NI 43-101 TECHNICAL REPORT

PINE BAY PROJECT

FLIN FLON, MANITOBA

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1 EXECUTIVE SUMMARY

1.1 Introduction

This report is produced for Callinex Mines Inc. (“Callinex” or “the Company”), a Vancouver-based Canadian public company engaged in the business of exploration and development of precious metals, listed on the TSX Venture Exchange with trading symbol TSX-V: CNX; OTC: CLLXF. The authors and “Qualified Persons” for this Technical Report are Georgi Doundarov, P.Eng. and Garth Kirkham, P.Geo.

Callinex is advancing its portfolio of base and precious metals deposits located in established Canadian mining jurisdictions. The focus of the portfolio is highlighted by the Rainbow, Pine Bay and Alchemist deposits at its Volcanogenic Massive Sulphide (VMS) Pine Bay Project.

1.2 Project Description, Location and Access and Ownership

The Pine Bay Project (“the Project” or “the Property”) is located within the Flin Flon-Snow Lake Mining District, located in Central Canada, in the Province of Manitoba. The Property is approximately 750 km northwest of Manitoba’s capital city of Winnipeg and 16 km east of the city Flin Flon.

The Project consists of a group of 77 contiguous mineral claims (dispositions) and one (1) mineral lease totaling 6,795 hectares (ha).

Motor vehicle access along all service roads from Flin Flon, Manitoba is primarily utilized by Callinex personnel and contractors. Access to the Project starts along 15 km of paved highway (provincial Highway #10), then proceeds north for 5 km along old provincial Highway #10 until reaching a gravel provincial road, North Star road for additional 5 km which terminates at the past producing North Star Mines and Don Jon Mines on the east side of the Pine Bay property. The nearest full service commercial airport is located at Baker’s Narrows (Flin Flon Airport), 12 km driving distance from site that has service from the Winnipeg James Armstrong Richardson International Airport (YWG) three (3) days per week. YWG is located approximately 725 km from the Pine Bay Project via Provincial Highway #10.

Certain mineral leases or claims of the Project are subject to a Net Smelter Return (“NSR”) royalty ranging from 0% to 1%, of which 0.5% NSR can be repurchased for $500,000, and up to a 5.12% Net Profit Interest. A total of 44 claims acquired under the option agreement with Peter Dunlop are subject to a 2% NSR, of which one-half of the royalty (1%) can be repurchased for $1,000,000.

Callinex has close ties to the neighboring communities of Flin Flon and Creighton. Ongoing communications with these communities provide for continued good relations. There are no known First Nations land claims or treaty obligations in the Flin Flon region.

1.3 History, Exploration and Drilling

In 1919, prospectors recognized that the surface exposure (altered felsic volcanic rocks) of the Baker Patton system could represent a surface exposed VMS system. Activity of trenching was first recorded in 1922 by London Exploration Company, followed by five (5) holes drilled by International Nickel Company of Canada in 1927; unfortunately, no records found. In 1929, Callinan Flin Flon Mines Ltd. developed a three-compartment shaft on the Baker Patton discovery to a depth of 128 m. A total of 192 m of horizontal drifting was completed (Wright, 1938). Assessment records show a 1953 diamond drill hole drilled off of the 400-

foot level (122 m) of the Baker Patton shaft. Additional drilling in the area included 21 holes in 1929, 69 holes in 1946, seven (7) holes in 1948. During this time period, the Cabin zone was discovered with hole #42 which returned 11.8 m assaying 11.33% Cu, 1.94% Zn, 0.39 g/t Au, and 8.5 g/t Ag, and is located 330 m northeast of the Baker Patton shaft.

From 1948 to 1949, 28 holes resulted with the discovery of the Sourdough Bay VMS showing. Hole #3, drilled in February 1949, was the first hole to record elevated base metal values which averaged 4.37% Cu, 0.80% Zn, 0.89 g/t Au, and 25.83 g/t Ag over 1.83 m and starting at a depth of 105.9 m in hole.

Hudson Bay Mining and Smelting Co. Ltd. (HBMS) were also drilling the Amulet prospect in the northern portion of the property between 1945 and 1948 where they recorded 35 drillholes with the majority just north of the Pine Bay Project. Amulet Hole #2 intersect a copper rich zone, which returned 5.06 m of 1.43% Cu, 0.0% Zn, 0.14 g/t Au, and 0.89 g/t Ag. HBMS returned to the Amulet area in 1952 and 1953 and drilled an additional 12 holes. Furthermore in 1950, a 497 m drill program of five (5) drill holes were drilled in the Jenny Lake area on the northeastern portion of the property. Geology recorded included felsic volcanics (Rhyolites, Dacites and Quartz Porphyry), felsic intrusives (Granodiorites) and sediments (Argillites). Sulphide mineralization noted was disseminated to solid sulphides.

In 1951, assessment reporting during this period on the Pine Bay property also recorded drilling 12 (2,012 m) drillholes, on the northeast arm of Lake Athapapaskow. Lithologies mainly andesite with lesser rhyolites, mineralization noted minor pyrite. In addition, seven (7) holes (1,434 m) on the northeast area of the Project (BRY 1 claim). Favorable geology for a VMS system was intersected which include altered (chlorite, sericite, silicified) felsic volcanics and quartz porphyries, with scattered pyrite and very slight chalcopyrite mineralization noted.

Just west of the HBED drilling Mangolia Mines Limited (1951 to 1952) had an extensive drill program (Gladys, Steve 4, Guy claims) totaling 19 holes, two (2) wedges were completed for a total of 6,479 m. Sulphides such as pyrite was common with slight to disseminated chalcopyrite and sphalerite mentioned, normally associated with quartz porphyry ± siliceous, ± chloritic, ± sericitic, ± talcy alteration.

In 1952, five (5) (598 m) holes were completed by Manchica Mining Company Limited located at the mouth of the Pineroot River Athapap Lake (MEX 3 claim) to test a surface shear zone with mineralization. The shear zone location was observed next to an unconformity between volcanic felsites and overlaying Missi-sediments, which was based on the five (5) holes. However it was concluded that the mineralization was found to contain plentiful pyrite, but no commercially concentrations of copper or zinc.

In 1953, as mentioned previously, Don Jon Mines Limited recorded a single hole (#2) drilled off the 400-ft (122 m) level of the Baker Patton shaft. The geology was described sericite quartz porphyry ± chlorite with abundant pyrite mentioned and a local stringer of chalcopyrite near the end of hole.

In 1953, HBMS recorded geophysics being incorporated for drillhole targeting purposes. In 1953, HBMS performed 181 km of line cutting and geophysical electro-magnetic (EM) survey which covered north Athapap Lake, which also covered the current Pine Bay VMS deposit. Follow up to the geophysical results, HBED completed 11 holes (2,009 m) on the western portion of the property. Geology encountered included volcanics (andesite, dacite, and fine-grained quartz-feldspar porphyry), intrusives (Gabbros and Diorites), with mineralization commonly graphite/pyrite, ± pyrrhotite, and minor chalcopyrite.

In 1954, a single drillhole (61 m) was drilled on the northern shore of Athapap Lake. The hole intersected Dacites and Chlorite Schists, with no mention of sulphides, In 1966, Guggenhiem Exploration Co. Inc. recorded drilling four (4) holes (230 m) on the northwest arm of Schist Lake followed by an additional five (5) holes (916 m) in 1967. Geology noted included andesites (chloritic altered), dacites, with graphite ± pyrite noted.

Also in 1967, Pineroot Mineral Enterprise who drilled 45 holes totaling 3,075 m with the majority of holes drilled in central portion of the property concentrating on the Baker Patton, Cabin zone, and the newly discovered Pine Bay deposit. The discovery of the Pine Bay VMS Deposit was Hole #2 which intersected two massive sulphide sections assaying 64.9 m to 66.1 m at 1.47% Cu, trace g/t Au, 22.7 g/t Ag, and a second massive sulphide 114.6 m to 122.5 m at 2.81% Cu, trace g/t Au, 5.22 g/t Ag. Verbiage from a 1973 Feasibility Study stated that geophysical (horizontal loop electromagnetic) work over North Athapap Lake and surrounding land defined an anomaly over the bay (Pine Bay deposit) and the anomaly was confirmed by a ground magnetometer survey and subsequently intersected massive sulphides (Hole #2). Additionally, there was a geological map dated October 1970 from Cerro Mining Group of Baker Patton.

In 1968, surface drilling by Pineroot Mineral Enterprise (PME) continued on the property with a total of 1,365 m of drilling completed in 10 holes. In preparation for the Pine Bay mine development, a vertical hole was collared at the present-day headframe location to test rock properties prior to commencing shaft development.

Underground drill hole U2-01 was drilled in 1969, off of the 61 m level (200-foot level) and was part of 11 short holes (U2-01 to U2-11) to test for water structures ahead of advancing development. The 200-foot level was advanced 250 m in length where a diamond drill station was developed. Holes U2-12 to U2-16 were completed from this station during early 1970 and able to test the Pine Bay mineralized lenses with short (150 m), near horizontal drill holes. Shaft sinking continued to the 183 m level (600-foot level) where the second drifting commenced. The first recorded drillhole off of the 600-foot level was U6-01. The 600-foot level main drift was developed ~433 m with four (4) separate secondary drifts totaling 530 m for establishing drill stations to test the sulphide lenses above (70 m) and below (192 m). A total of 57 holes were completed from the 600-foot level, 55 drilled during 1969, and two (2) completed in May 1970. In addition, on the 600-foot level one of the secondary drifts (drill station) undercut the main mineralized lens as it started in the footwall and advanced to the hanging wall.

PME's surface efforts in 1969 focused on the southern portion of the property boundary with 10 holes completed totaling 1,770 m. Most likely this area was of interest to PME due to HBMS's 1969 discovery of the Centennial Mine located 400 m south of the boundary. Favorable geology recorded included rhyolite and dacites, chlorite and sericite schists, however only trace amounts of copper and zinc were present.

In 1969, Sourdough Bay Mines Limited were exploring north of PME's work completing 11 holes in 1969 and returned in 1972 to complete an additional 6 holes. Andesites was commonly noted with minor mention of felsic volcanic and sericite schists, with sulphide mineralization dominated by pyrite and pyrrhotite.

In 1973, HBMS contracted an airborne survey which covered Callinex's Pine Bay Project and covered a total of 3,219 line-km in the Flin Flon region. In 1974, HBED also performed 10 kms of grid and geophysical survey (Turam) over the BEAR claims just south of ML59 with a five (5) drillholes totaling 636 m in 1975 and additional three (3) holes totaling 1,320 m. Geology intersected was andesite, dacite and rhyolites with local chlorite ± sericite ± talc schists, with slightly elevated base metals.

Pine Bay Mines drilled 82 vertical holes in 1976 and an additional 12 drillholes (2,263 m) in 1977 in the Birch Bay area. The average depth of these holes equaled 27.3 m and were designed to test geology below the lake and associated with defined EM anomalies. The area of interest measured 2 km in length with perpendicular fence drilling at a 15 m by 130 m grid pattern.

In 1977, Pine Bay Mines had a surface drill program on the ML59 area of the property which consisted of 43 drillholes which totaled 7,938 m, and a single surface hole drilled on MEX 3 claim totaling 154.5 m. Hole #100 was drilled near the Sourdough Bay showing (MEX 3 claim) which intersected dacites and rhyolites without any appreciable sulphides intersected, however when plotted shows the trace of hole to be well short of the Sourdough Bay Horizon. Drilling (holes 101-115 and 117-119, and 127) totaling 1,478 m then tested the Cabin zone with a number of holes returning good copper and zinc values. Drillhole #116 (164 m) was drilled into the hanging wall rock of the Pine Bay deposit and failed to intersect any significant sulphides. Drillholes #120-125 (1,458 m) were large step out holes to the north 500 m and south 1,400 m from the Pine Bay deposit, and intersect similar lithologies to the Pine Bay area, however no significant base metals were intersected. Drillholes #126,128-140 (4,282 m) tested the limits of the defined Pine Bay deposit at depth, north, and south, however failed to increase tonnage or locate any other significant mineralization. Hole #128 had the best results and intersected 2.4 m which assayed 0.32% Cu and had alteration and lithologies similar to Pine Bay and is located 125 m north of the Pine Bay deposit.

Pine Bay Mines reported various geophysical maps which included IP, ground E-M and a magnetic survey over various portions of the claims, in 1976. Pine Bay Minerals also released geological mapping on Don Jon, Thompson Lake and Northern Athapap in 1977.

In 1977, HBED also drilled four (4) holes in the southern portion of the property MEX 2 Claim following up of a Turam Survey performed in 1974 totaling 634 m. Geology was dominated by felsic volcanics and EM anomalies explained by abundant pyrite ± pyrrhotite, ± graphite.

Consolidated Morrison Exploration also contracted a helicopter EM and Mag survey over the Amie Lake area with flight lines 100 m apart and a total of 675 km flown, While the Amie Lake is not part of the Pine Bay property the southern flight lines cover Whitefish Lake which is part of the property (MAX claims).

In 1978, Granges Exploration established a few grids (line cutting), and HL-EM survey over the eastern portion of the property which totaled 10 km. In 1979, Granges drilled three (3) holes in the eastern area and totaled 148 m with andesites and dacites with moderate pyrite and pyrrhotite reported.

In 1980, Saskatchewan Mining Development Corporation (SMDC) performed an airbourne geophysical survey over most of the property totaling 265 line-km at 200 m spacing. In 1981, three (3) holes were drilled on the east shore of Thompson Lake, testing the down dip extension of the Don Jon Mine horizon. The 868 m of drilling intersected altered mafic to felsic volcanics and sediments, although they recognized the Don Jon horizon in all three (3) holes, only measured minor amounts of base metals. In addition, an IP/Resistivity survey over the Thompson Lake area concluded that the anomaly defined near the past producing Don Jon Mine was properly tested with the previous three holes drilled. Furthermore, SMDC completed extensive mapping and outcrop geochemical sampling program on their entire land package. In 1982, a Turam EM and magnetic survey was performed covering 33.7 km over the Bryan Lake area followed with an additional three diamond drill holes totaling 1,449 m.

Several exploration programs were conducted by HBED from 1980 through 1990 within the Pine Bay property. This included 74.29 km of line cutting, 66.5 km of geophysics (HLEM) along with a 24 km magnetometer survey collected by HBED personnel. This work was later followed by a drilling campaign designed to drill the deeper, down dip portion of the Pine Bay VMS deposit. In 1982, four (4) holes and one (1) wedge were completed for a total of 1,946 m. The sulphides intersect were insignificant with hole PB-2 returning the best result of 1.37 m 0.13% Cu and 1.8% Zn. In 1983, two (2) holes were drilled on the western boundary of the property (Levasseur claim) totaling 165 m which intersected mafic volcanics (tuffs and breccias), diorites with abundant pyrite / pyrrhotite ± graphite. In 1986, an additional two (2) holes (258 m) were drilled with similar geology and being mineralization intersected. In 1983, the southern portion of the property was surveyed with an HLEM system and discovered two (2) untested anomalies.

Pic 1 hole (125 m) was drilled on the SOUR 24 claim to test an EM conductor. The hole intersected trace pyrite within andesite flows and intermediate intrusions. In 1984, Hole Pic 2 was drilled 133.2 m deep locate on the SOU 4 claim intersected earthy pyrite in metavolcanics. In May 1988, HBED returned to Jenny area to test HLEM conductors they had defined in 1981. The three (3) hole (248.8 m) program completed 248.8 m intersected mostly intrusive and pyrite / pyrrhotite which appears to have caused the anomalies. In 1989 and 1990, an additional six (6) holes (670 m) were drilled resulting in 2.16 m that assayed 7.03 g/t Au, 8.79 g/t Ag in a faulted/silicified greywacke.

In 1980 and 1981, Granges performed exploration activities within the southern and western portions of the Pine Bay property where they gridded and contracted an HL-EM survey following up with seven (7) holes (1,023 m). Two (2) of the holes were drilled into the Sourdough Bay VMS showed to have hit marginal copper and zinc values. Hole Sour 12 returned 5.58 m 0.40 g/t Au, 7.48 g/t Ag, 1.25% Cu, and 0.22% Zn. In 1987, Granges established 33 km of grid after which they performed a VLF (Very Low Frequency E-M) survey. Additionally, in 1987 Granges performed a second VLF survey over the Crow 5 claim and completed 19 holes (1,854.3 m) with Hole #4 intersecting 8.8 g/t Au, and 77.8 g/t Ag over 0.37 m and Hole #15 returning 0.45 m (43.71 m to 44.16 m) of 4.53 g/t Au, 24.5 g/t Ag. Geology intersected included mafic and felsic intrusive and tuffaceous to brecciated volcanics, with numerous narrow gold intersections greater than 1.0 g/t normally associated with a sheared gabbro. In 1988, three holes (369.2 m) were completed producing with similar results. Further work in 1988 by Granges included 220 km of line cutting and an 88 km of VLF survey.

Anomalous (>0.5 g/t) gold values received included Hole #15 returned a 0.58 g/t Au assay, Hole #148 assaying 0.66 g/t Au, and Hole #160 assaying 0.61 g/t Au and Hole #286 assayed 0.82 g/t Au. Further diamond drilling in 1988 was performed by Granges with three (3) holes drill on MAX13615 claim northwestern portion of property and two (2) holes on the southwest portion of the property (BAY 1 claim). The three (3) northern holes (147.3 m) intersected andesite flow with volcaniclastic sections was the common lithologies, and pyrite and pyrrhotite intersected for sulphides. The results were more encouraging in the south with the Mik -1 hole intersecting silicified andesite and quartz sericite schist with up to 15% pyrite which returned 5.1 m of 1.13 g/t Au and 27.85 g/t Ag.

In 1986, on the western portion of the property BP Selco performed a detailed geological mapping and magnetometer survey after cutting 22 km of grid, along with rock-chip geochemistry sampling followed by five drill holes totaling 648 m. Most notable diamond drilling results came from Hole #1 which assayed 210 ppb Au over 0.61 m.

In 1991, Placer Dome contracted a 564 line-km GeoTEM Airborne survey (EM and Mag). This was followed by an extensive mapping and litho-geochemical program with 366 outcrop and historical core samples which were submitted for trace element analysis and to aid in lithology determination and mapping out alteration. Placer performed a Bouguer Gravity survey and thin section petrographic analysis of grab samples. Four (4) diamond drill holes of NQ size were completed in 1992 (2,281.2 m). Each drill hole was subsequently surveyed using the transient EM in-hole system. It was concluded that the gravity survey outlined a large anomaly associated with the Baker Patton area and then the 1992 drilling successfully tested the down dip extension of the Cabin zone with a 18 m chlorite stringer zone which assayed 0.86% Zn in addition to tested the down dip extension of the Baker Patton zone within a highly sericite altered rock 2.4 m 0.82% Cu, 0.52 g/t Au, and 10 g/t Ag. In 1993, Placer drilled additional seven (7) drillholes (2,446 m) with follow up borehole surveys and collected litho-geochemical samples from each hole. Conclusions derived from this work were that the Pine Bay deposit is located in the nose of a synclinal fold resulting in a wide zone of massive chloritic alteration which was intersected at depth and down dip of the Pine Bay deposit and a horizon of chloritic mudstone with associated iron oxide formation beds occurring between the Pine Bay and Cabin zone horizons. In addition, in 1993 two (2) holes were drilled on the southern portion of the property where Placer targeted due to litho-geochemical analytical results which defined a highly silicified andesite unit with prominent pyrite. Hole 281-1-93 intersected andesites and dacites with silicification becoming intense 180 m down hole which also contained stringers of chalcopyrite assaying 1.29% Cu over 3.9 m. The second hole drilled 800 m away started in a brecciated dacite and finished in an andesite, sulphides included pyrite with traces of chalcopyrite and sphalerite was noted in the brecciated dacite and supported by two separate assays which ran 0.25% Cu over 0.5 m, and a second running 0.43% Zn over 0.75 m.

In 1991, Noranda Exploration Company performed geophysics on the northwest side of the property including 47 km of line cutting, magnetometer, and HLEM survey along with a 1 km of gravity survey.

In 1992, Granges recorded 146 km line cutting, 127 km of VLF-EM, and 79 km of HL-EM/Mag survey during the winter 1991 and 1992 over the Mikanagan Lake area. In 1993, Granges completed an extensive mapping program over the area and collected 399 litho-geochemical samples. Sampling from old trenches on the west shore of Mikanagan Lake returned copper assays up to 2.52%.

Minnova Inc. had also reported an exploration program near Byran Lake. Work included 10.2 km of line cutting, geological mapping, two (2) diamond drill holes (2,446 m), surface and borehole TEM survey. It was concluded favorable VMS rocks were intersected however no favorable base metals encountered and did not define any strong extensive geophysical conductors.

In 1993 in the southeast area HBED completed a HLEM program and completed three (3) holes (186 m) on the Pine Bay property.

In 1995 and 1996, Inmet Mining Corporation completed three (3) holes (1,866.5 m), on the Pine Bay deposit to follow up on a deep pulse surface EM target that was defined in 1995. Holes north and south failed to hit significant mineralization, however hole down dip of the Pine Bay deposit did encounter 0.61 m for 4.72%.

In 1993 through 1995, HBED flew an airborne EM survey which covered the complete property.

In 1997, Formation Capital Corporation performed a mapping and geochemistry program that entailed collecting 82 samples in the Sourdough Bay Peninsula area. The following year they completed 26.6 km of grid, followed by a surface pulse EM survey and a magnetometer survey. This was followed with the drilling of five (5) drill holes (1,075.6 m). Two (2) holes revealed a number of narrow pyritic zones which validated the geophysical conductors, with the one (1) hole intersecting the Amulet horizon with trace amounts of chalcopyrite and sphalerite. The three (3) southern drillholes intersected massive to semi massive pyrite, ± pyrrhotite with trace amounts of chalcopyrite and sphalerite hosted by argillites ± graphite. A similar program was also completed over the Pine Bay deposit area which comprised of 15 line-km of grid followed by a surface pulse EM survey, a magnetometer survey, and three (3) diamond drill holes (678 m).

In 2002, Bell Resources performed an exploration program on the southeast portion of the property which included geophysics, trenching, and diamond drilling. A surface showing was discovered in 2001 and was exposed further by a trenching program where a 2.0 m chip sample returned 3.5% Cu. A total of 11.7 km of lines were covered by UTEM survey and a VLF survey was performed over three (3) of the lines. The geophysics illustrated some weak conductors which did not correlate well with the surface showing. This work was followed up with nine (9) drillholes (408 m) that tested under the surface showing but failed to hit significant mineralization.

In 2009, Callinan contracted a 449 line-km helicopter-borne VTEM and magnetics geophysical survey for the Pine Bay block. Based on the results, several potentially interesting EM and magnetic anomalies were identified on the property. During 2010, a fixed loop time domain EM (TDEM) survey was contracted, and a horizontal loop Max-Min survey was also performed on two small grids over the Pine Bay Project area. These surveys were performed as a follow-up to the 2009 VTEM airborne magnetic and electromagnetic survey. Main areas covered were Baker Patton, the Cabin deposit, and the Pine Bay deposit in addition to lesser areas such as the Southwest portion of the property and the CEDAR 8728 and BRUT 1 claim areas were the subject of the HLEM survey.

Callinan completed four (4) exploration drillholes at the Pine Bay and Cabin zones area in 2011 which were surveyed using Borehole Pulse EM (BPEM). Additionally, in 2012, a TDEM survey was conducted over the area to further define the three EM targets defined during the 2011 survey. Results showed a favorable EM plate associated with the known Pine Bay deposit. During the rest of Callinex's exploration campaigns at Pine Bay it was common practice to BPEM all exploration holes and the majority of the deeper Rainbow holes.

In 2015, a review of an Airborne Geophysical Survey was conducted on the 2009 Geotech survey over the Pine Bay property resulting in eight targets. A key component of this data analysis involved utilizing MAG3D, magnetic inversion software package developed by the University of British Columbia.

In 2015, a TDEM survey was performed consisting of 74.4 line-km on areas that included Jenny Lake, Whitefish Lake, Pine Bay and the Sourdough Bay grids. In addition, BPEM surveys were performed on drillholes PBM002, PBM003, and PBM005, which were in the vicinity of the Pine Bay deposit in 2015. Results from the TDEM survey identified numerous conductive plates with recommendations for further evaluation including further geophysics, prioritizing through geology, and drilling the target. The borehole survey PBM-003 and TDEM survey over Pine Bay were successful in defining the sulphide body.

In 2019, a deep induced polarization survey (OreVision) was performed which purported to see to a depth greater than 500 m. The data was subjected to a drill hole constrained 3D inversion using Geosoft DC-IPVOXI platform. In total 22.4 line-km which covered the three main VMS showing discovered to date in an effort to find additional untested targets. The final products seem to have defined the known VMS systems but also additional potential targets which have not been tested to date. These targets were tested during Callinex‘s 2020 drilling campaign, which proved to be the discovery of the Rainbow VMS system.

In April 2021, to extend the IP coverage southerly for another 4.6 line-km survey to cover the Sourdough Bay VMS showing and the area in between the 2019 grid, with a total of 32 additional lines surveyed totaling 50 line-km.

Callinan (currently Callinex) commenced their first exploration diamond drilling campaign on the Pine Bay Property in 2011, ultimately leading to the discovery of the Rainbow deposit in 2020. Upon the completion of exploration and delineation drilling of the Rainbow deposit in September 2022, Callinex completed 163 diamond drill holes including 22 wedges and the deepening of 10 historic and recently active holes totaling 98,896 m, of which 82 diamond drill holes including 18 wedges totaling over 42,000 m were drilled to delineate the Rainbow deposit. Table 1-1 shows drilling by year and area of interest that was performed by Callinan (2011) and Callinex (2015-2022).

Table 1-1: Drilling by Year by Area

Area	Year	Number of Holes	Metres Drilled
Pine Bay, Cabin, Baker Patton	2011	4	2,311
Pine Bay, Sourdough Bay	2015	8	4,536
Pine Bay, Cabin, Baker Patton, Sourdough Bay	2016	28	18,961
Cabin	2017	5	3,870
Rainbow	2019	4	2,516
Rainbow	2020	11	8,397
Rainbow	2021	66	38,769
Alchemist, Rainbow	2022	37	19,536
Total		**163**	**98,896**

Source: Callinex (2023)

1.4 Geology and Mineralization

Northern Manitoba and Saskatchewan are the most productive base metal mineral producing regions in Canada with over 24 past producing mines hosted within the Paleoproterozoic Flin Flon Metavolcanic Greenstone Belt; (“FFGB”) exposed portions of the Flin Flon belt encompass an area up to 50 km wide and 250 km long occurring within the greater up to 500 km wide Trans-Hudson Orogen (Syme and Bailes, 1993). The Trans-Hudson Orogen is generally considered to occur as four (4) litho-tectonic zones including: 1) the Superior Boundary zone comprising mainly Archean Superior Province basement overlain by Paleoproterozoic cover sequences, 2) the Reindeer zone comprising of a 200 km to 400 km wide collage of Paleoproterozoic arc volcanics and plutons, 3) Andean-type continental margin magmatic arc comprising of the Wathaman-Chipewyan batholith, and 4) a complexly deformed northwestern hinterland zone comprising of the Peter Lake and Wollaston domains (Clowes and Roy, 2020). Representing a preserved relatively complete Wilson cycle from the development and closure of the Manikewan Ocean.

The FFGB consists of an assemblage of polydeformed juvenile island arc-back arc supracrustal and intrusive rocks termed as the Amisk Collage, which is unconformably overlain by predominantly fluvial-alluvial continental quartzofeldspathic metasedimentary and intercalated volcanic rocks of the Missi Group (Syme and Bailes, 1993). The Amisk Collage is bounded to the north by metasedimentary gneisses of the Kisseynew Domain, and to the southwest by the Pelican Window Ortho-and-Pelitic Gneisses of mostly unknown origin. This is then overlain to by relatively flat dipping Phanerozoic dolomitic limestones of the Ordovician Red River Formation that was formed within the Western Canadian Sedimentary Basin (Bezys and Conley, 1998).

The Rainbow deposit is hosted within unit 8 (aphyric rhyolite) of the Baker Patton Complex, with the stratigraphic section transected by the Pine Bay Shear. The Baker Patton complex is the eastern most VMS hosting domain within the Flin Flon Arc Assemblage, and is host to the: North Star, Don Jon, Pine Bay, Baker Patton, Cabin, and Rainbow VMS deposits (Mitchenson et al, 2012; Gale 1995).

The Rainbow deposit is a “high-grade” copper VMS system consisting of multiple stacked massive sulphide lenses, and a stockworks vein/stringer zone hosted within hydrothermally altered felsic volcanics. The massive sulphide lenses have been defined into two (2) zones: Yellow and Orange. Their lenses subparallel each other and have been defined vertically over approximately 800 m, and strike length of over approximately 310 m. Structurally the mineralization strikes at 32° or reciprocal 212°, dips 80° to the east, and plunges to the northeast. There is evidence that the deposit has been subjected to brittle deformation, en-echelon shearing, as well as being overturned. The deposit remains open near surface along strike to the south, and further exploration is required to determine the potential at depth.

1.5 Metallurgical Testing and Mineral Processing

Mineralogical and metallurgical test work has not yet been done for the Project. Metallurgical assumptions in this maiden mineral resource estimate ("MRE") in the opinion of the author, are reasonable, and are based on comparisons with similar volcanogenic massive sulphide ("VMS") deposits mined in the FFGB.

A future comprehensive mineralogical and metallurgical test program is recommended under Section 26 of this technical report to confirm the MRE metallurgical assumptions and to support a future Preliminary Economic Assessment ("PEA") or other Project economic evaluation technical reports.

Initiation of the recommended test work program should depend on Callinex's exploration success to extend, most notably, the Rainbow deposit, as well as new discoveries at other nearby targets. The recommended mineralogical and metallurgical test work program should be completed prior to starting a PEA or other economic evaluation technical reports.

Both the Rainbow and Pine Bay mineral deposits are copper (Cu) rich but also contain zinc (Zn), gold (Au), silver (Ag), and small quantities of lead (Pb). This maiden MRE assumes reasonable mineral and metallurgical processing parameters with recoveries to metal of 80% Cu, 80% Zn, 40% Au and 40% Ag (excluding any Pb recovery). As there is no metallurgical test work available for the Project, the MRE recovery assumptions were based on a comparison with similar mined VMS base metal mineral deposits containing copper, zinc, gold, and silver, in the FFGB, fortunately, there are many examples.

The recovery method assumed in this maiden MRE is the traditional FFGB mineral concentration process of crushing, grinding, flotation with production of copper and zinc concentrates containing precious metals. Concentrates are railed from the Flin Flon area to Canadian or United States ("US") pyro- or hydro-metallurgical plants for production of metal. While metallurgical facilities for both copper and zinc metal exist in Flin Flon, these facilities have been closed.

Recommended future mineralogical and metallurgical test work will explore opportunities for lower environmental emissions by leaching of the Pine Bay Project production, however the primary focus of the test work is expected to be the traditional FFGB concentration methodology.

Regardless of whether the Project's future production is processed at a dedicated-on site concentrator, the Flin Flon concentrator, one of the Snow Lake concentrators, or at the future Hanson Lake concentrator at Foran Mining Corp.'s ("Foran") McIlvenna Bay Project, the metallurgical recovery assumptions used in this maiden MRE are considered reasonable.

1.6 Mineral Resource Estimate

This is a first-time resource estimate for both the Rainbow and Pine Bay deposits. The resources are reported using copper cut-offs which are based upon current reasonable commodity pricing and operating costs.

Highlights:

- Rainbow deposit Indicated Mineral Resource of 3.44 Mt at 3.59% CuEq and Inferred Mineral Resource of 1.28 Mt at 2.95% CuEq; and
- Pine Bay deposit Inferred Mineral Resource of 1.0 Mt at 2.62% Cu.

The MRE, contained within the mineral lease, consists of the Rainbow deposit with an Indicated Mineral Resource of 3.44 Mt at 3.59% copper equivalent ("CuEq") containing 272.4 Mlb CuEq (comprised of 238.3 Mlb Cu, 56.9 Mlb Zn, 37.6 koz Au, 692.8 koz Ag, 2.3 Mlb Pb), an Inferred Mineral Resource of 1.28 Mt at 2.95% CuEq containing 83.4 Mlb CuEq (comprised of 72.1 Mlb Cu, 19.5 Mlb Zn, 11.1 koz Au, 222.2 koz Ag, 0.8 Mlb Pb) and the Pine Bay deposit with an Inferred Mineral Resource of 1.0 Mt at 2.62% Cu containing 58.1 Mlb Cu.

Table 1-2 and Table 1-3 shows a summary of the Pine Bay Project resource estimate at a 1.3% CuEq base case cut-off.

Table 1-2: Rainbow Deposit Indicated Mineral Resource

Resource Area	Tonnes (,000)	Cu %	Au g/t	Zn %	Ag g/t	Pb %	Cu Mlb	Au koz	Zn Mlb	Ag koz	Pb Mlb	CuEq %	CuEq Mlb
Rainbow	3,442	3.14	0.34	0.75	6.26	0.03	238.3	37.6	56.9	692.8	2.3	3.59	272.4

Source: Kirkham (2023)

Table 1-3: Rainbow Deposit and Pine Bay Deposit Inferred Mineral Resource

Resource Area	Tonnes (,000)	Cu %	Au g/t	Zn %	Ag g/t	Pb %	Cu Mlb	Au koz	Zn Mlb	Ag koz	Pb Mlb	CuEq %	CuEq Mlb
Rainbow	1,282	2.55	0.27	0.69	5.39	0.03	72.1	11.1	19.5	222.2	0.8	2.95	83.4
Pine Bay	1,006	2.62	N/A	N/A	N/A	N/A	58.1	N/A	N/A	N/A	N/A	2.62	58.1
Total	**2,288**	**2.58**	**–**	**–**	**–**	**–**	**130.2**	**11.1**	**19.5**	**222.2**	**0.8**	**2.8**	**141.5**

Source: Kirkham (2023)

Notes:

1. Mineral Resources, which are not Mineral Reserves, do not have demonstrated economic viability.
2. The estimate of Mineral Resources may be materially affected by environmental permitting, legal title, taxation, socio-political, marketing or other relevant issues.
3. The Mineral Resources in this report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Standards on Mineral Resources and Reserves, Definitions (2014) and Best Practices (2019) prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council. It cannot be assumed that all or any of the inferred mineral resources will be upgraded to indicated measured resources as a result of continued exploration.
4. The inferred mineral resource in this resource estimate has a lower level of confidence than that applied to an indicated mineral resource and must not be converted to a mineral reserve. It is reasonably expected that a majority of the inferred mineral resource could be upgraded to an indicated mineral resource with continued exploration.
5. The indicated and inferred resource estimate uses a copper equivalent cut-off grade of 1.3% CuEq.
6. Copper equivalent resources for the Pine Bay Project were calculated using the following metal prices: Cu at US$3.25/lb, Zn US$1.20/lb, Au at US$1,850/oz, Ag at US$22.50/oz. Foreign exchange rate of CDN$1.00 = US$0.75.
7. Metallurgical recoveries have been assumed to be 80% Cu, 80% Zn, 40% Au and 40% Ag.
8. Mineral resources are not mineral reserves until they have demonstrated economic viability. Mineral resource estimates do not account for a resource's mineability, selectivity, mining loss, or dilution.
9. All figures are rounded to reflect the relative accuracy of the estimate and therefore numbers may not appear to add precisely.

1.7 Interpretation and Conclusions

The Pine Bay Project has been evaluated and as demonstrated by the results and findings detailed within this Technical Report illustrates that the Project warrants advancement. This resource report shows the results of the Project for the reasonable, long-term metal prices, exchange rates, reasonable prospects extraction scenarios, and metallurgical aspects.

Key conclusions:

- The Flin Flon area is a prolific, mature mining jurisdiction with excellent infrastructure and support for mining activities which will be an important factor for the future development of the Project. The community is favourable toward mining activities and there are no current land claims or encumbrances related to current or potential future operations.
- Geology is well understood, and models are supported by a robust dataset and well constrained interpretations.
- The statement of resources is the primary conclusion derived from this Technical Report along with the disclosure of the current relevant information describing the Project and its evolution to date.
- The application of geophysics has been extensively employed and remains the best tool for further exploration and potential discovery.
- Neither mineralogical nor metallurgical test work is available.
- The likely methods for mineral processing to produce copper and zinc concentrates by crushing, grinding, flotation and drying has been selected as the base concentration method, with concentrates railed to Canadian or US smelters to produce metals.
- Metal recovery assumptions used in this maiden MRE are reasonable, based on comparisons with numerous similar VMS base metal mines in the FFGB.

Mineral resource estimates are inherently forward-looking and may be subject to change. Although due diligence is exercised in reviewing the supplied information, uncontrollable factors or unforeseen events can have significant positive or negative impacts on mineral resource statements. These uncontrollable factors and/or unforeseen events may consist of risks such as:

- Cyclical nature of the mineral industry;
- Global economic, political and regulatory changes;
- Commodity price fluctuations based on varying levels of demand;
- Changes in the social acceptance of the project by local communities;
- Risks related to health epidemics, including the ongoing global pandemic;
- Mineral exploration efforts are highly speculative in nature and may be unsuccessful;
- Risks related to delays or changes to development program plans and schedules; and
- Uncertainty related to the potential changes to legislation and the taxation regime.

1.8 Recommendations

The extent of mineralization in the Rainbow deposit, beyond the bounds of the current mineral resource, remains open for further exploration and expansion. The Rainbow and Pine Bay deposits currently contain a significant indicated and inferred mineral resource, which resides mostly within the Rainbow domains which are predominantly potentially underground mineable. The Pine Bay deposit requires drilling in order to upgrade for inferred and to infill regions that lack historical data which has been set to 0.00 grade. In addition, further verification drilling will have the potential to improve confidence and increase the size of the deposit.

An extended diamond drilling campaign spanning two (2) years is recommended to, 1) determine the extents of the deposits and regionally including Alchemist via an extensive drilling campaign, 2) increase the density of drilling in the inferred mineral resource areas of Rainbow, 3) delineate and validate the Pine Bay deposit with drilling in year two, 4) continue to gather specific gravity measurements at Rainbow and Alchemist and perform density measurements at the Pine Bay deposit and, 5) metallurgical testing and studies.

Approximately 35,000 m of drilling is expected to satisfy the requirement to convert portion of the Inferred Mineral Resource to the Indicated Mineral Resource category, as well as provide confidence and continuity at the Pine Bay deposit. In addition, further definition drilling at the Alchemist deposit to support resource estimation studies along with regional exploration drilling.

Metallurgical and variability test work is recommended to allow the development of a robust metallurgical process flowsheet and the updated MRE to be expressed on a NSR valuation basis. It is recommended that a future comprehensive mineralogical and metallurgical test work program be done to define the concentration process parameters and develop the concentrator flow sheet. Representative diamond drill core samples from the Rainbow and Pine Bay deposits and explicit zones within these deposits should be selected for the recommended test work. Recommendations include the following:

- Preliminary metallurgical test work will be used to establish the viability of leaching of the Project's production;
- Recommended mineralogical and metallurgical test work will be used to confirm the MRE recovery assumptions which are based on traditional FFGB concentration techniques and provide the basis to develop a concentrator flow sheet;
- The Project's eventual production may be concentrated at the Flin Flon, Snow Lake or Hanson Lake (after construction) concentrators. Use of these facilities would depend on capacity availability, trucking and tolling costs and reaching an agreement with respective owners. A new 1500 tpd concentrator at the Project is the base option for this maiden MRE; and
- Final selection of the Project concentration facilities will be based on future trade-off studies.

The test work program should include:

- Mineralogical studies;
- Preliminary leaching tests;
- Crushability and grindability tests including abrasion Index, low impact index, Bond work Index (crushing, rod mill and ball mill);
- Screening tests;

- Flotation tests (for separate copper and zinc concentrates and bulk concentrate), and
- Thickening / settling and filtration tests.

Engineering work is also recommended to advance the Project toward a PEA. Ongoing environmental studies are also recommended to support working toward an economic evaluation and permitting requirements of the Pine Bay Project.

The budget for the program is summarized in Table 1-4.

Table 1-4: Proposed 2-Year Program Budget: 2023-2025

Item	Unit	Unit Cost (CAD$)	Cost Estimate (CAD$)
Rainbow and Regional Drilling: NQ2/HQ and Pine Bay Diamond Drilling	35,000 m	$250/m	8,750,000
Assaying	25,000	$60	1,500,000
Field staff: Geologists, logistics support	10 personnel	$600	2,400,000
Rehab Pads and Drill Roads			10,000
Metallurgical Test Work Program			120,000
Environmental Studies			60,000
Resource Update			110,000
Preliminary Economic Assessment			350,000
Subtotal			13,300,000
Contingency (15%)			1,995,000
Total			**15,295,000**

Source: Kirkham (2023)

2 INTRODUCTION

2.1 Terms of Reference

This report is produced for Callinex Mines Inc. (“Callinex” or “the Company”), a Vancouver-based Canadian public company engaged in the business of exploration and development of precious metals, listed on the TSX Venture Exchange with trading symbol TSX-V: CNX; OTQXC: CLLXF.

Callinex is advancing its portfolio of base and precious metals deposits located in established Canadian mining jurisdictions. The focus of the portfolio is highlighted by the Rainbow, Pine Bay and Alchemist deposits at its Volcanogenic Massive Sulphide (VMS) Pine Bay Project located near existing infrastructure in the Flin Flon Mining District.

The Pine Bay Project consists of certain mineral leases or claims of the are subject to a Net Smelter Return (“NSR”) royalty ranging from 0% to 1%, of which 0.5% NSR can be repurchased for $500,000, and up to a 5.12% Net Profit Interest. A total of 44 claims acquired under the option agreement with Peter Dunlop are subject to a 2% NSR, of which one-half of the royalty (1%) can be repurchased for $1,000,000.

2.2 Source of Information

The data used in the updated resource estimation and the development of this report was provided to the authors by Callinex. Some information including the property history and regional and property geology has been sourced from previous publicly available technical assessment reports and revised or updated as required. References for information used are contained in Section 28. This 2023 Technical Report is the inaugural NI 43-101 Technical Report for the Pine Bay Project.

2.3 Summary of Qualified Person

The authors wish to make clear that they are Qualified Persons (“QP”) only in areas of this Report where they are identified by a “Certificate of Qualified Person”. Table 2-1 outlines the QP responsible for the corresponding sections of this Report. Under the “Qualified Person(s)” column, the first listed is responsible for that Report Section.

Table 2-1: Qualified Persons and Areas of Responsibility

Qualified Person	Employer	Date of Site Visit	Sections of Report
Garth Kirkham, P.Geo.	Kirkham Geosystems	October 5 to 10, 2022	1, 2 through 12, 14, 23, 25.1, 25.2, 25.4 and 26
Georgi Doundarov, P.Eng.	Magemi Mining		1.4, 13, 25.3

2.4 Site Visits

Garth Kirkham, P.Geo., an independent QP in accordance with the requirements of NI 43-101. He is independent of Callinex, and the Pine Bay Property. He has no interest in the companies, in the Property, or in any claims in the vicinity of the Property. Mr. Kirkham visited the Pine Bay Property from October 5 to October 10, 2022. On this site visit, Kirkham examined several core holes, drill logs and assay certificates. Assays were examined against drill core mineralized zones. Kirkham inspected the offices, core logging/processing facilities as well as sampling procedures and core security. Kirkham participated in a field tour of property geology conducted by Callinex employees JJ O'Donnell, Ryan Mebs, and Shane Higbee.

2.5 Units of Measure and Abbreviations

Units of measure are metric. Assays and analytical results for precious metals are quoted in parts per million (ppm) and parts per billion (ppb) and weights are quoted in gram (gm), kilograms (kg), tonnes (t), thousand tonnes (Kt) and million tonnes (Mt). Parts per million (ppm) are also commonly referred to as grams per tonne (g/t) in respect to gold and silver analytical results. Gold endowment may be referred to as ounces (oz) as per industry common practice. Assays and analytical results for base metals are also reported in percent (%). Temperature readings are reported in degrees Celsius (°C). Lengths are quoted in kilometres (km), metres (m) or millimetres (mm). Density measurements are reported in tonnes per cubic metre (t/m^3). All costs are in Canadian dollars (C$ or $) unless otherwise noted. Weights of metallurgical reagents are quoted in kilograms per tonne (kg/t). Mining throughput is quoted in tonnes per day (t/d or tpd).

3 RELIANCE ON OTHER EXPERTS

The QP confirmed the status and registration of the mineral tenures with information available through Manitoba's Integrated Mining and Quarrying System (iMaQs) online website.

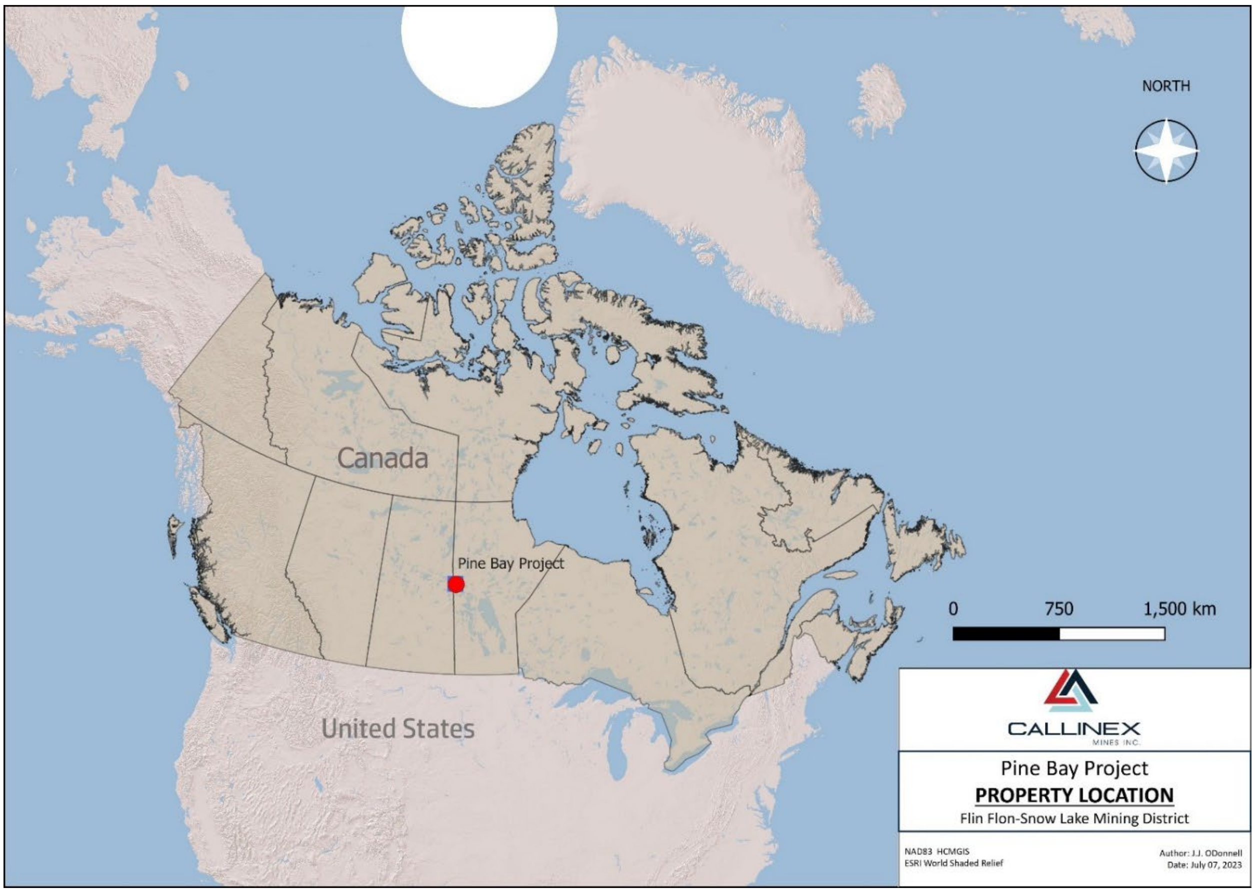
Information concerning claim status and ownership are presented in Section 4 and have been provided to the authors by Callinex. They have not been independently verified by the authors but have relied on MLT Aikins LLP, a legal advisor to Callinex, as expressed in a legal opinion dated March 6, 2023. The authors have no reason to doubt that the title situation is different than what is presented here.

4 PROPERTY DESCRIPTION AND LOCATION

4.1 Location

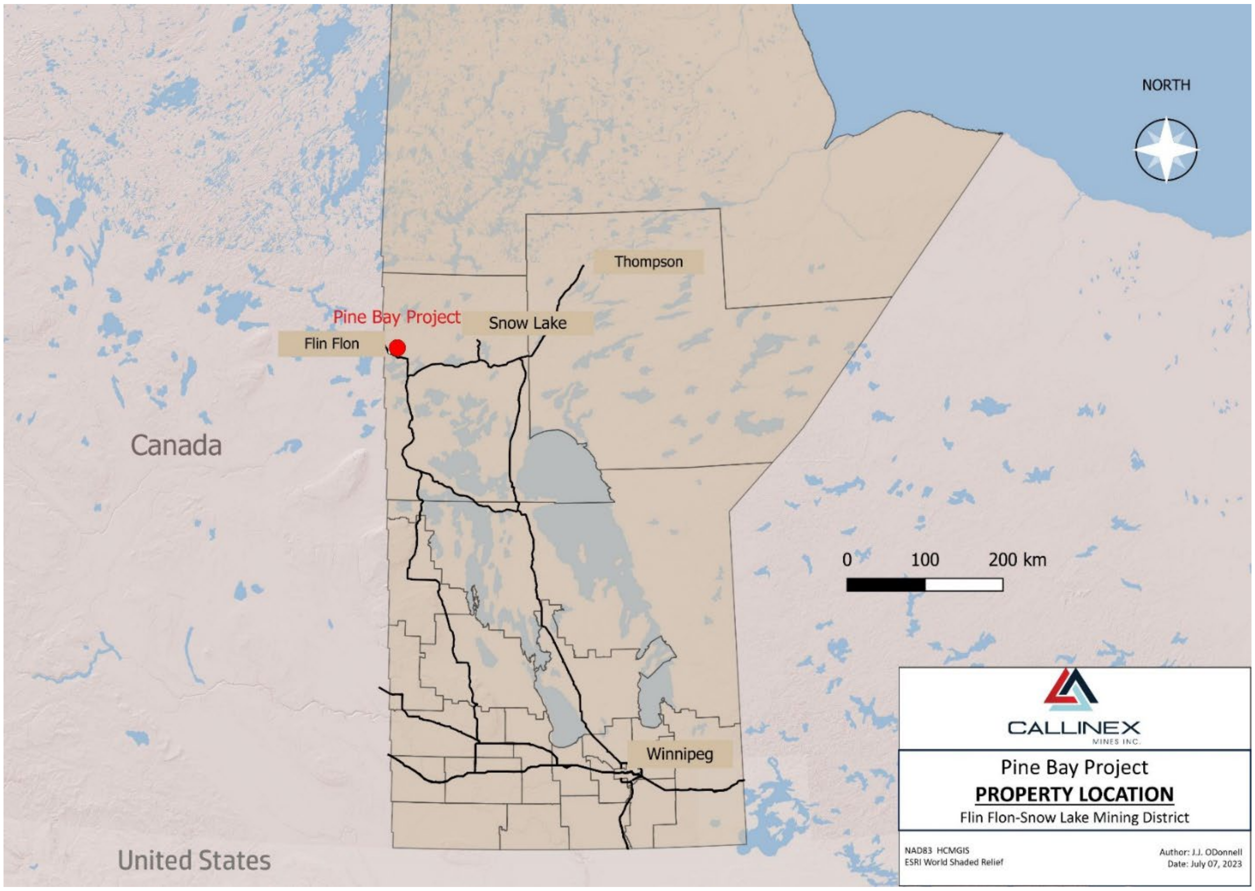
The Pine Bay Project ("the Project") is located within the Flin Flon-Snow Lake Mining District, located in Central Canada, in the Province of Manitoba. (Figure 4-1). The Property is approximately 750 km northwest of Manitoba's capital city of Winnipeg and 16 km east of the city Flin Flon (Figure 4-2). The Project is located at coordinates 331300 E, 6071100 N and 300 metres above sea level (masl) using Universal Transverse Mercator Projection, NAD83 Datum, Zone 14.

Figure 4-1: Project Location Map Showing Country



Source: Callinex (2023)

Figure 4-2: Project Location Map



Source: Callinex (2023)

4.2 Mineral Tenure

The Project consists of a group of 77 contiguous mineral claims (dispositions) and one (1) mineral lease totaling 6,795 hectares (ha).

Callinex acquired the current tenure totaling 6,795 ha through staking (1,480 ha), exercise of an option agreement dated July 8, 2009 with M'Ore Exploration Services Ltd. and 4058667 Manitoba Company (4,363 ha) and exercise of an option agreement dated May 22, 2012 with Peter C. Dunlop (952 ha).

