 8.3 | 7.0 | 9.8 | 24.4 | 28.9 |
| MET-3, Z1 | 9.5 | 12.6 | 8.5 | 6.2 | 17.3 | 19.4 | 26.5 |
| MET-4, Z1 | 17.1 | 10.8 | 8.3 | 7.0 | 8.6 | 21.9 | 26.3 |
| MET-5, Z1 | 14.2 | 10.5 | 7.2 | 6.2 | 10.9 | 18.3 | 32.6 |
| MET-6, Z1 | 13.0 | 10.2 | 7.1 | 11.7 | 10.5 | 18.6 | 28.8 |
| MET-1, Z2 | 25.7 | 10.9 | 9.3 | 12.7 | 12.1 | 12.2 | 17.0 |
| MET-2, Z2 | 19.6 | 13.2 | 10.3 | 8.2 | 10.0 | 15.4 | 23.4 |
| MET-3, Z2 | 15.0 | 11.8 | 8.0 | 9.5 | 24.3 | 14.9 | 16.6 |
| MET-4, Z2 | 19.4 | 10.7 | 7.6 | 4.5 | 11.1 | 21.0 | 25.7 |
| MET-5, Z2 | 13.7 | 12.1 | 8.7 | 13.7 | 20.2 | 10.8 | 20.9 |
| MET-6, Z2 | 17.6 | 10.1 | 9.6 | 15.4 | 13.5 | 11.3 | 22.6 |

The mass distribution shows that after crushing, the samples show a slight preference towards fines generation, although this can be a function of the crushing methodology as well as the physical characteristics of the sample.

When each of the fractions is assayed for silver, then the metal distribution by size can be calculated. As shown in Figure 13.1 below, when this was done with these samples we see that the silver shows a very strong tendency to concentrate into the finest size fraction (-75 microns) in almost every composite. This concentration effect gives rise to an upgrade in silver content of approximately 2.5 to 3 times within the finest fraction.

Although the upgrading effect is considered a potentially useful physical characteristic, it should also be noted that industrial scale size separations in the sub 100 micron range are expected to have lower efficiencies.

Figure 13.1 Silver Distribution by Size Fraction



13.2.1.2 Heavy Liquid Testing

Six of the geometallurgical composites (MET 1 – 6 from one area of the deposit) were again sized into seven fractions and each fraction was then subjected to a simple gravity separation test that used organic heavy liquid at a density of 2.58 kg/l to separate material based on density.

The two products generated for each separation were assayed for silver to allow calculation of a metal distribution by size and by density.

In this test, the “sinks” product describes the denser fraction (i.e. greater than 2.58 kg/l) and the “Floats” product describes the less dense fraction (less than 2.58 kg/l). The average mass, grade and metal distributions for each size fraction is given in Table 13.3 for the Oxide, Transition and Sulphide samples.

Table 13.3 HLS Test Results, Average by Oxidation Level.

| Size Fraction | Average of Oxide Samples | | | Average of Transition Samples | | | Average of Sulphide Samples | | |
|---------------|--------------------------|-------------------|------------------|-------------------------------|-------------------|------------------|-----------------------------|-------------------|------------------|
| | % Mass to Sinks | Ag Grade in Sinks | % of Ag to Sinks | % Mass to Sinks | Ag Grade in Sinks | % of Ag to Sinks | % Mass to Sinks | Ag Grade in Sinks | % of Ag to Sinks |
| +2000 | 12.4 | 139 | 23.4 | 11.7 | 59 | 7.2 | 32.4 | 176 | 44.7 |
| -2000+1150 | 6.4 | 156 | 16.1 | 14.5 | 53 | 17.4 | 32.7 | 55 | 35.8 |
| -1150+600 | 9.1 | 166 | 23.2 | 15.4 | 77 | 30.7 | 33.6 | 61 | 46.4 |

| | | | | | | | | | |
|--------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|-------------|
| -600 +300 | 11.0 | 325 | 65.4 | 10.9 | 883 | 89.7 | 23.5 | 194 | 80.8 |
| -300 +150 | 4.1 | 1015 | 84.8 | 6.3 | 1204 | 80.7 | 5.6 | 1091 | 76.9 |
| -150 +75 | 13.9 | 193 | 67.2 | 18.0 | 113 | 99.9 | 19.3 | 148 | 77.7 |
| -75 | 11.5 | 1346 | 56.2 | 15.4 | 382 | 27.5 | 15.8 | 399 | 27.9 |
| Total | 10.1 | 438 | 50.5 | 14.0 | 255 | 40.2 | 21.7 | 198 | 47.4 |

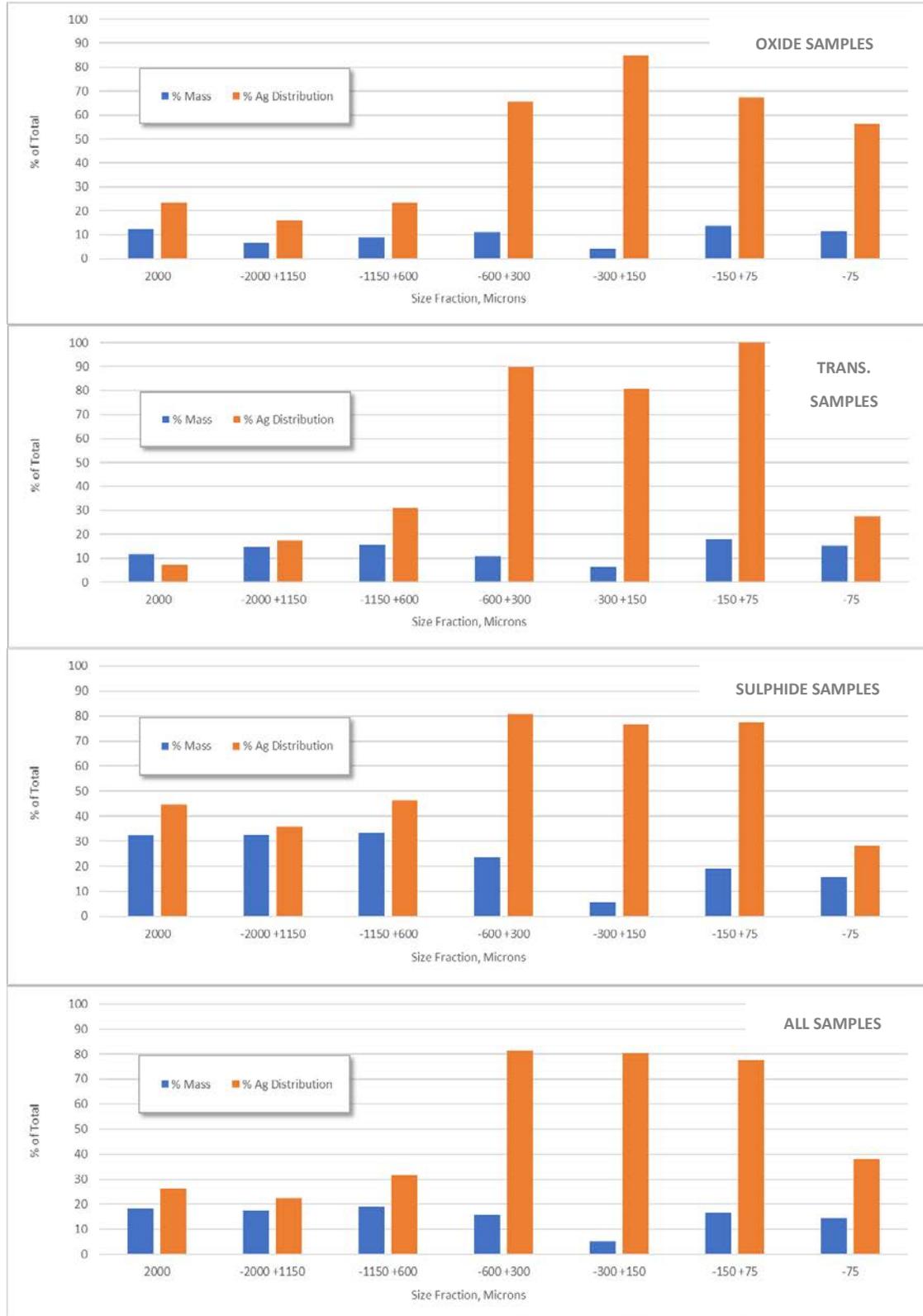
What is noteworthy here is that on average, approximately 46% of the total silver was concentrated into just 15% of the mass as a dense “sinks” fraction. Table 13.3 highlights how the upgrading effect was more pronounced within the finer size fractions, and with the more oxidized samples.

