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# Casino Project



## Form 43-101F1 Technical Report Mineral Resource Statement

Yukon, Canada

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**DATE AND SIGNATURES PAGE**

The effective date of the mineral resource estimate is 3 July 2020. The issue date of this report is 26 October 2020. See Appendix A, Mineral Resource Update Contributors and Professional Qualifications, for certificates of qualified persons. These certificates are considered the date and signature of this report in accordance with Form 43-101F1.

CASINO PROJECT  
 FORM 43-101F1 TECHNICAL REPORT  
 MINERAL RESOURCE STATEMENT

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LIST OF APPENDICES

APPENDIX	DESCRIPTION
A	Mineral Resource Update Contributors and Professional Qualifications <ul style="list-style-type: none"><li>• Certificate of Qualified Person (“QP”)</li></ul>
B	Casino Placer Claims and Casino Quartz claims

## **1 SUMMARY**

This Report was prepared for Casino Mining Corporation (“CMC”), a wholly-owned subsidiary of Western Copper and Gold Corporation (“Western”) as well as for Western itself, by M3 Engineering & Technology Corporation (M3) in association with Independent Mining Consultants (IMC), GeoSpark Consulting Inc. and Aurora Geosciences.

The purpose of this report is to provide an updated mineral resource statement on the Casino Property. The estimate of mineral resources contained in this report conforms to the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Mineral Resource and Mineral Reserve definitions (May, 2011) referred to in National Instrument (NI) 43-101, Standards of Disclosure for Mineral Projects.

### **1.1 PROPERTY DESCRIPTION AND OWNERSHIP**

The Casino porphyry copper-gold-molybdenum deposit is located at latitude 62° 44'N and longitude 138° 50'W (NTS map sheet 115J/10), in west central Yukon, in the northwest trending Dawson Range mountains, 300 km northwest of the territorial capital of Whitehorse.

To the west, Newmont is developing the Coffee Project. To the north and to the west, White Gold Corp. has a large number of claims and is actively exploring them. Approximately 100 km to the east, Pembridge Resources operates the Minto Mine, which produces copper concentrate.

The project is located on Crown land administered by the Yukon Government and is within the Selkirk First Nation traditional territory and the Tr'ondek Hwechin traditional territory lies to the north. The proposed access road crosses into Little Salmon Carmacks First Nation traditional territory to the south. The White River First Nation and Kluane First Nation are downstream from the project.

The Casino Property lies within the Whitehorse Mining District and consists of 1,136 full and partial Quartz Claims and 55 Placer Claims acquired in accordance with the Yukon Quartz Mining Act. The total area covered by Casino Quartz Claims is 21,276.61 ha. The total area covered by Casino Placer Claims is 490.32 ha. CMC is the registered owner of all claims, although certain portions of the Casino property remain subject to royalty agreements. The claims covering the Casino property are discussed further in Section 4 of this document.

Figure 1-1 at the end of this section shows the site's location in Yukon Territory as well as other points of interest relevant to this Report.

### **1.2 HISTORY**

#### **1.2.1 Casino**

The first documented work on the Casino Property was the working of placer claims in the area of the Casino Deposit recorded in April 1911, following a placer gold discovery on Canadian Creek by J. Britton and C. Brown. A study by D.D. Cairnes, of the Geological Survey of Canada in 1917, recognized huebnerite (MnWO<sub>4</sub>) in the heavy-mineral concentrates of the placer workings and also that the gold and tungsten mineralization was derived from an intrusive complex on Patton Hill. During the Second World War, a small amount of tungsten was recovered from placer workings. The total placer gold production from the area of the property is unknown, but during the period of 1980-1985 placer mining yielded about 50 kg (1,615 troy ounces) of gold.

The first recorded bedrock mineral discovery occurred in 1936 when J. Meloy and A. Brown located silver-lead-zinc veins approximately 3 km south of the Canadian Creek placer workings. Over the next several years the Bomber and Helicopter vein systems were explored by hand trenches and pits. In 1943, the Helicopter claims were staked and in 1947 the Bomber and Airport groups were staked.

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Lead-silver mineralization was the focus of exploration on the property until 1968. Noranda Exploration Co Ltd. optioned the property in 1948 and Rio Tinto in 1963. During this time trenching, mapping and sampling were conducted.

L. Proctor purchased the claims in 1963 and formed Casino Silver Mines Limited to develop the silver-rich veins. The silver-bearing veins were explored and developed intermittently by underground and surface workings from 1965 to 1980. In total, 372.5 tonnes of hand-cobbled argentiferous galena, assaying 3,689 g/t silver (Ag), 17.1 g/t gold (Au), 48.3% lead (Pb), 5% zinc (Zn), 1.5% copper (Cu) and 0.02% bismuth (Bi) were shipped to the smelter at Trail, British Columbia.

Based on the recognition of porphyry copper potential, the Brynelsen Group acquired Casino Silver Mines Limited and, from 1968 to 1973, exploration was directed jointly by Brameda Resources, Quintana Minerals and Teck Corporation towards a porphyry target. Exploration included extensive soil sampling and geophysical surveys, along with trenching programs, which eventually led to the discovery of the Casino deposit in 1969. From 1969 to 1973, various parties including Brameda Resources, Quintana Minerals and Teck Corporation completed drilling on the property.

Archer, Cathro & Associates (1981) Ltd. (Archer Cathro) optioned the property in 1991 and assigned the option to Big Creek Resources Ltd. In 1992, a program consisting of 21 HQ (63.5 mm diameter) holes totalling 4,729 m systematically assessed the gold potential in the core area of the deposit for the first time. In 1992, Pacific Sentinel Gold Corp. (PSG) acquired the property from Archer Cathro and commenced a major exploration program. The 1993 program included surface mapping and 50,316 m of HQ (63.5 mm diameter) and NQ (47.6 mm diameter) drilling in 127 holes. All but one of the 1992 drill holes were deepened in 1993. PSG drilled an additional 108 drill holes totalling 18,085 m in 1994. This completed the delineation drilling program which commenced in 1993. PSG also performed metallurgical, geotechnical and environmental work which was used in a scoping study in 1995. The scoping study envisioned a large-scale open pit mine and a conventional flotation concentrator that would produce a copper-gold concentrate for sale to Pacific Rim smelters.

First Trimark Resources and CRS Copper Resources obtained the property and, using the Pacific Sentinel Gold data, published a Qualifying Report on the property in 2003 to bring the resource estimate into compliance with National Instrument 43-101 requirements. The two firms combined to form Lumina Copper Corporation in 2004. An update of the Qualifying Report was issued in 2004.

Western Copper Corporation acquired Lumina Copper Corporation in November of 2006, which included the Casino Deposit. In the fall of 2011, Western Copper Corporation spun out all other assets except the Casino Deposit and changed its name to Western Copper and Gold Corporation (Western).

In 2007, Western conducted an evaluation of the Bomber Vein System and the southern slope of Patton Hill by VLF-EM, Horizontal Loop EM and soil geochemical surveying. Environmental baseline studies were also initiated in 2007. In 2008, Western Copper reclaimed the old camp site, constructed a new exploration camp next to the Casino airstrip and drilled three drill holes (the camp water well and two exploration diamond drill holes) totalling 1,163 m. The main purpose of the drilling was to obtain fresh core samples for the metallurgical and waste characterization tests. Both exploration holes twinned PSG's holes to confirm historical copper, gold and molybdenum grades. Later that year, M3 Engineering produced a pre-feasibility study for Western Copper.

In 2009, Quantec Geoscience Limited of Toronto, Ontario performed a 22.4-km Titan-24 Galvanic Direct Current Resistivity and Induced Polarization (DC/IP) surveys and a Magnetotelluric Tensor Resistivity (MT) survey over the entire porphyry system. Magnetotelluric Resistivity surveys result in high resolution and deep penetration (to 1 km), while the Titan DC Resistivity & Induced Polarization surveys provide reasonable depth coverage to 750 m.

Additionally, in 2009, Western drilled 10,943 m in 37 diamond drill holes, of which 27 holes were infill holes drilled to upgrade the previously designated Inferred Resource and non-defined material to the Measured and Indicated

resource categories. Infill drilling covered the north slope of the Patton Hill. The drilling also identified supergene and molybdenum (Mo) mineralization in this area. The remaining 10 holes, totalling 4,327 m, were drilled to test geophysical targets.

In 2010, all Pacific Sentinel's historic drill core stored at the Casino Property was re-logged. The purpose of the re-logging was to provide data for the new lithology and alteration models.

In 2011 and 2012, CMC focused on geotechnical, metallurgical, baseline environmental studies and also completed some drilling, logging and sampling for exploration purposes. In 2011, the program included 41 drill holes for a total of 3,163.26 m. In 2012, six holes (228.07 m) were drilled for geotechnical purposes and 5 holes (1,507.63 m) were drilled for metallurgical sampling.

In 2010, under the direction of the Casino Mining Corporation (CMC), a wholly-owned subsidiary of Western Copper, CMC completed infill and delineation drilling mostly to the north and west of the deposit, as outlined by PSG. The drilling program also defined hypogene mineralization at the southern end of the deposit. In addition, the company drilled a series of geotechnical holes at the proposed tailings embankment area and within the pit, along with several other holes for hydrogeological studies. The geotechnical drilling continued in 2011 (41 holes, 3,163 m) and 2012 (6 holes, 228 m). This work culminated in the publishing of a pre-feasibility study in 2011 and a feasibility study in 2013.

## **1.2.2 Canadian Creek**

In mid 2019, CMC acquired the adjacent property to the west referred to as the Canadian Creek property from Cariboo Rose Resources Ltd. Exploration on the Canadian Creek property dates from 1992 when Archer Cathro & Associates (Archer Cathro) staked the Ana Claim block. In 1993 Eastfield Resources Ltd. acquired the Ana Claims and expanded the Ana Claims and explored the expanded property with soil grids, trenching and drilling, (Johnston, 2018). This work was directed at the discovery of additional porphyry deposits. The 1993 program was followed by extensive field programs in 1996, 1997 and 1999 consisting of induced polarization (IP) surveying, road construction, and trenching on the Ana, Koffee, Maya and Ice claims. In 2000, another drill campaign was undertaken by Eastfield on the Ana, Koffee Bowl, and the newly acquired Casino "B" claims located immediately west of the Casino deposit. The Casino "B" holes confirmed the existence of gold mineralization first discovered here in 1994 by Pacific Sentinel, which encountered 55.17 m averaging 0.71 g/t gold in hole 94-319. Modest exploration programs were conducted, mostly over the Casino "B" area, in 2003, 2004 and 2005. In 2007 a five-hole core drill program at Casino "B" targeted gold and copper in soil anomalies and ground magnetic high features.

The discovery in 2009 of gold mineralization on Underworld Resources' White Gold property sparked new interest in gold exploration on the Canadian Creek property. This led to the implementation of a major exploration program at Canadian Creek directed at the gold potential of the property, some distance from the previous work focusing on porphyry copper mineralization. A soil survey revealed extensive areas returning greater than 15 ppb gold in soils, with associated anomalous values in arsenic (As), bismuth (Bi) and antimony (Sb). The induced polarization surveys revealed numerous strong chargeability highs, many of which coincide with the gold-in-soil anomalies. The drilling showed that clay-altered structures with sheeted pyrite veins and/ or quartz-carbonate veins show structural narrowing. With few exceptions, gold grades are less than 1 g/t and widths are less than 3 m.

In 2011, additional soil sampling, ground geophysical surveying and trenching were completed. The soil sampling completed the coverage of the entire Canadian Creek property. A limited-extent induced polarization survey identified two zones of chargeability with values greater than 20 mv/V. The trenching program identified a number of areas with anomalous gold values, ranging from background up to 2,890 and 4,400 ppb Au.

As a follow up to the 2011 program, a modest 2016 program of trenching, prospecting and in-fill soil sampling was carried out by Cariboo Rose Resources Ltd (Cariboo Rose), which had acquired the property from Eastfield. Trenching work conducted in three areas of the Ana portion of the Canadian Creek property returned locally anomalous gold,

widely spread anomalous arsenic, bismuth, antimony and locally high silver values, generally confined to narrow structures.

Cariboo Rose's 2017 exploration program consisted of surface work directed at the Kana and Malt West gold targets and a reverse circulation (RC) drill program that tested a variety of gold targets across the property. A total of 2,151.27 metres in 24 holes of reverse circulation (RC) drilling was completed. This work confirmed gold and silver mineralization to be limited to narrow (less than 3-metre-wide) structures rarely traceable over more than 100 m.

### **1.3 GEOLOGY**

The geology of the Casino deposit is typical of many porphyry copper deposits. The deposit is centered on an Upper Cretaceous-age (72-74 Ma), east-west elongated porphyry stock, called the Patton Porphyry, which intrudes Mesozoic granitoids of the Dawson Range Batholith and Paleozoic schists and gneisses of the Yukon Tanana terrane. Intrusion of the Patton Porphyry into the older rocks caused brecciation of both the intrusive and the surrounding country rocks along the northern, southern and eastern contact of the stock. Brecciation is best developed in the eastern end of the stock where the breccia zone can be up to 400 m wide in plan view. To the west, along the north and south contacts, the breccias narrow gradually to less than 100 m. The overall dimensions of the intrusive complex are approximately 1.8 by 1.0 km.

The main body of the Patton Porphyry is a relatively small, locally mineralized stock measuring approximately 300 by 800 m, surrounded by a potassically-altered intrusion breccia in contact with rocks of the Dawson Range, referred to as White River Granodiorite. Elsewhere, the Patton Porphyry forms discontinuous dikes ranging from less than one up to tens of metres in width, cutting both the Patton Porphyry plug and the Dawson Range Batholith. The overall composition of the Patton Porphyry is rhyodacitic, with dacitic phenocrysts within a quartz latite matrix. It is more commonly comprised of abundant distinct plagioclase phenocrysts and lesser biotite, hornblende, quartz and opaque minerals.

The Intrusion Breccia surrounding the main Patton Porphyry body consists of granodiorite, diorite and xenoliths of Paleozoic metamorphic rocks within fine-grained Patton Porphyry rocks and adjacent Dawson Range granodioritic rocks. The intrusion breccia may have formed in part along the margins of the stock by the stoping of blocks of wall rock. An abundance of Dawson Range Batholith granodioritic inclusions occurs along the southern contact of the main plug, while inclusions of Wolverine Creek metamorphic rocks occur along the northern contact and bleached diorite inclusions occur along the eastern contact of the main plug. Strong potassic alteration locally destroys primary textures.

Primary copper, gold and molybdenum mineralization was deposited from hydrothermal fluids that exploited the contact breccias and fractured wall rocks. Higher grades occur in the breccias and gradually decrease outwards from the contact zones towards the centre of the stock and outward into the granitoids and schists. The main mineralized settings are:

- **Leached Cap Mineralization (CAP)** – This oxidized zone is gold-enriched and copper-depleted due to supergene alteration processes and has a lower specific gravity relative to the supergene zone. Weathering has replaced most minerals with clay which is most intense at the surface and decreases with depth.
- **Supergene Oxide Mineralization (SOX)** – This zone is copper-enriched, with trace molybdenite. It generally occurs as a thin layer above the Supergene Sulphide zone. Where present, the supergene oxide zone averages 10 m thick and locally contains chalcantite, malachite, brochantite, minor azurite, tenorite, cuprite, and neotocite.
- **Supergene Sulphide Mineralization (SUS)** – Supergene copper mineralization occurs as a weathered zone up to 200 m deep, below the leached cap and above the Hypogene zone. It has an average thickness of 60 m. Grades of the Supergene sulphide zone vary widely, but are highest in fractured and highly pyritic

zones, due to their ability to promote leaching and chalcocite precipitation. The copper grades of the Supergene Sulphide zone are almost double those of the Hypogene zone (0.43% Cu versus 0.23% Cu).

- **Hypogene Mineralization** – Hypogene mineralization occurs throughout the various alteration zones of the Casino Porphyry deposit, as mineralized stock-work veins and breccias and represents the “original” mineralized setting. Significant Cu-Mo mineralization is related to the potassically-altered breccia surrounding the core Patton Porphyry, as well as in the adjacent phyllically-altered host rocks of the Dawson Range Batholith. The pyrite halo of this mineralization is host to the highest Cu values on the property.

#### **1.4 DEPOSIT TYPE**

The Casino deposit is best classified as a calc-alkalic porphyry type deposit associated with a tonalite intrusive stock (the Patton Porphyry). Primary copper, gold and molybdenum mineralization was deposited from hydrothermal fluids that exploited the contact breccias and fractured wall rocks. Higher grades occur in the contact breccias. Grades gradually decrease inward from the contact zone towards the centre of the stock and outward into the host granitoids and schists. A general zoning of the primary sulphides occurs, with chalcopyrite and molybdenite occurring in the core tonalite and breccias, grading outward into pyrite-dominated mineralization in the surrounding granitoids and schists. Alteration accompanying the sulphide mineralization consists of an earlier phase of potassic alteration and a later overprinting of phyllic alteration. The potassic alteration typically comprises secondary biotite and K-feldspar as pervasive replacement and includes veins and stockworks of quartz and anhydrite veinlets. Phyllic alteration consists of replacements and vein-style sericite and silicification.

The Casino Copper deposit is unusual amongst Canadian porphyry copper deposits in that it has a well-developed enriched secondary supergene blanket of copper mineralization. This is a porphyry model similar to the Escondita deposit in Chile and the Morenci deposit in the southwest United States. Unlike other porphyry deposits in Canada, the Casino deposit’s enriched supergene copper blanket was not eroded by the glacial action of ice sheets during the last ice age. At Casino, weathering during the Tertiary Period leached the copper from the upper 70 m of the deposit and re-deposited it lower in the deposit, forming the Supergene zone. This resulted in a layer-like sequence consisting of an upper leached zone, up to 70 m thick, where all sulphide minerals have been oxidized and copper removed, leaving a bleached, iron oxide leached cap containing residual gold. Beneath the leached cap is a zone up to 100 m thick of secondary copper mineralization, consisting primarily of chalcocite and minor covellite, as well as a thin, discontinuous layer of copper oxide minerals at the upper contact with the leach cap. The copper grades of the enriched, blanket-like zone can be up to twice that of the underlying, unweathered hypogene zone hosting primary copper mineralization. Primary mineralization consists of pyrite, chalcopyrite and lesser molybdenite. The primary copper mineralization is persistent at depth, extending to more than 600 m within the deepest drill holes completed to date.

#### **1.5 EXPLORATION STATUS**

In 2019, CMC carried out a program of infill drilling designed to convert mineralization from the Inferred category, located along the margin of the deposit, into the Indicated category. A total of 72 holes comprising 13,594.63 m of drilling were drilled, logged and sampled in 2019.

#### **1.6 EXPLORATION PROCEDURES**

Exploration on the property over its history has included prospecting, geological mapping, multi-element soil geochemistry, magnetic and induced polarization surveys, trenching and drilling. Targets of early drilling on the Casino Deposit were based mainly on coincident copper and molybdenum-in-soil anomalies. Since 1993, with the exception of a Titan TM Survey, exploration in the vicinity of the Casino deposit has focused on drilling on a grid pattern using a core drill with a core diameter primarily of NQ and NTW thickness, with a smaller number of holes drilled with HQ

diameter core. The earlier soil sampling and geophysical results, in the vicinity of the Casino Deposit, have all been tested by drilling and shown to be caused by porphyry copper mineralization.

To the west of the Casino deposit, on the recently acquired Canadian Creek Property, exploration utilized grid soil sampling, ground magnetic and induced polarisation surveys to generate targets for trenching and drilling. Initially, the focus of the geochemical and geophysical surveys was to locate porphyry copper mineralization. Subsequent to 2016, the focus of this work switched to the identification of gold mineralization similar to that discovered at nearby Coffee Creek.

Soil sampling west of the Casino Deposit results show a co-incident copper and gold-in-soil anomaly at the 50-ppm Cu and the 15-ppb Au levels respectively, extending approximately 3 km west from the western limits of the Casino deposit. The coincident anomaly has been tested by 16 core holes. The holes closest to the Casino Deposit revealed moderate potassic alteration and strong propylitic alteration. The four closest holes intersected leached cap or incipient leaching, weak supergene enrichment, and hypogene copper-gold-molybdenum mineralization, typical of the outer edges of a porphyry copper- gold-molybdenum deposit. Copper grades are in the 0.03 to 0.07% range, gold grades range from 0.1 to 0.3 g/t and molybdenum values range from 20 – 40 ppm (0.002 to 0.004%). Further, there is a general increase in copper, gold and molybdenum in the Casino B drill holes eastward towards the Casino deposit. These holes are defining the western limits of the Casino deposit system.

Ground magnetic surveying at a line spacing of 100 m was undertaken over the Canadian Creek portion of the Casino Property. The survey detected a number of lineaments, oriented mostly northwest-southeast, though none obviously align with the soil geochemical anomalies. The ground magnetic data shows a trend of magnetic high features extending from the Casino Deposit through the Ana to the Koffee Bowl areas. This west-southwest trend follows the trend of Patton Porphyry dykes extending from the main intrusive complex.

Induced polarization surveys in 1993 and 1996 utilized a pole-dipole array with a spacing of 75 m and an n1 to n4 depth profile. The 2009 survey was a pole-dipole survey using an a spacing of 25 m and an n1 to n6 depth profile. The 2011 pole dipole survey used a spacing of 25 m and an n1 to n8 profile. In general, the surveys used small “a” spacings and have a limit depth search. The survey identified a number of high chargeability anomalies which remain to be tested.

## **1.7 MINERAL RESOURCE ESTIMATE**

### **1.7.1 Mineral Resource**

The Mineral Resource for the Casino Project includes Mineral Resources amenable to milling and flotation concentration methods (mill material) and Mineral Resource amenable to heap leach recovery methods (leach material). Table 1-1 presents the Mineral Resource for mill material. Mill material includes the supergene oxide (SOX), supergene sulphide (SUS) and hypogene sulphide (HYP) mineral zones. Measured and Indicated Mineral Resources amount to 2.17 billion tonnes at 0.16% total copper, 0.18 g/t gold, 0.017% moly and 1.4 g/t silver and contained metal amounts to 7.43 billion pounds of copper, 12.7 million ounces gold, 811.6 million pounds of moly and 100.2 million ounces of silver. Inferred Mineral Resource is an additional 1.43 billion tonnes at 0.10% total copper, 0.14 g/t gold, 0.010% moly and 1.2 g/t silver and contained metal amounts to 3.24 billion pounds of copper, 6.4 million ounces of gold, 322.8 million pounds moly and 53.5 million ounces of silver for the Inferred Mineral Resource in mill material.

Table 1-2 presents the Mineral Resource for leach material. Leach material is oxide dominant leach cap (LC) mineralization. The emphasis of leaching is the recovery of gold in the leach cap. Copper grades in the leach cap are low, but it is expected some metal will be recovered. Measured and Indicated Mineral Resources amount to 217.4 million tonnes at 0.03% total copper, 0.25 g/t gold and 1.9 g/t silver and contained metal amounts to 166.5 million pounds of copper, 1.8 million ounces gold and 13.3 million ounces of silver. Inferred Mineral Resource is an additional 31.1 million tonnes at 0.03% total copper, 0.17 g/t gold and 1.7 g/t silver and contained metal amounts to 17.2 million

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pounds of copper, 200,000 ounces of gold and 1.7 million ounces of silver for the Inferred Mineral Resource in leach material.

Table 1-3 presents the Mineral Resource for combined mill and leach material for copper, gold, and silver. Measured and Indicated Mineral Resources amount to 2.39 billion tonnes at 0.14% total copper, 0.19 g/t gold and 1.5 g/t silver. Contained metal amounts to 7.60 billion pounds copper, 14.5 million ounces gold and 113.5 million ounces of silver for Measured and Indicated Mineral Resources. Inferred Mineral Resource is an additional 1.46 billion tonnes at 0.10% total copper, 0.14 g/t gold and 1.2 g/t silver. Contained metal amounts to 3.26 billion pounds of copper, 6.6 million ounces of gold and 55.2 million ounces of silver for the Inferred Mineral Resource. The Mineral Resource for moly is as shown with mill material since it will not be recovered for leach material.

The Mineral Resources are based on a block model developed by IMC during June 2020. This updated model incorporated the 2019 Western Copper drilling and updated geologic models. It also includes some 2010 through 2012 Western Copper drilling that was not available for the previous Mineral Resource estimate done in 2010.

The Measured, Indicated, and Inferred Mineral Resources reported herein are contained within a floating cone pit shell to demonstrate “reasonable prospects for eventual economic extraction” to meet the definition of Mineral Resources in NI 43-101.

**Table 1-1: Mineral Resource for Mill Material at C\$5.70 NSR Cutoff**

Resource Class	Tonnes Mt	NSR (\$/t)	Copper (%)	Gold (g/t)	Moly (%)	Silver (g/t)	CuEq %	Copper (mlbs)	Gold (moz)	Moly (mlbs)	Silver (moz)
Measured	145.3	38.08	0.31	0.40	0.025	2.1	0.74	985.8	1.9	80.6	9.8
Indicated	2,028.0	19.10	0.14	0.17	0.016	1.4	0.33	6,448.5	10.9	731.0	90.4
M+I	2,173.3	20.37	0.16	0.18	0.017	1.4	0.36	7,434.3	12.7	811.6	100.2
Inferred	1,430.2	14.50	0.10	0.14	0.010	1.2	0.24	3,240.4	6.4	322.8	53.5

**Table 1-2: Mineral Resource for Leach Material at C\$5.46 NSR Cutoff**

Resource Class	Tonnes Mt	NSR (\$/t)	Copper (%)	Gold (g/t)	Silver (g/t)	AuEq (g/t)	Copper (mlbs)	Gold (moz)	Silver (moz)
Measured	37.2	19.72	0.05	0.45	2.8	0.48	39.3	0.5	3.3
Indicated	180.2	9.54	0.03	0.21	1.7	0.23	127.2	1.2	10.0
M+I	217.4	11.28	0.03	0.25	1.9	0.27	166.5	1.8	13.3
Inferred	31.1	7.60	0.03	0.17	1.7	0.18	17.2	0.2	1.7

**Table 1-3: Mineral Resource for Copper, Gold, and Silver (Mill and Leach)**

Resource Class	Tonnes Mt	NSR (\$/t)	Copper (%)	Gold (g/t)	Silver (g/t)	Copper (mlbs)	Gold (moz)	Silver (moz)
Measured	182.4	34.34	0.25	0.41	2.2	1,025.1	2.4	13.1
Indicated	2,208.3	18.32	0.14	0.17	1.4	6,575.6	12.1	100.5
M+I	2,390.7	19.54	0.14	0.19	1.5	7,600.7	14.5	113.5
Inferred	1,461.3	14.35	0.10	0.14	1.2	3,257.6	6.6	55.2

Notes:

1. The Mineral Resources have an effective date of 3 July 2020 and the estimate was prepared using the definitions in CIM Definition Standards (10 May 2014).
2. All figures are rounded to reflect the relative accuracy of the estimate and therefore numbers may not appear to add precisely.
3. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
4. Mineral Resources for leach material are based on prices of US\$2.75/lb copper, US\$1,500/oz gold and US\$18/oz silver.
5. Mineral Resources for mill material are based on prices of US\$2.75/lb copper, US\$1,500/oz gold, US\$18/oz silver, and US\$11.00/lb moly.
6. Mineral Resources are based on NSR Cutoff of C\$5.46/t for leach material and C\$5.70/t for mill material.
7. NSR value for leach material is as follows:  
$$\text{NSR (C\$/t)} = \$12.65 \times \text{copper (\%)} + \$41.55 \times \text{gold (g/t)} + \$0.191 \times \text{silver (g/t)}$$
, based on copper recovery of 18%, gold recovery of 66% and silver recovery of 26%.
8. NSR value for hypogene sulphide mill material is:  
$$\text{NSR (C\$/t)} = \$60.18 \times \text{copper (\%)} + \$41.01 \times \text{gold (g/t)} + \$214.94 \times \text{moly (\%)} + \$0.355 \times \text{silver (g/t)}$$
, based on recoveries of 92.2% copper, 66% gold, 50% silver and 78.6% moly.
9. NSR value for supergene (SOX and SUS) mill material is:  
$$\text{NSR (C\$/t)} = \$65.27 \times \text{recoverable copper (\%)} + \$42.87 \times \text{gold (g/t)} + \$142.89 \times \text{moly (\%)} + \$0.425 \times \text{silver (g/t)}$$
, based on recoveries of 69% gold, 60% silver and 52.3% moly. Recoverable copper =  $0.94 \times (\text{total copper} - \text{soluble copper})$ .
10. Table 14-6 accompanies this Mineral Resource statement and shows all relevant parameters.
11. Mineral Resources are reported in relation to a conceptual constraining pit shell in order to demonstrate reasonable prospects for eventual economic extraction, as required by the definition of Mineral Resource in NI 43-101; mineralization lying outside of the pit shell is excluded from the Mineral Resource.
12. AuEq and CuEq values are based on prices of US\$2.75/lb copper, US\$1,500/oz gold, US\$18/oz silver, and US\$11.00/lb moly, and account for all metal recoveries and smelting/refining charges.

## **1.8 SENSITIVITY TO NSR CUTOFF**

Table 1-4 shows resources at varying NSR Cutoffs for mill material. All tabulations are contained by the constraining pit shell used for the base case Mineral Resource at C\$5.70 per tonne (highlighted). Increasing the NSR Cutoff by 40% to C\$8/t has only a modest effect on the size of the Mineral Resource amenable to milling, decreasing resource tonnes by 6% and the contained copper and gold by 1.6% and 2.6% respectively. Table 1-5 shows resources at varying NSR Cutoffs for leach material. Again, all tabulations are contained by the constraining pit shell used for the base case Mineral Resource. The base case resource at an NSR Cutoff of C\$5.46 per tonne is highlighted. Increasing the NSR Cutoff of leach material to C\$8/t only reduces the contained gold by 20%.