Table 4-1: Mineral Tenure Information

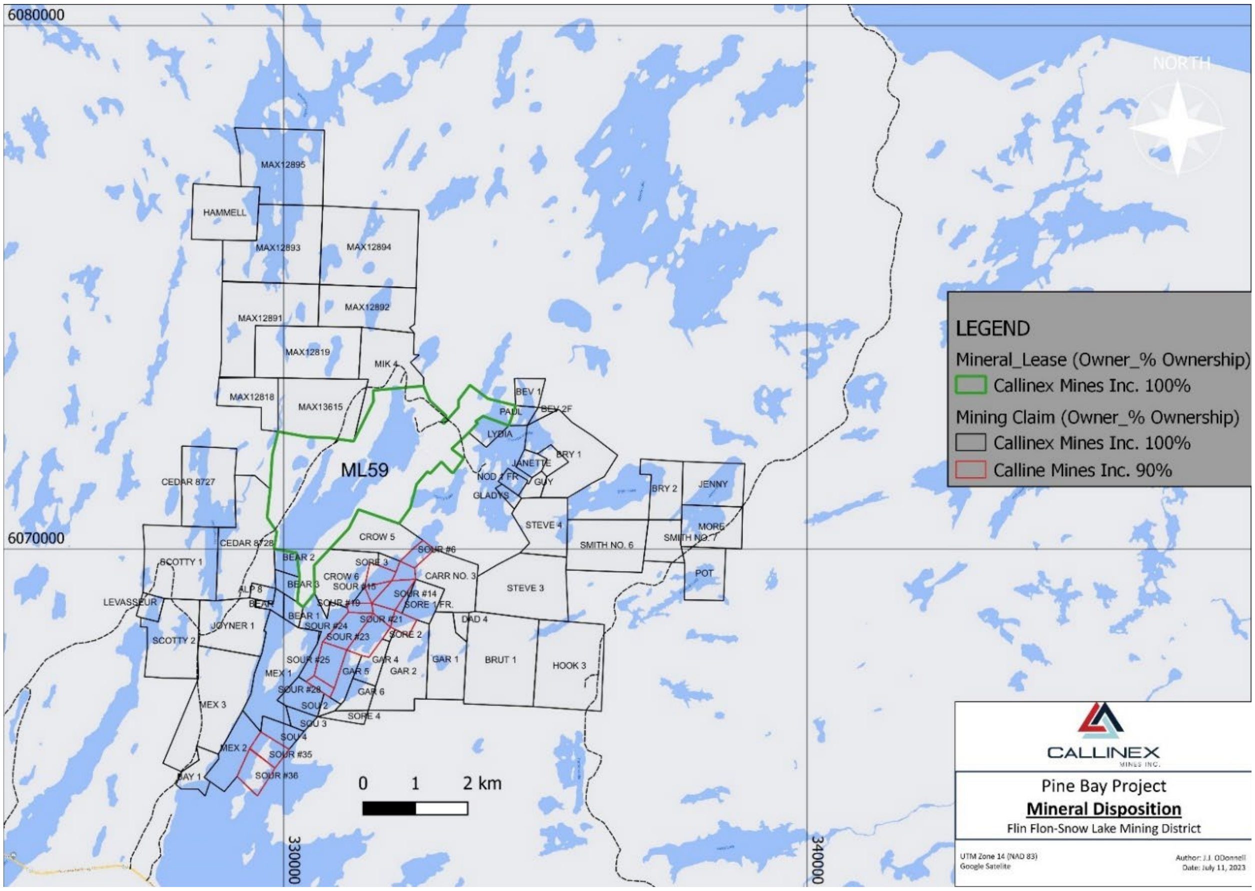
Disposition Number	Disposition Name	Area (ha)	Issue Date	Good To Date	Acquired Purchase Agreement	% Ownership
ML59		782	1992-04-01	2024-04-01	M'Ore and Manitoba 4058667	100
MB2339	HAMMELL	138	2000-06-07	2034-06-07	Dunlop_PineBay	100
W48748	CROW 5	115	1984-05-29	2035-05-29	Dunlop_PineBay	100
W48749	CROW 6	95	1984-05-29	2035-05-29	Dunlop_PineBay	100
W48754	MIK 4	140	1984-05-29	2035-05-29	Dunlop_PineBay	100
MB9578	MEX 3	229	2010-05-14	2035-05-14	Dunlop_PineBay	100
MB9815	MEX 2	62	2010-06-14	2035-06-14	Dunlop_PineBay	100

Disposition Number	Disposition Name	Area (ha)	Issue Date	Good To Date	Acquired Purchase Agreement	% Ownership
P798F	MEX 1	173	1992-04-10	2035-04-10	Dunlop_PineBay	100
CB8542	ALP 8	13	1979-05-14	2034-05-14	M'Ore and Manitoba 4058667	100
P2768F	BEAR 3	22	1994-10-14	2034-10-14	M'Ore and Manitoba 4058667	100
CB12252	SMITH NO. 6	140	1980-10-20	2030-10-20	M'Ore and Manitoba 4058667	100
CB12253	SMITH NO. 7	78	1980-10-20	2030-10-20	M'Ore and Manitoba 4058667	100
MB3970	SCOTTY 1	186	2003-02-14	2035-02-14	M'Ore and Manitoba 4058667	100
P2693F	BEAR	16	1994-08-18	2035-08-18	M'Ore and Manitoba 4058667	100
P2774F	BEAR 1	17	1994-09-14	2035-09-14	M'Ore and Manitoba 4058667	100
29024	LEVASSEUR	21	1919-05-05	2035-05-05	M'Ore and Manitoba 4058667	100
CB12249	CARR NO. 3	96	1980-10-20	2035-10-20	M'Ore and Manitoba 4058667	100
MB3971	SCOTTY 2	138	2003-02-14	2034-02-14	M'Ore and Manitoba 4058667	100
P311F	DAD 4	13	1991-08-21	2035-08-21	M'Ore and Manitoba 4058667	100
MB11522	NOD 1 FR	15	2013-06-05	2034-06-05	M'Ore and Manitoba 4058667	100
MB5963	JENNY	101	2005-06-23	2030-06-23	M'Ore and Manitoba 4058667	100
MB137	PAUL	16	2003-06-03	2034-06-03	M'Ore and Manitoba 4058667	100
MB139	MORE	96	2004-02-09	2034-02-09	M'Ore and Manitoba 4058667	100
MB5118	BRY 2	97	2005-06-23	2034-06-23	M'Ore and Manitoba 4058667	100
MB6283	BRUT 1	240	2008-08-21	2034-08-21	M'Ore and Manitoba 4058667	100
MB7013	STEVE 3	191	2006-12-15	2034-12-15	M'Ore and Manitoba 4058667	100
MB8727	CEDAR 8727	143	2010-04-06	2034-04-06	M'Ore and Manitoba 4058667	100
MB9217	HOOK 3	221	2009-04-06	2034-04-06	M'Ore and Manitoba 4058667	100
P2775F	BEAR 2	19	1994-09-14	2034-09-14	M'Ore and Manitoba 4058667	100
P6505D	GAR 1	167	1987-04-24	2034-04-24	M'Ore and Manitoba 4058667	100
MB2631	BRY 1	170	2005-08-11	2034-08-11	M'Ore and Manitoba 4058667	100
MB3405	GLADYS	21	2004-02-18	2030-02-18	M'Ore and Manitoba 4058667	100
MB3406	JANETTE	21	2004-02-18	2030-02-18	M'Ore and Manitoba 4058667	100
MB3778	GUY	21	2001-12-05	2030-12-05	M'Ore and Manitoba 4058667	100
MB5966	POT	61	2005-06-23	2030-06-23	M'Ore and Manitoba 4058667	100
MB6296	BEV 1	27	2006-07-13	2030-07-13	M'Ore and Manitoba 4058667	100
MB6297	BEV 2F	7	2006-07-13	2034-07-13	M'Ore and Manitoba 4058667	100
MB7014	STEVE 4	86	2006-12-15	2034-12-15	M'Ore and Manitoba 4058667	100
MB9007	JOYNER 1	100	2009-02-24	2034-02-24	M'Ore and Manitoba 4058667	100
MB138	LYDIA	24	2003-05-28	2035-05-28	M'Ore and Manitoba 4058667	100
MB5259	JOIN	56	2004-04-15	2035-04-15	M'Ore and Manitoba 4058667	100
MB8728	CEDAR 8728	209	2010-04-06	2035-04-06	M'Ore and Manitoba 4058667	100
P519F	SORE 3	11	1992-10-01	2035-10-01	M'Ore and Manitoba 4058667	100
MB10828	BAY 1	37	2013-06-05	2035-06-05	M'Ore and Manitoba 4058667	100
P517F	SORE 1 FR.	6	1992-09-08	2035-09-08	M'Ore and Manitoba 4058667	100
P518F	SORE 2	4	1992-10-01	2035-10-01	M'Ore and Manitoba 4058667	100
P520F	SORE 4	25	1992-10-01	2035-10-01	M'Ore and Manitoba 4058667	100

Disposition Number	Disposition Name	Area (ha)	Issue Date	Good To Date	Acquired Purchase Agreement	% Ownership
P6506D	GAR 2	120	1987-04-24	2035-04-24	M'Ore and Manitoba 4058667	100
P6507D	GAR 3	40	1987-04-24	2035-04-24	M'Ore and Manitoba 4058667	100
P6508D	GAR 4	40	1987-04-24	2035-04-24	M'Ore and Manitoba 4058667	100
P6509D	GAR 5	41	1987-04-24	2035-04-24	M'Ore and Manitoba 4058667	100
P6510D	GAR 6	30	1987-04-24	2035-04-24	M'Ore and Manitoba 4058667	100
P6514D	SOU 1	28	1987-06-24	2035-06-24	M'Ore and Manitoba 4058667	100
P6515D	SOU 2	21	1987-06-24	2035-06-24	M'Ore and Manitoba 4058667	100
P6516D	SOU 3	16	1987-06-24	2035-06-24	M'Ore and Manitoba 4058667	100
P6517D	SOU 4	21	1987-06-24	2035-06-24	M'Ore and Manitoba 4058667	100
P9049C	SOUR #6	18	1967-04-11	2032-04-11	M'Ore and Manitoba 4058667	90
P9054C	SOUR #11	22	1967-04-11	2032-04-11	M'Ore and Manitoba 4058667	90
P9055C	SOUR #12	13	1967-04-11	2032-04-11	M'Ore and Manitoba 4058667	90
P9057C	SOUR #14	21	1967-04-11	2032-04-11	M'Ore and Manitoba 4058667	90
P9058C	SOUR #15	21	1967-04-11	2032-04-11	M'Ore and Manitoba 4058667	90
P9062C	SOUR #19	21	1967-04-11	2032-04-11	M'Ore and Manitoba 4058667	90
P9063C	SOUR #20	21	1967-04-11	2032-04-11	M'Ore and Manitoba 4058667	90
P9064C	SOUR #21	21	1967-04-11	2032-04-11	M'Ore and Manitoba 4058667	90
P9066C	SOUR #23	21	1967-04-11	2032-04-11	M'Ore and Manitoba 4058667	90
P9067C	SOUR #24	21	1967-04-11	2032-04-11	M'Ore and Manitoba 4058667	90
P9068C	SOUR #25	26	1967-04-11	2032-04-11	M'Ore and Manitoba 4058667	90
P9071C	SOUR #28	24	1967-04-11	2032-04-11	M'Ore and Manitoba 4058667	90
P9078C	SOUR #35	21	1967-04-11	2032-04-11	M'Ore and Manitoba 4058667	90
P9079C	SOUR #36	21	1967-04-11	2032-04-11	M'Ore and Manitoba 4058667	90
MB12891	MAX12891	227	2023-02-16	2025-02-16	staked CNX	100
MB12892	MAX12892	154	2023-02-16	2025-02-16	staked CNX	100
MB12893	MAX12893	223	2023-02-16	2025-02-16	staked CNX	100
MB12894	MAX12894	252	2023-02-16	2025-02-16	staked CNX	100
MB12895	MAX12895	173	2023-02-16	2025-02-16	staked CNX	100
MB13615	MAX13615	166	2019-08-15	2030-08-15	staked CNX	100
MB12818	MAX12818	85	2022-03-01	2024-03-01	staked CNX	100
MB12819	MAX12819	200	2022-03-01	2024-03-01	staked CNX	100

Source: Callinex (2023)

Figure 4-3: Mineral Tenure Map



Source: Callinex (2023)

All tenures are in good standing, according to Manitoba's iMaQs online website.

The MREs reported in Section 14 is located Callinex's Mineral Lease ML59.

4.3 Work Requirements and Permits

In Manitoba, a person needs to be registered with the province and is required to physically mark a boundary of their mineral claim with specific measurements and methods. Recording a claim of "unsurveyed territory" costs $16/ha and requires annual work commitments of $12.50/ha from the second to the tenth anniversary of the claim, which increases to $25/ha on the eleventh and any additional year thereafter.

An application is required for a Mineral Lease made in writing to the minister with an application fee of $7 and may not exceed 800 ha. The required amount of expenditures on work approved within the mineral lease area shall be no less than $1,250/ha. Mineral Leases (not in production) located in Manitoba have a term of 21 years and an annual payment of $12/ha.

In order to perform exploration work on the Project, Callinex requires a Work Permit through Manitoba Conservation in Cranberry Portage, Manitoba. The original application is filed online and reviewed by all government and non-government agencies that may be affected by the exploration work. These include but are not limited to: Manitoba Conservation, Manitoba Parks and Recreation, the Mines Branch, Wildlife

Branch, Heritage Resource Branch, and local Aboriginal Communities if deemed to be on their traditional land. Callinex's latest work permit was issued on July 14, 2022 and expires on March 31, 2025. The multi-year area-based permit allows Callinex to conduct geophysical surveys and surface diamond drilling.

4.4 Purchase Agreements – Royalties

Certain mineral leases or claims of the Project are subject to a NSR royalty ranging from 0% to 1%, of which 0.5% NSR can be repurchased for $500,000, and up to a 5.12% Net Profit Interest.

A total of 44 claims acquired under the option agreement with Peter Dunlop are subject to a 2% NSR, of which one-half of the royalty (1%) can be repurchased for $1,000,000.

There are no back-in rights, payments or other agreement and encumbrances which the Project is subject to.

4.5 Environmental Liabilities

The Pine Bay Property is not subject to any environmental liabilities at this time.

4.6 Community and Social Licence

Callinex has close ties to the neighboring communities of Flin Flon and Creighton. Ongoing communications with these communities provide for continued good relations. There are no known First Nations land claims or treaty obligations in the Flin Flon region.

4.7 Property Risks

No other significant factors and risks may affect access, title, or the right or ability to perform work on the Pine Bay Project at this time.

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Accessibility

Motor vehicle access along all service roads from Flin Flon, Manitoba is primary utilized by Callinex personnel and contractors. Access to the Project starts along 15 km of paved highway (provincial Highway #10), then proceeds north for 5 km along old provincial Highway #10 until reaching a gravel provincial road, North Star Road for additional 5 km which terminates at the past producing North Star Mines and Don Jon Mines on the east side of the Pine Bay property. The North Star Road also serves as access to lake homes and summer cottage dwellings on northwest area of Lake Athapapaskow.

The nearest full service commercial airport is located at Baker's Narrows (Flin Flon Airport), 12 km driving distance from site that has service from the Winnipeg James Armstrong Richardson International Airport (YWG) three (3) days per week. YWG is located approximately 725 km from the Pine Bay Project via Provincial Highway #10.

5.2 Local Resources and Infrastructure

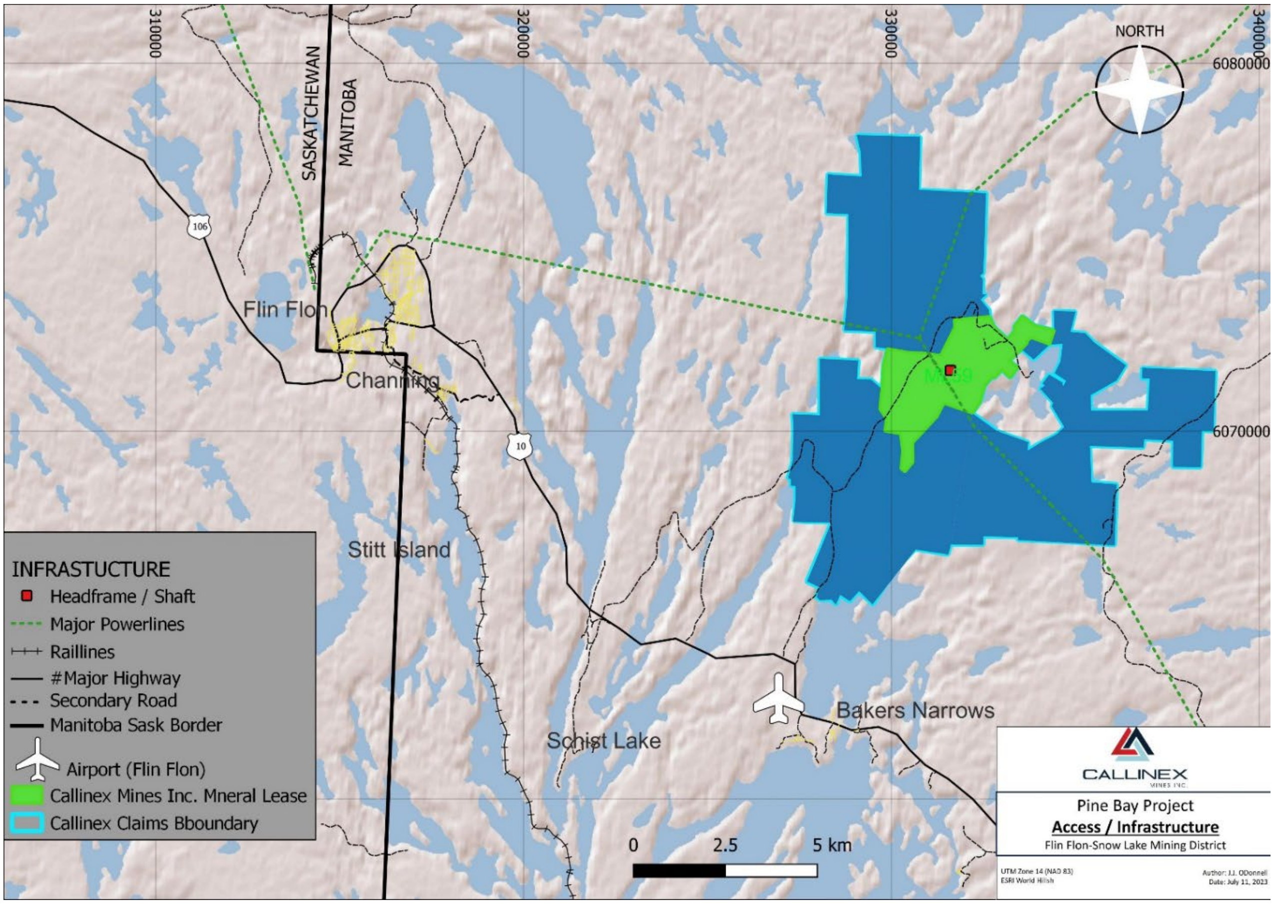
The city of Flin Flon, is an all-service community was established in the 1920s with the discovery of the main Flin Flon orebody, and had seen continuous production at its mining, milling, and processing facility until summer 2022 when it went into care and maintenance. Flin Flon is serviced by two (2) highways: Highway #106 from Saskatchewan and Highway #10 from Manitoba. Historically, Flin Flon's population has been over 12,000 residents, with current population recording 5,000 people (Census, 2021). With its strong history of mining, the city and residents cater to exploration and mining requirements (service and labour force).

Manitoba Hydro and Saskatchewan Power Corporation supply hydroelectric power to the community and past producing mines, with one of Manitoba Hydro's major transmission lines cutting through the central part of the Pine Bay Project.

HudBay Railway, which is linked to southern major railway routes, supplies and exports for Flin Flon's minerals processing facility.

There is a 200 m shaft and two (2) levels of underground development (currently flooded) that were established to access the Pine Bay Deposit. They were discovered and explored in 1960s and 1970s by Cerro Mining Group in order to continue diamond drilling and obtain a bulk sample for metallurgy purposes. Surface infrastructure also includes headframe and surface buildings (hoistroom, generators, dry and mine offices).

Figure 5-1: Project Accessibility and Infrastructure



Source: Callinex (2023)

5.3 Climate

The Pine Bay Project is situated in north central Canada where summers are typically short and freezing (frost) temperatures begin in October, lasting through to April. The nearest Environment Canada weather station is located at the Baker's Narrows Airport, approximately 3 km from southern boundary of the Project.

Calculated information from 1981 to 2010, the average annual temperature at the Baker's Narrows Airport weather station is 1.0°C. The highest monthly average daily maximum temperature is 24.1°C occurring in July, and the lowest monthly average daily minimum temperature is -22.9°C occurring in January. On average, at the Flin Flon weather station, 45.7 cm of precipitation falls annually: in the form of snow 115.5 cm, and rain 34.45 cm.

5.4 Physiography

The Project is physically located on the Canadian Shield region of Canada and is part of the Boreal Shield terrestrial ecozone. It is located in the ecodistrict of Flin Flon and part of the Upper Churchill area which covers 12.5% of Manitoba.

The terrain consists of hummocky and ridged Precambrian bedrock exposures, locally covered with sandy glacial till and glaciolacustrine sediments and peat deposits. Permafrost is widespread in peatlands, and clayey upland areas. Approximately 25% of the Property is covered by bodies of freshwater which includes lakes, ponds, swamps, and drainage systems. Vegetation includes close stands of black spruce and jack pine, with inclusions of white spruce, birch, and aspen. Bogs are dominated with stunted black spruce, shrubs and mosses (H Smith, et al. 1998).

Topography ranges from lake level 290 masl to rock ridges as high as 324 masl

6 HISTORY

6.1 Management and Ownership

While the earliest recorded work on Manitoba's exploration mineral assessment filing website, iMaQs, for the property is 1945, other sources indicate exploration activity as early as 1919 when the Baker Patton area was staked by H.L. Baker and W. Patton. Exploration activities focused around the Baker Patton area between 1919 and the 1950s with the listed companies to have ownership or options / partnerships included: London Exploration Co. (1922), International Nickel Company of Canada (1927), Callinan Flin Flon Mines Ltd. (1928), Mandy Mines Ltd. (1929), Transcan Investors Ltd (1946), and Hudson Bay Exploration and Development (1948). The area of interest grew after the Northstar (1949) and Don Jon (1951) mines were discovered 1.2 km and 1.7 km east of Baker Patton area. Mining companies recorded working at Baker Patton and surrounding area on the Pine Bay Project included Hudson Bay Mining and Smelting (1945), Sherritt Gordon Mines Ltd. (1948), Hotstone Gold Mines Limited (1951), Manitoba Mining Company Limited (1958), Ansil Mines Ltd (1964), Guggenheim Exploration Company (1966), Pineroot Minerals Enterprises (1967), Cerro Mining Company of Canada (Cerro) (1969), Sourdough Bay Mines Limited (1969), Pine Bay Mines Ltd. (1971), Consolidated Morrison Exploration Limited (1977), Granges Exploration Co. (1978), Saskatchewan Mining Development Corporation (1981), Minnova (1991), Placer Dome (1991), Noranda (1992), Inmet Mining Co. (1995), M'Ore Exploration Services (1998), and Bell Coast Resource Inc (2003).

6.2 Exploration History

In 1919, prospectors recognized that the surface exposure (altered felsic volcanic rocks) of the Baker Patton system could represent a surface exposed VMS system. Activity of trenching was first recorded in 1922 by London Exploration Company, followed by five (5) holes drilled by International Nickel Company of Canada in 1927; unfortunately, no records found. In 1929, Callinan Flin Flon Mines Ltd, developed a three-compartment shaft on the Baker Patton discovery to a depth of 128 m, with horizontal drift stations at 45 m, 84 m, and 122 m. A total of 192 m of horizontal drifting was completed (Wright, 1938). The shaft collar has since been filled in. However, assessment records show a 1953 diamond drill hole drilled by Don Jon Mines Ltd. off of the 400-foot level (122 m) of the Baker Patton shaft. Additional drilling in the area included Mandy Mines Ltd. 21 holes in 1929, Transcan Investors 69 holes in 1946, Hudson Bay Exploration and Development (HBED) seven (7) holes in 1948. During this time period, Transcan Investors Company is believed to have discovered the Cabin zone with hole #42 which returned 11.8 m assaying 11.33% Cu, 1.94% Zn, 0.39 g/t Au, and 8.5 g/t Ag, and is located 330 m northeast of the Baker Patton shaft.

Subsequently, from 1948 to 1949, two (2) other major companies were also exploring within the Pine Bay property. Sherritt Gordan Mines Ltd., who was active in Northern Manitoba since 1923, was exploring the southern portion of the Pine Bay property and recorded 28 holes with the discovery of the Sourdough Bay VMS showing (Mex 1 claim area). Hole #3, drilled in February 1949, was the first hole to record elevated base metal values which averaged 4.37% Cu, 0.80% Zn, 0.89 g/t Au, and 25.83 g/t Ag over 1.83 m and starting at a depth of 105.9 m in hole.

Hudson Bay Mining and Smelting Co. Ltd. (HBMS) were also drilling the Amulet prospect in the northern portion of the property (Mik 4 claim area) between 1945 and 1948 they recorded 35 drillholes with the majority just north of the Pine Bay Project. Amulet Hole #2 intersect a copper rich zone, which returned 5.06 m of 1.43% Cu, 0.14 g/t Au, and 0.89 g/t Ag. HBMS returned to the Amulet area in 1952 and 1953 and drilled an additional 12 holes.

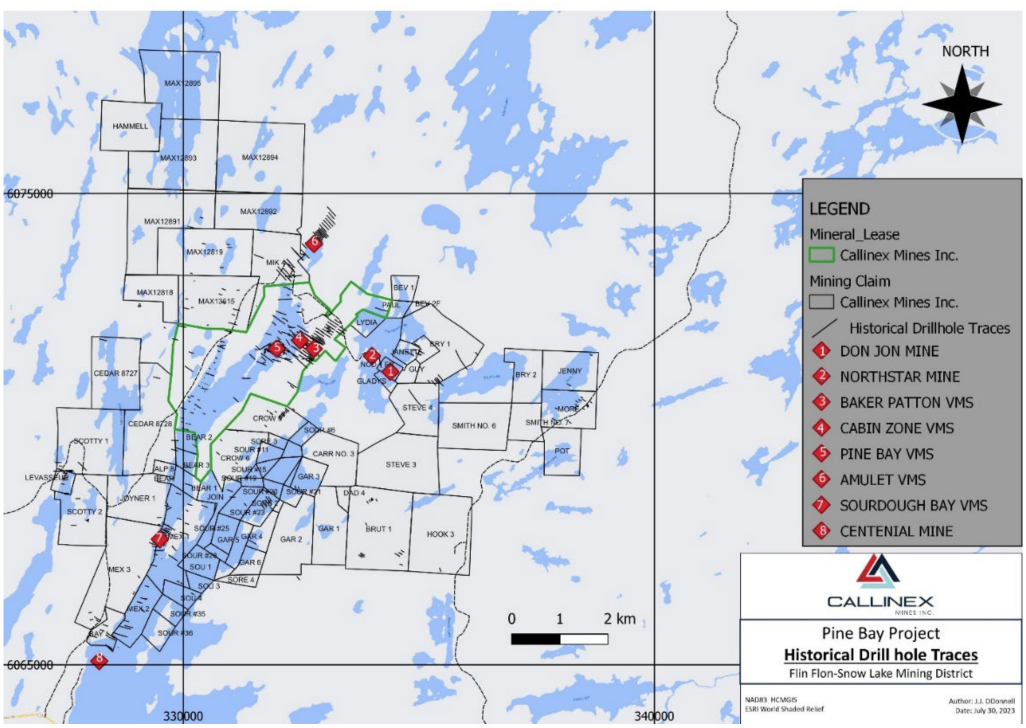
In 1950, HBED recorded a 497 m drill program (five (5) drill holes) in the Jenny Lake area (currently the MORE Claim) on the northeastern portion of the property. Drilling was completed by Midwest Drilling Company Limited (Midwest) out of Flin Flon, utilizing an EX-size (15/16 inch) core recovery system. No assays submitted but geology recorded included felsic volcanics (rhyolites, dacites and quartz porphyry), felsic intrusives (Granodiorites) and sediments (Argillites). Sulphide mineralization noted was disseminated to solid sulphides (up to 2.44 m) pyrite ± pyrrhotite.

In 1951, three (3) companies had filed assessment work during this period on the Pine Bay Property. Hotstone Gold Mines Limited (1951 to 1952) recorded drilling 12 drillholes for a total of 2,012 meters, which saw drilling on the northeast arm of lake Athapapaskow (Athapap) (SOUR 20 and SOUR24 claims area). The drill contractor was Midwest, recovering EX core. No assays submitted, with lithologies mainly andesite with lesser rhyolites, mineralization noted minor pyrite.

HBED (1951) completed seven (7) holes (1,434 m) on the northeast area of the Project (BRY 1 claim). Midwest was the contractor and recorded the EX core drilling program from May 25 to August 27, 1951. No reported assays, however favorable geology for a VMS system was intersected which include altered (chlorite, sericite, silicified) felsic volcanics and quartz porphyries, with scattered pyrite and very slight chalcopyrite mineralization noted.

Just west of HBED drilling Mangolia Mines Limited (1951 to 1952) had an extensive drill program (Gladys, Steve 4, Guy claims) which lasted for two (2) years and 19 holes, two (2) wedges were completed for a total of 6,479 m. No assays were submitted but sulphides pyrite common with slight to disseminated chalcopyrite and sphalerite mentioned, normally associated with Quartz Porphyry ± siliceous, ± chloritic, ± sericitic, ± talcy alteration. Midwest was also the drill contractor during this program, recovering EX size core.

Figure 6-1: Historical Drill Hole Traces



Source: Callinex (2023)

In 1952, five (5) holes (598 m) were completed by Manchica Mining Company Limited located at the mouth of the Pineroot River Athapap Lake (MEX 3 claim) to test a surface shear zone with mineralization. They observed the shear zone location next to an unconformity between volcanic felsites and the overlaying Missi-sediments, based on the five (5) holes they concluded the mineralization was found to contain plentiful pyrite, but no commercial concentrations of copper or zinc.

In 1953, as mentioned previously, Don Jon Mines Limited recorded a single hole (#2) drilled off the 400-ft (122 m) level of the Baker Patton shaft. Don Jon Mines Limited contracted R.M. McIsaac Drilling to complete a flat hole to the depth of 143 m. The geology was described sericite quartz porphyry ± chlorite with abundant pyrite mentioned and a local stringer of chalcopyrite near the end of hole.

In 1953, HBMS started to become a major explorer in the area with the first recorded geophysics being incorporated for drillhole targeting purposes. In 1953, HBMS submitted 181 km of line cutting and geophysical electro-magnetic (EM) survey which covered north Athapap Lake, which also covered the current Pine Bay VMS deposit. Follow up to the geophysical results, HBED completed 11 holes on the western portion of the property (northwest corner ML59, Max13815, Max 12819), for a total of 2,009 m. Geology encountered included volcanics (Andesite, Dacite, and fine-grained quartz-feldspar porphyry), intrusives (Gabbros and Diorites), with mineralization commonly graphite/pyrite, ± pyrrhotite, and minor chalcopyrite. Midwest provided the drilling equipment and completed the program between April and May 1953.

In 1954, a single hole was drilled on the northern portion of ML59 on the shore of Athapap Lake (61 m). The hole intersected Dacites and Chlorite Schists, with no mention of sulphides, it was drilled by Thomas R, Webb and John Murray.

In 1966, Guggenhiem Exploration Co. Inc. recorded its first activity on the property by drilling four (4) holes (230 m) on the northwest arm of Schist Lake (SCOTTY 1 claim). Geology noted included andesites (chloritic altered), dacites, with graphite ± pyrite noted. They later returned to the area in 1967 and drilled an additional five (5) holes (916 m).

1967 proved to be a very active year for Pineroot Mineral Enterprise (PME) (part of Guggenhiem Group) who drilled 45 holes totaling 3,075 m with the majority of holes drilled in central portion of the property (ML59) concentrating on the Baker Patton, Cabin zone, and the newly discovered Pine Bay Deposit. One (1) additional hole was drilled by PME in the Amulet Lake area (MIK 4 claim) which measured 394 m in length. Four (4) drill holes PME drilled in the northeast portion of the property (claims MAX12891 and MAX12892). The discovery of the Pine Bay VMS Deposit was Hole #2 drilled between January 23 and January 28, 1967 by PME (logged by A.J. O'Donnell) it intersected two (2) massive sulphide sections assaying 64.9 m to 66.1 m at 1.47% Cu, trace g/t Au, 22.7 g/t Ag, and a second massive sulphide 114.6 m to 122.5 m at 2.81% Cu, trace g/t Au, 5.22 g/t Ag. Core size was AX and drilling company Griffith Brothers performed the work. Although no geophysical or mapping reports filed during this time period by PME, verbiage from a 1973 Feasibility Study stated Tri-J Mineral Surveys acting for Guggenheim did geophysical (horizontal loop electromagnetic) work over North Athapap Lake and surrounding land using a Ronka system which defined a new anomaly over the bay (Pine Bay deposit), the anomaly was confirmed by a ground magnetometer survey and subsequently intersected massive sulphides (Hole #2). In the same 1973 report there is an October 1966 map on Pineroot Venture Vertical E.M Survey by Tri-J Mineral Services by instrument SE300, and coil interval 400 feet. Additionally, there was a geological map dated October 1970 from Cerro in the area of Baker Patton.

In 1968, surface drilling by PME continued on the property with a total of 1,365 m of drilling completed in 10 holes (six (6) holes drilled on ML59, two (2) holes on MEX claim, and two (2) holes on MEX 1 claim). In preparation for the Pine Bay mine development, PME (March 10 to March 19,1968) collared a vertical hole at the present-day headframe location to test rock properties prior to commencing shaft development.

The first recorded underground drill hole U2-01 was drilled October 28, 1969 off of the 61 m level (200 foot level) and was part of 11 short holes (U2-01 to U2-11) to test for water structures ahead of advancing development. Cerro was the company that is recorded as doing the mine development and drilling, The 200-foot level was advanced 250 m in length where a diamond drill station was developed. Holes U2-12 to U2-16 were completed from this station during early 1970 and able to test the Pine Bay mineralized lenses with short (150 m), near horizontal drill holes. Shaft sinking continued to the 183 m level (600 foot) where the second drifting commenced. The first recorded drillhole off of the 600-foot level was U6-01. No date was recorded on log, but U6-02 was drilled from the same setup and was collared April 22, 1969. The 600-foot level main drift was developed ~433 m with four (4) separate secondary drifts totaling 530 m for establishing drill stations to test the sulphide lenses above (70 m) and below (192 m). A total of 57 holes were completed from the 600-foot level, 55 drilled during 1969, and two (2) completed in May 1970. In addition, on the 600-foot level one of the secondary drifts (drill station) undercut the main mineralized lens as it started in the footwall and advanced to the hanging wall.

PME's surface efforts in 1969 focused on the southern portion of the property boundary with 10 holes completed (1,770 m, BAY1 Claim). Drilling recovered AX core size and Griffith Brothers and Amisk Drilling were the contractors performing the work. Most likely this area was of interest to PME due to HBMS's 1969 discovery of the Centennial Mine located 400 m south of the boundary. Favorable geology recorded included rhyolite and dacites, chlorite and sericite schists, however only trace amounts of copper and zinc were present.

In 1969, Sourdough Bay Mines Limited were exploring north of PME's work (MEX 1 and MEX 2 claims) completing 11 holes in 1969 and returned in 1972 to complete an additional six (6) holes. Andesites was commonly noted with minor mention of felsic volcanic and sericite schists, with sulphide mineralization dominated by pyrite and pyrrhotite.

In 1973, HBMS and Hudson Bay Air Transport Limited flew the first recorded airborne survey which covered Callinex's Pine Bay Project and covered a total of 3,219 line-km in the Flin Flon region.

In 1974, HBED performed 10 kms of grid and geophysical survey (Turam) over the BEAR claims just south of ML59 with a five (5) hole (636 m) diamond drilling campaign in 1975 and additional three (3) holes February 1976 (1,320 m). Geology intersected were andesite, dacite and rhyolites with local chlorite ± sericite ± talc schists, with slightly elevated base metals e.g., in hole Sour 4 which returned 0.3% Cu over 15 cm, and another assay of 0.5% Zn over 15 cm. Drilling was completed by Midwest Drilling, and recovered AX size core.

Pine Bay Mines drilled 82 vertical holes in 1976 and an additional 12 in 1977 in the Birch Bay area (western arm of Athapap Lake ML59) for 2,263 m. The average depth of these short holes equaled 27.3 m and were designed to test geology below the lake and associated with defined EM anomalies. Area of interest measured 2 km in length with perpendicular fence drilling at 15 m by 130 m grid pattern, bottom of hole would be sampled and analyzed for gold, silver, copper, and zinc.

In 1977, Pine Bay Mines had a surface drill program on the ML59 area of the property which consisted of 43 holes which equaled 7,938 m, and a single surface hole drilled on MEX 3 claim totaling 154.5 m. During 1977 Midwest Drilling was the drill contractor and core increased to AQ and BQ diameters during this year. Hole #100 was drilled near Sourdough Bay showing (MEX 3 claim) which intersected dacites and rhyolites without any appreciable sulphides, however when plotted shows the trace of hole to be well short of the

Sourdough Bay Horizon. Drilling (holes 101-115 and 117-119, and 127) totaling 1,478 m then tested the Cabin zone with a number of holes returning good copper and zinc values. Drillhole #116 (164 m) was drilled into the hanging wall rock of the Pine Bay deposit and failed to intersect any significant sulphides. Drillholes #120-125 (1,458 m) were large step out holes to the north 500 m and south 1,400 m from the Pine Bay deposit, and intersect similar lithologies to the Pine Bay area, however no significant base metals were intersected. Drillholes #126,128-140 (4,282) tested the limits of the defined Pine Bay deposit at depth, north, and south, however failed to increase tonnage or locate any other significant mineralization. Hole #128 had the best results and intersected 2.4 m which assayed 0.32% Cu and had alteration and lithologies similar to Pine Bay and is located 125 m north of the Pine Bay deposit.

Pine Bay Mines filed numerous geophysical maps which included IP, ground E-M and mag survey over various portions of the claims, on the report they reference the ground geophysical surveys to follow an AeroDat Airborne survey anomalies done in 1976. Pine Bay Minerals also released geological mapping on Don Jon, Thompson Lake and Northern Athapap in 1977.

In 1977, HBED also drilled four (4) holes in the southern portion of the property MEX 2 Claim following up of a Turam Survey performed in 1974 totaling 634 m and completed by Midwest Drilling used AQ core retrieval system. Geology was dominated by felsic volcanics and EM anomalies explained by abundant pyrite ± pyrrhotite, ± graphite.

Consolidated Morrison Exploration also contracted AeroDat Limited to perform a helicopter EM and Mag survey over the Amie Lake area with flight lines 100 m apart and a total of 675 km flown, While the Amie Lake area is not part of the Pine Bay property the southern flight lines cover Whitefish Lake which is part of the property (MAX claims).

In 1978, Granges exploration established a few grids (line cutting), and HL-EM survey over the eastern portion of the property (MEX 1 and BAY 1 claims) which totaled 10 km.

In 1979, Granges drilled three (3) holes in the eastern area (MAX12818 and MAX13615) and totaled 148 m with andesites and dacites with moderate pyrite pyrrhotite reported.

Saskatchewan Mining Development Corporation (SMDC) in 1980 had Questors Survey Limited fly most of the property 265-line km at 200 m spacing. SMDC returned one (1) year later and drilled three (3) holes on the east shore of Thompson Lake, testing the down dip extension of the Don Jon Mine horizon, The 868 m of drilling intersected altered mafic to felsic volcanics and sediments, although they recognized the Don Jon horizon in all three (3) holes, only minor amounts of base metals were identified (0.5 m of 1.2% Cu, and a second sample 0.6 m 3.4% Zn). SMDC later in 1981 did an IP/Resistivity survey over the Thompson Lake area and concluded that the anomaly defined near the past producing Don Jon Mine was properly tested with the previous three (3) holes drilled. Also, in May and June 1981, SMDC completed extensive mapping and an outcrop geochemical sampling program on their entire land package. SMDC in 1982 performed 33.7 km of Turam EM and a magnetic survey over the Bryan Lake area followed with an additional three (3) diamond drill holes totaling 1,449 m. Core drilling was BQ in size and contractor on site was Conners Drilling. SMDC recommended no work required for follow up on their properties.

HBED exploration in the period from 1980 to 1990 saw several exploration programs carried out within Pine Bay property. HBED had optioned the Pine Bay property from Pine Bay Mines Limited in May 1981, they proceeded to complete 74.29 km of line cutting, 66.5 km of geophysics (HLEM) collected by Mike Chorney and Associate out of Flin Flon, Manitoba and also 24 km of magnetometer survey was collected by HBED personnel. This work was later followed by a drilling campaign designed to drill the deeper, down dip portion of the Pine Bay VMS deposit. Between January and March 1982, four (4) holes and one (1) wedge were completed for a total of 1,946 m of BQ core (Midwest Drilling). Sulphides intersected were insignificant with hole PB-2 returning the best result of 1.37 m 0.13% Cu and 1.8% Zn. In 1983, HBED drilled two (2) holes on the western boundary of the property (Levasseur claim) where 165 m of BQ core intersected mafic volcanics (tuffs and breccias), diorites with abundant pyrite / pyrrhotite ± graphite. They later returned in 1986 and drilled an additional two (2) holes (258 m, BQ, Midwest Drilling) with similar geology and mineralization intersected. In 1983, the southern portion of the property was optioned to HBED from A.L. Parres, which they surveyed with an HLEM system and discovered two (2) untested anomalies. Pic 1 hole was drilled on the SOUR 24 claim to test an EM conductor, the hole was drilled by Midwest Drilling and measured 125 m in length. The hole was BQ in size and intersected trace to 3% pyrite within andesite flows and intermediate intrusions. Hole Pic 2 (1984) was drilled 133.2 m deep intersecting earthy pyrite in metavolcanics. In May 1988, HBED returned to Jenny area (MORE claim) testing HLEM conductors they had defined in 1981. The three (3) hole program completed 248.8 m drilled by Midwest and BQ in size intersected mostly intrusive and pyrite / pyrrhotite causing the anomalies. They later returned in 1989 and 1990 to drill additional six (6) holes (670 m) with best results from Yap 26 which returned 2.16 m that assayed 7.03 g/t Au, 8.79 g/t Ag in a faulted/silicified greywacke. However, the three (3) follow up holes could not repeat.

Granges Exploration recorded exploration work in the 1980s on the property which mainly consisted of diamond drilling and geophysics. In 1980 and 1981, Granges had options in the southern and western portion of the Pine Bay property which they gridded and did HL-EM and followed up with seven (7) holes (MEX 1 and MEX 2 claims). Drilling was completed by Amisk Drilling who recovered AQ core and totaled 1,023 m. Two (2) of the holes were drilled into the Sourdough Bay VMS deposit showed to have hit marginal copper and zinc values, Hole Sour 12 returned 5.58 m 0.40 g/t Au, 7.48 g/t Ag, 1.25% Cu, and 0.22% Zn. In 1987, Granges returned to the northwest portion of the property and established 33 km of grid which they performed a VLF (very low frequency E-M) survey (MAX12894 and MAX12892). The line cutting and geophysical survey was completed by PFG Exploration services out of Saskatoon, Saskatchewan. Additionally, in 1987 Granges performed a second VLF survey over the Crow 5 claim and completed 19 holes totaling 1,854.3 m with Hole #4 intersecting 8.8 g/t Au, and 77.8 g/t Ag over 0.37 m, Hole #15 returning 0.45 m (43.71 m to 44.16 m) of 4.53 g/t Au, 24.5 g/t Ag. Geology intersected included mafic and felsic intrusive and tuffaceous to brecciated volcanics, with numerous narrow gold intersections greater than 1.0 g/t and normally associated with a sheared gabbro. Granges returned to this area in 1988 and completed three (3) holes (369.2 m) with similar results. Drilling contractors were Amisk drilling in 1987 and Midwest drilling in 1988, both recovering BQ core. Further work in 1988 by Granges covered the claims MAX12891, MAX12892, MAX12893, MAX12894, MAX12895, and Hammel Claim) with 220 km of line cutting, 88 km of VLF survey, 19 km of HLEM survey and 191 overburden holes for 1,864 m. Line cutting and geophysics were performed by PGF Exploration Services and overburden drilling and recovering 0.3 m of bedrock for assay was completed by McNeil Drilling out of Saskatoon, Saskatchewan. Anomalous (>0.5 g/t) gold values received included Hole #15 returned a 0.58 g/t Au assay, Hole #148 assaying 0.66 g/t Au, and Hole #160 assaying 0.61 g/t Au, Hole #286 0.82 g/t Au. Further diamond drilling in 1988 occurred by Granges with three (3) holes drill on MAX13615 claim northwestern portion of property and two (2) holes on the southwest portion of the property (BAY 1 claim) the three (3) northern holes 147.3 m intersected andesite flow with volcaniclastic sections was the common lithologies, and pyrite and pyrrhotite intersected for sulphides. The results were more encouraging in the south with Mik -1 hole intersected silicified andesite and quartz sericite schist with up to 15% pyrite which returned 5.1 m of 1.13 g/t Au and 27.85 g/t Ag, however follow-up hole Mik-5 was unable to repeat anything significant. Royal Drilling Services out of Saskatoon, was drilling contractor with BQ core provided.

On the western portion (MAX12819 and 13615 claims) of the property BP Selco (1986) had a grid cut (22 km), where they performed a detailed geological mapping and magnetometer survey along with rock-chip geochemistry sampling followed by five (5) drill holes totaling 648 m. Amisk Drilling was the drill contractor and utilized BQ coring system. Durama Enterprises Limited performed the line cutting and mag survey. Most notable diamond drill results came from Hole #1 which assayed 210 ppb Au over 0.61 m.

In 1991, Placer Dome (Placer), through an option agreement, acquired a good portion of Pine Bay property and over three (3) years performed a very extensive exploration program. In February 1991, Placer hired Geoterrex Limited from Ottawa to fly 564 line-km to complete a GeoTEM Airborne survey (EM and Mag). This was followed by an extensive mapping and litho-geochemical program with 366 samples (outcrop, historical core) submitted for trace elements to aid in lithology determination and mapping out alteration. Placer also hired Patterson Mining GeoPhysics Limited to perform a Bouguer Gravity survey. Petrographic analysis (thin section) of grab samples also completed by Clark Geological, located in Surrey, British Columbia. Four (4) diamond drill holes of NQ size were completed in 1992 (2,281.2 m) by Amisk Drilling Inc. Each drill hole was subsequently surveyed by Patterson Mining GeoPhysics Limited with the transient EM in-hole system. In the 1992 final report, Placer concluded; the gravity survey outlined a large anomaly associated with the Baker Patton area, 1992 drilling has successfully tested the down dip extension of the Cabin zone with a 18 m chlorite stringer zone which assayed 0.86% Zn and drilling successfully tested the down dip extension of the Baker Patton zone within a highly sericite altered rock 2.4 m of 0.82% Cu, 0.52 g/t Au and 10 g/t Ag. In 1993, Placer drilled an additional seven (7) holes (2,446 m) with follow up borehole surveys and collected litho-geochemical samples from each hole. The drilling contractor was Paragon Drilling from Kamloops, British Columbia and recovered NQ size core. Major findings from Placer’s report concluded; Pine Bay deposit is located in the nose of a synclinal fold, a wide zone of massive chloritic alteration was intersected at depth and down dip of the Pine Bay deposit, a horizon of chloritic mudstone with associated oxide iron formation beds occur between the Pine Bay and Cabin zone horizons. In addition, in 1993 two (2) holes were drilled on the southern portion of the property on the SOU 2 and GAR 4 claims. Placer targeted this area based litho-geochemical analysis which defined a highly silicified andesite unit with prominent pyrite. Placer believed they could locate an exhalative unit that could be traced to a volcanogenic based metal rich deposit. Hole 281-1-93 intersected andesites and dacites with silicification becoming intense 180 m down hole which also contained stringers of chalcopyrite which assayed 1.29% Cu over 3.9 m. The second hole drilled 800 m away started in a brecciated dacite and finished in an andesite, sulphides included pyrite with traces of chalcopyrite and sphalerite was noted in the brecciated dacite and supported by two (2) separate assays which ran 0.25% Cu over 0.5 m, and a second running 0.43% Zn over 0.75 m. Placer recommended completing a surface pulse EM survey (~20 km) over the area, and 1,000 m of proposed drilling which was never done.

In 1991, Noranda Exploration Company performed geophysics on the northwest side of the property (MAX12894, MAX12892, MAX12818, MAX12819, and MAX12891 claims). Durama Enterprises from La Ronge, Saskatchewan completed 47 km of line cutting, magnetometer and HLEM survey while Geoterrex from Ottawa completed 1 km of gravity survey.

In 1992, Granges recorded 146 km line cutting, 127 km of VLF-EM, and 79 km of HL-EM/Mag surveys during the winter 1991 and 1992 over the Mikanagan Lake area. Mike Chorney and Associated, Flin Flon, Manitoba did VLF survey, Rise and Shine Exploration Company out of Flin Flon, Manitoba completed the line cutting, and JJ Studer of Flin Flon, Manitoba completed the HLEM survey. In 1993, Granges completed an extensive mapping program over the area and collected 399 litho-geochemical samples. Sampling from old trenches on the west shore of Mikanagan Lake returned copper assays up to 2.52%, and it was recommended to be survey by deep penetrating EM system.

Minnova Inc. had also reported an exploration program near Byran Lake (STEVE 4 and BRY 1 claims). Work included 10.2 km of line cutting, mapping, two (2) diamond drill holes totaling 2,862 m, surface and Borehole TEM survey carried out by Minnova personnel. Minnova concluded they intersected favorable

VMS rocks however no favorable base metals were encountered and did not define any strong extensive geophysical conductors.

In 1993 in the southeast area (HOOK 3 claim) HBED completed a HLEM program and three (3) drill holes (186 m) on the Pine Bay property. Drilling was completed by Midwest drilling and recovered BQ core size.

During the summer of 1995 and 1996, Inmet Mining Corporation completed three (3) holes, one (1) north, one (1) south, and one (1) below the Pine Bay deposit to follow up on a deep pulse surface EM target they defined in 1995. Total meterage equaled 1,866.5 m and was drilled by Britton Brothers. Holes north and south failed to hit significant mineralization, however hole down dip of the Pine Bay deposit did encounter 4.72% Cu at an interval (784.55 m to 785.16 m).

In 1997, Formation Capital Corporation (Formation) had a mapping/geochemistry (82 samples program in the Sourdough Bay Peninsula (MEX 1 claim) area. The following year they completed 26.6 km of grid, and Crone Geophysics and Exploration Limited (Crone) out of Mississauga, Ontario completed a surface pulse EM survey, while Mike Chorney and Associates completed the magnetometer survey. This was followed with five (5) NQ drill holes (1,075.6 m) completed by Britton Brothers Drilling. The first two (2) holes were drilled on the MIK 4 claim and the remaining three (3) holes were drilled on the southern MEX 1 claim. The first two (2) holes revealed several narrow pyritic zones which explained the geophysical conductors, with the second hole intersecting the Amulet horizon with trace amounts of chalcopyrite and sphalerite. The southern three (3) holes intersected massive to semi massive pyrite, ± pyrrhotite with trace amounts of chalcopyrite and sphalerite hosted by Argillites ± graphite. Formation also completed a similar program over the Pine Bay deposit area (ML59) which comprised of 15 line-km of grid which Crone completed the surface pulse EM survey and Mike Chorney completed the Magnetometer survey, and three (3) diamond drill holes totaling 678 m of NQ core was completed by Britton Brothers.

In 1993, 1994, and 1995, HBED flew an airborne (Spectrum) EM survey in Flin Flon / Snow Lake area, which covered all the property.

In 2002, Bell Resources had an exploration program on the southeast portion of the property (BRUT 1 claim) which included geophysics, trenching, and diamond drilling. The surface showing was discovered in 2001 and was exposed further by Bell Resources trenching program where a 2.0 m chip sample returned 3.5% Cu. A total of 11.7 km of lines was covered by UTEM survey and collected by SJ Geophysics Ltd., who also completed a VLF survey over three (3) of the lines. Geophysics showed some weak conductors which did not correlate well with the surface showing. This work was followed up with nine (9) short spaced drillholes (408 m) drilled under the surface showing, which failed to hit significant mineralization. The drilling company was Britton Brothers with BQ equipment.

6.3 Significant Historical Mineral Resource and Mineral Reserve Estimates

The following sets forth the previous historical resource estimates reported on the Property:

Table 6-1: Pine Bay Historic Resources

Deposit	Tons	Cu %	Zn %	Au g/t	Ag g/t
Pine Bay	1,113,200	2.76	N/A	N/A	N/A
Sourdough	291,150	1.46	1.71	1.03	29.8
Cabin	125,000	0.84	4.02	N/A	N/A
Baker Patton	95,000	0.80	5.28	0.83	56.0
Total	**1,624,350**	**2.26**	**0.92**	**0.24**	**8.9**

Notes:

1. Values have been converted from the imperial to metric system.

Historical resource estimates include (a) a Cerro-Mining-Guggenheim Joint Venture report titled "Feasibility Study for 550 ton per day mine & mill", prepared by Wright Engineers Limited in 1971, reported a "geological ore reserve" 1,113,200 tons at 2.76% Cu at the Pine Bay deposit, (b) a Keys report in 1963 reported a historical resource estimate of 291,150 tons at 1.46% Cu at the Sourdough deposit, (c) a Pine Bay Mines report in 1976 reported a historical resource estimate of 125,000 tons at 0.84% Cu at the Cabin deposit and (d) a Macmillan report in 1968 reported a historical resource estimate of 95,000 tons at 0.80% Cu at the Baker Patton deposit.

A "Qualified Person" as per NI 43-101 has not done sufficient work to classify the historical estimate as current Mineral Resources or Mineral Reserves and Callinex is not treating the historical estimate as current Mineral Resources or Mineral Reserves. The historical "geological ore reserve" and resource estimates cited above are mentioned for historical purposes only and uses terminology not compliant with current Canadian Institute of Mining ("CIM") reporting definition standards. The reliability of these historical estimates is unknown but considered relevant by the Company as it represents a significant target for future exploration work by the Company. The assumptions, parameters and methods used to calculate this historical resource estimate are not known to the Company. The qualified person has not made any attempt to re-classify the estimates according to current standards of disclosure. For the Cabin, Sourdough, Baker Patton historical resources to be current, the Company will be required to conduct additional drilling. The Company is not treating these estimates as current mineral resources or mineral reserves as defined in NI 43-101. Although the historical resource estimate was also designated as "ore" it cannot be compared to mineral reserves as it is not supported by at least a current pre-feasibility study. The current mineral resource which is the subject of this technical report supersedes any historical resources. Historical resources should not relied upon however they are relevant for context and to demonstrate progression of the project through resource growth.

6.4 Production from the Property

The Don Jon Mine is located on the Pine Bay land package (Nod 1 FR claim). The mine discovered (1951) and operated by Hudson Bay Mining and Smelting 1955-1957, with a total 88,000 t, averaging 3.06% Cu, 0.96 g/t Au, 15.20% Zn. No other record of any production has been recorded on the Pine Bay property.

The Baker Patton shaft was developed in 1928 with records of 128 m shaft sinking with three (3) drift levels totaling 192 m of development, however no records of any metals recovered.

Similarly, Cerro Mining Ltd., from 1969 to 1970 developed a shaft and two (2) levels of horizontal development mainly to establish diamond drill stations to further define the deposit. On the 600-foot level one of the access to a diamond drill station cut through the main lens however, no record of any other development / production.

7 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Geological Setting

Northern Manitoba and Saskatchewan are the most productive base metal mineral producing regions in Canada with over 24 past producing mines hosted within the Paleoproterozoic Flin Flon Metavolcanic Greenstone Belt; (“FFGB”) exposed portions of the Flin Flon belt encompass an area up to 50 km wide and 250 km long occurring within the greater up to 500 km wide Trans-Hudson Orogen (Syme and Bailes, 1993). The Trans-Hudson Orogen is generally considered to occur as four litho-tectonic zones including: 1) the Superior Boundary zone comprising mainly Archean Superior Province basement overlain by Paleoproterozoic cover sequences, 2) the Reindeer zone comprising of a 200 km to 400 km wide collage of Paleoproterozoic arc volcanics and plutons, 3) Andean-type continental margin magmatic arc comprising of the Wathaman-Chipewyan batholith, and 4) a complexly deformed northwestern hinterland zone comprising of the Peter Lake and Wollaston domains (Clowes and Roy, 2020). Representing a preserved relatively complete Wilson cycle from the development and closure of the Manikewan Ocean.

The FFGB is part of the Reindeer zone, which was formed during the 2.0-1.80 Ga (billion years ago) amalgamation of several Archean cratons into Laurentia, consisting of a series of juxtaposed tectonostratigraphic assemblages that range in age from 1.92-1.80 Ga including: juvenile arc, juvenile ocean-floor back arc, ocean plateau, oceanic-island basalt, and evolved plutonic arc (Simard et al, 2013) with Ocean-floor basalt sequences that are exclusively tholeiitic and are geochemically comparable to modern N- and E-type MORBs formed within back-arc basins. The assemblage of the FFGB took place as a multi-phase amalgamation, which was the result of: accretion, plutonism, and erosional denudation; subsequently resulting in the formation of the Amisk Collage and Missi Group.

- **Phase 1** – Interoceanic accretion of juvenile arcs, and ocean basins around 1.88-1.87 Ga forming an accretionary complex (Amisk Collage).
- **Phase 2** – Development of a 1.87-1.84 Ga successor-arc, subsequently “stitching” the accretionary complex with calc-alkaline plutons and coeval subaerial volcanism.
- **Phase 3** – Erosional denudation during uplift of the accretionary complex leading to deposition of alluvial-fluvial sedimentary rocks and the formation of the Missi Group.

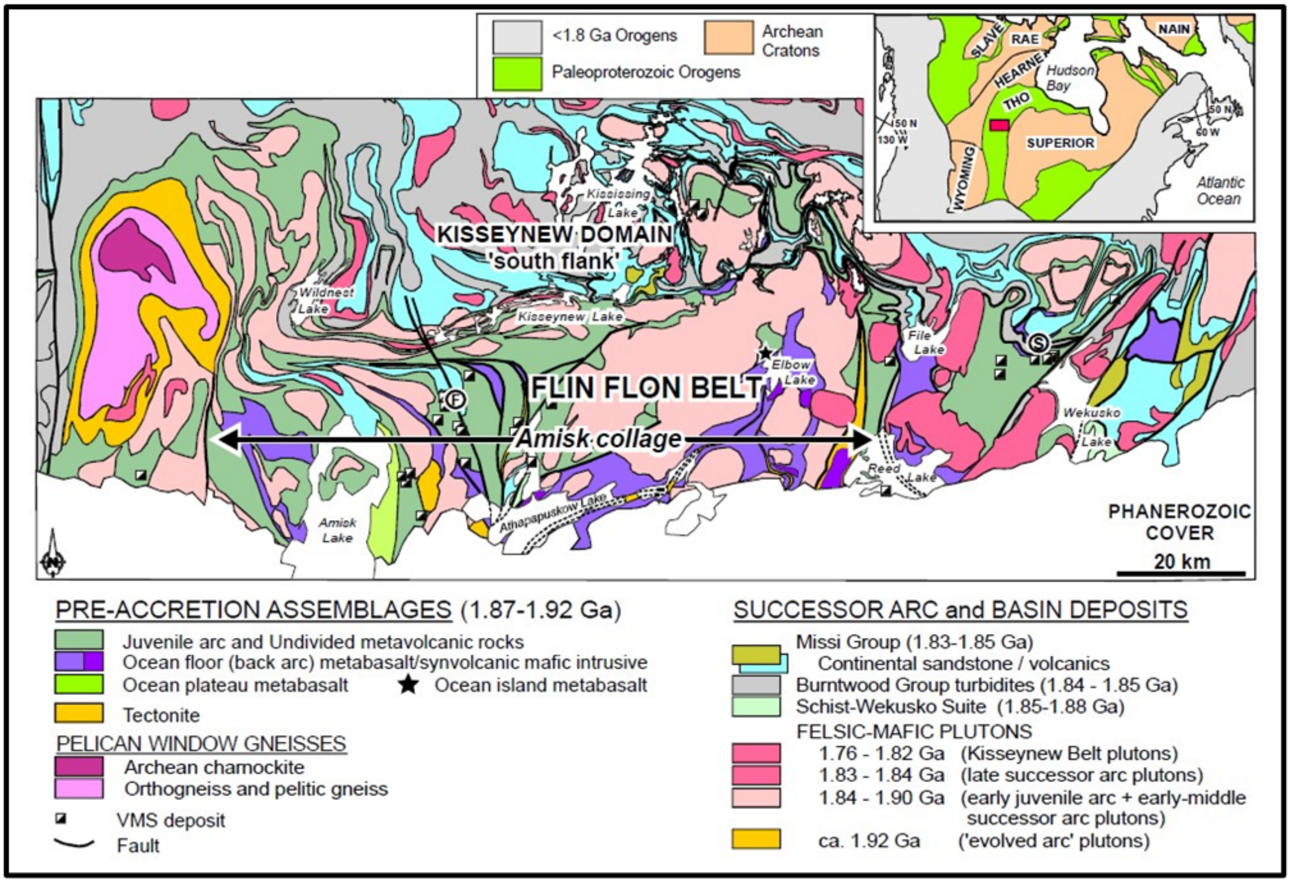
To date, all of the VMS deposits mined in the Flin Flon area are hosted within the juvenile arc tholeiite assemblages of the Amisk Collage (Syme and Bailes, 1993, Simard et al 2013,), which consists of dominantly tholeiitic mafic volcanic rocks including: subaqueous pillowed basalt and basaltic andesite, with lesser amounts of heterolithic mafic and lesser felsic volcaniclastics rocks, and minor dacite to rhyolite flows. While the Flin Flon arc tholeiite assemblages are predominantly mafic volcanic terranes, the VMS deposits are spatially associated with felsic volcanic units that formed within syn-volcanic collapse structures (Simard et al, 2013). The Pine Bay Project containing the Rainbow deposit is hosted within the Baker Patton Complex, which is the largest (50 km^2) known domain of felsic volcanic rocks within the Flin Flon Belt (Mitchinson et al, 2002).

7.2 Regional Geology

The FFGB (Figure 7-1) consists of an assemblage of polydeformed juvenile island arc-back arc supracrustal and intrusive rocks termed as the Amisk Collage, which is unconformably overlain by predominantly fluvial-alluvial continental quartzofeldspathic metasedimentary and intercalated volcanic rocks of the Missi Group

(Syme and Bailes, 1993). The Amisk Collage is bounded to the north by metasedimentary gneisses of the Kisseynew Domain, and to the southwest by the Pelican Window Ortho-and-Pelitic Gneisses of mostly unknown origin. This is then overlain to by relatively flat dipping Phanerozoic dolomitic limestones of the Ordovician Red River Formation that was formed within the Western Canadian Sedimentary Basin (Bezys and Conley 1998).