The additional upgrading seen in the finer fractions is illustrated clearly in Figure 13.2 below, which plots the average size fraction mass (blue) and metal distributions (orange) for Oxide, Transition, Sulphide and all tests combined. The series of charts illustrates how for the -600um fractions, approximately 80% of silver was concentrated into less than 20% of the mass (average of all samples). The upgrading effect was significant in the -75 micron oxide fraction but was also very most pronounced in the finer fractions of the transition samples. Sulphide samples also showed a tendency to upgrade well in the fines, but not to the same extent as the transition and oxide samples.

This gravity concentration effect was not observed in any of the coarser (+600 micron) size fractions and this is believed to be due to the lower levels of silver mineral liberation likely in these fractions.

The fine crushing (to roughly 2-3mm) carried out as part of normal sample preparation processes appears to have liberated a significant fraction of the silver mineralization, allowing a simple laboratory scale gravity separation process (heavy liquids) to concentrate silver to a fine, high grade product.

Figure 13.2 Average Mass & Silver Recovery to Sinks



13.2.1.3 Quantitative Mineralogy

A program of quantitative mineralogy was initiated at CIMM (Centro de Investigacion Minero Metalurgico), using high grade composite samples of oxide, transition and sulphide material from two discrete areas of the deposit (ie. six samples in total). Composites were prepared using samples of coarse reject taken from several holes in the deposit, as shown in Table 13.4 below.

Table 13.4 QEMScan Samples

| ID | Type | # of DDH's | Silver Grade, from interval assays, g/t | Silver Grade from QEMScan, g/t |
|----------|-------------|------------|---|--------------------------------|
| MET 4 -1 | HG Oxide | 1 | 217 | n/a |
| MET 5 -1 | HG Trans. | 1 | 145 | n/a |
| MET 6 -1 | HG Sulphide | 1 | 189 | n/a |
| MET 4 -2 | HG Oxide | 1 | 198 | n/a |
| MET 5 -2 | HG Trans. | 1 | 147 | n/a |
| MET 6 -2 | HG Sulphide | 1 | 131 | n/a |

As the material tested was sampled from only one hole per composite, this preliminary mineralogical program can be considered to represent only a snapshot of the possible mineralogical textures in situ at Silver Sand. Future work programs are encouraged to measure more representative samples so as to enable a more robust mineralogical analysis.

Bulk Composition

Each of the six composites was pulverized, and then sized into four size fractions: +106µm, +74-106µm, +38-74µm, -38 µm. Mineralogical analysis was completed on each fraction for each composite, thereby enabling the assessment of size by size mineral information.

Mineral composition data is given in the following tables, for the first three samples only.

Table 13.5 MET 4-1 Mineral Composition

| Mineral Name | Minerals Composition by QEMSCAN, % w/w | | | | |
|---------------|--|--------------|-------------|--------|--------------|
| | + 106µm | -106µm +74µm | -74µm +38µm | - 38µm | Total |
| <i>Mass</i> | 66.3 | 9.6 | 11.0 | 13.1 | 100 |
| Goethite | 0.097 | 0.002 | 0.009 | 0.016 | 0.068 |
| Pyrite | 0.001 | 0.004 | 0.019 | 0.128 | 0.020 |
| Quartz | 74.34 | 93.47 | 86.96 | 46.19 | 73.87 |

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| | | | | | |
|-------------------|--------------|--------------|--------------|--------------|---------------|
| Sphalerite | 0.003 | 0.004 | 0.014 | 0.061 | 0.012 |
| Hematite | 14.13 | 3.93 | 8.65 | 29.43 | 14.555 |
| Barite | 0.021 | 0.059 | 0.136 | 0.149 | 0.054 |
| Anorthoclase | 0.437 | 0.010 | 0.009 | 0.030 | 0.296 |
| Cassiterite | 0.086 | 0.096 | 0.362 | 0.607 | 0.186 |
| Argentite | 0.010 | 0.013 | 0.034 | 0.262 | 0.046 |
| Rutile | 0.168 | 0.169 | 0.627 | 0.913 | 0.316 |
| Augelite | 0.111 | 0.065 | 0.120 | 0.265 | 0.128 |
| Oligoclase | 10.60 | 2.18 | 3.05 | 21.90 | 10.442 |
| Galena | 0 | 0 | 0.017 | 0.012 | 0.003 |
| Other | 0 | 0.001 | 0.001 | 0.034 | 0.005 |
| Total | 100 | 100 | 100 | 100 | 100 |

Table 13.6 MET 5-1 (Transition) Mineral Composition

| Mineral Name | Minerals Composition by QEMSCAN, % w/w | | | | |
|-------------------|--|---------------|---------------|---------------|--------------|
| | + 106µm | -106µm +74µm | -74µm +38µm | - 38µm | Total |
| <i>Mass</i> | <i>64.0</i> | <i>9.0</i> | <i>11.4</i> | <i>15.5</i> | <i>100.0</i> |
| Goethite | 0.406 | 0.139 | 0.028 | 0.011 | 0.277 |
| Pyrite | 0.576 | 0.361 | 0.444 | 0.338 | 0.505 |
| Quartz | 86.629 | 93.211 | 91.947 | 66.513 | 84.71 |
| Sphalerite | 0.127 | 0.125 | 0.162 | 0.515 | 0.191 |
| Hematite | 2.909 | 1.351 | 3.073 | 12.579 | 4.287 |
| Barite | 0.001 | 0.002 | 0.012 | 0.020 | 0.005 |
| Anorthoclase | 2.624 | 1.148 | 0.239 | 0.034 | 1.816 |
| Anglesite | 0.019 | 0.013 | 0.009 | 0.031 | 0.019 |
| Calcite | 0.003 | 0.001 | 0.001 | 0.001 | 0.002 |
| Galena | 0.021 | 0.011 | 0.020 | 0.086 | 0.030 |
| Cassiterite | 0.003 | 0 | 0.007 | 0.029 | 0.007 |
| Argentite | 0.020 | 0.012 | 0.016 | 0.353 | 0.070 |
| Rutile | 0.280 | 0.288 | 0.914 | 0.998 | 0.465 |
| Augelite | 0.022 | 0.009 | 0.010 | 0.090 | 0.030 |
| Oligoclase | 6.353 | 3.316 | 3.102 | 18.398 | 7.575 |
| Other | 0.007 | 0.013 | 0.016 | 0.004 | 0.008 |
| Total | 100 | 100 | 100 | 100 | 100 |

Table 13.7 MET 6-1 (Sulphide) Mineral Composition

| Mineral Name | Minerals Composition by QEMSCAN, % w/w | | | | |
|---------------|--|--------------|--------------|--------------|--------------|
| | + 106µm | -106µm +74µm | -74µm +38µm | - 38µm | Total |
| <i>Mass</i> | <i>62.1</i> | <i>8.5</i> | <i>11.0</i> | <i>18.4</i> | <i>100.0</i> |
| Goethite | 0.001 | 0 | 0.002 | 0.005 | 0.002 |
| Pyrite | 6.191 | 2.166 | 1.824 | 1.278 | 4.466 |

| | | | | | |
|-------------------|--------------|--------------|--------------|--------------|--------------|
| Quartz | 85.14 | 92.257 | 90.512 | 58.429 | 81.43 |
| Sphalerite | 0.34 | 0.261 | 0.424 | 1.167 | 0.495 |
| Hematite | 4.173 | 1.647 | 2.786 | 6.798 | 4.289 |
| Barite | 0.015 | 0 | 0.002 | 0.005 | 0.010 |
| Anorthoclase | 0.014 | 0.010 | 0.018 | 0.035 | 0.018 |
| Anglesite | 0.012 | 0.014 | 0.018 | 0.101 | 0.029 |
| Chalcopyrite | 0.032 | 0.009 | 0.010 | 0.011 | 0.024 |
| Chalcocite | 0.120 | 0.050 | 0.076 | 0.204 | 0.125 |
| Galena | 0.227 | 0.150 | 0.246 | 0.795 | 0.327 |
| Cassiterite | 0.199 | 0.034 | 0.088 | 0.245 | 0.181 |
| Argentite | 0.173 | 0.005 | 0.011 | 0.207 | 0.147 |
| Rutile | 0.142 | 0.186 | 0.641 | 0.998 | 0.358 |
| Augelite | 0.011 | 0.015 | 0.022 | 0.084 | 0.026 |
| Oligoclase | 3.207 | 3.183 | 3.313 | 29.615 | 8.071 |
| Other | 0.003 | 0.010 | 0.006 | 0.020 | 0.006 |
| Total | 100 | 100 | 100 | 100 | 100 |

Clearly, these samples are mostly composed of quartz (74-85%), with hematite varying between 4-14% content and Oligoclase between 7-10%. Other minerals are mostly trace, except pyrite (4.5%) in the sulphide composite.