Table 1-4: Mineral Resource – Mill Material by Various NSR Cutoffs (C\$)

NSR Cog (\$/t)	Resource Category	Tonnes Mt	NSR (\$/t)	Copper (%)	Gold (g/t)	Moly (%)	Silver (g/t)	CuEq (%)	Copper (mlbs)	Gold (moz)	Moly (mlbs)	Silver (moz)
5.70	Measured	145.3	38.08	0.31	0.40	0.025	2.1	0.74	986.5	1.9	80.7	9.8
	Indicated	2,028.0	19.10	0.14	0.17	0.016	1.4	0.33	6,438.2	10.8	733.2	90.6
	<b>M+I</b>	<b>2,173.3</b>	<b>20.37</b>	<b>0.15</b>	<b>0.18</b>	<b>0.017</b>	<b>1.4</b>	<b>0.36</b>	<b>7,424.7</b>	<b>12.7</b>	<b>813.9</b>	<b>100.4</b>
	Inferred	1,430.2	14.50	0.10	0.14	0.010	1.2	0.24	3,247.6	6.4	324.8	53.3
8	Measured	144.6	38.22	0.31	0.40	0.025	2.1	0.74	985.2	1.9	80.7	9.7
	Indicated	1,898.4	19.93	0.15	0.17	0.017	1.4	0.34	6,319.6	10.5	724.0	87.3
	<b>M+I</b>	<b>2,043.0</b>	<b>21.22</b>	<b>0.16</b>	<b>0.19</b>	<b>0.018</b>	<b>1.5</b>	<b>0.37</b>	<b>7,304.8</b>	<b>12.4</b>	<b>804.7</b>	<b>97.0</b>
	Inferred	1,181.0	16.11	0.12	0.15	0.012	1.2	0.27	3,020.3	5.7	309.8	47.1
16	Measured	139.3	39.19	0.32	0.41	0.026	2.1	0.76	973.4	1.8	80.1	9.5
	Indicated	1,182.3	24.61	0.19	0.21	0.022	1.7	0.42	4,900.0	7.8	583.8	64.2
	<b>M+I</b>	<b>1,321.5</b>	<b>26.15</b>	<b>0.20</b>	<b>0.23</b>	<b>0.023</b>	<b>1.7</b>	<b>0.46</b>	<b>5,873.4</b>	<b>9.6</b>	<b>664.0</b>	<b>73.8</b>
	Inferred	390.0	24.95	0.19	0.21	0.021	1.6	0.42	1,625.0	2.6	180.6	20.6
30	Measured	101.3	44.77	0.36	0.47	0.030	2.3	0.87	799.4	1.5	67.2	7.6
	Indicated	229.6	36.14	0.28	0.31	0.032	2.3	0.62	1,402.1	2.3	163.0	16.9
	<b>M+I</b>	<b>330.9</b>	<b>38.78</b>	<b>0.30</b>	<b>0.36</b>	<b>0.032</b>	<b>2.3</b>	<b>0.70</b>	<b>2,201.5</b>	<b>3.8</b>	<b>230.2</b>	<b>24.5</b>
	Inferred	74.4	39.26	0.32	0.32	0.029	2.4	0.65	521.3	0.8	47.0	5.6

Table 1-5: Mineral Resource – Leach Material by Various NSR Cutoffs (C\$)

NSR Cog (\$/t)	Resource Category	Tonnes Mt	NSR (\$/t)	Copper (%)	Gold (g/t)	Silver (g/t)	AuEq (g/t)	Copper (mlbs)	Gold (moz)	Silver (moz)
5.46	Measured	37.2	19.72	0.05	0.45	2.8	0.48	39.3	0.53	3.29
	Indicated	180.2	9.54	0.03	0.21	1.7	0.23	127.2	1.23	10.03
	<b>M+I</b>	<b>217.4</b>	<b>11.28</b>	<b>0.03</b>	<b>0.25</b>	<b>1.9</b>	<b>0.27</b>	<b>166.5</b>	<b>1.76</b>	<b>13.31</b>
	Inferred	31.1	7.60	0.03	0.17	1.7	0.18	17.2	0.17	1.70
8	Measured	35.4	20.36	0.05	0.46	2.8	0.49	38.2	0.53	3.21
	Indicated	107.3	11.43	0.03	0.26	2.0	0.28	71.0	0.89	6.83
	<b>M+I</b>	<b>142.7</b>	<b>13.64</b>	<b>0.03</b>	<b>0.31</b>	<b>2.2</b>	<b>0.33</b>	<b>109.2</b>	<b>1.41</b>	<b>10.04</b>
	Inferred	10.6	9.84	0.02	0.22	2.3	0.24	4.7	0.08	0.79
12	Measured	29.5	22.45	0.05	0.51	3.0	0.54	33.8	0.48	2.88
	Indicated	36.3	14.76	0.03	0.34	2.4	0.36	24.0	0.39	2.83
	<b>M+I</b>	<b>65.8</b>	<b>18.21</b>	<b>0.04</b>	<b>0.41</b>	<b>2.7</b>	<b>0.44</b>	<b>57.8</b>	<b>0.88</b>	<b>5.72</b>
	Inferred	1.1	12.77	0.01	0.30	1.2	0.31	0.1	0.01	0.04
14	Measured	26.6	23.50	0.05	0.54	3.1	0.57	31.0	0.46	2.68
	Indicated	17.9	16.63	0.03	0.38	2.6	0.40	12.3	0.22	1.52
	<b>M+I</b>	<b>44.5</b>	<b>20.73</b>	<b>0.04</b>	<b>0.47</b>	<b>2.9</b>	<b>0.50</b>	<b>43.3</b>	<b>0.68</b>	<b>4.20</b>
	Inferred	0.0	0.00	0.00	0.00	0.0	0.00	0.0	0.00	0.00

## 1.9 CONCLUSIONS AND RECOMMENDATIONS

This study has resulted in an updated Mineral Resource estimate for the Casino Project. Measured and Indicated Mineral Resources amenable to milling have increased about 106% compared to the previous, December 2010, estimate. The increase is due to higher commodity prices and new drilling that converted previous Inferred Mineral Resource to Indicated Mineral Resource.

The Casino deposit also includes a significant Mineral Resource amenable to heap leaching. One possible development path for Casino is to develop the heap leach project as a standalone project to commence development of the deposit.

The most significant risks to the Mineral Resource are related to economic parameters such as prices lower than forecast, recoveries lower than forecast, or costs higher than the current estimates. The mining cost used for the Mineral Resource estimate is based on the assumption the trucks can be fueled with a liquid natural gas (LNG)/diesel fuel mixture at a significant fuel cost reduction compared to diesel fuel alone. If this is not done the mining costs will be significantly higher.

CMC launched a new drilling program in June to build upon the results of the 2019 drilling campaign. The 2020 drilling campaign will consist of 43 drill holes between 150 to 500 m in depth and will target the High Gold Zone, Northern Porphyry, and Canadian Creek Targets identified by the 2019 drilling program. Costs are expected to be \$3-5 million.

Upon completion of the drilling campaign, it is recommended that CMC consider developing a new Feasibility Study, the cost of which is expected to be \$3-5 million.

After completion of the Feasibility Study, CMC should consider restarting permitting of the project. Permitting costs are variable, but are likely in the \$20-30 million range.



(Source: Yukon Highway Map, Yukoninfo.com)

Figure 1-1: Casino Property Location

## **2 INTRODUCTION**

### **2.1 ISSUER AND PURPOSE OF ISSUE**

This Report was prepared for Casino Mining Corporation (“CMC”), a wholly-owned subsidiary of Western Copper and Gold Corporation (“Western”) as well as for Western itself, by M3 Engineering & Technology Corporation (M3) in association with Independent Mining Consultants (IMC), GeoSpark Consulting Inc. and Aurora Geosciences.

The purpose of this report is to provide an updated mineral resource statement on the Casino property. The estimate of mineral resources contained in this report conforms to the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Mineral Resource and Mineral Reserve definitions (May, 2014) referred to in National Instrument (NI) 43-101, Standards of Disclosure for Mineral Projects.

### **2.2 SOURCES OF INFORMATION**

The main sources of information for this Mineral Resource estimate include:

- The drillhole database provided to IMC in digital form.
- Various geologic solids that were reviewed by IMC and incorporated into the resource model.
- A report describing the development of the 2010 resource model.
- A geotechnical report by Knight-Piésold with slope angle recommendations for the resource cone shell.
- A digital database of specific gravity measurements.

A summary of the Qualified Persons (“QPs”) responsible for the content of this report is shown in Table 2-1.

A site visit was conducted by Michael G. Hester on July 22, 2008 for one day. The mine and waste storage areas were inspected as well as the core storage area. A site visit could not be conducted for this current study due to travel restrictions due to Covid-19.

An additional site visit was conducted by Carl Schulze as the project lead for Aurora Geosciences from September 9, 2020 through September 26, 2020.

**Table 2-1: Dates of Site Visits and Areas of Responsibility**

<b>QP Name</b>	<b>Company</b>	<b>Qualification</b>	<b>Site Visit Date</b>	<b>Area of Responsibility</b>
Daniel Roth	M3 Engineering & Technology Corporation – Tucson, AZ	P.E., P.Eng.	N/A	Sections 2, 3, 4, 5, 15, 16, 17, 18, 19, 20, 21, 22 and corresponding sections of 1, 25, 26 and 27
Michael G. Hester	Independent Mining Consultants, Inc.	F Aus IMM	22-Jul-2008	Section 14 and corresponding sections of 1, 25, 26 and 27
Laurie Tahija	M3 Engineering & Technology Corporation – Tucson, AZ	MMSA-QP	N/A	Section 13 and corresponding sections of 1, 25, 26, and 27
Carl Schulze	Aurora Geosciences	P. Geo.	Sept-9-2020 to 26-Sep-2020	Section 6, 7, 8, 9, 10, 11 and corresponding sections of 1, 25, 26, and 27
Caroline J. Vallat	GeoSpark Consulting Inc.	P. Geo.	N/A	Section 12 and corresponding sections of 1, 25, 26, and 27.

Note that sections 15 to 19, 21 and 22 of Form 43-101F1 are not applicable to this stage of study and are listed in Table 2-1 for the sake of completeness to ensure that all sections are assigned to a QP.

## 2.3 UNITS

This report generally uses the SI (metric) system of units, including metric tonnes. The term “tonne” rather than “ton” is commonly used to denote a metric ton and is used throughout the report. Units used and abbreviations are listed in Units used and abbreviations are listed in Table 2-2. Elements utilized in this report are in Table 2-3.

**Table 2-2: Abbreviations Used in this Document**

<b>Units</b>	<b>Abbreviations</b>
Amperes	A
Cubic meters	m <sup>3</sup>
Cubic meters per hour	m <sup>3</sup> /h
Current density	A/m <sup>2</sup>
Density	t/m <sup>3</sup>
grams/liter	g/L or g/l
grams/tonne	g/t
Hectares	ha
Hypogene	HYP
Induced Polarization	IP
Inductively Coupled Plasma-Atomic Absorption Spectroscopy	ICP-AAS
Inductively Coupled Plasma-Atomic Emission Spectroscopy	ICP-AES
Kilo (1000)	K
Kilogram	Kg
Kilometer	Km
Kilotonnes	ktonnes, kt
Litres	L, l
Litres per second	L/s, l/s
Mass Emission-Inductively Coupled Plasma Spectroscopy (ICP-MS)	ICP-MS
Mega (1,000,000)	M
Meters	M
Metric Tonne (1000 kg)	Tonne or t
Millimeters	Mm
Overburden	OVB
Oxide Gold/Leached Cap	CAP
Parts per million	Ppm
Parts per billion	Ppb
Quality Assurance/ Quality Control	QA/QC
Specific gravity	S.G.
Square meters	m <sup>2</sup>
Supergene oxide	SOX
Supergene sulphide	SUS
Temperature Celsius	°C
Temperature Fahrenheit	°F
Tonnage factor or specific volume	m <sup>3</sup> /tonne or m <sup>3</sup> /t
Tonnes per day	t/d
Tonnes per year	t/y

Table 2-3: Elements and Associated Units

Element	Abbreviation & Report Units
Aluminum	Al (%)
Antimony	Sb (ppm)
Arsenic	As (ppm)
Barium	Ba (ppm)
Beryllium	Be (ppm)
Bismuth	Bi (ppm)
Calcium	Ca (%)
Cadmium	Cd (ppm)
Cerium	Ce (ppm)
Cobalt	Co (ppm)
Chromium	Cr (%)
Cesium	Cs (ppm)
Copper	Cu (ppm)
Dysprosium	Dy (ppm)
Erbium	Er (ppm)
Europium	Eu (ppm)
Gallium	Ga (ppm)
Gadolinium	Gd (ppm)
Germanium	Ge (ppm)
Gold	Au (ppb). Also reported in ppm (g/t)
Hafnium	Hf (ppm)
Holmium	Ho (ppm)
Indium	In (ppm)
Iron	Fe (%)
Lead	Pb (ppm)
Lanthanum	La (ppm)
Lithium	Li (%)
Lutetium	Lu (ppm)
Magnesium	Mg (%)
Manganese	Mn (ppm)
Molybdenite	MoS <sub>2</sub>

Element	Abbreviation & Report Units
Molybdenum	Mo (ppm)
Niobium	Nb (ppm)
Neodymium	Nd (ppm)
Nickel	Ni (ppm)
Phosphorous	P (%)
Potassium	K (%)
Promethium	Pr (ppm)
Rhenium-Osmium	Re-Os (age dating)
Rubidium	Rb (ppm)
Samarium	Sm (ppm)
Scandium	Sc (ppm)
Silicon	Si (%)
Silver	Ag (ppm)
Sodium	Na (%)
Strontium	Sr (ppm)
Sulphur	S (%)
Tantalum	Ta (ppm)
Terbium	Tb (ppm)
Thallium	Tl (ppm)
Thorium	Th (ppm)
Thulium	Tm (ppm)
Tin	Sn (ppm)
Titanium	Ti (%)
Tungsten	W (ppm)
Uranium	U (ppm)
Vanadium	V (ppm)
Ytterbium	Yb (ppm)
Yttrium	Y (ppm)
Zinc	Zn (ppm)
Zirconium	Zr (ppm)

### **3 RELIANCE ON OTHER EXPERTS**

In cases where the study authors have relied on contributions of other qualified persons, the conclusions and recommendations are exclusively the qualified persons' own. The results and opinions outlined in this report that are dependent on information provided by others beyond the qualified persons are assumed to be current, accurate and complete as of the date of this report.

M3 relied upon publicly available information to verify ownership data regarding the property. The information was available and verified on October 14, 2020 from the Mining website of the Government of Yukon (<https://yukon.ca/en/mining>) under the following permits:

- Quartz Land Use Permit number LQ00510 (Casino Property)
- Quartz Land Use Permit number LQ00320 (Canadian Creek Property)

## **4 PROPERTY DESCRIPTION AND LOCATION**

### **4.1 LOCATION**

The Casino porphyry copper-gold-molybdenum deposit is located at latitude 62° 44'N and longitude 138° 50'W (NTS map sheet 115J/09, 10 and 15), in west central Yukon, in the north-westerly trending Dawson Range mountains, 300 km northwest of the territorial capital of Whitehorse. Figure 1-1 in Section 1 is a map showing the location of the Casino property in relation to the Yukon, British Columbia and the Northwest Territories (Source: Yukon Highway Map, Yukoninfo.com). The property covers a total area of 13,124 ha.

The Yukon has a population of approximately 40,800 people. Whitehorse is the nearest commercial and population center to the project property, with a population of approximately 30,000 people. Whitehorse is 380 km from the mine site via Carmacks. No human settlements can be described as “local.” The village of Carmacks is about 150 km ESE and Pelly Crossing is about 115 km ENE. Beaver Creek, a tourist stop on the Alaskan Highway, is about 112 km WSW. Fairbanks, Alaska is 500 km WNW.

The Arctic Circle is 430 km to the north. The Yukon River flows about 16 km north of the site. Yukon Highway 1, the Alaskan Highway, is about 110 km west at the nearest point. Yukon Highway 2, the Klondike Highway, is about 100 km to the east at the nearest point. No year-round roads reach the property.

The international border and Alaska are about 111 km to the west at the nearest point. British Columbia is south approximately 300 km. The closest port is Skagway, Alaska.

Exploration and mining projects in the area include the following:

- To the west, Newmont is developing the Coffee project. The project is currently at the pre-feasibility stage and is undergoing environmental assessment under the Yukon Environmental and Socioeconomic Assessment Act (YESAA). They are also active with exploration on their project.
- To the north and to the west, White Gold Corp. has a large number of claims and is actively exploring them.
- Approximately 100 km to the east, Pembridge Resources operates the Minto Mine, which produces copper concentrate that is shipped through the port of Skagway.

The project is located on Crown land administered by the Yukon Government and is within the Selkirk First Nation traditional territory and the Tr'ondek Hwechin traditional territory lies to the north. The proposed access road crosses into Little Salmon Carmacks First Nation traditional territory to the south. The White River First Nation and Kluane First Nation are downstream from the project.

### **4.2 LAND POSITION AND STATUS**

#### **4.2.1 Property Description**

The Dawson Range forms a series of well-rounded ridges and hills that reach a maximum elevation of 1,675 m above mean sea level (ASL). The ridges rise above the Yukon Plateau, a peneplain at approximately 1,200 m ASL, which is deeply incised by the mature drainage of the Yukon River watershed.

The characteristic terrain consists of rounded, rolling topography with moderate to deeply incised valleys. Major drainage channels extend below 1,000 m elevation. Most of the project lies between the 650 m elevation at Dip Creek and an elevation of 1,400 m at Patton Hill. The most notable local physical feature is the Yukon River which flows to the west about 16 km north of the project site.

The mean annual temperature for the Casino Project area is estimated to be  $-2.7^{\circ}\text{C}$ , with minimum and maximum monthly temperatures of  $-18.1^{\circ}\text{C}$  and  $11.1^{\circ}\text{C}$  occurring in January and July, respectively. The mean monthly temperature values are presented in Table 5-1 in Section 5. The Mean Annual Precipitation (MAP) for the Casino Project area is estimated to be 500 mm, with 65% falling as rain and 35% falling as snow.

The Selkirk First Nation Traditional Territory encompasses the project area in the central portion of the Yukon.

Characteristic wildlife in the region includes caribou, grizzly and black bear, Dall sheep, moose, beaver, fox, wolf, hare, raven, rock and willow ptarmigan, and golden eagle.

The tops of hills and ridges are sparsely covered, most vegetation lies at the bottom and on the slopes of valleys. Vegetation consists of black and white spruce forests with aspen and occasionally lodgepole pine. Black spruce and paper birch prevail on permafrost slopes. Balsam poplar is common along floodplains. Scrub birch and willow form extensive stands in subalpine sections from valley bottoms to well above the tree line.

#### **4.2.2 Environmental**

See Section 20 for a list of permits either obtained or in progress. No environmental liabilities are expected to impact the Project.

#### **4.2.3 Mineral Tenure**

The Casino Property lies within the Whitehorse Mining District and consists of a total of 1,136 full and partial Quartz Claims, and 55 Placer Claims acquired in accordance with the Yukon Quartz Mining Act. The total area covered by Casino Quartz Claims is 21,288 ha. The total area covered by Casino Placer Leases is 490.34 ha. The 825 quartz claims (of a total of 1,136 claims) comprise the initial Casino Property and 311 claims comprise the Canadian Creek Property acquired in 2019. The claims are registered in the name of, and are 100%-owned by, Casino Mining Corp. (CMC), a wholly owned subsidiary of Western Copper and Gold Corp. (Western). A list of claims is provided in Appendix B.

The historical claims held by prior owners of the project and transferred as part of 2006 Western Copper's plan of arrangement with Lumina Resources Corp. ("Lumina") consist of 83 Casino "A" claims covering an area of 1,154 ha, 23 claims in the "JOE" block covering an area of 323.63 ha and 55 Casino "B" claims covering an area of 929.93 ha, 9 claims of which were repurchased from Cariboo Rose Resources Ltd. ("Cariboo Rose") in November 2016 pursuant to an early exercise of 2020 Casino B option agreement and 46 of these Casino "B" claims were reacquired in July 2019 pursuant to the Canadian Creek Property Purchase Agreement, described in Section 4.2.4 in more detail. The Casino Deposit lies entirely on the Casino "A" claims.

CMC has significantly expanded the area of its mineral property by staking and acquisition of mineral claims. The 188 VIK mineral claims, covering an area of 3,440 ha, were staked in June 2007 by CRS Copper Resources Corp ("CRS"), a predecessor of CMC. In June 2008, an additional 94 "CC" claims, covering an area of 1,930 ha, 8 BL claims, covering area of 157.24 ha and 63 "BRIT" claims covering an area of 1,218 ha were staked by CRS. In October 2009, CRS staked 136 AXS mineral claims, covering an area of 2,763 ha. In May of 2010, CRS staked an additional 63 AXS claims, covering an area of 1,254 ha. In 2011, CRS staked 18 FLY claims covering 327 ha. In May 2016, 87 PAL claims were staked by CMC, covering 1,818.18 ha. In July 2019, CMC acquired additional 311 mineral claims from Cariboo Rose that comprise the Canadian Creek Property and covering area of 6,001.47 ha. In September 2019, CMC staked 53 CAS19 claims, covering an area of 759.88 ha.

#### **4.2.4 Ownership and Agreements**

CMC is a successor in title to the Casino Property pursuant to the Plan of Arrangement completed on October 17, 2011.

CRS, a predecessor of CMC, acquired the Casino A, B and JOE claims, comprising the historical Casino property, on August 9, 2007 by exercising its option pursuant to a Letter Agreement dated July 15, 2002 (“2002 Option”) with Great Basin Gold Ltd. (“Great Basin”). The Casino deposit lies entirely on the Casino A claims.

On December 21, 2012, CMC entered into the Net Smelter Returns Royalty Agreement (the “NSR Royalty Agreement”) with 8248567 Canada Ltd. (“8248567 Canada”), whereby the 2.75% Net Smelter Return Royalty (“NSR”) was established on all Casino claims excluding fifty-five (55) Casino B Claims. As consideration for purchasing the 2.75% NSR, 8248567 Canada cancelled the existing 5% NPR (except on Casino B Claims).

On November 2, 2016, pursuant to the Early Exercise and Purchase Agreement (the “Early Exercise and Purchase Agreement”), Cariboo Rose exercised its right to acquire fifty-five (55) Casino B Claims, as described in the option agreement dated May 2, 2000 (the “Casino B Option Agreement”) between Cariboo Rose and CMC (a successor to title by virtue of 2002 Option). As part of the Early Exercise and Purchase, CMC reacquired nine (9) Casino B Claims (the “Nine Casino B Claims”). Forty-six (46) Casino B Claims (the “Forty-Six Casino B Claims”) were transferred to Cariboo Rose and became part of the Canadian Creek Property owned by Cariboo Rose.

On August 28, 2019, CMC and Cariboo Rose completed the Canadian Creek Property Purchase Agreement (the “Canadian Creek Property Purchase Agreement”), whereby Forty-Six Casino B Claims were reacquired as part of the Canadian Creek Property consisting of a total of 311 mineral claims.

#### **4.2.5 Agreements and Royalties**

Certain portions of the Casino property remain subject to certain royalty obligations. The surviving royalties and agreements are as follows:

- 2.75% NSR on the claims comprising the Casino project in favour of Osisko Gold Royalties Ltd. (“Osisko Gold”) pursuant to the Royalty Assignment and Assumption Agreement dated July 31, 2017 when 8248567 Canada assigned to Osisko Gold all of its rights, title and interest in the 2.75% NSR.
- 5% Net Profits Interest (the “NPI”), as defined in the Casino B Option Agreement, remains in effect on the Casino B Claims and \$1 million payment is required to be made to the original optionor within 30 days of achieving a commercial production decision.
- 5% Net Profit Interest Royalty (the “NPI Royalty”) presently held by Archer-Cathro and Associates on the ANA claims pursuant to the NPI Royalty Agreement dated December 4, 1990 (the “NPI Royalty Agreement”) among Big Creek Resources Ltd., Rinsey Mines Ltd., and Renoble Holdings Inc.

#### **4.2.6 Placer Claims**

In the summer of 2010, Western staked a 5-mile Placer Lease along Casino Creek and a 3-mile Placer Lease along Britannia Creek. In 2011, these leases were converted to claims. In 2014, 30 placer claims on Britannia Creek were dropped and presently, Western, through CMC, owns 55 placer claims on Casino Creek.

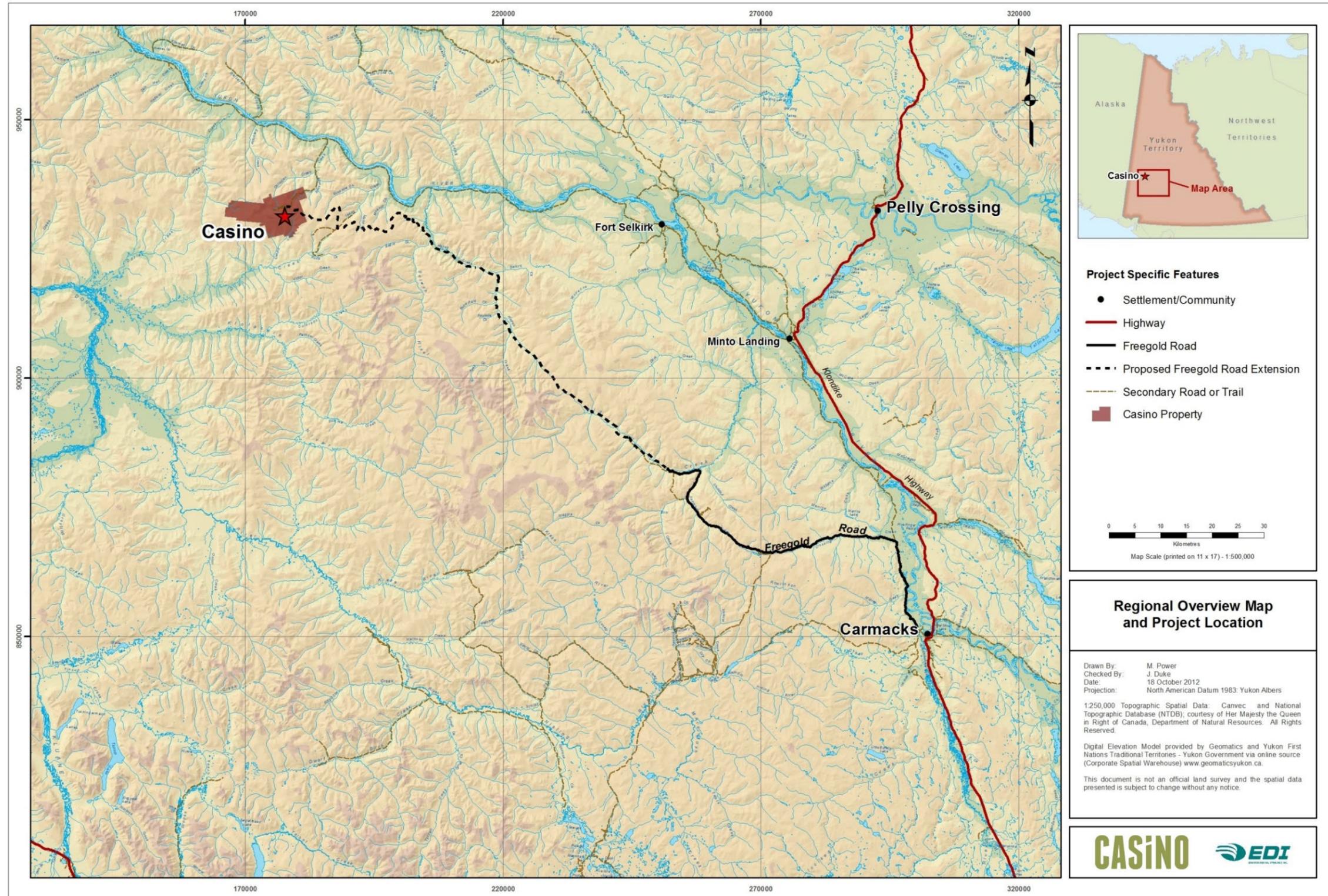


Figure 4-1: Project Road Access Map

## **5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY**

### **5.1 ACCESSIBILITY**

The Casino Mine is located in Central Yukon, roughly 150 km due northwest of Carmacks, at approximately N62° 44' 25", W138° 49' 32". Current site access is by small aircraft using the existing 760 m airstrip, by winter road and from the Yukon River.

A barge landing area at Britannia Creek and the Yukon River was prepared in 2010 and the lower 10 km of the 23 km road from the landing to the site was realigned.

### **5.2 PHYSIOGRAPHY**

The Casino property is located in the Dawson Range, a north-westerly trending belt of well-rounded ridges and hills that reach a maximum elevation of about 1,675 m. The hills rise above the Yukon Plateau, at about 1,250 m and deeply incised by mature dendritic drainages. Although the Dawson Range escaped Pleistocene continental glaciation, minor alpine glaciation has produced a few small cirques and terminal moraines.

The deposit area is situated on a small divide. The northern part of the property drains to Canadian Creek and Britannia Creek into the Yukon River. The southern part of the property flows southward via Casino Creek to Dip Creek to the Donjek River and northward to the Yukon River.

Outcrop is rare on the property. Soil development is variable ranging from coarse talus and immature soil horizons at higher elevations to a more mature soil profile and thick organic accumulations on the valley floors.

### **5.3 CLIMATE**

The climate in the Dawson Range is subarctic. Permafrost is widespread on north-facing slopes, and discontinuous on south-facing slopes. CMC installed an automated weather station at the site in 2009 and collected a certain amount of data.

The climate at the Casino Project area can generally be described as continental and cold. Winters are long, cold and dry, with snow generally on the ground from September through June. Summers are short, mild and wet, with the greatest monthly precipitation falling in July. The climate and hydrology at the Project site have been assessed based on both short-term site data and longer-term regional data. Site data are available from a program operated from 1993 to 1995 and from the current program that was initiated in 2008.

The mean annual temperature for the Casino Project area is estimated to be -2.7°C, with mean minimum and maximum monthly temperatures of -18.1°C and 11.1°C occurring in January and July, respectively. The mean annual precipitation (MAP) for the Casino Project area is estimated to be 500 mm, with 65% falling as rain and 35% falling as snow. The mean monthly temperatures and precipitation are presented in Table 5-1.

**Table 5-1: Mean Monthly Temperature and Precipitation Values**

Month	Parameter	
	Precipitation (mm)	Temperature (°C)
Jan	25	-18.1
Feb	19	-14.2
Mar	16	-8.2
Apr	15	-0.1
May	42	5.7
Jun	74	9.8
July	103	11.1
Aug	65	9.1
Sept	49	4.4
Oct	35	-3.3
Nov	31	-12.7
Dec	26	-16.5
Annual	500	-2.7

The estimated average annual lake evaporation is 308 mm, based on climate data collected at site and used in conjunction with long-term regional climate data.