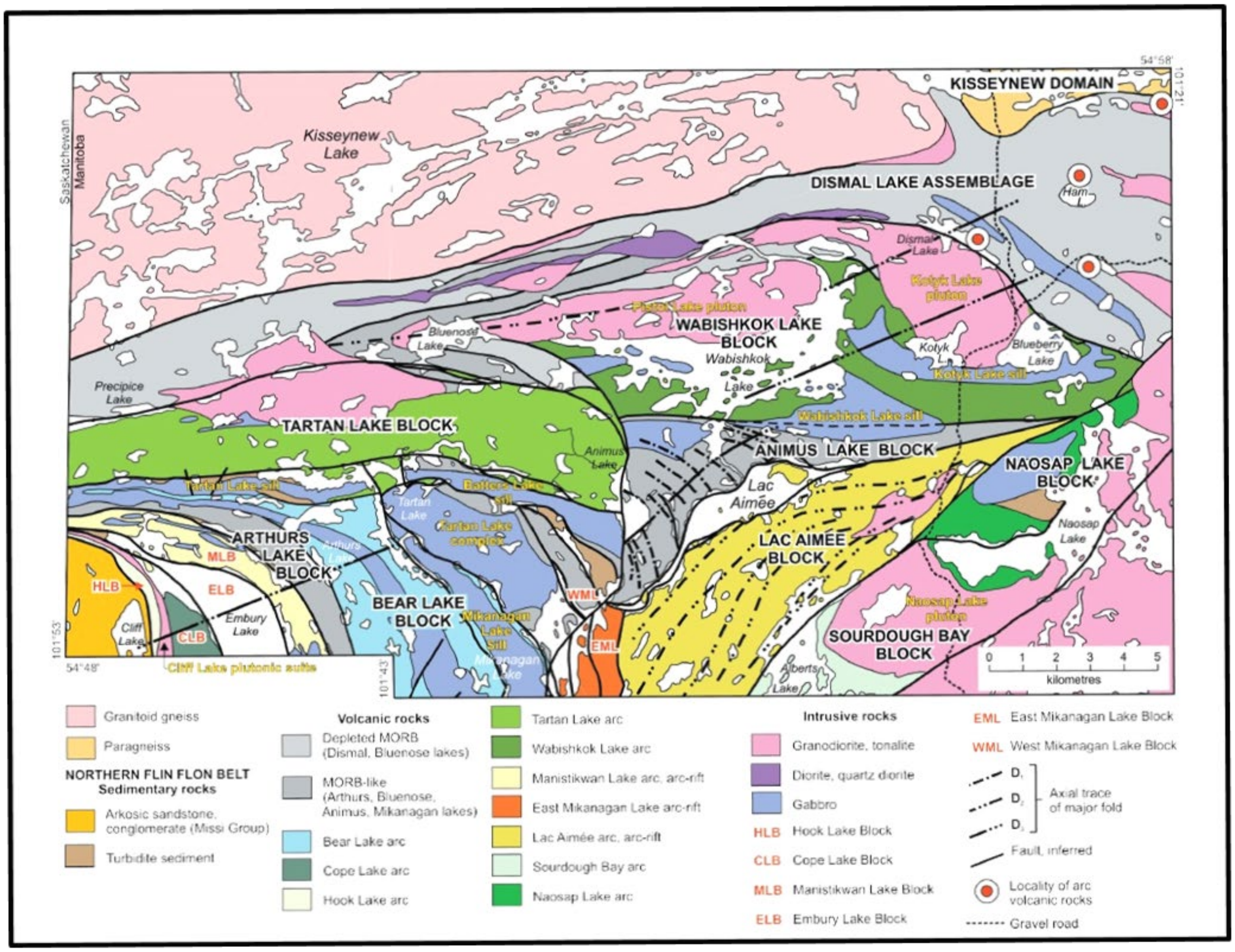
Figure 7-1: Tectonic Assemblage Map of the Flin Flon Belt



Source: NATMAP Margin Working Group (1998)

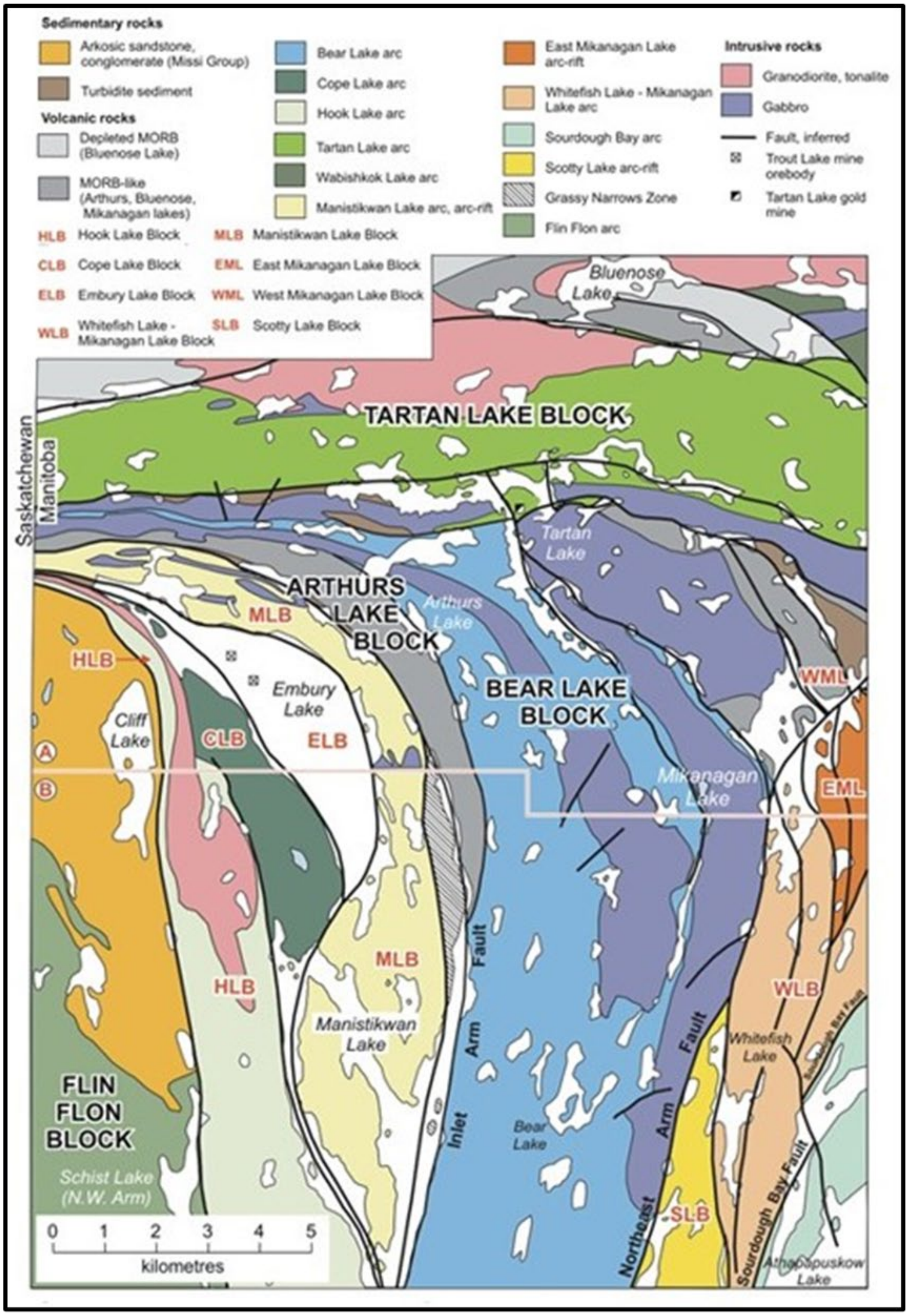
Within the north-northwestern portion of the Amisk Collage, the Flin Flon arc assemblage contains over 20 tectonically distinct blocks and fault slices (Figure 7-2 and Figure 7-3), which most significantly from west-east are the: Flin Flon Block, Arthurs Lake Block, Tartan Lake Block, Dismal Lake Assemblage, Bear Lake Block, Wabishkok Lake Block, Animus Lake Block, Lac Amiee Block, Sourdough Bay Block, and the Naosap Block (Gilbert, 2010). Of these distinct structural domains, the Flin Flon block has proven to be the most prospective for base metal minerals, hosting the: 777, Trout Lake, Flin Flon, Callinan, Schist Lake and Mandy mines; for a combined production of over 112.7 Mt with an average grade of 3.4% Cu, 6.02% Zn, 0.14% Pb, 2.13 g/t Au, and 34.34 g/t Ag (Simard et al, 2013). The Sourdough Bay Block is the easternmost VMS hosting structural domain with the largest volume of felsic volcanic rocks within the Flin Flon arc assemblage (Mitchinson et al, 2002).

Figure 7-2: Geology of Northern Flin Flon Belt with Tectonostratigraphic Components and Structural Features



Source: Gilbert (2010)

Figure 7-3: Geology of North-Northwestern Flin Flon Belt with Tectonostratigraphic Components and Structural Features



Source: Gilbert (2010)

Geochemical signatures (Nb/Y, Zr/TiO_2 LREE, HREE, Nb, Ti, Ti/V, (La/Yb)N, FeO_{total}/MgO) and generally accepted tectonic discrimination diagrams (iWood, 1980) suggest that genesis of the volcanic rocks within the Flin Flon Block occurred with a subduction-related ocean-arc tectonic environment and have a tholeiitic affinity (Simard et al, 2013). The volcanic rocks within the Flin Flon block of FFGB have been defined as the: Flin Flon formation, Hidden formation, Louis formation, and Douglas formation. The Flin Flon formation is the primary footwall stratigraphic unit, consisting of heterolithic and monolithic volcaniclastics rocks, rhyolite flows, domes, and associated volcaniclastic rocks, and massive to pillowed basalt flow and flow breccias; and was host to the: Flin Flon, Callinan, and 777 mines. The Hidden formation consist of mafic flows, sills, and volcaniclastic rocks, with subordinate basaltic andesite flows, rhyolite flows and felsic volcaniclastic rocks; defining the onset of the hanging wall volcanism overlying the Flin Flon formation (Simard et al, 2013). The Louis formation consists of mafic volcaniclastic rocks with subordinate rhyolite flows and felsic volcanic rocks representing a second episode of mafic hanging wall volcanism overlying the Hidden formation. The Douglas formation consists of predominantly volcaniclastic rocks intercalated with minor amounts of mafic flows.

The Sourdough Bay Block occurs east of the town of Flin Flon and is the largest accumulation of felsic volcanic rocks within the FFGB (Mitchinson et al, 2002). Within the Sourdough Bay Block, the volcanic rocks have been defined as the: Birch Bay Mafic rocks, Baker Patton Complex, and the Baker Narrows Block. The Birch Bay Mafic rocks consist of mafic flows and volcaniclastic rock, and the Baker Narrows Block consists of felsic to mafic volcanic rocks. While the Baker Patton Complex contains the majority of the felsic volcanic rocks within the Sourdough Bay Block, consisting of phyric rhyolite flows, felsic volcanic rocks, felsic intrusive, quartz-feldspar phyric rhyolite, aphyric rhyolite, and dacite. Although due to bounding regional faults and a lack of radiometric dating, the relative stratigraphic position of the Baker Patton Complex within the Flin Flon arc assemblage remains uncertain (Mitchinson et al, 2002).

Overlying the Amisk collage are the 1.85-1.83 Ga terrigenous metasediments of the Missi Group (Syme and Bailes, 1993), consisting of sandstone, pebbly sandstone and conglomerate occurring with a profound angular unconformity overtop of the Flin Flon arc assemblage volcanic rocks (Simard et al, 2013). The Missi group has been defined into three (3) main sedimentary units: 1) pebble to cobble conglomerate with minor interbedded sandstone and pebbly sandstone typically occurring as massive to normally graded bedded with well-rounded pebbles and cobbles, 2) pebbly sandstone typically occurring as trough crossbedded coarse to very coarse grained sandstone and pebbly sandstone, and 3) sandstone which is the most abundant unit within the Missi group and is dominated by coarse to very coarse detritus with predominant crossbedding (Simard et al 2013).

Bounding the Amisk Collage to the north are the metasedimentary gneisses of the Kisseynew Domain. The Kisseynew Domain is one of the most extensive tectonostratigraphic segments within the Trans Hudson Orogen, consisting of meta turbidites and continental sandstones interrupted to have been deposited within a back-arc basin behind a retreating subduction boundary. Sedimentation and deposition of the turbidites were constrained to 1.855-1.841 Ga using detrital zircons and crosscutting plutons (Ansdell et al, 1995) and were subjected to extensive high-temperature and low-pressure regional metamorphism that is interrupted to have occurred due to thickening and thermal relaxation.

Within the Kisseynew Domain, five (5) suites have been identified: 1) fine-grained amphibolite and felsic gneisses equivalent to the metavolcanic and volcaniclastic rocks of the Amisk Collage, 2) the Burntwood group which is the most extensive suite of rocks consisting of metaturbidites, 3) the Sickle group that extends over 600 km along the northern flank of the Kisseynew Domain and are over 4 km thick, 4) the Missi group which overlie turbidite beds and subaerially weathered rocks equivalent of the Amisk Collage, and 5) the Granville Lake structural zone marked by fault bounded units of upper oceanic-crust (Clowes and Roy, 2020).

Bounding the Amisk Collage to the southwest are the Pelican Window ortho and pelitic Gneisses of generally unknown origin, which have been designated into four (4) lithological assemblages: 1) Archean granitoid inliers, 2) Pelitic gneisses, 3) Quartzofeldspathic gneisses, and 4) Porphyroclastic gneisses. Of these four (4) assemblages, the pelitic gneisses comprise of predominantly pelitic to psammopelitic biotite-garnet-sillimanite-(cordierite) gneisses derived from metasedimentary wackes, with large portions of anatectic pegmatitic to leucogranitic lecosomes; and additional descriptions of rock units occurring within the Pelican Window Gneisses are described within Lewry et al, 1989.

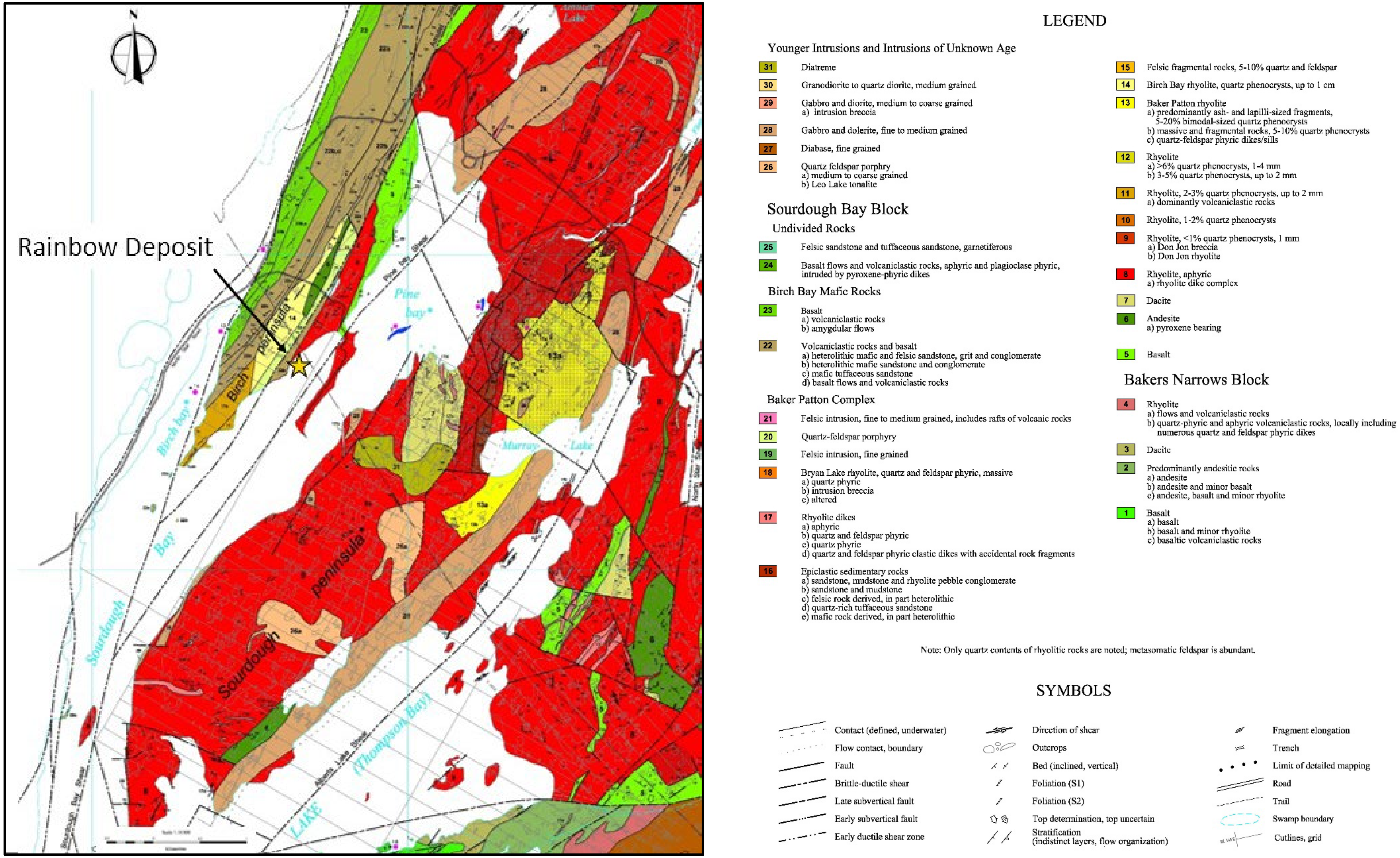
Overlying the FFGB to the south are Ordovician carbonates of the Western Canadian Basin, which represent a large deposition province that extended from the Hudson Platform to the east and northeast, to New Mexico to the south (Bezys and Conley 1998). With relatively flat dipping dolomitic limestone of the Red River Formation unconformably overlying the southern boundary of the Flin Flon Belt. The Red River formation consists of predominantly dolomites, dolomitic limestones, minor limestones, and subordinate thin anhydrite units. Locally minor amounts of terrigenous sediments may be found within the basal units of the formation. The Red River formation extends from the International Boundary, north through the Interlake Area, North of Lake Winnipeg and then west to the Manitoba-Saskatchewan border where it overlies the Flin Flon Belt (Bezys and Conley, 1998).

7.3 Local and Property Geology

Located approximately 16 km east of the town of Flin Flon, the Project area includes portions of the Baker Patton Complex, Bakers Narrows Block, Sourdough Bay volcaniclastic sequence and the Birch Bay mafic sequence (Gale & Dabek, 2002); with the Baker Patton Complex hosting to the Rainbow deposit. Scattered throughout the property are a number of younger intrusives of largely unknown age including gabbros, diorites, granodiorite and granite. Generally, the local stratigraphic successions have 30° or reciprocal 210° strikes with sub-vertical dips and are isoclinally folded with fold axes along the planar fabric in the stratigraphy (Mallalieu, 1992). Alternating younging directions were found over a 2 km cross section, indicating at least several tight folds in the area. Moreover, attitudes of the stratigraphy were found to vary down-dip. For example, the Pine Bay deposit dips 70° to the southeast below the 600-foot level and then inverses past vertical to dip 75° northwest above the 600-foot level (Wright Engineers, 1970-1976). Major faults in the area trend approximately north-northeast, namely the Pine Bay shear and the Sourdough Bay shear, and are supplemented by orthogonally splaying faults; however, little is known about the displacement of these faults.

The Rainbow deposit is hosted within unit 8 (aphyric rhyolite) of the Baker Patton Complex (Figure 7-4, modified after Gale & Dabek, 2002), with the stratigraphic section transected by the Pine Bay Shear. Delineation drilling of the Rainbow deposit showed that the stratigraphic section hosting the deposit has a 32° or reciprocal 212° strike comparable to the Pine Bay deposit stratigraphic section, with an opposing near vertical dip of 80° to the east with tops of the stratigraphic section overturned and facing west. While mapped as aphyric rhyolite, the stratigraphic section is dominated by massive to amygdaloidal dacitic-rhyodacitic coherent volcanic rocks, which gradationally transition into pervasive hydrothermally altered felsic volcanic rocks consisting of sericite schist, sericite-chlorite schist, chlorite-sericite schist, and chlorite schist. Intensity of alteration increases at depth, as proximity to the interrupted hydrothermal discharge vent is approached. The dacitic-rhyodacitic flows, and equivalent alteration facies have been intruded by syn-to-post volcanic dykes. Most abundant are quartz porphyry's, which cut both unaltered dacite-rhyodacite flow, and hydrothermally alerted flows. Locally these quartz porphyries are variably sericite altered or chloritized, suggesting a syn-volcanic and pre-mineralization emplacement. Additionally, the dacitic volcanic rocks are cut by diorite and gabbroic dykes. Overlying the hydrothermally altered felsic flows, are the massive sulphide lenses of the Rainbow deposit which are then capped by quartz phyric rhyodacite. Ultimately, well bedded and finely laminated dacitic ash tuff then distinctly marks the onset of the hanging wall stratigraphy.

Figure 7-4: Local Geology Map of the Pine Bay Property showing location of the Rainbow Deposit (modified after Gale & Dabek, 2002)



7.3.1 Baker Patton Felsic Complex

The Baker Patton complex is the eastern most VMS hosting domain within the Flin Flon Arc Assemblage, and is host to the: North Star, Don Jon, Pine Bay, Baker Patton, Cabin, and Rainbow VMS deposits (Mitchenson et al, 2012; Gale 1995). The geology of North Star, Don Jon, Pine Bay, and Cabin are thoroughly described in Gale and Eccles, 1988. The dominant rock type in the Baker Patton Complex is rhyolite, with subordinate dacite and andesite (Gale & Dabek, 2002). The rhyolite and dacite flow units are often vesicular and brecciated, with up to 20%, 2 mm sized crystals of quartz and/or feldspar phenocrysts. Lobe-breccia hyaloclastite facies are common throughout most of the rhyolitic units, and pillows within the mafic units suggesting genesis within a subaqueous environment (Mitchinson et al, 2002). Volcaniclastic units are differentiated by clast size (tuff to tuff breccias), quartz phenocryst content, grain size, texture and fabric. Local intercalated sedimentary units vary from graphitic argillite to greywacke. Locally the Baker Patton complex there is evidence of intense hydrothermal alteration (Mitchinson et al, 2002), which at the Baker Patton deposit outcrops and has a minimum footprint of approximately 700 m by 1,000 m. Alteration minerals are commonly sericite, talc, and chlorite, with an increase of the latter in the footwall zones of massive sulphides. Despite the mapping efforts conducted by exploration companies, and Geological Surveys by the department of Energy and Mines (Gale et al 1992, Gale et al, 1993, and Gale and Dabek, 1995), correlation between units remains unresolved due to lack of out crop and bounding faults (Mitchinson et al, 2002).

7.3.2 Sourdough Bay Volcaniclastic Sequence

This sequence primarily consists of felsic tuffs, felsic and mafic flows, and chemical sediments with massive sulphide (Gale & Eccles, 1988). The felsic component ranges from rhyolite to dacite in composition, and is commonly banded, bedded, fine grained, with local quartz and/or feldspar phenocrysts. The mafic flows are pillow basalts, which are massive, vesicular, and locally brecciated.

7.3.3 Birch Bay Mafic Sequence

The dominant rock in this sequence is andesitic to basaltic-andesite lapilli tuff and tuff breccias, intercalated with dacite to rhyodacite tuff (Gale & Eccles, 1988), which occur to the west of the Pine Bay deposit and extend northeast, dipping to the east with tops facing westward and are right way up (Gale and Dabek 1995). A <30 m thick chert-greywacke horizon is present within this sequence. The lapilli fragments in the mafic tuffs are of rhyolite composition, sub-rounded, elongated, and comprise 10% to 15% of the unit. The sedimentary unit contains chert/greywacke and cherty mudstones that are siliceous, rhythmically laminated, pyritic, and locally graded bedded. This unit was encountered by vertical drilling over Birch Bay by Pine Bay Mines in 1976, as earthy pyritic mudstones with sections of massive pyrite with graphite (Gale & Eccles, 1988).

7.3.4 Bakers Narrows Block

The Bakers Narrows block to the south is mostly underlain by mafic volcanic flows, with narrow bands of rhyolitic to dacitic flows, lapilli tuffs, and tuff breccias. The dominant rock type is andesite (Gale & Dabek, 2002).

7.4 Mineralization

The Rainbow deposit is located within the Pine Bay Property in the central portion of Mineral Lease 59 and occurs approximately 900 m to the southwest of the historic Pine Bay VMS deposit. Since its discovery in 2020, Callinex has completed delineation drilling totaling over 42,000 m across 82 diamond drill holes. The Rainbow deposit is a “high-grade” copper VMS system consisting of multiple stacked massive sulphide lenses, and a stockworks vein/stringer zone hosted within hydrothermally altered felsic volcanics. The massive sulphide lenses have been defined into two (2) zones: Yellow and Orange lenses which subparallel each other and have been defined vertically over approximately 800 m, and strike length of over approximately 310 m. Structurally the mineralization strikes at 32° or reciprocal 212°, dips 80° to the east, and plunges to the northeast. With evidence that the deposit has been subjected to brittle deformation, en-echelon shearing, as well as being overturned. The deposit remains open near surface along strike to the south, and further exploration is required to determine the potential at depth.

The Yellow zone occurs approximately 200 m below surface and extends at depth with the widest known strike length within the deposit of approximately 310 m. Mineralization consists of a massive sulphide lens that comprises dominantly chalcopyrite and pyrrhotite, which displays the classic VMS rhythmic banding texture of chalcopyrite and pyrrhotite which is concordant to the interrupted bedding of the stratigraphic section, and typically sits above hydrothermally altered sericitized felsic volcanic rocks. Zonation within the sulphides is prominent, with chalcopyrite and pyrrhotite occurring towards the base of the sulphide lens, transitioning into pyrite dominant towards the top of the stratigraphic section. Pyrite is typically fine grained and recrystalized into subhedral grains, while locally occurring as globular masses intermixed within the massive chalcopyrite and pyrrhotite. Sphalerite occurs in trace amounts within the lower portion (below 500 m) of the Yellow zone, and typically occurs as thin bands intermixed with chalcopyrite and pyrrhotite. Sphalerite within this area of Yellow zone is typically red in colour, suggesting a genesis in a higher temperature proximal setting within the VMS system. Moving above the 500 m level sphalerite content increases in abundance up plunge towards surface, and sphalerite colour becomes dominantly blonde, suggesting a genesis in a medium-low temperature distal setting within the VMS system. Mineral assemblages consist of massive and disseminated sulphides that are composed of dominantly pyrite, with lesser sphalerite, and minor chalcopyrite.

The Orange Zone is the most extensive zone within the Rainbow deposit, extending from approximately 90 m to over approximately 900 m below surface. The strike length of the Orange zone extends to approximately 200 m at depth and narrows towards the surface, while underlying the Yellow zone. Mineralization consists of a massive sulphide lens that dominantly comprises pyrrhotite and chalcopyrite, with pyrite, and lesser sphalerite, which lies above hydrothermally altered felsic volcanic rocks of various degrees of alteration (sericite schist, sericite-chlorite schist, chlorite-sericite schist, and chlorite schist) and vein style mineralization that is localized based upon its location relative to the primary hydrothermal feeder vent. Zonation within the sulphides is prominent, with banded chalcopyrite and pyrrhotite with minor recrystallized pyrite as the dominant assemblage. Locally, pyrrhotite is the dominant sulphide phase typically occurring at the base of the massive sulphide lens or intermixed within intervals of banded chalcopyrite and pyrrhotite. Sphalerite occurs in lesser amounts and typically occurs on the peripherals of the Orange zone massive sulphide lens as bands of blonde-red sphalerite that alternate with bands of fine-grained recrystalized pyrite. Sphalerite content increases in abundance up plunge towards surface and sphalerite colour becomes dominantly blonde, suggesting a genesis in a medium-low temperature distal setting within the VMS system. Within the Rainbow deposit the high concentrations of precious metals, particularly Au, are contained within the pyrite-sphalerite dominated mineral phase closer to surface, where the Au is typically spatially associated with chalcopyrite.

The massive sulphides of the Rainbow deposit are underlain by an extensive hydrothermal alteration system that contains a mineralized Stock Works Vein / Stringer zone. Mineralization consists of veins / stringers comprised of chalcopyrite, pyrrhotite, pyrite, and chalcopyrite ± pyrrhotite or pyrite. Veins are commonly irregular, splayed, and have been ductility deformed and compressed, resulting in veins that are structurally oriented parallel to the stratigraphic sections at 32° and dip at 80° to the east. Chalcopyrite and pyrrhotite typically occur within the veins and stringers as anhedral globular masses and as vein fill. While pyrite is typically recrystallized and incorporated into the host alteration facies as bands of disseminated sulphides. Polymineralic veins and stringers of chalcopyrite ± pyrrhotite or pyrite are most widely distributed and occur immediately adjacent to the massive sulphide typically hosted within chlorite or sericite schist. Monomineralic veins and stringers of pyrrhotite occur in the central and most proximal portion of the hydrothermal vent hosted within chlorite schist. Gradationally transitioning into veins of chalcopyrite + pyrrhotite, chalcopyrite, and chalcopyrite + pyrite as the proximity to the hydrothermal vent is decreased. Occasionally localized individual veins of chalcopyrite occur distally to the massive sulphides and are hosted with sericite schists.

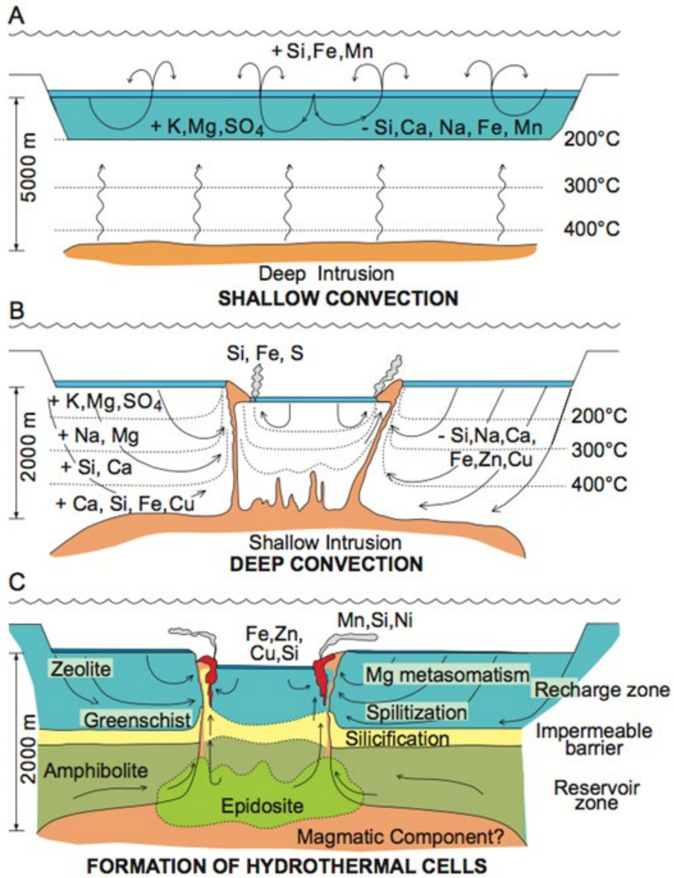
8 DEPOSIT TYPES

8.1 Volcanogenic Massive Sulphide

Volcanogenic massive sulphide (VMS), volcanic-associated massive sulphide (VMS), and volcanic-hosted massive sulphide (VHMS), are three (3) different names that represent the same type of mineral deposit. VMS deposits are predominantly stratabound to in part stratiform accumulations of sulfide minerals that were formed by precipitation at or near the sea floor by the venting of hydrothermal fluids, and characteristically they contain greater than 60% sulfide minerals (Franklin et al., 1981). VMS deposits typically are polymetallic and represent a significant source of the world's Cu, Zn, Pb, Au, and Ag resources, while also variably producing Co, Ba, Mn, Cd, Sn, In, Bi, Te, Ga, and Ge as co- or by-products (Barrie and Hannington, 1999). VMS deposits are formed by subaqueous volcanic processes, particularly the hydrothermal convection of seawater along pre- to syn-volcanic faults, leading to the subsequent formation of "exhalative" stratiform mounds or lens of massive (>60%) sulphide bodies at or near the seafloor (Galley et al., 2007) (Figure 8-1).

Typically, VMS mineralogy consists of pyrite, pyrrhotite, chalcopyrite, sphalerite, and ± galena. Most of the metals in the majority of VMS deposits have been leached from the rocks occurring within the footwall stratigraphy (Large, 1992). VMS deposits typically have underlying structurally controlled stockworks or "pipe" alteration / mineralized systems, representing feeder zones where high fluid / rock interactions have occurred producing: discordant stringer veins, disseminated sulphides and extensive zoned pervasive alteration halos (Galley et al., 2007, Large et al., 2001). These ore-forming processes have occurred since the Early Archean (~3.55 Ga) and are actively occurring today in various geotectonic environments such as: mid-ocean ridges, island arcs, and back-arc spreading centers (Shanks et al., 2012). The variability in geotectonic environments where VMS deposits may be formed translates to variable host rock lithology and the dominant metallic commodity contained within the deposit. This has resulted in VMS deposits being classified by their base-metal content, gold content, and lithological associations, where more recently, the five-fold lithological classification of Barrie and Hannington 1999 (Table 8-1) is gaining acceptance as the preferred classification method that is genetically related the geotectonic environment (Galley, 2007).

Figure 8-1: General Schematic Diagram of the Geological Model for Volcanogenic Massive Sulphide Deposits



Source: Modified from Galley (2007)

Table 8-1: Summary of VMS Deposit Characteristics

Classification Scheme	Host Rock Stratigraphy	Average Tons (Mt)	Avg Cu (wt%)	Avg Zn (wt%)	Avg Pb (wt%)	Avg Au (g/t)	Avg Ag (g/t)
Mafic	>75% Mafic ≈10% Siliciclastic	2.60	1.77	2.86	(0.05)	(3.02)	(18.00)
Bimodal-Mafic	>50% Mafic >3% Felsic	5.20	1.93	3.02	(0.35)	2.40	44.40
Mafic-Siliciclastic	≈50% Mafic ≈50% Siliclastic	256.30	1.46	4.21	(1.73)	0.80	(33.20)
Bimodal-Felsic	>50% Felsic <15% siliciclastic	375.00	1.53	6.69	2.50	2.63	85.80
Bimodal-Siliciclastic	≈50% Volcanics ≈50% Siliciclastic	2451.10	0.93	3.83	1.74	0.76	54.8

Source: summarized from Barrie and Hannington (1999)

9 EXPLORATION

Exploration activities conducted prior to 2009 are summarized in Section 6.

9.1 Geophysics

From August 1 to August 2, 2009 Geotech Ltd. carried out a 449 line-km helicopter-borne geophysical survey for Callinan Mines Ltd. (Callinan, currently Callinex) for the Pine Bay Block. Principal geophysical sensors included a versatile time domain electromagnetic (VTEM) system and a cesium magnetometer. The block was flown at 100-m traverse line spacing wherever possible with flight directions of N 125° E / N 305° E while the tie lines were flown perpendicular to the traverse lines at a spacing of 1,000 m with a flight direction of N 35°E / N 215°E. The EM data were subjected to an anomaly recognition process using all time domain geophysical channels and using both the B-Field and dB/dt profiles. Based on the geophysical results obtained, several potentially interesting EM and magnetic anomalies were identified on the property. Geotech recommended that these results be combined and compared with the existing geoscientific database. Geotech further recommended a more detailed interpretation of the EM and magnetic data including inversion and modelling techniques to better characterize the data and determine the anomaly parameters more accurately (depth, conductance, dip, etc.) prior to ground follow-up and drill testing.

During the winter/spring of 2010, Callinan contracted Crone Geophysics of Mississauga, Ontario to perform fixed loop time domain EM (TDEM) surveys over the Pine Bay Project area. A horizontal loop Max-Min survey was also performed on two (2) small grids. These surveys were performed as a follow-up to the 2009 VTEM airborne magnetic and electromagnetic survey completed by Geotech. A total of 12 fixed loops were laid out to cover a portion of the VTEM airborne targets PB1A & PB1B, PB3A, PB3B, PB3C, PB3E, PB4A, PB4B, PB4C, PB7B and PB8. Main areas covered were seven different loop configurations in ML59 area covering Baker Patton, the Cabin deposit, and the Pine Bay deposit. The remaining four (4) loops were surveyed in the Southwest portion of the property (Scotty 2 and Levasseur claims). In addition to the above TDEM surveys, two (2) areas (claims CEDAR 8728 and BRUT 1) were the subject of the HLEM survey.

Callinan completed four (4) exploration drillholes at the Pine Bay and Cabin zones area (see Section 10) during May to June 2011 which were surveyed using Borehole Pulse EM (BPEM) performed by Crone Geophysics in May 2011. Then, using a different loop location and configuration, Koop Geotechnical Services of Flin Flon, Manitoba resurveyed three (3) of the holes in December 2012. Additionally, in April 2012, Koop Geotechnical Services conducted a TDEM survey over the area to further define the three (3) EM targets defined by Crone's May 2011 survey. Results showed a very favorable EM plate associated with the known Pine Bay deposit, however the other plate in hole PC-002 was questionable due to coupling issues.

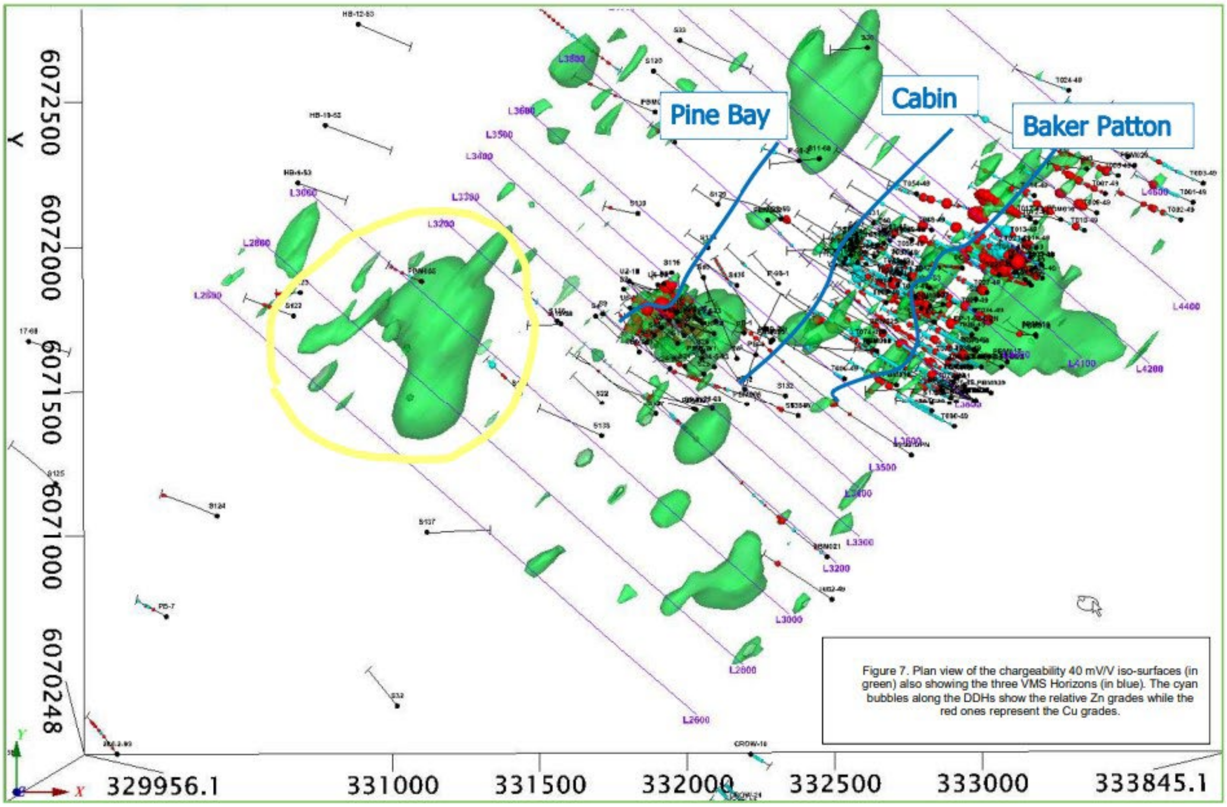
During the rest of Callinex's exploration efforts at Pine Bay it was common practice to BPEM all exploration holes and the majority of the deeper Rainbow holes for which Koop Geotechnical Services was the main contractor.

During January 2015, Koop Geotechnical Services was hired by Callinex to conduct a review of an Airborne Geophysical Survey conducted by Geotech Ltd. over the Pine Bay property. The data review process itself consisted of three (3) separate phases. Phase 1 consisted of the anomaly picking and prioritizing of the VTEM anomalies as discrete target areas. Phase 2 consisted of modelling those responses which were deemed to be of interest by the Callinex's geologists. Phase 3 consisted of performing Magnetic Inversions over those areas of geological interest. Fourteen (14) separate target areas were identified during this program, each of which represented attractive potential drill targets. Out of these 14 areas, eight (8) were chosen by Callinex for further modelling. In addition, analysis of the magnetic data was undertaken. One of the goals of this data review was to concentrate directly in the areas of the identified VTEM anomalies and to determine if any of the identified features had any potential for a significant depth extent. The other goal of this data analysis was to look for any potential deep seated magnetic features which, if conductive, would be too deep to see from the VTEM survey due to the inherent depth penetration limitations of a helicopter based small moving loop survey. A key component of this data analysis involved utilizing MAG3D, magnetic inversion software package developed by the University of British Columbia.

The Pine Bay area has been the focus of numerous surface TDEM surveys in the past. They all tended to focus on smaller loops, maximizing coupling for steeply dipping stratigraphy. The approach Callinex took was to utilize one large (~1,800 m x 1,800 m) loop to detail the anomalous sources identified from the VTEM survey but to also search for any deep-seated conductive sources. During February to March 2015, Koop Geotechnical Services was contracted to perform a TDEM survey at the Pine Bay Project areas consisting of 74.4 line-km including Jenny Lake, Whitefish Lake, Pine Bay and the Sourdough Bay grids. In addition, Koop Geotechnical Services also performed a BPEM surveys on drillholes PBM002, PBM003, and PBM005, which were in the vicinity of Pine Bay deposit in 2015. Results from the TDEM survey identified numerous conductive plates with recommendations for further evaluation including further geophysics, prioritizing through geology, and drilling the target. The borehole survey PBM-003 and TDEM survey over Pine Bay were successful in defining the sulphide body, however, did not define any new areas to target.

From March 8 to March 19, 2019, Abitibi Geophysics collected and interpreted its proprietary OreVision deep induced polarization survey which pushed to a depth greater than 500 m. The data was subjected to a drill hole constrained 3D inversion using Geosoft DC-IPVOXI platform. The results were a 3D plan contour maps of resistivity and chargeability as well as vertical sections. Also provided was a 3D model of Metal Factor and Gold Index which were calculated from the resistivity and chargeability models above. In total 22.4 km which covered the three (3) main VMS showing discovered to date in an effort to find additional untested targets. Figure 9-1 shows an image of 40 mV/V chargeability iso-surface ingreen, along with the three (3) interpreted VMS Horizons represented as blue lines. Also plotted along previous drillholes are relative zinc and copper grades shown as cyan and red, respectively. The final product seems to have defined the known VMS systems but also numerous additional 40 mV/V iso-shell targets which have not been tested to date. These targets were tested during Callinex's 2020 drilling campaign, highlighted with the yellow circle is the anomaly which proved to be the discovery of the Rainbow VMS system.

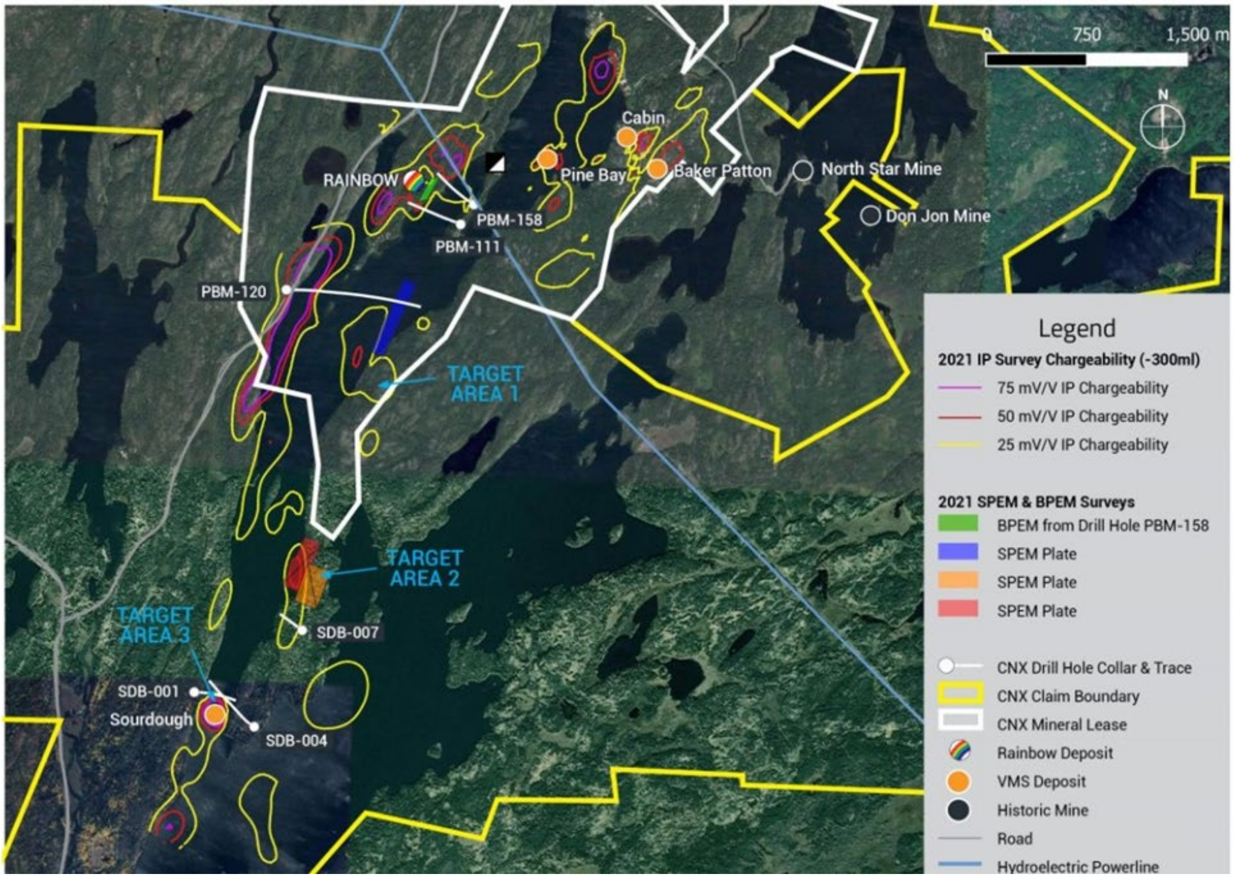
Figure 9-1: 3D View of IP Chargeability Iso-shell 40mV/V



Source: Abitibi Geophysics (2019)

Abitibi Geophysics returned in April 2021 to extend the IP coverage southerly for another 4.6 km to cover the Sourdough Bay VMS showing and the area in between the 2019 grid, with a total of 32 additional lines surveyed (50 line-km). Deliverables of the survey include the same as the 2019 report with numerous targets identified along favorable geologic units (Figure 9-2). Koop Geotechnical Services also was contracted to cover this new grid with TDEM survey and provided some untested anomalies which the VTEM heli-bourne survey did not define.

Figure 9-2: Plan View Compilation of IP Chargeability Contours (Abitibi, 2021) and TDEM Defined Plates



Source: Callinex Press Release (Feb. 2022), Koop (2021)

9.2 Trace Element Litho-Geochemistry

In 2015, Callinex initiated a whole rock litho-geochemistry program to aid in lithology determination, and alteration indices to supplement its exploration efforts. The collection of samples requires 10 cm to 15 cm (whole core) collected every 30 m down a drillhole, less than 30 m interval are sampled if a geologist recognizes major changes in lithologies. This program collected 2,930 individual samples with samples analyzed by SGS Laboratories of Burnaby, British Columbia. Commonly a total of 47 elements are analyzed plus lost on ignition (LOI) with Inductively Coupled Plasma Mass Spectrometry (ICP-MS) and Inductively Coupled Plasma Optical Emission Spectrometry ICP-OES methods.

9.3 Other

In October 2019, Callinex submitted 28 core samples to EarthEX Geophyisical Solutions Inc. of Selkirk, Manitoba to record physical properties which included conductivity, magnetic susceptibility, chargeability and resistivity. This physical property exercise was to determine whether the mineralization at Pine Bay could exhibit extremely low conductivity and still have high grade base metals. Out of the 28 samples collected: 11 samples were solid to near solid sulphides with variable amounts of base metals; eight (8) samples represent typical lithologies and lesser amounts of sulphides found next to the solid sulphides (i.e.

alteration halo) and; nine (9) samples of unaltered samples (further away from the solid sulphides). Results of measured conductivity were compared to the drill-logs and assays, and it was concluded that there were three (3) samples of low conductivity with appreciable amounts of base metals. This suggested that electromagnetic surveys (EM) which were common for targeting massive sulphides in the area may not always be reliable.

10 DRILLING

Drilling conducted prior to 2009 is summarized in Section 6.

Callinan (currently Callinex) commenced their first exploration diamond drilling campaign on the Pine Bay Property in 2011, ultimately leading to the discovery of the Rainbow deposit in 2020. Upon the completion of exploration and delineation drilling of the Rainbow deposit in September 2022, Callinex had completed 163 diamond drill holes including 22 wedges and the deepening of 10 historic and recently active holes totaling 98,896 m, of which 82 diamond drill holes including 18 wedges totaling over 42,000 m were drilled to delineate the Rainbow deposit. Drill holes were completed using NW diameter casing and NQ2 diameter equipment during the coring process. Down hole surveys were conducted using the Reflex EZ-Shot system at 30 m intervals from 2011 until June 2022, and the Axis Mining – Champ Gyro was utilized for the remainder of the drilling using single shot surveys at 24 m intervals. Core recoveries for all Callinex drilling is very good to excellent, and there are no known factors that would materially impact the accuracy of these results. Detailed drill core logging was conducted on each drill hole, with descriptive information, survey data, and assay intervals recorded directly into Microsoft Excel and uploaded to the Callinex Dropbox database daily for review. Delineation drill holes of the Rainbow deposit were drilled from the footwall to hanging wall stratigraphy, and obliquely to the mineralized zones resulting in drill hole intersections which do not directly represent true thickness. Table 10-1 provides a summary of holes drilled and the total metreage per year. Figure 10-1 shows the locations of all Callinex drill hole collars with drill hole traces that have been drilled on the property.

Cyr Drilling of Winnipeg, Manitoba was contracted from 2011 through 2016, Dorado Drilling of Vernon, British Columbia was contracted from 2016 until June 2022, and Rodren Drilling Ltd of Winnipeg, Manitoba was contracted for the remainder of the 2022 exploration campaign. Cyr Drilling utilized a BBS-37 Surface skid mounted diamond drill rig, while Dorado Drilling utilized Zinex A-5 skid mounted diamond drill rigs, and Rodren Drilling Ltd utilized Discovery Drill Manufacturing EF-75 skid mounted diamond drill rigs. Drill pads were constructed on stable flat surfaces, and 6 x 6 timbers or Rig Matts were used as dunnage to support and level the Drill Rigs. Heavy Equipment utilized for mobilization of drilling equipment included: Timberjack 360D skidder, John Deere 700 bulldozer, and a Komatsu D 51Px bulldozer.

Table 10-1: Project Drilling by Year

Company	Year	Number of Holes	Metres Drilled
Callinan Mines Limited	2011	4	2311
Callinex Mines Inc.	2015	8	4536
Callinex Mines Inc.	2016	28	18,961
Callinex Mines Inc.	2017	5	3870
Callinex Mines Inc.	2019	4	2516
Callinex Mines Inc.	2020	11	8397
Callinex Mines Inc.	2021	66	38,769
Callinex Mines Inc.	2022	37	19,536
Total		**163**	**98,896**

Source: Callinex (2023)

Figure 10-1: Plan Map showing All Callinex Drill Hole Collars

Source: Callinex (2023)

10.1 Drilling Summary

In 2011, Callinex (operating under Callinan Mines Limited) completed its first diamond drilling campaign on the Pine Bay property with NQ2 diameter diamond drill holes PC-1, PC-2, PC-3, and PC-4 totaling 2,311 m, with holes extending to depths of 840 m. PC-1 targeted the Pine Bay horizon along strike of the Pine Bay deposit, while PC-2 targeted the Cabin horizon, and both PC-3 and PC-4 targeted the Baker Patton horizon. Diamond drill holes PC-1, PC-3, and PC-4 intersected hydrothermally altered felsic volcanics consisting of sericite-chlorite ± talc schists with variable amounts of sulphides, while PC-2 was shut down in unaltered felsic volcanic rocks with no assay samples collected. Drill hole PC-4 intersected the most significant mineralization during the 2011 exploration campaign within the Baker Patton horizon, occurring between 177 m and 179 m returning 2 m of 0.77% Cu, 0.02 g/t Au, and 3.3 g/t Ag.

In 2015, Callinex completed eight (8) diamond drill holes totaling 4,536 m, with holes extending to depths of 1,259 m, targeting the Pine Bay horizon, Sourdough Bay horizon, TDEM electromagnetic anomalies, and an airborne magnetic anomaly within proximity of mapped chloritized volcanics. PBM-001 was collared within mineralization and was designed to test a potential gold zone within the Pine Bay deposit, while intersecting at 115.1 m 2.3% Cu over 4 m which was consistent with the Pine Bay C lens. PBM-004 was designed to test a potential stacked lens behind the Pine Bay deposit and was also collared within mineralization intersecting 44.2 m of 3.9% Cu which exceeded historic grades. SDB-001 was designed to test stratigraphy down dip from the Sourdough Bay deposit and intersected the most significant mineralization of the holes drilled within the area of the Sourdough Bay deposit during the campaign returning 3.94% Cu over 0.57 m between 573.59 m and 574.16 m, and 3.74% Cu over 0.8 m between 579.22 m and 580.02 m.

In 2016, Callinex commenced a property wide scale exploration campaign, completing 28 diamond drill holes including two (2) wedges and the deepening of five (5) historic holes totaling 18,961 m, with holes extending to depths of 1,585 m, exploring for extensions of alteration and mineralization in the Pine Bay, Cabin, Baker Patton, and Sourdough Bay horizons while also testing several geophysical anomalies identified during the 2015 TDEM surveys of the Pine Bay and Sourdough Bay grids. Drilling was completed in two (2) phases, with several intersections of high-grade mineralization discovered during this drill program. Including in holes SDB001, SDB004, PBM008, PBM009 and PBM014. Significant assay results returned from these holes include: 7.42 m of 0.90% Cu and 0.78% Zn in SDB001, 4.85 m of 1.04% Cu and 0.45% Zn in SDB004, 3.95 m of 2.86% Cu and 5.90 m of 2.20% Zn in PBM008, 10.60 m of 1.43% Cu in PBM009, and 2.30 m of 6.65% Zn, 0.83 g/t Au and 28.0 g/t Ag in PBM014, 11.00 m of 1.70 g/t Au, 57.81 g/t Ag, 0.71% Cu and 5.76% Zn in 284-3-93-DPN, and 2.58 m of 0.919 g/t Au, 34.60 g/t Ag, 1.64% Cu and 0.53% Zn in PBM024.

In 2017, Callinex completed five (5) diamond drill holes totaling 3,870 m, with holes extending to depths of 1,317 m. Exploring for extensions of alteration and mineralization along the Cabin Horizon. Drill hole PBM030 intersected the most significant mineralization, consisting of appreciable amounts of sulphide mineralization. PBM030 intersected semi-massive to disseminated sulphides, consisting of pyrite with lesser chalcopyrite and sphalerite, over a 3.05 m wide interval. This interval returned assay results of 0.50 m at 1.49% Cu, 0.14% Zn, 0.19 g/t Au, and 4.22 g/t Ag.

Callinex commenced drilling in 2019 and continued the campaign into 2020 completing 15 diamond drill holes including two (2) wedges and the deepening of one (1) historic hole totaling 10,913 m, with holes extending to depths of 1,230 m. Drill testing targets generated from a proprietary Orevision Deep Induced Polarization (IP) survey conducted in March 2019 by Abitibi Geophysics, and previously identified Bore Hole Pule Electromagnetic (BPEM) anomalies, ultimately leading to the discovery of the Rainbow deposit in diamond drill hole PBM-111. PBM-111 was designed to test a previously identified BPEM anomaly (Anomaly A) with a coincident IP anomaly, which upon drill testing, intersected massive and disseminated sulphides between 892.04 m and 895 m representing Anomaly A, returning 2.96 m of 3.09% Cu, 0.75 g/t Au, 13.35 g/t Ag, 1.88% Zn, which was followed by a second interval of massive and disseminated sulphides between 993.24 m and 937.55 m returning 4.31 m of 4.12% Cu, 0.22 g/t Au, 2.21 g/t Ag, 0.06% Zn. These massive sulphide lenses intersected within the Rainbow deposit discovery hole and were then defined as the Yellow and Orange zones.

Following up on the massive sulphide intersections within discovery hole PBM-111, Callinex drill hole PBM-112 intersected the Rainbow horizon 345 m vertically above PBM-111 and went over the presumed plunge line when it crossed the Orange zone of the Rainbow horizon, intersecting 2.64 m of 0.07% Cu, 0.08 g/t Au, 1.58 g/t Ag, and 0.42% Zn. Callinex then stepped out 90 m along strike to the north and completed drill holes PBM-113, and PBM-113W1. Drill Hole PBM-113 intersected the Yellow zone between 819 m and 824 m returning 5 m of 8.08% Cu, 0.20 g/t Au, 10.55 g/t Ag, and 0.13% Zn and the Orange zone between 891.44 m and 900.50 m returning 9.06 m of 2.37% Cu, 0.70 g/t Au, 7.0 g/t Ag, and 2.10% Zn. Drill hole PBM-113W1 intersected the Rainbow horizon 65 m vertically above the parent drill hole PBM-113 and intersected the Yellow zone between 770.60 m and 776.00 m returning 5.40 m of 3.22% Cu, 0.61 g/t Au, 10.43 g/t Ag and

1.84% Zn and the Orange zone between 883.70 m and 838.70 m returning 5.00 m of 8.79% Cu, 1.38 g/t Au, 24.02 g/t Ag and 1.79% Zn.

Callinex then increased the total amount of drill rigs on site to two (2), completing drill holes PBM-114, PBM-113W2, and PBM-115, of which drill hole PBM-113W2 intersected the Rainbow horizon 100 m vertically above the parent hole PBM-113 and intersected the Yellow zone between 724.50 m and 730.00 m returning 5.50 m of 0.50% Cu, 0.37 g/t Au, 2.48 g/t Ag, and 1.27% Zn and the Orange zone between 771.30 m and 777.00 m returning 5.70 m of 3.57% Cu, 0.54 g/t Au, 21.41 g/t Ag, and 1.56% Zn. Drill hole PBM-114 tested the southern edge of the Rainbow horizon 150 m below PBM-112, and PBM-115 tested along strike to the North of the Rainbow deposit resulting in a 75 m step out from drill hole PBM-113W1, intersecting the Yellow zone between 783.22 m and 786.35 m returning 3.13 m of 1.95% of 1.45% Cu, 0.20 g/t Au, 6.76 g/t Ag and 0.82% Zn.