Silver Mineralogy

Argentite was the main silver mineral identified by this QEMScan study, with traces of freibergite, jalpaite and argentopyrite noted also. Further work in this area is recommended to properly develop the characterization of silver minerals in different areas of the deposit.

13.2.2 Comminution Testing

Four of the six geological domain (GEO) composites were subjected to an initial program of laboratory scale comminution scoping tests, including Crushing Work Index (CWi) tests, Bond Ball Mill Work Index (BWi) tests and Abrasion Index (Ai) tests.

The various GEO Samples selected for the comminution program are given in Table 13.8 below.

Table 13.8 Comminution Test Samples

| Comp | Hole | m to from | Type | Host | Si Alteration |
|---------|--------|---------------|------------|-----------|---------------|
| GEO 1-1 | 4404 | 179.8 – 195.5 | Transition | Sandstone | Weak |
| GEO 4-1 | 5006 | 100.8 – 110.4 | Sulphide | Sandstone | Strong |
| GEO 5-1 | 465002 | 4.0 – 16.8 | Oxide | Sandstone | Very Weak |
| GEO 6-1 | 7001 | 11.1 – 19.3 | Oxide | Siltstone | Very Weak |

| | | | | | |
|---------|--------|---------------|------------|-----------|-----------|
| GEO 1-2 | 5807 | 186.8-200 | Transition | Sandstone | Weak |
| GEO 4-2 | 5204 | 139.6 – 148.9 | Sulphide | Sandstone | Strong |
| GEO 5-2 | 505001 | 308.7 – 320.0 | oxide | Sandstone | Very Weak |

Each of these GEO samples was subjected to a crusher work index test, a Bond Ball mill work index test and an abrasion index test. A summary of the comminution test results is presented in Table 13.9 below.

Table 13.9 Comminution Test Data

| Test | Units | GEO 1-1 | GEO 4-1 | GEO 5-1 | GEO 6-1 | GEO 1-2 | GEO 4-2 | GEO 5-2 |
|----------------------------|-------|---------|---------|---------|---------|---------|---------|---------|
| Crushing work Index (CWi) | kWh/t | 5.60 | 9.94 | 4.82 | 9.42 | 5.19 | 11.26 | 10.50 |
| Ball Mill Work Index (BWi) | kWh/t | 10.5 | 15.9 | 4.1 | 4.8 | 6.8 | 11.9 | 5.7 |
| Abrasion Index (Ai) | g | 0.193 | 0.536 | 0.059 | 0.125 | 0.163 | 0.463 | 0.138 |

Crushing work index testing reported energy consumptions of between 4.82 and 11.26kWh/t which represents a wide range of crushability. This is reflective of the diversity in mineral type, host rock and the level of silica alteration noted in these different samples.

Bond Ball Mill work index (BWi) measurements varied from 4.1 kWh/t to 15.9kWh/t with the majority of samples measuring less than 12.0 kWh/t. It can be said then that in general, the samples tested fell into the soft or medium competency category for grinding. The single “hard” sulphide sample (GEO 4-1) was selected specifically for its high degree of siliceous alteration, and this characteristic should be carefully mapped within the deposit as the project develops, so as to completely understand the likely variability in ball mill grinding energy requirements.

Abrasion Index test measurements varied from a very low 0.06g (oxide sandstone) to a moderate/high value of 0.54g (sulphide sandstone). The abrasion characteristics of material mined and processed will have a dramatic impact on the wear of steel tools and comminution surfaces, such as shovels, truck beds, crusher liners and mill liners, so in general the wear cost of mining and processing the less siliceous areas of the deposit will be lower on average. In general, the oxide and transition zones of the deposit appear to be less siliceous and can therefore be considered to be of low abrasivity.

13.2.3 Flotation Testing

Three high-grade metallurgical composites of oxide, transition and sulphide mineralization were prepared for a program of scoping level froth flotation testwork, consisting of a total of 23 rougher-scavenger tests. The bench scale tests examined the effect of changing a variety of conditions, such as grind size, reagent recipe, reagent dosages and slurry pH. The impact of these changes is discussed herein.

FLOATMET composites were prepared using samples of half core taken from several holes in the deposit, as shown in Table 13.10 below.

Table 13.10 FLOATMET Samples

| ID | Type | # of DDH's | Silver Grade, from interval assays, g/t | Silver Grade from Head Assay, g/t |
|------------|-------------|------------|---|-----------------------------------|
| FLOATMET 4 | HG Oxide | 8 | 141 | 201 |
| FLOATMET 5 | HG Trans. | 9 | 137 | 123 |
| FLOATMET 6 | HG Sulphide | 8 | 132 | 123 |

The assays correlate well, except the HG oxide composite (FLOATMET 4).

The three composites were assayed for silver, base metals and Sulphur content. Measured grades for each are shown in Table 13.11 below.

Table 13.11 Flotation Program Head Assays

| Composite ID | Head Assay | | | | |
|----------------------------|------------|--------------------|-------|-------|-------|
| | Ag, g/t | S _{tot} % | Cu, % | Pb, % | Zn, % |
| Oxide (Z1 FLOATMET 4) | 201 | 0.12 | 0.006 | 0.108 | 0.003 |
| Transition (Z1 FLOATMET 5) | 123 | 1.01 | 0.02 | 0.391 | 0.010 |
| Sulphide (Z1 FLOATMET 6) | 124 | 1.63 | 0.03 | 0.217 | 0.812 |

The presence of lead and zinc sulphide minerals in the sulphide composite is apparent from these head assays. Copper levels are low for all samples. Additionally, the sulphur grade relative to copper, lead and zinc content suggests that an iron sulphide is also present in the sulphide composite (likely pyrite).

In general, the flotation performance of the three composites was very good, with high silver recoveries achieved using a simple bulk sulphide flotation collector (Potassium Isobutyl Xanthate).

The flotation testwork results discussed below are all singleton tests, and as such, the comparison of results and conclusions drawn therefrom, should all be considered preliminary. In preliminary flotation testing, experimental and assay error can mask the effect of a tested variable (such as grind). In future tests, the main conclusions of optimization tests should be verified using best practice replicate flotation testing methods.

13.2.3.1 Sulphide Composite (FLOATMET 6)

In total, nine rougher scavenger flotation tests were carried out on the sulphide (FLOATMET 6) composite. The work tested different grind targets, different pulp pH levels, and a variety of different reagents. Initial tests ran for 12 minutes, but subsequent tests all ran for 20 minutes in order to fully capture flotation kinetic data.

Results of the nine sulphide tests are given in Table 13.12 below.

The change in grind from 80% passing 105 micron to 80% passing 74 micron had negligible impact on flotation performance, but a coarser grind (80% passing 150 micron or coarser) was not tested to check on the drop off in performance. This should be attempted during future work programs.

Good recoveries were seen with most reagents, and the addition of PAX alone, at around 30-45 g/t dosage, was adequate. The addition of lime for a pH change to 9.0 did not appear to improve the silver recovery significantly, although this should not be discounted as the maximum recovery value was achieved using lime (giving an insignificant improvement over the natural pH test).