Based on the estimated MAP of 500 mm and a rain/snow ratio of 0.65/0.35, the annual snowfall value for Casino was estimated to be 175 mm. This is generally consistent with the 140 mm mean annual maximum snowpack value (snow water equivalent, SWE) recorded in the Project area at the Casino Creek snow course station (09CD-SC01) operated by the Yukon Department of Environment (1977-2009), Water Resources Branch.

Based on the complete years of snowpack data, the average monthly snowmelt distribution for the Casino Project area was estimated to be 40% in April and 60% in May, although there is considerable variation from year to year.

#### **5.4 WATER RIGHTS**

It is assumed that water rights can be obtained for withdrawal of water from the Yukon River.

#### **5.5 POWER AVAILABILITY**

There is no utility power available to serve site. The Project will need to generate its own power.

#### **5.6 SURFACE RIGHTS**

CMC has sufficient rights and available land at the Project site for a mine, tailing storage areas, waste disposal areas, heap leach pad areas and process plant areas.

## **6 HISTORY**

The first documented work on the Casino Property was the working of placer claims in the area of the Casino Deposit in April 1911, following a placer gold discovery on Canadian Creek by J. Britton and C. Brown. A study by D.D. Cairnes, of the Geological Survey of Canada in 1917, recognized huebnerite ( $MnWO_4$ ) in the heavy-mineral concentrates of the placer workings and also that the gold and tungsten mineralization was derived from an intrusive complex on Patton Hill. During the Second World War, a small amount of tungsten was recovered from placer workings. The total placer gold production from the area of the property is unknown, but during the period 1980-1985 placer mining yielded about 50 kg (1,615 troy ounces) of gold.

The first mineral claims at Casino were staked by N. Hansen in 1917; however, the first recorded bedrock mineral discovery occurred in 1936 when J. Meloy and A. Brown located silver-lead-zinc veins approximately 3 km south of the Canadian Creek placer workings. Over the next several years the Bomber and Helicopter vein systems were explored by hand trenches and pits. In 1943, the Helicopter claims were staked and in 1947 the Bomber and Airport groups were staked.

Lead-silver mineralization remained the focus of exploration on the property until 1968. Noranda Exploration Co Ltd. optioned the property in 1948 and Rio Tinto optioned it again in 1963. During this time trenching, mapping and sampling were conducted.

L. Proctor purchased the claims in 1963 and formed Casino Silver Mines Limited to develop the silver-rich veins. The silver-bearing veins were explored and developed intermittently by underground and surface workings from 1965 to 1980. In total, 372.5 tonnes of hand-cobbled argentiferous galena, assaying 3,689 g/t silver (Ag), 17.1 g/t gold (Au), 48.3% lead (Pb), 5% zinc (Zn), 1.5% copper (Cu) and 0.02% bismuth (Bi), were shipped to the smelter at Trail, British Columbia.

In 1963, B. Hestor first recognized that the area had potential for a porphyry copper deposit, but his observations did not become generally known. In 1967, the porphyry potential was recognized again, this time by A. Archer and separately by G. Harper. Based on the recognition of porphyry copper potential, the Brynelsen Group acquired Casino Silver Mines Limited, and from 1968 to 1973 exploration was directed jointly by Brameda Resources (Brameda), Quintana Minerals (Quintana), and Teck Corporation towards a porphyry target. Exploration, including extensive soil sampling surveys, geophysical surveys and trenching programs, eventually led to the discovery of the Casino deposit in 1969.

From 1969 to 1973, various parties, including Brameda Resources, Quintana Minerals and Teck Corporation, conducted drilling on the property. During this period 5,328 m of reverse circulation drilling in 35 holes, and 12,547 m of diamond drilling in 56 holes were completed.

Archer, Cathro & Associates (1981) Ltd. (Archer Cathro) optioned the property in 1991 and assigned the option to Big Creek Resources Ltd. In 1992, a program consisting of 21 HQ (63.5 mm diameter) holes totalling 4,729 m systematically assessed the gold potential in the core area of the deposit for the first time.

In 1992, Pacific Sentinel Gold Corp. (PSG) acquired the property from Archer Cathro and commenced a major exploration program. The 1993 program included surface mapping and 50,316 m of HQ (63.5 mm diameter) and NQ (47.6 mm diameter) drilling in 127 holes. All but one of the twenty-one 1992 drill holes were deepened in 1993.

PSG drilled an additional 108 drill holes totalling 18,085 m in 1994. This program completed the delineation drilling commenced in 1993. PSG also performed metallurgical, geotechnical and environmental work which was used in a scoping study in 1995. The scoping study envisioned a large-scale open pit mine and a conventional flotation concentrator that would produce a copper-gold concentrate for sale to Pacific Rim smelters.

**CASINO PROJECT**  
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First Trimark Resources and CRS Copper Resources obtained the property and, using the PSG data, published a Qualifying Report on the property in 2003 to bring the resource estimate into compliance with National Instrument 43-101 requirements. The two firms combined to form Lumina Copper Corporation in 2004. An update of the Qualifying Report was issued in 2004.

Western Copper Corporation acquired Lumina Copper Corporation, and therefore the Casino Deposit, in November 2006. In the fall of 2011, Western Copper Corporation spun out all other assets except the Casino Deposit and changed its name to Western Copper and Gold Corporation (Western).

In 2007, Western conducted an evaluation of the Bomber Vein System and the southern slope of Patton Hill by VLF-EM, Horizontal Loop EM and soil geochemical surveying. Environmental baseline studies were also initiated in 2007.

In 2008, Western reclaimed the old camp site, constructed a new exploration camp next to the Casino airstrip and drilled three drill holes (the camp water well and two exploration diamond drill holes) totalling 1,163 m. The main purpose of the drilling was to obtain fresh core samples for the metallurgical and waste characterization tests. Both exploration holes twinned PSG's holes to confirm historical copper, gold and molybdenum grades. Later that year, M3 Engineering & Technology Corporation produced a pre-feasibility study for Western.

In 2009, Western completed 22.5 km of DC/IP surveying and MT surveying using the Titan system developed by Quantec Geosciences Ltd. As well, the company drilled 10,943 m in 37 diamond drill holes, of which 27 holes were infill holes drilled to upgrade the previously designated Inferred Resource and non-defined material to the Measured and Indicated resource categories. Infill drilling covered the north slope of Patton Hill that was mapped as a "Latite Plug" on PSG maps. The drilling also identified supergene Cu and Mo mineralization in this area. The remaining 10 holes, totalling 4,327 m, were drilled to test geophysical targets.

In 2010, under the direction of the Casino Mining Corporation (CMC), a wholly-owned subsidiary of Western, Western completed infill and delineation drilling mostly to the north and west of the deposit, as outlined by PSG. The drilling program also defined hypogene mineralization at the southern end of the deposit. In addition, the company drilled a series of geotechnical holes at the proposed tailings embankment area and within the pit, and several other holes for hydrogeological studies. The geotechnical drilling continued in 2011 (41 holes, 3,163 m) and 2012 (6 holes, 228 m). This work culminated in the publishing of a pre-feasibility study in 2011 and a feasibility study in 2013.

In 2019, CMC carried out a program of infill drilling designed to convert mineralization from the Inferred category, located along the margin of the deposit, into the Indicated category.

A breakdown of drilling by Western and CMC from 2010 to the end of 2019 is as follows:

- 124 exploration holes for 27,365.37 m.
- 11 combined hydrogeological and geological holes for 1,689.58 m.
- 53 geotechnical holes in the proposed tailings embankment, heap leach pad, plant site, waste rock storage site, airstrip, access road and water well areas, for 3,786.54 m.
- 5 holes for 1,570.63 m for the metallurgical sample.

The total meterage drilled by Western and CMC from 2008 to the end of 2019 is 46,639.37 m.

In mid 2019, CMC acquired the adjacent property to the west, referred to as the Canadian Creek property, from Cariboo Rose Resources Ltd.

Exploration on the Canadian Creek property dates from 1992 when Archer Cathro & Associates staked the Ana Claims. In 1993, Eastfield Resources Ltd. (Eastfield) acquired the Ana Claims, expanded the Ana Claim block and explored the expanded property with soil grids, trenching and drilling, (Johnston, 2018). This work was directed at the discovery

of additional porphyry deposits. The 1993 program was followed by extensive field programs in 1996, 1997 and 1999 consisting of induced polarization (IP) surveying, road construction and trenching on the Ana, Koffee, Maya and Ice claims. In 2000, another drill campaign was undertaken by Eastfield on the Ana, Koffee Bowl, and the newly acquired Casino “B” claims located immediately to the west of the Casino deposit. The Casino “B” holes confirmed the existence of gold mineralization first discovered here in 1994 by PSG, which encountered 55.17 m averaging 0.71 g/t gold in hole 94-319. Modest exploration programs were conducted, mostly over the Casino “B” area, in 2003, 2004 and 2005. In 2007, a five-hole core drilling program at Casino “B” targeted gold and copper-in-soil anomalies and ground magnetic high features.

The discovery in 2009 of gold mineralization on Underworld Resources’ White Gold property sparked new interest in gold exploration in the Yukon. This led to the implementation of a major exploration program at Canadian Creek directed at the gold potential of the property, some distance from the area of previous work focusing on porphyry copper mineralization.

A soil survey revealed extensive areas returning greater than 15 ppb gold in soils with associated anomalous values in arsenic (As), bismuth (Bi) and antimony (Sb). The anomalous area extends for over 4 km in an east-northeast direction. The induced polarization (IP) surveys revealed numerous strong chargeability highs, many of which coincide with the gold-in-soil anomalies.

Ten diamond drill holes were targeted into the new grid. Results include numerous intervals of anomalous gold values, commonly associated with elevated arsenic, antimony and bismuth. The mineralization is hosted in both gneiss and granodiorite, commonly in clay-altered structures, sheeted pyrite veins or quartz-carbonate veins. With few exceptions, gold grades are less than 1 gpt and widths are less than 3 m.

Resampling of old trenches in other parts of the property was undertaken to verify significant historical gold results. In trench Tr-2, excavated in 1993 and located in the Ana Pass area, a grab sample of a tourmaline-pyrite-quartz altered intrusive rock returned 2,516 ppb gold. In the Casino “B” area, trench 9076-C averaged 376 ppb gold over 50 m, including a 10 m interval of 927 ppb.

In 2011, additional soil sampling, ground geophysical surveying and trenching were completed. The soil sampling completed the coverage of the entire Canadian Creek property and increased the known extent of the arsenic anomalies. A limited-extent induced polarization survey identified two zones of chargeability with values greater than 20 mv/V. The trenching program identified a number of areas with anomalous gold values, ranging from sub-detection level up to 2,890 and 4,400 ppb Au.

As a follow up on the 2011 program, a modest 2016 program of trenching, prospecting and in-fill soil sampling was carried out by Cariboo Rose Resources Ltd (Cariboo Rose), which had acquired the property from Eastfield. Trenching conducted in three areas of the Ana portion of the Canadian Creek property returned locally anomalous gold, widely spread anomalous arsenic, bismuth, antimony and locally high silver values, generally confined to narrow structures.

Cariboo Rose’s 2017 exploration program consisted of surface work directed at the Kana and Malt West gold targets and a reverse circulation (RC) drill program that tested a variety of gold targets across the property. A total of 2,151.27 m of reverse circulation (RC) drilling was conducted in 24 holes. This work confirmed gold and silver mineralization to be limited to narrow (less than 3 m wide) structures rarely traceable over more than 100 m.

**Table 6-1: Summary of Work on the Canadian Creek Property by Previous Owners Since 1993 (Johnston, 2018)**

Summary of Work	
Induced Polarization Survey	87 line km
Ground Magnetic Surveys	586.8 line km
Mechanical Trenching	170 trenches and pits (many did not reach bedrock)
Trench Samples	453 samples
Soil Samples	10,129 samples
Rock Samples	835 samples
Road Construction	16 km
Diamond Drilling	6,069.24 m in 40 holes
	(includes 1970 Bremada and 1993-94 Pacific Sentinel holes on the current Casino "B" area)
Reverse Circulation (RC) Drilling	2,151.27 m in 24 holes

## 7 GEOLOGICAL SETTING AND MINERALIZATION

### 7.1 REGIONAL GEOLOGY

The Casino deposit occurs within the Yukon-Tanana terrane (YTT), a northwest-southeast trending accreted terrane comprising Neoproterozoic to Upper Cretaceous metaigneous and metasedimentary rocks abutting the southwest side of the Tintina Fault Zone northeast of the property. This was previously described as an overlapping zone of the Yukon Cataclastic Terrane to the north and the Yukon Crystalline Terrane to the south (Templeman-Kluit, 1976). An elongate band of ultramafic rocks, 1 km north of the Casino deposit, may occur along a major tectonic suture. The YTT in this area has undergone emplacement of the 104 Ma Dawson Range Batholith, part of the Whitehorse Intrusive Suite. The Dawson Range Batholith extends WNW for about 300 km, roughly parallel to the regional orientation of strata comprising the YTT also known as the Yukon Metamorphic Complex.

The YTT is dominated by Paleozoic rocks of the Yukon Metamorphic Complex with scattered intrusions of the Coffee Creek Suite which are petrographically distinct from the Dawson Range Batholith. The YTT in the Dawson Range area is comprised of metasedimentary rocks of the Proterozoic to Devonian Snowcap assemblage, rocks of the Devonian-Mississippian Wolverine Creek Metamorphic Suite, (Johnston, 1995) and rocks of the Permian Sulphur Creek assemblage (website, Yukon Geological Survey, 2020). Snowcap assemblage rocks comprise quartzites, pelites, psammites and marble (YGS, 2020). Stratigraphy of the Wolverine Creek Suite comprises sedimentary and igneous protoliths (Tempelman-Kluit, 1974; Payne et al., 1987). These meta-sedimentary rocks consist mainly of quartz-feldspar-mica schist and gneiss, quartzite, and micaceous quartzite, while the meta-igneous unit includes biotite-hornblende-feldspar gneiss and other orthogneisses, as well as hornblende amphibolite (Selby & Nesbit, 1997).

During the mid-Cretaceous, Wolverine Creek suite rocks in this area were intruded by the Dawson Range Batholith, subsequently intruded by the Casino Intrusive Suite (Selby et al., 1999). The Dawson Range Batholith has incorporated scattered roof-pendants and blocks of the YTT, particularly Snowcap Assemblage and Wolverine Creek Suite rocks. The Dawson Range Batholith is the main country rock of the Casino Property and is represented by a relatively homogeneous, medium- to coarse-grained, hornblende-bearing, potassic quartz diorite to granodiorite, and lesser fine- to medium-grained diorite and quartz monzonitic veins, dykes, and plugs (Tempelman-Kluit, 1974).

The Casino Intrusions, also called the Casino Plutonic Suite, have been described as a suite of quartz monzonite stocks up to 18 km across (Hart and Selby, 1998) trending west-northwest parallel to the Big Creek Lineament and its northwestern extension. Mapping by Tempelman-Kluit (1974), and successively by Payne et al. (1987), associates this Casino Plutonic Suite with the mid-Cretaceous Dawson Range Batholith. Subsequently, Johnston (1995) grouped the intrusions with the late-Cretaceous Prospector Mountain Plutonic Suite, based largely on field relationships that show stocks of the Casino Plutonic Suite cutting the Dawson Range Batholith. Subsequent age determination by Mortensen and Hart in 1998, as well as geochemistry provided by Selby et al. (1999), re-evaluated the Casino Intrusions as mid-Cretaceous fractionated magmas of the Dawson Range Batholith. Recent field relationships have proven that the 'quartz monzonites' of the Casino property, once thought to be separate intrusions, are actually intensely altered and recrystallized diorites of the Dawson Range Batholith.

The regional geology is illustrated in Figure 7-1, which summarizes the major units with isotopic ages. All isotopic dates are based on U-Pb ratios in zircons analyzed by J.R. Mortensen.

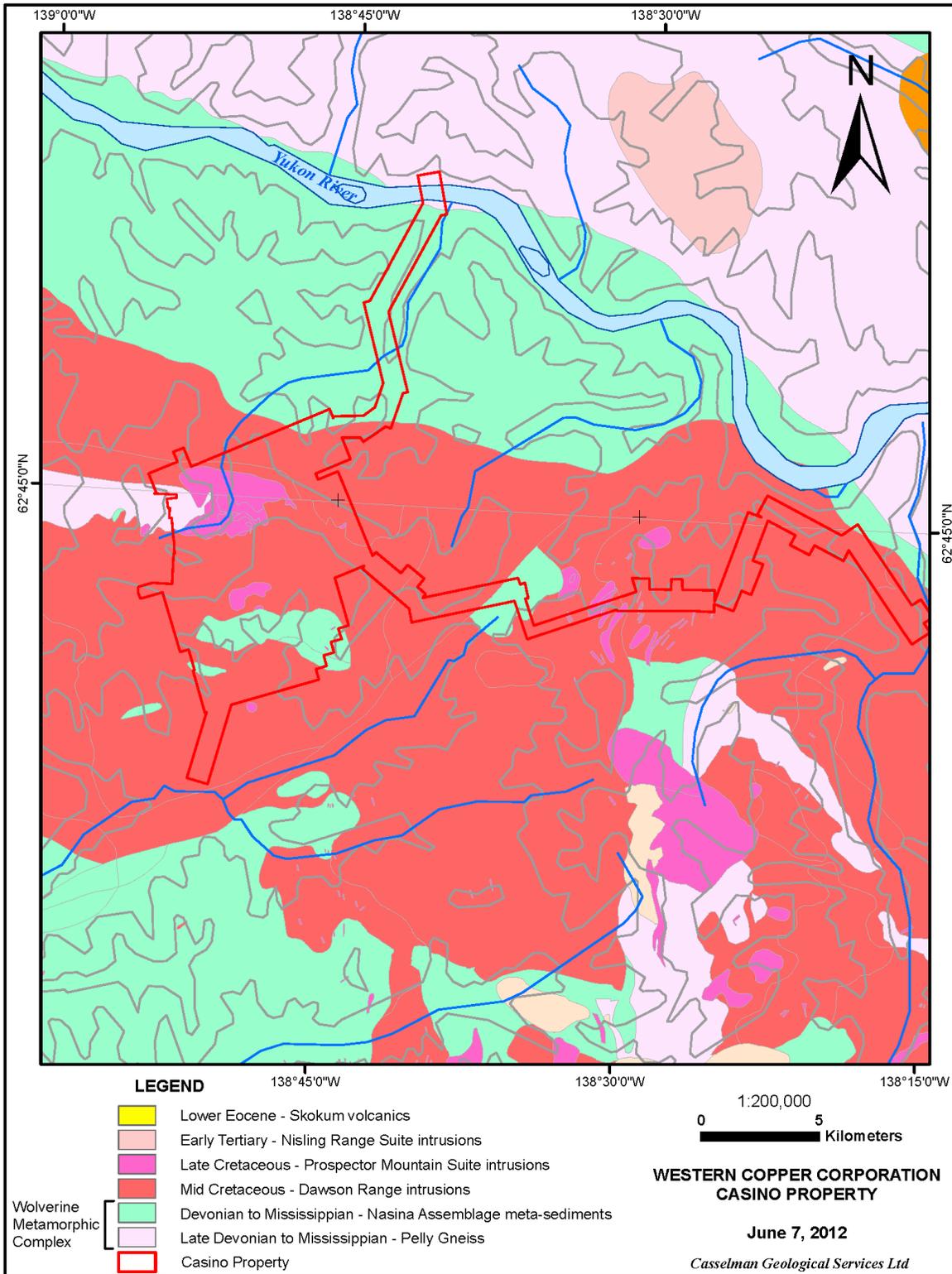


Figure 7-1: Regional Geology

During late Cretaceous time, stocks and apophyses of the Prospector Mountain Plutonic Suite were emplaced into the Dawson Range Batholith (Johnston, 1995; Selby et al, 1999). In the Casino area, this suite is represented by the 72.4 Ma Patton Porphyry intrusions, occurring as small, biotite-bearing, feldspar-porphyritic, hypabyssal rhyodacite to dacite intrusions near the center of the deposit, and as discontinuous centimeter- to metre-wide dikes northwest of the property. Here, early phases the Patton Porphyry appear to grade into a mineralized intrusive breccia. Later, unaltered dykes of similar lithology cut surrounding hydrothermally altered and mineralized rocks (Payne et al., 1987) suggesting there are multiple phases of this unit (Bower, 1995; Selby and Creaser, 2001). Hydrothermal alteration and mineralization occur in, and adjacent to, some of these late Cretaceous intrusions.

**Table 7-1: Stratigraphic Column**

	<b>Geological Unit</b>	<b>Isotopic Age</b>
<b>Late Cretaceous</b>	PROSPECTOR MOUNTAIN PLUTONIC SUITE:	
	Intrusive Breccia (Diatreme) <i>Heterolithic; fine-grained matrix; angular clastic</i>	
	Heterolithic Intrusion Breccia <i>Heterolithic; Patton porphyry/potassic matrix; autobrecciated fragments</i>	
	Patton Porphyry <i>Plag-Bi Porphyry; Kf +/- Qz megacrystic porphyry</i>	72.4 +/-0.5 Ma
<b>Mid-Cretaceous</b>	DAWSON RANGE BATHOLITH:	
	Granodiorite <i>bi-hbld granodiorite</i>	104.0 +/-0.5 Ma
	Diorite <i>Hbld-Bi-Qtz diorite; hbld-bi diorite</i>	104.0 +/-0.5 Ma
<b>Devono-Mississippian</b>	WOLVERINE CREEK METAMORPHIC SUITE:	
	Meta-sedimentary <i>Micaceous Quartzite</i>	
	Meta-igneous <i>Qtz-Bi-Plag-Microcline Gneiss; KF-Qtz-Bi Gneiss; Amphibolite</i>	
<b>Proterooic-Devonian</b>	SNOWCAP ASSEMBLAGE	
	Metasedimentary: Quartzite, psammites, pelites, marble	

The Casino Property is sandwiched between parallel west-northwest-trending faults that form contacts between rocks of the Wolverine Creek Metamorphic Suite and the Dawson Range Batholith. In Figure 7-2 (below), the fault farthest to the northeast is an extension of the Big Creek Fault interpreted as dextrally offset by 20 to 45 km. A parallel fault, 8 km to the southwest, forms the southwest boundary of a sliver of Wolverine Creek Metamorphic Suite rocks and contains outcroppings of ultramafic rocks similar to those occurring along the Big Creek Fault.

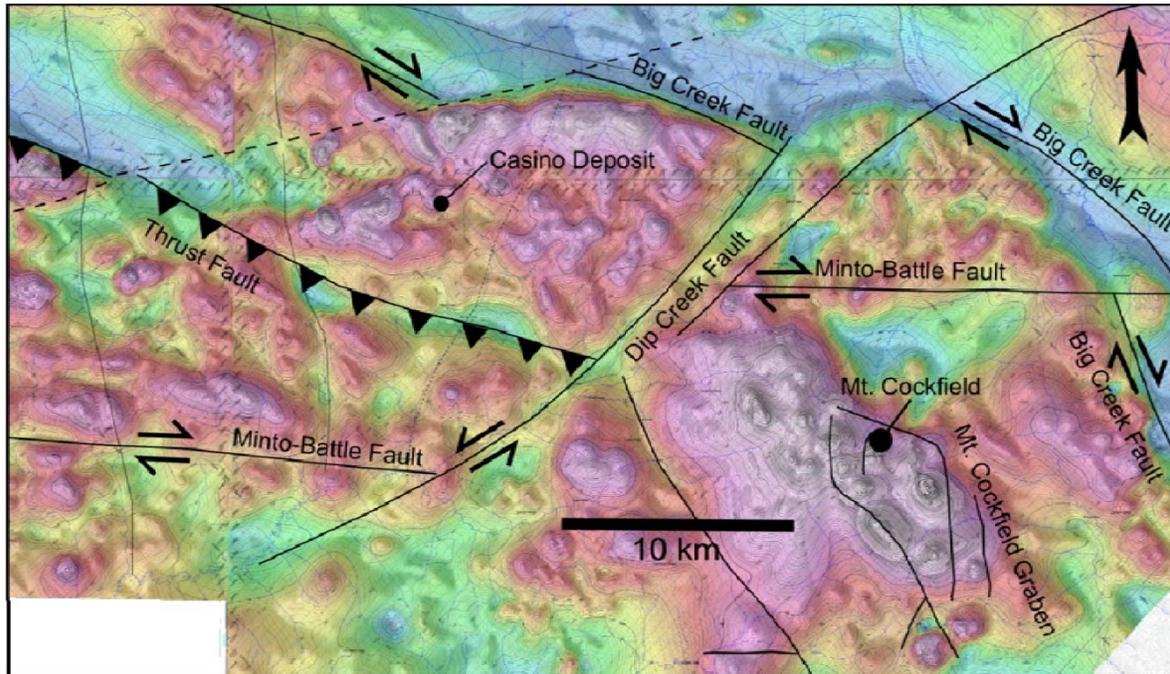


Figure 7-2: Regional Structures Overlain on Recent Aeromagnetic Survey

The Casino Property is bounded to the southeast by a northeast-trending regional structure known as the Dip Creek Fault, which has a left lateral (sinistral) displacement. The left-lateral displacement of stratigraphy along the Yukon River east of the Casino Property is a reflection of sinistral movement along this fault. The east-trending Minto-Battle Fault is also sinistrally offset by the Dip Creek Fault (Johnston, 1999). The dextrally offset Minto-Battle fault lies east of the Casino Property on the opposite side of Dip Creek, with its offset extension lying south and southwest of the Casino Property.

## 7.2 PROPERTY GEOLOGY

The geological setting of the Casino deposit is typical of many porphyry copper deposits. The deposit is centered on an Upper Cretaceous-age (72.4 Ma), east-west trending elongate tonalite porphyry stock, called the “Patton Porphyry” (PP), that intrudes mid-Cretaceous granitoids of the Dawson Range Batholith (WRGD) and Paleozoic schists and gneisses (YM) of the YTT. Emplacement of the Patton Porphyry tonalite stock into the older rocks caused brecciation of both the intrusive rocks and the surrounding country rocks along the northern, southern and eastern contacts of the stock. Brecciation is best developed in the eastern end of the stock, where the breccia zone can be up to 400 m wide in plan view. To the west, along the north and south contacts, the breccias narrow gradually to less than 100 m. Drilling done at the western end of the tonalite stock has revealed a late, post-mineralization intrusive breccia (MX) which has obliterated the Patton Porphyry stock and any related contact breccia in this area. The late intrusive breccia (diatreme) forms an elliptical body over 300 m across. It also forms narrow east – west dykes extending into the tonalite stock and surrounding granitoids and metamorphic rocks. The Patton Porphyry and late intrusive breccias comprise the Casino Intrusive Complex, measuring 1.8 km by 1.0 km.

Patton Porphyry dykes extend west of the deposit for several kilometres. Locally, these dykes are associated with breccia zones developed along their margins, and may be mineralized with pyrite, chalcopyrite and molybdenite as disseminations, vein and fracture fillings.

On the northwest side of the Casino intrusive complex a swarm of Patton Porphyry dykes and related breccias occurs. This dyke swarm is speculated to represent the upper emanation of a buried satellite stock of the main Patton Porphyry stock.