The 2021 Callinex diamond drilling campaign was commenced to test highly conductive Surface Pulse Electromagnetic anomalies occurring along strike to the south of the Rainbow deposit while also continuing to delineate the Yellow and Orange zones of the Rainbow deposit. Throughout the campaign, Callinex completed 66 diamond drill holes including 12 wedges and the deepening of two (2) recently active holes totaling 38,769 m, with holes extending to depths of 1,500 m, of which 49 diamond drill holes, including 12 wedges were drilled to delineate the Rainbow deposit. Drill holes PBM-118 and PBM-121 were drilled to test mineralization up dip and towards surface from previously known mineralization, and these drill holes successfully intersected the Yellow zone. PBM-118 intersected 7.77 m of 3.30% Cu, 0.72 g/t Au, 7.48 g/t Ag and 4.42% Zn, while PBM-121 intersected 7.55 m of 4.13% Cu, 0.64 g/t Au, 11.08 g/t Ag and 0.90% Zn. Defining the deposit to a new vertical extent of 405 m below surface; increasing the extent of the deposit from the previously defined extent of 662 m below surface.

Infill and step out drilling continued, and drill hole PBM-129W2 resulted in one of the thickest intersections to date and represented a potential convergence of the Yellow and Orange zones. Drill Hole PBM-129W2 intersected mineralization over 67.0 m of 2.73% Cu, 0.13 g/t Au, 3.46 g/t Ag, and 0.12% Zn, leading up to the most significant intersection to date, occurring within drill hole PBM-138 which intersected the Rainbow horizon 210 m vertically above and along strike to north of PBM-129W2. PBM-138 intersected 37 m of 6.00% Cu, 0.35 g/t Au, 6.13 g/t Ag, and 0.09% Zn, which included two (2) high-grade 1 m intervals which returned over 18% Cu.

The seasonal transition to summer and dry weather conditions allowed access for drill testing potential near surface extensions of mineralization, leading to the discovery of mineralization within 100 m of surface. Drill hole PBM-145 intersected and extended mineralization to 375 m below surface, while also intersecting the Yellow zone between 194.0 m and 205.0 m returning 12.0 m of 0.15% Cu, 0.26 g/t Au, 4.40 g/t Ag, and 1.29% Zn, and intersecting the Orange zone which consisted of two (2) mineralized intervals 12.0 m of 0.57% Cu, 0.90 g/t Au, 20.27 g/t Ag and 5.25% Zn, and 9.0 m of 0.86% Cu, 1.28 g/t Au, 15.02 g/t Ag, and 1.72% Zn, then followed up by additional step out drilling to further define the Yellow zone, with drill hole PBM-150 extending the strike to the south which intersected two (2) mineralized intervals consisting of 4.00 m returning 1.08% Cu, 0.05 g/t Au, 2.14 g/t Ag, and 2.14% Zn and 3.00 m returning 0.49% Cu, 0.61 g/t Au, 20.13 g/t Ag, and 2.17 % Zn. The most shallow intersection to date, which extended mineralization to 110 m below surface, occurred in drill hole PBM-163, which intersected the Yellow zone between 114.00 m and 123.00 m returning 9.00 m of 0.39% Cu, 0.76 g/t Au, 25.34 g/t Ag and 1.61% Zn and the Orange zone which returned 4.00 m of 0.03% Cu, 0.12 g/t Au, 2.5 g/t Ag and 1.71% Zn.

In 2022, Callinex resumed exploration drill testing additional targets generated from the Orevision Deep Induced Polarization (IP) survey, additional Surface Pulse Electromagnetic anomalies, and previously identified Bore Hole Pulse Electromagnetic anomalies while also continuing to delineate the Rainbow deposit. During the campaign, Callinex completed 37 diamond drill holes including six (6) wedges and the deepening of two (2) recently active holes totaling 19,536 m, with holes extending to depths of 1,365 m, ultimately leading to the discovery of the Alchemist deposit early in the exploration campaign and completing the delineation drilling of the Rainbow deposit in the Fall. The Alchemist discovery hole, ALC-111, was collared 1,500 m southwest of the Rainbow deposit and was designed to test a Bore Hole Pulse Electromagnetic anomaly defined as Anomaly B. Drill testing led to the intersection of massive sulphides occurring between 713.56 m to 716.00 m, returning 2.44 m of 0.90% Cu, 1.76% Zn, 0.22 g/t Au and 7.05 g/t Ag.

Callinex then followed up on the ALC-111 Alchemist discovery hole with four (4) additional drill holes: ALC-112, ALC-113, ALC-114, and ALC-115. Defining the Alchemist deposit to a strike length of at least 140 m, and a vertical extent of 500 m to 800 m below surface. Drill hole ALC-112 intersected the Alchemist horizon vertically above and along strike to the north of ALC-111, returning 4.00 m of 0.31% Cu, 0.06 g/t Au, 4.91 g/t Ag, and 1.85% Zn. While the most significant intersection to date occurred vertically below ALC-111, within drill hole ALC-114, which intersected 4.40 m of 1.6% Cu, 0.40 g/t Au, 21.78 g/t Ag, and 5.14% Zn.

Completing the delineation drilling of the Rainbow deposit, Callinex drilled 33 infill and step out drill holes including six (6) wedges during the 2022 campaign, successfully extending the strike length of the Orange zone above the 500 m below surface level, and the vertical extent of the Yellow zone. Drill hole PBM-178W1 vertically extends the Yellow zone above the PBM-113W2 intersection by intersecting 11.00 m of 2.43% Cu, 0.24 g/t Au, 5.00 g/t Ag and 0.89 % Zn. Infill hole PBM-180 intersected the most significant near surface mineralization to date, returning 10.40 m of 3.31% Cu, 0.61 g/t Au, 10.31 g/t Ag and 0.41% Zn. Delineation drilling was then completed in September 2022 with drill hole PBM-190W1, which intersected the Yellow zone between 697.80 m and 700.00 m, returning 2.20 m of 1.42% Cu, 0.14 g/t Au, 1.60 g/t Ag, and 0.02% Zn, and the Orange zone between 737.00 m and 742.00 m, returning 5.00 m of 2.17% Cu, 0.20 g/t Au, 2.39 g/t Ag, and 0.28% Zn.

Drill hole collar locations, drilling directions, and inclinations are summarized within Table 10-2. Significant assay results of selected drill holes are summarized in Table 10-3.

Table 10-2: Drill Hole Collar and Orientations

Year	Drill Hole ID	UTM Easting	UTM Northing	Elevation	Azimuth	Dip	EOH Depth
2011	PC-1	332155	6071494	295	335	-68	687.90
2011	PC-2	332155	6071494	295	23	-70	839.50
2011	PC-3	332772	6071837	326	305	-80	364.40
2011	PC-4	332693	6071683	316	305	-80	419.69
2015	PBM001	331856	6071603	298	335	-50	200.00
2015	PBM002	332224	6071978	298	130	-60	310.00
2015	PBM003	332232	6071627	298	320	-65	557.00
2015	PBM004	331965	6071691	298	315	-45	179.00
2015	PBM005	331240	6071808	308	290	-50	179.00
2015	SDB001	329365	6067728	312	85	-68	635.00

Year	Drill Hole ID	UTM Easting	UTM Northing	Elevation	Azimuth	Dip	EOH Depth
2015	SDB002	328912	6067203	307	100	-68	1217.00
2015	SDB003	329095	6067437	323	100	-68	1259.00
2016	284-3-93-DPN	332882	6071554	321	317	-85	1101.00
2016	284-3-93W02	332882	6071554	321	317	-85	1364.00
2016	95-02-DPN	332626	6071300	315	314	-78	1585.00
2016	BP-1-92-DPN	332810	6071663	328	300	-66	689.15
2016	PBM006	332161	6071450	309	290	-83	975.00
2016	PBM007	332016	6071433	295	280	-68	680.00
2016	PBM008	332531	6071600	325	300	-65	1038.00
2016	PBM009	332681	6071729	323	300	-65	611.00
2016	PBM010	333051	6071980	315	280	-60	728.00
2016	PBM011	332531	6071600	325	280	-70	125.00
2016	PBM012	332531	6071600	325	275	-75	524.00
2016	PBM013	331903	6072296	291	300	-60	515.00
2016	PBM014	332530	6071600	325	332	-78	773.00
2016	PBM015	332586	6071503	322	302	-62	104.00
2016	PBM016	332586	6071503	322	300	-67	548.00
2016	PBM017	332898	6071568	318	324	-85	1427.50
2016	PBM018	332980	6071641	320	315	-85	314.00
2016	PBM019	332978	6071646	322	315	-90	1388.20
2016	PBM020	333261	6072135	311	290	-60	715.00
2016	PBM021	332386	6071008	314	300	-70	1248.00
2016	PBM022	332808	6071457	318	295	-78	195.00
2016	PBM023	332804	6071457	319	310	-80	135.00
2016	PBM024	332804	6071457	319	315	-80	1182.00
2016	PBM025	332550	6071656	328	310	-72	474.00
2016	SDB004	329812	6067470	307	300	-76	945.00
2016	SDB005	329942	6067765	311	290	-78	932.00
2016	SDB006	330035	6067938	305	300	-78	1067.00
2016	SDB007	330170	6068189	318	310	-65	294.50
2017	PBM026	332808	6071459	318	315	-65	885.00
2017	PBM027	332808	6071459	318	315	-74	1317.00
2017	PBM028	332808	6071459	318	307	-72	177.00
2017	PBM029	332808	6071459	318	307	-76	270.00
2017	PBM030	332852	6071479	320	310	-82	1224.00
2019	PBM007DPN	332016	6071433	295	280	-68	918.00
2019	PBM031	332659	6072078	291	315	-50	692.00
2019	PBM032	332215	6070892	318	310	-60	357.00
2019	PBM033	331574	6071593	292	285	-60	1229.40

Year	Drill Hole ID	UTM Easting	UTM Northing	Elevation	Azimuth	Dip	EOH Depth
2020	PBM034	331574	6071593	292	335	-45	461.00
2020	PBM035	331549	6071902	294	345	-65	651.66
2020	PBM036	331574	6071593	292	240	-81	163.98
2020	PBM037	331574	6071593	292	230	-82	1433.00
2020	PBM111	331352	6071213	292	313	-85	1187.75
2020	PBM112	331352	6071213	292	310	-80	783.30
2020	PBM113	331402	6071286	292	296	-83	1045.00
2020	PBM113W1	331402	6071286	292	296	-83	884.15
2020	PBM113W2	331402	6071286	292	296	-83	848.00
2020	PBM114	331378	6071255	292	292	-83	855.83
2020	PBM115	331445	6071353	292	296	-83	1008.00
2021	PBM034DPN	331574	6071593	292	335	-45	830.40
2021	PBM113W3	331402	6071286	292	296	-83	985.00
2021	PBM116	331402	6071286	292	295	-77	132.50
2021	PBM117	330398	6071231	294	96	-56	1085.25
2021	PBM118	331402	6071286	292	296	-76	944.40
2021	PBM119	331402	6071286	292	296	-71	701.40
2021	PBM119A	331402	6071286	292	296	-71	750.00
2021	PBM120	330052	6070726	292	91	-57	1499.50
2021	PBM121	331402	6071286	292	299	-60	647.40
2021	PBM122	331402	6071286	292	298	-47	566.40
2021	PBM123	331450	6071362	292	295	-53	632.40
2021	PBM124	331450	6071362	292	284	-65	671.00
2021	PBM125	331574	6071593	292	282	-83	1062.50
2021	PBM126	331378	6071255	292	290	-83	60.70
2021	PBM127	331378	6071255	292	290	-83	50.00
2021	PBM128	331378	6071255	292	290	-83	645.30
2021	PBM128W1	331378	6071255	292	290	-83	656.45
2021	PBM129	331378	6071255	292	290	-87	949.40
2021	PBM129W1	331378	6071255	292	280	-87	912.70
2021	PBM129W2	331378	6071255	292	280	-87	873.90
2021	PBM129W3	331378	6071255	292	280	-87	659.50
2021	PBM130	331402	6071286	292	296	-79	70.00
2021	PBM131	331402	6071286	292	296	-82	777.00
2021	PBM132	331378	6071255	292	290	-85	750.00
2021	PBM133	331352	6071213	292	315	-53	593.00
2021	PBM134	331378	6071255	292	295	-65	600.60
2021	PBM135	331356	6071223	292	120	-82	1089.00
2021	PBM136	331378	6071255	292	295	-87	1101.00

Year	Drill Hole ID	UTM Easting	UTM Northing	Elevation	Azimuth	Dip	EOH Depth
2021	PBM137	331624	6071693	292	310	-82	941.00
2021	PBM138	331378	6071255	292	295	-80	308.00
2021	PBM138A	331378	6071255	292	295	-80	782.00
2021	PBM138W1	331378	6071255	292	295	-80	741.00
2021	PBM139	331475	6071353	292	290	-78	750.00
2021	PBM140	331613	6071710	292	322	-87	50.00
2021	PBM141	331613	6071710	292	322	-87	200.00
2021	PBM142	331717	6072141	295	295	-83	768.00
2021	PBM143	331613	6071710	292	345	-87	915.60
2021	PBM144	331717	6072141	295	330	-77	648.00
2021	PBM145	331063	6071424	293	315	-70	350.00
2021	PBM146	331433	6071327	292	300	-82	554.00
2021	PBM146A	331433	6071327	292	300	-82	910.50
2021	PBM146W1	331433	6071327	292	300	-82	875.00
2021	PBM147	331063	6071424	293	315	-63	275.00
2021	PBM148	331063	6071424	293	315	-45	227.00
2021	PBM149	331063	6071424	293	315	-77	353.00
2021	PBM150	331063	6071424	293	285	-70	326.00
2021	PBM151	331063	6071424	293	285	-77	353.00
2021	PBM152	331063	6071424	293	300	-65	259.50
2021	PBM153	331063	6071424	293	300	-75	320.00
2021	PBM154	331110	6071474	293	305	-65	252.00
2021	PBM155	331110	6071474	293	300	-74	365.00
2021	PBM156	330939	6071400	293	275	-50	528.00
2021	PBM157	331450	6071362	292	310	-85	72.00
2021	PBM158	331450	6071362	292	320	-85	1052.00
2021	PBM158DPN	331450	6071362	292	320	-85	1175.00
2021	PBM159	329374	6070399	320	295	-60	450.00
2021	PBM160	329721	6070791	322	300	-55	591.00
2021	PBM160DPN	329721	6070791	322	300	-55	904.00
2021	PBM161	331378	6071255	292	295	-85	939.50
2021	PBM161W1	331378	6071255	292	295	-85	863.50
2021	PBM161W2	331378	6071255	292	295	-85	825.00
2021	PBM162	330052	6070726	292	345	-75	1433.00
2021	PBM163	331027	6071402	293	300	-65	193.00
2021	PBM164	331027	6071402	293	300	-45	150.00
2021	PBM165	331009	6071452	294	300	-45	144.00
2021	PBM166	329568	6070978	324	320	-52	759.00
2022	ALC111	329568	6070978	324	80	-78	894.00

Year	Drill Hole ID	UTM Easting	UTM Northing	Elevation	Azimuth	Dip	EOH Depth
2022	ALC112	329544	6071200	324	110	-70	714.00
2022	ALC113	330052	6070726	292	290	-65	1365.00
2022	ALC114	329852	6070918	316	295	-80	948.00
2022	ALC115	330052	6070726	292	300	-74	1344.00
2022	PBM112DPN	331352	6071213	292	310	-80	870.00
2022	PBM167	329544	6071200	324	298	-45	44.00
2022	PBM169	329544	6071200	324	298	-45	534.00
2022	PBM170	329544	6071200	324	303	-45	501.00
2022	PBM173	331378	6071255	292	292	-73	207.35
2022	PBM173W1	331378	6071255	292	292	-73	657.00
2022	PBM174	331378	6071255	292	294	-65	612.00
2022	PBM174W1	331378	6071255	292	294	-65	603.00
2022	PBM174W2	331378	6071255	292	294	-65	480.00
2022	PBM175	331378	6071255	292	294	-69	705.00
2022	PBM176	331378	6071255	292	298	-73	216.00
2022	PBM176DPN	331378	6071255	292	298	-73	740.00
2022	PBM177	331378	6071255	292	307	-75	705.00
2022	PBM178	331378	6071255	292	294	-77	781.20
2022	PBM178W1	331378	6071255	292	294	-77	771.00
2022	PBM179	331378	6071255	292	292	-68	601.40
2022	PBM180	331068	6071407	292	330	-63	287.00
2022	PBM181	331068	6071407	292	292	-50	203.00
2022	PBM182	330859	6071234	293	275	-55	692.00
2022	PBM183	331068	6071407	292	292	-63	257.00
2022	PBM184	331068	6071407	292	266	-70	341.00
2022	PBM185	331068	6071407	292	280	-82	440.00
2022	PBM186	331433	6071327	292	284	-78	821.00
2022	PBM186W1	331433	6071327	292	284	-78	764.00
2022	PBM187	331068	6071407	292	250	-77	485.00
2022	PBM188	331378	6071255	292	288	-68	635.00
2022	PBM189	331378	6071255	292	290	-76	722.00
2022	PBM190	331378	6071255	292	292	-82	821.00
2022	PBM190W1	331378	6071255	292	292	-82	776.00
2022	SDB008	330362	6068375	300	300	-76	876.00
2022	SDB009	330362	6068375	300	260	-70	713.00

Source: Callinex (2023)

Table 10-3: Select Significant Drilling Intersections, 2020-2022

Year	Hole-ID	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)	Cu (%)	ZN (%)	%CuEQ
2020	PBM-111	933.24	937.55	4.31	0.22	2.21	4.12	0.06	4.32
2020	PBM-111	892.04	895.00	2.96	0.75	13.35	3.09	1.88	4.43
2020	PBM-112	680.00	681.00	1.00	0.01	2.48	0.03	1.20	0.52
2020	PBM-112	638.00	640.64	2.64	0.08	1.58	0.07	0.42	0.30
2020	PBM-113	891.44	900.50	9.06	0.70	7.00	2.37	2.10	3.72
2020	PBM-113	874.00	878.00	4.00	0.09	2.28	2.21	0.04	2.31
2020	PBM-113	819.00	824.00	5.00	0.20	10.55	8.08	0.13	8.35
2020	PBM-113-W1	833.70	838.70	5.00	1.38	24.02	8.79	1.79	10.63
2020	PBM-113-W1	770.60	776.00	5.40	0.61	10.43	3.22	1.84	4.43
2020	PBM-113-W2	771.30	777.00	5.70	0.54	21.41	3.57	1.56	4.72
2020	PBM-113-W2	724.50	730.00	5.50	0.37	2.48	0.50	1.27	1.27
2021	PBM-113-W3	914.00	930.00	16.00	0.13	5.79	0.05	0.82	0.49
2021	PBM-113-W3	861.00	866.00	5.00	0.06	2.04	1.38	0.08	1.47
2020	PBM-114	802.05	802.50	0.45	0.27	7.62	0.73	2.98	2.12
2020	PBM-114	745.00	746.50	1.50	0.05	0.47	0.07	1.21	0.57
2020	PBM-115	783.22	786.35	3.13	0.20	6.76	1.45	0.82	1.95
2021	PBM-118	621.83	629.60	7.77	0.72	7.48	3.30	4.42	5.55
2021	PBM-119	609.34	614.94	5.60	0.69	4.93	2.02	1.21	3.00
2021	PBM-119	636.00	645.00	9.00	0.52	5.31	0.28	1.05	1.09
2021	PBM-121	545.45	553.00	7.55	0.64	11.08	4.13	0.90	5.01
2021	PBM-121	596.00	602.00	6.00	0.16	5.18	0.01	1.00	0.54
2021	PBM-122	496.25	498.25	2.00	0.33	2.63	1.12	0.02	1.38
2021	PBM-122	530.00	537.50	7.50	0.36	8.76	0.27	3.15	1.80
2021	PBM-123	560.50	561.00	0.50	0.06	5.30	0.78	0.04	0.88
2021	PBM-124	574.27	575.12	0.85	0.28	10.34	2.54	0.11	2.86
2021	PBM-128	559.80	565.00	5.20	0.63	12.41	2.71	1.63	3.88
2021	PBM-128-W1	589.00	596.60	7.60	0.60	13.03	6.28	0.39	6.95
2021	PBM-129	888.50	894.00	5.50	0.13	2.67	8.45	0.16	8.62
2021	PBM-129	858.00	861.35	3.35	0.44	8.79	3.02	1.01	3.78
2021	PBM-129-W1	862.13	867.00	4.87	0.23	5.61	14.94	0.15	15.20
2021	PBM-129-W1	848.00	851.00	3.00	0.06	2.57	2.26	0.03	2.34
2021	PBM-129-W2	830.00	843.00	13.00	0.39	11.59	8.75	0.19	9.19
2021	PBM-129-W2	776.00	782.50	6.50	0.21	4.63	4.71	0.40	5.04
2021	PBM-131	709.00	729.53	20.53	0.22	6.63	2.58	1.11	3.21
2021	PBM-132	652.00	658.00	6.00	0.13	4.33	1.38	0.13	1.58
2021	PBM-133	506.00	513.71	7.71	0.52	8.25	1.70	1.29	2.62
2021	PBM-133	562.00	565.00	3.00	0.21	12.66	0.81	0.33	1.18
2021	PBM-134	525.00	531.40	6.40	0.42	9.09	1.23	2.34	2.49

Year	Hole-ID	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)	Cu (%)	ZN (%)	%CuEQ
2021	PBM-136	1002.00	1006.00	4.00	0.06	2.00	0.53	0.16	0.65
2021	PBM-138	660.00	697.00	37.00	0.35	6.38	6.28	0.10	6.61
2021	PBM-138-W1	656.00	687.00	31.00	0.26	3.55	3.04	0.74	3.53
2021	PBM-145	194.00	205.00	11.00	0.26	4.40	0.15	1.29	0.86
2021	PBM-145	232.00	244.00	12.00	0.98	20.27	0.57	5.25	3.43
2021	PBM-145	258.00	267.00	9.00	1.28	15.02	0.86	1.72	2.52
2021	PBM-146(a)	818.00	825.00	7.00	0.19	3.16	1.34	0.50	1.68
2021	PBM-146-W1	770.55	774.23	3.68	0.45	6.46	2.79	0.41	3.31
2021	PBM-147	114.00	123.00	9.00	0.59	8.00	0.85	1.02	1.02
2021	PBM-147	197.00	205.00	8.00	0.11	8.00	0.01	1.57	0.75
2021	PBM-149	214.00	219.00	5.00	0.25	3.60	0.04	2.00	1.03
2021	PBM-149	305.00	315.00	10.00	0.85	3.85	0.55	0.37	1.31
2021	PBM-150	233.00	237.00	4.00	0.05	2.14	1.08	0.39	1.29
2021	PBM-150	257.00	260.00	3.00	0.61	20.13	0.49	2.17	1.90
2021	PBM-151	238.00	244.00	6.00	0.13	12.43	0.01	1.78	0.89
2021	PBM-151	310.00	312.00	2.00	0.24	2.98	0.25	0.32	0.56
2021	PBM-152	229.00	233.00	4.00	0.13	2.88	0.03	1.21	0.60
2021	PBM-153	194.00	198.00	4.00	0.21	7.24	0.04	3.14	1.45
2021	PBM-153	236.00	239.00	3.00	0.11	2.10	0.03	1.00	0.51
2021	PBM-155	312.00	317.00	5.00	0.23	3.30	1.05	0.24	1.33
2021	PBM-158	928.00	933.00	5.00	0.70	1.86	1.45	0.11	1.56
2021	PBM-161	831.00	844.30	13.30	0.08	2.14	2.17	0.06	2.26
2021	PBM-161-W1	829.00	838.00	9.00	0.48	13.98	12.52	0.58	13.19
2021	PBM-161-W1	776.00	784.00	8.00	0.21	2.63	1.63	0.25	1.90
2021	PBM-161-W2	778.05	792.00	13.95	0.28	5.57	5.71	0.08	5.98
2021	PBM-161-W2	737.50	742.40	4.90	0.50	9.00	4.48	1.48	5.47
2021	PBM-163	114.00	123.00	9.00	0.76	25.34	0.39	1.61	1.74
2021	PBM-163	150.00	154.00	4.00	0.12	2.50	0.03	1.71	0.79
2022	PBM-173-W1	627.00	632.00	5.00	0.44	6.84	3.51	0.55	4.08
2022	PBM-174	545.55	550.50	4.95	0.54	10.17	2.12	1.33	3.08
2022	PBM-174-W1	550.00	556.00	6.00	0.34	9.89	2.47	0.67	3.05
2022	PBM-174-W1	575.00	583.00	8.00	0.10	3.81	0.25	0.37	0.50
2022	PBM-175	635.00	641.00	6.00	0.50	11.01	5.00	0.40	5.59
2022	PBM-176DPN	704.00	707.50	3.50	0.19	3.03	2.74	0.24	2.99
2022	PBM-176DPN	667.45	675.00	7.55	0.15	2.85	1.14	0.41	1.42
2022	PBM-177	636.33	670.00	33.67	0.22	4.63	4.29	0.31	4.60
2022	PBM-178	742.00	750.45	8.45	0.49	6.62	6.18	0.12	6.62
2022	PBM-178	690.60	698.00	7.40	0.32	11.59	7.06	0.42	7.53
2022	PBM-178-W1	736.35	748.00	11.65	0.22	4.36	2.44	0.36	2.76

Year	Hole-ID	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)	Cu (%)	ZN (%)	%CuEQ
2022	PBM-178-W1	684.00	695.00	11.00	0.24	5.00	2.43	0.89	2.98
2022	PBM-179	540.00	546.00	6.00	0.44	7.03	0.61	2.53	1.94
2022	PBM-180	147.00	171.00	24.00	0.87	12.17	0.61	2.32	2.20
2022	PBM-180	211.60	222.00	10.40	0.61	10.31	3.31	0.41	3.97
2022	PBM-181	132.95	139.00	6.05	0.70	7.92	0.60	0.86	1.48
2022	PBM-181	147.00	154.00	7.00	0.56	12.19	0.16	3.70	2.06
2022	PBM-183	190.00	195.00	5.00	0.36	8.04	0.04	0.91	0.71
2022	PBM-184	246.00	248.00	2.00	0.05	6.14	0.01	1.67	0.73
2022	PBM-184	291.00	301.00	10.00	0.69	7.64	0.22	1.15	1.20
2022	PBM-185	272.00	278.00	6.00	0.11	19.48	0.02	1.43	0.79
2022	PBM-185	341.00	342.72	1.72	0.13	1.67	0.06	3.87	1.65
2022	PBM-185	394.00	400.00	6.00	0.25	4.09	1.28	0.15	1.54
2022	PBM-186	752.00	756.00	4.00	0.17	2.84	0.01	1.19	0.61
2022	PBM-186-W1	721.00	735.46	14.46	0.08	2.81	2.49	0.04	3.09
2022	PBM-187	321.00	324.00	3.00	0.04	3.71	0.01	1.42	0.65
2022	PBM-187	437.00	438.00	1.00	0.02	10.65	0.00	1.41	0.65
2022	PBM-188	556.00	559.00	3.00	0.08	4.66	0.02	0.56	0.33
2022	PBM-189	647.00	655.00	8.00	0.21	3.93	1.97	0.17	2.20
2022	PBM-189	673.00	686.00	13.00	0.09	1.16	0.57	0.16	0.70
2022	PBM-190	764.45	771.75	7.30	0.21	2.49	2.29	0.09	3.28
2022	PBM-190	715.85	722.00	6.15	0.05	1.06	0.81	0.02	0.86
2022	PBM-190-W1	737.00	742.00	5.00	0.20	2.39	2.17	0.28	2.44
2022	PBM-190-W1	697.80	700.00	2.20	0.14	1.60	1.42	0.02	1.54

Source: Callinex (2023)

11 SAMPLE PREPARATION, ANALYSES AND SECURITY

The current MRE incorporates an extensive drilling database that has been collected over several years of exploration and diamond drilling. The resource estimate was completed on two (2) separate VMS systems located 900 m apart. Firstly, the Pine Bay deposit, discovered in 1967 had no records of sample preparation, analyses, and security and for that reason was classified as an Inferred Resource. During the site visit the author was able to inspect, review, and sample the historic core that intersected the Pine Bay deposit (refer to Section 14). In the archived diamond drill logs, the information available included the recorded company, field geologist, recoveries, dates, lithologies with footages, and assays with footage intervals recorded. Secondly, the Rainbow deposit was discovered in August 2020 and the sample preparation, analyses, and security is described in detail below. All drill core results compiled in the Rainbow deposit Mineral Resource calculation underwent the same sample preparation, analyses, and security.

11.1 Sample Preparation Methods

Assay samples were collected as split (1/2) drill core samples which were inserted into a polypropylene plastic bag. Samples were then immediately tagged and sealed within the bag. Sealed samples were then placed into rice bags and subsequently sealed with a security tag. Sealed rice bags were then shipped via Manitoulin Transport to the SGS sample processing facility and laboratory in Burnaby, British Columbia. Upon arrival at the lab, samples were subjected to SGS preparation PRP89. Samples were weighed and then dried. Once dried, samples were crushed until 75% of sample material was able to pass through a 2 mm sieve. The less than 2 mm material was then subsampled, and 250 g of material was pulverized to pulp allowing for 85% of material to pass through a 75-micron sieve. Sample pulps were subjected to SGS Analysis GE_FAA30V5, GE_ICP21B20, and GE_ICP21B100.

Sample pulps subjected to GE_FAA30V5 were subsampled, and 30 g of material was mixed with flux fused with lead oxide at 1100°C followed by cupellation of the resulting lead bead. The lead bead was subsequently dissolved using hydrochloric and nitric acid to produce a supernatant. The supernatant was then analyzed by Flame Atomic Absorption Spectrometry (AAS) for gold in ppb.

Sample pulps subjected to GE_ICP21B20 were subsampled, and 0.25 g of material was digested with Auqa Regia (3HCl:HNO3). The supernatant solution produced from the digestion was then analyzed by Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES) for a suite of elements including: Silver (Ag), Arsenic (As), Barium (Ba), Beryllium (Be), Bismuth (Bi), Cadmium (Cd), Chromium (Cr), Cobalt (Co), Copper (Cu), Mercury (Hg), Lanthanum (La); Lithium (Li); Manganese (Mn), Molybdenum (Mo), Nickel (Ni), Lead (Pb), Antimony (Sb), Scandium (Sc), Tin (Sn), Strontium (Sr), Vanadium (V), Tungsten (W), Yttrium (Y), Zinc (Zn), and Zirconium (Zr) in ppm and Aluminum (Al), Calcium (Ca), Iron (Fe), Potassium (K), Magnesium (Mg), Sodium (Na), Phosphorus (P), Sulphur (S), and Titanium (Ti) in wt %. Any samples that returned results over detection limit were then subjected to GE_ICP21B100.

Sample pulps subjected to GE_ICP21B100 were subsampled, and 0.25 g of material was digested with Agua Regia (3HCl:HNO3). The supernatant solution produced from the digestion was then analyzed by Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES) for a suite of elements including: Arsenic (As), Silver (Ag), Calcium (Ca), Copper (Cu), Iron (Fe), Molybdenum (Mo), Lead (Pb), and Zinc

(Zn) in wt %. Responses from the ICP-OES were analyzed against known calibration standards providing a quantitative analysis of the original sample.

11.2 Sampling by Callinex Mines Inc.

11.2.1 Sampling Procedure

Three (3) separate companies were contracted to recover NQ core during Callinex's exploration efforts at the Pine Bay Project. Cyr Drilling of Winnipeg, Manitoba operated one (1) drill from 2011 to 2016, Dorado Drilling of Vernon, British Columbia operated one (1) to two (2) drills during 2017 to 2022, and finally Rodren Drilling of Winnipeg, Manitoba completed 2022 with one (1) to three (3) drills on site.

The drill core was logged on site, where the historic mining infrastructure (change house / hoist room) was transformed into a secure office, core logging, core sampling, and core storage facility. Drillers would deliver core at least once every 24 hours where it was received by Callinex personnel. The core would normally be logged and marked for sampling by the end of the day. Onsite personnel included one (1) to two (2) field geologists, and one (1) to two (2) core technicians.

The drill core was cut on site at the Pine Bay facility. Samples were cut in half along the long axis using a wet diamond saw. Then the 1/2 drill core samples were inserted into a polypropylene plastic bag. Samples were then immediately tagged and sealed within the bag. sealed samples were then placed into rice bags and subsequently sealed with a numbered security tag. Using the numbered security tag, a table was recorded showing which samples were in each individual rice bag. Sealed rice bags were stored on site and locked during non-working hours until enough samples warranted shipping. The rice bags where then delivered to a trucking facility in Flin Flon, Manitoba (Gardwines prior to 2022), now Mantoulin Transport by Callinex personnel, which shipped to the SGS's sample processing facility and laboratory in Burnaby, British Columbia. A log was also initiated to record the number of days the shipment was in transit (normally four (4) to five (5) days). Upon arrival at the lab, SGS would acknowledge through email a list for each individual sample received.

11.2.2 Laboratory Analysis

11.2.3 Density Data

Since discovery hole PBM-111 bulk density was determined on each sample submitted to SGS Laboratories in Burnaby, British Columbia measured by the gas pycnometer method G_PHY06V on pulp samples.

11.3 Quality Assurance and Quality Control Programs

Since 2015, Callinex has implemented and monitored a thorough quality assurance/quality control (QA/QC) program for each diamond drilling program executed at the Pine Bay Project. The QA/QC protocol involved the insertion of either field duplicates or lab (prep) duplicates, certified reference material (CRMs), and a blanks CRM.

Duplicate samples in the form of field duplicates were collected by cutting the unsampled half drill core into a quarter core sample to send for assaying, leaving the remaining quarter core in the box. Field duplicates are collected to monitor the homogeneity of samples. Additionally, lab duplicates were also utilized and are generated by requesting the assay lab to cut a second split for a particular sample.

Certified reference materials used for Pine Bay QA/QC program were obtained from two (2) sources, Oreas North America Inc. of Sudbury, Ontario supplying one CRM and CDN Laboratories of Surrey, British Columbia supplying four (4) base metal CRM samples and one (1) blank CRM.

Blanks samples were used to monitor contamination introduced into the laboratory during sample preparation and evaluate analytical accuracy.

Table 11-1: CRM Statistics Used for Resource Calculation

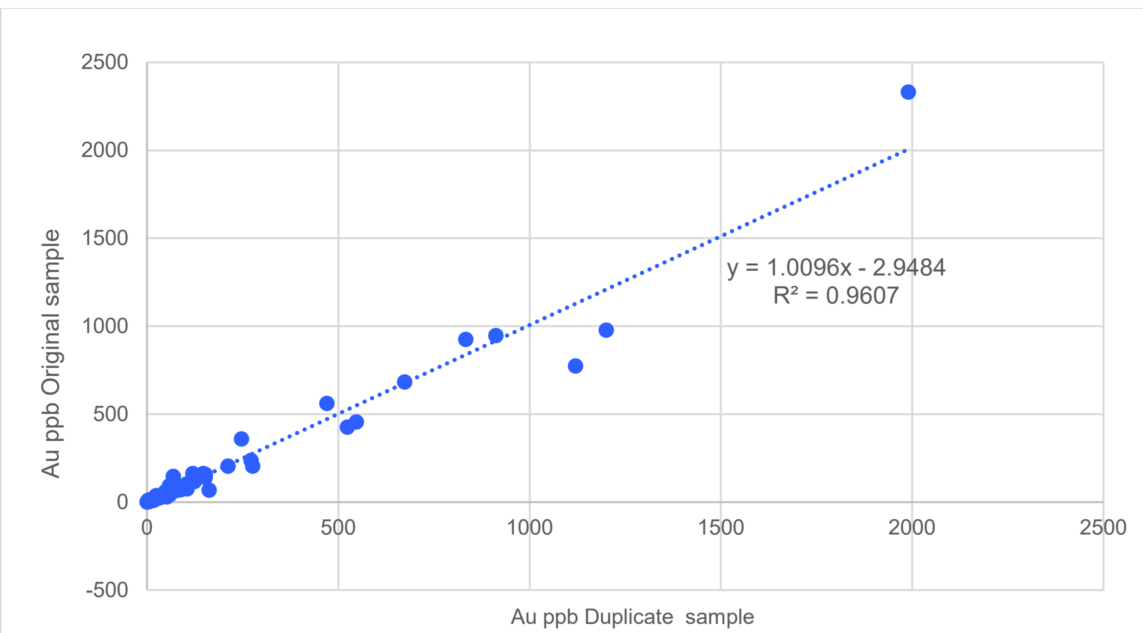
Standards	Au (ppm)	2std	Ag (ppm)	2std	Cu (%)	2std	Zn (%)	2std
OREAS 623	0.827	0.078	20.4	2.12	1.73	0.128	1.03	0.06
CDN-ME-1311	0.839	0.066	44.9	2.2	0.468	0.022	1.12	0.04
CDN-ME-1409	0.646	0.07	11.6	1.6	0.242	0.01	0.771	0.038
CDN-ME-1410	0.542	0.048	69	3.8	3.8	0.17	3.682	0.084
CDN-ME-2101	0.765	0.087	48	4	1.32	0.06	1.488	0.057
CDN-BL-10	<0.01		<0.5					

Source: Kirkham (2023)

11.3.1 Performance of Pine Bay Field Duplicates at SGS Labs

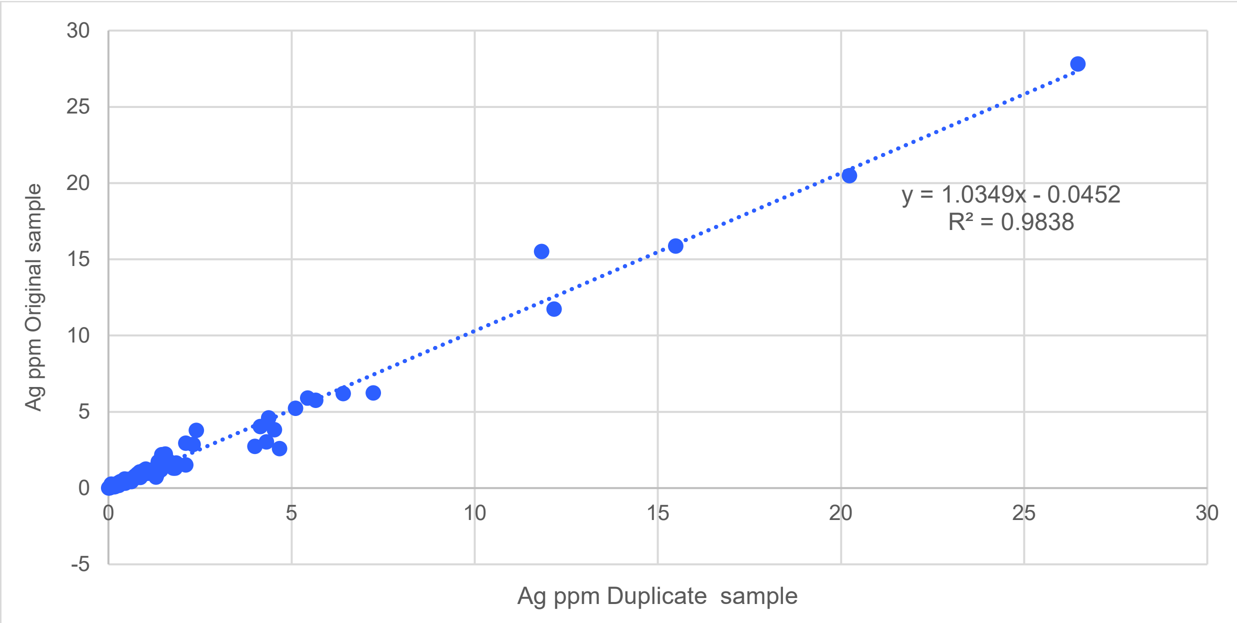
A total of 132 samples were cut and sent to SGS laboratories for assay for an insertion rate 2.2%. The data display acceptable correlations for Au, Ag, Cu and Zn.

Figure 11-1: Performance of Au Field Duplicates n= 132 Samples



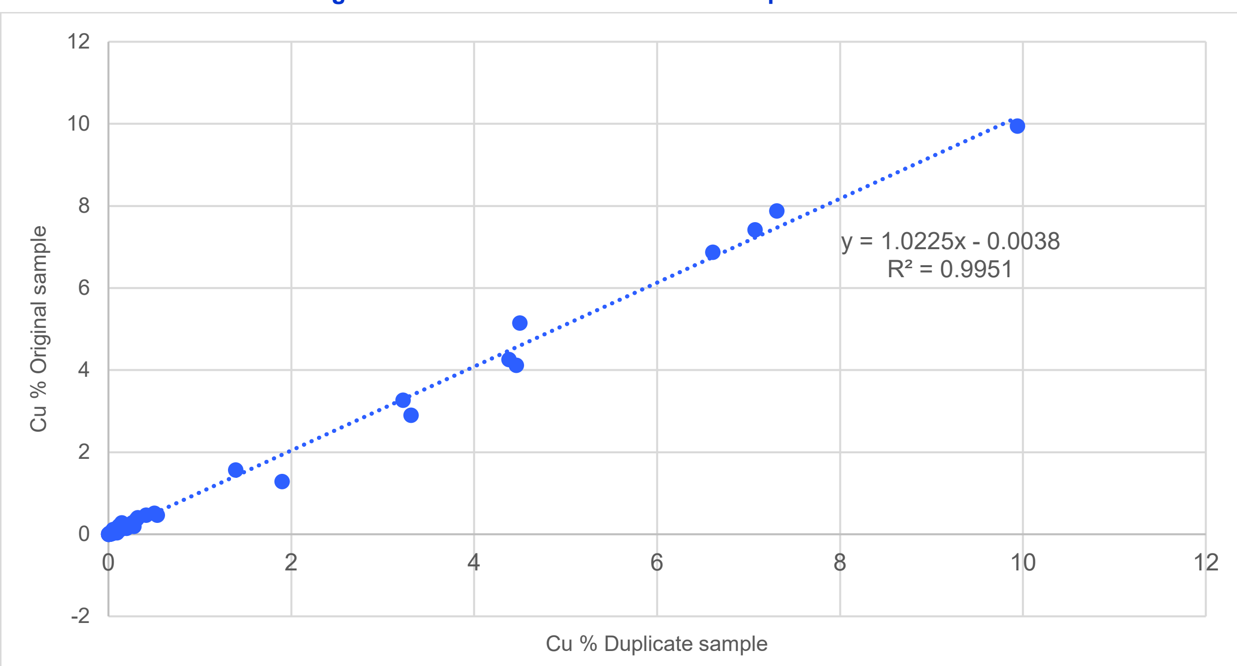
Source: Kirkham (2023)

Figure 11-2: Performance of Ag Field Duplicates n= 132



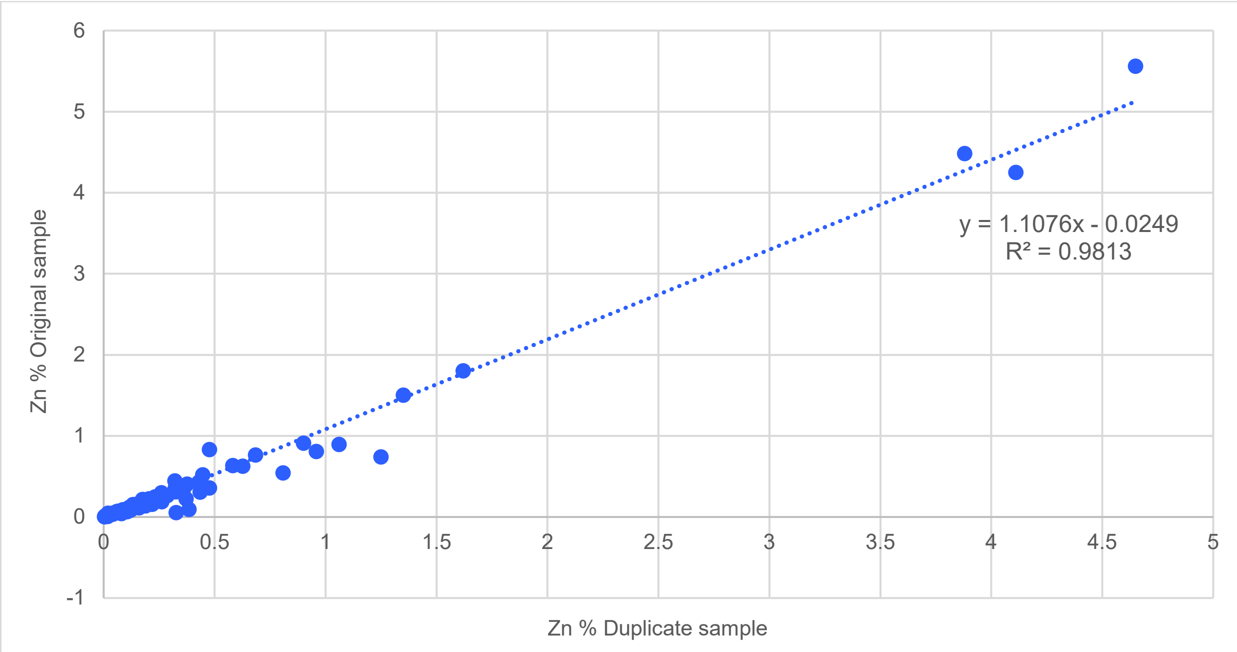
Source: Kirkham (2023)

Figure 11-3: Performance of Cu Field Duplicates n= 132



Source: Kirkham (2023)

Figure 11-4: Performance of Zn Field Duplicates n= 132

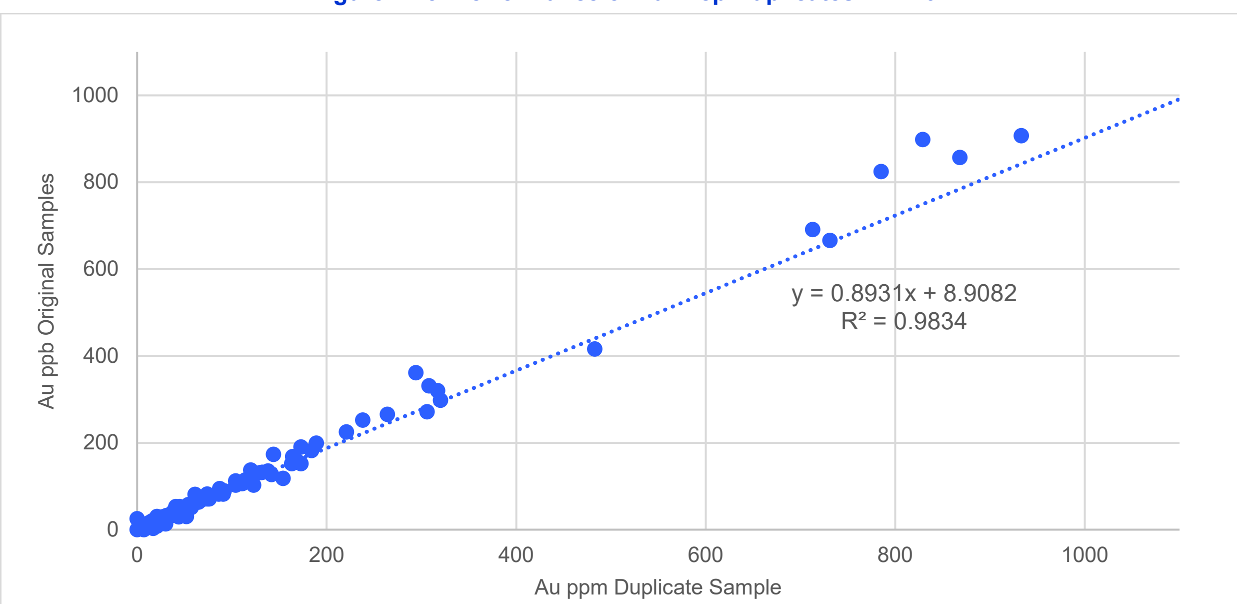


Source: Kirkham (2023)

11.3.2 Performance of laboratory Prep Duplicates at SGS Labs

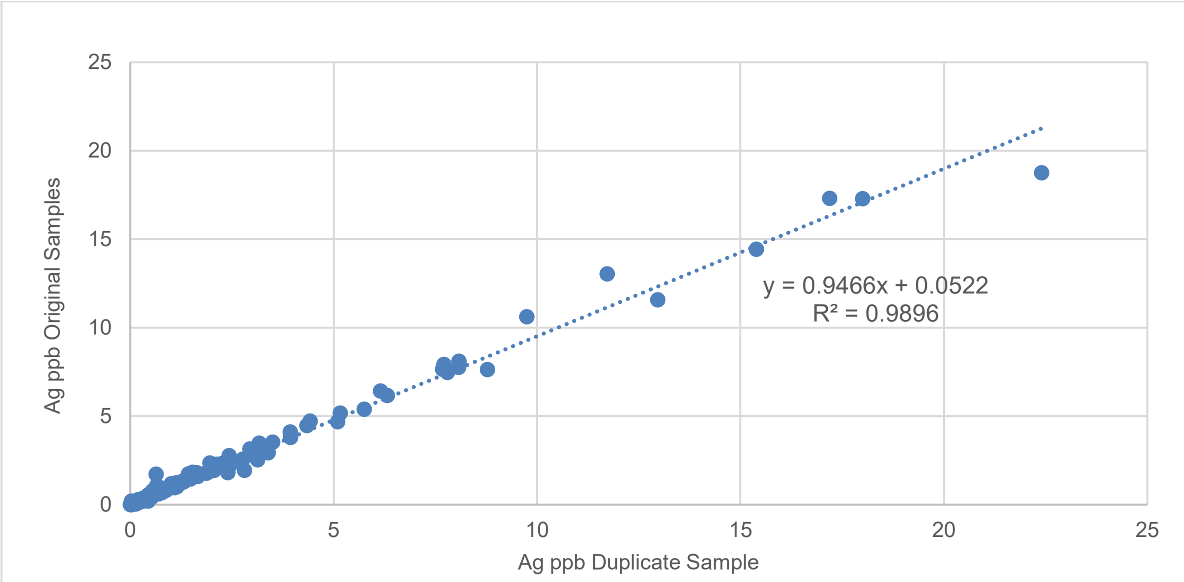
A total of 210 samples were requested to SGS laboratories to perform a pulps split for assay for an insertion rate of 3.5%. The data display acceptable correlations for Au, Ag, Cu and Zn.

Figure 11-5: Performance of Au Prep Duplicates n= 210



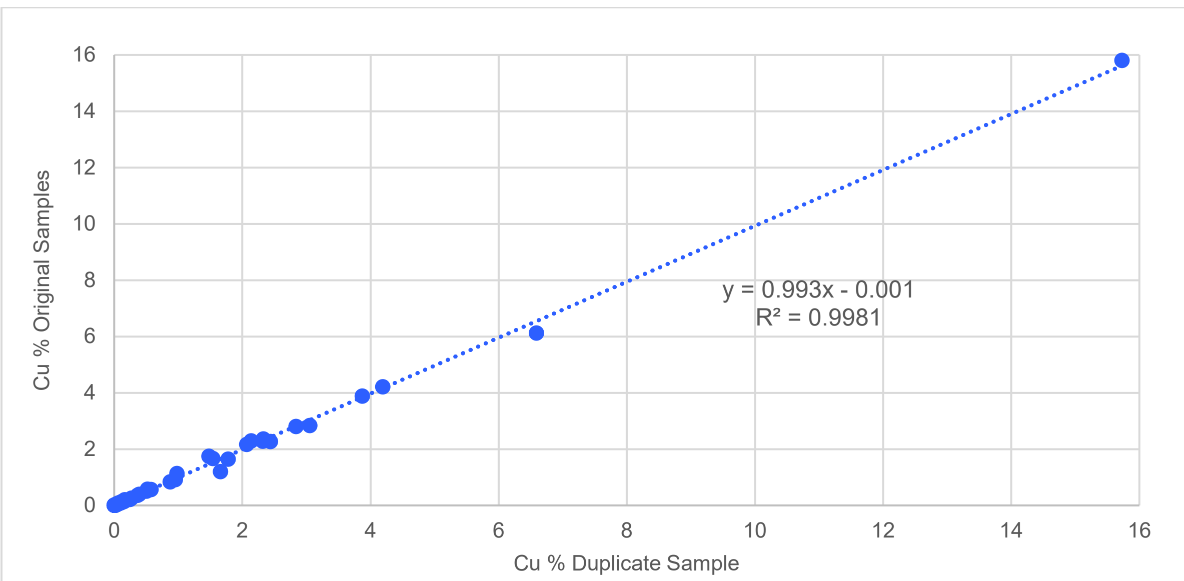
Source: Kirkham (2023)

Figure 11-6: Performance of Ag Prep Duplicates n= 210



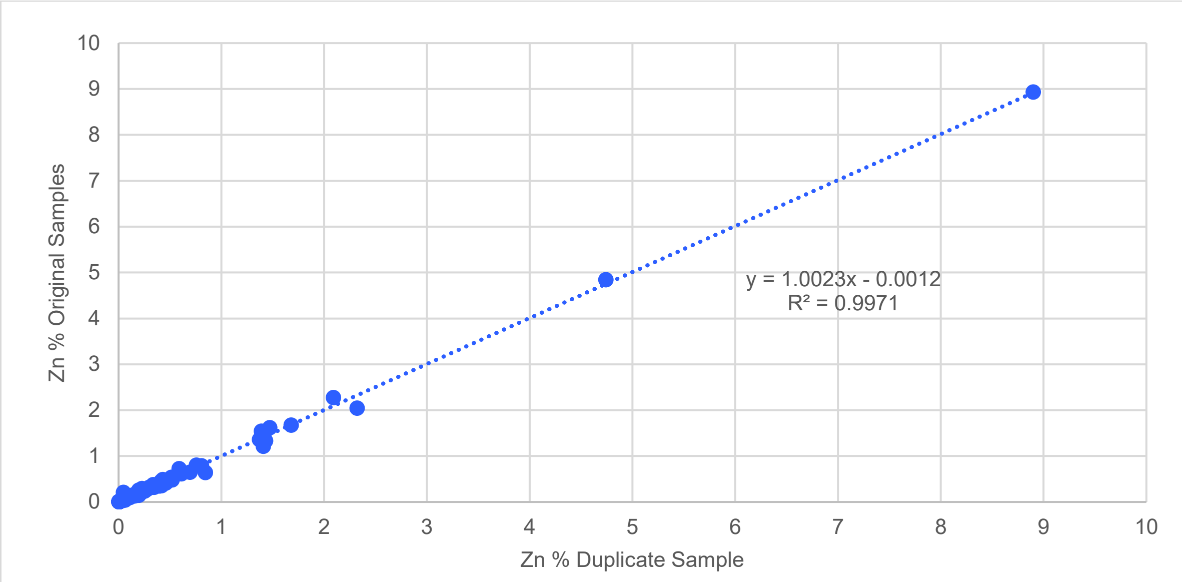
Source: Kirkham (2023)

Figure 11-7: Performance of Cu Prep Duplicates n= 210



Source: Kirkham (2023)

Figure 11-8: Performance of Zn Prep Duplicates n= 210

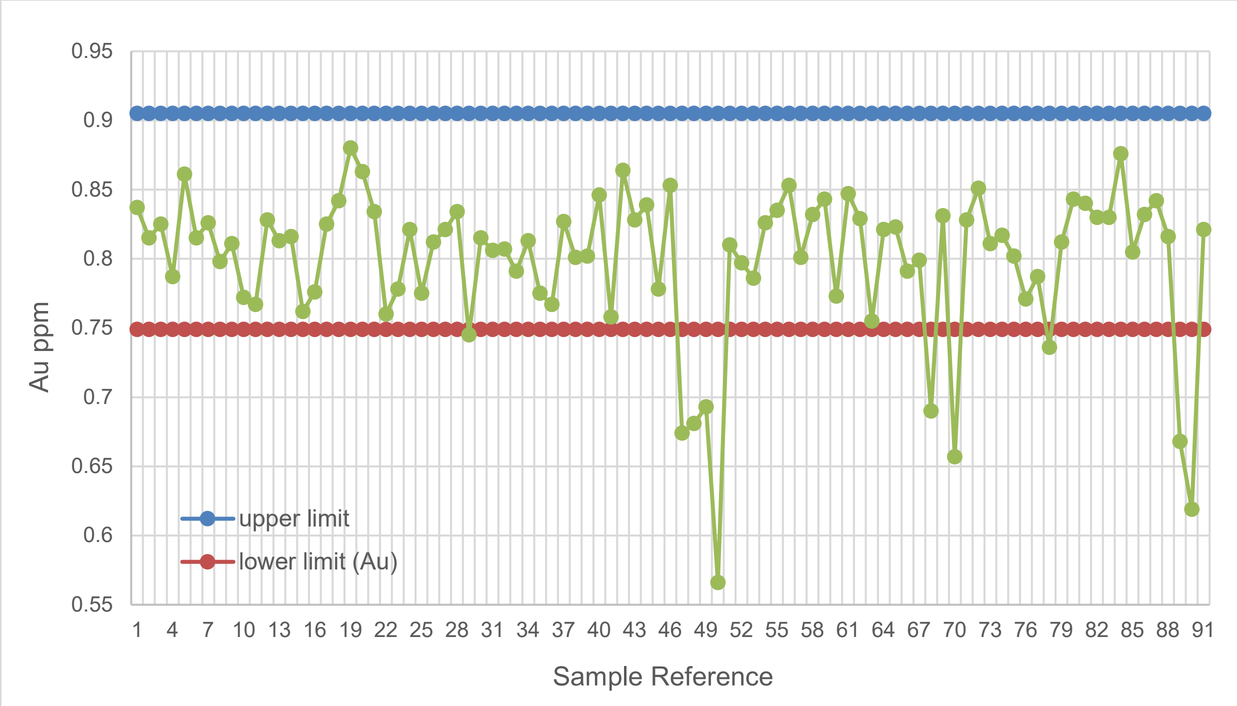


Source: Kirkham (2023)

11.3.3 Performance of CRM OREAS 623 at SGS Labs

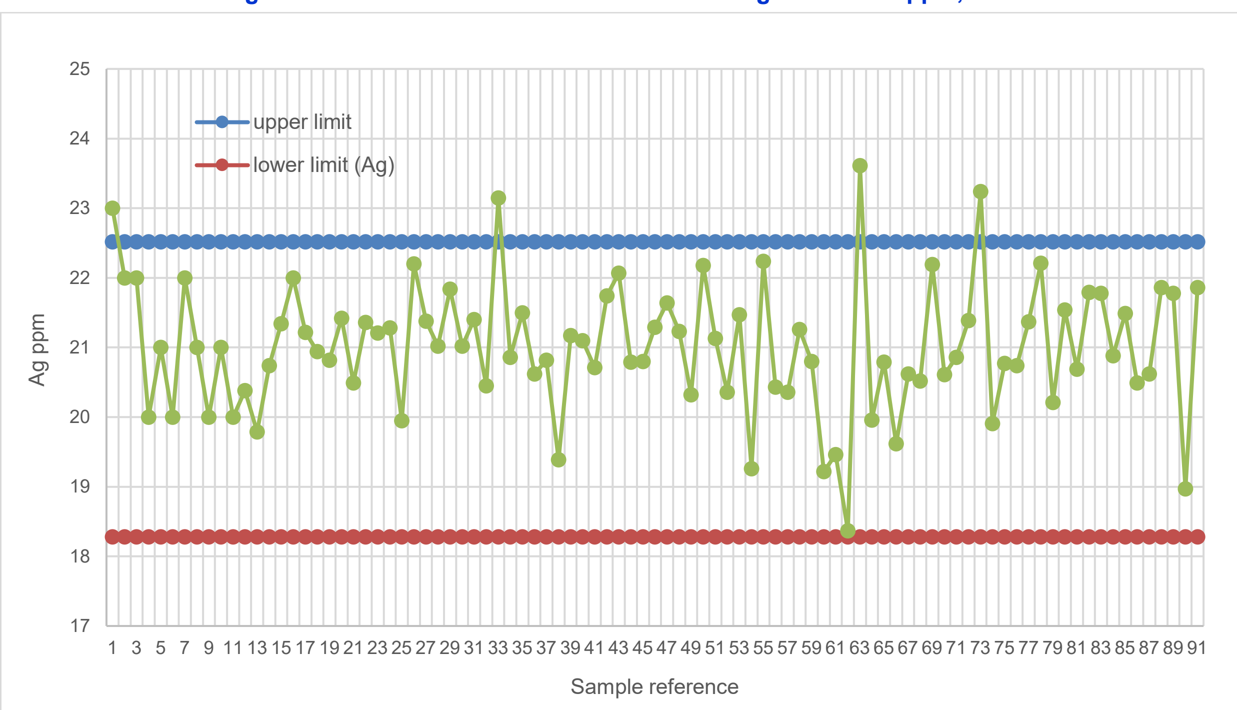
A total of 92 OREAS-623 standards were inserted randomly into the sample sequence as either the 10th, 30th, 50th, 70th, or 90th sample along with regular samples and submitted to SGS laboratories for an insertion rate of 1.5%. Each element (Au, Ag, Cu and Zn) is separately plotted below with their 2-standard deviation (2SD) limits highlighted. Gold results show 10 samples below the 2SD lower limit. Silver and copper performed well with four (4) and two (2) samples respectively above the 2SD upper limit. Zinc has a high number of samples plotting below the lower limit which resulted from the Zinc value 1.03% is very close to the threshold (1.0% Zn) of pulps subjected to GE_ICP21B20 to trigger re-assay with a more robust method GE_ICP21B100, i.e. a sample original assay of 0.99% Zn, will not trigger a more accurate result, when reviewed only 19 out of the 92 samples assayed over 1% Zn the threshold to trigger a re-assay with method.