Table 13.12 Summary of Results for Flotation (FLOATMET 6)

| Test | Flotation conditions | | | | | % Recovery | | |
|------|----------------------|----------------------|---------------------------|---------|-----|------------|------|--------------------|
| | Time (min) | P ₈₀ (µm) | Collector Mix/Dose | Pulp pH | Gas | Mass, % | Ag % | S _{sul} % |
| 3 | 12 | 105 | PAX 30 g/t | Natural | Air | 6.7 | 92.8 | 97.8 |
| 4 | 12 | 74 | PAX 30 g/t | Natural | Air | 7.5 | 93.8 | 96.6 |
| 6 | 20 | 74 | PAX 45 g/t | Natural | Air | 10.4 | 95.5 | 97.2 |
| 8 | 20 | 74 | PAX 45 g/t | 9.0 | Air | 10.0 | 96.0 | 98.4 |
| 12 | 20 | 74 | PAX 30 g/t + SIPX 15 g/t | Natural | Air | 9.4 | 94.9 | 97.3 |
| 13 | 20 | 74 | PAX 30g/t + DANA468 15g/t | Natural | Air | 9.1 | 94.2 | 97.4 |
| 14 | 20 | 74 | PAX 30g/t + OX100 15g/t | Natural | Air | 9.8 | 94.8 | 97.3 |
| 17 | 20 | 74 | OX100 45g/t + PAX 15g/t | Natural | Air | 15.0 | 94.8 | 96.5 |
| 18 | 20 | 74 | PAX 60g/t | Natural | Air | 11.5 | 95.0 | 97.2 |

Maximum silver recovery for the sulphide composite test series was 96.0% - achieved with a grind of 80% -74um and with a concentrate mass pull of 10%.

A good amount of fast floating silver mineral is present under these conditions, with 94% silver recovery achieved after 8 minutes of flotation.

13.2.3.2 Transition Composite (FLOATMET 5)

In total, nine rougher scavenger flotation tests were carried out on the transition (FLOATMET 5) composite. The work tested similar conditions to the sulphide composites, with changed grind targets, different pulp pH levels, and a variety of different reagents. Initial tests ran for 12 minutes, but subsequent tests all ran for 20 minutes in order to fully capture flotation kinetic data.

Results of the nine transition tests are given in Table 13.13 below.

In contrast to the sulphide composite, a change in grind from 80% passing 105 micron to 80% passing 74 micron had a significant impact on flotation performance, suggesting that silver mineralization might be finer in this sample compared to the sulphide sample.

Reasonable silver recoveries were seen with most reagents, although somewhat lower in general than the sulphide composite. The addition of PAX at 45 g/t dosage and with pulp pH at 9.0, gave a silver recovery that was almost 11% less than the sulphide composite (85.2% recovery vs 96.0% recovery). Mass pull under these conditions was less for the FLOTMET 5 composite, at 7.3% compared to 10.0% for the FLOATMET 6 composite. Further tests to examine this difference should be completed during future flotation programs.

As with the sulphide composite, addition of lime for a pH change to 9.0 did not appear to improve the silver recovery significantly, although the sulphur recovery improves slightly.

Table 13.13 Summary of Results for Flotation (FLOATMET 5)

| Test | Flotation conditions | | | | | % Recovery | | |
|------|----------------------|----------------------|---------------------------|---------|-----|------------|------|--------------------|
| | Time (min) | P ₈₀ (µm) | Collector Mix/Dose | Pulp pH | Gas | Mass, % | Ag % | S _{sul} % |
| 1 | 12 | 105 | PAX 30 g/t | Natural | Air | 4.1 | 73.5 | 92.1 |
| 2 | 12 | 74 | PAX 30 g/t | Natural | Air | 4.9 | 78.7 | 93.0 |
| 5 | 20 | 74 | PAX 45 g/t | Natural | Air | 7.8 | 85.1 | 92.4 |
| 7 | 20 | 74 | PAX 45 g/t | 9.0 | Air | 7.3 | 85.2 | 94.8 |
| 9 | 20 | 74 | PAX 30 g/t + SIPX 15 g/t | Natural | Air | 6.2 | 83.1 | 93.0 |
| 10 | 20 | 74 | PAX 30g/t + DANA468 15g/t | Natural | Air | 8.5 | 85.2 | 93.4 |
| 11 | 20 | 74 | PAX 30g/t + OX100 15g/t | Natural | Air | 10.2 | 86.8 | 94.8 |
| 15 | 20 | 74 | OX100 45g/t + PAX 15g/t | Natural | Air | 8.7 | 81.8 | 89.9 |

| | | | | | | | | |
|----|----|----|-------------------------|-----|-----|------|------|------|
| 16 | 20 | 74 | OX100 45g/t + PAX 15g/t | 9.0 | Air | 11.8 | 84.6 | 93.9 |
|----|----|----|-------------------------|-----|-----|------|------|------|

13.2.3.3 Oxide Composite (FLOATMET 4)

In total, five rougher scavenger flotation tests were carried out on the oxide (FLOATMET 4) composite. The work tested conditions more suitable for oxide flotation with raised pulp pH, use of nitrogen as the aerating gas, and sulphide/oxide collectors including OX100 – an alkyl hydroxamate collector commonly used for oxide copper flotation. All tests ran for 20 minutes.

Results of the five oxide tests are given in Table 13.14 below.

Table 13.14 Summary of Results for Flotation (FLOATMET 4)

| Test | Flotation conditions | | | | | % Recovery | | |
|------|----------------------|----------------------|-------------------------|---------|----------------|------------|------|--------------------|
| | Time (min) | P ₈₀ (µm) | Collector Mix/Dose | Pulp pH | Gas | Mass, % | Ag % | S _{sul} % |
| 19 | 20 | 74 | PAX 45g/t + OX100 15g/t | 9.0 | Air | 6.5 | 89.9 | 46.0 |
| 20 | 20 | 105 | PAX 45g/t + OX100 15g/t | 9.0 | Air | 5.3 | 88.5 | 40.7 |
| 21 | 20 | 74 | PAX 45g/t + OX100 20g/t | 9.0 | N ₂ | 18.4 | 92.0 | 49.9 |
| 22 | 20 | 74 | PAX 60g/t | 9.0 | Air | 11.0 | 91.3 | 43.8 |
| 23 | 20 | 74 | PAX 60g/t | 9.0 | N ₂ | 18.5 | 91.2 | 50.3 |

Test 22 included a finer grind and a higher dose of PAX (a strong sulphide collector). Air was used for aeration. These standard sulphide flotation conditions gave a good silver recovery of 91.3% which could be considered surprising. A higher recovery was achieved using nitrogen gas and the OX100 as a secondary collector, but this slight improvement (92.0% Ag recovery) appears to have been achieved primarily as a result of higher concentrate mass pull (18.4% vs 11.0% in test 22).

13.2.3.4 Concentrate Product Quality

Rougher Concentrates from the FLOATMET 5 and FLOATMET 6 tests were composited, and submitted for ICP Scan, as shown in Table 13.15 below.

Table 13.15 ICP Scan, FLOATMET concentrates

| Element | Unity | FLOATMET 5 - Rougher Conc | FLOATMET 6 - Rougher Conc |
|---------|-------|---------------------------|---------------------------|
| Al | % | 4.07 | 3.45 |
| Ca | % | 0.10 | 0.08 |
| Fe | % | 13.7 | 14.1 |
| K | % | 1.46 | 1.19 |
| Mg | % | 0.03 | 0.03 |

| | | | |
|----|-----|--------|--------|
| Na | % | 0.31 | 0.39 |
| P | % | 0.06 | 0.05 |
| S | % | 9.24 | >10 |
| Ti | % | 0.07 | 0.06 |
| As | ppm | 2096 | 2582 |
| Ba | ppm | 204 | 106 |
| Be | ppm | <0.5 | <0.5 |
| Bi | ppm | 26 | 84 |
| Cd | ppm | 7 | 221 |
| Co | ppm | 24 | 37 |
| Cr | ppm | 655 | 869 |
| Cu | ppm | 1851 | 3520 |
| Ga | ppm | 36 | 31 |
| La | ppm | 10 | 7 |
| Li | ppm | 7 | 6 |
| Mn | ppm | 183 | 185 |
| Mo | ppm | 61 | 93 |
| Nb | ppm | 6 | 9 |
| Ni | ppm | 293 | 419 |
| Pb | ppm | >10000 | >10000 |
| Sb | ppm | 491 | 3612 |
| Sc | ppm | 2 | 1 |
| Sn | ppm | 65 | 613 |
| Sr | ppm | 381 | 239 |
| Tl | ppm | <2 | 2 |
| V | ppm | 39 | 28 |
| W | ppm | 22 | 25 |
| Y | ppm | 2 | 3 |
| Zn | ppm | 1154 | >10000 |

13.2.3.5 Flotation Summary

These initial scoping tests show that silver minerals can be efficiently concentrated using relatively simple froth flotation conditions. Flotation concentrates containing 2,500 – 3,000 g/t silver were produced quickly, without using a cleaner flotation stage. Concentrate mass pulls are somewhat high however, and these could likely be improved via use of a scavenger-cleaner circuit.