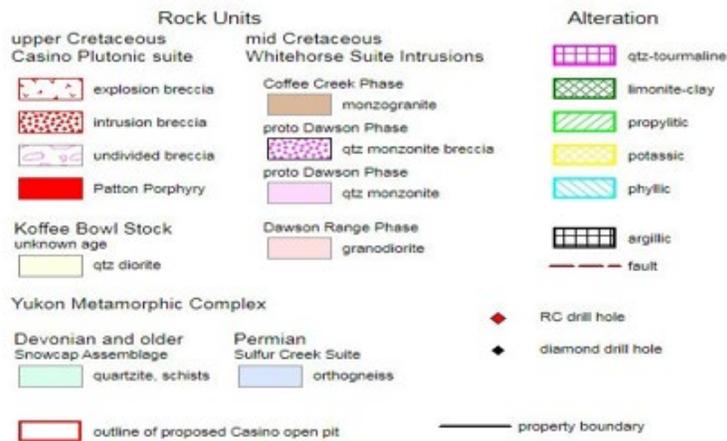
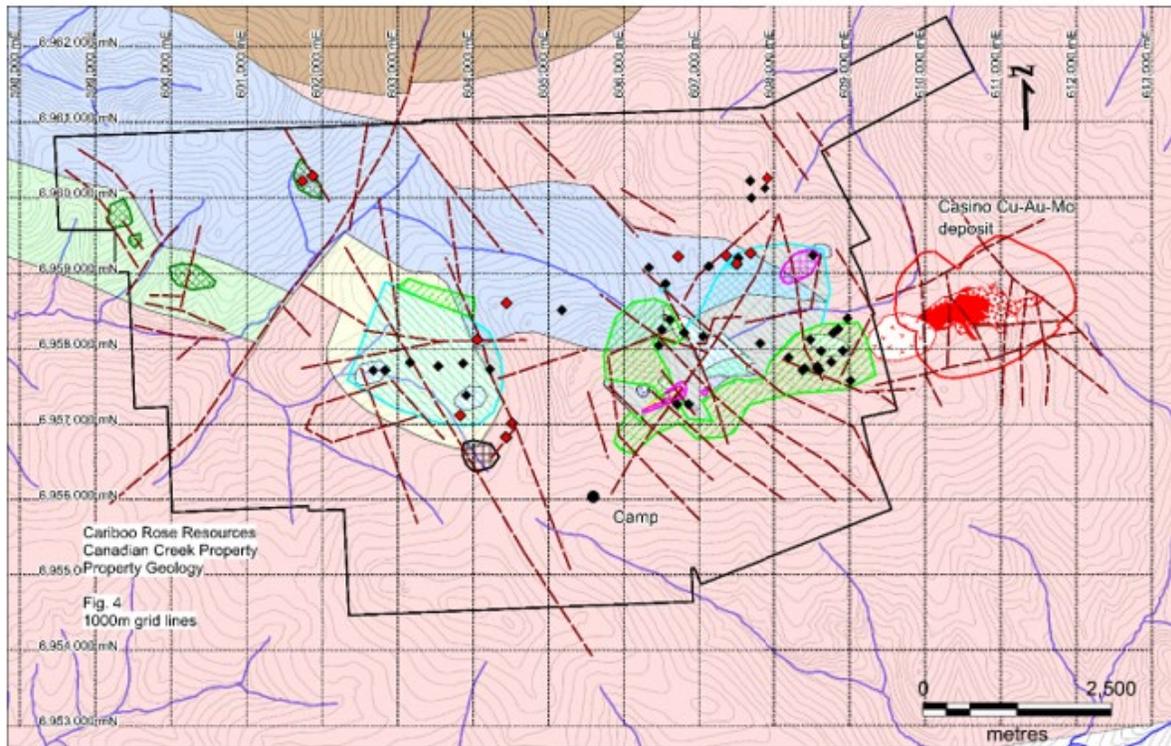


Figure 7-3: Property Geology (From R. Johnston, 2018)

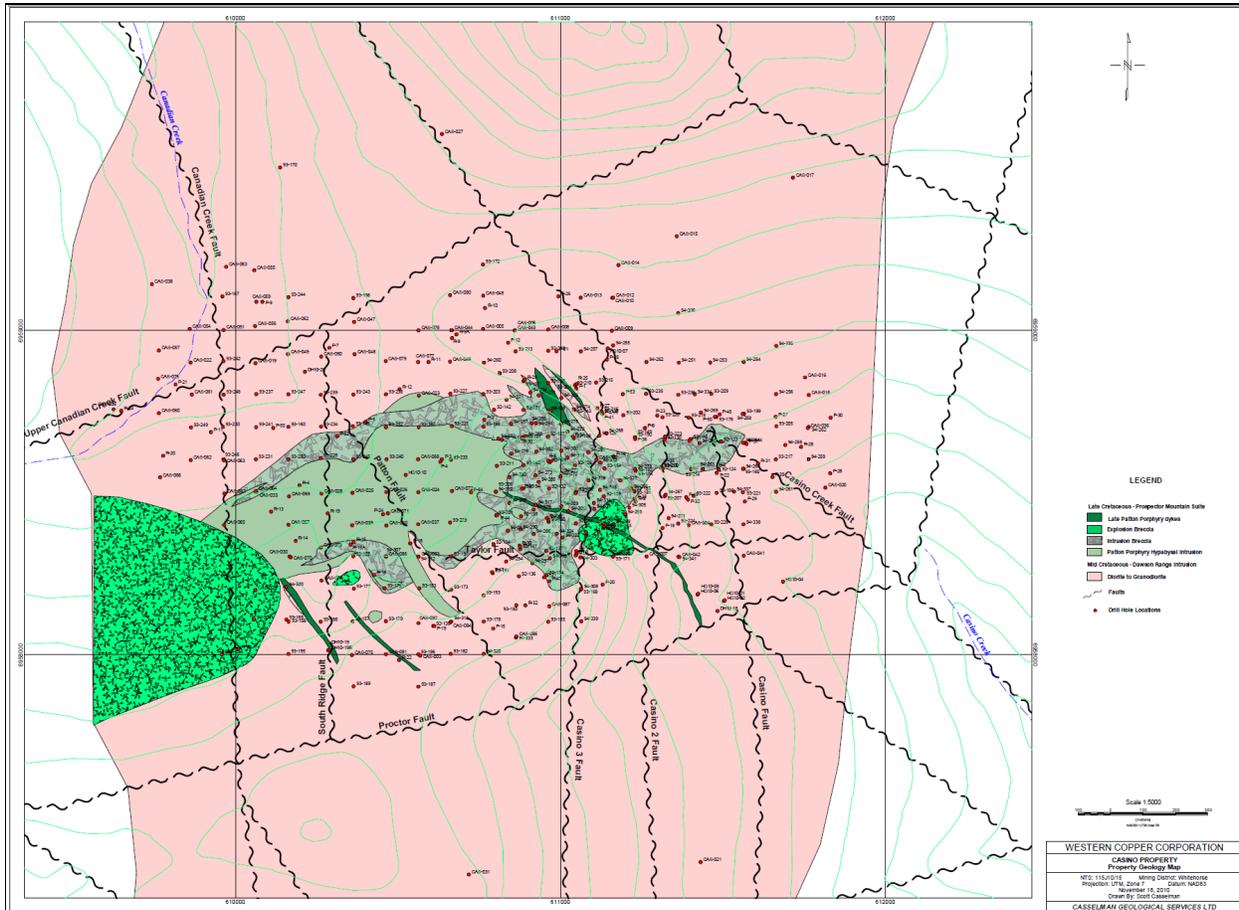
## 7.3 MINERALIZATION

### 7.3.1 Hydrothermal Porphyry Alteration

Crystallization and exsolution of hydrothermal fluids from Patton Porphyry (PP) magmas produced porphyry style Cu-Mo-Au mineralization. Therefore, the Patton Porphyry, and associated Intrusive Breccia (IX), is genetically related to the Cu-Mo-Au mineralization of the deposit.

**CASINO PROJECT**  
**FORM 43-101F1 TECHNICAL REPORT – MINERAL RESOURCE STATEMENT**

Hydrothermal alteration at the Casino property consists of a potassic core centered on and around the main Patton Porphyry body, in turn bordered by a contemporaneous, strongly developed and fracture controlled phyllic zone, a weakly developed propylitic zone, and a secondary discontinuous argillic overprint. Mineralized stockwork veins and breccias within the Casino Property are closely associated with the hydrothermal alteration.



**Figure 7-4: Geology of the Casino Deposit**

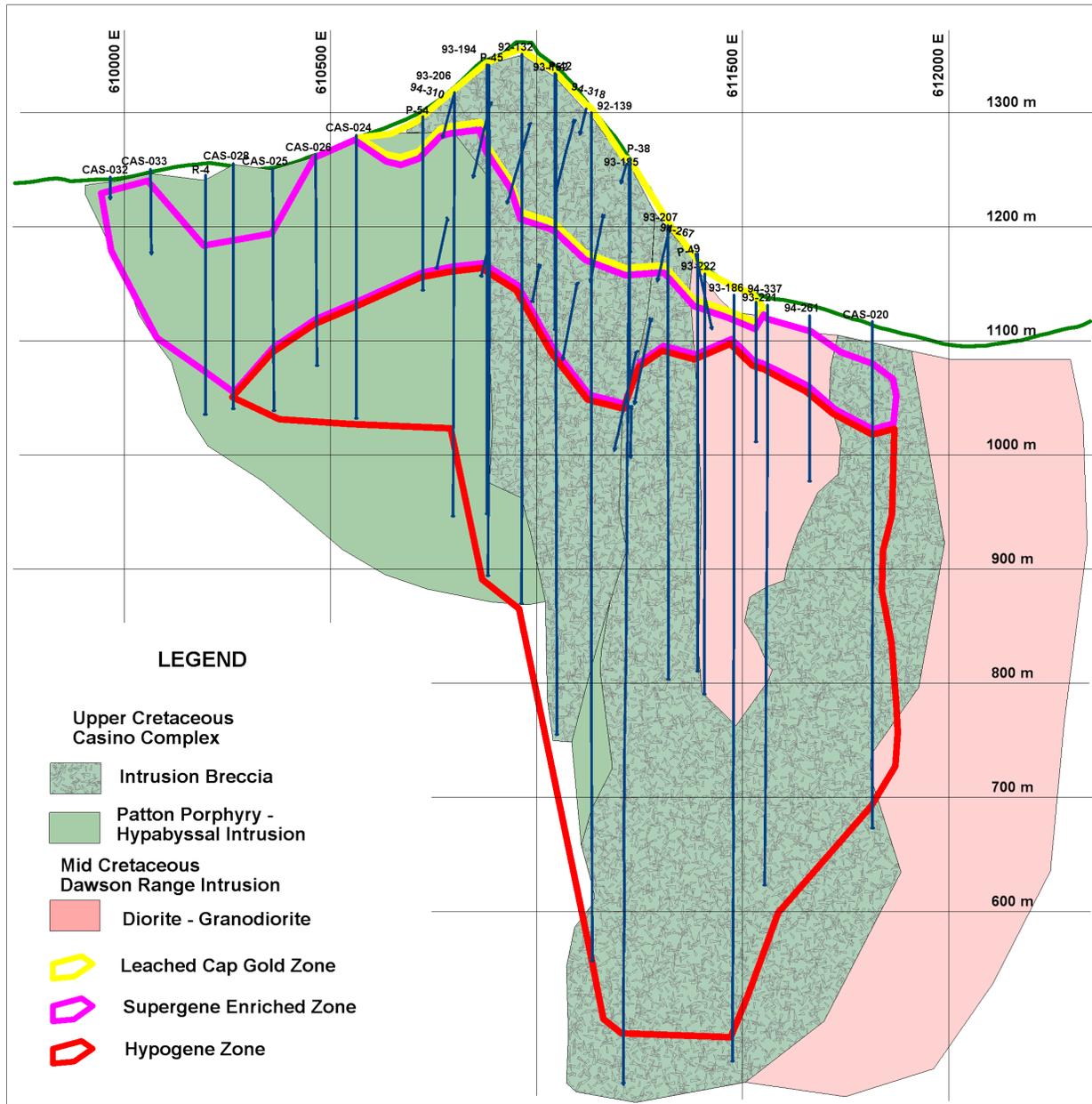


Figure 7-5: Casino Property Geology - Cross Section

Potassic alteration minerals include texturally destructive K-feldspar, biotite, magnetite and quartz with lesser hematite, purple anhydrite and gypsum. Biotite is generally felted and pseudomorphic after hornblende. Locally, magnetite forms braided veinlets. In drill core, potassic alteration is represented by dark brown to black biotite alteration and/or by pink potassium feldspar alteration.

The texturally destructive phyllic zone is found peripheral to, and locally overprinting, the potassic zone of alteration. It has a distinctive 'bleached' appearance and is locally structurally controlled. Phyllic alteration minerals include quartz, pyrite, sericite, muscovite (after biotite), and abundant tourmaline, as well as minor hematite and/or magnetite towards the potassic zone. Quartz and sericite are typically alteration minerals after potassic and plagioclase feldspars. Biotite alters to muscovite or titanite, and hornblende alters to chlorite, calcite, quartz and biotite. Tourmaline forms radiating

disseminations and veinlets. Sulphide content is typically high, with pyrite ranging from 5-10% throughout, as disseminated blebs or cores to quartz “D” veins.

Where intense phyllic alteration overprints potassic alteration, relict textures are destroyed and minerals are recrystallized, commonly to equal portions of quartz, plagioclase, and K-feldspar, and including up to 10 percent biotite, trace apatite and titanite. Strongly zoned plagioclase and locally kinked biotite form subhedral lathes, surrounded by K-feldspar, locally strained quartz, and biotite. The overall colour is pale pink.

Propylitic alteration is rare on surface but forms a wide halo around the deposit in gradational contact with the inner potassic alteration. Alteration minerals include epidote, chlorite and calcite, with lesser carbonate, clay, sericite, pyrite and albite. Hornblende and biotite are completely chloritized, whereas feldspars are relatively fresh and textures are generally well-preserved.

In typical porphyry copper deposits, advanced argillic alteration occurs above the phyllic alteration. It appears that, on the Casino property, all evidence of advanced argillic alteration has been eroded or destroyed.

Secondary argillic alteration is closely associated with the supergene zone and may appear locally as patches or pockets within potassic and phyllic alteration zones. It is poorly developed, appears bleached or pale green, contains abundant clays (kaolinite, montmorillonite) and local chlorite and/or carbonate. In drill core, this unit may be recognized by distinctive “pock-marks” along the surface of the core.

### **7.3.2 Supergene Porphyry Mineralization**

The Casino deposit is unusual among Canadian porphyry deposits as it has a substantially preserved outcropping oxide gold-bearing “Leached Cap”, a well-developed upper copper-enriched “Supergene Zone” and a lower copper-gold bearing “Hypogene Zone”. The Supergene Zone is comprised of the Supergene Oxide (SOX) zone and more extensive Supergene Sulphide (SUS) zone. Table 7-2 summarizes the main minerals identified in the Leached Cap and Supergene zones.

#### **Leached Cap Mineralization (CAP)**

The Leached Cap (oxide gold zone) is gold-enriched and copper-depleted due to supergene alteration, mainly leaching, processes, and has a lower specific gravity relative to the other supergene zones. It averages 70 m thick and is characterized by boxwork textures filled with jarosite, limonite, goethite, and hematite. This weathering has completely destroyed rock textures and has replaced most primary minerals with clay. The resulting rock is pale gray to cream in colour and is friable to the touch, and the clay is commonly stained yellow, orange, and/or brown by iron oxides. The weathering is most intense at the surface and decreases with depth.

#### **Supergene Oxide Mineralization (SOX)**

The poorly defined Supergene Oxide zone (SOX) is copper enriched with trace molybdenite. It occurs as a few perched bodies within the leached cap, likely due to more recent fluctuations in the water table. This zone is thought to be related to present-day topography and is best developed where oxidation of earlier secondary copper sulphides occurs above the water table, typically on well drained slopes. Where present, the supergene oxide zone averages 10 m thick, and may locally contain chalcantite, malachite and brochantite, with minor azurite, tenorite, cuprite and neotocite. Where present, the supergene copper oxide zone grades into the better-defined supergene copper sulphide zone.

### Supergene Sulphide Mineralization (SUS)

Supergene copper mineralization occurs in a weathered zone up to 200 m deep, below the leached cap and above the hypogene zone. It has an average thickness of 60 m and is positively correlated with high grade hypogene mineralization, high permeability and phyllic and/or outer potassic alteration. Grades of the Supergene sulphide zone vary widely, but are highest in fractured and strongly pyritic zones, due to their ability to promote leaching and chalcocite precipitation. Thus, secondary enrichment zones are thickest along contacts of the potassic and phyllic alteration halos; accordingly, the copper grades in the Supergene Sulphide zone are almost double the copper grades in the Hypogene zone (0.43% Cu versus 0.23% Cu). Grain borders and fractures in chalcopyrite, bornite and tetrahedrite may be altered to chalcocite, diginite and/or covellite. Chalcocite also locally coats pyrite grains and clusters and locally extends along fractures deep into the hypogene zone. Molybdenite is largely unaffected by supergene processes, other than local alteration to ferrimolybdate.

In drill-core, the SUS zone is generally broken with decreasing clay alteration and weathering with depth and is 'stained' dark blue to gray.

**Table 7-2: Leached Cap & Supergene Minerals**

Zone	Minerals Present	Average Thickness
Leached Cap	jarosite, goethite, hematite, ferrimolybdate	70 m
Supergene Oxide	chalcantite, brochantite, malachite, azurite, tenorite, cuprite, neotocite, copper WAD native copper, copper-bearing goethite	10 m
Supergene Sulphide	digenite, chalcocite, minor covellite, bornite, copper-bearing goethite	60 m

### 7.3.3 Hypogene Mineralization

Mineralization of the Casino Cu-Au-Mo deposit occurs mainly in the steeply plunging, in-situ contact breccia surrounding the Patton Porphyry intrusive plug. It was formed by crystallization and exsolution of hydrothermal fluids from late Cretaceous magmas of the Casino Plutonic Suite. The breccia forms an ovoid band around the main porphyry body with dimensions up to 250 m and has an interior zone of potassic alteration surrounded by discontinuous phyllic alteration, typical of some porphyry deposits.

Hypogene mineralization occurs throughout the various alteration zones of the Casino Porphyry deposit as mineralized stockwork veins and breccias. Field relationships show that the potassic alteration occurred first as mineralized quartz veins of the phyllically altered zones, which cut those of the potassically altered zones. Re-Os age dating showed that the timing of the potassic and phyllic alteration are contemporaneous at around  $74.4 \pm 0.28$  Ma. Significant Cu-Mo mineralization is related to the potassically-altered breccias surrounding the core Patton Porphyry, as well as in the adjacent phyllically-altered host rocks of the Dawson Range Batholith.

Mineralization in the potassic zone comprises mainly finely disseminated pyrite, chalcopyrite and molybdenite, as well as trace sphalerite and bornite. The phyllic alteration zones have increased gold, copper, molybdenite and tungsten

values concentrated within disseminations and veins of pyrite, chalcopyrite and molybdenite along the inner part of the pyrite halo. The pyrite halo occurs within the phyllic alteration zone along the potassic-phyllic contact and discontinuously surrounds the main breccia body. It is host to the highest copper values on the property.

Chalcopyrite commonly occurs as veins, disseminations and irregular patches. In breccia zones and granodiorite west of the Casino Fault, disseminated chalcopyrite is more abundant than vein and veinlet-style chalcopyrite, whereas to the east of the fault, chalcopyrite is controlled by brittle deformation and occurs in fractures and open space fillings. Pyrite to chalcopyrite ratios range from less than 2:1 in the core of the deposit, to greater than 20:1 in the outer phyllic zones. Locally, coarse grained bornite and tetrahedrite are intergrown with chalcopyrite.

Molybdenite is not generally intergrown with other sulphides and occurs as selvages in early, high temperature, potassic quartz veins and as discrete flakes and disseminations.

Native gold can occur as free grains (50 to 70 microns) in quartz and as inclusions in pyrite and/or chalcopyrite grains (1 to 15 microns). High grade smoky quartz veins with numerous specks of visible gold have been reported to exist.

Late-stage, commonly vuggy, polymetallic veins (like those of the Bomber Vein) follow roughly parallel, steeply dipping fractures trending 150 to 170 degrees. Metallic mineralogy includes abundant sphalerite and galena, with less abundant tetrahedrite, chalcopyrite (commonly intergrown with tetrahedrite), and bismuth-bearing minerals, and are geochemically anomalous in any or all of Ag, As, Bi, Cu, Cd, Mn, Pb, Sb, Zn and locally W.

In drill-core, the hypogene zone is un-weathered and un-oxidized.

#### **7.3.4 Structurally Hosted Gold Mineralization**

Structurally controlled gold mineralization within the Canadian Creek portion of the Casino property occurs mostly in the northwestern part of the property. Drilling in 2009 and 2017 discovered widespread anomalous gold mineralization associated with clay altered-shears, sheeted pyrite veins and quartz-carbonate veins hosted in both intrusive and metamorphic rocks. To date, the identified structures are generally less than 3 m thick and of short strike length. Gold is accompanied by silver, arsenic, antimony, molybdenum, barium and bismuth.

## 8 DEPOSIT TYPES

The Casino deposit is best classified as a calc-alkalic porphyry type deposit associated with a tonalite intrusive stock (the Patton Porphyry). Primary copper, gold and molybdenum mineralization was deposited from hydrothermal fluids that exploited the contact breccias and fractured wall rocks. Higher grades occur in the contact breccias, and grades gradually decrease outwards away from the contact zone, both towards the centre of the stock and outward into the host granitoids and schists. A general zoning of the primary sulphides occurs, with chalcopyrite and molybdenite occurring in the core tonalite and breccias, grading outward into pyrite-dominated mineralization in the surrounding granitoids and schists. Alteration accompanying the sulphide mineralization consists of an earlier phase of potassic alteration and a later overprinting of phyllic alteration. The potassic alteration typically comprises secondary biotite and K-feldspar as pervasive replacement and includes veins and stockworks of quartz and anhydrite veinlets. Phyllic alteration consists of replacements and vein-style sericite and silicification.

The Casino Copper deposit is unusual amongst Canadian porphyry copper deposits in having a well-developed enriched secondary supergene blanket of copper mineralization similar to those found in deposits in Chile, including the Escondita deposit and the Morenci Deposit in the southwest United States. Unlike other porphyry deposits in Canada, the Casino deposit's enriched supergene copper blanket was not eroded by the glacial action of ice sheets during the last ice age. At Casino, weathering during the Tertiary Period leached the copper from the upper 70 m of the deposit and re-deposited it lower in the deposit, forming the Supergene zone. This resulted in a layer-like sequence consisting of an upper leached zone up to 70 m thick, where all sulphide minerals have been oxidized and copper removed, leaving a bleached, iron oxide leached cap containing residual gold. Beneath the leached cap is a zone up to 100 m thick of secondary copper mineralization, consisting primarily of chalcocite and minor covellite, and a thin, discontinuous layer of copper oxide minerals at the upper contact with the leach cap. The copper grades of the enriched, blanket-like zone can be up to twice that of the underlying, unweathered hypogene zone hosting primary copper mineralization. Primary mineralization consists of pyrite, chalcopyrite and lesser molybdenite. The primary copper mineralization is persistent at depth, extending to more than 600 m within the deepest drill holes completed to date.

## **9 EXPLORATION**

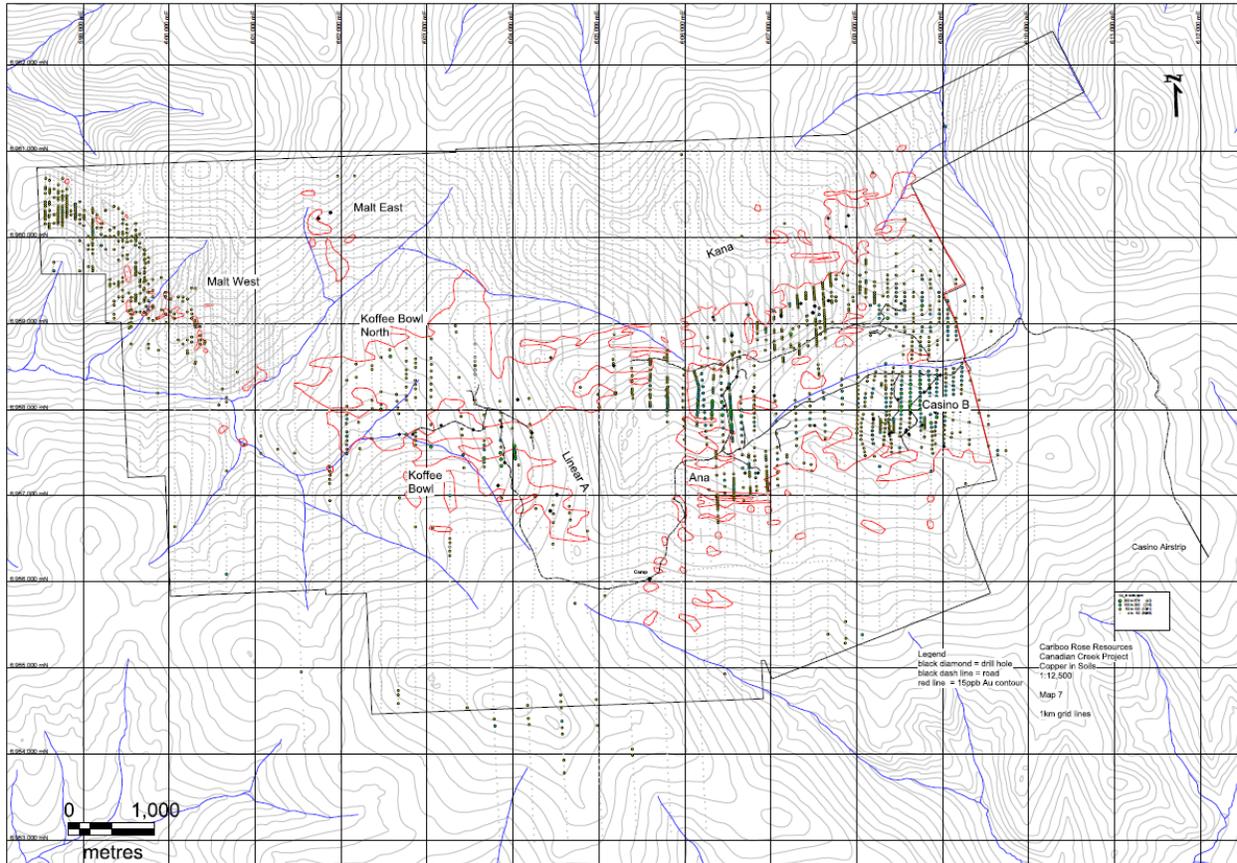
### **9.1 EXPLORATION PROCEDURES**

The history of exploration on the property includes prospecting, geological mapping, multi-element soil geochemical sampling, magnetic and induced polarization surveying, trenching and diamond and reverse-circulation drilling. Targets of early drilling on the Casino Deposit were based mainly on coincident copper and molybdenum-in-soil anomalies. Since 1993, with the exception of a Titan TM Survey, exploration in the vicinity of the Casino deposit has been drilling on a grid pattern using a core drill with a core diameter mainly of NQ and NTW thickness, with a smaller number of holes drilled with HQ diameter core. The earlier soil sampling and geophysical survey results, in the vicinity of the Casino Deposit, have all been tested by drilling and shown to be caused by porphyry copper mineralization.

A Titan TM Geophysical survey was carried out by Quantec Geoscience Limited of Toronto, Ontario in 2009, to search for possible deeply buried porphyry mineralization beneath or peripheral to the Casino deposit. The survey utilized Titan-24 Galvanic Direct Current Resistivity and Induced Polarization (DC/IP) surveys as well as a Magnetotelluric Tensor Resistivity (MT) survey over the entire grid. Magnetotelluric Resistivity surveys result in high resolution and deep penetration (to 1 km), while the Titan DC Resistivity & Induced Polarization surveys provide reasonable depth coverage to 750 m. The survey grid, covering a 2.4 km by 2.4 km area, was centered on the Casino deposit. The grid consisted of nine (9) lines, spaced 300 m apart, each 2.4 km long and at an azimuth of approximately 64 degrees (perpendicular to the Casino Creek Fault). Results of the Titan survey were used by Quantec to identify a series of drill targets within the survey grid and adjacent to the known mineralization. A total of 10 holes, comprising 4,327 m, were drilled to test geophysical targets. With the exception of several distal Pb-Zn veins and arsenopyrite-rich veins intercepted during this drilling, no porphyry copper mineralization was found.

To the west of the Casino deposit, on the recently acquired Canadian Creek Property, exploration utilized grid soil sampling, ground magnetic and induced polarisation surveys to generate targets for trenching and drilling. Initially, the focus of the geochemical and geophysical surveys was to locate porphyry copper mineralization. Subsequent to 2016, the focus of this work switched to the identification of gold mineralization similar to that discovered at nearby Coffee Creek (Johnston, 2018).

Soil sampling surveys, to the west of the Casino Deposit, were carried out over the time period from the mid 1990s through to 2011. The soil surveys mainly targeted B horizon soils, but due to local talus cover and permafrost, sampling of the B horizon wasn't always possible. Soil samples underwent multi-element and gold analysis, mostly at Acme Analytical Labs Vancouver, using ICP methods and fire assay with atomic absorption finish for gold. The historical soil grids had sampling spacings that ranged from 25 to 75 m on 200 m spaced lines. Locally, infill sampling was done at a reduced spacing of 25 m stations on 100 m spaced lines within anomalies identified from previous wider spaced surveying, in order to better define the gold and arsenic anomalies. Results for copper are shown in Figure 9-1. The soil results show a coincident copper and gold-in-soil anomaly at the 50 ppm Cu and the 15 ppb Au levels respectively, extending approximately 3 km west from the western limits of the Casino deposit. This coincident Cu-Au anomaly has been tested by 16 core holes. The holes closest to the Casino Deposit revealed moderate potassic alteration and strong propylitic alteration. The four closest holes intersected leached cap or incipient leaching, weak supergene enrichment, and hypogene copper-gold-molybdenum mineralization typical of the outer edges of a porphyry copper – gold – molybdenum deposit. Copper grades are in the 300 – 700 ppm (0.03 to 0.07%) range, gold grades range from 0.1 to 0.3 gpt, and molybdenum values range from 20 – 40 ppm (0.002 to .004%). Further, there is a progressive increase in Cu, Au and Mo in the Casino B drill holes towards the Casino deposit. These holes are defining the western limits of the Casino deposit system.



**Figure 9-1: Copper and Gold in Soil Results (Johnston, 2018)**

Elsewhere the soil results identified a number of areas of anomalous gold, arsenic, and bismuth. These anomalies were further explored with trenching, core drilling and reverse circulation drilling. This work identified scattered narrow zones of gold mineralization associated with clay-altered shears, sheeted pyrite veins and quartz-carbonate veins, hosted both in intrusive and metamorphic rocks. With few exceptions, gold grades in the structures are sub-1 gpt (1,000 ppb). The structures identified to date are mainly less than 3 m thick and of short strike length.

Ground magnetic surveying at a line spacing of 100 m was undertaken over the Canadian Creek portion of the Casino Property in 2011 and 2017. The surveys detected a number of lineaments, oriented mostly northwest-southeast, though none obviously align with the soil geochemical anomalies. A plot of the un-levelled magnetic grid survey results of the property is shown in Figure 9-2.

The ground magnetic data shows a trend of magnetic high features extending from the Casino Deposit through the Ana Zone area to the Koffee Bowl area. This west-southwest trend follows the trend of Patton Porphyry dykes extending from the main intrusive complex.