Figure 11-9: Performance of OREAS-623 for Au value = 0.827ppm, n=92



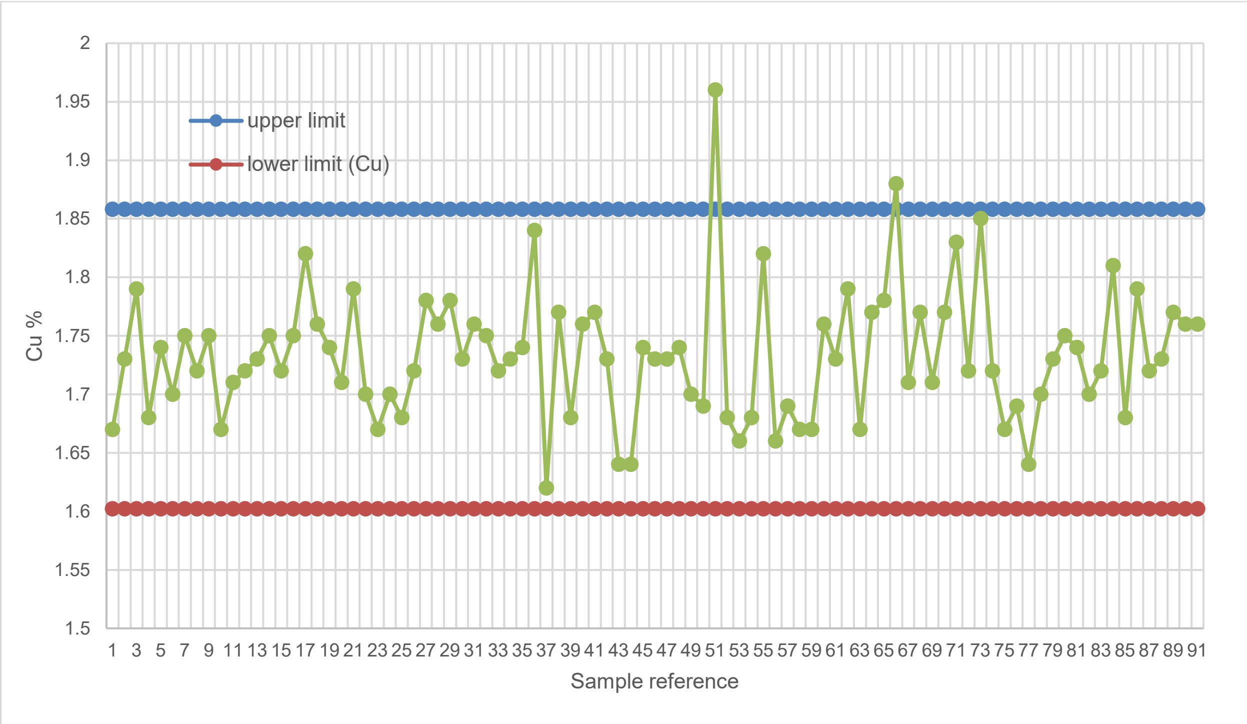
Source: Kirkham (2023)

Figure 11-10: Performance of OREAS-623 for Ag value= 20.4ppm, n=92



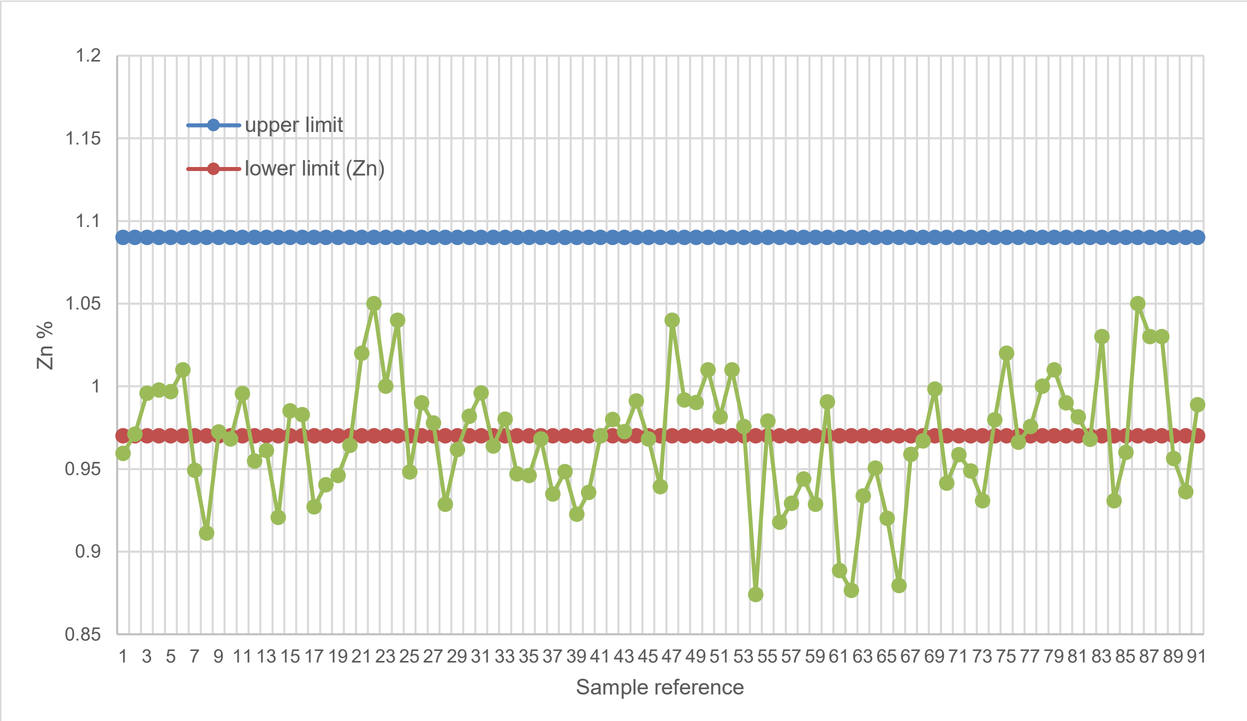
Source: Kirkham (2023)

Figure 11-11: Performance of OREAS-623 for Cu value =1.73% n=92



Source: Kirkham (2023)

Figure 11-12: Performance of OREAS-623 for Zn value = 1.03%, n=92

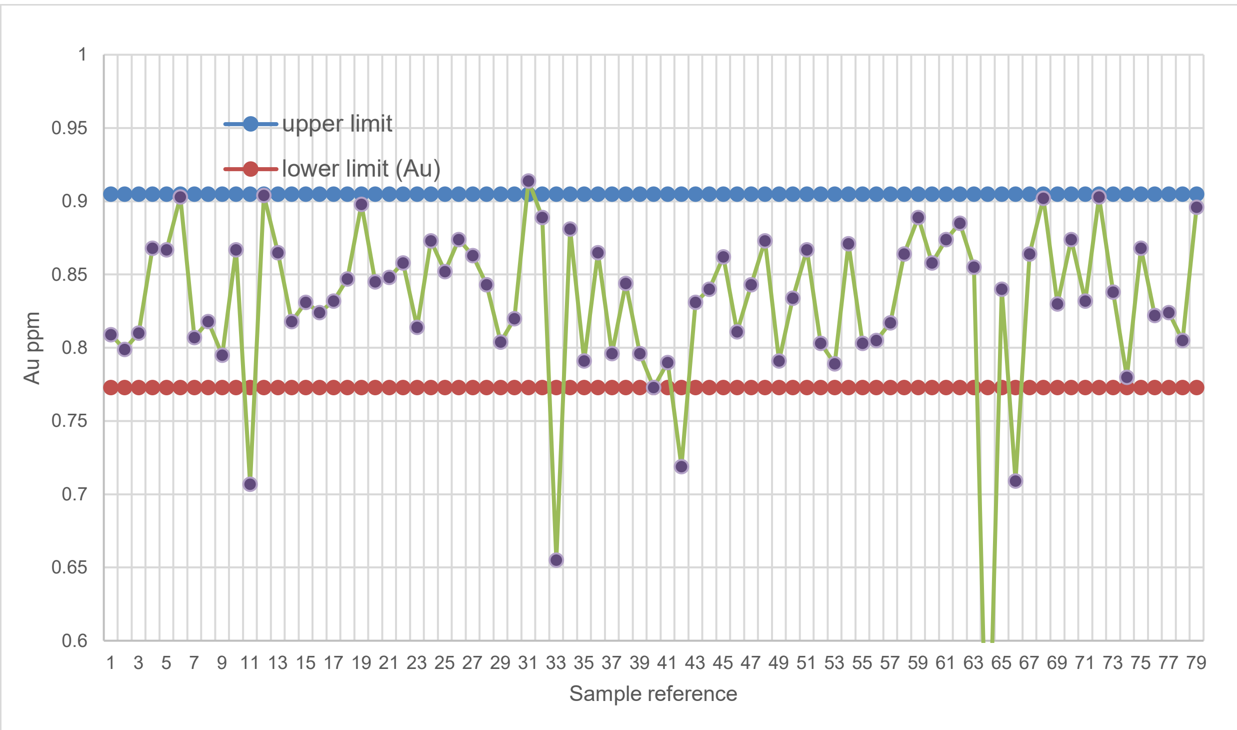


Source: Kirkham (2023)

11.3.4 Performance of CRM CND-ME-1311 at SGS Labs

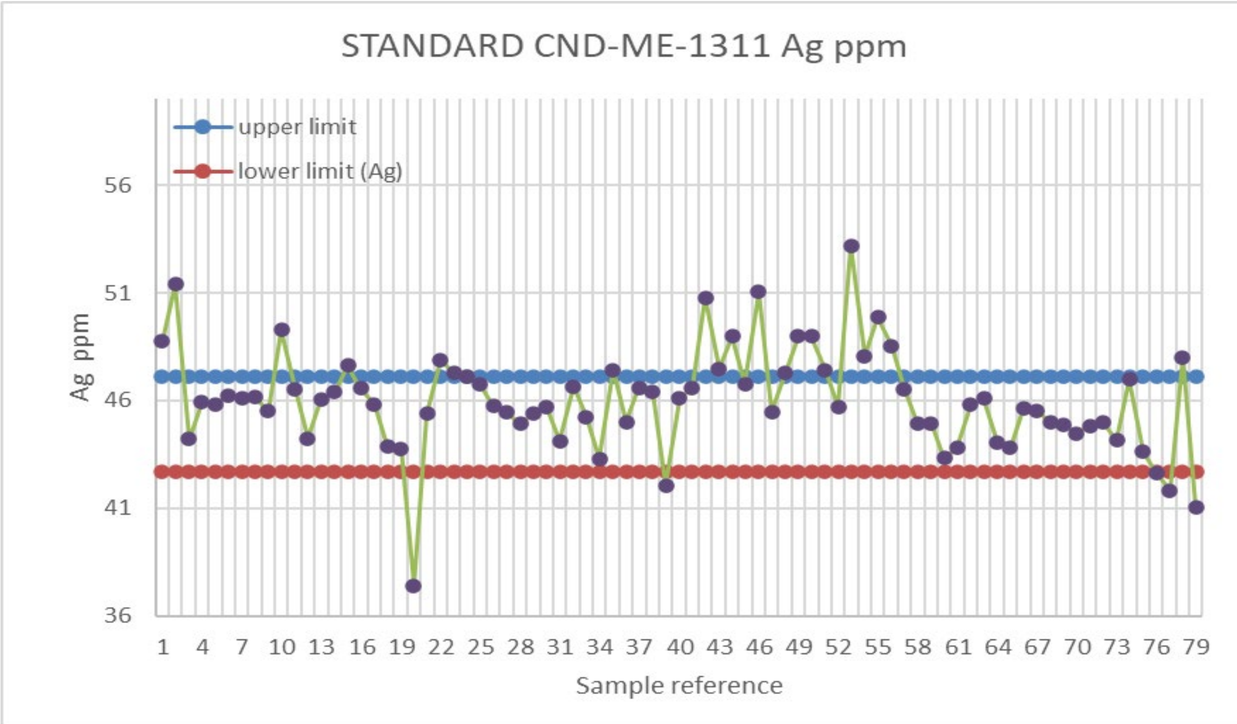
A total of 80 CND-ME-1311 standards were inserted randomly into the sample sequence as either the 10th, 30th, 50th, 70th, or 90th sample along with regular samples and submitted to SGS laboratories for an insertion rate of 1.3%. Each element (Au, Ag, Cu and Zn) is separately plotted below with their 2SD limits highlighted. Gold results show five (5) samples below the lower limit and one (1) sample above the upper limit. Silver results show 17 samples above and four (4) below the 2SD limits. Copper performed with two (2) above and nine (9) below the 2SD limits. Zinc performed with five (5) above 24 below the 2CD limits. Similar to above discussions, 13 samples originally assayed below 1% and did not trigger re-assay with a more robust method GE_ICP21B100.

Figure 11-13: Performance of CND- ME- 1311 for Au value = 0.839, n=80



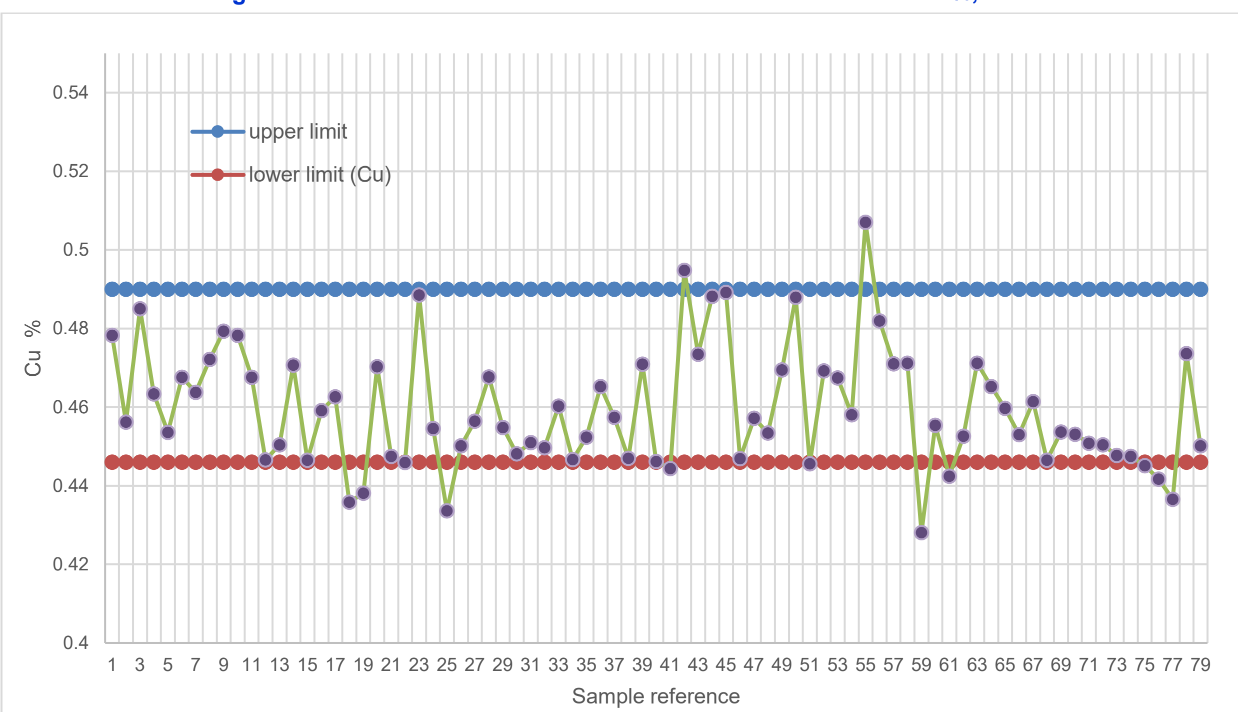
Source: Kirkham (2023)

Figure 11-14: Performance of CND- ME- 1311 for Ag value= 44.9, n=80



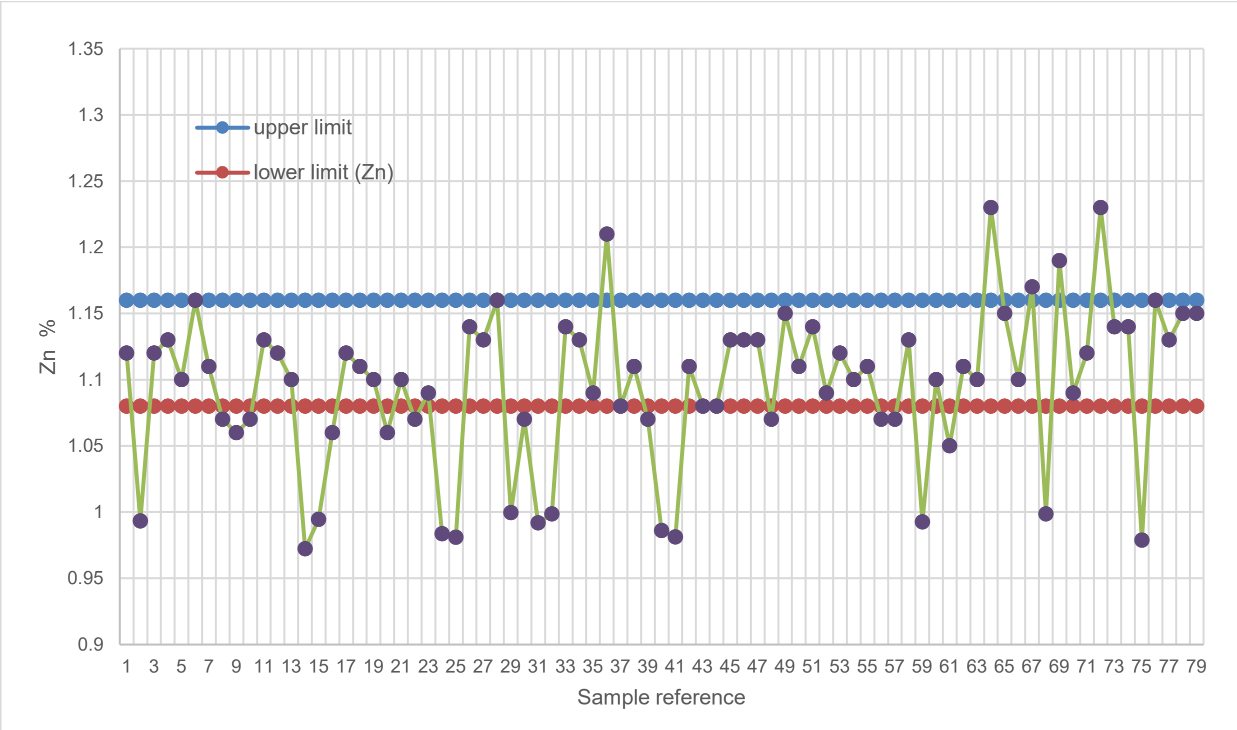
Source: Kirkham (2023)

Figure 11-15: Performance of CND- ME- 1311 for Cu value = 0.468%, n=80



Source: Kirkham (2023)

Figure 11-16: Performance of CND- ME- 1311 for Zn value = 1.12%, n=80

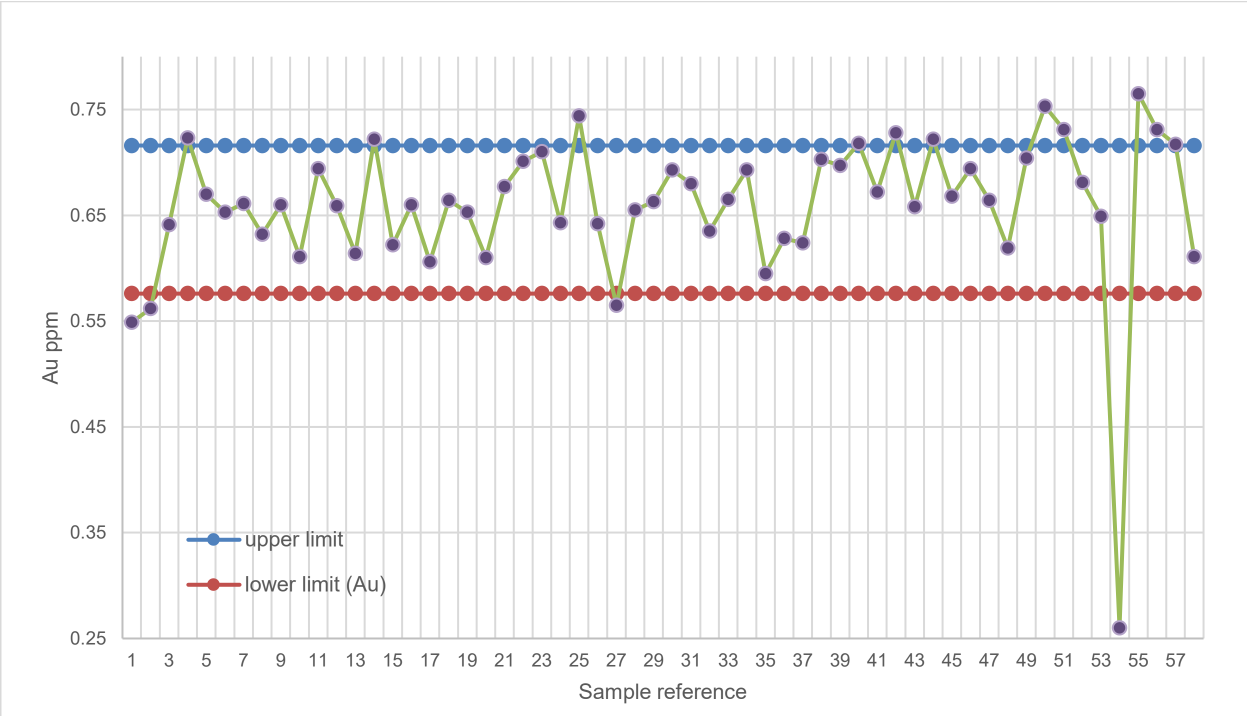


Source: Kirkham (2023)

11.3.5 Performance of CRM CND-ME-1409 at SGS Labs

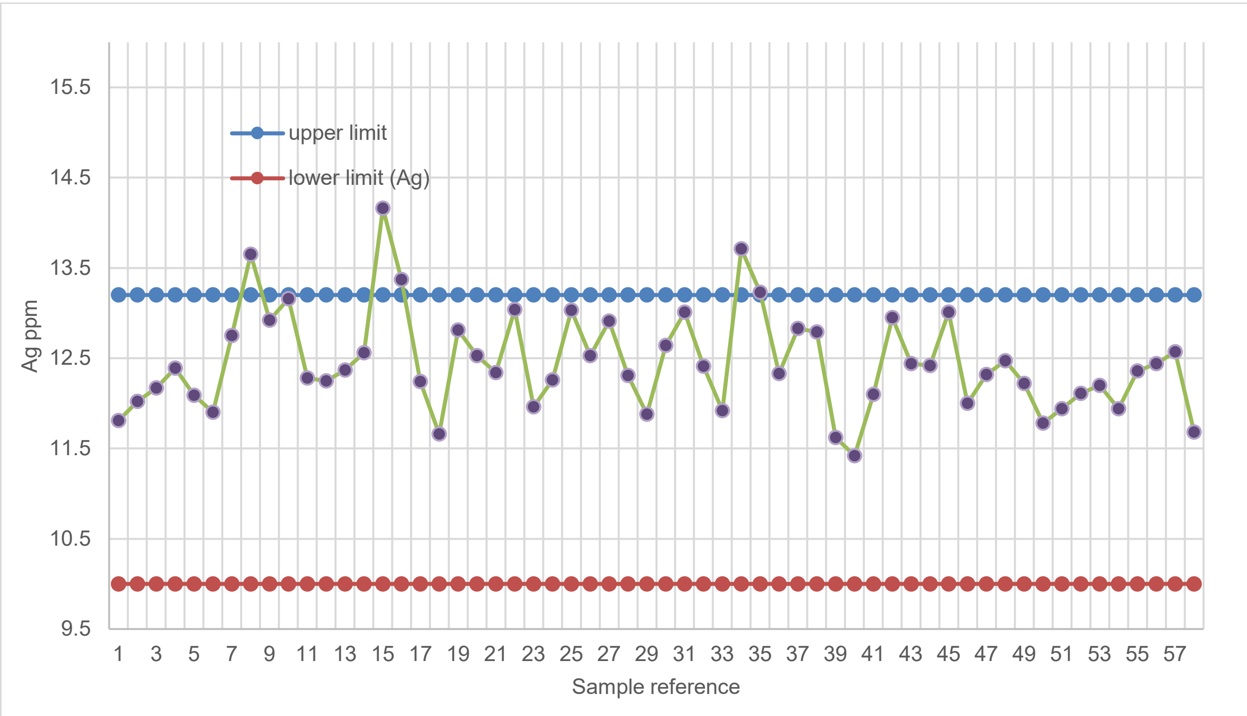
A total of 59 CND-ME-1409 standards were inserted randomly into the sample sequence as either the 10th, 30th, 50th, 70th, or 90th sample along with regular samples and submitted to SGS laboratories for an insertion rate of 1.0%. Each element (Au, Ag, Cu and Zn) is separately plotted below with their 2SD limits highlighted. Gold results show four (4) samples below the lower limit and nine (9) samples above the upper limit. Silver results show five (5) samples above and zero (0) below the 2SD limits. Copper performed with 13 above and three (3) below the 2SD limits. Zinc performed with zero (0) above and 19 below the 2SD limits.

Figure 11-17: Performance of CND- ME- 1409 for Au value =0.646ppm, n=59



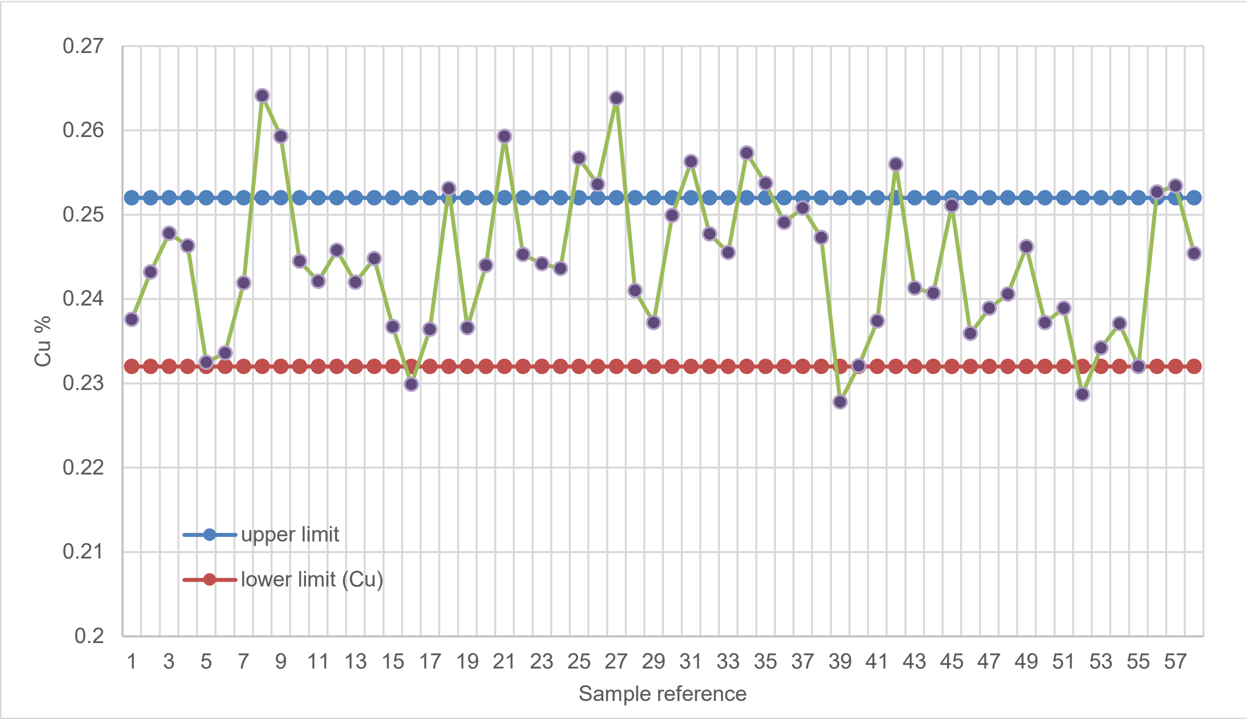
Source: Kirkham (2023)

Figure 11-18: Performance of CND- ME- 1409 for Ag value = 11.6ppm, n=59



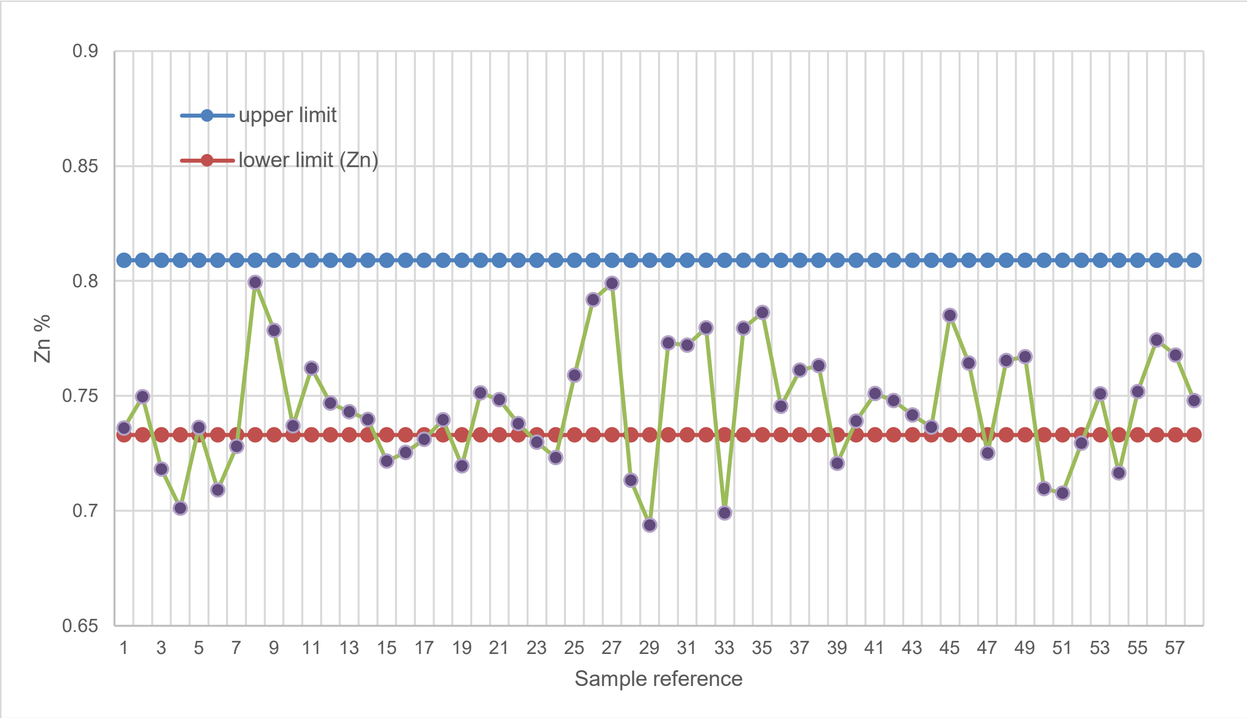
Source: Kirkham (2023)

Figure 11-19: Performance of CND- ME- 1409 for Cu value = 0.242%, n=59



Source: Kirkham (2023)

Figure 11-20: Performance of CND- ME- 1409 for Zn value = 0.771%, n=59

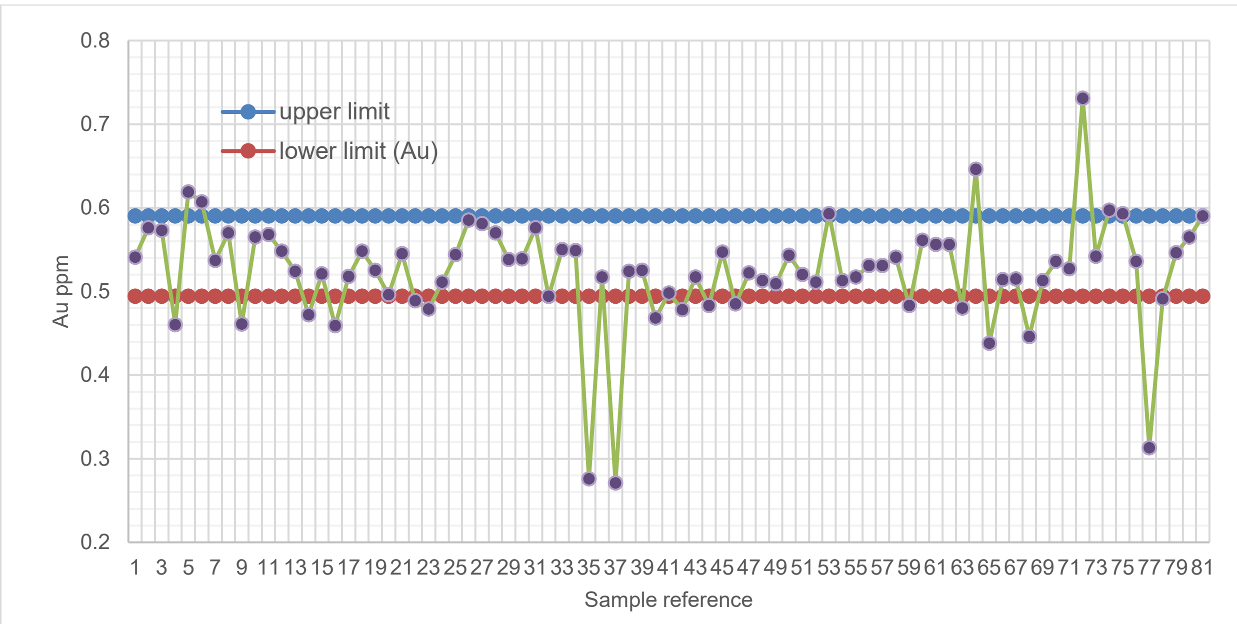


Source: Kirkham (2023)

11.3.6 Performance of CRM CND-ME-1410 at SGS Labs

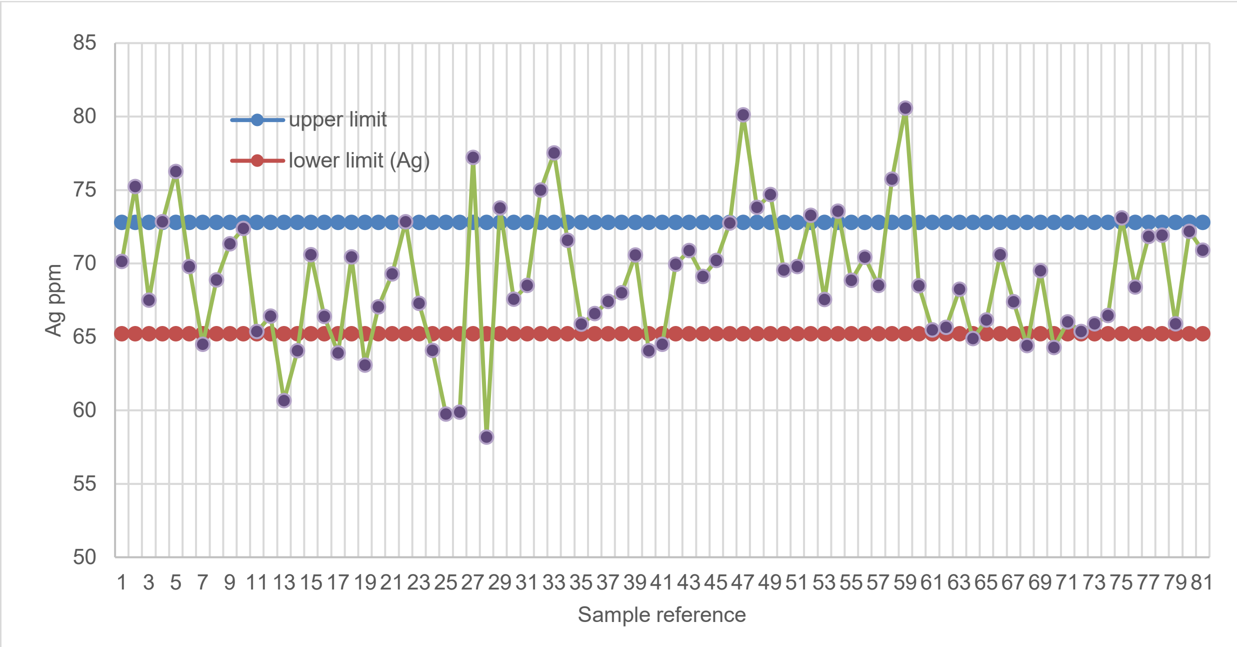
A total of 82 CND-ME-1410 standards were inserted randomly into the sample sequence as either the 10th, 30th, 50th, 70th, or 90th sample along with regular samples and submitted to SGS laboratories for an insertion rate of 1.4%. Each element (Au, Ag, Cu and Zn) is separately plotted below with their 2SD limits highlighted. Gold results show 16 samples below the lower limit and five (5) samples above the upper limit. Silver results show 13 samples above and 14 below the 2SD limits. Copper performed with three (3) above and 18 below the 2SD limits. Zinc performed with 20 above and 15 below the 2SD limits.

Figure 11-21: Performance of CND- ME- 1410 for Au value = 0.542ppm, n=82



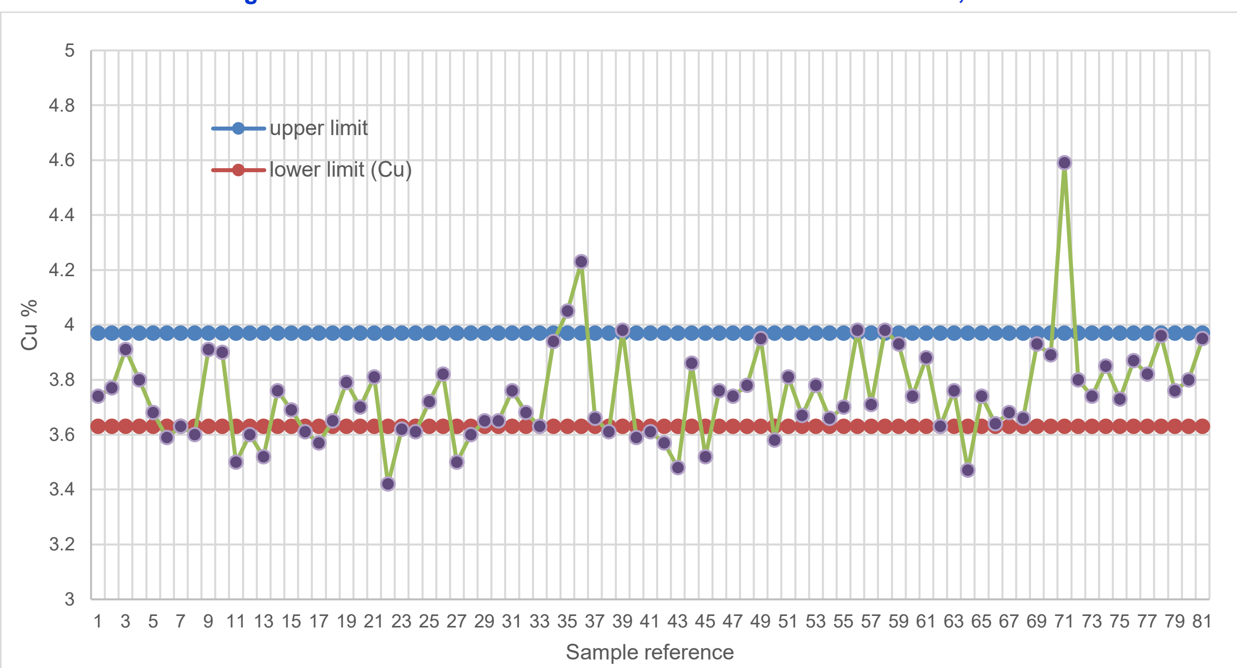
Source: Kirkham (2023)

Figure 11-22: Performance of CND- ME- 1410 for Ag value = 69 ppm, n=82



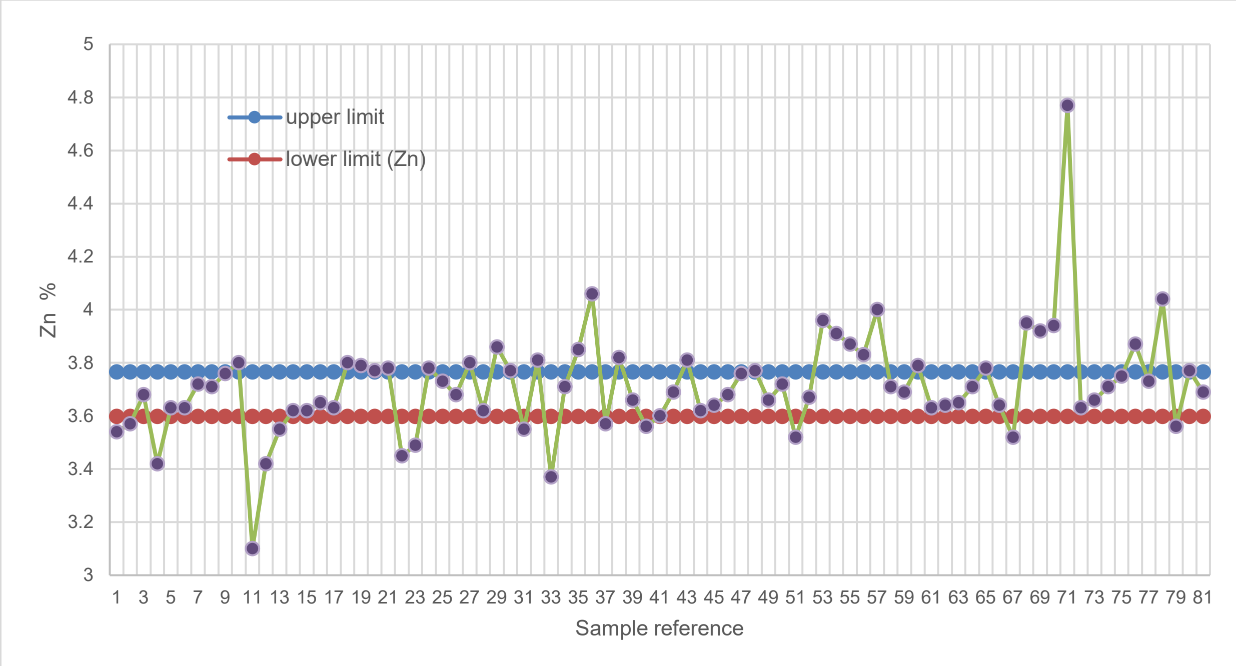
Source: Kirkham (2023)

Figure 11-23: Performance of CND- ME- 1410 for Cu value = 3.8%, n=82



Source: Kirkham (2023)

Figure 11-24: Performance of CND- ME- 1410 for Zn value = 3.682%, n=82

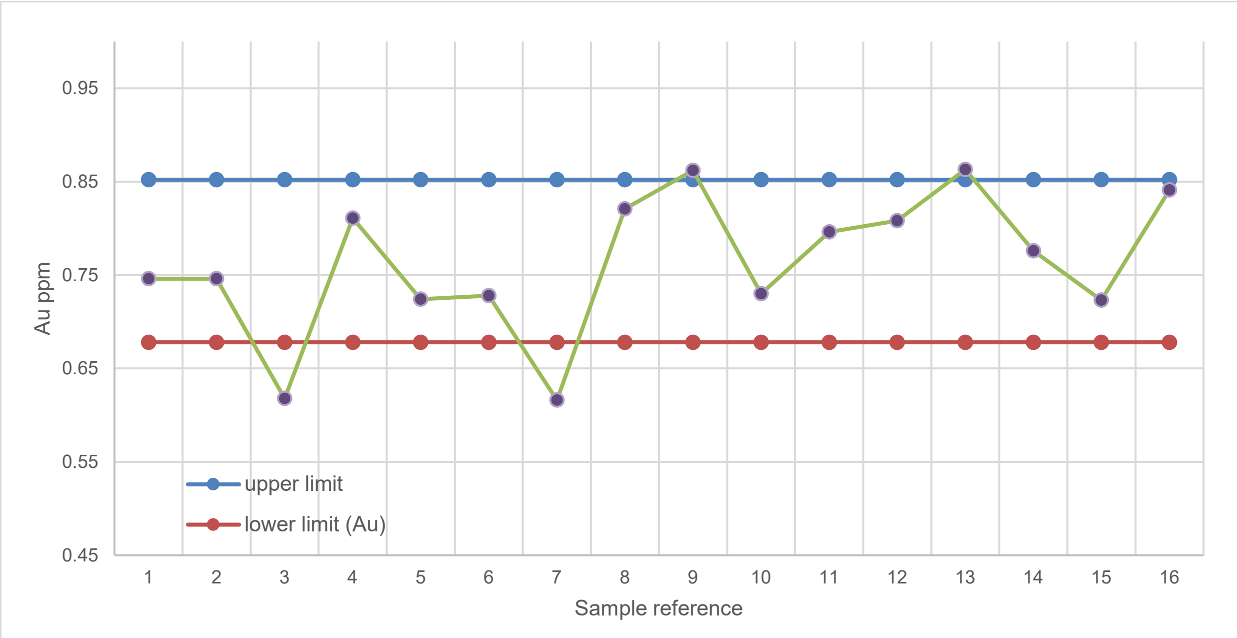


Source: Kirkham (2023)

11.3.7 Performance of CRM CND-ME-2101 at SGS Labs

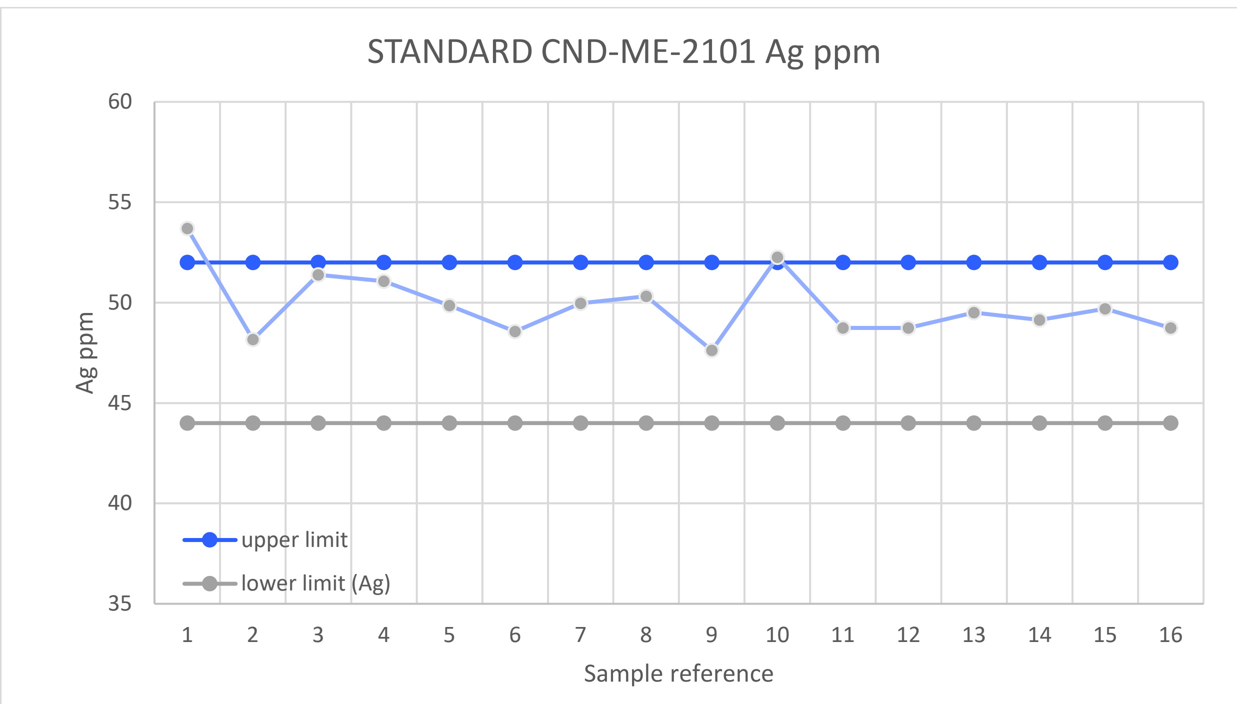
A total of 17 CND-ME-2101 standards were inserted randomly into the sample sequence as either the 10th, 30th, 50th, 70th, or 90th sample along with regular samples and submitted to SGS laboratories for an insertion rate of 0.3%. Each element (Au, Ag, Cu and Zn) is separately plotted below with their 2SD limits highlighted. Gold results show two (2) samples below the lower limit and two (2) samples above the upper limit. Silver results show two (2) samples above and zero (0) below the 2SD limits. Copper performed with two (2) above and zero (0) below the 2SD limits. Zinc performed with two (2) above and two (2) below the 2SD limits.

Figure 11-25: Performance of CND- ME- 2101 for Au value = 0.765ppm, n=17



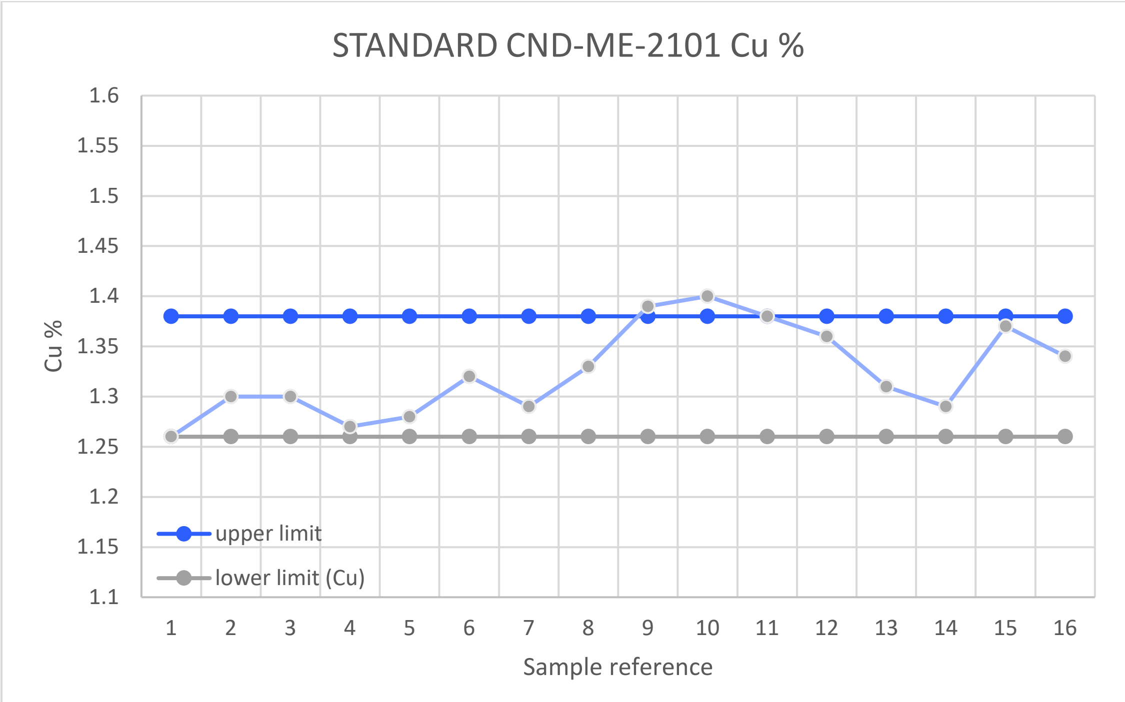
Source: Kirkham (2023)

Figure 11-26: Performance of CND- ME- 2101 for Ag value = 48ppm, n=17



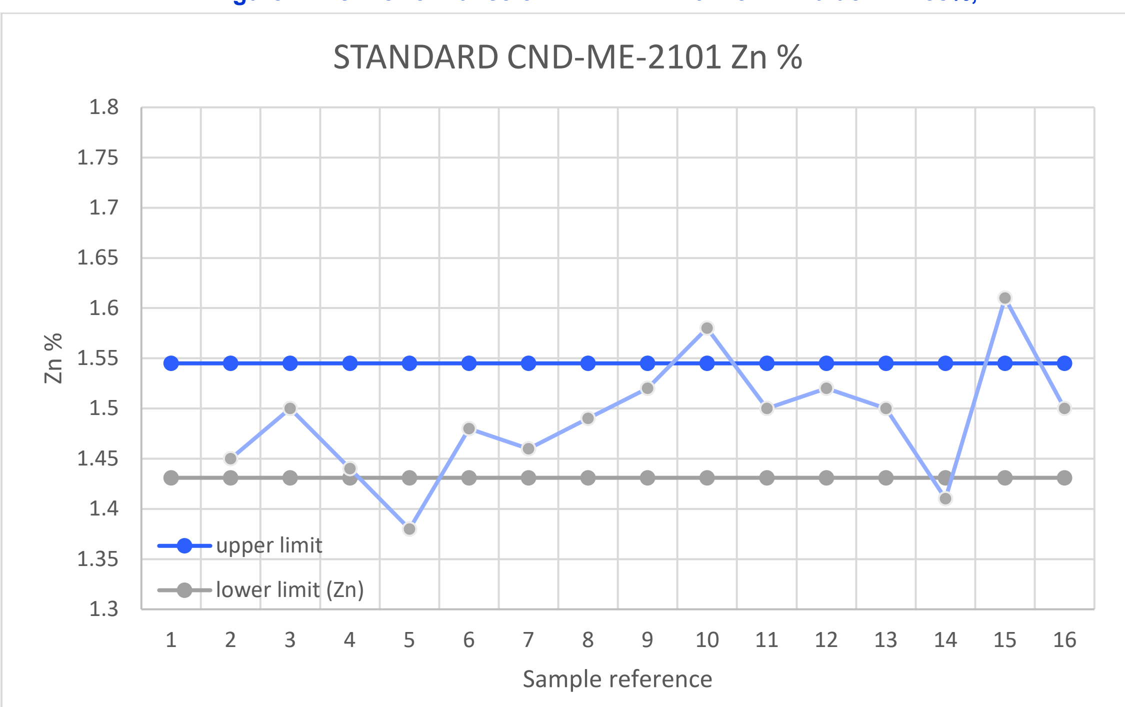
Source: Kirkham (2023)

Figure 11-27: Performance of CND- ME- 2101 for Cu value = 1.32%, n=17



Source: Kirkham (2023)

Figure 11-28: Performance of CND- ME- 2101 for Zn value = 1.488%, n=17

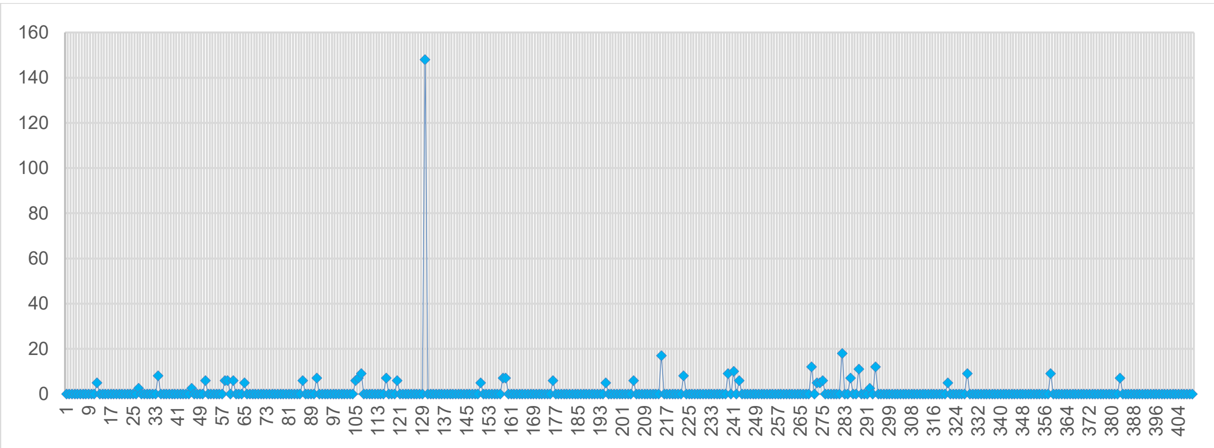


Source: Kirkham (2023)

11.3.8 Performance of blank CND-BL-10 at SGS Labs

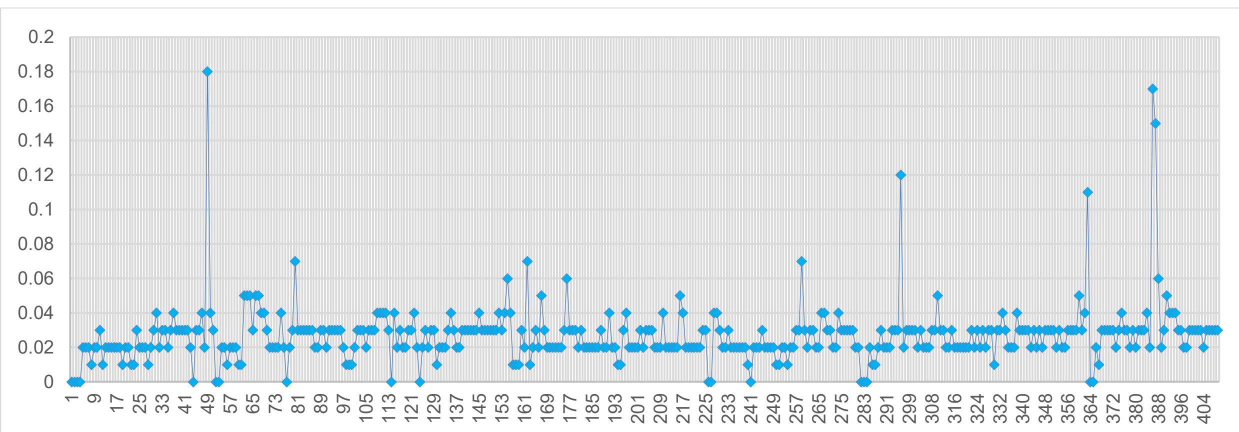
A total of 407 samples were submitted to SGS laboratories to perform assays for an insertion rate of 6.7% which were inserted into the sample sequence every 5th, 15th, 35th, 55th, 75th, and 95th sample. The data displays only a few samples suggesting contamination concerns, with majority of samples assayed showing clean processing results.