Concentrates from the sulphide and transition leach tests were composited and tested for minor elements by ICP. These show slightly elevated arsenic and antimony in addition to the lead, zinc and copper that have all recovered to the concentrate. Further flotation work is recommended before conclusions are drawn regarding concentrate quality.

13.2.4 Cyanide Leach Testing

Four LEACHMET composites of oxide, transition and sulphide mineralization were prepared using samples of half core taken from several holes in the deposit for cyanide leaching work as summarized in Table 13.16 below.

Table 13.16 LEACHMET Samples

| ID | Type | # of DDH's | Silver Grade, from interval assays, g/t | Silver Grade from Head Assay, g/t |
|------------|-------------|------------|---|-----------------------------------|
| LEACHMET 1 | LG Oxide | 25 | 29 | 29 |
| LEACHMET 4 | HG Oxide | 15 | 125 | 132 |
| LEACHMET 5 | HG Trans. | 8 | 129 | 157 |
| LEACHMET 6 | HG Sulphide | 9 | 137 | 124 |

The estimated assays (from interval assays) correlate well with the measured silver head assays. The four LEACHMET composites were crushed, blended and assayed for silver, base metals and total sulphur content. Measured grades for each are shown in Table 13.17 below.

Table 13.17 Bottle Roll Composite Details

| Composite ID | Head Assay | | | | |
|--------------|------------|--------------------|-------|-------|-------|
| | Ag, g/t | S _{tot} % | Cu % | Pb % | Zn % |
| LEACHMET 1 | 29 | 0.15 | 0.010 | 0.062 | 0.008 |
| LEACHMET 4 | 132 | 0.21 | 0.009 | 0.055 | 0.003 |
| LEACHMET 5 | 157 | 1.45 | 0.040 | 0.120 | 0.343 |
| LEACHMET 6 | 124 | 2.13 | 0.031 | 0.089 | 0.054 |

Although these composites were prepared using different samples to the FLOATMET composites, the grades compare quite well. The low levels of copper would not be expected to present metallurgical complications when it comes to cyanide consumption.

13.2.4.1 Bottle Roll Testing

The bottle roll test work program comprised of a battery of 33 individual scoping tests, each running for 72 hours and using a variety of conditions (grind sizes, cyanide solution strength,

dissolved oxygen levels, and pulp temperatures) to further define the metallurgical characteristics of these Silver Sand mineralization samples.

A variety of results were obtained from the work, as listed in Table 13.18 (LEACHMET 6), Table 13.19 (LEACHMET 5), Table 13.20 (LEACHMET 4) and Table 13.21 (LEACHMET 1) below.

Very high silver extractions (greater than 96%) were achieved for the sulphide and transition composites when intensive cyanidation conditions were used (oxygen sparging plus elevated pulp temperature). Oxide composite performance was more variable, with silver extractions between 81% and 96% achieved under similar conditions.

These leaching results are in general very encouraging and further optimization test work is recommended to better characterize the deposit.

Table 13.18 LEACHMET 6 Bottle Roll Test Results

| Test # | Grind P ₈₀ , µm | % Sol. Strength NaCN | Consumption, kg/t | | Pulp Temp °C | Sparge Gas | % Extraction | |
|--------|----------------------------------|----------------------------|-------------------|------|-----------------|----------------|--------------|------|
| | | | NaCN | CaO | | | Ag | Cu |
| 4 | 50 | 0.10 | 4.00 | 0.78 | 21 | Air | 81.8 | 59.9 |
| 5 | 74 | 0.10 | 3.47 | 0.65 | 21 | Air | 76.4 | 54.1 |
| 6 | 105 | 0.10 | 3.39 | 0.65 | 21 | Air | 75.8 | 55.4 |
| 9 | 50 | 0.30 | 5.16 | 0.78 | 26 | O ₂ | 93.6 | 66.9 |
| 10 | 50 | 0.30 | 10.18 | 0.79 | 57 | O ₂ | 96.7 | 73.7 |
| 13 | 74 | 0.05 | 2.46 | 2.16 | 21 | Air | 58.4 | 55.8 |
| 14 | 74 | 0.20 | 4.90 | 1.43 | 21 | Air | 83.8 | 57.7 |
| 18 | 74 | 0.30 | 3.66 | 1.05 | 27 | O ₂ | 92.8 | 71.7 |
| 19 | 74 | 0.40 | 4.59 | 1.05 | 26 | O ₂ | 94.0 | 72.5 |

The LEACHMET 6 (HG Sulphide) might be expected to perform poorly in a cyanide leaching environment, but in this case, silver extractions of up to 96.7% were achieved using high cyanide concentration, a fine grind, elevated temperature and oxygen sparging (Test 10). Without oxygen sparging, the extraction appeared to be limited to 83.8% (Test 14), so clearly the oxidation of sulphides is an important factor in the process. Increasing leach temperature to 57 °C improved performance further.

Leach kinetics for Test 10 are a little slow, with 87.5% extraction calculated after 24h.

A similar battery of tests was completed for the LEACHMET 5 (HG Transition) composite, with good results also.

Table 13.19 LEACHMET 5 Bottle Roll Test Results

| Test # | Grind P ₈₀ , µm | % Sol. Strength | Consumption, kg/t | | Pulp Temp °C | Sparge Gas | % Extraction | |
|--------|----------------------------------|--------------------|-------------------|------|-----------------|----------------|--------------|------|
| | | NaCN | NaCN | CaO | | | Ag | Cu |
| 1 | 50 | 0.10 | 4.31 | 0.85 | 21 | Air | 67.6 | 65.7 |
| 2 | 74 | 0.10 | 3.56 | 0.65 | 21 | Air | 61.4 | 60.2 |
| 3 | 105 | 0.10 | 3.04 | 0.65 | 21 | Air | 56.6 | 31.2 |
| 7 | 50 | 0.30 | 5.26 | 0.78 | 26 | O ₂ | 94.0 | 72.9 |
| 8 | 50 | 0.30 | 9.78 | 0.78 | 56 | O ₂ | 97.0 | 81.6 |
| 11 | 74 | 0.05 | 2.76 | 1.99 | 21 | Air | 47.9 | 55.4 |
| 12 | 74 | 0.20 | 6.29 | 1.60 | 21 | Air | 75.7 | 65.7 |
| 16 | 74 | 0.30 | 3.66 | 1.05 | 28 | O ₂ | 93.5 | 74.8 |
| 17 | 74 | 0.40 | 4.15 | 1.05 | 30 | O ₂ | 93.3 | 71.1 |

As with the sulphide composite, LEACHMET 5 achieved a very high silver extraction rate (97.0%) using elevated temperature, high cyanide concentrations, a fine grind and oxygen sparging (Test 8). Without oxygen sparging, the silver extraction appeared to be limited to 75.7% (Test 12).

Leach kinetics for Test 8 are reasonable, with 92.5% Ag extraction calculated after 24h and 97.0% after 72h.

The two oxide composites, LEACHMET 4 and LEACHMET 1, would be expected to perform well. Indeed, with oxygen sparging and high cyanide concentrations, both composites gave good silver extractions at a 74 micron grind (compared to sulphide and transition composites, in which max extraction was achieved at a 50 micron grind).