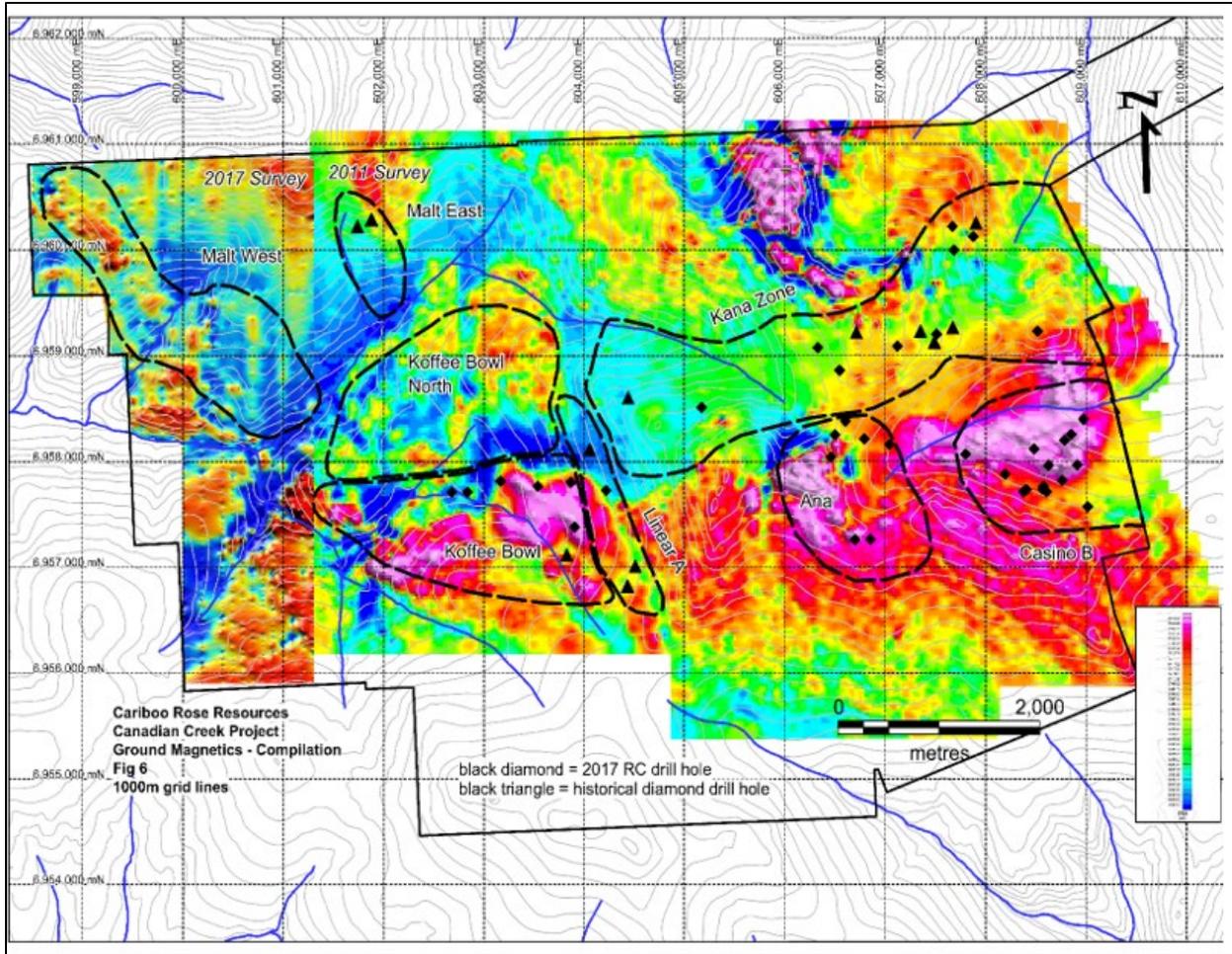


Figure 9-2: Magnetic Compilation (Johnston, 2018)

Induced polarization surveys were carried out in 1993, 1996, 2009 and 2011. The 1993 and 1996 surveys used a pole-dipole array with a spacing of 75 m and an n1 to n4 depth profile. The 2009 survey was a pole-dipole survey using an a spacing of 25 m and an n1 to n6 depth profile. The 2011 pole dipole survey used a spacing of 25 m and an n1 to n8 profile. A compilation of the results is shown in Figure 9-3.

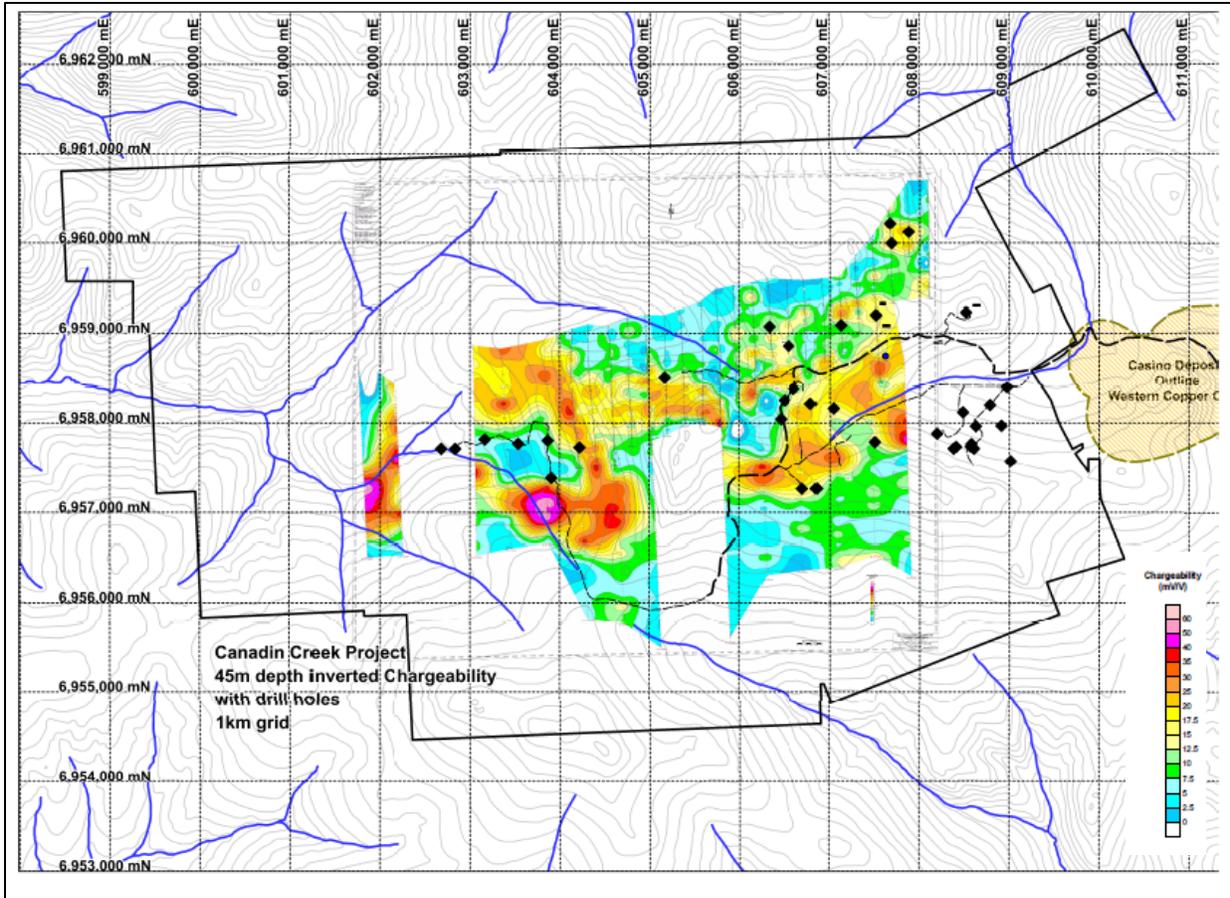


Figure 9-3: IP Compilation (Johnston, 2018)

In general, the surveys used small “a” spacings and have limited depth profiles. The survey identified a number of high chargeability anomalies which remain to be tested.

## **10 DRILLING**

The following sections describe the various drilling programs developed on the Casino Property.

### **10.1 1992-1994 DRILLING PROGRAM**

Drilling prior to 1992 (Figure 10-1) consisted of reverse circulation drilling and NQ-diameter diamond drilling. There is little documentation that specifically focused on this early drilling, its specifications or challenges. Following the acquisition of Casino Silver Mines Ltd. by Archer Cathro and Associates, then by PSG, the drilling is well documented.

During the intense campaigns from 1992 through 1994, (Figure 10-2) drilling was contracted to E. Caron Drilling Ltd. of Whitehorse, Yukon. Up to six diamond drills were utilized. The 1994 drilling program fulfilled a variety of purposes: infill and delineation drilling, and geotechnical, structural and waste rock characterization. Infill drilling involved a program of angle and vertical holes designed to outline and more fully define the Leached Cap (Oxide Gold zone) and Supergene copper zones. Delineation drilling to the north, northeast, east and southeast outlined the extent of the deposit area. Four oriented angle holes were drilled into the deposit area for geotechnical information, primarily rock strength and structural characteristics, and for geological information regarding vein-set orientations. Five vertical holes were drilled into the periphery of the deposit area for waste rock characterization studies. Seven vertical holes were drilled into the peripheral area of the deposit for geotechnical information. Eighteen vertical holes were drilled outside the deposit area for geotechnical and geological information regarding potential site development.

The combined drilling from 1992 through 1994 consisted of 71,437.59 m of NQ and HQ core in 236 holes.

Core recoveries were consistently in the 80% to 90% range in the Leached Cap and Supergene zones and 90% to 100% in the Hypogene zone.

Drilling can be carried out at Casino from March through November with minor logistical challenges, although conditions in the spring and fall require winter-type drilling equipment. The use of a water supply truck is necessary during very cold weather conditions, due to freezing of water lines. Three reliable water supply sites exist on the property and can all be utilized during multiple drill rig programs.

### **10.2 2008 TO 2012 DRILLING**

The drilling for the 2008 to 2012 exploration programs was contracted to Kluane Drilling Ltd. from Whitehorse, Yukon. Up to three hydraulic diamond drills were utilized for these programs.

Water for the drilling was pumped from the Canadian Creek bend, at the location of the old placer camp, and from Casino Creek.

Drilling was carried out from March through November. Conditions in the late winter and fall required winter-type drilling equipment. The main challenges during the winter drilling were water supply due to the low water level in both creeks and the freezing of long water lines.

All drilling was done using “thin wall” drill rods. Holes CAS-001 to CAS-007 utilized HTW-size rods (core diameter 70.92 mm) and the remainder of the drilling was done utilizing primarily NTW core size (core diameter 56.00 mm). Deeper holes were collared using HTW rods and reduced to NTW rods typically from 200 to 300m of depth. In a few cases, holes were reduced further to BTW core size (core diameter 42.00 mm).

Core recoveries in the Leached Cap and Supergene zones were consistently in the 80% to 90% range and 90% to 100% in the Hypogene zone.

Down-hole orientation surveying was performed using an Icefield Tools MI3 Multishot Digital Borehole Survey Tool for holes CAS-002 to CAS-076. For holes CAS-077 to CAS-092, as well as the geotechnical and hydrogeological holes, a Reflex Instruments downhole survey instrument was used.

Western Copper continued the drilling pattern established by PSG, utilizing mainly a vertical drill hole orientation and a nominal 100 m grid spacing. Later in the program, Western Copper drilled a series of inclined holes in the northern part of the deposit. Several inclined holes were also drilled in the western part of the deposit to establish contacts with the post-mineral explosion breccia (MX) and to confirm orientation of the interpreted N-S structure.

Geostatistics, done in 2010, have shown that the 100 m spacing was sufficient for delineation of supergene mineralization. The same studies have shown that the 100 m drill hole spacing is only marginally sufficient for delineation of hypogene copper mineralization.

### **10.3 2013 DRILLING**

Drilling during the 2013 field season was contracted to Kluane Drilling Ltd. of Whitehorse, Yukon. Up to two hydraulic diamond drills were used for this program.

Drilling in 2013 was primarily for water wells and hydrogeological purposes. Each hole was fully logged by core loggers, but no samples were taken, and no assays returned. Eleven holes (MW13-01D/S through MW13-06D/S) were drilled throughout June and another fifteen (DH13-01 through DH13-12) were completed during August. See Figure 10-4 and Figure 10-5 for detailed locations of drilling.

No diamond drilling was completed on the property from 2014 through to the end of 2018.

### **10.4 2019 DRILLING**

Between May and October of 2019, Kluane Drilling Ltd. of Whitehorse, Yukon, drilled 72 (DH 19-01 through DH 19-53, CRD 19-54 through CRD 19-59 and DH 19-60 through DH 19-69) core holes on the Casino Property using up to two hydraulic diamond drills.

Water for the drilling was pumped from the Canadian Creek bend, from Casino Creek, and from several small ponds in the property area.

All drill holes in 2019 were of NTW core size (core diameter 56.00 mm) with the exception of some holes in difficult ground that were collared with HTW core size (core diameter 70.92) and reduced to NTW when drilling conditions improved.

Core recoveries were consistently in the 75% to 80% range in the Leached Cap, 80% to 90% in the Supergene zones and 90% to 100% in the Hypogene zone.

Down-hole orientation surveying was performed using a DeviShot Magnetic Multishot survey tool. Each drillhole was surveyed on 30-50 m increments by the Kluane drilling team.

CAP Engineering, of Whitehorse, Yukon was on site for 2 days in late August to survey the drill hole collars. A team of two people used a Stonex GPS RTK Unit and a Topcon GPS RTK Unit to complete the surveys. See Figure 10-4 and Figure 10-5 for detailed locations of the drill holes.

The purpose of the 2019 drill program was to infill the previous drill hole spacing to upgrade the resource estimate for the project. All holes were logged, sampled and photographed by geologists on site before samples were sent to ALS

Global (ALS) in Whitehorse for analysis, with 20% of those pulps from ALS randomly selected and sent on to SGS Canada Inc. (SGS) in Vancouver for a QAQC check analysis.

### **10.5 CANADIAN CREEK DRILLING SUMMARY**

Following acquisition of the Canadian Creek property by Western Copper in 2019, all drilling data was transferred from Cariboo Rose Resources Ltd. and is summarized in Table 10-1. Since 1992, when exploration first began on the Canadian Creek property, soil sampling, trenching, geophysical surveys and drilling have focused on several areas of interest. A full history of the Canadian Creek property can be found in Section 6 of this report.

**Table 10-1: Summary of Canadian Creek Drilling**

<b>Year</b>	<b>Drilling Summary (# holes)</b>	<b>Area</b>	<b>Type of Drilling</b>
1970	2	Casino B	Diamond Drilling
1993	7	Ana, Koffee	Diamond Drilling
1994	4	Casino B	Diamond Drilling
2000	11	Ana, Casino B, Koffee	Diamond Drilling
2007	5	Casino B	Diamond Drilling
2009	10	Kana	Diamond Drilling
2017	24	Various	Reverse Circulation Drilling

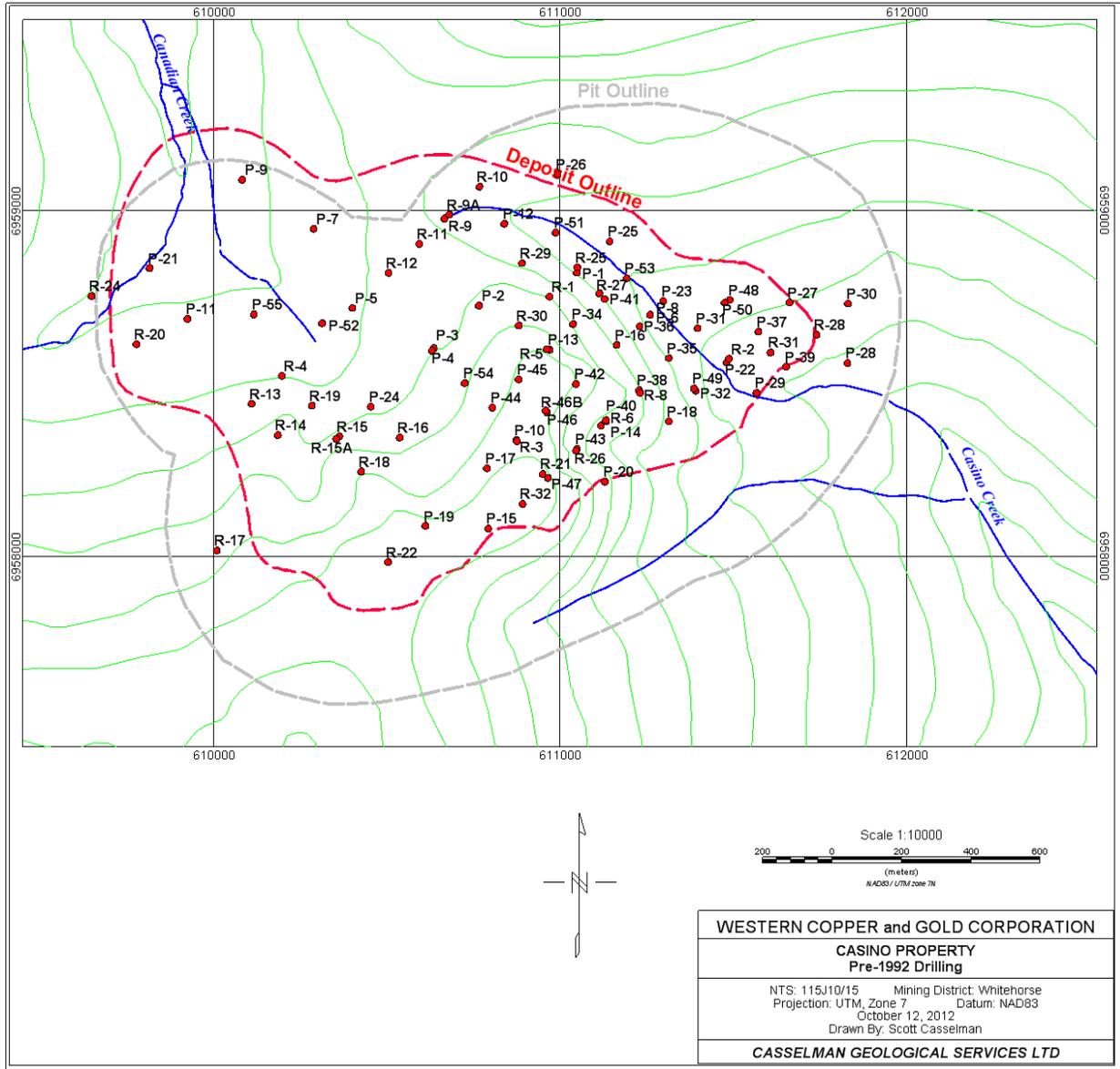
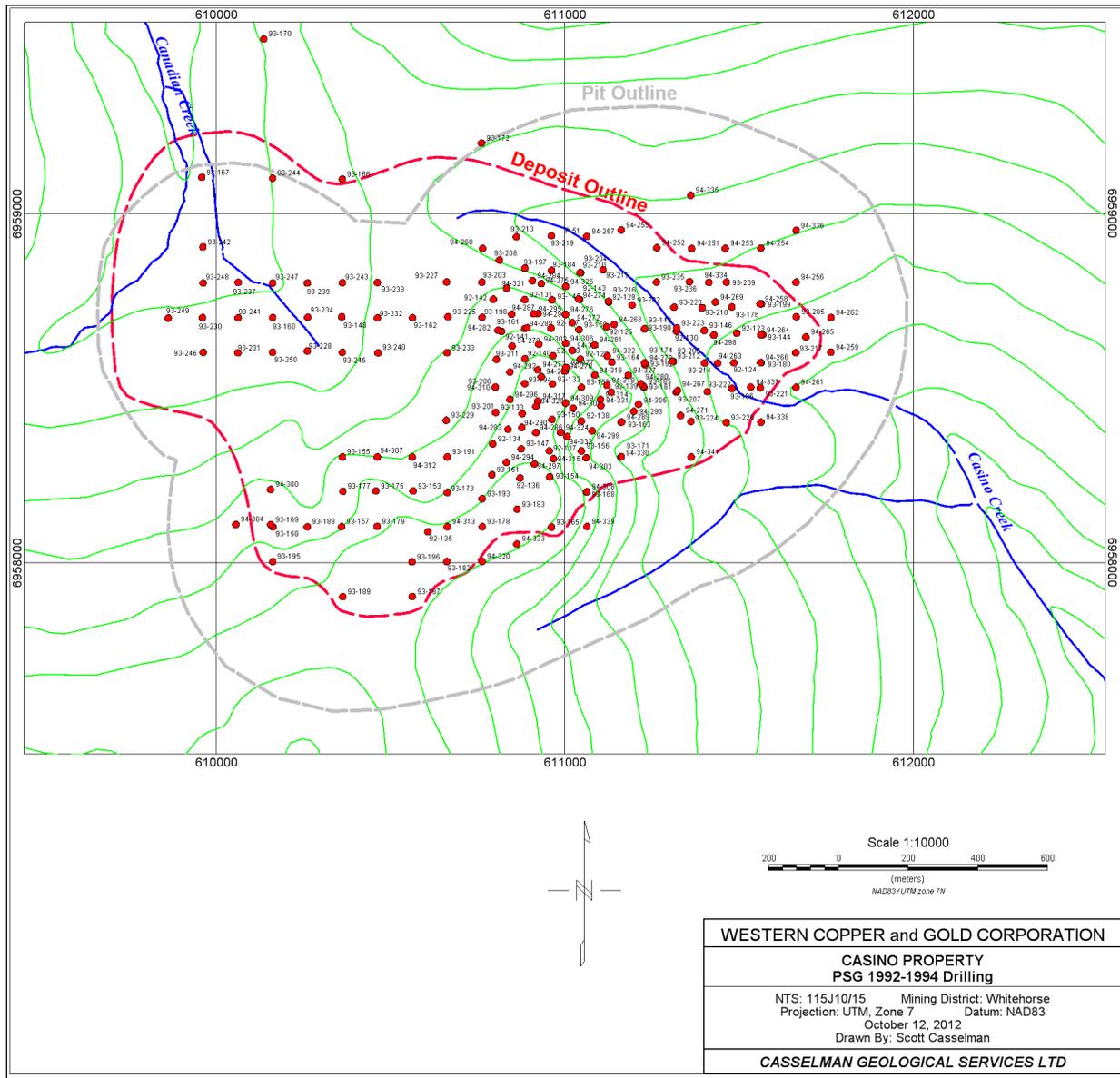


Figure 10-1: Casino Property Drilling Pre-1992

**CASINO PROJECT  
FORM 43-101F1 TECHNICAL REPORT – MINERAL RESOURCE STATEMENT**



**Figure 10-2: Casino Property Drilling 1992 to 1994**

CASINO PROJECT  
 FORM 43-101F1 TECHNICAL REPORT – MINERAL RESOURCE STATEMENT

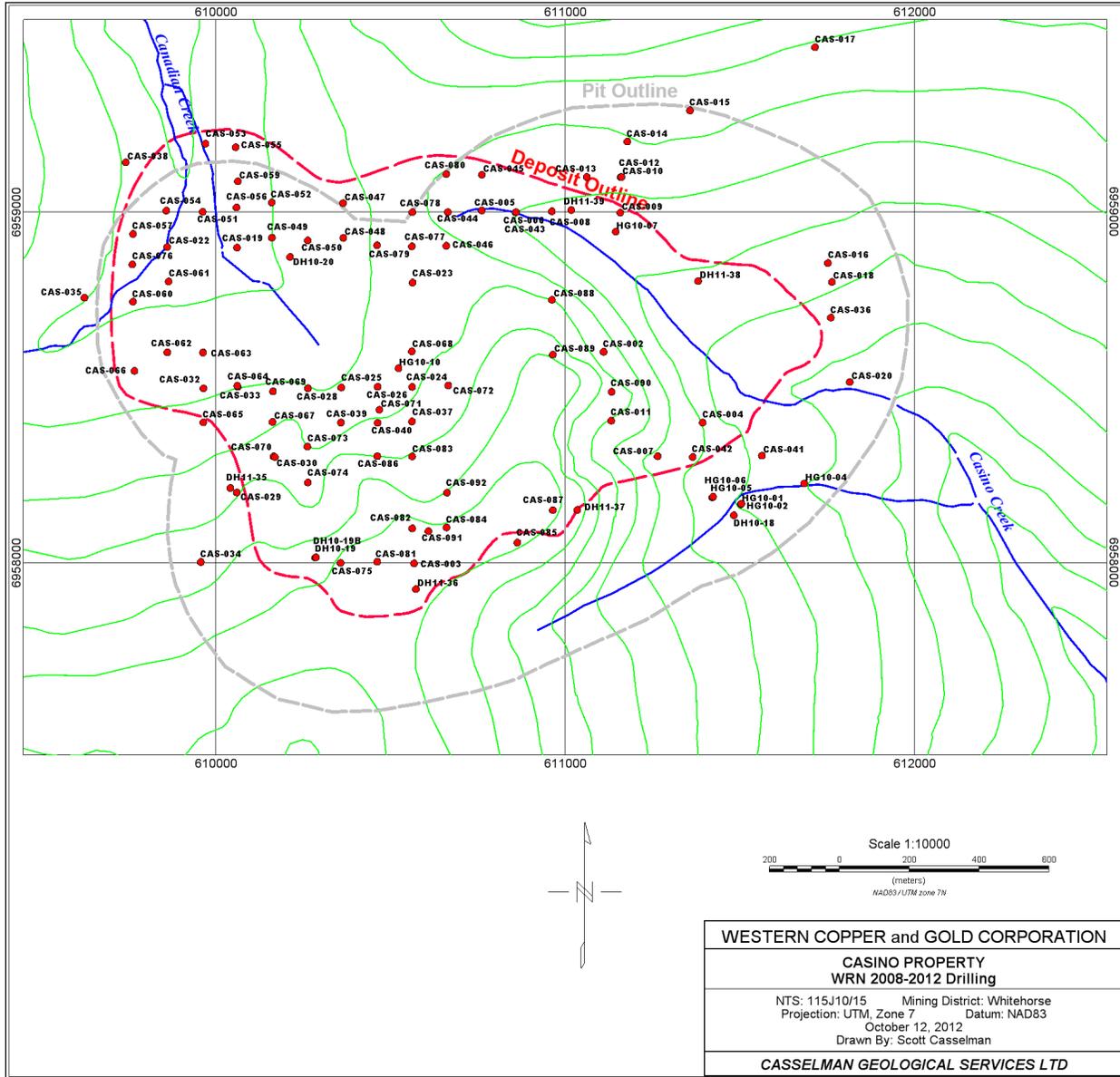


Figure 10-3: Casino Property Drilling from 2008 to 2012

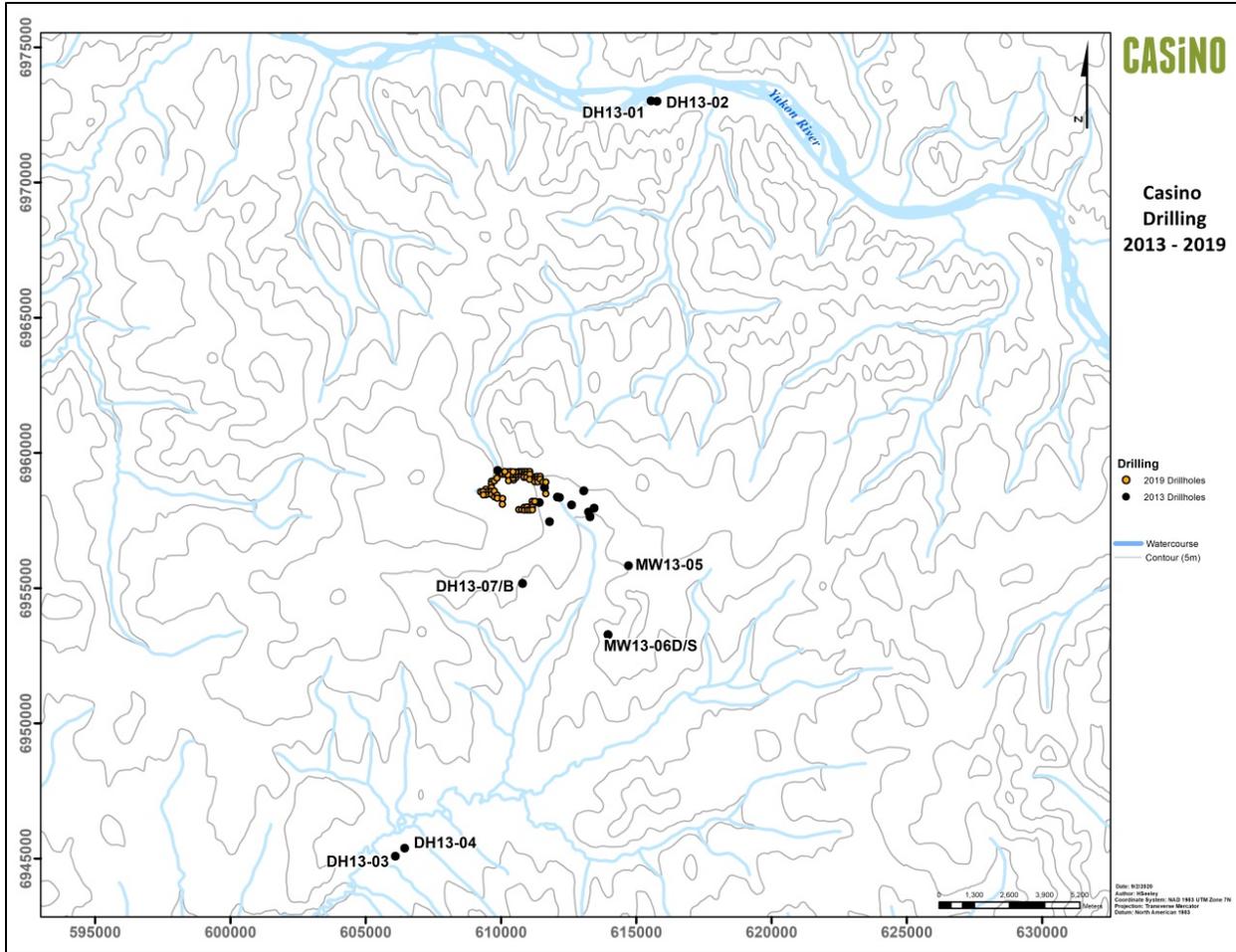


Figure 10-4: Casino Project Drilling from 2013 through 2019

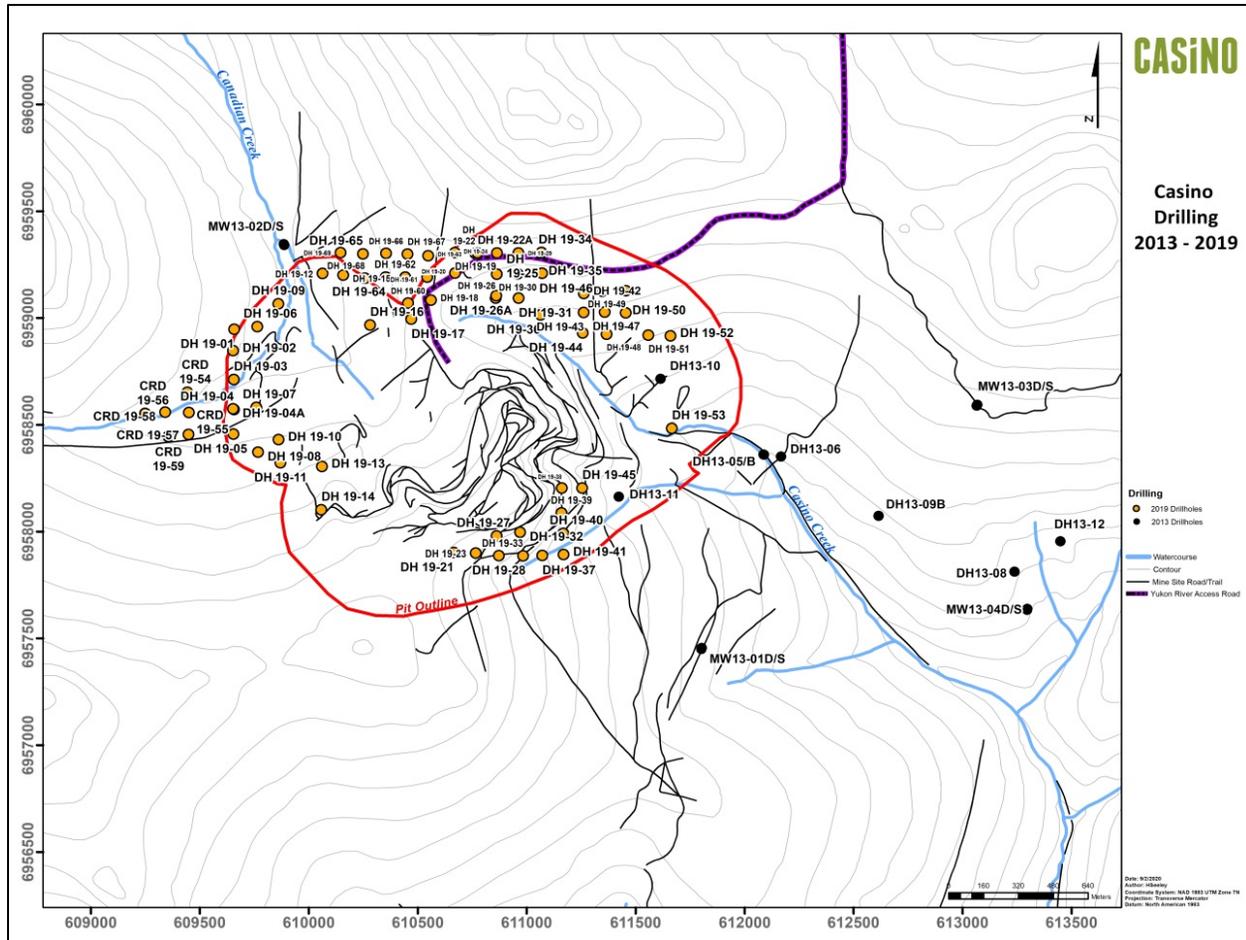


Figure 10-5: Casino Project Drilling from 2013 through 2019

### 10.6 SENSITIVITY DATA PHOTOGRAMMETRY

In April 1993, McElhanney Consulting Services Ltd. of Vancouver, BC, produced a map of the Casino area based on 1985 air photos provided by the Department of Energy, Mines and Resources.