Figure 11-29: Performance of Blank CND- BL-10 for Au n=407



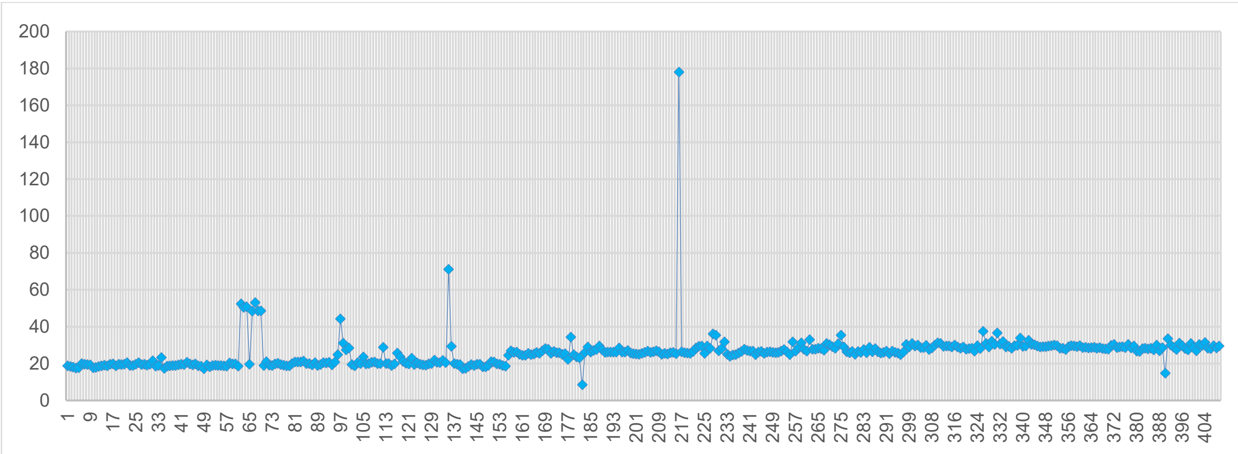
Source: Kirkham (2023)

Figure 11-30: Performance of Blank CND- BL-10 for Ag n=407



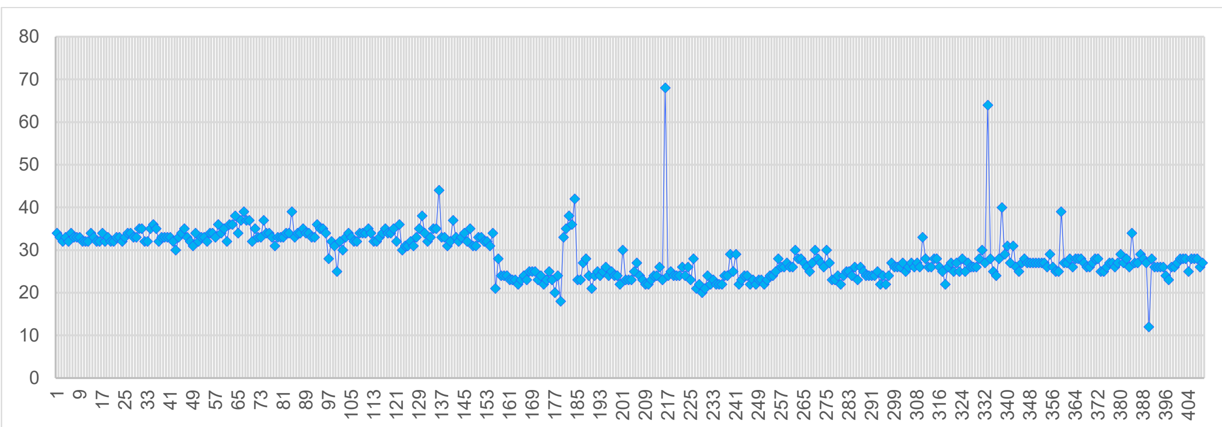
Source: Kirkham (2023)

Figure 11-31: Performance of Blank CND- BL-10 for Cu n=407



Source: Kirkham (2023)

Figure 11-32: Performance of Blank CND- BL-10 for Zn n=407



Source: Kirkham (2023)

11.4 Adequacy Statement

It is the opinion of the QP, Garth Kirkham, P.Geo., that the sampling preparation, security, analytical procedures and quality control protocols used by Callinex are consistent with generally accepted industry best practices and are therefore reliable for the purpose of resource estimation.

12 DATA VERIFICATION

The data verification performed included reviews of documentation and data sources, the previous Technical Report, site visit and data supplied by Callinex including drill hole data, geochemical data with assay certificates, preliminary lithology and domain models, along with internal reports. In addition, independent check sampling was performed by the author collected during the property inspection in 2022.

12.1 Site Visit & Verification

Prior to the property inspection, the author reviewed all collected data sources, company reports and publicly available information. The primary sources of data for inspection were the drill hole data, related assay data, QA/QC data and analyses, assay certificates for the 2020 to 2022 drill data. In addition, the Manitoba Government Assessment Reports authored by Callinex were reviewed. The author reviewed historic verification practices and procedures along with validating data analysis and results through data import and statistical analysis.

Garth Kirkham, P.Geo., is an independent Qualified Person in accordance with the requirements of NI 43-101. He is independent of Callinex and the Pine Bay Property. He has no interest in the companies, in the Property, or in any claims in the vicinity of the Property. Mr. Kirkham inspected the Pine Bay Property over five days from October 5 to 10, 2022. During the site inspection, the QP examined several core holes, drill logs and assay certificates. Assays were examined against drill core mineralized zones. The QP also inspected the offices, core logging/processing facilities as well as sampling procedures and core security.

The offices, core logging, and storage facilities showed a clean, well-organized, professional environment. Much of the drill core is cross stacked and easily accessible. There is also a significant amount of historic core that is organized in core racks. Most of the historic core has retained the original labelling, which is still readable, however there are instances where the labels are too weathered to recognize.

Callinex geological staff and on-site personnel led Mr. Kirkham through the chain of custody and methods used at each stage of the logging and sampling process. All methods and processes are to common industry standards and best practices, and no issues were identified.

Several drill holes were selected by Mr. Kirkham and laid out at the core logging and storage areas. Site staff supplied the logs and assay sheets for verification against the core and the logged intervals. The data correlated with the physical core and no issues were identified. In addition, Mr. Kirkham inspected the complete core storage facilities. No issues were identified, and core recoveries appeared to be very good.

12.2 Independent Sampling

A data validation and verification program has been undertaken in 2022 by the author which entailed taking independent check samples for drillholes at both Rainbow and Pine Bay.

A total of 15 samples from four (4) drill holes were selected in October 2022 from current and historic drillholes. Samples were collected by taking a quarter drill core, with the other quarter core remaining in the drill core box for the NQ core size, and full core were sampled from historic core as the EX core would not withstand the diamond cutting procedure Individual samples were placed in plastic bags with a uniquely numbered tag, after which all samples were collectively placed in a larger bag and delivered by the QP to the SGS laboratory in Burnaby, British Columbia for analysis.

Table 12-1 show the analytical results for the independent check sampling which are predominantly high-grade copper at Pine Bay while largely high-grade copper and zinc at Rainbow. Table 12-2 illustrates the results of QA/QC sampling which shows good performance for the blank and standard in addition to good repeatability as shown with the preparation duplicate.

Table 12-1: 2022 Verification Sampling Program Analytical Results

HOLE ID	Sample ID	From (ft)	To (ft)	Length (ft)	Cu ppm Check	Cu% Check	Au ppb Check	Au ppm Check	Ag ppm Check	Zn ppm Check	Zn% Check	Pb ppm Check	Pb% Check
U6-46	F00089951	**226**	**227**	**1**	>10000	1.71	6	0.006	0.83	61	0.006	3.3	0.000
U6-46	F00089952	**227**	**232**	**5**	>10000	2.88	22	0.022	2.09	34	0.003	57.2	0.006
U6-46	F00089953	**232**	**237**	**5**	>10000	1.35	25	0.025	1.02	26	0.003	22.6	0.002
U6-46	F00089954	**237**	**242**	**5**	7909	0.79	61	0.061	1.65	1146	0.115	62.1	0.006
U6-46	F00089956	**242**	**247**	**5**	>10000	1.54	24	0.024	1.24	58	0.006	17.5	0.002
U6-46	F00089957	**247**	**252.5**	**5.5**	62.8	0.01	14	0.014	0.09	228	0.023	8	0.001
U6-46	F00089958	**252.5**	**257.5**	**5**	6022	0.60	71	0.071	0.82	274	0.027	41.7	0.004
U6-46	F00089959	**257.5**	**262.5**	**5**	>10000	1.56	23	0.023	1.12	72	0.007	15.4	0.002
U6-46	F00089961	**262.5**	**267.5**	**5**	>10000	1.26	15	0.015	0.81	42	0.004	7.7	0.001
U6-46	F00089962	**267.5**	**273**	**5.5**	>10000	1.50	55	0.055	1.15	73	0.007	17.1	0.002
HOLE ID	**Sample ID**	**From (m)**	**To (m)**	**Length (m)**	**Cu ppm Check**	**Cu% Check**	**Au ppb Check**	**Au ppm Check**	**Ag ppm Check**	**Zn ppm Check**	**Zn% Check**	**Pb ppm Check**	**Pb% Check**
PBM-113W1	F00089963	834.1	835.1	1	>10000	8.84	3100	3.1	20.31	>10000	3.86	120	0.012
PBM-113W1	F00089964	770.6	771.6	1	>10000	7.32	1360	1.36	21.5	>10000	3.44	2202	0.22
PBM-147	F00089965	117.31	118	0.69	3483	0.35	521	0.521	6.69	>10000	3.58	357	0.04
PBM-147	F00089967	202	203	1	173	0.02	91	0.091	8.85	9727	0.97	5719	0.57
PBM-138W1	F00089968	668	669	1	>10000	8.23	733	0.733	12.04	6655	0.67	63.3	0.01

Source: Kirkham (2023)

Table 12-2: Verification Sampling Program QA/QC Results

QA/QC Type	Sample	Sample#	From	To	Length (ft)	Cu ppm	Cu%	Au ppb	Ag ppm	Zn ppm	Pb ppm
Blank	QA/QC	F00089955				30.5		<5	0.03	27	2.6
CDN-ME-1410	QA/QC	F00089966				>10000	3.83	570	68.18	>10000	2603

Original	U6-46	F00089959	**257.5**	**262.5**	**5**	>10000	1.56	23	1.12	72	15.4
Prep Dup	QA/QC	F00089960				>10000	1.48	22	1.08	66	16.1

Source: Kirkham (2023)

Table 12-3 shows the comparison of verification assay sampling (blue) to the original sampling (green) illustrates very good agreement providing confidence with respect to not only the existence of significant mineralization but also in the relative reproducibility of the assay results.

Table 12-3: 2022 Verification Sampling Results – Original (green) vs Check (blue) Samples

HOLE ID	From (m)	To (m)	Length (m)	CU% Original	AU ppm Original	AG ppm Original	ZN% Original	PB% Original	Cu% Check	Au ppm Check	Ag ppm Check	Zn% Check	Pb% Check
PBM-113W1	834.1	835.1	1	9.5	2.42	26.88	4.49	0.01	8.84	3.1	20.31	3.86	0.012
PBM-113W1	770.6	771.6	1	4.27	0.80	15.64	2.16	0.14	7.32	1.36	21.5	3.44	0.22
PBM-147	117.31	118	0.69	0.4	0.33	9.29	4.47	0.03	0.35	0.521	6.69	3.58	0.04
PBM-147	202	203	1	0.01	0.09	13.45	1.22	0.51	0.02	0.091	8.85	0.97	0.57
PBM-138W1	668	669	1	7.16	0.55	9.98	0.57	0.01	8.23	0.733	12.04	0.67	0.01

Source: Kirkham (2023)

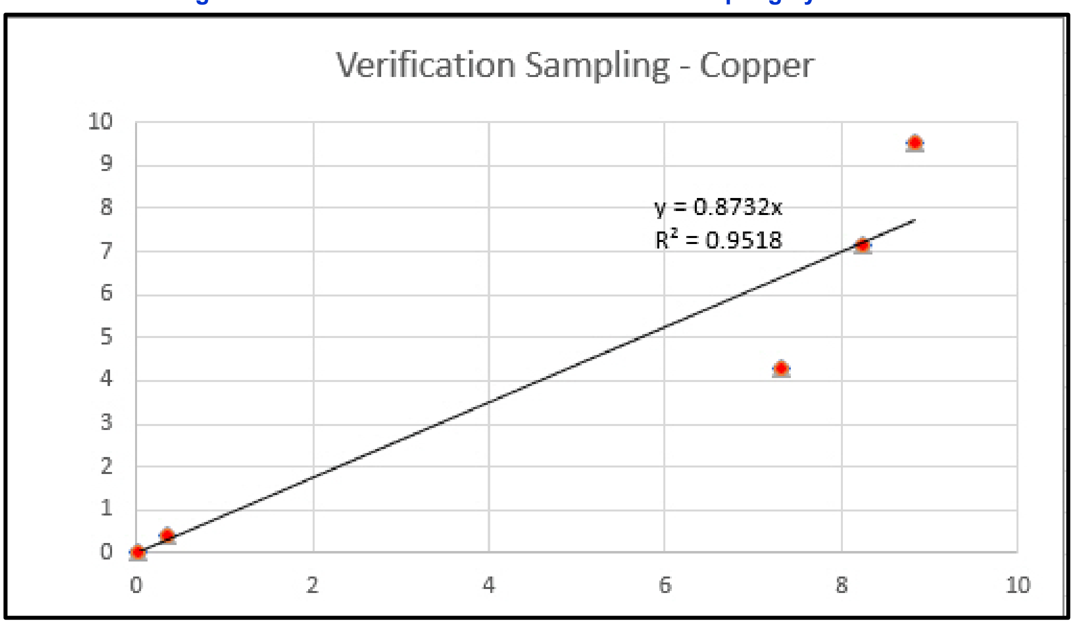
Table 12-4 provides the relatives differences between the original (green) and check sampling (blue) illustrating that there is no bias, particularly to the high side, for the original data and on average the differences are reasonable and within acceptable limits. Figure 12-1 through to Figure 12-5 also give a graphical representation of the copper, zinc, lead, gold and silver, respectively. All exhibit R2 > 0.92 which is an excellent correlation for the data verification program.

Table 12-4: 2022 Verification Sampling Results – Original (green) vs Check (blue) Samples

HOLE ID	Cu%	Au ppm	Ag ppm	Zn%	Pb%
PBM-113W1	7%	-22%	32%	16%	-17%
PBM-113W1	-42%	-41%	-27%	-37%	-35%
PBM-147	15%	-37%	39%	25%	-16%
PBM-147	-42%	-1%	52%	25%	-11%
PBM-138W1	-13%	-25%	-17%	-14%	58%
Mean Difference	**-15%**	**-25%**	**16%**	**3%**	**-4%**

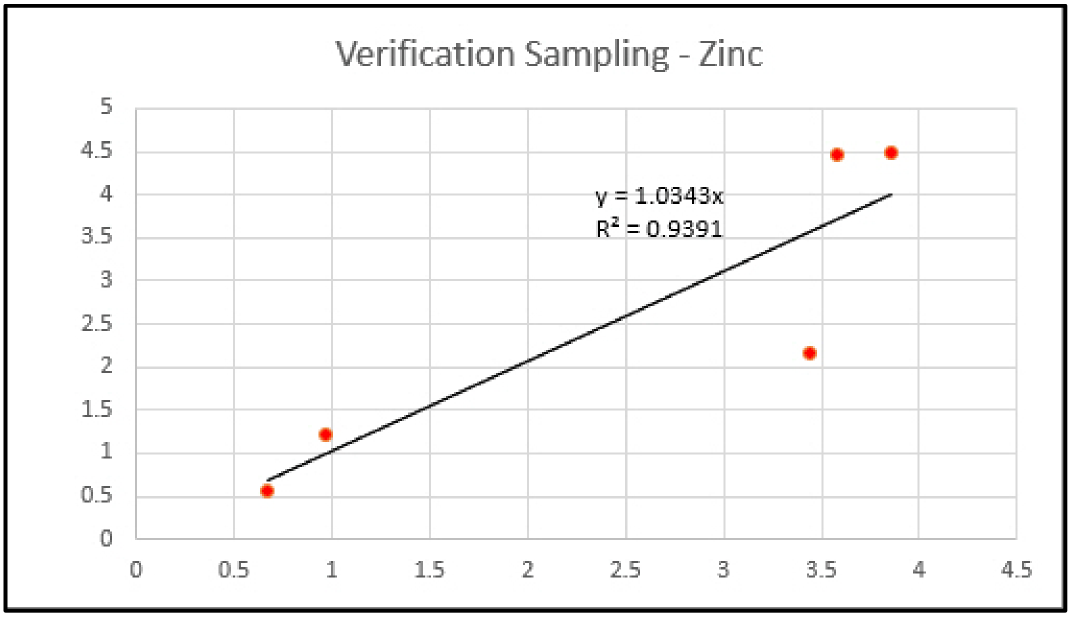
Source: Kirkham (2023)

Figure 12-1: Results of 2022 Cu Verification Sampling by Author



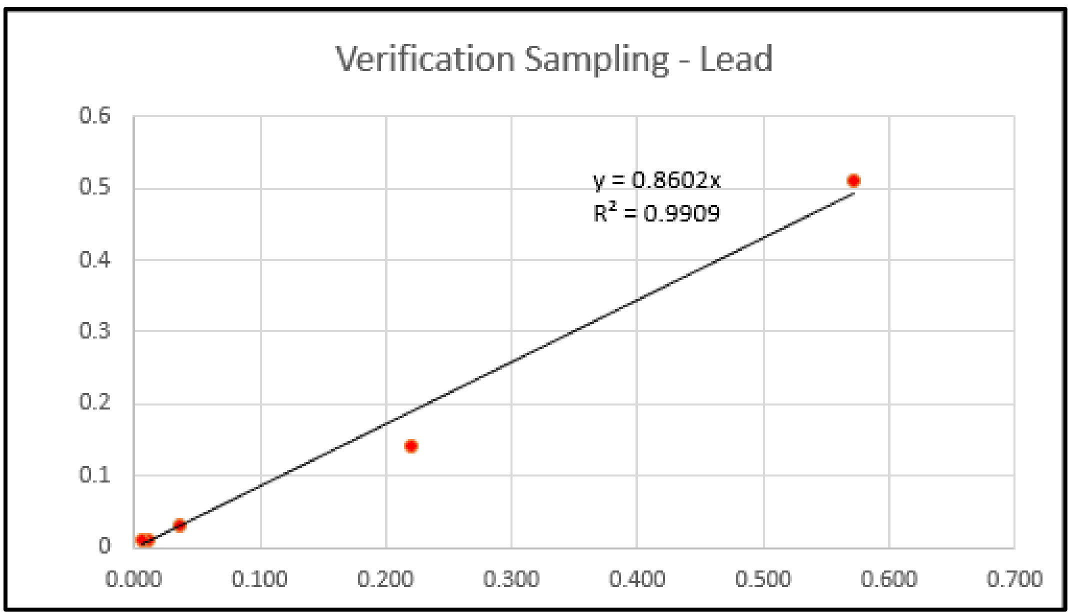
Source: Kirkham (2023)

Figure 12-2: Results of 2022 Zn Verification Sampling by Author



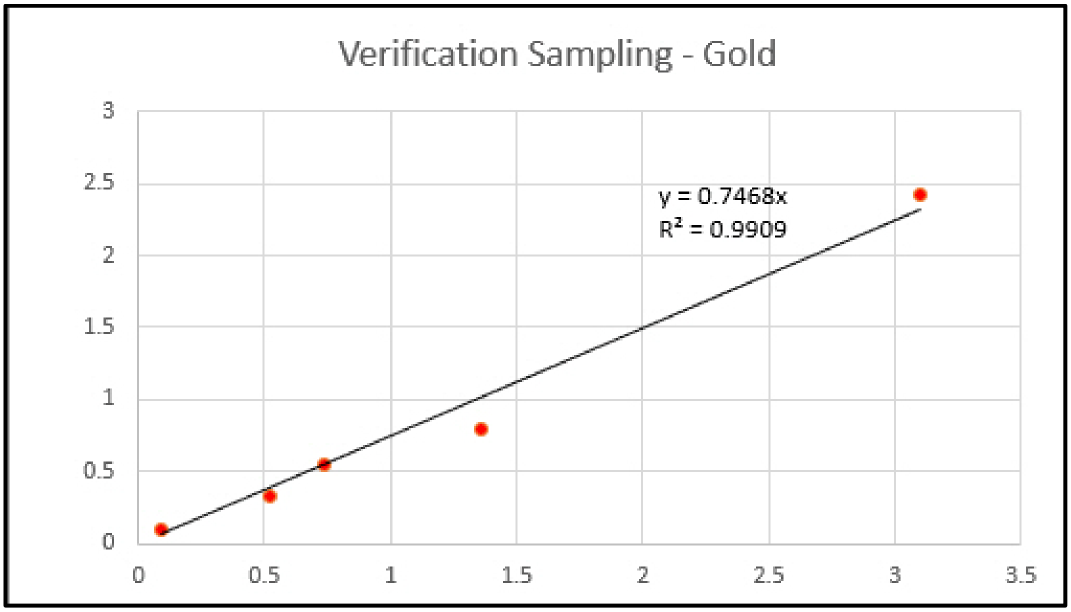
Source: Kirkham (2023)

Figure 12-3: Results of 2022 Pb Verification Sampling by Author



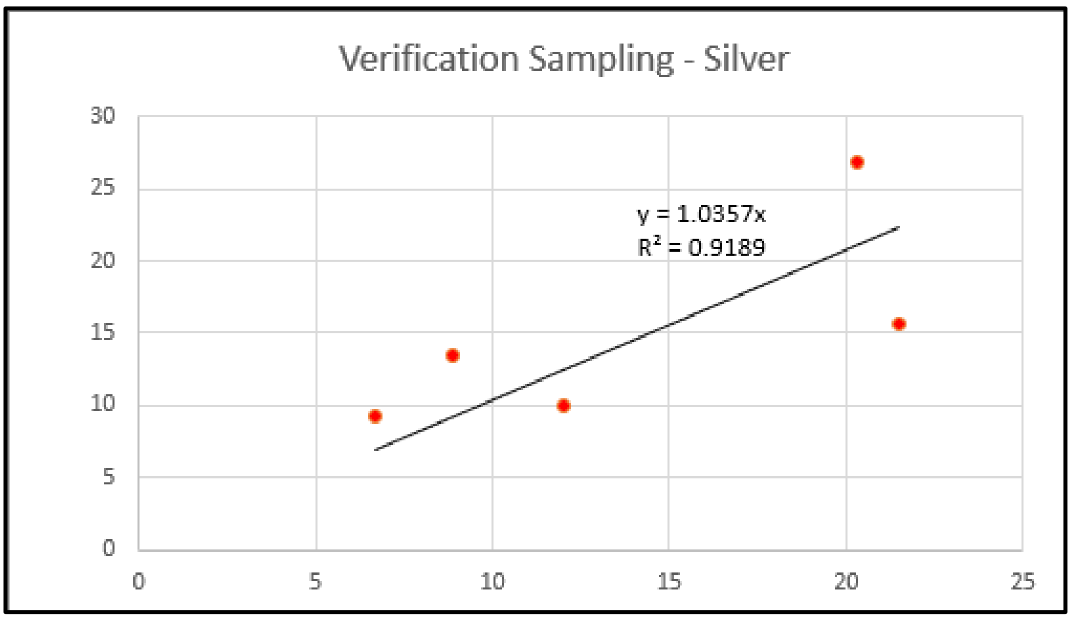
Source: Kirkham (2023)

Figure 12-4: Results of 2022 Au Verification Sampling by Author



Source: Kirkham (2023)

Figure 12-5: Results of 2022 Ag Verification Sampling by Author



Source: Kirkham (2023)

In addition, although iron over limits were not performed on the data verification data set, the comparison, as shown in Table 12-5, is clearly indicative of good agreement between the datasets.

Table 12-5: 2022 Verification Sampling Program Fe% Results

HOLE ID	Sample_ID	Fe Check	FE Original
PBM-113W1	F00089963	>15000	39.75
PBM-113W1	F00089964	>15000	22.46
PBM-147	F00089965	>15000	25.5
PBM-147	F00089967	9.46	9.12
PBM-138W1	F00089968	>15000	40.16

Source: Kirkham (2023)

The verification samples taken at Pine Bay, shown in Table 12-6, also demonstrate the presence of significant mineralization. Furthermore, the database did not have sample entries for hole U-46 so comparisons to historic data could not be drawn. As such, the samples for this hole were set to 'missing' in the database which are subsequently set to 0.000 for the purpose of the resource estimation. Figure 12-6 shows the effect that setting this hole to null had on the estimation such that the copper grades are significantly depleted. It is clear that U-46 has the same degree of mineralization as the adjacent data illustrating that the model is under estimation within this section of the domain. Therefore, drilling this area, along with other underrepresented sections of the Pine Bay deposit poses opportunities for additional resources at increased confidence levels.

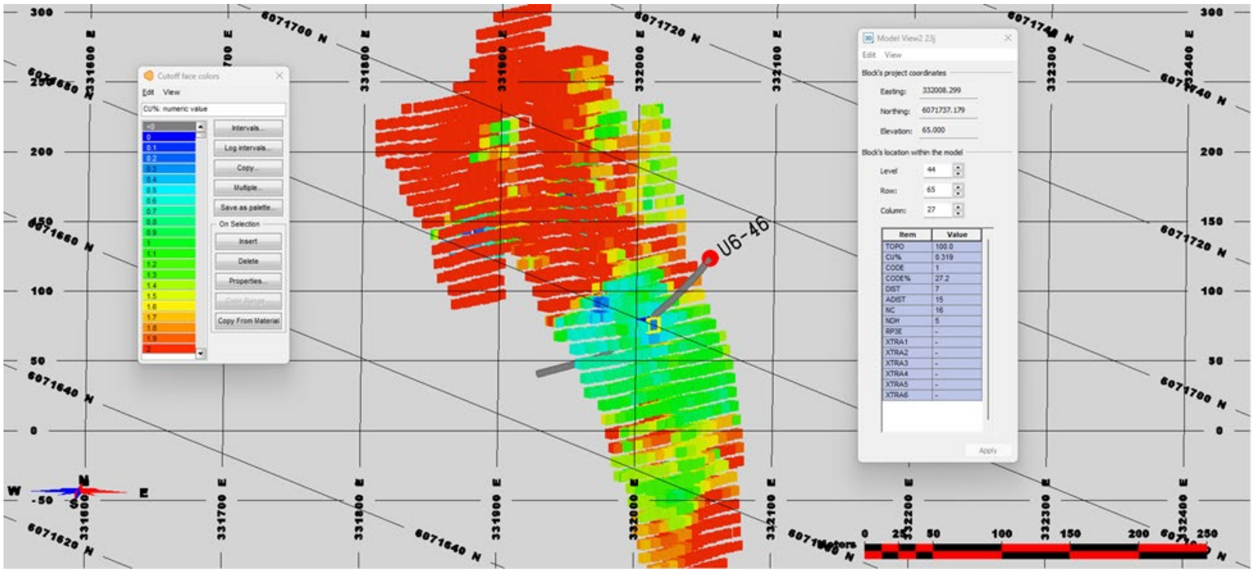
This information also confirms that the contribution of zinc, lead, silver and gold to the Pine Bay deposit resource is unlikely to be significant.

Table 12-6: Results of 2022 Verification Sampling by Author for the Pine Bay Deposit

HOLE ID	From (ft)	To (ft)	Length (ft)	Cu% Check	Au ppm check	Ag ppm Check	Zn% Check	Pb% Check
U6-46	**226**	**227**	**1**	1.71	0.006	0.83	0.006	0.000
U6-46	**227**	**232**	**5**	2.88	0.022	2.09	0.003	0.006
U6-46	**232**	**237**	**5**	1.35	0.025	1.02	0.003	0.002
U6-46	**237**	**242**	**5**	0.79	0.061	1.65	0.115	0.006
U6-46	**242**	**247**	**5**	1.54	0.024	1.24	0.006	0.002
U6-46	**247**	**252.5**	**5.5**	0.01	0.014	0.09	0.023	0.001
U6-46	**252.5**	**257.5**	**5**	0.60	0.071	0.82	0.027	0.004
U6-46	**257.5**	**262.5**	**5**	1.56	0.023	1.12	0.007	0.002
U6-46	**262.5**	**267.5**	**5**	1.26	0.015	0.81	0.004	0.001
U6-46	**267.5**	**273**	**5.5**	1.50	0.055	1.15	0.007	0.002

Source: Kirkham (2023)

Figure 12-6: Results of 2022 Cu% Verification Sampling by Author for the Pine Bay Deposit



Source: Kirkham (2023)

12.3 Drill Hole Database

Verification of the Pine Bay Property drill hole assay database for copper, zinc, lead, gold and silver along with iron, by way of comparison of the database entries utilized as the source for the MRE, with original assay certificates.

A total of 6,018 assay values, which represent all assay data from the Rainbow deposit resource database, were validated and verified against original assay certificates. Results showed that no errors, omissions or transposition issues were discovered.

12.4 Adequacy Statement

The QP is confident that the data and results are valid based on the site visits and inspection of all aspects of the Project, including the methods and procedures used. It is the opinion of Mr. Kirkham that all work, procedures, and results have adhered to best practices and industry standards as required by NI 43-101. It is the opinion of Mr. Kirkham that the data used for estimating the current mineral resources for the Pine Bay Project is adequate for this Resource Estimate and may be relied upon to report the mineral resources contained in this report.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

This maiden MRE assumes various Pine Bay Project production processing parameters including metallurgical recoveries of 80% Cu, 80% Zn, 40% Au and 40% Ag. As there is no mineralogical or metallurgical test work available, the assumptions were based on comparison with VMS base metal mines in the FFGB, containing Cu, Zn, Au, and Ag. The maiden MRE metallurgical assumptions are considered by the author to be reasonable with potential to improve particularly the precious metal recoveries.

The proposed future mineralogical and metallurgical test work program is shown in Section 26, together with a recommended budget. The recommended test work program will confirm the MRE metallurgical assumptions and provide input for development of a concentrator flowsheet for the base option of a dedicated Project site concentrator.

The recommended test work program results will also assist in determination of metallurgical results if the Project future production is transported to a remote concentrator for processing, owned by others.

The mineralogical and metallurgical test work will include separate test work for predominant Cu and Zn production content as well as blended samples as well as characterizing expected production grades. Samples are expected to be compiled from drill core selected from both the Rainbow and Pine Bay deposits as well as from zones within each deposit where mineralogical and metallurgical characteristics may vary.

Initiation of the recommended mineralogical and metallurgical test work program is expected to be prior to the start of a PEA or other Project economic evaluation technical report but consistent with exploration activities currently underway that may result in expansion of existing deposits or discovery of new deposits.

13.1 Recovery Methods

This maiden MRE technical report includes the Rainbow deposit, which is open for expansion, in addition to the Pine Bay deposit located in close proximity to the Rainbow deposit. Both Pine Bay Project deposits are VMS and contain significant Cu, Zn, Au, and Ag, typical of numerous similar deposits previously mined in the FFGB.

This maiden MRE assumes mineral and metallurgical parameters including recoveries to metal of 80% Cu, 80% Zn, 40% Au and 40% Ag (excluding any Pb recovery). As there is no metallurgical test work available, these maiden MRE recovery assumptions were based on a comparison with similar VMS base metal mineral deposits containing Cu, Zn, Au, and Ag, mined in the FFGB. Fortunately, the FFGB has many examples of similarly mined deposits. Based on these FFGB mined mineral deposits, the metallurgical assumptions used in this maiden MRE Technical Report are considered reasonable, with potential to increase particularly precious metal recoveries.

The metallurgical assumptions used in this maiden MRE are based on the traditional FFGB mineral concentration of crushing, grinding, flotation and production of copper and zinc concentrates also containing precious metals. Concentrates produced will be transported by rail to Canadian or US metallurgical plants for processing to metal. While metallurgical facilities for treatment of copper and zinc concentrates are present in Flin Flon, Manitoba, they are both closed.

Future recommended mineralogical and metallurgical test work will also explore opportunities for lower emissions by leaching production from the Project. Test work is however expected to primarily focus on the traditional concentration methodology employed in the FFGB and will determine the basis for the on-site concentrator flow sheet to generate copper and zinc concentrates together with the concentrate quality parameters.

The base option for production concentration is approximately 1,500 tpd dedicated on-site concentrator. Opportunities will be evaluated for trucking the Project production to remote concentrators for processing including the Flin Flon concentrator, Snow Lake concentrators and the Hanson Lake concentrator, after construction. Evaluation of these potential opportunities for use of remote concentrators will be by future trade-off studies. The trade-off studies will likely use the recommended test work results, truck haulage cost, tolling fees, capacity availability and alignment by owners as key parameters to compare with the base option of a dedicated on-site concentrator.

The metallurgical assumptions used in this maiden MRE are considered reasonable, whether the Project future production is concentrated at a dedicated on-site concentrator or at a remote concentrator owned by others.

Since 1931 there have been numerous VMS base metal mineral deposits mined in the FFGB, which are similar to the Pine Bay Project, with most production concentration at either the Flin Flon concentrator or the Stall concentrator in Snow Lake. Previously mined deposits with distinct similarities to the Pine Bay Project maiden MRE include Konuto Lake, Reid Lake and North Star / Don Jon mines.

The Flin Flon concentrator is currently in care and maintenance following closure of Hudbay Minerals Inc.'s 777 Mine in late 2022, while the Stall concentrator as well as the New Britannia concentrator, both in Snow Lake, continue to operate.

The Flin Flon concentrator is approximately 25 km by road from the Pine Bay Project while the Snow Lake concentrators are approximately 190 km by road, and the potential future Hanson Lake, Foran McIlvenna Bay concentrator will be approximately 125 km by road.

14 MINERAL RESOURCE ESTIMATE

14.1 Introduction

The purpose of this report is to document the resource estimations for the Pine Bay deposit. This section describes the work undertaken by Kirkham Geosystems Ltd. (KGL), including key assumptions and parameters used to prepare the mineral resource models for Rainbow and Pine Bay deposit which constitute the Pine Bay Project currently. This is a first-time resource estimate for both deposits. The resources are reported using copper cut-offs which are based upon current reasonable commodity pricing and operating costs.

14.1.1 Highlights:

- Rainbow deposit Indicated Mineral Resource of 3.44 Mt at 3.59% CuEq and Inferred Mineral Resource of 1.28 Mt at 2.95% CuEq; and
- Pine Bay deposit Inferred Mineral Resource of 1.0 Mt at 2.62% Cu.

The mineral resource estimate, contained within the mineral lease, consists of the Rainbow deposit with an Indicated Mineral Resource of 3.44 Mt at 3.59% copper equivalent (“CuEq”) containing 272.4 Mlb CuEq (comprised of 238.3 Mlb Cu, 56.9 Mlb Zn, 37.6 koz Au, 692.8 koz Ag, 2.3 Mlb Pb), an Inferred Mineral Resource of 1.28 Mt at 2.95% CuEq containing 83.4 Mlb CuEq (comprised of 72.1 Mlb Cu, 19.5 Mlb Zn, 11.1 koz Au, 222.2 koz Ag, 0.8 Mlb Pb) and the Pine Bay deposit with an Inferred Mineral Resource of 1.0 Mt at 2.62% Cu containing 58.1 Mlb Cu.

Table 14-1 and Table 14-2 shows a summary of the Project Resource Estimate Summary at 1.3% CuEq Base Case Cut-off.

Table 14-1: Rainbow Deposit Indicated Mineral Resource

Resource Area	Tonnes (,000)	Cu %	Au g/t	Zn %	Ag g/t	Pb %	Cu Mlb	Au koz	Zn Mlb	Ag koz	Pb Mlb	CuEq %	CuEq Mlb
Rainbow	3,442	3.14	0.34	0.75	6.26	0.03	238.3	37.6	56.9	692.8	2.3	3.59	272.4

Source: Kirkham (2023)

Table 14-2: Rainbow Deposit and Pine Bay Deposit Inferred Mineral Resource

Resource Area	Tonnes (,000)	Cu %	Au g/t	Zn %	Ag g/t	Pb %	Cu Mlb	Au koz	Zn Mlb	Ag koz	Pb Mlb	CuEq %	CuEq Mlb
Rainbow	1,282	2.55	0.27	0.69	5.39	0.03	72.1	11.1	19.5	222.2	0.8	2.95	83.4
Pine Bay	1,006	2.62	N/A	N/A	N/A	N/A	58.1	N/A	N/A	N/A	N/A	2.62	58.1
Total	**2,288**	**2.58**	**–**	**–**	**–**	**–**	**130.2**	**11.1**	**19.5**	**222.2**	**0.8**	**2.8**	**141.5**

Source: Kirkham (2023)

Notes:

1. Mineral Resources, which are not Mineral Reserves, do not have demonstrated economic viability.
2. The estimate of Mineral Resources may be materially affected by environmental permitting, legal title, taxation, socio-political, marketing or other relevant issues.
3. The Mineral Resources in this press release were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Standards on Mineral Resources and Reserves, Definitions (2014) and Best Practices (2019) prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council. It cannot be assumed that all or any of the inferred mineral resources will be upgraded to indicated measured resources as a result of continued exploration.
4. The inferred mineral resource in this resource estimate has a lower level of confidence than that applied to an indicated mineral resource and must not be converted to a mineral reserve. It is reasonably expected that a majority of the inferred mineral resource could be upgraded to an indicated mineral resource with continued exploration.
5. The indicated and inferred resource estimate uses a copper equivalent cut-off grade of 1.3% CuEq.
6. Copper equivalent resources for the Pine Bay Project were calculated using the following metal prices: Cu at US$3.25/lb, Zn US$1.20/lb, Au at US$1,850/oz, Ag at US$22.50/oz. Foreign exchange rate of CDN$1.00 = US$0.75.
7. Metallurgical recoveries have been assumed to be 80% Cu, 80% Zn, 80% Pb, 40% Au and 40% Ag.
8. Mineral resources are not mineral reserves until they have demonstrated economic viability. Mineral resource estimates do not account for a resource's mineability, selectivity, mining loss, or dilution.
9. All figures are rounded to reflect the relative accuracy of the estimate and therefore numbers may not appear to add precisely.

The Pine Bay Project consists of a group of 77 contiguous mineral claims (dispositions) and one (1) Mineral Lease totaling 6,795 ha. Both the Rainbow and Pine Bay Mineral Resources are located on the Mineral Lease 59 which totals 782 ha.

The Rainbow and Pine Bay deposits are felsic-hosted VMS deposits that dips 78° and 82° (respectively) to the east, with the Rainbow deposit having a strike length of 310 m and a maximum horizontal thickness of 32.0 m. The Pine Bay deposit has a strike length of 190 m and a maximum horizontal thickness of 42.0 m. Massive sulphides have been intersected on the Rainbow deposit from 100 m below surface to a depth of 897 m from a total of 66 drill holes totaling 38,249 m. Massive sulphides have been intersected on the Pine Bay deposit from 10 m below surface to a depth of 375 m from a total of 76 drill holes totaling 10,123 m.

The Project encompasses the majority of the Baker Patton Complex (BPC), the largest exposed felsic (rhyolitic) volcanic accumulation in the Flin Flon portion of the Flin Flon-Snow Lake Greenstone Belt (Flin Flon Greenstone Belt Regional Geology). This is especially important since the majority of the VMS deposits occurring within the Flin Flon Belt of Saskatchewan and Manitoba are almost always hosted by rhyolitic flows and volcaniclastic rocks within predominantly mafic terranes. Of additional importance is that these felsic (rhyolitic) rocks only account for a small portion of the total volcanic pile (5% to 10%). Of particular exploration interest to the Project, is the very large exposure of intensely altered (chloritic, sericitic and silicic alteration) felsic rocks that have collectively been called the Baker Patton Alteration zone, encompassing an area with a minimum footprint of 700 m by 1,000 m.

The database for the mineral resource estimate for Rainbow deposit consisted of 104 drill holes (including 14 wedges) totaling 60,930 m, of which a total of 66 drill holes totaling 38,249 m intersected the mineralization wireframes used for the mineral resource estimate. The drill hole database contained assays for copper, zinc, gold, silver and lead as well as other metals of no economic importance.

The database for the mineral resource estimate for Pine Bay Deposit consisted of 131 drill holes totaling 25,672 m, of which a total of 76 drill holes totaling 10,123 m intersected the mineralization wireframes used for the mineral resource estimate. The drill hole database contained assays for copper only. In October 2022, the QP carried out data verification on the historical data and check sampling to validate the use of the database for estimation of the inferred resource at Pine Bay. The methodology employed for the resource estimation at Rainbow and Pine Bay is as follows:

- The estimate was carried out using separate block models constrained by 3D wireframes of the individual mineralized zones. The block model is comprised of an array of blocks measuring 10 m x 2 m x 10 m which employ partial percentages for volumetric accuracy, with grades for Cu, Zn, Pb, Ag and Au interpolated using Ordinary Kriging within the Rainbow deposit and Inverse Distance to the Second Power (ID2) weighting for the Pine Bay deposit for copper grades. Copper equivalent values were subsequently calculated from the interpolated block grades.
- The interpolation for Rainbow was carried out in two (2) passes with the first pass using search radii of along strike and down dip of 150 m x 150 m and 30 m perpendicular to dip. Composites were restricted to a minimum of one (1) and a maximum of 12 composites, with a maximum of three (3) composites from any one (1) drill hole. The second pass used a restricted search radii along strike and down dip of 60 m x 60 m and 30 m perpendicular to dip. Composites were restricted to a minimum of six (6) and a maximum of 18 composites, with a maximum of four (4) composites from any one (1) drill hole.
- The interpolation for the Pine Bay deposit was carried out in two passes with the first pass using search radii of along strike and down dip of 150 m x 150 m and 60 m perpendicular to dip. Composites were restricted to a minimum of one (1) and a maximum of 12 composites, with a maximum of three (3) composites from any one drill hole. The second pass used a restricted search radii along strike and down dip of 60 m x 60 m and 30 m perpendicular to dip. Composites were restricted to a minimum of five (5) and a maximum of 16 composites, with a maximum of four (4) composites from any one (1) drill hole.
- Bulk density was determined on each sample submitted to SGS laboratories in Burnaby, British Columbia measured by the gas pycnometer method on pulp samples. For each sample interval, sub-samples were taken from each individual length of core and the weighted average for the sample used. Density values were interpolated on a block-by-block basis using an inverse distance to the second power for the Rainbow deposit. An average value of 2.90 t/m^3 was assigned to the Pine Bay deposit.
- Composite values have been capped in order to remove the effects of potential overestimation due to statistical outliers. Therefore, outlier values for each of the metals estimated within the Rainbow deposit were capped at the threshold levels of 7.5% to 15% copper, 6% zinc, 20 gpt to 30 gpt silver and 1.5 gpt gold.
- The mineralized domain solids were defined using a combination of geological constraints and grade boundaries in addition to consideration of potential reasonable mining thickness. Intervals that were not sampled were assigned a zero grade.
- For all zones, blocks are classified as Inferred if they are included within 150 m of at least two (2) drill hole intercept. Blocks within 40 m of the nearest intercept and 40 m average for all composites,

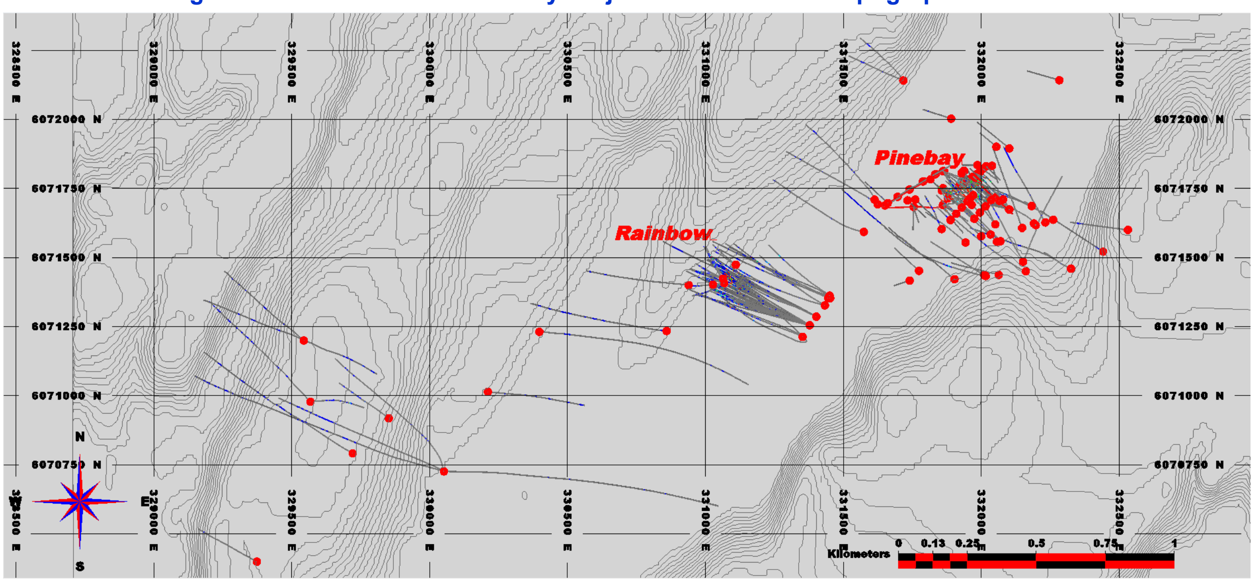
estimated by at least four (4) drill holes and at least 12 composites were classified as Indicated. However, an interpreted boundary is the final determination of indicated and inferred resources in order to remove outlier blocks and the “spotted dog” effect. In addition, continuous potentially underground mining shapes were created to demonstrate “reasonable prospect of eventual economic extraction”.

14.2 Data

The 104 drill holes (including 14 wedges) totaling 60,930 m were supplied in electronic format by Callinex. This included collars, downhole surveys, lithology data, and assay data (i.e., Ag g/t, Au g/t, Cu%, Pb%, Zn%, SG). The database for the mineral resource estimate for Pine Bay Deposit consisted of 131 drill holes totaling 25,672 m, of which a total of 76 drill holes totaling 10,123 m intersected the mineralization wireframes used for the mineral resource estimate. The drill hole database contained assays for copper only.

Validation and verification checks were performed during importation of data to ensure there were no overlapping intervals, typographic errors or anomalous entries. Anomalies and errors were validated and corrected. Figure 14-1 shows a plan view of the supplied drill holes.

Figure 14-1: Plan View of Pine Bay Project Drill Holes and Topographic Contours

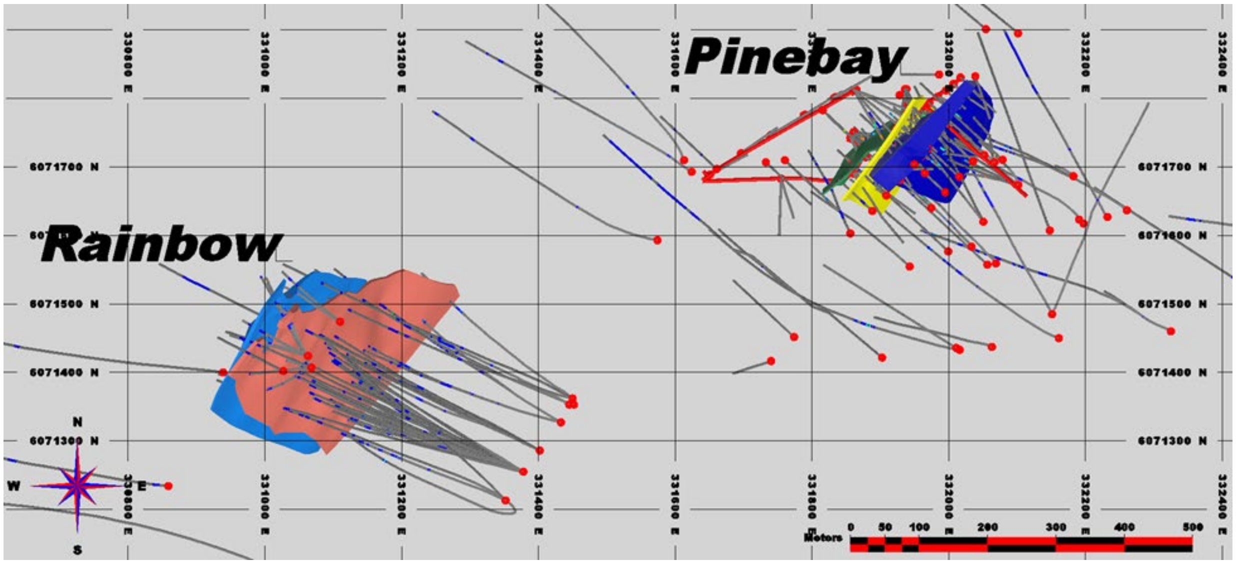


Source: Kirkham (2023)

14.3 Domain and Geological Modelling

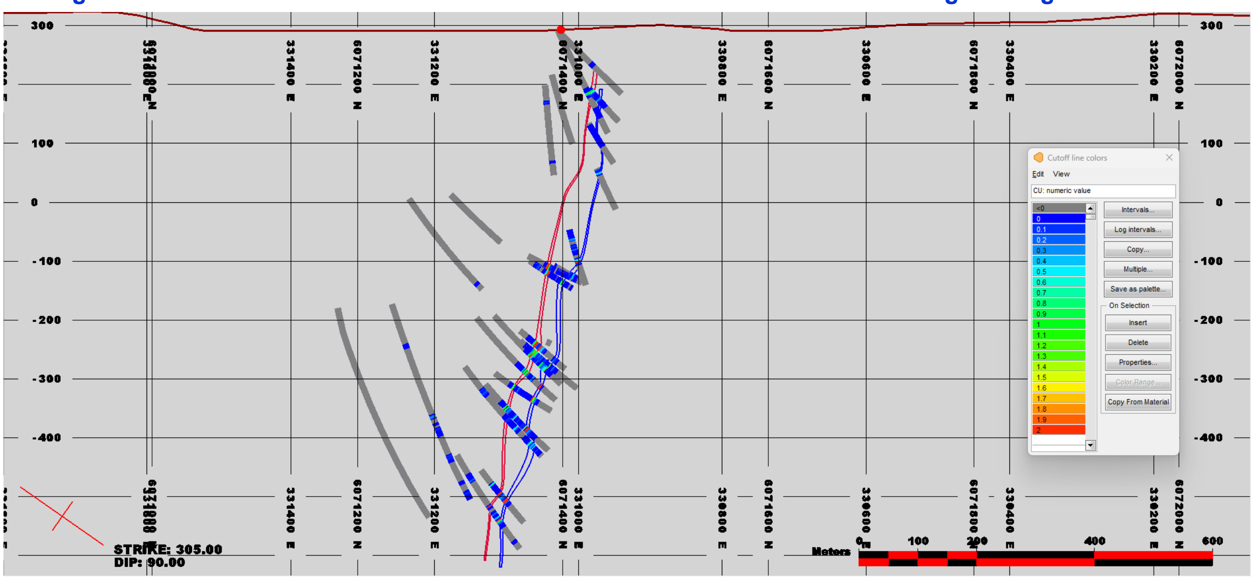
Solid models (Figure 14-2 through Figure 14-4) were created from sections and based on a combination of lithology, copper and copper equivalent grades along with site knowledge. It is important to note that the understanding and interpretation has evolved to be that of a series of sub-parallel zones; two (2) at the Rainbow and three (3) at the Pine Bay deposit.

Figure 14-2: Plan View of Pine Bay Project with Mineralized Zones, Drill Holes, Pine Bay Shaft and Drifts



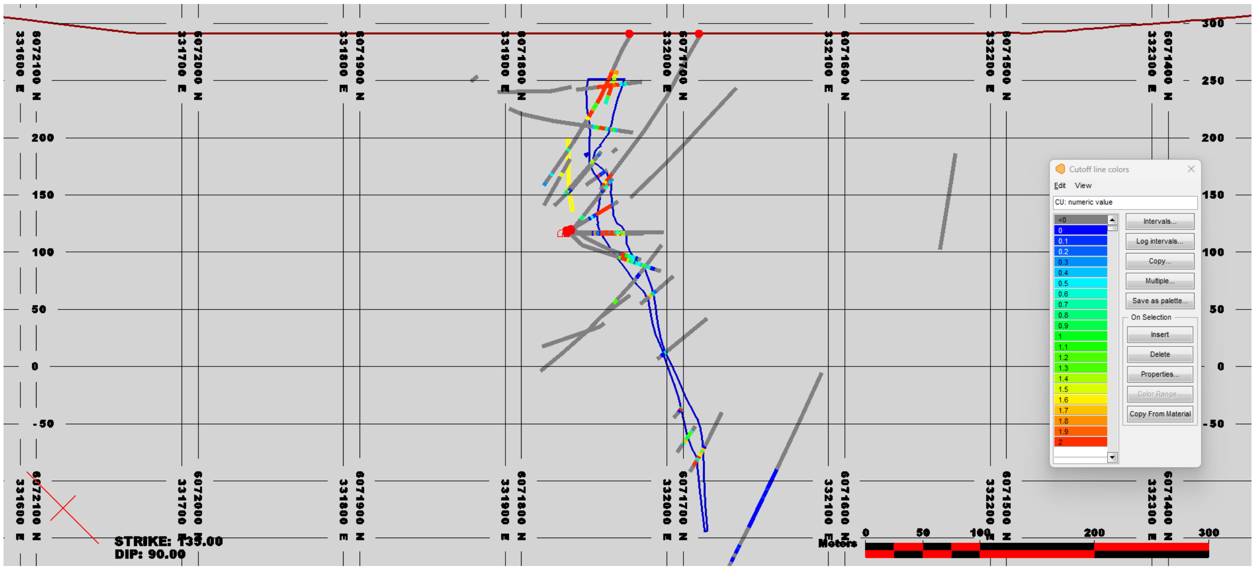
Source: Kirkham (2023)

Figure 14-3: Section View of Rainbow Mineralized Zones and Drill Holes looking 215 degrees Azimuth



Source: Kirkham (2023)

Figure 14-4: Section View of Pine Bay Mineralized Zones and Drill Holes looking 45 degrees Azimuth



Source: Kirkham (2023)

All zones were modelled based on current drilling and assay data using LeapFrog™ and then imported into MineSight™ for interpretation and refinement. Every intersection was inspected, and the solid was then manually adjusted to match the drill intercepts. Once the solid model was created, it was used to code the drill hole assays and composites for subsequent statistical and geostatistical analysis. The solid zone was used to constrain the block model by matching assays to those within the zones. The orientation and ranges (distances) used for search ellipsoids in the estimation process were derived from strike and dip of the mineralized zone, site knowledge and on-site observations by the QP and Callinex geological staff.

14.4 Data Analysis

The database was numerically coded by solids for the Rainbow and Pine Bay mineralized zones labelled 12 and 13 with zone 10 included which is all assay values outside of the mineralized envelops. The database was then manually adjusted, drill hole by drill hole, to ensure accuracy of zonal intercepts. Table 14-3 shows the statistics for the copper, zinc, lead, silver, gold, copper equivalent and specific gravity for the Rainbow deposit.

Note that the 12 and 13 zones have a moderate degree of variability which is evidenced by the modest Coefficient of Variation (CV) which is a unit independent quantitative measure of variability. The coefficient of variation is defined as CV=σ/m (standard deviation/mean) and represents a measure of variability that is unit independent. This variability index can be used to compare different and unrelated distributions.

The CVs for copper, gold and silver are moderate, ranging between 1.2 and 1.7 while they are more pronounced for the zinc and lead ranging from 1.8 to an extremely high value of 3.1 within the 13 zone for lead. However, as the lead is very low grade, any grade will cause the CV to elevate, and lead does not contribute in any substantive way to the overall resource but is included for completeness. It is clear that these moderate to high variabilities will require treatment that will normalize the effects of any outlier grades for each element.