Table 13.20 LEACHMET 4 Bottle Roll Test Results

| Test # | Grind P ₈₀ , µm | % Sol. Strength | Consumption, kg/t | | Pulp Temp °C | Sparge Gas | % Extraction | |
|--------|----------------------------------|--------------------|-------------------|------|-----------------|----------------|--------------|------|
| | | NaCN | NaCN | CaO | | | Ag | Cu |
| 23 | 105 | 0.05 | 1.79 | 1.96 | 28 | Air | 65.5 | 25.7 |
| 24 | 74 | 0.05 | 2.09 | 2.02 | 27 | Air | 66.4 | 29.2 |
| 25 | 50 | 0.05 | 2.32 | 2.03 | 28 | Air | 69.0 | 34.7 |
| 28 | 74 | 0.15 | 4.69 | 0.46 | 27 | Air | 83.4 | 31.0 |
| 29 | 74 | 0.30 | 5.38 | 0.39 | 28 | Air | 86.7 | 31.2 |
| 32 | 74 | 0.30 | 3.94 | 0.78 | 27 | O ₂ | 95.6 | 27.4 |
| 33 | 74 | 0.30 | 5.08 | 0.78 | 59 | O ₂ | 96.3 | 34.5 |

Table 13.21 LEACHMET 1 Bottle Roll Test Results

| Test # | Grind P ₈₀ , µm | % Sol. Strength | Consumption, kg/t | | Pulp Temp °C | Sparge Gas | % Extraction | |
|--------|----------------------------------|--------------------|-------------------|------|-----------------|----------------|--------------|------|
| | | | NaCN | CaO | | | Ag | Cu |
| 20 | 105 | 0.05 | 1.99 | 1.60 | 26 | Air | 59.1 | 40.1 |
| 21 | 74 | 0.05 | 2.13 | 1.86 | 26 | Air | 71.1 | 38.8 |
| 22 | 50 | 0.05 | 2.21 | 1.86 | 28 | Air | 77.5 | 41.1 |
| 26 | 74 | 0.15 | 4.55 | 0.84 | 28 | Air | 74.1 | 45.1 |
| 27 | 74 | 0.30 | 5.95 | 0.59 | 27 | Air | 78.2 | 45.7 |
| 30 | 74 | 0.30 | 4.53 | 0.79 | 29 | O ₂ | 81.0 | 47.9 |
| 31 | 74 | 0.30 | 6.71 | 0.78 | 59 | O ₂ | 81.6 | 48.5 |

13.2.4.2 Bottle Roll Summary

These initial scoping tests show that silver minerals can be efficiently extracted using intensive cyanidation conditions in bottle rolls. The best results for each composite are given in Table 13.22 below.

Table 13.22 Bottle Roll Test Results Summary

| Composite ID & Test # | Grind P ₈₀ , µm | % Sol. Strength | Consumption, kg/t | | Temp °C | Sparge Gas | % Extraction | |
|-----------------------|-------------------------------|-----------------|-------------------|------|------------|----------------|--------------|------|
| | | | NaCN | CaO | | | Ag | Cu |
| LEACHMET 1, Test 31 | 74 | 0.30 | 6.71 | 0.78 | 59 | O ₂ | 81.6 | 48.5 |
| LEACHMET 4, Test 33 | 74 | 0.30 | 5.08 | 0.78 | 59 | O ₂ | 96.3 | 34.5 |
| LEACHMET 5, Test 8 | 50 | 0.30 | 9.78 | 0.78 | 56 | O ₂ | 97.0 | 81.6 |
| LEACHMET 6, Test 10 | 50 | 0.30 | 10.2 | 0.79 | 57 | O ₂ | 96.7 | 73.7 |

Very high silver extractions (greater than 96%) were achieved for the sulphide and transition composites when intensive cyanidation conditions were used (oxygen sparging plus elevated pulp temperature). Oxide composite performance was more variable, with silver extractions between 81 and 96% achieved under similar conditions.

Although these results are based on 72 hours of leaching, they are in general very encouraging and further optimization test work is recommended to increase leach kinetics and to better characterize the deposit.

13.2.4.3 Column Leach Testing

Four column leach tests were completed on the two oxide samples, using coarser material than the bottle roll work (crushed to 100% passing 12.7mm). Each column test ran for 80 days and the dissolved oxygen (DO) level was maintained at 20-30ppm throughout all tests.

Figure 13.3 Column Leaching Test Setup



The tests were carried out in 100mm diameter columns, with a bed height of 1.5m and irrigation rates of 7l/h/m².

The cyanide solution at 0.4% strength (%w/w) was prepared at the nominal NaCN concentration and lime added to maintain a pH of 10.5.

The feed solutions were pumped continuously and constantly to the top of the columns at the specified irrigation rate, and the feed solution was monitored for temperature, DO and ORP.

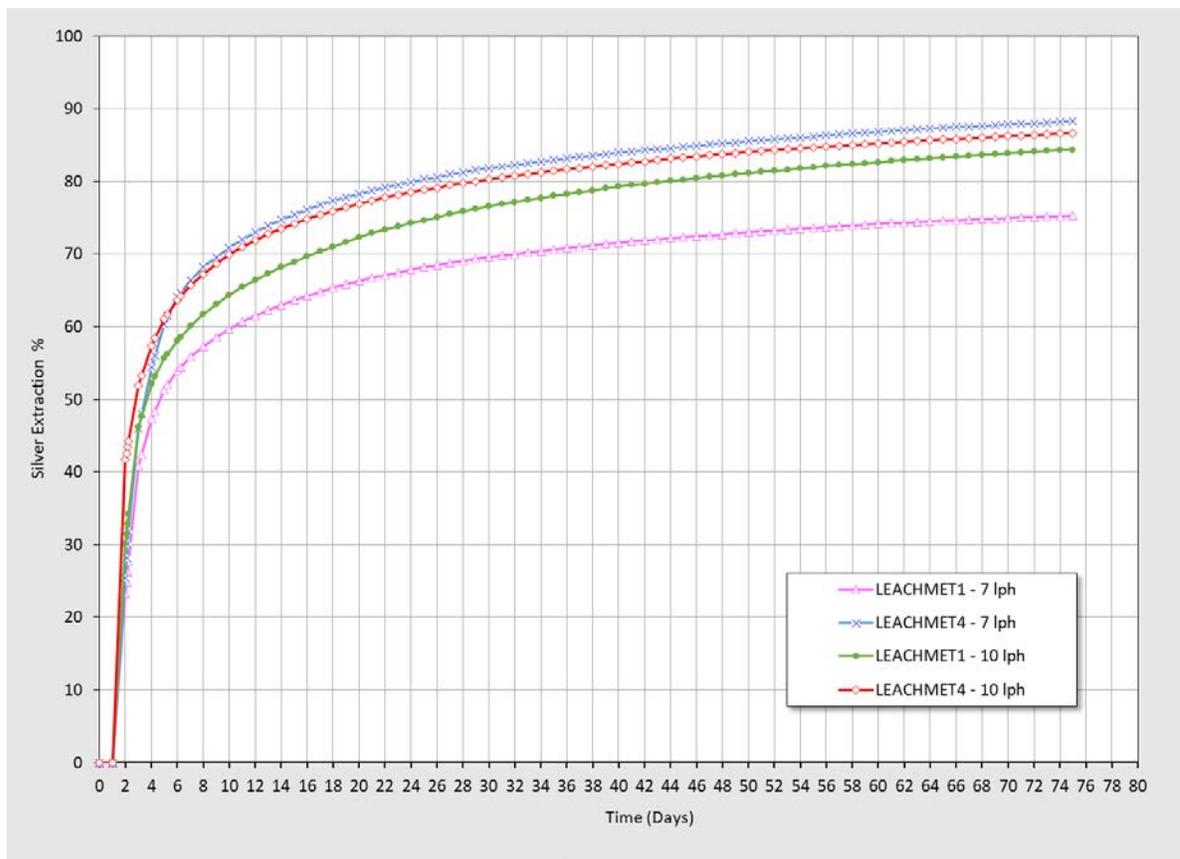
Results for the four column tests, together with a summary of silver extraction kinetic curves are given below.