New aerial photography was conducted in July 1993, by Lamerton & Associates of Whitehorse. The area was mapped by Eagle Mapping Services Ltd. of Port Coquitlam, BC. Eagle Mapping utilized two government UTM co-ordinates systems, NAD83 and WGS84, in the derivation of the deposit grid co-ordinates at photo target station #11. The following transformation parameters were used to convert from UTM coordinates to Property Grid:

ROTATION:	-0° 00' 05"
SCALE:	1.000453652
TRANSLATION:	-6703701.92 N
	-499861.96 E
ELEVATION SHIFT:	-8.32 m

The contours on McElhanney and Eagle Mapping Services maps compare to within approximately five metres and commonly closer. Generally, Eagle Mapping contours are smoother, having more gradual changes in direction.

### **10.7 COLLAR COORDINATES**

The 1992 to 1994 collar co-ordinates (northing, easting and elevation) were surveyed using a total station Nikon C-100 system. Surveying of the 1992 and 1993 drill holes was undertaken by Lamerton & Associates. The 1994 holes were surveyed by Z. Peter, Surveyor from Burnaby, B.C. It should be stressed that all Pacific Sentinel's collar coordinates were surveyed in local grid coordinates.

The 2008-2012 drill collars were surveyed by Yukon Engineering Services from Whitehorse. The survey was completed using Differential GPS units and the results are reported in UTM NAD83, Zone 7 coordinates.

Twenty-eight (28) of Pacific Sentinel's drill hole collars were also re-surveyed by Yukon Engineering for comparison purposes. Those were entered into the data base with their new UTM NAD83 collar coordinates.

The 2013 and 2019 drill collars were surveyed by CAP Engineering from Whitehorse. CAP used a Stonex GPS RTK Unit and a Topcon GPS RTK Unit to complete the surveys. These results were reported in UTM NAD83, Zone 7 coordinates.

### **10.8 SPERRY SUN SURVEYS**

During the 1993 drilling program, all drill holes, including deepened 1992 holes, were down-hole surveyed by a Sperry Sun magnetic compass tool to determine azimuth and dip. In the 1994 drilling program, only angle holes were Sperry Sun surveyed. Tests were normally performed every 152 m (500 ft) down hole on vertical holes and every 76 m (250 ft) down hole on angle holes. In the shallower angle hole program of 1994, Sperry Sun tests were taken at the bottom of the hole as well as half-way up.

The Sperry Sun surveys, taken in the 123 vertical holes drilled or deepened in 1993, averaged a dip reading of 89.03°. Since the average deviation observed in the 123 vertical holes of the 1993 program was less than one degree, it was decided not to survey the vertical holes of the 1994 program.

### **10.9 LIGHT-LOG SURVEY SYSTEM**

A Light-Log directional drill hole survey system, developed by H.J. Otte & Co., was used for sixteen angle holes at Casino, starting at hole 94-285 and continuing for most of the angle holes through the remainder of the 1994 drilling program. This system recorded, on film, the bending of the unit caused by the natural curvature in a drill hole. The instrument's timer activated the camera and advanced the film at pre-set time intervals, allowing time to lower the instrument between pictures (normally every 3 m). Upon completion of the survey, the film was developed. The values observed on the film were converted by a computer program to provide co-ordinates, dip and azimuth at every three-metre interval downhole.

### **10.10 ACID DIP TESTS**

In the 1994 program, acid dip tests were performed in the vertical holes while Sperry Sun surveys were continued in the angle holes.

## **11 SAMPLE PREPARATION, ANALYSES AND SECURITY**

The following section summarizes the 2019 sample and assay protocols that have been utilized at the Casino Project site.

### **11.1 SAMPLING METHOD AND APPROACH**

#### **11.1.1 Core Processing**

At the drill site, core was placed into wooden core boxes directly upon emptying of the core tube. A wooden block marked with the depth, both in feet and meters, was placed in the core box upon completion of each drill run. Under good ground conditions, each run comprises 10 feet of core. Core boxes were stored at the core logging facility adjacent to the Casino Airstrip. As core came in from the rig, each hole was stacked separately and clearly labelled outside of the core shack. Once the core was ready to be logged, it was laid out in sequence on elevated tables in the core shack.

Core boxes were labelled with black felt tip pens and embossed steel tags containing hole number, box number and interval of core within the box. Geotechnical data including core recovery, rock quality designation (RQD), hardness and natural breaks were recorded for each drill run, as marked by the wooden core run blocks. This information was recorded on paper by the geologist or geotechnical logger, supervised by the lead geologist. Logging of the geotechnical data followed codes and format outlined in a project-specific manual prepared by Knight Piésold.

The geologist recorded key geologic information including lithology, zone, mineralization and alteration. The data was entered onto paper. The codes and logging forms followed, as closely as possible, the format used by Western Copper during the 2010-2012 drilling programs. The lithology codes, copper mineralization zone codes and alteration codes utilized in the 2013 and 2020 drilling programs were all initially developed by Pacific Sentinel and modified by Western Copper.

Core was photographed after the geology log was completed and after the sample intervals were marked.

#### **11.1.2 Core Sampling**

Sampling and analytical protocols in use prior to the PSG diamond drill programs are not well documented. In June 1992, core from 22 previous holes was re-sampled by Archer Cathro. The new assay results for all metals were compared to the originals. The results indicated 14 holes (64%) had essentially identical results, while five holes (23%) had higher re-assays and three (13%) were inconclusive. When results of the old holes were compared with those of new holes drilled in the same locations, the results were similar to the re-sampling tests. Archer Cathro surmised that the higher gold results in the new holes were due to a combination of improved drilling techniques that resulted in better core recovery, and advanced laboratory techniques that provided lower analytical detection limits.

The PSG core sampling followed rigorous procedures that were well documented and standardized throughout the drilling programs. In the 1992, 1993 and 1994 programs, exploration targets were sampled by HQ (63.5 mm diameter) core drilling; occasionally this was reduced to NQ (47.6 mm). The boxed core samples were transported by truck less than 5 km to a core logging facility adjacent to the Casino Airstrip for geotechnical logging, sample selection quality control designation and sampling by PSG personnel. The average core recovery for all PSG core was 94%, with Hypogene core averaging 96%, Supergene 92% and the Leached Cap (Oxide Gold zone) averaging 89%. Sample intervals were marked on the core by the geologist generally at 3-meter-long intervals or at geological contacts. Core intervals were sampled by mechanical splitting. The remaining half core was returned to the boxes and stored in racks at the site. The average lengthwise half-split provided 10 to 15 kg of material, which was transported by charter aircraft (primarily DC-3) directly from the core sampling facility to Whitehorse and then by commercial air freight to Vancouver for delivery to the sample preparation laboratory.

In 2008, all samples were split using a conventional core splitter. In 2009, about 150 samples were split with a core splitter at the beginning of the program. From then on, in 2009 through 2012, all samples were cut with a core saw. All samples were split or cut on site and placed in individually labelled plastic sample bags with the unique sample number selected by the geologist logging the hole. The core samples were split lengthwise with half of the core placed in the sample bag, and the other half returned to the core box. The samples were sent to ALS Chemex Labs in North Vancouver for analysis.

In 2013 no core was sampled, but all other core logging protocols were followed as per 2012. The 2019 drill program followed the protocols established in 2012. Core was split in half lengthwise with a core saw and half of the core was placed, with a sample tag, in plastic bags with the corresponding sample ID noted on the outside of the bag. Metal tags marking the sample intervals (in metres) and with the sample ID matching the tag book were added at the applicable locations in the core boxes. The remaining half of the core was placed back into the core box, stacked outside the core cutting shack and then moved to the core storage yard where each hole was stored either in stacks, securely covered by tarps and labelled as per hole, or directly within the core racks. Bagged and labelled samples were then placed in larger white rice bags, each labelled with a unique batch letter and the address of the receiving lab. A running list of each batch was maintained in Excel spreadsheet form, including the samples per bag and the dates they were sent out by plane to ALS Global in Whitehorse.

In 2008, 422 drill core samples were collected and shipped; in 2009, 3,832 drill core samples were shipped; in 2010, 4,768 drill core samples were shipped; in 2011, 387 drill core samples were shipped; and in 2012, 533 drill core samples were shipped. In 2013, no samples were collected. In 2019, 4,939 core samples were collected, shipped and analysed.

## **11.2 SAMPLE PREPARATION**

All original samples in 2019 were sent to ALS Global Labs in Whitehorse for analysis. The standard analytical request for all samples was for preparation by procedure Prep-31A. This process involved logging the sample into the tracking system, weighing, drying and crushing the entire sample to better than 70% passing through a 2 mm screen. A 250-gram split of the crushed material was then collected by riffle splitter and was pulverized to better than 85% passing 75 microns. The resultant pulp was analyzed by the ALS lab in Whitehorse.

Sample “standards”, provided by CDN Resource Labs and inserted in the sample stream at site, arrived at ALS Global in pulp form and went straight to analysis. Blank samples inserted into the sample stream at site arrived as rock and went through the same preparation and analytical processes as the core samples. Duplicate samples were sent to ALS in separate batches, arriving at a later date than the original samples. These also underwent the same preparation and analytical processes as the original core samples.

Check pulp samples were sent from ALS in Whitehorse to SGS Canada Inc. (SGS) in Burnaby, British Columbia (BC). At SGS, the pulps were checked for weight and fineness before a full geochemical assay was run. This involved logging the sample into the tracking system (confirming the samples received matched the electronic list of samples sent by Western Copper staff), weighing and then checking that the pulps were of appropriate fineness.

## **11.3 ASSAY ANALYSIS**

Chemex Labs analyzed all 1992-1994 regular (mainstream) samples, 1992-1993 selected duplicate samples and 1994 random half-core duplicate samples. Immediately prior to selecting each pulp’s analytical aliquot, each pulp sample was passed through a 20-mesh screen to eliminate lumps of agglomerated clay minerals. Gold (Au) was analyzed by fire assay with atomic absorption finish. Silver (Ag) values were reported in g/t and Cu and MoS<sub>2</sub> values were reported as percentages. Chemex also performed 32-element ICP analysis for: Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, Hg, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Sc, Sr, Ti, Tl, U, V, W and Zn. Mineral Environments (Min-En) Laboratories, of North Vancouver, BC, analyzed the selected duplicate samples from 1992 and 1993, and random

duplicate samples from 1994. Gold was analyzed by fire assay and reported in g/t. Values for Cu and MoS<sub>2</sub> were reported as percentages. The analytical procedures utilized prior to 1992 are unknown.

The analytical processes used at ALS Global and for the sample duplicates at Acme Analytical Laboratories were similar. The processes used by ALS Global in Whitehorse in 2019 and those used by SGS Canada Inc. in Burnaby were also similar.

### **11.3.1 Gold Analysis**

At ALS Global gold assays were run using 30-gram sample of the pulp with fire assay and AA finish to a 0.005 ppm detection limit according to procedure Au-AA23. Results were reported in parts per million (ppm).

At SGS gold assays were run by using a 30-gram sample of the pulp with fire assay and AAS finish to a 5-ppb detection limit according to procedure GE\_FAA30V5. Results were reported in parts per billion (ppb). Note that 5 ppb = 0.005 ppm.

These analytical processes were employed by Western Copper in 2019, as well as from 2008 through 2012.

### **11.3.2 Copper, Molybdenum and Silver Assay**

Samples that returned over-limits for copper, molybdenum or silver in the ICP analysis were assayed by process OG62 at ALS Global. This process involved four-acid digestion and analysis by Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES) or Inductively Coupled Plasma-Atomic Absorption Spectroscopy (ICP-AAS). Results were reported in percent (%). At SGS a similar process was followed for any over-limit results for copper, molybdenum or silver involving sodium peroxide fusion with ICP-AES using method GO ICP90Q.

These analytical processes were employed by Western Copper in 2019, as well as from 2008 through 2012.

### **11.3.3 ICP Analysis**

Samples sent to ALS Global were analyzed for multiple elements, including copper, molybdenum and silver by process ME-ICP61. This process involved a four acid “Near Total” digestion of 1.0 grams of sample pulp with Mass Emission-Inductively Coupled Plasma Spectroscopy (ICP-MS) for the analysis. This process returned results for: Ag (ppm), Al (%), As (ppm), Ba (ppm), Be (ppm), Bi (ppm), Ca (%), Cd (ppm), Co (ppm), Cr (ppm), Cu (ppm), Fe (%), Ga (ppm), K (%), La (ppm), Mg (%), Mn (ppm), Mo (ppm), Na (%), Ni (ppm), P (ppm), Pb (ppm), S (%), Sb (ppm), Sc (ppm), Sr (ppm), Th (ppm), Ti (%), Tl (ppm), U (ppm), V (ppm), W (ppm), and, Zn (ppm).

Samples sent to SGS were analyzed for 56 elements, including copper, molybdenum and silver by method GO\_ICP90Q100. This process involved an ore grade sodium peroxide fusion with ICP-AES. This process returned results for: Ag (ppm), Al (%), As (ppm), Ba (ppm), Be (ppm), Bi (ppm), Ca (%), Cd (ppm), Ce (ppm), Co (ppm), Cr (%), Cs (ppm), Cu (ppm), Dy (ppm), Er (ppm), Eu (ppm), Fe (%), Ga (ppm), Gd (ppm), Ge (ppm), Hf (ppm), Ho (ppm), In (ppm), K (%), La (ppm), Li (%), Lu (ppm), Mg (%), Mn (ppm), Mo (ppm), Nb (ppm), Nd (ppm), Ni (ppm), P (%), Pb (ppm), Pr (ppm), Rb (ppm), Sb (ppm), Sc (ppm), Si (%), Sm (ppm), Sn (ppm), Sr (ppm), Ta (ppm), Tb (ppm), Th (ppm), Ti (%), Tl (ppm), Tm (ppm), U (ppm), V (ppm), W (ppm), Y (ppm), Yb (ppm), Zn (ppm) and Zr (ppm).

These analytical processes were employed by Western Copper in 2019, as well as from 2008 through 2012.

### **11.3.4 Acid Soluble Copper Analysis**

In 2008 and 2009, following receipt of the copper analyses, samples were selected for “non-sulphide” or “acid soluble” copper analysis. The criteria for “non-sulphide” selection was any sample that contained >100 ppm Cu in the Leached

Cap, Supergene Zone, or top 50 m of the Hypogene Zone. A list of these samples was presented to ALS Chemex. ALS Chemex then retrieved the pulps and analyzed it by 5% sulphuric acid leach and AAS finish (procedure Cu-AA05).

In 2010 to 2012, selected samples for “acid soluble” copper analyses were identified by the geologist logging the core and the request for this analysis was submitted when the samples were originally sent to the lab. The samples identified by the geologist were generally from the top of the hole down through the top 50 m of the hypogene zone. On a few occasions, after receiving the geochemical results, additional samples were identified for “non-sulphide” copper analyses and ALS Chemex was requested to pull these sample pulps and perform the analysis.

In 2019, once initial ICP assays were returned from ALS Global on the original samples, another group of sample pulps were sent for further assay by Cu-AA05 to identify non-sulphide copper. All pulps returning higher than 100 ppm copper that were also within the Leached Cap, Supergene Oxide, Supergene Sulphide and the initial 50 m of the Hypogene zone were pulled by ALS Global for this analysis.

### **11.3.5 Cyanide Soluble Copper Analysis**

In 2010, a large number of samples from the 2008, 2009 and 2010 programs were identified for cyanide-soluble copper analyses. These samples were selected to aid with identification of the Supergene Sulphide – Hypogene metallurgical boundary. The selected samples were analyzed by cyanide leach with AAS finish (ALS Chemex procedure Cu-AA17a). For samples that had already been received and processed at the lab, ALS Chemex retrieved the pulps and analyzed this material. For samples not yet sent to the lab, the geologist would identify the Supergene Sulphide – Hypogene boundary visually, and samples 30 m on either side of the boundary were identified for cyanide leach copper analysis. On a few occasions, after receiving the geochemical results additional samples were identified for cyanide soluble copper analyses and ALS Chemex was requested to pull these sample pulps and perform the analysis.

In 2019, the senior geologist used the core logging results to choose samples for cyanide-soluble copper analysis using method Cu-AA17a at ALS Chemex; all sample pulps from 30 m on either side of the Supergene Sulphide and Hypogene boundary were sent for this type of assay.

### **11.3.6 Security**

During the historic pre-1992 drilling campaigns at Casino the rigours of “chain of custody” were not as stringent as presently required. The remoteness of the Casino site provided a large degree of security as air traffic into the project was closely monitored. Further, the Casino gold grades were low and any metal contamination or grade enhancement would be quickly and easily identified. However, good sample handling procedures were in place during the 1992 – 1994 PSG programs. Geologists supervised the sampling process and the samples were kept in a secure impoundment prior to shipping. The best vigilance on the samples was the attention to results, and in that regard, PSG maintained a thorough quality assurance/quality control program (QA/QC).

Samples were shipped in rice bags with uniquely numbered, non-re-sealable security tags. Each sample shipment was transported from the Casino Property via air to Whitehorse. The samples were received at the airport by the project expediter and shipped to the appropriate lab from there. In 2008 and early 2009, all shipments were sent by Byers Transport to the ALS Chemex lab in North Vancouver. Later in 2009 and early 2010, samples for ALS Chemex were shipped by Byers Transport to the ALS Chemex preparation facility in Terrace, BC, where they were crushed and pulverized. The pulps were then shipped by ALS Chemex to North Vancouver for analysis. In May of 2010, ALS Chemex opened a preparation facility in Whitehorse. From then on, all samples were delivered to the Whitehorse preparation lab by the project expediter. The samples were crushed and pulverized in Whitehorse and the pulps were shipped to North Vancouver for analysis.

In 2019, ALS Chemex had changed its name to ALS Global, and installed an analytical lab in Whitehorse so that samples could be both prepared and analysed there. This eliminated the problems that could occur with further

transport. Samples were shipped from the Casino site by Alkan Air to their base in Whitehorse where the project expeditor picked up the samples upon arrival and delivered them directly to ALS Global. Rice bags were organized in batches of 20, with unique identifiers on each bag and sealed with a uniquely numbered non-resealable security strap. Each 20<sup>th</sup> bag contained the sample submittal form and a list of all the samples that should be included in that particular batch. Upon receipt, ALS would confirm via email with the project manager/senior geologist exactly which samples had been received.

If a shipment was received with a broken security tag, the lab would notify the project manager to determine if the shipment had been tampered with, or if the tag was accidentally damaged during shipping. Any broken sample bags were also brought to the attention of the project manager.

### **11.3.7 Quality Assurance and Quality Control**

Exploration sampling and analysis prior to 1992 was not subjected to the rigours required of modern regulatory requirements, but work conducted by major companies, like Quintana and Teck Corporation generally followed industry standard best practices.

However, details of the sampling and analytical methodology are unknown. Moreover, analytical quality, particularly with respect to the determination of gold in the sub- 1.000 g/t range, has improved considerably since the pre-1992 work was done. It is for these reasons that the assay results from these old holes were not used in this study.

During the 1993 and 1994 Pacific Sentinel Gold drilling programs, standards, reject duplicates, and half-core replicates were assayed at regular intervals in order to check the security of the samples, as well as the quality and accuracy of the laboratory analyses. Further, in-house laboratory standards, duplicates and blanks were also run and reported as normal assays on certificates.

Figure 11-1 and Figure 11-2 are flow charts illustrating the processing of drill core and quality control procedures from 1992 to 1994.

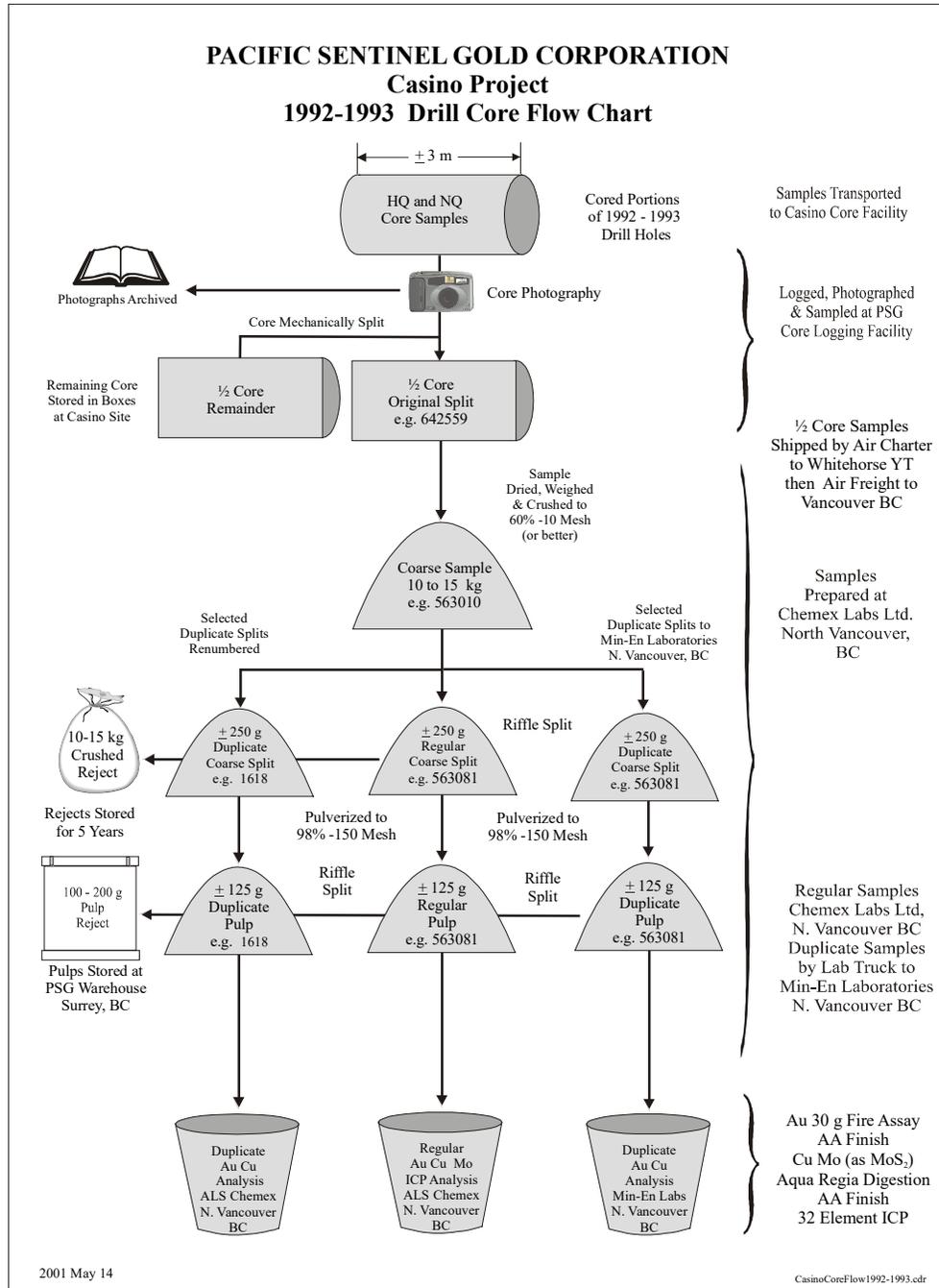


Figure 11-1: Casino Drill Core Processing and Quality Control Procedures, 1992-93

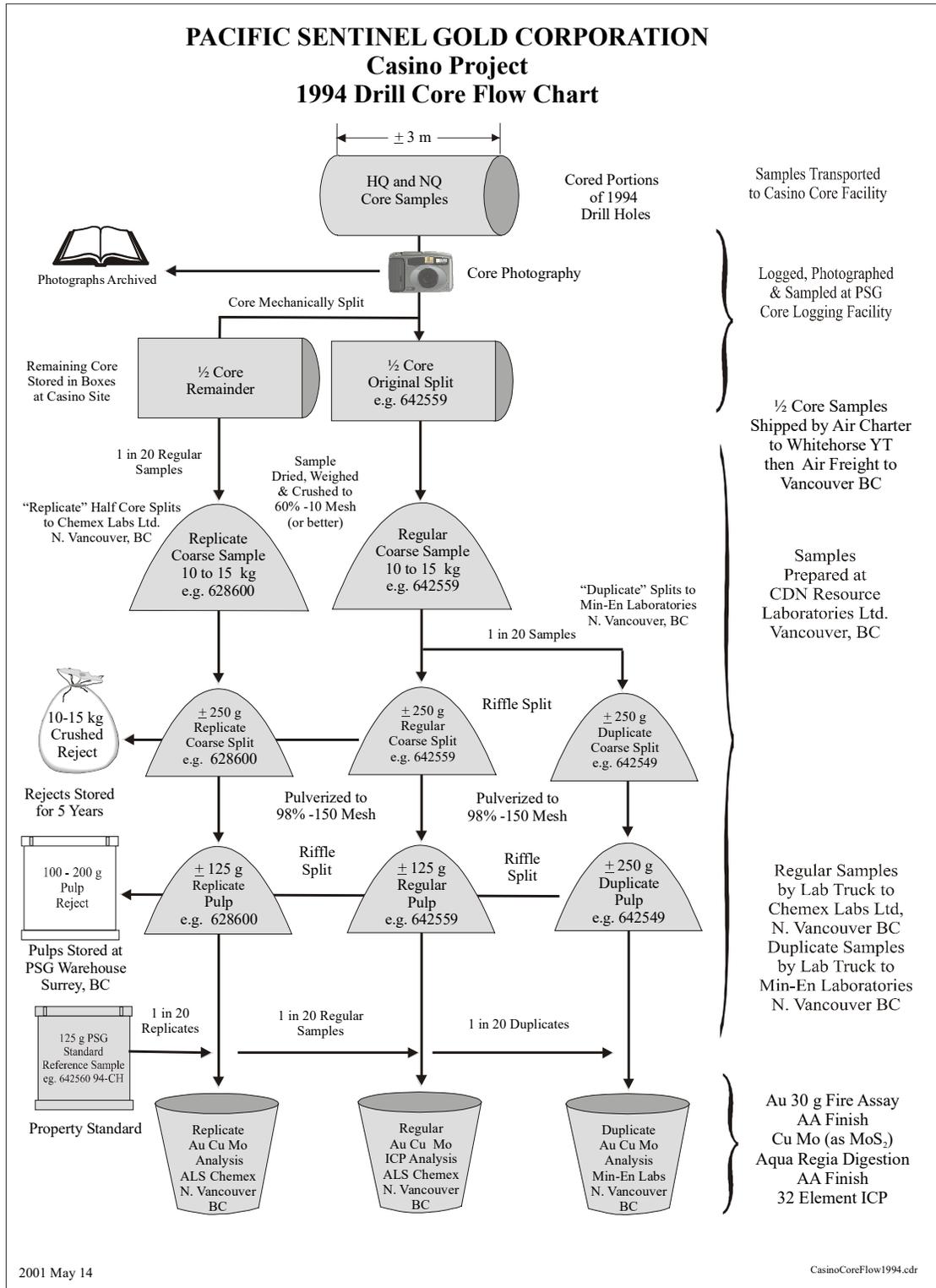


Figure 11-2: Casino Drill Core Processing and Quality Control Procedures 1994

During the 2008 through 2012 drilling programs at Casino, reference material “standards” of known metal content, “blanks”, with background metal values, and half-core duplicates were assayed at regular intervals in order to check the security of the samples, as well as the quality and accuracy of the laboratory analyses. The standards and blanks were prepared by CDN Resource Laboratories Ltd. of Delta, BC.

In 2019, standards, quarter-core duplicates and blanks were assayed at regular intervals within the sample stream by the primary lab, ALS Global. One of each (standard, blank, duplicate) were randomly inserted within every 20 core samples. The standards were prepared by WCM Minerals in Burnaby, BC.