Table 14-3: Statistics for Copper, Zinc, Silver, Lead, Gold, Copper Equivalent and Specific Gravity for the Rainbow Deposit

	CODE	#	Length (m)	Min	Max	Mean	CV
Cu	10	5,205	5,017.4	0	9.19	0.06	3.4
	12	481	458.5	0	23.26	2.49	1.7
	13	397	363.2	0	18.63	1.82	1.7
	Total	6,083	5,839.1	0	23.26	0.36	4.5
	All	6,083	5,839.1	0	23.26	0.36	4.5
Zn	10	5,205	5,017.4	0	9.65	0.14	2.6
	12	481	458.5	0	16.80	0.71	2.2
	13	397	363.2	0	13.00	0.93	1.8
	Total	6,083	5,839.1	0	16.80	0.24	3.1
	All	6,083	5,839.1	0	16.80	0.24	3.1
Au	10	5,205	5,017.4	0	2.62	0.04	2.2
	12	481	458.5	0	4.29	0.31	1.4
	13	397	363.2	0	3.43	0.32	1.3
	Total	6,083	5,839.1	0	4.29	0.08	2.6
	All	6,083	5,839.1	0	4.29	0.08	2.6
Ag	10	5,205	5,017.4	0	47.72	0.80	2.3
	12	481	458.5	0	51.69	5.64	1.2
	13	397	363.2	0.04	73.88	6.55	1.3
	Total	6,083	5,839.1	0	73.88	1.54	2.5
	All	6,083	5,839.1	0	73.88	1.54	2.5
Pb	10	5,205	5,017.4	0	0.72	0.01	3.9
	12	481	458.5	0	0.97	0.03	3.1
	13	397	363.2	0	1.26	0.04	2.9
	Total	6,083	5,839.1	0	1.26	0.01	4.2
	All	6,083	5,839.1	0	1.26	0.01	4.2
CUEQ	10	5,205	5,017.4	0	9.70	0.14	2.1
	12	480	449.5	0	23.61	3.05	1.4
	13	397	363.2	0.014	19.14	2.42	1.3
	Total	6,082	5,830.1	0	23.61	0.51	3.5
	All	6,082	5,830.1	0	23.61	0.51	3.5
SG	10	5,064	4,879.1	2.33	4.46	2.92	0.1
	12	475	445.2	2.72	4.57	3.37	0.2
	13	392	360.2	2.68	4.64	3.37	0.2
	Total	5,931	5,684.6	2.33	4.64	2.98	0.1
	All	5,931	5,684.6	2.33	4.64	2.98	0.1

Source: Kirkham (2023)

At the Pine Bay deposit, only copper is being considered due to paucity of analytical results for the other elements within the historical database and as a result, the missing data being set to 0.000, causes the mean grades to be greatly reduced and CVs to be greatly elevated. However, note that the variabilities for the copper which is the primary element, are low and reasonable ranging from 0.7 to 1.0, therefore the treatment of outliers may not be necessary in this case.

Table 14-4: Statistics for Copper for the Pint Bay Deposit

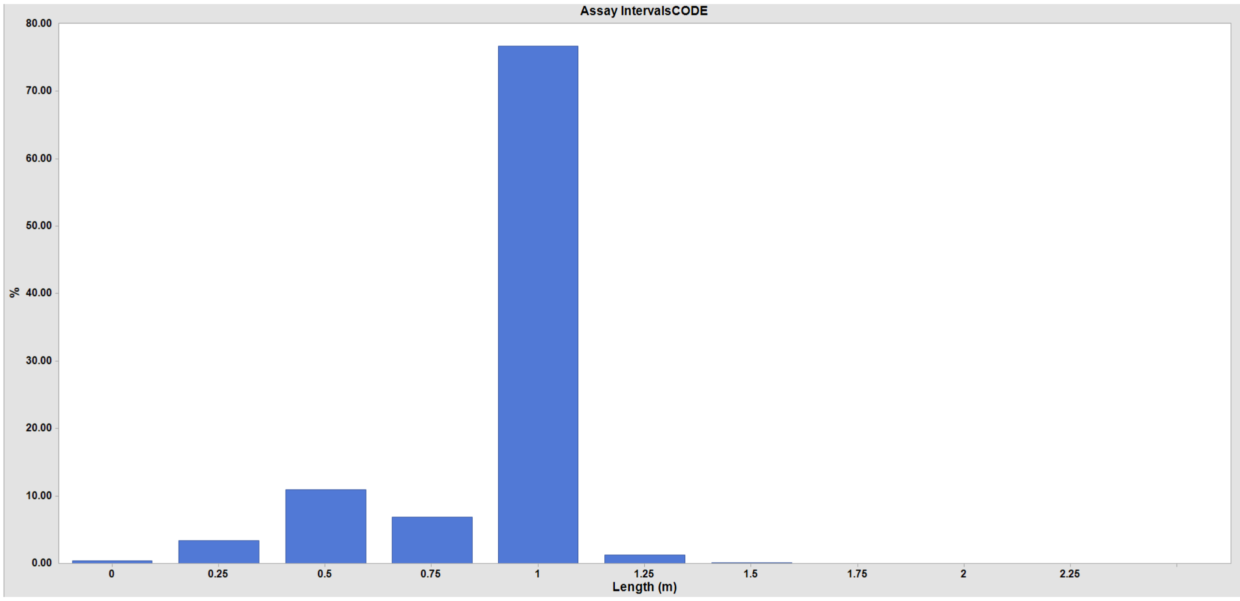
	CODE	Min	Max	Mean	CV
Cu	1	0	16.45	2.43	1.0
	2	0.32	8.14	2.70	0.7
	3	0	11.82	2.73	0.7
	Total	0	16.45	2.47	1.0
	All	0	16.45	1.09	1.8
Zn	1	0	3.33	0.018	12.2
	2	0	0	0	
	3	0	0.03	0.001	5.6
	Total	0	3.33	0.016	12.9
	All	0	3.33	0.032	6.0
Au	1	0	1.37	0.0618	3.3
	2	0	0.34	0.0073	6.7
	3	0	0.69	0.11	1.9
	Total	0	1.37	0.0607	3.3
	All	0	6.17	0.0871	5.2
Ag	1	0	21.26	0.766	2.4
	2	0	6.86	0.84	2.2
	3	0	13.71	4.40	0.8
	Total	0	21.26	0.958	2.2
	All	0	27.43	0.863	2.5

Source: Kirkham (2023)

14.5 Composites

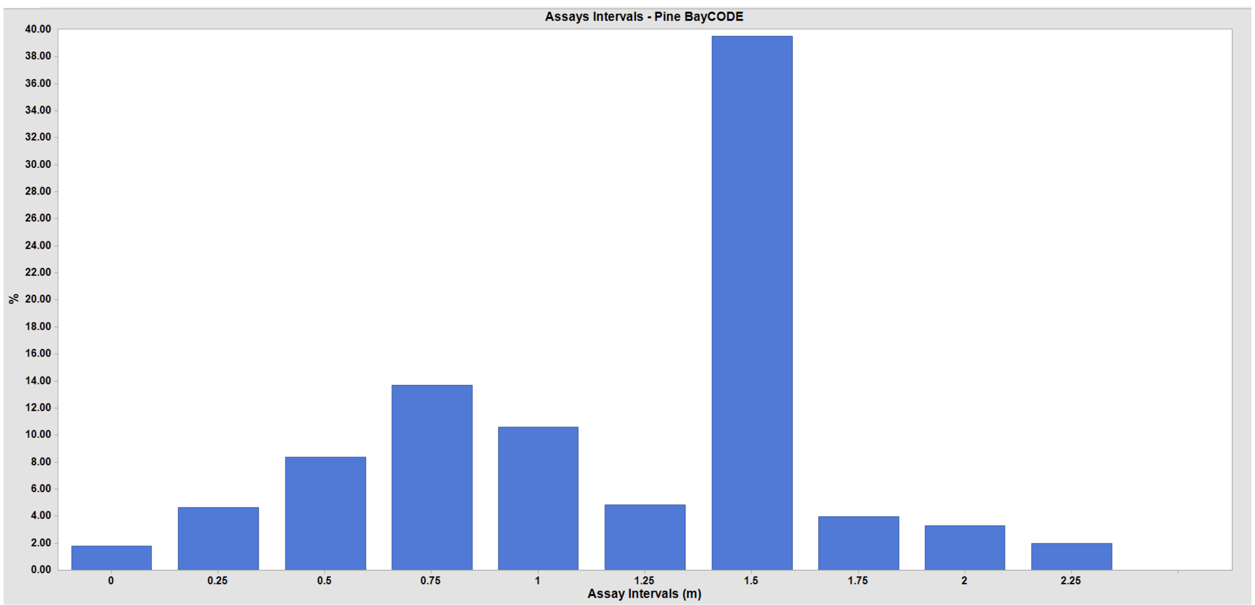
For both the Rainbow and Pine Bay deposits, it was determined that a 2 m composite length offered good balance between supplying common support for samples and adequately smoothing of the grades. The 2 m sample length also was consistent with the distribution of sample lengths within the mineralized domains as shown in the histogram of assay lengths in Figure 14-5 and Figure 14-6.

Figure 14-5: Rainbow Deposit Assay Interval Length



Source: Kirkham (2023)

Figure 14-6: Pine Bay Deposit Assay Interval Lengths



Source: Kirkham (2023)

Table 14-4 shows the basic statistics for the 2.0 m copper composite grades within the mineralized domains. It should be noted that although 2.0 m is the composite length, any residual composites of lengths greater than 0.5 m and less than 2.0 m were retained to represent a composite, while any composite residuals less than 1 m were combined with the previous composite.

In addition to having the desired effect of regularization of the assay data, compositing has resulted in modestly reducing the variability or CVs with no discernible decrease in mean grades so there is no significant grade smoothing as a result of compositing as shown in Table 14-5.

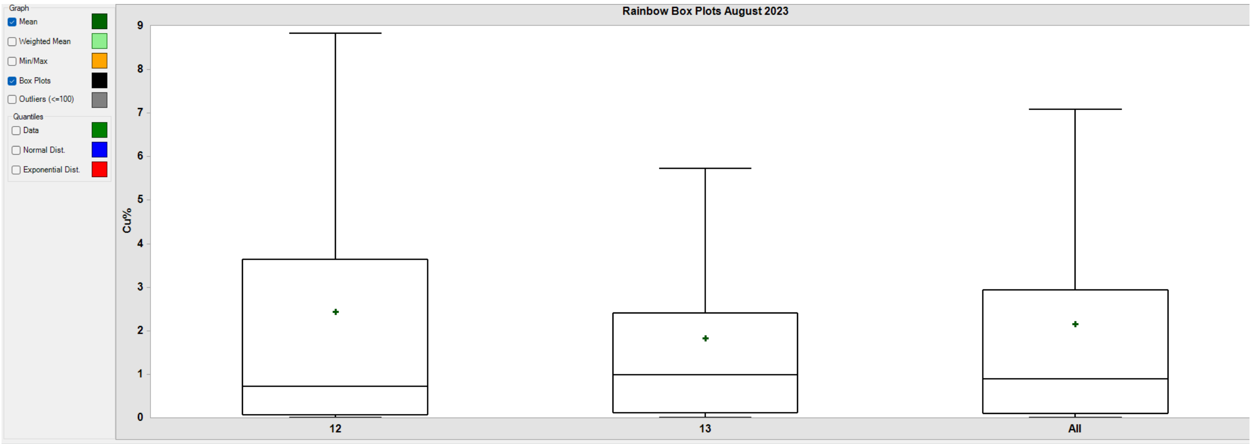
Table 14-5: Composite Statistics Weighted by Length for Rainbow Deposit

	CODE	Length (m)	Min	Max	Mean	CV
Cu	**10**	5,017.4	0	2.40	0.06	2.5
	12	**458.5**	**0**	**20.87**	**2.49**	**1.5**
	13	**363.2**	**0.005**	**16.11**	**1.82**	**1.4**
	Total	5,839.1	0	20.87	0.36	4.0
	All	5,839.1	0	20.87	0.36	4.0
Zn	**10**	5,017.4	0	6.03	0.14	2.0
	12	**458.5**	**0**	**12.95**	**0.71**	**1.9**
	13	**363.2**	**0.01**	**10.51**	**0.94**	**1.6**
	Total	5,839.1	0	12.95	0.24	2.7
	All	5,839.1	0	12.95	0.24	2.7
Au	**10**	5,017.4	0	1.21	0.04	1.8
	12	**458.5**	**0**	**2.89**	**0.31**	**1.2**
	13	**363.2**	**0.005**	**2.95**	**0.32**	**1.2**
	Total	5,839.1	0	2.95	0.08	2.4
	All	5,839.1	0	2.95	0.08	2.4
Ag	**10**	5,017.4	0	29.59	0.80	1.9
	12	**458.5**	**0**	**30.50**	**5.65**	**1.0**
	13	**363.2**	**0.07**	**60.18**	**6.56**	**1.1**
	Total	5,839.1	0	60.18	1.54	2.2
	All	5,839.1	0	60.18	1.54	2.2
Pb	**10**	5,017.4	0	0.53	0.01	3.1
	12	**458.5**	**0**	**0.69**	**0.03**	**2.6**
	13	**363.2**	**0**	**0.76**	**0.04**	**2.4**
	Total	5,839.1	0	0.76	0.01	3.4
	All	5,839.1	0	0.76	0.01	3.4

Source: Kirkham (2023)

The box plots for the copper, zinc, lead, silver and gold composites shown in Figure 14-7 through Figure 14-11 illustrate that the two (2) zones are relatively similar with the important exception of having differing copper and zinc distribution with zone 12 being more copper rich and zone 13 being more zinc rich. As a result, the two (2) zones appear to be statistically different enough from all other zones and as such understandably that should be estimated separately.

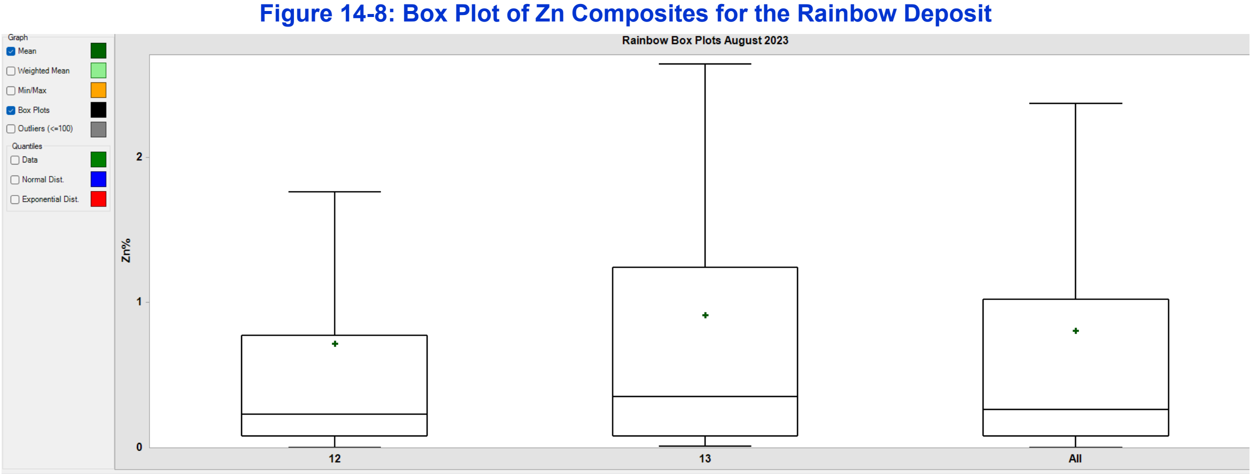
Figure 14-7: Box Plot of Cu Composites for the Rainbow Deposit



	12	13	All
Num Samples	243	197	440
Num Missing Samples	26	0	26
Min	0.000	0.005	0.000
Max	20.872	16.110	20.872
Mean	2.4315	1.8174	2.1566
First quartile	0.0701	0.1150	0.0910
Median	0.7139	0.9800	0.8901
Third quartile	3.6399	2.3999	2.9398
SD	3.7330	2.5103	3.2540
Variance	13.9352	6.3017	10.5887
CV	1.5353	1.3812	1.5089
Skewness	2.3255	2.4572	2.5301
Kurtosis	6.1368	7.6067	7.7939

Source: Kirkham (2023)

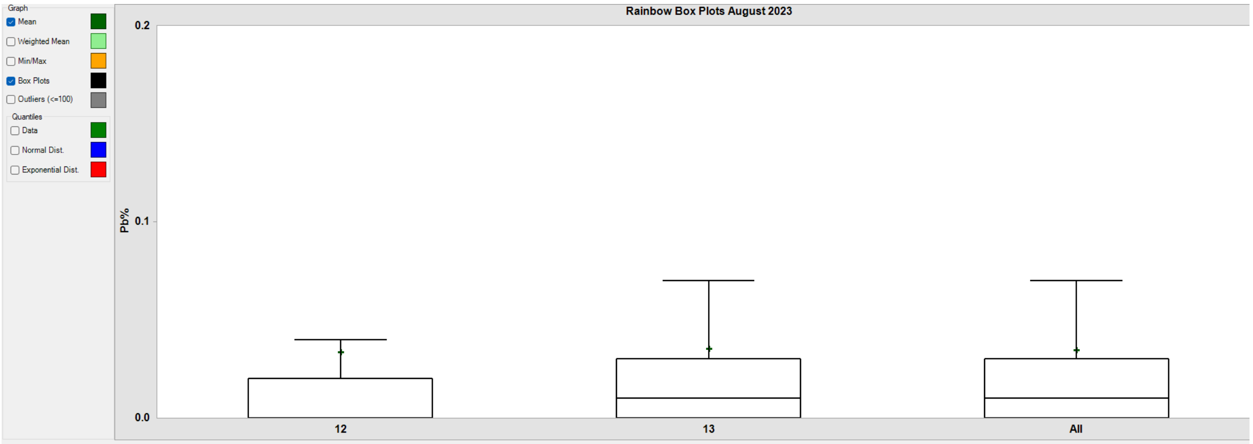
Figure 14-8: Box Plot of Zn Composites for the Rainbow Deposit



	12	13	All
Num Samples	243	197	440
Num Missing Samples	26	0	26
Min	0.00	0.01	0.00
Max	12.95	10.51	12.95
Mean	0.717	0.915	0.805
First quartile	0.080	0.080	0.080
Median	0.230	0.350	0.260
Third quartile	0.770	1.240	1.020
SD	1.353	1.446	1.398
Variance	1.832	2.092	1.953
CV	1.889	1.581	1.736
Skewness	4.717	3.652	4.163
Kurtosis	31.563	18.085	24.199

Source: Kirkham (2023)

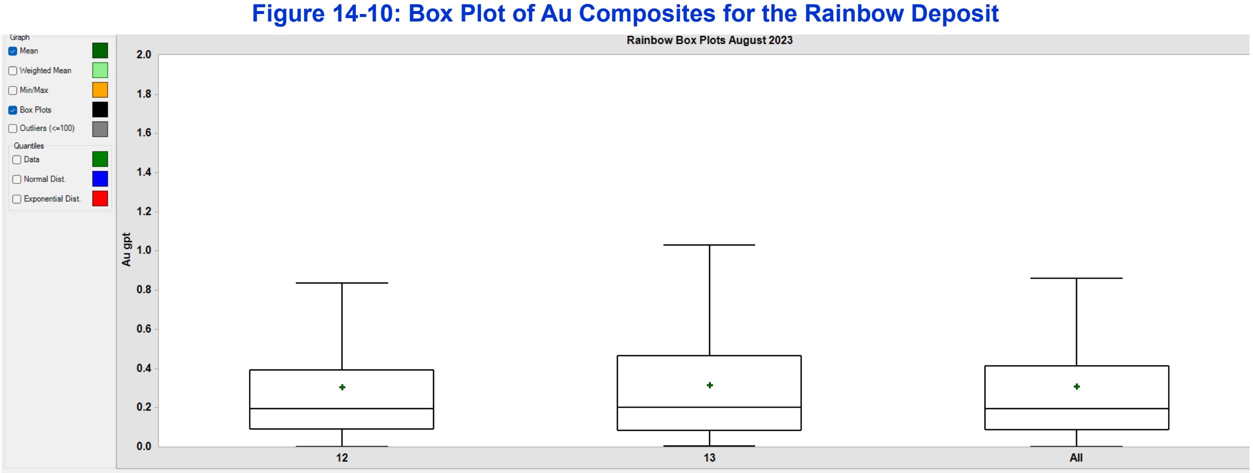
Figure 14-9: Box Plot of Pb Composites for the Rainbow Deposit



	12	13	All
Num Samples	243	197	440
Num Missing Samples	26	0	26
Min	0.00	0.00	0.00
Max	0.69	0.76	0.76
Mean	0.034	0.035	0.035
First quartile	0.000	0.000	0.000
Median	0.000	0.010	0.010
Third quartile	0.020	0.030	0.030
SD	0.087	0.084	0.086
Variance	0.008	0.007	0.007
CV	2.581	2.362	2.478
Skewness	4.733	5.034	4.843
Kurtosis	26.099	33.196	28.685

Source: Kirkham (2023)

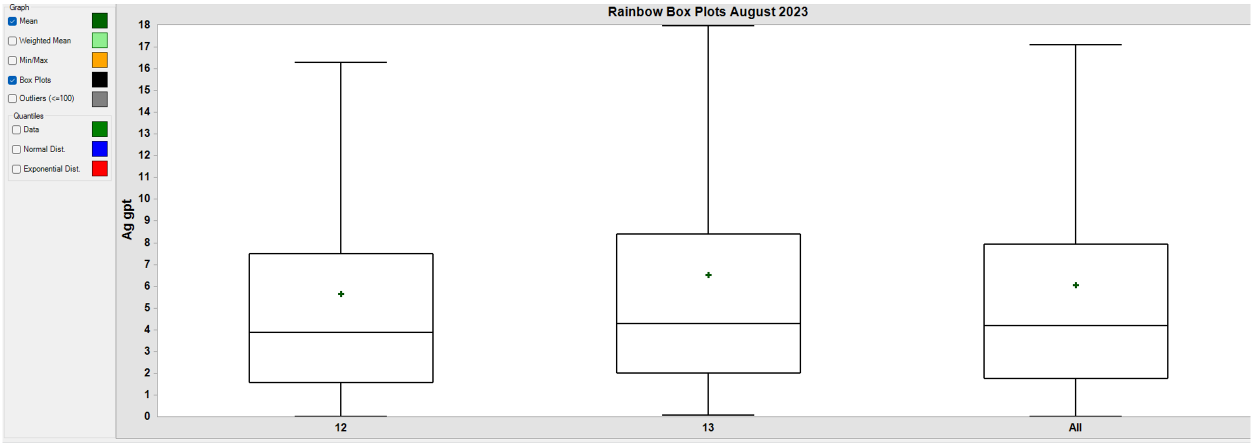
Figure 14-10: Box Plot of Au Composites for the Rainbow Deposit



	12	13	All
Num Samples	243	197	440
Num Missing Samples	26	0	26
Min	0.000	0.005	0.000
Max	2.885	2.950	2.950
Mean	0.3041	0.3164	0.3096
First quartile	0.0910	0.0830	0.0850
Median	0.1950	0.2000	0.1950
Third quartile	0.3900	0.4650	0.4130
SD	0.3668	0.3716	0.3686
Variance	0.1346	0.1381	0.1359
CV	1.2063	1.1744	1.1905
Skewness	3.2745	3.1086	3.1872
Kurtosis	15.5526	15.1119	15.1537

Source: Kirkham (2023)

Figure 14-11: Box Plot of Ag Composites for the Rainbow Deposit



	12	13	All
Num Samples	243	197	440
Num Missing Samples	26	0	26
Min	0.00	0.07	0.00
Max	30.50	60.18	60.18
Mean	5.658	6.505	6.037
First quartile	1.570	2.000	1.740
Median	3.880	4.260	4.190
Third quartile	7.500	8.400	7.920
SD	5.871	7.203	6.507
Variance	34.467	51.886	42.343
CV	1.038	1.107	1.078
Skewness	1.859	3.273	2.761
Kurtosis	3.719	17.123	13.136

Source: Kirkham (2023)

For the Pine Bay Deposit, compositing has also resulted in reducing the variability or CVs with no real difference in mean grades as shown in Table 14-6.

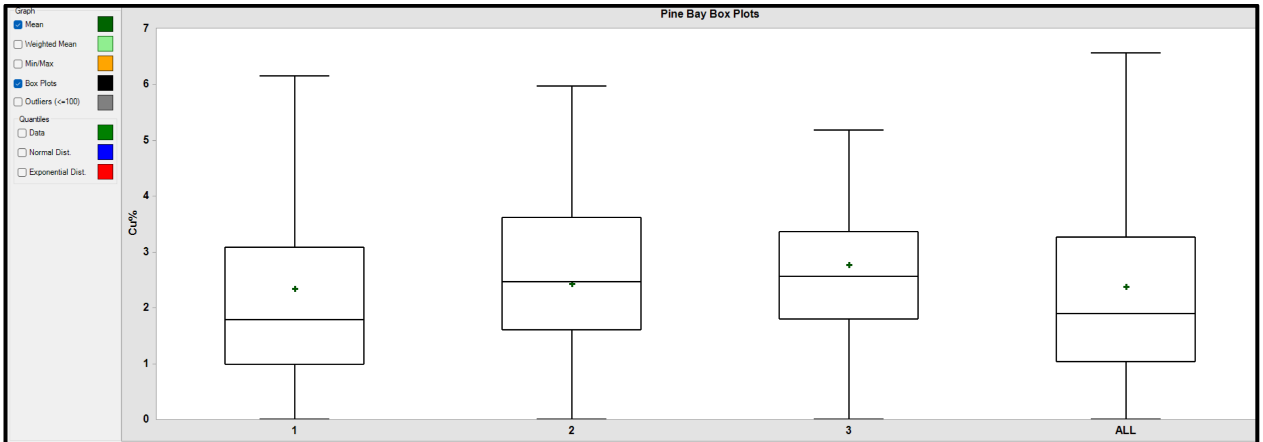
The box plots for the copper composites shown in Figure 14-12 illustrate that the three (3) zones are statistically different enough from each other and should also be estimated separately.

Table 14-6: Composite Statistics Weighted by Length for the Pine Bay Deposit

	CODE	Length (m)	Min	Max	Mean	CV
CU	1	568.7	0	13.44	2.42	0.9
	2	49.5	0	7.19	2.72	0.6
	3	41.2	0	8.38	2.73	0.6
	Total	659.4	0	13.44	2.46	0.8
	All	1673.2	0	13.44	1.08	1.6

Source: Kirkham (2023)

Figure 14-12: Box Plot of Cu Composites for the Pine Bay Deposit



	1	2	3	ALL
Num Samples	296	30	24	350
Num Missing Samples	5	0	0	5
Min	0.000	0.000	0.000	0.000
Max	13.442	7.194	8.380	13.442
Mean	2.3366	2.4250	2.7622	2.3734
First quartile	0.9830	1.6000	1.7901	1.0350
Median	1.7780	2.4600	2.5600	1.8900
Third quartile	3.0809	3.6100	3.3629	3.2679
SD	2.0903	1.6696	1.9893	2.0488
Variance	4.3694	2.7876	3.9571	4.1975
CV	0.8946	0.6885	0.7202	0.8632
Skewness	2.0109	0.8637	0.7804	1.8758
Kurtosis	5.6639	1.1559	1.3903	5.1919

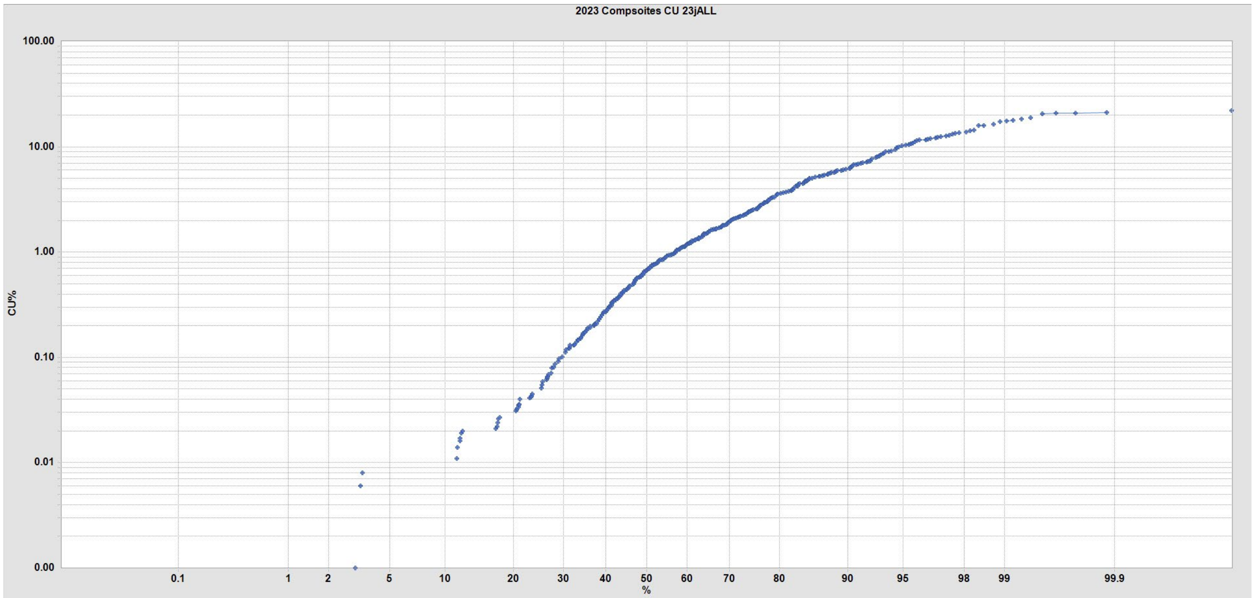
Source: Kirkham (2023)

14.6 Evaluation of Outlier Values

During the estimation process, the influence of outlier composites is controlled to limit their influence and to ensure against over-estimation of metal content. Although the outlier grades at the Pine Bay Project are not particularly extreme nor numerous, it is still prudent to ensure that they do not have an over-weighted influence that may result in over-estimation. In addition, the treatment of outliers is effective at reducing variability and thereby uncertainty and risk. The high-grade outlier thresholds were chosen by domain and are based on an analysis of the breaks in the cumulative frequency plots for each of the mineralized domains in addition to the low-grade domain. As previously discussed, the CVs, which are a unit independent measure of variability, were moderate for the assay data. This may be mitigated or resolved by 1) compositing, and 2) cutting or grade limiting. Table 14-7 illustrates the effect of each process from assay data, composites and cut composites along with the reduction in average grade and corresponding CV. Both the zones within the Rainbow deposit show a good response to compositing with a 10% to 20% reduction in CV while not effecting the grade. However, the CVs remain in the moderate range which warrants the further step of grade limiting or cutting.

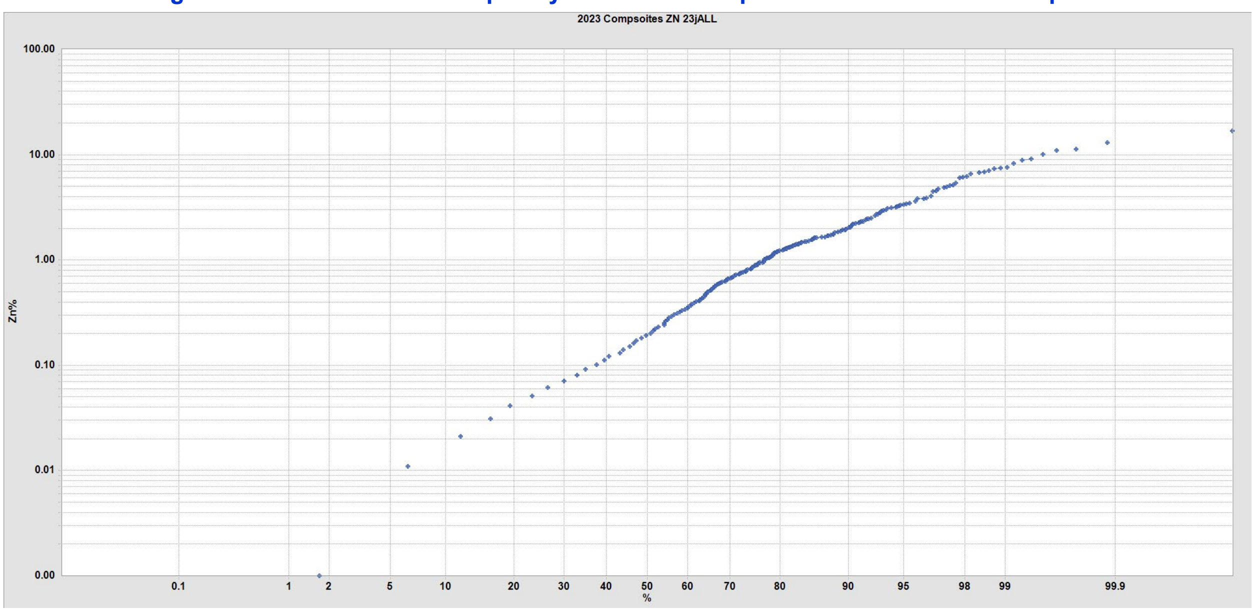
An evaluation of the probability plots as shown in Figure 14-13 to Figure 14-17 suggests that there may be outlier values that could result in an overestimation of resources. Although it is believed that this risk is relatively low, it was considered prudent to cut the Cu to 10% and 15%, Zn to 6%, Ag to 20 gpt and 30 gpt and Au to 1.5 gpt, respectively within the zones to reduce the effects of these outlier grades.

Figure 14-13: Cumulative Frequency Plot of Cu Composites for the Rainbow Deposit



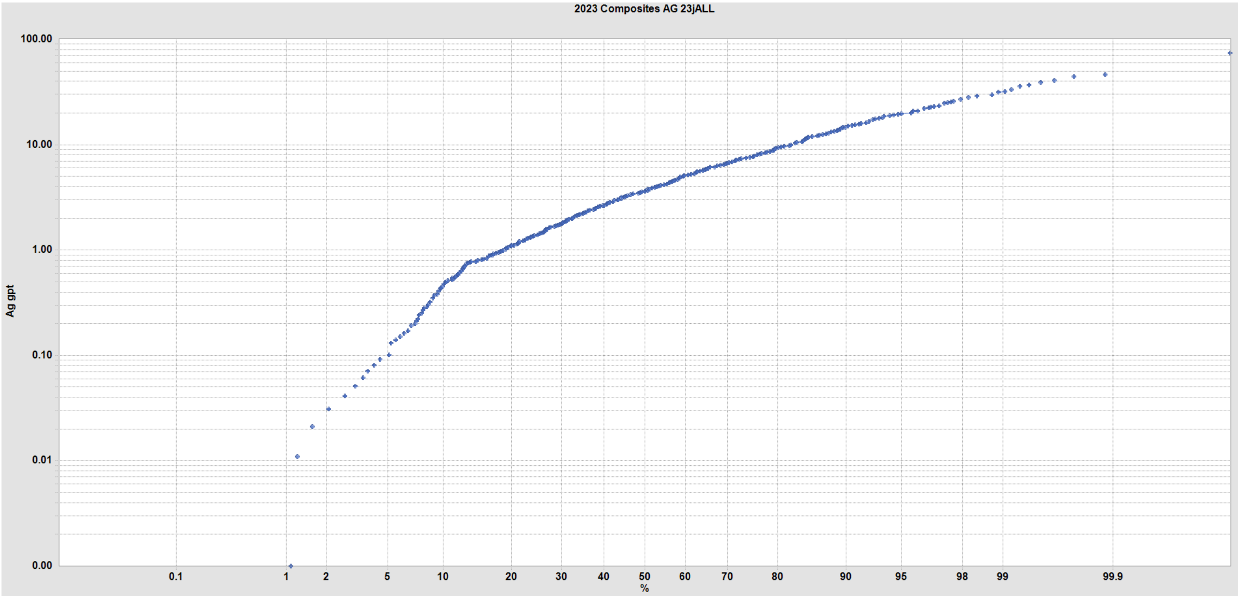
Source: Kirkham (2023)

Figure 14-14: Cumulative Frequency Plot of Zn Composites for the Rainbow Deposit



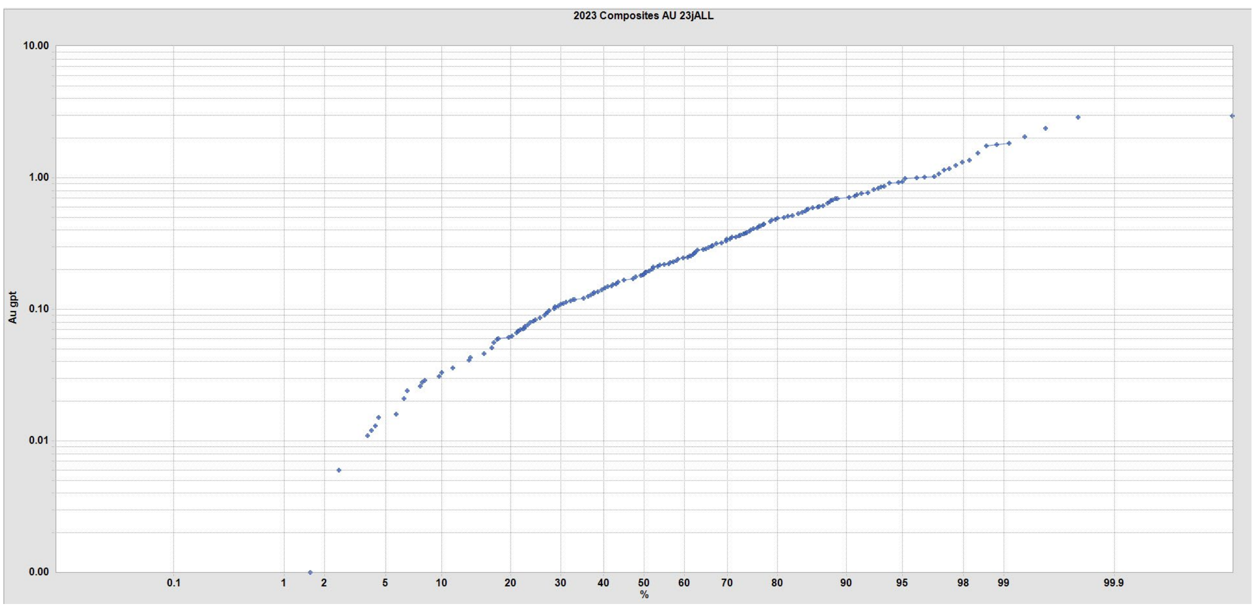
Source: Kirkham (2023)

Figure 14-15: Cumulative Frequency Plot of Ag Composites for the Rainbow Deposit



Source: Kirkham (2023)

Figure 14-16: Cumulative Frequency Plot of Au Composites for the Rainbow Deposit



Source: Kirkham (2023)

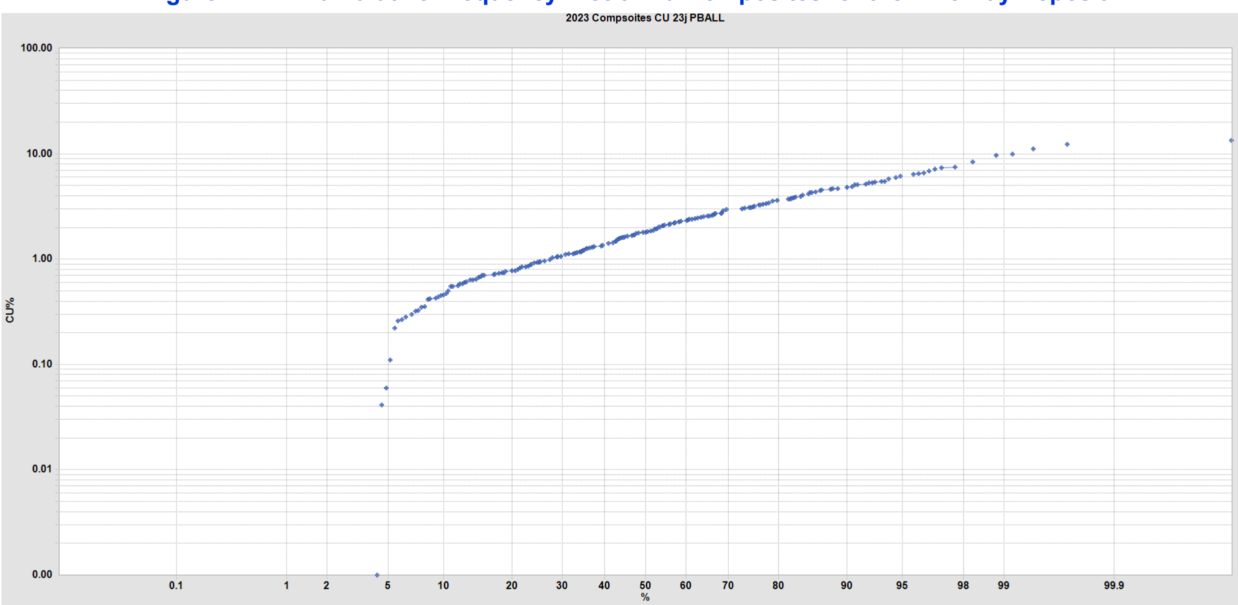
Table 14-7: Outlier Cutting Analysis for the Rainbow Deposit

	CODE	Assays			Composites					Cut Comps				
		Max	Mean	CV	Max	Mean	CV	%Mean	%CV	Max	Mean	CV	%Mean	%CV
Cu%	12	23.26	2.49	1.7	20.87	2.49	1.5	0%	-12%	15	2.41	1.5	-3%	-5%
	13	18.63	1.82	1.7	16.11	1.82	1.4	0%	-17%	10	1.77	1.3	-3%	-6%
Zn%	12	16.80	0.71	2.2	12.95	0.71	1.9	0%	-13%	6	0.67	1.7	-5%	-14%
	13	13.00	0.93	1.8	10.51	0.94	1.6	0%	-14%	6	0.89	1.4	-5%	-13%
Ag gpt	12	51.69	5.64	1.2	30.50	5.65	1.0	0%	-13%	20	5.44	1.0	-4%	-8%
	13	73.88	6.55	1.3	60.18	6.56	1.1	0%	-14%	30	6.35	1.0	-3%	-12%
Au gpt	12	4.29	0.31	1.4	2.89	0.31	1.2	0%	-13%	1.5	0.29	1.1	-4%	-13%
	13	3.43	0.32	1.3	2.95	0.32	1.2	0%	-12%	1.5	0.31	1.0	-4%	-13%

Source: Kirkham (2023)

Conversely, the CV derived from the Pine Bay copper composite data illustrates a very low value of 0.8 indicating low variability and low risk to influence from high grade outliers. Analysis of the cumulative frequency plot for copper within the Pine Bay deposit also shows the slope flatten after the ‘break’ indicating that there are no outliers, extreme or otherwise. Therefore, the Pine Bay composites were not limited or cut prior to use for the resource estimation.

Figure 14-17: Cumulative Frequency Plot of Cu Composites for the Pine Bay Deposit



Source: Kirkham (2023)

14.7 Specific Gravity Estimation

Bulk densities were based on a total of 3,099 individual measurements taken by SGS laboratories on key mineralized zones throughout the Rainbow deposit. These density values ranged from 2.59 t/m^3 to 4.57 t/m^3 and average to 2.99 t/m^3 overall. However, within the mineralized zones, values range from 2.79 t/m^3 – 4.56 t/m^3 and average to 2.99 t/m^3.

Specific gravities were calculated on a block-by-block basis by interpolating the SG measurements using inverse distance to the second power and limited within the individual mineralized zone solids. A default density of 2.8 t/m^3 was assigned to any blocks that were not assigned a calculated value.

Table 14-8: Specific Gravity by Domain for the Rainbow Deposit

	CODE	#	Length (m)	Min	Max	Mean	CV
SG	10	2,671	4,879.1	2.59	4.35	2.92	0.1
	12	237	446.2	2.79	4.48	3.37	0.1
	13	195	360.2	2.79	4.56	3.37	0.1
	Total	3,103	5,685.6	2.59	4.57	2.99	0.1
	All	3,103	5,685.6	2.59	4.57	2.99	0.1

Source: Kirkham (2023)

14.8 Variography

For the Rainbow deposit, experimental variograms and variogram models in the form of correlograms were generated for copper, zinc, lead, silver and gold zinc grades, respectively. The definition of nugget value was derived from the down hole variograms. The correlograms and geostatistical models are shown in Figure 14-18 through Figure 14-22 and Table 14-9. These variogram models were used to copper, zinc, lead, silver and gold zinc grades using ordinary kriging as the interpolator to estimate within the mineralized domains.

However, for the Pine Bay domains, good quality variograms could not be attained due to the low number of composites within these smaller zones so kriging would not be used in favour of inverse distance to the second power.

Figure 14-18: Copper Correlogram for the Rainbow Deposit

Rainbow Cu Correlograms (Positive Sample Lengths)

Medsystem and Vulcan Rotation Conventions

Nugget ==> 0.300
C1 ==> 0.536
C2 ==> 0.164

First Structure -- Spherical

LH Rotation about the Z axis ==> 86
RH Rotation about the X' axis ==> 21
LH Rotation about the Y' axis ==> -33
Range along the Z' axis ==> 34.2 Azimuth ==> 205 Dip ==> 51
Range along the Y' axis ==> 16.6 Azimuth ==> 86 Dip ==> 21
Range along the X' axis ==> 5.8 Azimuth ==> 163 Dip ==> -31

Second Structure -- Spherical

LH Rotation about the Z axis ==> 24
RH Rotation about the X' axis ==> 58
LH Rotation about the Y' axis ==> -2
Range along the Z axis ==> 292.4 Azimuth ==> 202 Dip ==> 32
Range along the X' axis ==> 21.6 Azimuth ==> 112 Dip ==> -1
Range along the Y' axis ==> 247.9 Azimuth ==> 24 Dip ==> 58

Modeling Criteria

Minimum number pairs req'd ==> 150
Sample variogram points weighted by # pairs

Source: Kirkham (2023)

Figure 14-19: Zinc Correlogram for the Rainbow Deposit

Rainbow Zn Correlograms (Positive Sample Lengths)

Medsystem and Vulcan Rotation Conventions

Nugget ==> 0.300
C1 ==> 0.659
C2 ==> 0.041

First Structure -- Spherical

LH Rotation about the Z axis ==> 55
RH Rotation about the X' axis ==> 73
LH Rotation about the Y' axis ==> 1
Range along the Z' axis ==> 7.5 Azimuth ==> 236 Dip ==> 17
Range along the Y' axis ==> 24.9 Azimuth ==> 55 Dip ==> 73
Range along the X' axis ==> 9.8 Azimuth ==> 146 Dip ==> 0

Second Structure -- Spherical

LH Rotation about the Z axis ==> -39
RH Rotation about the X' axis ==> 8
LH Rotation about the Y' axis ==> 11
Range along the Z axis ==> 743.5 Azimuth ==> 196 Dip ==> 77
Range along the X' axis ==> 148.9 Azimuth ==> 53 Dip ==> 11
Range along the Y' axis ==> 173.8 Azimuth ==> 321 Dip ==> 8

Modeling Criteria

Minimum number pairs req'd ==> 150
Sample variogram points weighted by # pairs

Source: Kirkham (2023)

Figure 14-20: Lead Correlogram for the Rainbow Deposit

Rainbow Pb Correlograms (Positive Sample Lengths)

Medsystem and Vulcan Rotation Conventions

Nugget ==> 0.687
C1 ==> 0.255
C2 ==> 0.058

First Structure -- Spherical

LH Rotation about the Z axis ==> -35
RH Rotation about the X' axis ==> 15
LH Rotation about the Y' axis ==> -111
Range along the Z' axis ==> 12.3 Azimuth ==> 49 Dip ==> -20
Range along the Y' axis ==> 16.1 Azimuth ==> 325 Dip ==> 15
Range along the X' axis ==> 151.7 Azimuth ==> 269 Dip ==> -65

Second Structure -- Spherical

LH Rotation about the Z axis ==> -91
RH Rotation about the X' axis ==> 27
LH Rotation about the Y' axis ==> -27
Range along the Z axis ==> 625.7 Azimuth ==> 41 Dip ==> 52
Range along the X' axis ==> 77.7 Azimuth ==> 346 Dip ==> -24
Range along the Y' axis ==> 368.7 Azimuth ==> 269 Dip ==> 27

Modeling Criteria

Minimum number pairs req'd ==> 150
Sample variogram points weighted by # pairs

Source: Kirkham (2023)

Figure 14-21: Silver Correlogram for the Rainbow Deposit

Rainbow Ag Correlograms (Positive Sample Lengths)

Medsystem and Vulcan Rotation Conventions

Nugget ==> 0.450
C1 ==> 0.441
C2 ==> 0.109

First Structure -- Spherical

LH Rotation about the Z axis ==> 69
RH Rotation about the X' axis ==> 6
LH Rotation about the Y' axis ==> -13
Range along the Z' axis ==> 41.3 Azimuth ==> 182 Dip ==> 75
Range along the Y' axis ==> 21.1 Azimuth ==> 69 Dip ==> 6
Range along the X' axis ==> 7.4 Azimuth ==> 157 Dip ==> -13

Second Structure -- Spherical

LH Rotation about the Z axis ==> 74
RH Rotation about the X' axis ==> 31
LH Rotation about the Y' axis ==> -3
Range along the Z axis ==> 172.0 Azimuth ==> 248 Dip ==> 58
Range along the X' axis ==> 96.8 Azimuth ==> 162 Dip ==> -3
Range along the Y' axis ==> 378.5 Azimuth ==> 74 Dip ==> 31

Modeling Criteria

Minimum number pairs req'd ==> 150
Sample variogram points weighted by # pairs

Source: Kirkham (2023)

Figure 14-22: Silver Correlogram for the Rainbow Deposit

Rainbow Au Correlograms (Positive Sample Lengths)

Medsystem and Vulcan Rotation Conventions

Nugget ==> 0.300
C1 ==> 0.627
C2 ==> 0.073

First Structure -- Spherical

LH Rotation about the Z axis ==> 89
RH Rotation about the X' axis ==> 33
LH Rotation about the Y' axis ==> -20
Range along the Z' axis ==> 32.4 Azimuth ==> 235 Dip ==> 52
Range along the Y' axis ==> 19.4 Azimuth ==> 89 Dip ==> 33
Range along the X' axis ==> 8.2 Azimuth ==> 167 Dip ==> -17

Second Structure -- Spherical

LH Rotation about the Z axis ==> 71
RH Rotation about the X' axis ==> -19
LH Rotation about the Y' axis ==> -3
Range along the Z axis ==> 383.9 Azimuth ==> 82 Dip ==> 71
Range along the X' axis ==> 90.1 Azimuth ==> 162 Dip ==> -3
Range along the Y' axis ==> 213.8 Azimuth ==> 71 Dip ==> -19

Modeling Criteria

Minimum number pairs req'd ==> 150
Sample variogram points weighted by # pairs

Source: Kirkham (2023)

Table 14-9: Geostatistical Model Parameters

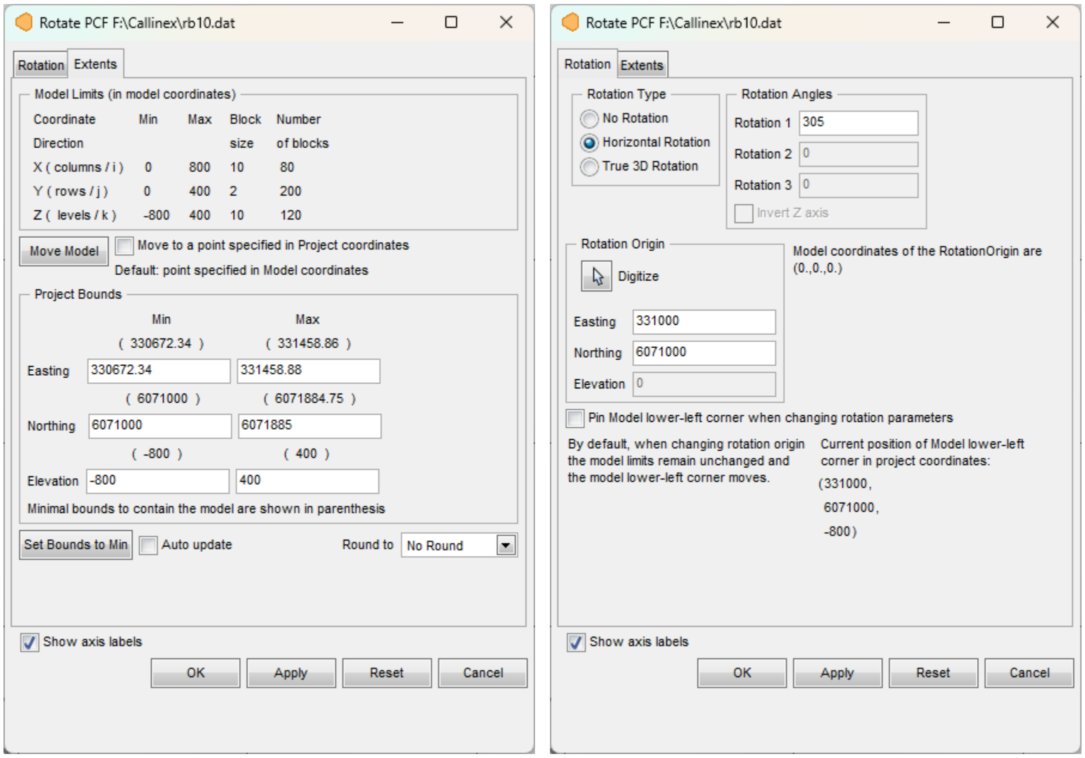
	Cu	Zn	Pb	Ag	Au
Nugget (C0)	0.3	0.3	0.687	0.45	0.3
First Sill (C1)	0.536	0.659	0.255	0.441	0.627
Second Sill (C2)	0.164	0.041	0.058	0.109	0.073
1st Structure					
Range along the Z’	16.6	24.9	16.1	21.1	19.4
Range along the X'	5.8	9.8	151.7	7.4	8.2
Range along the Y'	34.2	7.5	12.3	41.3	32.4
R1 about the Z	86	55	-35	69	89
R2 about the X'	21	73	15	6	33
R3 about the Y'	-33	1	-111	-13	-20
2nd Structure					
Range along the Z'	247.9	173.8	368.7	378.5	213.8
Range along the X'	21.6	148.9	77.7	96.9	90.1
Range along the Y'	292.4	743.5	625.7	172	383.9
R1 about the Z	24	-39	-91	74	71
R2 about the X'	58	8	27	31	-19
R3 about the Y'	-2	11	-27	-3	-3

Source: Kirkham (2023)

14.9 Block Model Definition

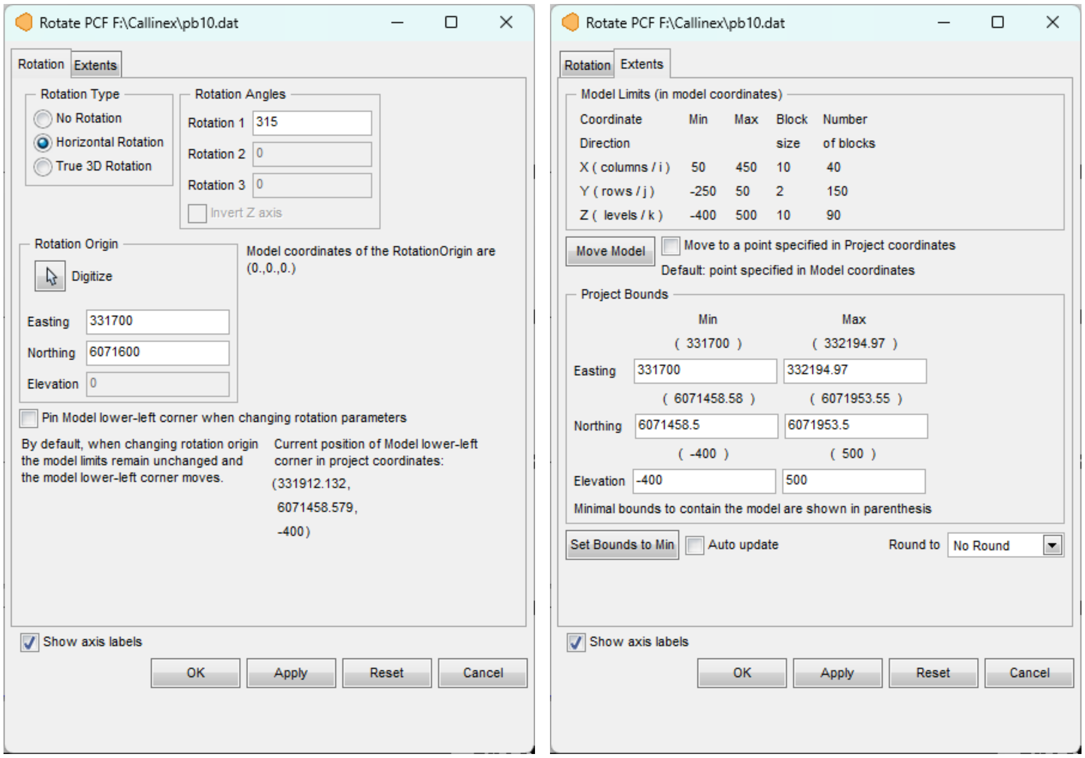
The block model used to estimate the resources was defined according to the limits specified in Figure 14-23 to Figure 14-24. The block model is orthogonal and non-rotated, reflecting the orientation of the deposit. The chosen block size was 10 m x 2 m x 10 m, roughly reflecting the drill hole spacing (i.e., four (4) to six (6) blocks between drill holes) which is spaced at approximately 50 m centers. Note: MineSight™ uses the centroid of the blocks as the origin.

Figure 14-23: Dimensions, Origin and Orientation for the Rainbow Block Model



Source: Kirkham (2023)

Figure 14-24: Dimensions, Origin and Orientation for the Pine Bay Block Model



Source: Kirkham (2023)

14.10 Resource Estimation Methodology

The resource estimation plan includes the following items:

- Mineralized zone code and percentage of modelled mineralization in each block.
- Estimated block copper, zinc, lead, silver and gold by Ordinary Kriging using a two-pass estimation strategy for the mineralized zone within the Rainbow deposit. Only copper is estimated within the Pine Bay deposit by inverse distance to the second power also employing a two (2) strategy. The two (2) passes enable better estimation of local metal grades and infill of interpreted solids.
- Densities are estimated for the Rainbow deposit on a block-by-block basis using inverse distance interpolation. The SG assigned to the Pine Bay deposit is equivalent to the mean value derived at the Rainbow deposit.

Table 14-10 summarizes the search ellipse dimensions for the two estimation passes for each zone for the Rainbow deposit while Table 14-11 show the same for the Pine Bay deposit.