Table 13.23 Column Leach Test Results Summary

| Composite ID | Mesh of Grind | % Sol. Strength | Solution Rate | Consumption, kg/t | % Extraction (calculated from PLS concs) |
|--------------|---------------|-----------------|---------------|-------------------|---|
|--------------|---------------|-----------------|---------------|-------------------|---|

| | mm | NaCN | l/h/m ² | NaCN | CaO | Ag | Cu |
|------------|-------|------|--------------------|------|-----|------|------|
| LEACHMET 1 | -12.7 | 0.40 | 7.0 | 6.3 | 1.4 | 75.3 | 45.8 |
| LEACHMET 1 | -12.7 | 0.40 | 10.0 | 8.6 | 1.6 | 84.4 | 45.1 |
| LEACHMET 4 | -12.7 | 0.40 | 7.0 | 6.4 | 1.4 | 88.3 | 29.3 |
| LEACHMET 4 | -12.7 | 0.40 | 10.0 | 8.1 | 1.6 | 86.6 | 29.4 |

Figure 13.4 Column Leach Kinetic Curves



These results show that column leaching is also a viable process route for Silver Sand and might be suitable for processing the lower grade oxide material. The lab work was conducted on a fairly fine feed (-1/2"), so should be expected to give better results than for coarser leaches. The kinetic curves shown above demonstrate how the recovery was still increasing at the end of the test, so higher recoveries would be achievable with longer leach times.

14 MINERAL RESOURCE ESTIMATES

This section does not apply to this Technical Report.

15 MINERAL RESERVE ESTIMATES

This section does not apply to this Technical Report.

16 MINING METHODS

This section does not apply to this Technical Report.

17 RECOVERY METHODS

This section does not apply to this Technical Report.

18 PROJECT INFRASTRUCTURE

This section does not apply to this Technical Report.

19 MARKET STUDIES AND CONTRACTS

This section does not apply to this Technical Report.

**20 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY
IMPACT**

This section does not apply to this Technical Report.

21 CAPITAL AND OPERATING COSTS

This section does not apply to this Technical Report.

22 ECONOMIC ANALYSIS

This section does not apply to this Technical Report.

23 ADJACENT PROPERTIES

COMIBOL, the state-owned Bolivian Mining Corporation, holds the exploration and mining rights of the adjacent areas surrounding the concessions owned by New Pacific in the Silver Sand Property. New Pacific acquired the exploration and mining rights of the direct neighboring 57-km² area around its concessions through a Mining Production Contract (see Section 4.2) with COMIBOL, except for a few operating mines which are subleased to small operators by COMIBOL. Colavi mine to the north and Canutillos mine to the west of the Property are two major adjacent operating mines.

23.1 Colavi Tin-Polymetallic Mine

Bedrock in the mine area consists of Ordovician shale and sandstone, and Cretaceous sandstone and dacitic tuffs. Some dacitic intrusive rocks are found in Ordovician and Cretaceous sequences as stock, sill or dyke. Six manto-type mineralization beds with thicknesses ranging from 0.8 to 1 meter were concordantly developed in a horizon of calcareous sandstone within the Cretaceous red sandstone and tuffs sequence. The mineralized calcareous sandstone gently dips to the west and occupies an area of 2 kilometers wide and 6 kilometers long. Ore minerals are mainly composed of pyrite, hematite, and cassiterite. Sphalerite and galena are very rare, and quartz is absent. Volcanism and mineralization are closely related. Manto mineralization formed first associated with earlier magmatic intrusions, and dacite sills successively intruded the Cretaceous sedimentary sequence and displaced the manto-type mineralization. Later cassiterite veins occur in dacite (Rivas, 1979; Sugaki et al 1983).

Mining activities for tin at Colavi can be traced back to 1890. In 1912, the recorded production capacity of the mine was 100 tons per day and produced up to 5,000-ton ore grading more than 3% Sn (Redwood, 2018). Production of the Colavi mine in June 1981 was 5,700 t ore grading 0.7% Sn. Mine workers handily picked and screened the crude ore to produce 650 to 1,000t semi-concentrate containing 2-3% Sn per month (Sugaki et al., 1983).

The United Nations Development Program (UNDP) and the Servicio Geologico de Bolivia (GEOBOL) jointly carried out a reconnaissance exploration for tin and silver at Colavi in 1989 and 1990 and estimated a potential resource of 3 to 5 million tons grading 0.5 to 0.9% Sn over a 4-km strike length (Redwood, 2018). The reported resource is not NI 43-101 compliant.

23.2 Canutillos Tin Polymetallic Mine

Limited literature on Canutillos shows that COMIBOL began operation at the mine in 1964 and Empresa Minera Tirex Ltda began to conduct silver heap leach in 2010 (Redwood, 2018). No exploration and production data is available from public sources.

The Qualified Persons have not been able to verify the information with respect to adjacent properties and the information is not necessarily indicative of the mineralization on the Property that is the subject of the Technical Report.

24 OTHER RELEVANT DATA AND INFORMATION

The Qualified Persons are not aware of any additional information or explanation that is necessary to make the Technical Report understandable and not misleading.

25 INTERPRETATION AND CONCLUSIONS

New Pacific has been carrying out comprehensive exploration programs on its Silver Sand Property in Bolivia since October 2017, including surface and underground mapping and sampling of the old mining works to evaluate the exploration potential of prospect areas within the Property, and surface diamond drilling to define mineral resources in the core exploration area of the Property. Logging, mapping, sampling, and analyzing procedures follow common industry practice. Results of QA/QC programs are deemed satisfactory by the Qualified Persons.

Silver mineralization is hosted by faults, fractures, fissures, and crackle breccia zones in the Cretaceous La Puerta sericitization-bleached brittle sandstone and dacitic porphyry dikes, laccolith, and stocks. Ten mineralization prospects, including Silver Sand, El Fuerte, South and North Snake Hole, North Plain, San Antonio, Esperanza, Jisas, El Bronce, Mascota, and Aullagas, have been identified in the Property. The Silver Sand prospect is the best defined by exploration drilling and has been traced for more than 1,600 meters along strike with a maximum width of about 500 meters and a dip extension of more than 300 meters. The major Silver Sand mineralization zones are open to both strike and downdip directions. The other nine prospects are preliminarily verified and defined by chip and grab sampling of ancient and modern artisanal mining workings and dumps with controlled strike lengths from several tens to more than 1,000 meters. The Qualified Persons believe that there is good potential to define sizable mineralization similar to the known mineralization zones of the Silver Sand prospect by exploration drilling in some of these prospects.

The silver and tin mineralization recognized so far in the Property are categorized into four types according to their host rocks and structure controls, including (1) Sandstone-hosted Silver Mineralization, (2) Dacitic Porphyry-hosted Silver Mineralization, (3) Hydrothermal Breccia-hosted Silver Mineralization, and (4) Manto-type Tin and base metal Mineralization. The first three mineralization types belong to the Bolivian polymetallic vein-type mineralization represented by the world-famous giant Cerro Rico Silver Mine in Potosi, Bolivia.

Silver and base metal mineralization in the Silver Sand Property is formed during the regional uplifting and erosion process associated with the Tertiary orogenic events in the Eastern Cordillera. The genetic model of silver and tin mineralization in the Property is a magmatic-hydrothermal system related to a not-known-yet deep-seated magmatic center. The manto-type tin and base metal mineralization occurred at the base of the Tarapaya siltstone and mudstone was formed by metasomatic replacement in a mesothermal environment at the early orogenic movement. The Bolivian polymetallic mineralization was developed in the La Puerta sandstone in an epithermal environment at the late stage of the orogenic movement.

Mineralization at the Silver Sand zone consists of the oxidized zone, sulphide zone, and transition (mixed oxidized and sulphide) zone. Several metallurgical composites of oxide, transition and sulphide mineralization from two areas of the Silver Sand zone were prepared from samples of available half-core. A geo-metallurgical sampling approach was used and was designed to highlight the effect of differences in silver grade, degree of oxidation and lithology in preparing these test samples. Results of a preliminary metallurgical test work conducted by the SGS Mineral Services in Lima, Peru, suggest that the mineralized materials from the Silver Sand Property would be amenable to processing using conventional flotation or whole ore cyanidation at atmospheric pressure at large scale. This preliminary

metallurgical program has demonstrated that good silver extraction rates are possible using these simple extraction methods and that further improvements and refinements should be possible in future testing programs after fine-tuning the various test parameters.

Overall, the Qualified Persons deem that the on-going exploration program and exploration data and testing data obtained thus far will warrant a resource estimation for the Silver Sand zone in early 2020.