### 11.3.8 Sample Standards

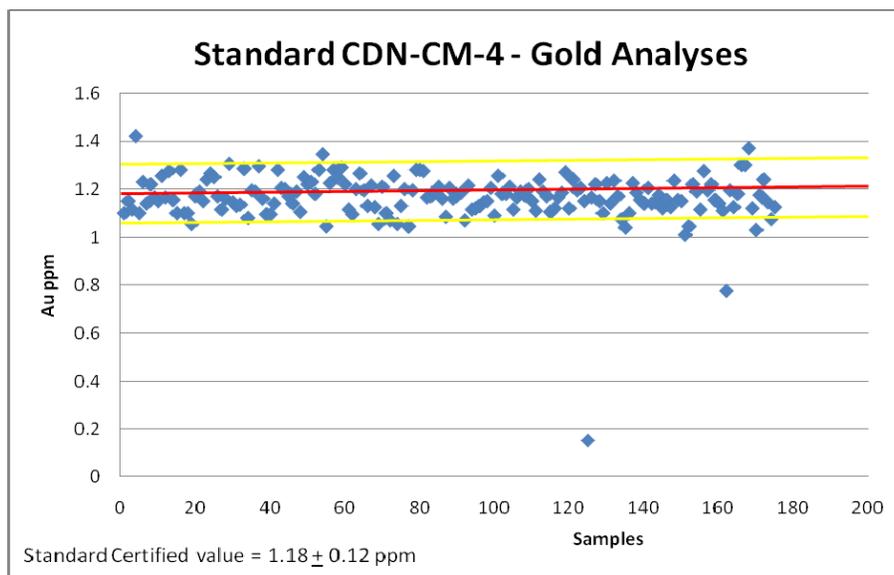
#### 2008 through 2010

The standard samples used in 2008, 2009 and 2010 were prepared by CDN Resource Laboratories Ltd. of Delta, BC. The standard was a gold-copper-molybdenum standard, CDN-CM-4. It was certified by Duncan Sanderson, Licensed BC Assayer with independent certification by Dr. Barry Smee, Ph.D., geochemist. Round-robin assaying for the standard was performed at 12 independent laboratories. CDN reports the recommended values and the “Between Lab” Two Standard Deviations of the standard values as:

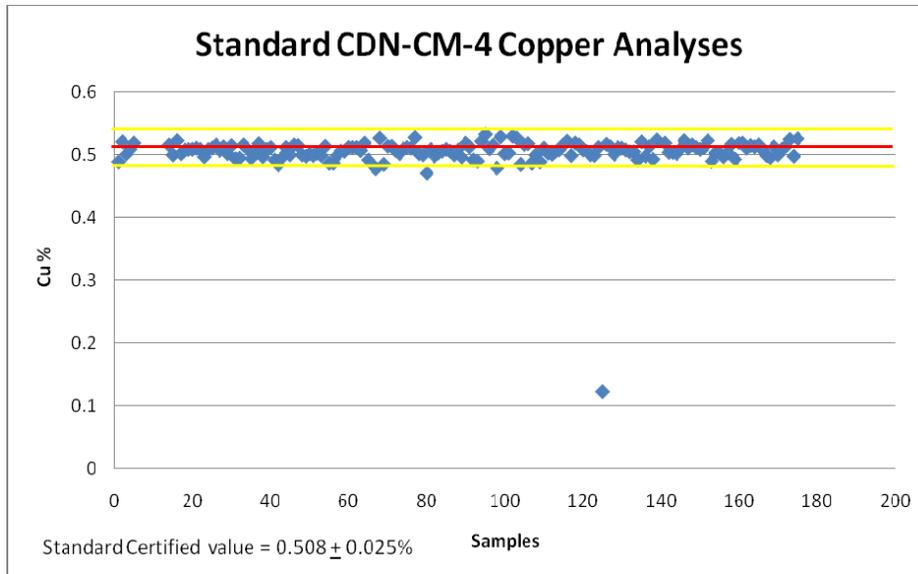
Gold: 1.18 + 0.12 g/t  
Copper: 0.508 + 0.025 %  
Molybdenum: 0.032 + 0.004 %

In 2008, 8 standard samples were submitted regularly with the sample shipments; in 2009, 81 standards samples were submitted; and in 2010, 86 standard samples were submitted (approximately 1 per 50 core sample). ALS Chemex analyzed the standards along with the drill core samples by gold, copper and molybdenum assay, as well as multi-element ICP as described above.

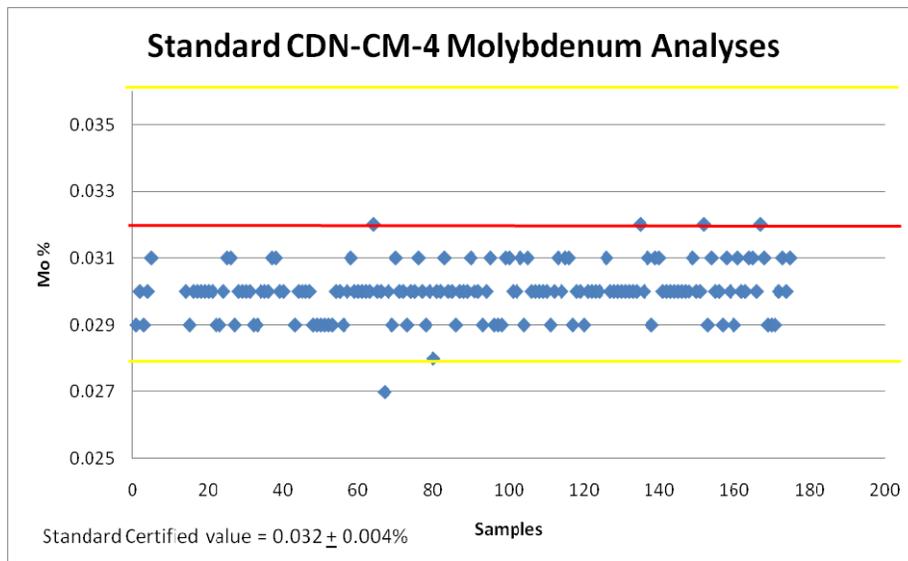
The results from sample standard CDN-CM-4 for 2008, 2009 and 2010, for gold, copper and molybdenum analyses are plotted below.



**Figure 11-3: Sample Standard CDN-CM-4 Gold Assay Results**



**Figure 11-4: Sample Standard CDN-CM-4 Copper Assay Results**



**Figure 11-5: Sample Standard CDN-CM-4 Molybdenum Assay Results**

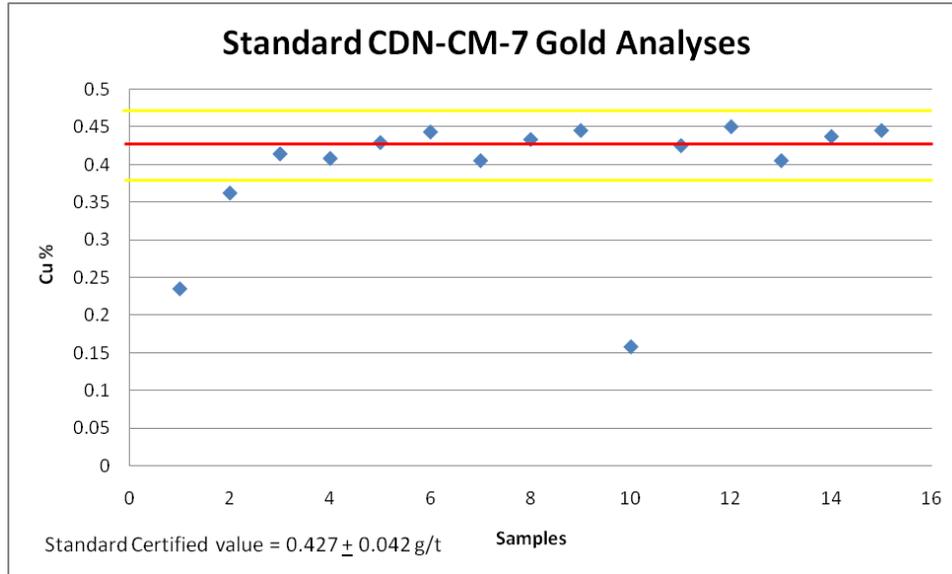
The three plots demonstrate that with very few exceptions (9 exceptions for gold, 2 for copper, and one for molybdenum), the values plot within the acceptable range of the certified standard. The plots also demonstrate that there is a reasonable spread of values within the recommended value range of 2 standard deviations as provided by CDN Resource Laboratories Ltd. There does not appear to be any systematic bias.

Later in 2010, a second sample standard (CDN-CM-7) was purchased from CDN Resource Laboratories Ltd. because they had run out of standard CDN-CM-4. This sample is also certified by Duncan Sanderson and Dr. Barry Smee. CDN reports the recommended values and the “Between Lab” Two Standard Deviations of this standard as:

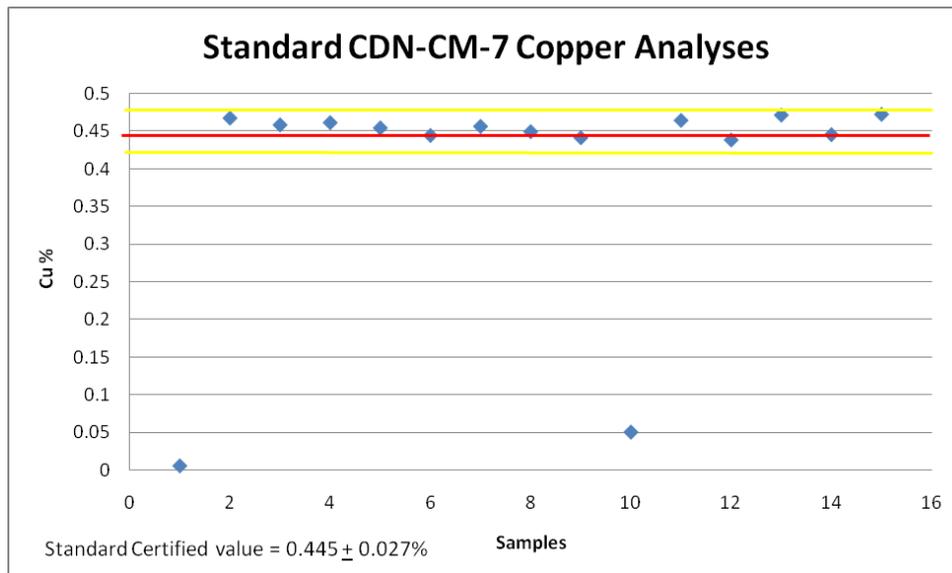
Gold: 0.427 + 0.042 g/t  
 Copper: 0.445 + 0.027 %  
 Molybdenum: 0.027 + 0.002 %

Fifteen of these standards were submitted in 2010. ALS Chemex analyzed these standards in the same manner as standard CDN-CM-4, described above.

The results from sample standard CDN-CM-7 for 2010, for gold, copper and molybdenum analyses are plotted below:



**Figure 11-6: Sample Standard CDN-CM-7-Gold Assay Results**



**Figure 11-7: Sample Standard CDN-CM-7-Copper Assay Results**

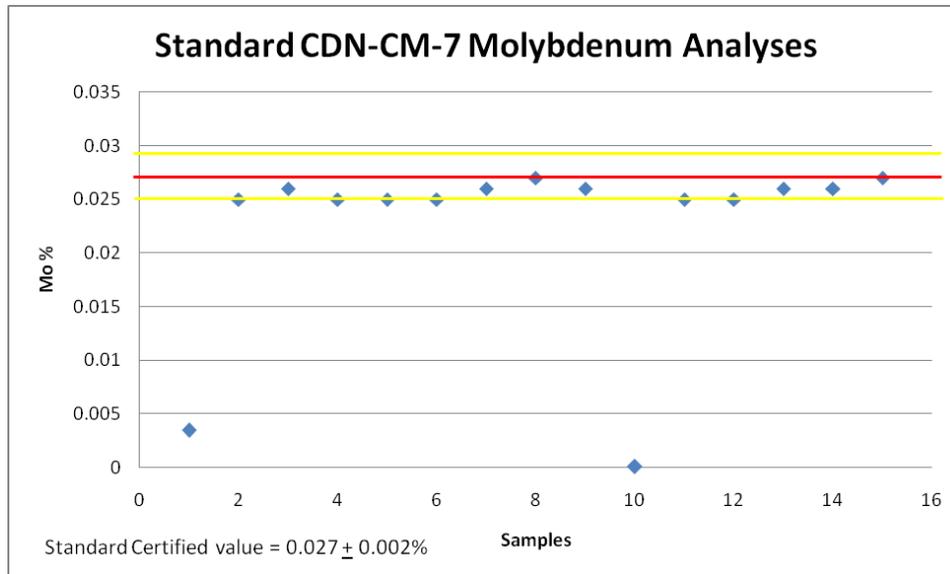


Figure 11-8: Sample Standard CDN-CM-7 Molybdenum Assay Results

The three plots show good precision with the exception of samples 1 and 10 which are well below the expected values as certified by CDN. After checking the ALS Chemex internal standards and the duplicates from these batches, there did not appear to be a systemic error in the batches. The error may have occurred when the sample standards were inserted in the field, or when the standards were originally placed in the geochemical run at the lab. These anomalous errors are not considered significant considering that the great majority of standards were within the expected range.

## 2019

The sample standards used in 2019 were prepared by WCM Minerals in Burnaby, BC. Details of the standards are outlined in Table 11-1 below. Both standards were certified by Lloyd Twaites and Glen Armanini, who are both Registered Assayers in British Columbia.

Table 11-1: 2019 Standard Reference Materials from WCM Minerals

Standard	Copper (%)	Standard Deviation Cu	Molybdenum (%)	Standard Deviation Mo	Silver (g/t)	Standard Deviation Ag	Gold (g/t)	Standard Deviation Au
CU-185	0.400	0.0093	0.035	0.0019	15	0.6242	0.62	0.0217
CU-188	0.179	0.0068	0.018	0.0009	15	0.7883	0.4	0.0199

In 2019, 273 standard samples (1 standard within every 20 samples) were submitted regularly with the sample shipments; 154 of which were of CU-188 and 119 of which were of CU-185. ALS Global analyzed the standards along with the drill core samples by gold, copper and molybdenum assay, as well as multi-element ICP as described above.

The results from sample standards CU-185 and CU-188 for gold, silver, copper and molybdenum analyses are plotted below in Figure 11-9 through Figure 11-16.

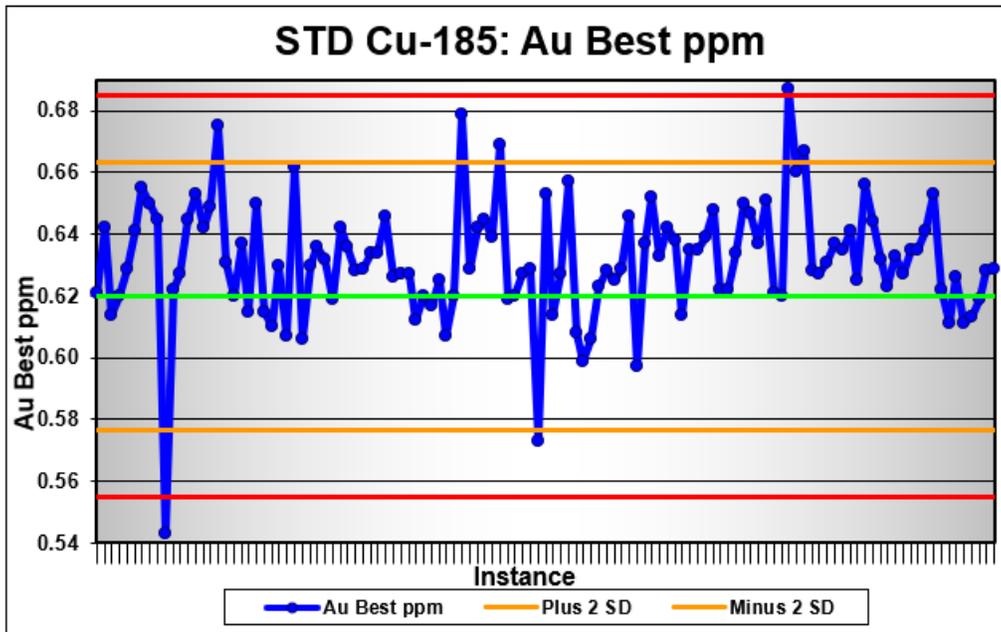


Figure 11-9: Sample Standard CU-185 Gold Assay Results

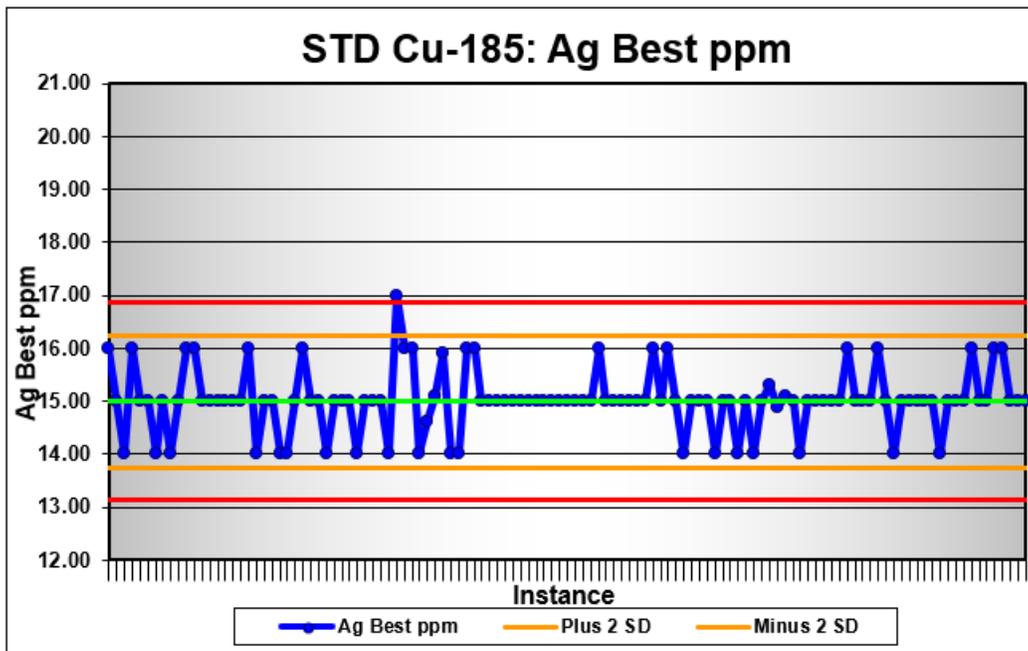


Figure 11-10: Sample Standard CU-185 Silver Assay Results

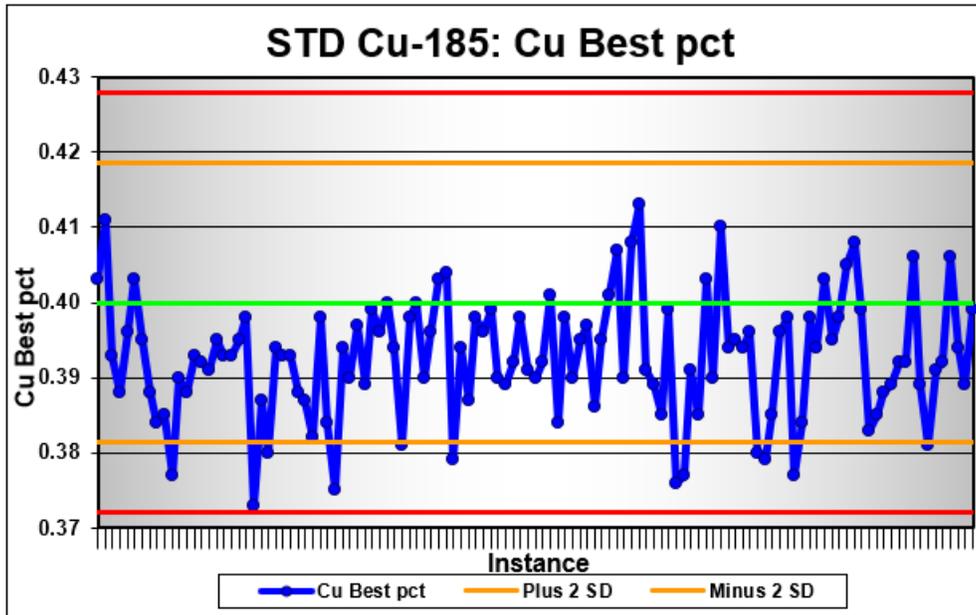


Figure 11-11: Sample Standard CU-185 Copper Assay Results

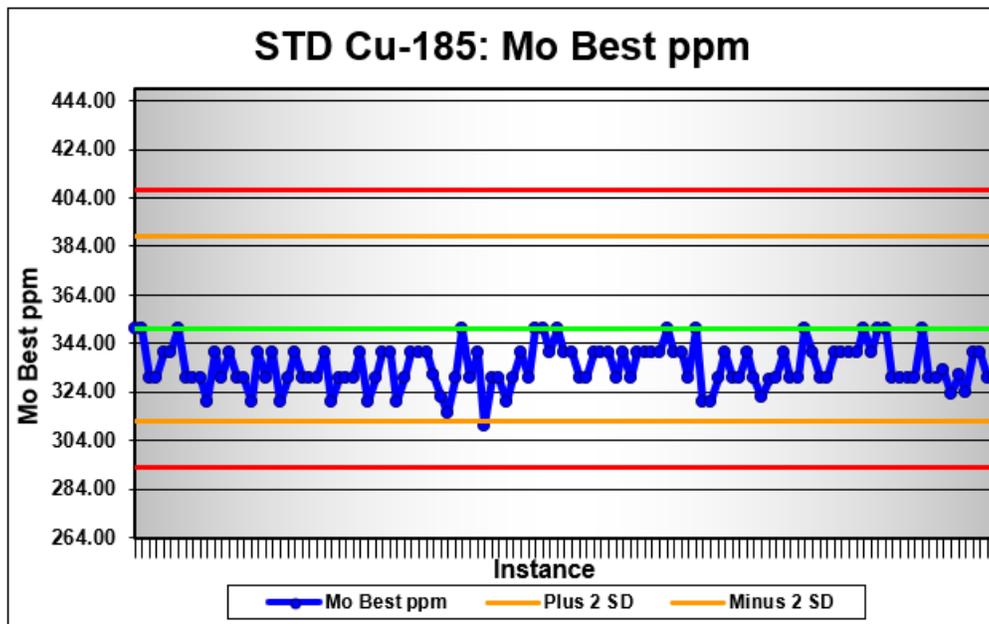


Figure 11-12: Sample Standard CU-185 Molybdenum Assay Results

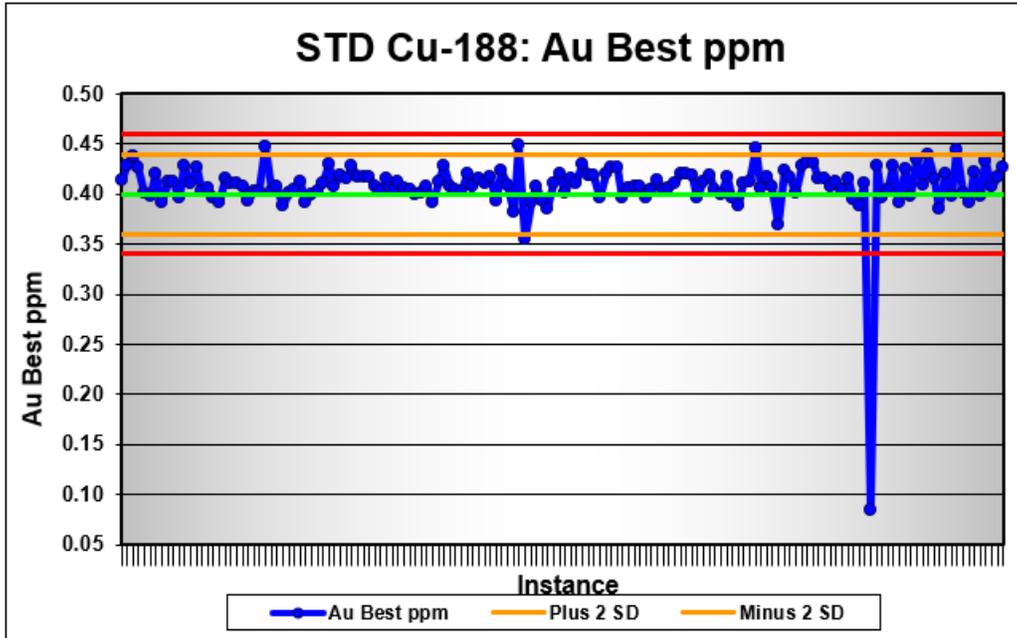


Figure 11-13: Sample Standard CU-188 Gold Assay Results

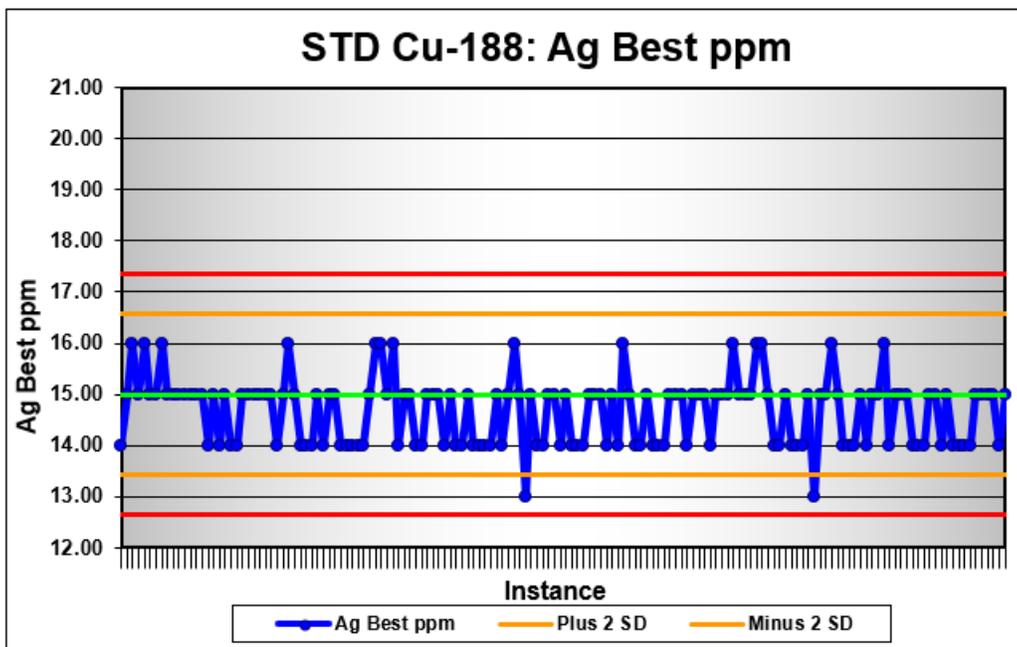


Figure 11-14: Sample Standard CU-188 Silver Assay Results

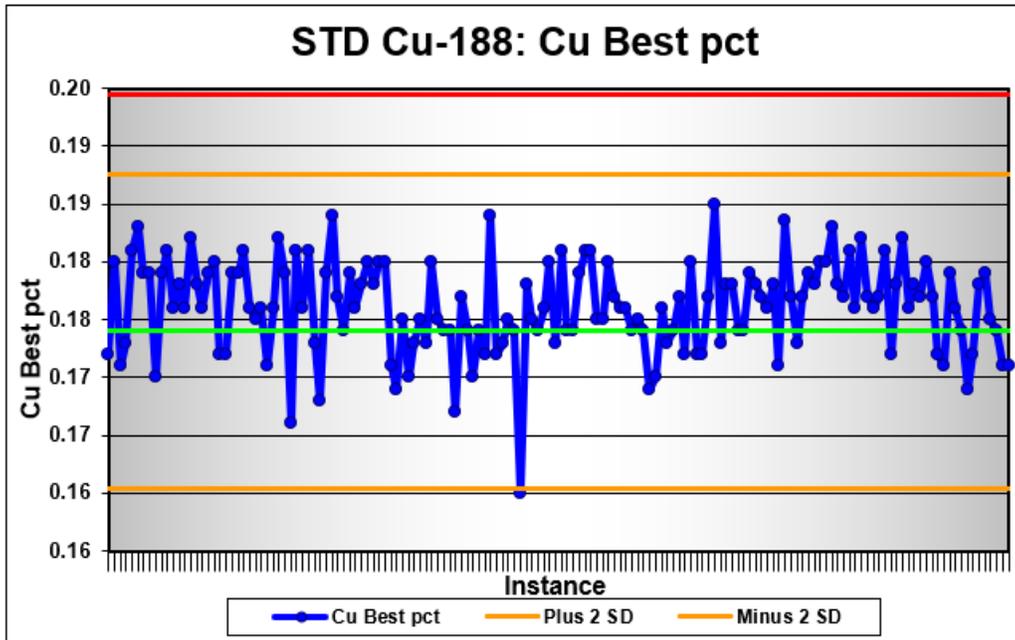


Figure 11-15: Sample Standard CU-188 Copper Assay Results

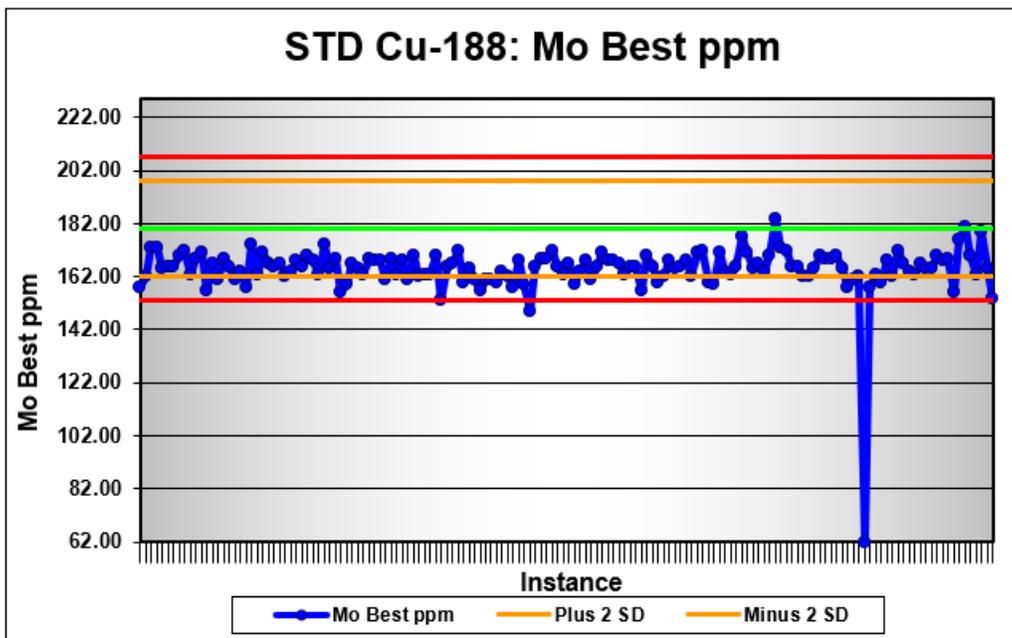


Figure 11-16: Sample Standard CU-188 Molybdenum Assay Results

Standard CU-185 performed well for all elements of interest in 2019; all elements had higher than 90% passing rates within both two and three standard deviations of the mean expected values. In general, both copper and molybdenum values fell below the expected mean for CU-185, but still within an acceptable range. Silver showed good variation both above and below the mean value and gold values generally plotted slightly above the mean value. Table 11-2 summarizes the results for CU-185.