Table 14-10: Search Ellipse Parameters for the Rainbow Deposit

Code	12	12	13	13
Pass	1	2	1	2
Range 1 (m)	120	60	180	60
Range 2 (m)	120	60	180	60
Range 3 (m)	30	30	30	30
1st Rotation (degrees)	125	125	125	125
2nd Rotation (degrees)	-80	-80	-80	-80
3rd Rotation (degrees)	0	0	0	0
Min # of Composites	1	6	1	6
Max # of Composites	12	18	12	18
Max # Composites/DDH	3	4	3	4

Source: Kirkham (2023)

Table 14-11: Search Ellipse Parameters for the Pine Bay Deposit

Code	1	1	2	2
Pass	1	2	1	2
Range 1 (m)	120	60	120	60
Range 2 (m)	120	60	120	60
Range 3 (m)	60	30	60	30
1st Rotation (degrees)	130	130	130	130
2nd Rotation (degrees)	-80	-80	-80	-80
3rd Rotation (degrees)	0	0	0	0
Min # of Composites	1	5	1	5
Max # of Composites	12	16	12	16
Max # Composites/DDH	3	4	3	4

Source: Kirkham (2023)

14.11 CuEq Calculation

The reporting of mineral resources is based on the CuEq cut-off of 1.3%. CuEq was calculated using metal prices of US$1,850/oz Au, US$22.50/oz Ag, US$3.25/lb Cu, US$1.20/lb Zn US$1.00/lb Pb; exchange rate of CAD:USD of 0.75, and process recoveries of 80% for Cu, 80% for Zn, 80% for Pb, and 90% for Au, 80% for Ag (see Section 13). CuEq grades were calculated and stored in each block for resource reporting as follows:

*CuEq% = Cu%+(Zn%*1.2 + Pb%)/3.25+(Au g/t*1850 + Ag g/t*22.50)*0.000211*

14.12 Mineral Resource Classification

Mineral resources were estimated in conformity with generally accepted CIM *Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines* (2019). Mineral resources are not mineral reserves and do not have demonstrated economic viability. Mineral resources are not mineral reserves and do not have demonstrated economic viability. Mineral resources for the Pine Bay Project were classified according to the CIM *Definition Standards for Mineral Resources and Mineral Reserves* (2014) by Garth Kirkham, P.Geo., of Kirkham Geosystems Ltd. (KGL), an Independent QP as defined by NI 43-101.

Drill hole spacing is sufficient for preliminary geostatistical analysis and evaluating spatial grade variability. The classification of resources was based primarily upon distance to the nearest composite; however, the multiple quantitative measures, as listed below, were inspected and taken into consideration.

The estimated blocks were also classified with consideration to the following:

- Continuity of the mineralized zones;
- Number of composites used to estimate a block;
- Number of composites allowed per drill hole;
- Distance to nearest composite used to estimate a block;
- Average distance to the composites used to estimate a block; and
- Kriged variance and relative kriging variance.

Therefore, the following lists the spacing for each resource category to classify the resources assuming the current rate of metal production:

- **Measured:** Continuity must be demonstrated in the designation of Measured (and Indicated) resources. No Measured resources can be declared based on one hole. More closely spaced sampling and/or underground development is required before it is possible to confidently nominate a drill spacing to delineate Measured resources.
- **Indicated:** Blocks within 40 m of the nearest intercept and 40 m average for all composites, estimated by at least four drill holes and at least 12 composites were classified as Indicated. As more information becomes available some adjustment may be necessary.
- **Inferred:** Any material not falling in the categories above and within a maximum 150 m of at least two (2) holes.

It is important to note that the resources at the Pine Bay deposit are classified as inferred due to the fact that the resource estimate is based on historic data. Although the data has been validated and verified, current drilling will be necessary in order for the Pine Bay deposit to be classified with higher levels of confidence.

To ensure continuity, the boundary between the Indicated and Inferred categories was contoured and smoothed, eliminating outliers and orphan blocks. The spacing distances are intended to define contiguous volumes and they should allow for some irregularities due to actual drill hole placement. The final classification volume results typically must be adjusted manually to come to a coherent classification scheme. Furthermore, in consideration for the requirement for resources to possess a “reasonable prospect of eventual economic extraction” (RP3E), underground mineable shapes were created that displayed continuity based on cut-off grades and classification. Additionally, these RP3E shapes also took into account must-take material that may fall below cut-off grade but will be extracted by mining in the event that adjacent economic material is extracted making below cut-off material by virtue of the mining costs being paid for.

The mineral resources may be impacted by further infill and exploration drilling that may result in an increase or decrease in future resource evaluations. Mineral resources may also be affected by subsequent assessment of mining, environmental, processing, permitting, taxation, socio-economic and other factors. There is insufficient information in this early stage of study to assess the extent to which the mineral resources will be affected by factors such as these that are more suitably assessed in a scoping or conceptual study. As such, a PEA is recommended.

14.13 Mineral Resource Statement

Table 14-12 and Table 14-13 shows the Mineral Resource Statement for the Rainbow deposit and Table 14-14 shows the Mineral Resource Statement for the Pine Bay deposit.

The QP evaluated the resource in order to ensure that it meets the condition of “reasonable prospects of eventual economic extraction” as suggested under NI 43-101. The criteria considered were confidence, continuity and economic cut-off. The resource listed below is considered to have “reasonable prospects of eventual economic extraction”.

The MRE which updates the previously reported estimate, incorporates data from new drilling conducted in 2020-2021 that successfully delineated a major new deposit on the project and significantly increased the resource base in both the Indicated and Inferred Resource categories.

Table 14-12: Indicated Mineral Resources for the Rainbow Deposit at 1.3% CuEq Cut-Off

Resource Area	Tonnes (,000)	Cu %	Au g/t	Zn %	Ag g/t	Pb %	Cu Mlb	Au koz	Zn Mlb	Ag koz	Pb Mlb	CuEq %	CuEq Mlb
Rainbow	3,442	3.14	0.34	0.75	6.26	0.03	238.3	37.6	56.9	692.8	2.3	3.59	272.4

Source: Kirkham (2023)

Notes:

1. Mineral Resources, which are not Mineral Reserves, do not have demonstrated economic viability.
2. The estimate of Mineral Resources may be materially affected by environmental permitting, legal title, taxation, socio-political, marketing or other relevant issues.
3. The Mineral Resources in this press release were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Standards on Mineral Resources and Reserves, Definitions (2014) and Best Practices (2019) prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council. It cannot be assumed that all or any of the inferred mineral resources will be upgraded to indicated measured resources as a result of continued exploration.
4. The indicated resource estimate uses a copper equivalent cut-off grade of 1.3% CuEq for the base case.
5. Copper equivalent resources for the Pine Bay Project were calculated using the following metal prices: Cu at US$3.25/lb, Zn US$1.20/lb, Au at US$1,850/oz, Ag at US$22.50/oz, Pb US$1.00/lb. Foreign exchange rate of CDN$1.00 = US$0.75.
6. Metallurgical recoveries have been assumed to be 80% Cu, 80% Zn, 80% Pb, 40% Au and 40% Ag.
7. Mineral resources are not mineral reserves until they have demonstrated economic viability. Mineral resource estimates do not account for a resource’s mineability, selectivity, mining loss, or dilution.
8. All figures are rounded to reflect the relative accuracy of the estimate and therefore numbers may not appear to add precisely.

Table 14-13: Inferred Mineral Resources for the Rainbow Deposit at 1.3% CuEq Cut-Off

Resource Area	Tonnes (,000)	Cu %	Au g/t	Zn %	Ag g/t	Pb %	Cu Mlb	Au koz	Zn Mlb	Ag koz	Pb Mlb	CuEq %	CuEq Mlb
Rainbow	1,282	2.55	0.27	0.69	5.39	0.03	72.1	11.1	19.5	222.2	0.8	2.95	83.4

Source: Kirkham (2023)

Notes:

1. Mineral Resources, which are not Mineral Reserves, do not have demonstrated economic viability.
2. The estimate of Mineral Resources may be materially affected by environmental permitting, legal title, taxation, socio-political, marketing or other relevant issues.
3. The Mineral Resources in this press release were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Standards on Mineral Resources and Reserves, Definitions (2014) and Best Practices (2019) prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council. It cannot be assumed that all or any of the inferred mineral resources will be upgraded to indicated measured resources as a result of continued exploration.
4. The inferred mineral resource in this resource estimate has a lower level of confidence than that applied to an indicated mineral resource and must not be converted to a mineral reserve. It is reasonably expected that a majority of the inferred mineral resource could be upgraded to an indicated mineral resource with continued exploration.
5. The inferred resource estimate uses a copper equivalent cut-off grade of 1.3% CuEq for the base case.
6. Copper equivalent resources for the Pine Bay Project were calculated using the following metal prices: Cu at US$3.25/lb, Zn US$1.20/lb, Au at US$1,850/oz, Ag at US$22.50/oz. Foreign exchange rate of CDN$1.00 = US$0.75.
7. Metallurgical recoveries have been assumed to be 80% Cu, 80% Zn, 80% Pb, 40% Au and 40% Ag.
8. Mineral resources are not mineral reserves until they have demonstrated economic viability. Mineral resource estimates do not account for a resource's mineability, selectivity, mining loss, or dilution.
9. All figures are rounded to reflect the relative accuracy of the estimate and therefore numbers may not appear to add precisely.

Table 14-14: Inferred Mineral Resources for the Pine Bay Deposit at 1.3% CuEq Cut-Off

Resource Area	Tonnes (,000)	Cu %	Cu Mlb
Pine Bay	1,006	2.62	58.1

Source: Kirkham (2023)

Notes:

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3. The Mineral Resources in this press release were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Standards on Mineral Resources and Reserves, Definitions (2014) and Best Practices (2019) prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council. It cannot be assumed that all or any of the inferred mineral resources will be upgraded to indicated measured resources as a result of continued exploration.
4. The inferred mineral resource in this resource estimate has a lower level of confidence than that applied to an indicated mineral resource and must not be converted to a mineral reserve. It is reasonably expected that a majority of the inferred mineral resource could be upgraded to an indicated mineral resource with continued exploration.
5. The inferred resource estimate uses a copper cut-off grade of 1.3% Cu.
6. Mineral resources are not mineral reserves until they have demonstrated economic viability. Mineral resource estimates do not account for a resource's mineability, selectivity, mining loss, or dilution.
7. All figures are rounded to reflect the relative accuracy of the estimate and therefore numbers may not appear to add precisely.

14.14 Sensitivity of the Block Model to Selection Cut-off Grade

The mineral resources are sensitive to the selection of cut-off grade. Table 14-15 shows the total resources for all metals at varying CuEq cut-off grades. The reader is cautioned that these values should not be misconstrued as a mineral reserve. The reported quantities and grades are only presented as a sensitivity of the resource model to the selection of cut-off grades.

The base case cut-off grades presented in Table 14-16 and Table 14-17 are based on potentially underground, mineable resources at the base case of 1.3% CuEq.

Table 14-15: Sensitivity Analyses at Various CuEq Cut-Off Grades for Indicated Resources for the Rainbow Deposit

Cutoff Cu %	Tonnes (,000)	Cu %	Au g/t	Zn %	Ag g/t	Pb %	Cu Mlb	Au koz	Zn Mlb	Ag koz	Pb Mlb	CuEq %	CuEq Mlb
0.5	4,118	2.71	0.33	0.77	6.11	0.04	246	43.7	69.9	809	3.6	3.17	287.8
1	3,880	2.85	0.34	0.78	6.25	0.04	243.8	42.4	66.7	779.7	3.4	3.31	283.1
1.1	3,766	2.92	0.34	0.78	6.28	0.04	242.4	41.2	64.8	756.8	3.3	3.38	280.6
1.2	3,609	3.03	0.34	0.76	6.26	0.03	241.1	39.5	60.5	726.4	2.4	3.48	276.9
1.3	3,442	3.14	0.34	0.75	6.26	0.03	238.3	37.6	56.9	692.8	2.3	3.59	272.4
1.4	3,265	3.27	0.33	0.72	6.23	0.03	235.4	34.6	51.8	654	2.2	3.71	267
1.5	3,130	3.38	0.33	0.71	6.23	0.03	233.2	33.2	49	626.9	2.1	3.81	262.9
1.6	3,037	3.44	0.33	0.71	6.28	0.03	230.3	32.2	47.5	613.2	2	3.88	259.8
1.8	2,896	3.55	0.34	0.71	6.31	0.03	226.7	31.7	45.3	587.5	1.9	3.98	254.1
2	2,752	3.66	0.34	0.7	6.3	0.03	222.1	30.1	42.5	557.4	1.8	4.09	248.1

Source: Kirkham (2023)

Notes:

1. Mineral Resources, which are not Mineral Reserves, do not have demonstrated economic viability.
2. The estimate of Mineral Resources may be materially affected by environmental permitting, legal title, taxation, socio-political, marketing or other relevant issues.
3. The Mineral Resources in this press release were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Standards on Mineral Resources and Reserves, Definitions (2014) and Best Practices (2019) prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council. It cannot be assumed that all or any of the inferred mineral resources will be upgraded to indicated measured resources as a result of continued exploration.
4. The indicated resource estimate uses a copper equivalent cut-off grade of 1.3% CuEq for the base case.
5. Copper equivalent resources for the Pine Bay Project were calculated using the following metal prices: Cu at US$3.25/lb, Zn US$1.20/lb, Au at US$1,850/oz, Ag at US$22.50/oz, Pb US$1.00/lb. Foreign exchange rate of CDN$1.00 = US$0.75.
6. Metallurgical recoveries have been assumed to be 80% Cu, 80% Zn, 80% Pb, 40% Au and 40% Ag.
7. Mineral resources are not mineral reserves until they have demonstrated economic viability. Mineral resource estimates do not account for a resource's mineability, selectivity, mining loss, or dilution.
8. All figures are rounded to reflect the relative accuracy of the estimate and therefore numbers may not appear to add precisely.

Table 14-16: Sensitivity Analyses at Various CuEq Cut-Off Grades for Inferred Resources for the Rainbow Deposit

Cutoff Cu %	Tonnes (,000)	Cu %	Au g/t	Zn %	Ag g/t	Pb %	Cu Mlb	Au koz	Zn Mlb	Ag koz	Pb Mlb	CuEq %	CuEq Mlb
0.5	1,541	2.22	0.28	0.71	5.54	0.03	75.4	13.9	24.1	274.5	1	2.63	89.3
1	1,481	2.3	0.28	0.71	5.6	0.03	75.1	13.3	23.2	266.6	1	2.71	88.5
1.1	1,456	2.33	0.28	0.71	5.6	0.03	74.8	13.1	22.8	262.1	1	2.74	88
1.2	1,345	2.47	0.28	0.7	5.44	0.03	73.2	12.1	20.8	235.2	0.9	2.95	87.5
1.3	1,282	2.55	0.27	0.69	5.39	0.03	72.1	11.1	19.5	222.2	0.8	2.95	83.4
1.4	1,228	2.62	0.28	0.69	5.41	0.03	70.9	11.1	18.7	213.6	0.8	3.02	81.8
1.5	1,166	2.71	0.28	0.68	5.45	0.03	69.7	10.5	17.5	204.3	0.8	3.1	79.7
1.6	1,109	2.78	0.28	0.69	5.52	0.03	68	10	16.9	196.8	0.7	3.18	77.7
1.8	945	3.04	0.3	0.7	5.75	0.03	63.3	9.1	14.6	174.7	0.6	3.44	71.7
2	870	3.17	0.3	0.69	5.8	0.03	60.8	8.4	13.2	162.2	0.6	3.58	68.7

Source: Kirkham (2023)

Notes:

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3. The Mineral Resources in this press release were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Standards on Mineral Resources and Reserves, Definitions (2014) and Best Practices (2019) prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council. It cannot be assumed that all or any of the inferred mineral resources will be upgraded to indicated measured resources as a result of continued exploration.
4. The inferred mineral resource in this resource estimate has a lower level of confidence than that applied to an indicated mineral resource and must not be converted to a mineral reserve. It is reasonably expected that a majority of the inferred mineral resource could be upgraded to an indicated mineral resource with continued exploration.
5. The inferred resource estimate uses a copper equivalent cut-off grade of 1.3% CuEq for the base case.
6. Copper equivalent resources for the Pine Bay Project were calculated using the following metal prices: Cu at US$3.25/lb, Zn US$1.20/lb, Au at US$1,850/oz, Ag at US$22.50/oz. Foreign exchange rate of CDN$1.00 = US$0.75.
7. Metallurgical recoveries have been assumed to be 80% Cu, 80% Zn, 80% Pb, 40% Au and 40% Ag.
8. Mineral resources are not mineral reserves until they have demonstrated economic viability. Mineral resource estimates do not account for a resource's mineability, selectivity, mining loss, or dilution.
9. All figures are rounded to reflect the relative accuracy of the estimate and therefore numbers may not appear to add precisely..

Table 14-17: Sensitivity Analyses at Various Cu% Cut-Off Grades for Inferred Resources for the Pine Bay Deposit

Tonnes (,000)	Cu %	Cu %	Cu Mlb
0.5	1,275	2.27	63.8
1	1,136	2.45	61.4
1.1	1,082	2.52	60.1
1.2	1,044	2.57	59.2
1.3	1,006	2.62	58.1
1.4	963	2.68	56.9
1.5	902	2.76	54.9
1.6	854	2.83	53.3
1.8	759	2.97	49.7
2	660	3.13	45.5

Source: Kirkham (2023)

Notes:

1. Mineral Resources, which are not Mineral Reserves, do not have demonstrated economic viability.
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3. The Mineral Resources in this press release were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Standards on Mineral Resources and Reserves, Definitions (2014) and Best Practices (2019) prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council. It cannot be assumed that all or any of the inferred mineral resources will be upgraded to indicated measured resources as a result of continued exploration.
4. The inferred mineral resource in this resource estimate has a lower level of confidence than that applied to an indicated mineral resource and must not be converted to a mineral reserve. It is reasonably expected that a majority of the inferred mineral resource could be upgraded to an indicated mineral resource with continued exploration.
5. The inferred resource estimate uses a copper cut-off grade of 1.3% Cu.
6. Mineral resources are not mineral reserves until they have demonstrated economic viability. Mineral resource estimates do not account for a resource's mineability, selectivity, mining loss, or dilution.
7. All figures are rounded to reflect the relative accuracy of the estimate and therefore numbers may not appear to add precisely.

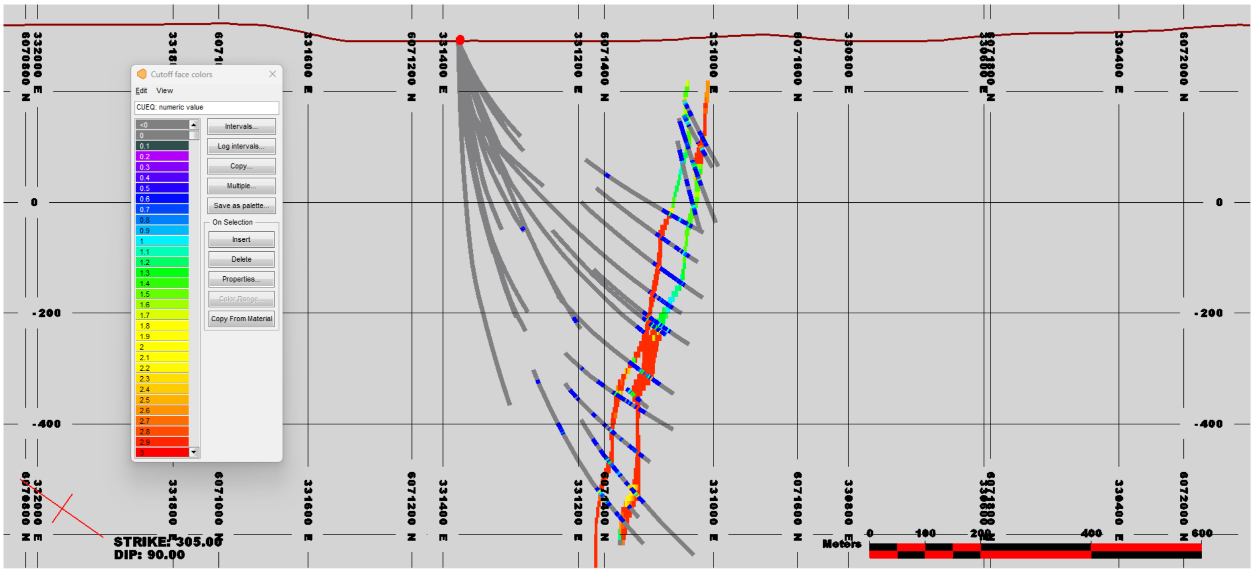
14.15 Resource Validation

A graphical validation was completed on the block model. This type of validation serves the following purposes:

- Checks the reasonableness of the estimated grades based on the estimation plan and the nearby composites;
- Checks that the general drift and the local grade trends compare to the drift and local grade trends of the composites;
- Ensures that all blocks in the core of the deposit have been estimated;
- Checks that topography has been properly accounted for;
- Checks against manual approximate estimates of tonnages to determine reasonableness; and
- Inspects for and explains potentially high-grade block estimates in the neighborhood of the extremely high assays.

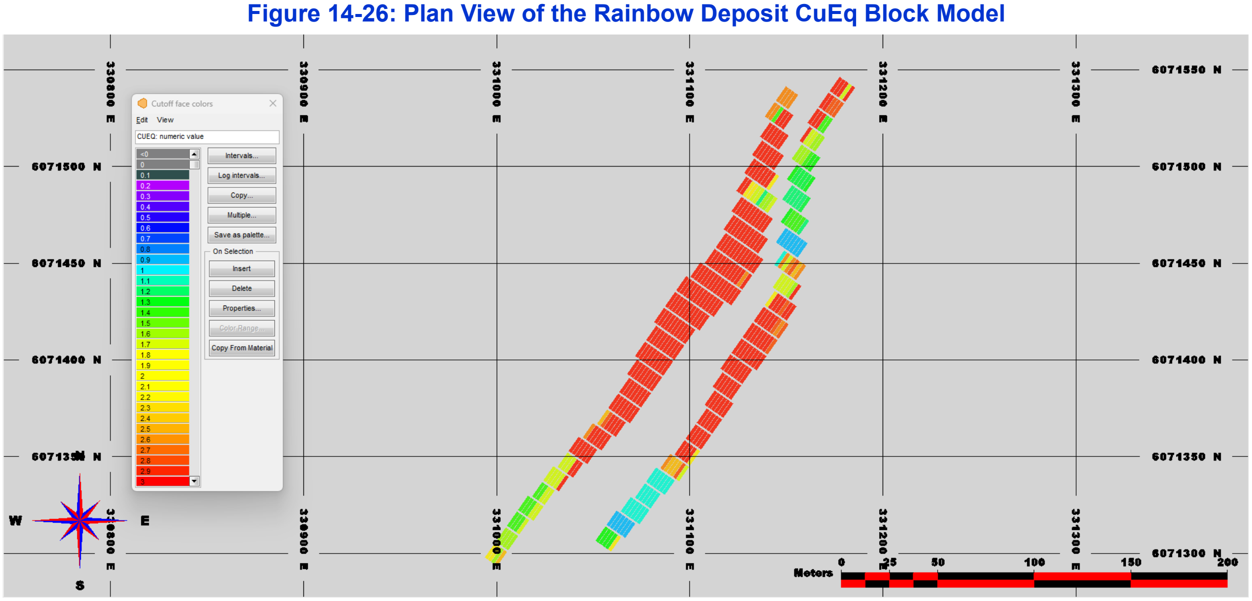
A full set of cross sections, long sections and plans, examples of which are illustrated in Figure 14-25 through Figure 14-30, were used to digitally check the block model; these showed the block grades and composites. There was no indication that a block was wrongly estimated, and it appears that the block grades could be explained as a function of the surrounding composites and the applied estimation plan.

Figure 14-25: Section View of the Rainbow Deposit CuEq Block Model showing Drill Holes and Topography



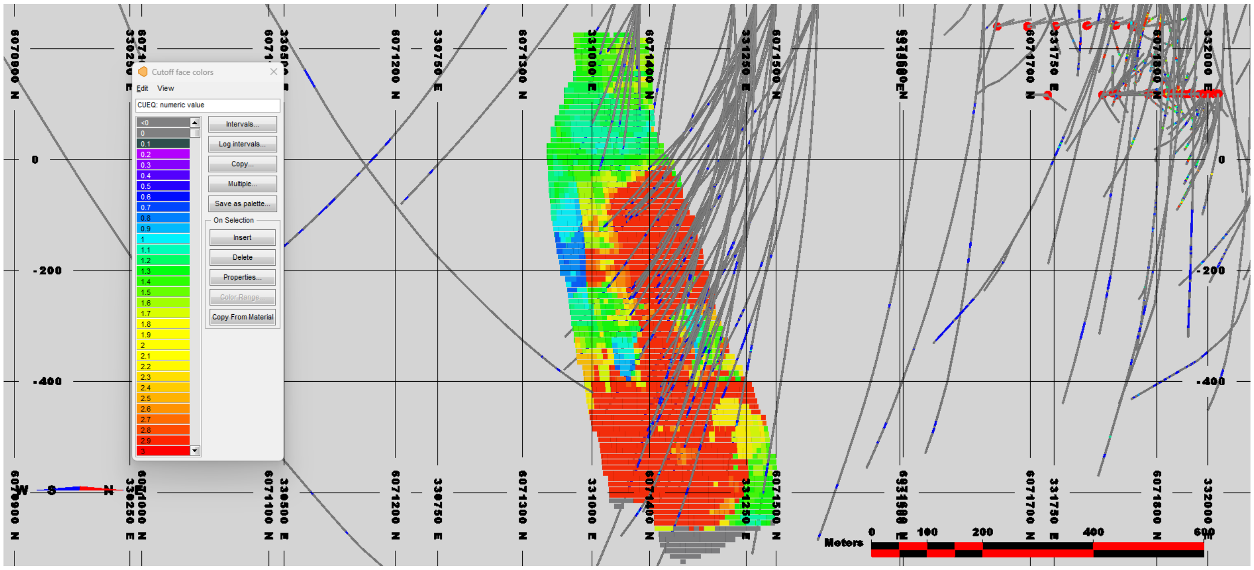
Source: Kirkham (2023)

Figure 14-26: Plan View of the Rainbow Deposit CuEq Block Model



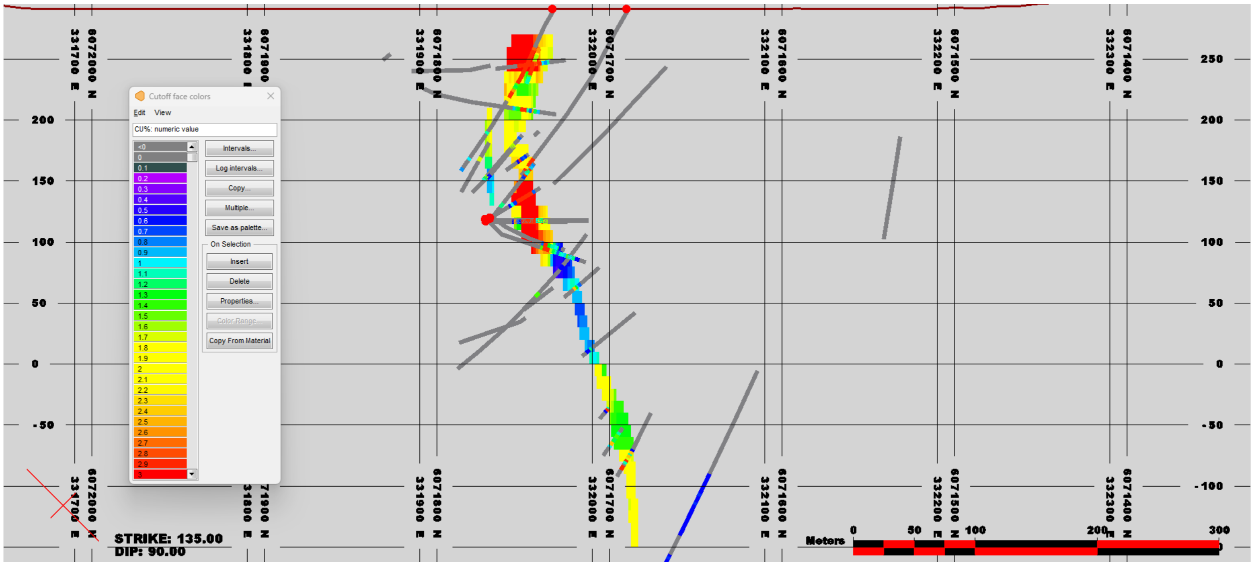
Source: Kirkham (2023)

Figure 14-27: Perspective Orthogonal View of the Rainbow CuEq Block Model Along with Drill Holes Looking West



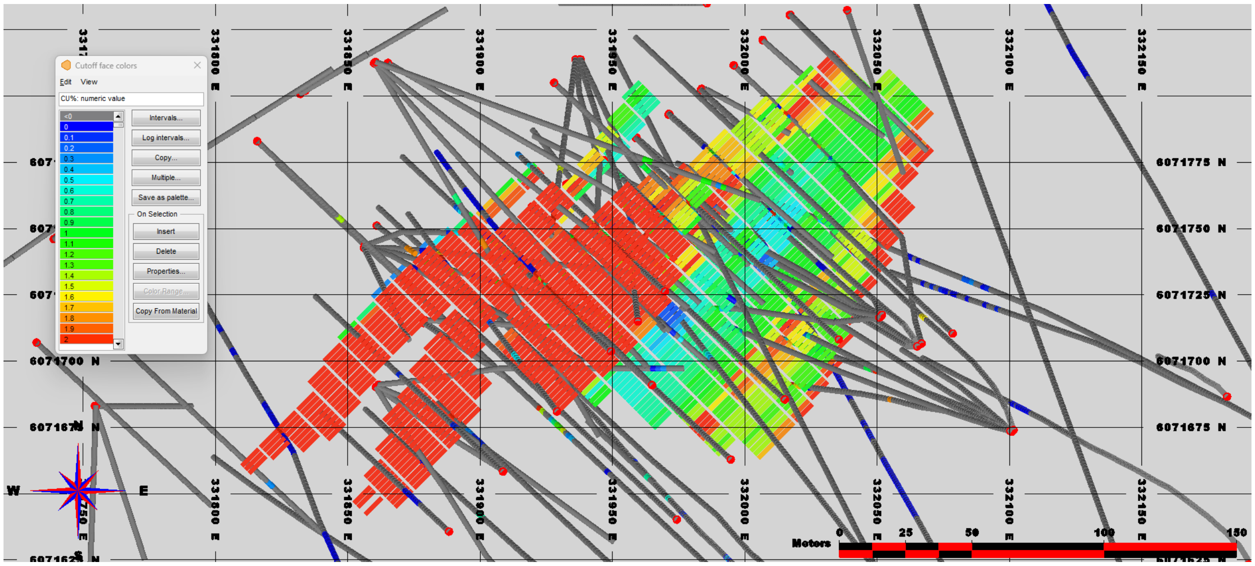
Source: Kirkham (2023)

Figure 14-28: Section View of the Pine Bay Deposit Cu% Block Model showing Drill Holes and Topography



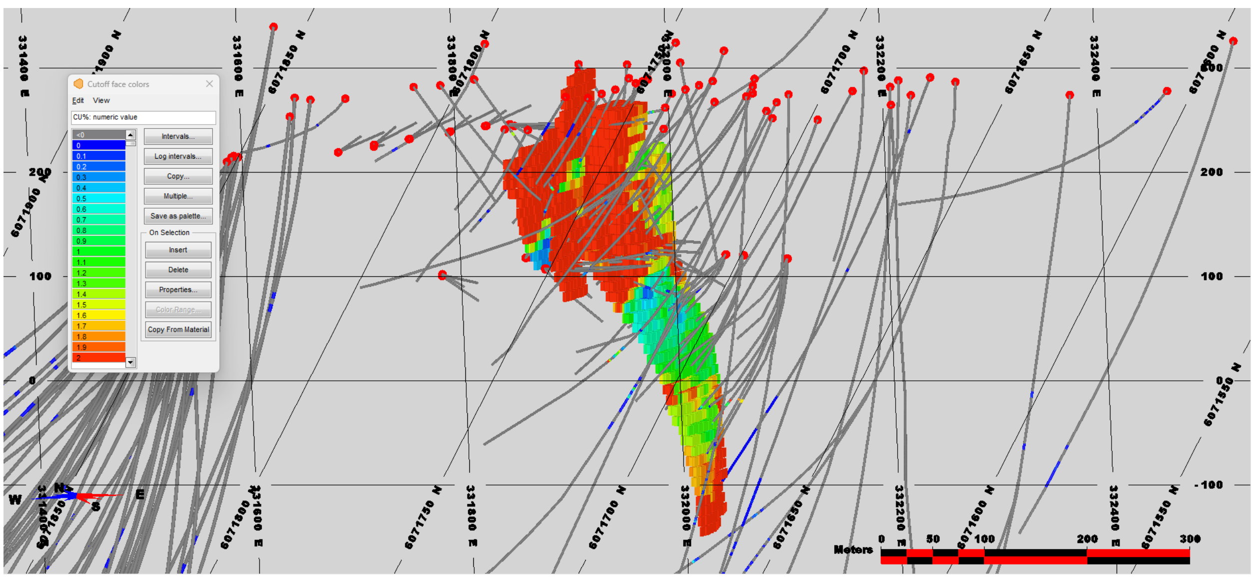
Source: Kirkham (2023)

Figure 14-29: Plan View of the Rainbow Deposit Cu% Block Model



Source: Kirkham (2023)

Figure 14-30: Perspective Orthogonal View of the Pine Bay Cu% Block Model Along with Drill Holes Looking North



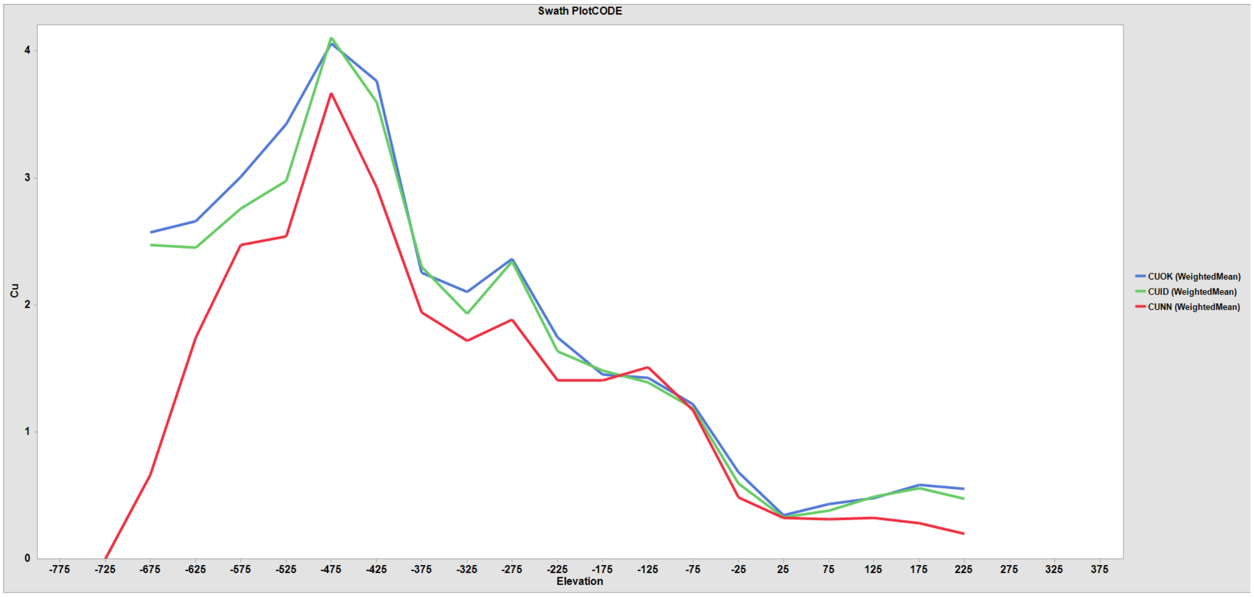
Source: Kirkham (2023)

The validation techniques included the following:

- Visual inspections on a section-by-section and plan-by-plan basis;
- Use of grade-tonnage curves;
- Swath plots comparing kriged estimated block grades with inverse distance and nearest neighbor estimates; and

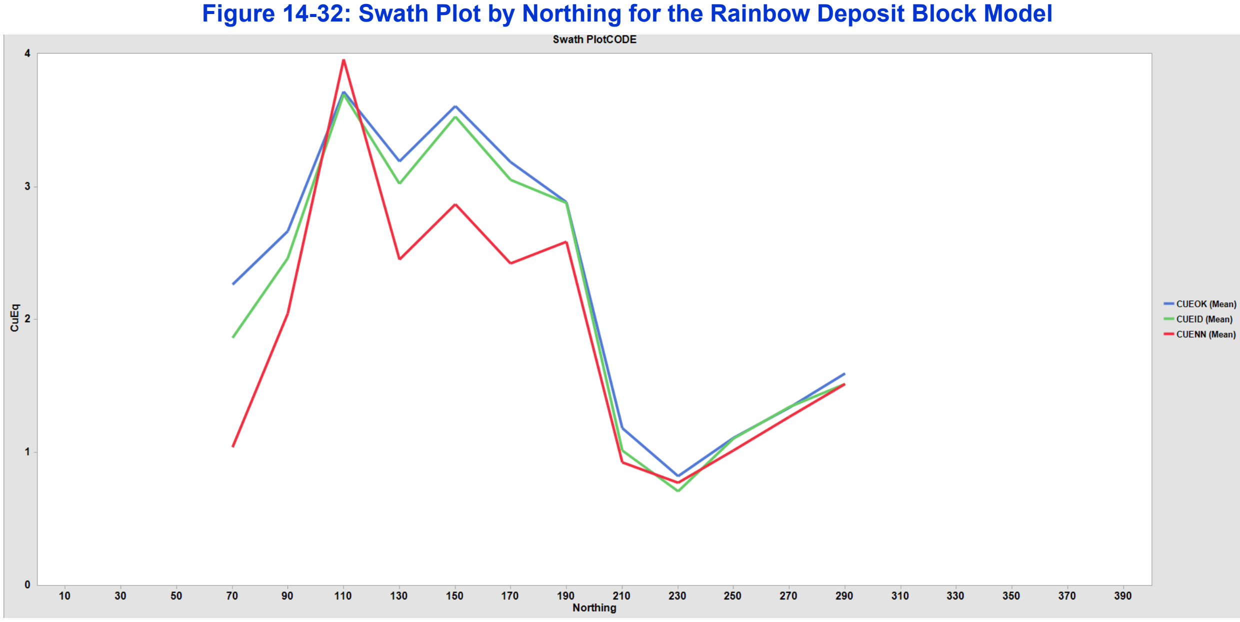
- Inspection of histograms showing distance from first composite to nearest block, and average distance to blocks for all composites (this gives a quantitative measure of confidence that blocks are adequately informed in addition to assisting in the classification of resources).

Figure 14-31: Swath Plot by Elevation for the Rainbow Deposit Block Model



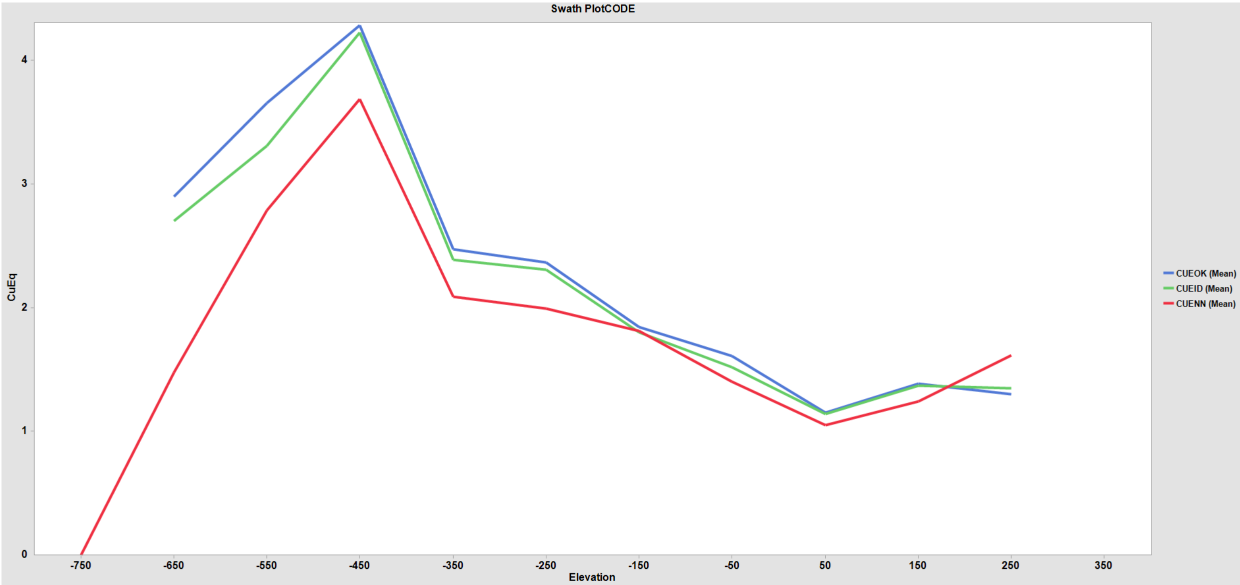
Source: Kirkham (2023)

Figure 14-32: Swath Plot by Northing for the Rainbow Deposit Block Model



Source: Kirkham (2023)

Figure 14-33: Swath Plot by Easting for the Rainbow Deposit Block Model



Source: Kirkham (2023)

14.16 Discussion with Respect to Potential Material Risks to the Resources

Apart from political and socio-economic risks there are no other known environmental, permitting, legal, taxation, title or other relevant factors that materially affect the resources.

There are no known environmental, permitting, legal, taxation, title, socio-economic, political or other relevant factors that materially affect the mineral resources. However, areas that may factor as risks related to the advancement and realization of the project are as follows:

- Climate change;
- Socio-economic and social license;
- Governmental and external; and
- Permitting.

15 MINERAL RESERVE ESTIMATE

This section is not applicable to this Technical Report.

16 MINING METHODS

This section is not applicable to this Technical Report.

17 PROCESS DESCRIPTION / RECOVERY METHODS

This section is not applicable to this Technical Report.

18 PROJECT INFRASTRUCTURE AND SERVICES

This section is not applicable to this Technical Report.

19 MARKET STUDIES AND CONTRACTS

This section is not applicable to this Technical Report.

20 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACTS

This section is not applicable to this Technical Report. Section 4 of this Technical Report addresses all current information related to these important areas.

21 CAPITAL COST ESTIMATE

This section is not applicable to this Technical Report.

22 OPERATING COST ESTIMATE

This section is not applicable to this Technical Report.

23 ECONOMIC ANALYSIS

This section is not applicable to this Technical Report.

24 ADJACENT PROPERTIES

24.1 Hudbay 777

The Hudbay operations in Flin Flon, Manitoba include the 777 Mine which has been in care and maintenance since July 2022, an ore concentrator and a zinc plant. The 777 deposit is a stratabound massive sulphide deposit that occurs within Precambrian volcanic and volcaniclastic rocks. Mineralization consists of generally medium to coarse- grained disseminated to solid sulphides consisting of pyrite, chalcopyrite, sphalerite, and pyrrhotite.

Table 24-1: 777 Indicated and Inferred Mineral Resources

Classification	Tonnage (Mt)	Cu (%)	Zn (%)	Pb (%)	Au (g/t)	Ag (g/t)
Indicated	39.06	1.2	2.16	0.14	0.41	14.39
Inferred	5.04	0.94	2.56	0.17	0.27	15.85

Source: Hudson Bay Mining SEDAR+ filing

Foran's McIlvenna Bay Project is located in east-central Saskatchewan approximately 78 km west of Pine Bay Project. The deposit was discovered in 1988 by drilling an anomaly defined by a helicopter EM survey. Since then, the McIlvenna Bay includes several zones and two distinct styles of mineralization, typical of volcanogenic-hosted massive sulphide (VMS) deposits: Massive Sulphide (MS) mineralization, and stockwork-style mineralization in the Copper Stockwork Zone (CSZ).

The closest producing base metal operation is Hudbay Minerals Lalor Lake Mine located 97 kms to the East in the community of Snow Lake Manitoba, with continuous precious and based production since 2014. Current Reserves (proven and probable) equals 8,022,000 tonnes of 2.5 g/t Au, 5.77% Zinc, 0.39% Cu, and 28.5 g/t Ag of Base Metal Resources and an additional 7,279,000 tonnes of 5.3 g/t Au, 0.59% Zn, 0.86% Cu, and 27,0 g/t Ag which the classify as Gold Zone Reserves. Lalor is a multi-lens, flat lying orebody with ramp and shaft access with daily production rate of 4,650 t/d. The Lalor deposit is interpreted as a gold enriched volcanogenic massive sulphide (VMS) hosted felsic to mafic volcanic and volcanoclastic sequence. Processing of material is handled at the Stall and New Britania facilities.

25 INTERPRETATIONS AND CONCLUSIONS

25.1 Geology and Resources

The Pine Bay Project has been evaluated and as demonstrated by the results and findings detailed within this Technical Report, illustrates that the Project warrants advancement. This resource report shows the results of the Project for the reasonable, long-term metal prices, exchange rates, reasonable prospects extraction scenarios, and metallurgical aspects.

Key conclusions:

- The Flin Flon area is a prolific, mature mining jurisdiction with excellent infrastructure and support for mining activities which will be an important factor for the future development of the Project. The community is favourable toward mining activities and there are no current land claims or encumbrances related to current or potential future operations.
- Geology is well understood, and models are supported by a robust dataset and well constrained interpretations.
- The statement of resources is the first time disclosure of mineral resources for the Project and the Technical Report represents the disclosure of the current relevant information describing the Project and its evolution to date.
- The application of geophysics has been extensively employed and remains the best tool for further exploration and potential discovery.

The primary conclusion and result to be derived from the Technical Report is the statement of resources which as follows:

- Rainbow deposit Indicated Mineral Resource of 3.44 Mt at 3.59% CuEq and Inferred Mineral Resource of 1.28 Mt at 2.95% CuEq; and
- Pine Bay deposit Inferred Mineral Resource of 1.0 Mt at 2.62% Cu.

The mineral resource estimate, contained within the mineral lease, consists of the Rainbow deposit with an Indicated Mineral Resource of 3.44 Mt at 3.59% CuEq containing 272.4 Mlb CuEq (comprised of 238.3 Mlb Cu, 56.9 Mlb Zn, 37.6 koz Au, 692.8 koz Ag, 2.3 Mlb Pb), an Inferred Mineral Resource of 1.28 Mt at 2.95% CuEq containing 83.4 Mlb CuEq (comprised of 72.1 Mlb Cu, 19.5 Mlb Zn, 11.1 koz Au, 222.2 koz Ag, 0.8 Mlb Pb) and the Pine Bay deposit with an Inferred Mineral Resource of 1.0 Mt at 2.62% Cu containing 58.1 Mlb Cu.

Table 25-1 and Table 25-2 shows a summary of the Pine Bay Project Resource Estimate Summary at 1.3% CuEq Base Case Cut-off.

Table 25-1: Rainbow Deposit Indicated Mineral Resource

Resource Area	Tonnes (,000)	Cu %	Au g/t	Zn %	Ag g/t	Pb %	Cu Mlb	Au koz	Zn Mlb	Ag koz	Pb Mlb	CuEq %	CuEq Mlb
Rainbow	3,442	3.14	0.34	0.75	6.26	0.03	238.3	37.6	56.9	692.8	2.3	3.59	272.4

Source: Kirkham (2023)

Table 25-2: Rainbow Deposit and Pine Bay Deposit Inferred Mineral Resource

Resource Area	Tonnes (,000)	Cu %	Au g/t	Zn %	Ag g/t	Pb %	Cu Mlb	Au koz	Zn Mlb	Ag koz	Pb Mlb	CuEq %	CuEq Mlb
Rainbow	1,282	2.55	0.27	0.69	5.39	0.03	72.1	11.1	19.5	222.2	0.8	2.95	83.4
Pine Bay	1,006	2.62	N/A	N/A	N/A	N/A	58.1	N/A	N/A	N/A	N/A	2.62	58.1
Total	2,288	2.58	–	–	–	–	130.2	11.1	19.5	222.2	0.8	2.8	141.5

Source: Kirkham (2023)

Notes:

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2. The estimate of Mineral Resources may be materially affected by environmental permitting, legal title, taxation, socio-political, marketing or other relevant issues.
3. The Mineral Resources in this press release were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Standards on Mineral Resources and Reserves, Definitions (2014) and Best Practices (2019) prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council. It cannot be assumed that all or any of the inferred mineral resources will be upgraded to indicated measured resources as a result of continued exploration.
4. The inferred mineral resource in this resource estimate has a lower level of confidence than that applied to an indicated mineral resource and must not be converted to a mineral reserve. It is reasonably expected that a majority of the inferred mineral resource could be upgraded to an indicated mineral resource with continued exploration.
5. The indicated and inferred resource estimate uses a copper equivalent cut-off grade of 1.3% CuEq.
6. Copper equivalent resources for the Pine Bay Project were calculated using the following metal prices: Cu at US$3.25/lb, Zn US$1.20/lb, Au at US$1,850/oz, Ag at US$22.50/oz. Foreign exchange rate of CDN$1.00 = US$0.75.
7. Metallurgical recoveries have been assumed to be 80% Cu, 80% Zn, 40% Au and 40% Ag.
8. Mineral resources are not mineral reserves until they have demonstrated economic viability. Mineral resource estimates do not account for a resource's mineability, selectivity, mining loss, or dilution.
9. All figures are rounded to reflect the relative accuracy of the estimate and therefore numbers may not appear to add precisely.

25.2 Metallurgical and Processing

The metallurgical conclusions are:

- No mineralogical or metallurgical test work has been done for the Project.
- There have been several VMS deposits similar to the Pine Bay Project deposits previously mined in the FFGB.
- Metallurgical assumptions used in this MRE, including metallurgical recoveries are reasonable, based on comparison with similar mined deposits in the FFGB.
- While recommended mineralogical and metallurgical test work will include an assessment of the leachability of the Project's mineral production, it is assumed that base option of mineral concentration will be the same crushing, grinding and flotation, as used over many decades in the FFGB.

- A comprehensive mineralogical and metallurgical test work program is recommended to confirm this maiden MRE's metallurgical assumptions and to provide information to develop a concentrator flow sheet for the base case option of a concentrator at the Project site. The test work would also be adequate for metallurgical input to a future PEA or other Project economic evaluation technical report.
- The Pine Bay Project mineral production can be processed at the Flin Flon or Snow Lake concentrators, or at Foran's McIlvenna Bay Project's Hanson Lake concentrator, after construction. This maiden MRE has assumed a dedicated on- site concentrator but the metallurgical recovery assumptions are reasonable for both a dedicated on- site concentrator or concentration at a remote concentrator. Concentration at a remote concentrator would be dependent on several factors to be evaluated against an on-site dedicated concentrator by future trade-off studies.

25.3 Risks

Mineral resource estimates are inherently forward-looking and may be subject to change. Although due diligence is exercised in reviewing the supplied information, uncontrollable factors or unforeseen events can have significant positive or negative impacts on mineral resource statements. These uncontrollable factors and/or unforeseen events may consist of risks such as:

- Cyclical nature of the mineral industry,
- Global economic, political and regulatory changes,
- Commodity price fluctuations based on varying levels of demand,
- Changes in the social acceptance of the project by local communities,
- Risks related to health epidemics, including the ongoing global pandemic,
- Mineral exploration efforts are highly speculative in nature and may be unsuccessful,
- Risks related to delays or changes to development program plans and schedules, and
- Uncertainty related to the potential changes to legislation and the taxation regime.

Any one or combination of factors could significantly influence mineral resource statements.

As detailed in this Technical Report the resource estimates are based on geological theories, interpretations and domaining. There is a level of subjectivity where other geoscientists may have differing opinions and with new information and subsequent data, interpretation may be updated or revised. Although these differences should not be materially significant, there will invariably be changes going forward and risks due to uncertainty.

Exploration has continued to result in the discovery and expansion of potential mineral resources at the Pine Bay Project. However, there is no guarantee that this exploration and discovery will result in an economically viable operation.

The geology of the area is well known and documented, supported by extensive data, analysis, and study. However, further work may disprove previous models and therefore result in condemnation of targets and potential negative economic outcomes.

All projects benefit from increasing amounts of data and information in order to improve understanding and mitigate risks. However, there is a risk that unknown issues may arise with additional data. It is prudent to continue to improve the quantity and quality of information to decrease risk as much as possible. Risk may be mitigated with definition drilling in order to further refine and delineate structures and identify any potential problem areas.

26 RECOMMENDATIONS

The extent of mineralization in the Rainbow deposit, beyond the bounds of the current mineral resource, remains open for further exploration and expansion. The Rainbow and Pine Bay deposits currently contain a significant indicated and inferred mineral resource, which resides mostly within the Rainbow domains which are predominantly potentially underground mineable. The Pine Bay deposit requires drilling in order to upgrade for inferred and to infill regions that lack historical data which has been set to 0.00 grade. In addition, further verification drilling will have the potential to improve confidence and increase the size of the deposit.

An extended diamond drilling campaign spanning two (2) years is recommended to, 1) determine the extents of the deposits and regionally including Alchemist via an extensive drilling campaign, 2) increase the density of drilling in the inferred mineral resource areas of Rainbow, 3) delineate and validate the Pine Bay deposit with drilling in year two, 4) continue to gather specific gravity measurements at Rainbow and Alchemist and perform density measurements at the Pine Bay deposit and, 5) metallurgical testing and studies.

Approximately 35,000 m of drilling is expected to satisfy the requirement to convert portion of the Inferred Mineral Resource to the Indicated Mineral Resource category, as well as provide confidence and continuity at the Pine Bay deposit. In addition, further definition drilling at the Alchemist deposit to support resource estimation studies along with regional exploration drilling.

Metallurgical and variability test work is recommended to allow the development of a robust metallurgical process flowsheet and the updated MRE to be expressed on a NSR valuation basis. It is recommended that a future comprehensive mineralogical and metallurgical test work program be done to define the concentration process parameters and develop the concentrator flow sheet. Representative diamond drill core samples from the Rainbow and Pine Bay deposits and explicit zones within these deposits should be selected for the recommended test work. The test work program should include:

- Mineralogical studies;
- Preliminary leaching tests;
- Crushability and grindability tests including abrasion Index, low impact index, Bond work Index (crushing, rod mill and ball mill);
- Screening tests;
- Flotation tests (for separate copper and zinc concentrates and bulk concentrate); and
- Thickening / settling and filtration tests.

Engineering work is also recommended to advance the Project toward a PEA.

Ongoing environmental studies are also recommended to support working toward an economic evaluation and permitting requirements of the Pine Bay project.

The budget for the program is summarized in Table 26-1.

Table 26-1: Proposed 2-Year Program Budget: 2023-2025

Item	Unit	Unit Cost (CAD$)	Cost Estimate (CAD$)
Rainbow and Regional Drilling: NQ2/HQ and Pine Bay Diamond Drilling	35,000 m	$250/m	8,750,000
Assaying	25,000	$60	1,500,000
Field staff: Geologists, logistics support	10 personnel	$600	2,400,000
Rehab Pads and Drill Roads			10,000
Metallurgical Test Work Program			120,000
Environmental Studies			60,000
Resource Update			110,000
Preliminary Economic Assessment			350,000
Subtotal			13,300,000
Contingency (15%)			1,995,000
Total			**15,295,000**

Source: Kirkham (2023)

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28 CERTIFICATES

Georgi Doundarov, M.Sc., P.Eng., PMP, CCP

I, Georgi Doundarov, P.Eng., do hereby certify that:

1. This certificate applies to the Technical Report entitled “NI 43-101 Technical Report, Pine Bay Project, Flin Flon, Manitoba” (the “Technical Report”) with an effective date of August 25, 2023, prepared for Callinex Mines Inc.;
2. I am currently employed as a Technical Services Lead with Magemi Mining Inc. with an office at #34 – 60 Green Lane, Markham, Ontario L3T 7P5;
3. I am a graduate of the University of Mining and Geology, 1996 with a M.Sc. degree in Mineral Processing and Metallurgy as well as a graduate from the Yokohama National University, Yokohama, Japan, 2005 with a M.Sc. degree in Infrastructure Management - Mineral Processing and Metallurgy. I have practiced my profession continuously since 1996;
4. I have spent the last 27 years working on various mining projects and studies; where I have performed, technical, operations and management positions at mines in Canada. I have been responsible for recovery optimization projects, capital improvement projects, budgeting, planning and pilot plant operations. I also have been responsible for writing technical reports, managing metallurgical testwork, and performing due diligence audits on mines and development properties;
5. I am a Registered Professional Engineer in Ontario (#100107167);
6. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101. I am independent of the issuer, vendor, property and related companies applying all of the tests in Section 1.5 of NI 43-101;
7. I have not visited the Pine Bay project;
8. I am responsible for Sections 13, 17 and corresponding sections of 1, 25, 26 and 27 of the Technical Report of this Technical Report;
9. I am independent of the Issuer and related companies applying all of the tests in Section 1.5 of the NI 43-101;
10. I have had no prior involvement with the property that is the subject of this Technical Report;
11. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading; and
12. I have read NI 43-101, and the Technical Report has been prepared in accordance with NI 43-101 and Form 43-101F1.

Effective Date: August 25, 2023

Signed Date: August 25, 2023

(Original signed and sealed) “Georgi”

Georgi Doundarov, P.Eng.

Garth David Kirkham, P.Geo.

I, Garth David Kirkham, P.Geo., do hereby certify that:

1. This certificate applies to the "NI 43-101 Technical Report, Pine Bay Project, Flin Flon, Manitoba" (the "Technical Report") with an effective date of August 25, 2023, prepared for Callinex Mines Inc.;
2. I am a consulting geoscientist and principal of Kirkham Geosystems Ltd. with an office at 6331 Palace Place, Burnaby, BC, Canada, V5E 1Z6;
3. I am a graduate of the University of Alberta in 1983 with a BSc. I have continuously practiced my profession since 1988. I have worked on and been involved with NI43-101 studies on similar VMS projects and deposits such as Kutcho Creek (BC, Canada), Minto (Yukon, Canada), Debarwa, Adi Nefas and Emba Derho (Eritrea);
4. I am a member in good standing of Professional Engineers and Geoscientists of Manitoba (PEGM) and Engineers and Geoscientists BC (EGBC);
5. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101. I am independent of the issuer, vendor, property and related companies applying all of the tests in Section 1.5 of NI 43-101;
6. I have visited the Pine Bay project on October 5 – 10, 2022;
7. In the independent "Technical Report", I am responsible for Sections 2 through 12, Section 14, Section 24 and corresponding sections of 1, 25, 26 and 27 of the Technical Report;
8. I have had no prior involvement with the property that is the subject of this Technical Report;
9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading; and
10. I have read NI 43-101, and the Technical Report has been prepared in accordance with NI 43-101 and Form 43-101F1.

Effective Date: August 25, 2023

Signed Date: August 25, 2023

(Original signed and sealed) "Garth Kirkham, P.Geo."

Garth Kirkham, P.Geo.