26 RECOMMENDATIONS

The Qualified Persons believe that the encouraging results of the on-going exploration programs warrant a mineral resource estimation for the Silver Sand zone by early 2020 and further intensive exploration activities on the other regional prospects, El Fuerte, South and North Snake Hole, North Plain, Esperanza, Jisas, El Bronce, Mascota, and Aullagas. The recommended work plans are as follows:

- Infill and Step-out Drilling and Mineral Resource Estimation for the Silver Sand Zone:
 - (1) Continue the on-going drilling program by infilling the drilling grid to 25m X 25m to further increase the geological confidence in areas where the mineralized structures are defined and step-out drilling to trace the strike and downdip extensions of the major mineralized structures. Estimated drilling meterage in the fourth quarter of 2019: 17,500 meters.
 - (2) Carry out a mineral resource estimation for the Silver Sand zone in early 2020.
- Exploration drilling in regional prospects identified by surface and underground chip sampling: Drilling Meterage of 39,000 meters is recommended to define the along-strike and downdip extensions of the mineralization exposed near the surface, including:
 - (1) El Fuerte Zone: 4,000 meters.
 - (2) Snake Hole Zone: 5,000 meters.
 - (3) Esperanza Zone: 4,000 meters.
 - (4) Jisas Zone: 4,000 meters.
 - (5) El Bronce Zone: 5,500 meters.
 - (6) Mascota Zone: 10,500 meters.
 - (7) Aullagas Zone: 1,500 meters.
 - (8) North Plain: 4,500 meters
- Reconnaissance Surveying: It is recommended to continue the current property-scale reconnaissance investigation by mapping and sampling the mineralized outcrops and the accessible underground workings.
- Optimization of the Current QA/QC Program:
 - (1) Stop using the coarse rejects duplicates to monitor lab bias: The performance of the certificated reference materials adopted has been stable and reliable in monitoring accuracy and lab bias. It is not necessary to use rejects duplicates to double monitor the lab bias.
 - (2) Prepare core duplicates by cutting 1/4 core sample to ensure half core left after sampling. It is understandable that the current practice by cutting 1/4 of the

mineralized samples after having received the assay results is a reasonable and cautious measure to avoid duplicating background samples, but the disadvantage of this practice is only 1/4 core left after sampling and duplicating.

- (3) More strict measures should be taken in selecting sources of blank material to avoid un-barren blanks being used. It is suggested to identify a source of blank material away from Potosi area where the background concentrations for silver, lead and zinc in soils and rocks are too high to be used as a blank material source.

- **Metallurgical Testwork Development**

- (1) A second phase of metallurgical testwork is recommended to build on and improve the metallurgical characterisation work completed to date. Further technical de-risking and metallurgical optimization would be the objectives. This second phase of testwork would include the following items:
 - (2) Selection of representative samples, using core material from metallurgical holes plus coarse rejects from other areas of the deposit. Good spatial coverage and representation of different geomet units is required.
 - (3) Chemical characterisation (ICP scans) of composites.
 - (4) Physical characterisation including comminution tests.
 - (5) Quantitative mineralogical characterisation using QEMSCAN.
 - (6) Flotation testwork, including rougher kinetic tests, batch cleaner tests and locked cycle tests.
 - (7) Characterisation of final flotation test products, including scans for deleterious elements.
 - (8) Whole ore leaching testwork, including bottle roll tests to assess leach kinetics after grinding, vat leach tests and column leach tests, to assess vat and heap leach kinetics at various coarse sizes.
 - (9) Cyanide destruction tests.
 - (10) Environmental tests, including ARD and metal leaching tests on flotation tailings samples.

Budget for the recommended exploration programs is listed in Table 26.1.

Table 26.1 Budget for the Recommended Programs

| Account Category | Budget Totals (CAD) |
|---|--------------------------------|
| Camp Costs (Repairs, cook/meals, fuel, supplies, and logistics) | 400,000 |
| Geology & Project Administration (Contractors, Consultants) | 300,000 |
| Diamond Drilling (30,000 meters) | 5,700,000 |
| Assay (250,000 samples) | 1,500,000 |
| Technical Consulting & Reporting (NI 43-101 technical report and resource estimate) | 200,000 |
| Phase 2 Metallurgical Test Work | 100,000 |
| Contingency | 800,000 |
| GRAND TOTAL | 9,900,000 |

27 REFERENCES

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28 QUALIFIED PERSONS' CERTIFICATES

Ruijin Jiang

I, Ruijin Jiang, do hereby certify that:

1. I am a geologist residing at 23341 Dogwood Avenue, Maple Ridge, British Columbia V6X 4S4.
2. I graduated with a BSc in Geology from Hebei Geo University in Hebei, China in 1982 and with an MSc in geology from Queen's University at Kingston, Ontario in 1995. I am a registered member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia. I have worked as a Geologist, Exploration Manager, VP Exploration and Consulting Geologist for a total of 36 years since my graduation from university and have relevant experience in geology, exploration and mineral resource estimation for base and precious metal deposits and in public reporting of mineral assets. I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.
3. The Technical Report to which this certificate applies is entitled "NI 43-101 Technical Report, Silver Sand Property, Potosi, Bolivia" and is effective 31 August 2019 (the "Technical Report").
4. I visited the Silver Sand Property from August 1 to 12, 2019.
5. I am responsible for the preparation of Sections 1 to 12, and 14 to 27 of the Technical Report.
6. I am independent of the issuer as described in section 1.5 of NI 43-101.
7. I have had no prior involvement with the Silver Sand Property.
8. I have read NI 43-101 and certify that the parts of the Technical Report for which I am responsible have been prepared in compliance with the Instrument.
9. As at the effective date of the Technical Report, to the best of my knowledge, information, and belief, the parts of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 31th day of October 2019

Original signed and sealed by:

(signed) "Ruijin Jiang"
Ruijin Jiang, P.Geol.

Andy Holloway

I, Andy Holloway, do hereby certify that:

1. I am a metallurgical engineer residing at 631 Green Boulevard, Peterborough, Ontario, Canada K9K1K2
2. I graduated in 1989 with a BEng(Hons) in Metallurgy from the University of Newcastle upon Tyne, England. I am a registered member in good standing of the Professional Engineers of Ontario (PEO). I have worked as a Metallurgical Process Engineer for a total of 29 years since my graduation from university and have relevant experience in the processing and extraction of base and precious metal deposits and in public reporting of mineral projects. I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.
3. The Technical Report to which this certificate applies is entitled "NI 43-101 Technical Report, Silver Sand Property, Potosi, Bolivia" and is effective 31 August 2019 (the "Technical Report").
4. I have not visited the Silver Sand Property.
5. I am responsible for the preparation of Section 13 of the Technical Report.
6. I am independent of the issuer as described in section 1.5 of NI 43-101.
7. I have had no prior involvement with the Silver Sand Property.
8. I have read NI 43-101 and certify that the parts of the Technical Report for which I am responsible have been prepared in compliance with the Instrument.
9. As at the effective date of the Technical Report, to the best of my knowledge, information, and belief, the parts of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 31th day of October 2019

Original signed and sealed by:

(signed) "Andy Holloway"
Andy Holloway, P.Eng.

Yongming (Alex) Zhang

I, Yongming Zhang, do hereby certify that:

1. I am a professional geoscientist residing at 16159 108A Avenue, Surrey, British Columbia V41 1P1.
2. I graduated with a MEng in Geology from China University of Mining and Technology in Xuzhou, China in 1989 and with an MSc in geology from Queen's University at Kingston, Ontario in 2002. I am a registered member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia. I have been worked as a Geoscientist, Exploration Manager, Chief Geologist, VP Exploration and Consulting Geologist for a total of 30 years since my graduation from university and have relevant experience in geology, exploration and mineral resource estimation for base and precious metal deposits and in public reporting of mineral assets. I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.
3. The Technical Report to which this certificate applies is entitled "NI 43-101 Technical Report, Silver Sand Property, Potosi, Bolivia" and is effective 31 August 2019 (the "Technical Report").
4. I have been based on the project site of Silver Sand since the commencement of exploration in October 2017 and supervised every aspect of mineral exploration activities.
5. I am responsible for part of 4, and part of 26 of the Technical Report.
6. I am not independent of the issuer as described in section 1.5 of NI 43-101.
7. I have read NI 43-101 and certify that the parts of the Technical Report for which I am responsible have been prepared in compliance with the Instrument.
8. As at the effective date of the Technical Report, to the best of my knowledge, information, and belief, the parts of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 31th day of October 2019

Original signed and sealed by:

(signed) "Yongming (Alex) Zhang"
Yongming (Alex) Zhang, P.Geol.