**Table 11-2: Performance of Standard CU-185 During 2019 Drill Program Sampling**

Element	# Failures within 2 Standard Deviations	% Passing within 2 Standard Deviations	# Failures within 3 Standard Deviations	% Passing within 3 Standard Deviations
Au	7	94	2	98
Ag	1	99	1	99
Cu	12	90	0	100
Mo	1	99	0	100

Standard CU-188 also performed well for all elements of interest in 2019; all elements, except Molybdenum (Mo) had higher than 90% passing rates within both two and three standard deviations of the mean expected values. In the case of the 32 standards that fell outside of the range of 2 standard deviations for Mo, the chart shows that, overall, this standard returned assay results below the expected mean value for Mo, as did those of CU-185. This indicates that both standards should be reassessed in a round robin process, and that the assay method ALS Global uses may tend toward a low bias for Mo. Even with the 32 Mo failures, 79.2% of the samples fell within 2 standard deviations and the range of values was acceptable. One sample, A0612554, failed outright for both Mo and Au. It is possible this sample became contaminated, as ALS Global had notified the project manager that this sample arrived with a torn plastic bag and had to be dried. Table 11-3 summarizes the results for CU-188.

**Table 11-3: Performance of Standard CU-188 During 2019 Drill Program Sampling**

Element	# Failures within 2 Standard Deviations	% Passing within 2 Standard Deviations	# Failures within 3 Standard Deviations	% Passing within 3 Standard Deviations
Au	7	95	1	99
Ag	2	98.7	0	100
Cu	1	99	0	100
Mo	32	79.2	2	98.7

### 11.3.9 Blanks

#### 2010-2012

Commencing in 2010, sample blanks were regularly inserted into the sample stream. Blanks are included as a check of the lower limit of the analytical range and to ensure that, at all stages in the process, the equipment and instruments are thoroughly cleaned prior to running subsequent samples. This is particularly important for precious metals. A total of 75 blanks were submitted during the 2010 program, nominally one every 50 samples.

The blank samples were also prepared by CDN Resource Laboratories Ltd (CDN-BL-6). They were certified for gold, platinum and palladium. The recommended values for these elements are:

Gold: <0.01 g/t  
Platinum: <0.01 g/t  
Palladium: <0.01 g/t

Since the reported recommended gold values by CDN are less than detection it is not included in a plot. The gold values of the blanks analyzed ranged from below detection (<0.005 g/t) to a maximum of 0.046 g/t. The silver values ranged from <0.5 to 0.8 ppm.

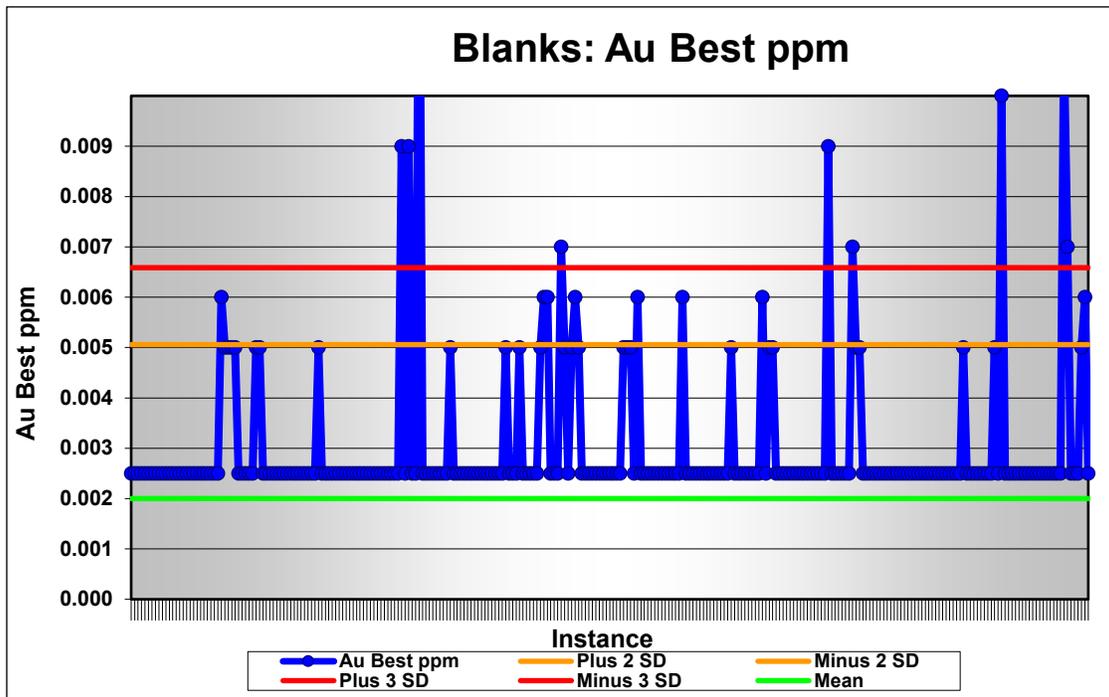
**2019**

During the 2019 drill program, a landscape aggregate that was readily available in Whitehorse was used as blank material. It was sent to 4 different labs for a Round Robin analysis and the following values were calculated from those Round Robin results:

- Gold: 0.002 ppm
- Silver: 0.2 ppm
- Copper: 0.00045 %
- Molybdenum: 0.39 ppm

Approximately 100g of blank material was placed in each sample bag and 1 blank sample was inserted randomly within every 20 core samples. A total of 277 blank samples were inserted into the sample stream in 2019.

The results from blank material for gold, silver, copper and molybdenum analyses are plotted below in Figure 11-17 through Figure 11-20.



**Figure 11-17: Blank Material Gold Assay Results**

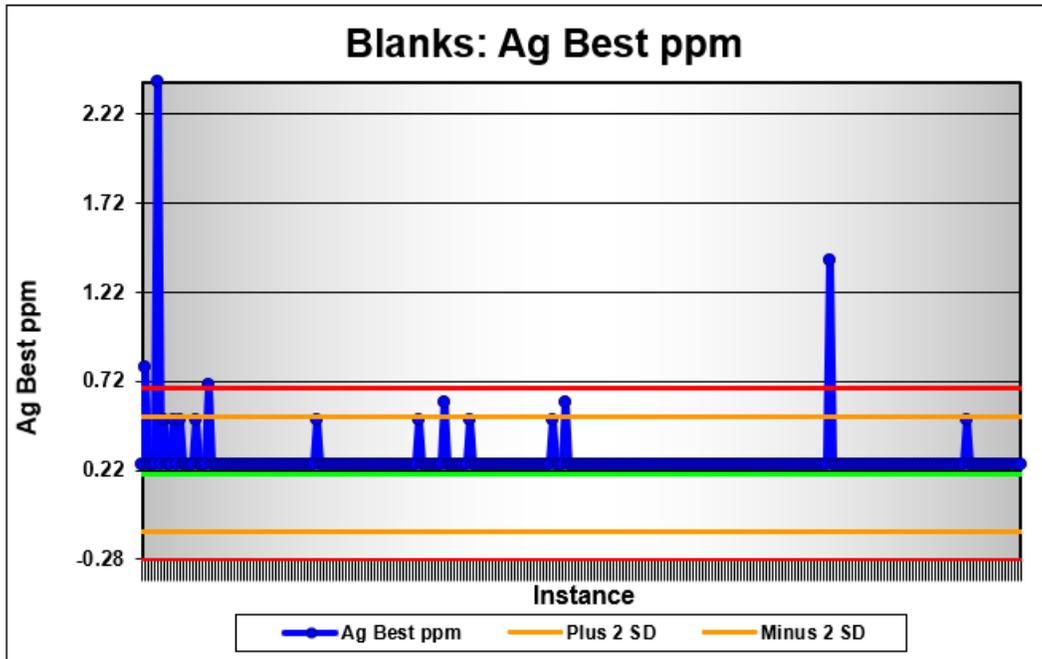


Figure 11-18: Blank Material Silver Assay Results

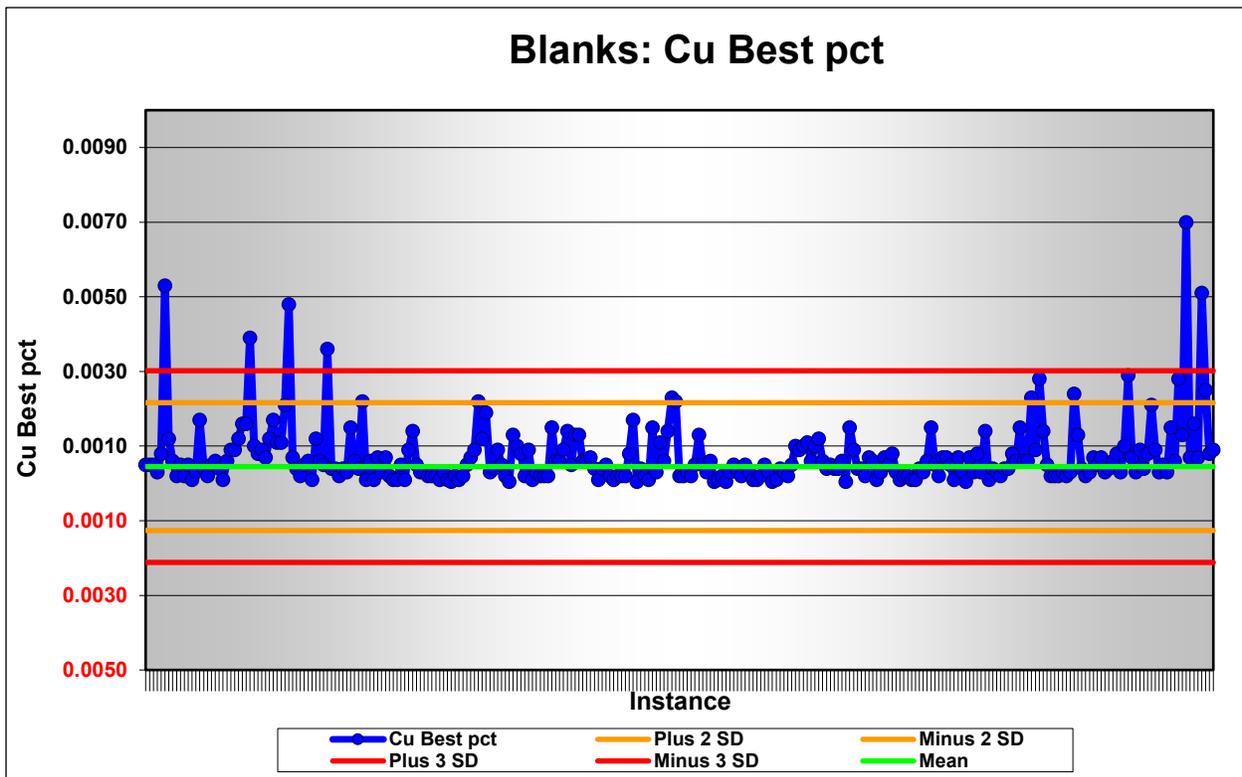
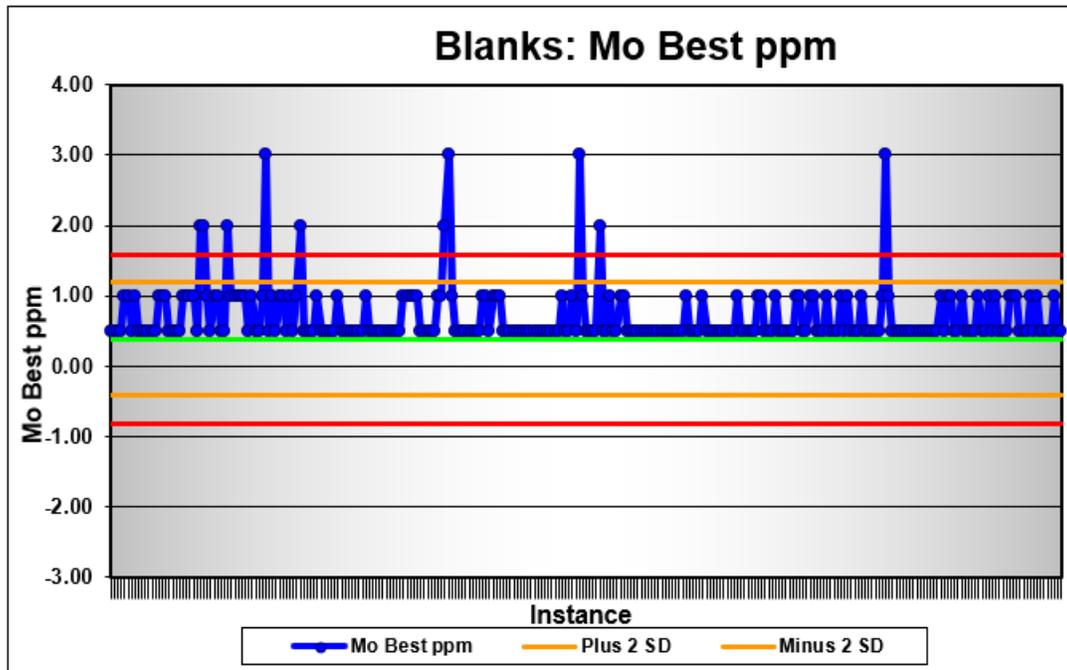


Figure 11-19: Blank Material Copper Assay Results



**Figure 11-20: Blank Material Molybdenum Assay Results**

The blank material performed well for all elements of interest in 2019; all elements had higher than 90% passing rates within both two and three standard deviations of the mean expected values. On average the gold plotted well above the expected mean, but as Figure 11-17 shows, the detection limit for gold at ALS Global limits the lowest assay value to 0.0025 ppm, which is above the expected mean of 0.002 ppm for the blank material. The detection limits for silver and molybdenum are also higher than the expected mean of the blank material for those elements. Even with the detection limit cut-offs, the passing rates are still acceptable. Figure 11-17 and Figure 11-18, for Gold and Silver respectively, do show a few off-chart potentially high-value failures. Upon investigation for gold the two samples with the greatest variation from the expected mean of 0.002 ppm Au varied by only 10-13%. The samples prior to these blanks returned 0.159 ppm Au and 0.283 ppm Au respectively, indicating the likelihood of some minor smear during the assaying. The failures for silver are somewhat less certain as there is no indication of high-grade material prior to the failed silver values. Table 11-4 below summarizes the overall performance of the Blank Material in 2019.

**Table 11-4: Performance of Blank Material During 2019 Drill Program Sampling**

Element	# Failures within 2 Standard Deviations	% Passing within 2 Standard Deviations	# Failures within 3 Standard Deviations	% Passing within 3 Standard Deviations
Au	17	94	9	97
Ag	6	98	4	99
Cu	16	94	6	98
Mo	10	96	10	96

### 11.3.10 Field Duplicate Drill Core Analysis

#### 2008 through 2010

Field duplicates are separate samples taken in the same manner and at the same core interval as the original sample. They are utilized to measure inherent variability in metal content from a single location and sample medium and give an idea of sample reproducibility in the field. Core duplicates were collected from the half-core that remained following the collection of the original sample. The duplicate was collected by sawing the half-core in half longitudinally, so that one quarter of the original core was collected. Duplicates were collected nominally for every 20th sample. Where duplicates were collected, only one quarter of the core remains stored in the core box on the property.

In 2008, 21 core duplicate pairs were collected; in 2009, 199 core duplicate pairs were collected; in 2010, 245 core duplicate pairs were collected. The original half-core samples were shipped to ALS Chemex and assayed for gold, copper and molybdenum, as well as multi-element ICP analysis as described above. The duplicate quarter-core samples were shipped to Acme Labs for gold, copper and molybdenum assay, as well as multi-element ICP analysis in a manner identical to that performed at ALS Chemex, as described above. The results for the duplicate analyses for gold, silver, copper and molybdenum are demonstrated in comparison plots between the Acme and ALS Chemex values below:

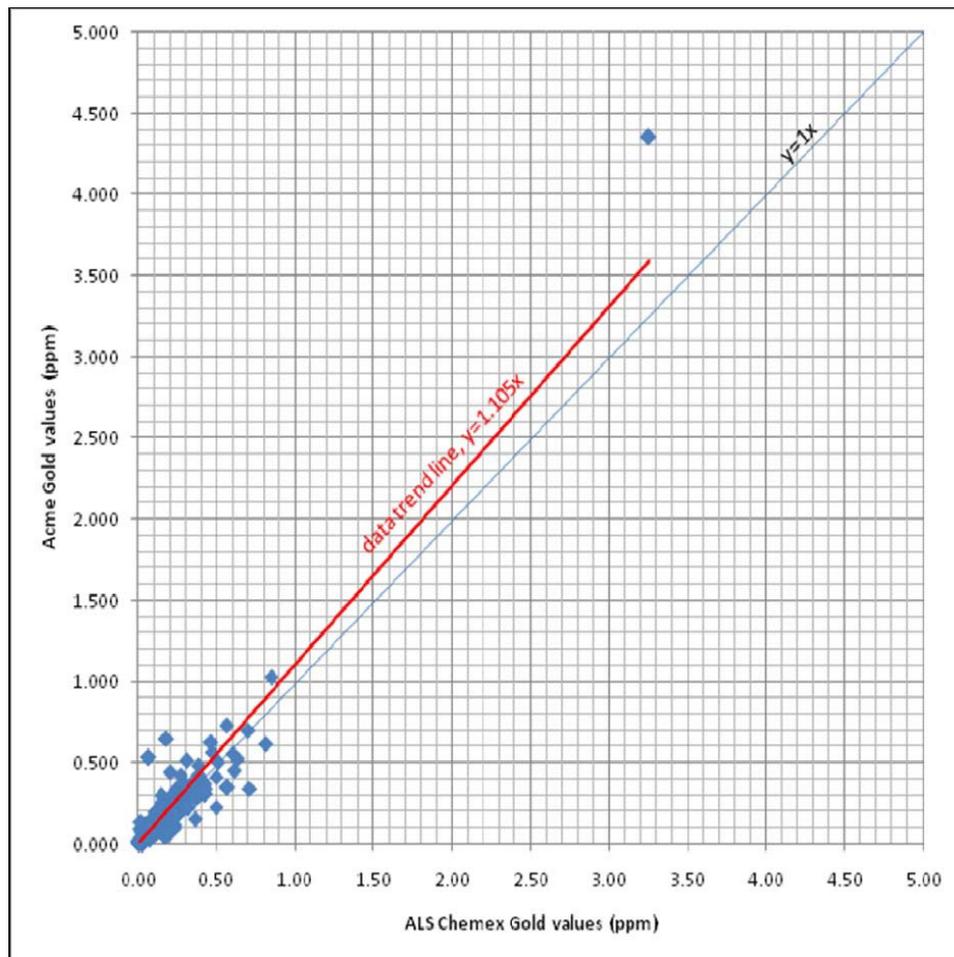


Figure 11-21: Plot of ALS Chemex Gold Assay Versus Acme Labs Gold Assay for Field Duplicate Samples (2008, 2009 and 2010 Data)

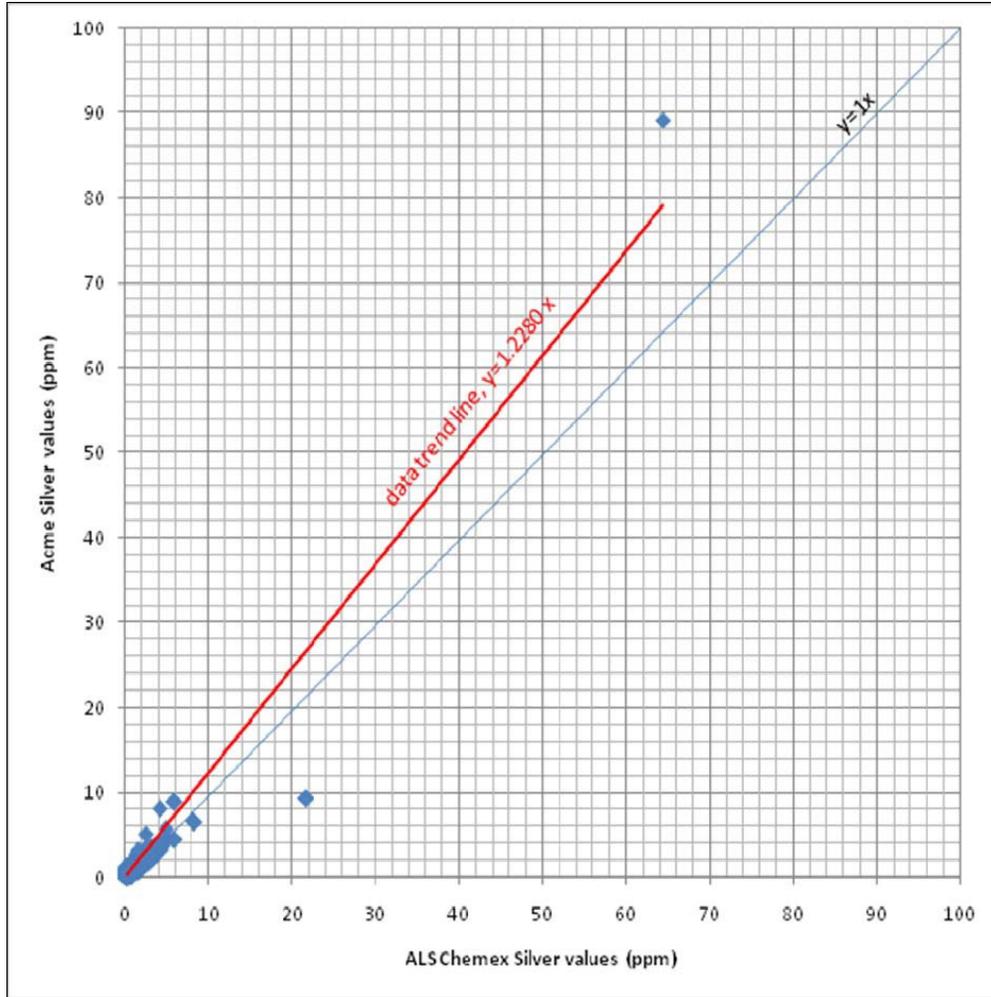


Figure 11-22: Plot of ALS Chemex Silver Analyses Versus Acme Labs Silver Analyses for Field Duplicate Samples (2008, 2009 and 2010 Data)

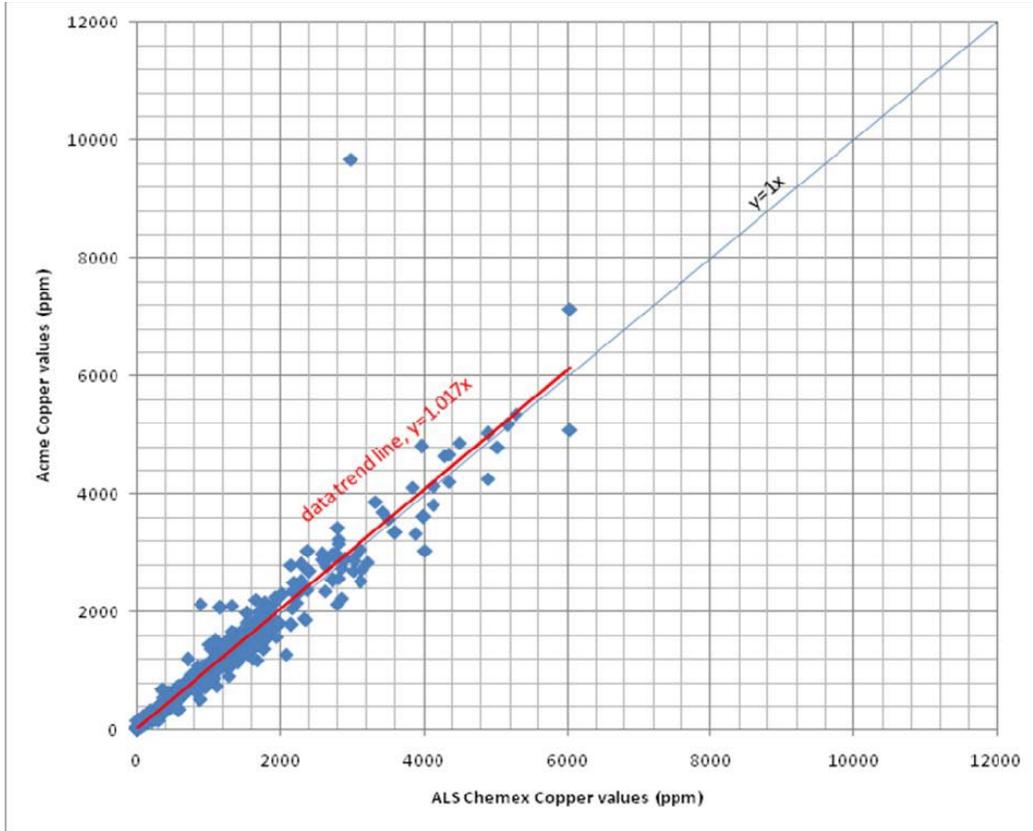
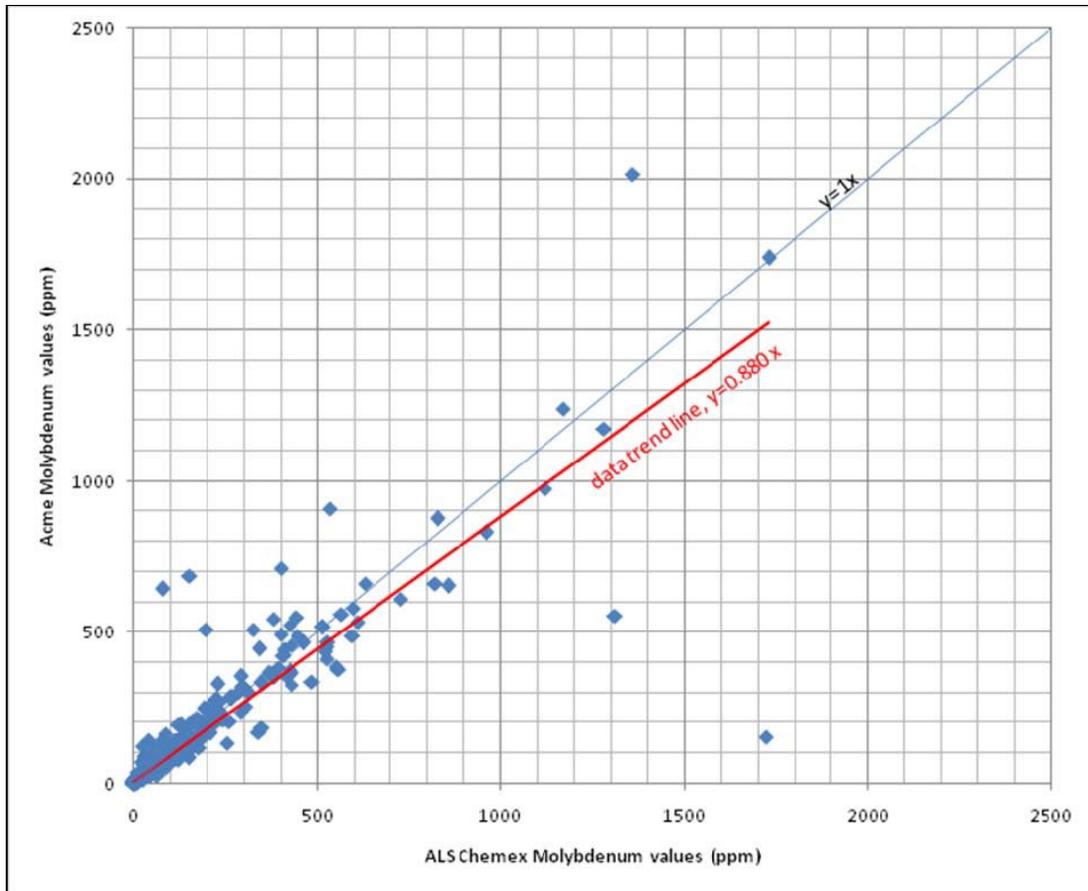


Figure 11-23: Plot of ALS Chemex Copper Assay Versus Acme Labs Copper Assay for Field Duplicate Samples (2008, 2009 and 2010 Data).



**Figure 11-24: Plot of ALS Chemex Molybdenum Assay Versus Acme Labs Molybdenum Assay for Field Duplicate Samples (2008, 2009 and 2010 Data).**

The plots generally show good correlation between ALS Chemex and Acme Labs for all four elements of interest.

Often the “nugget effect” associated with gold and silver content will produce widely divergent values, which would plot as highly scattered data points. However, the gold and silver results from the duplicate samples show good correlations.

Ideally, a trend line of  $y=1x$  would show perfect reproducibility. This is rarely, if ever, the case due to the difference of mineral content between duplicate samples. The data trend line for gold returned  $y=1.105x$ . This demonstrates that Acme Lab results, as a whole, are 10.5% higher than ALS Chemex results. All samples cluster in close proximity to the trend line which indicates no strong “nugget effect” and good reproducibility.

The data trend line for silver is  $y=1.228x$ . This demonstrates that Acme Lab analytical results, as a whole, are 22.8% higher than ALS Chemex values. In general, the points cluster well around the trend line with the exception of one sample. This also demonstrates good reproducibility.

The results for duplicate analyses for copper demonstrate excellent reproducibility. The data trend line returned  $y=1.017x$ . The copper data clusters tightly around trend line with the exception of one value. In general, the Acme results are very slightly higher (1.7%) than the ALS Chemex results.

The molybdenum plot demonstrates slightly more scattered results with 8 points plotting far off the trend line ( $y=0.880x$ ). The trend line indicates that, in general, the Acme results for molybdenum are 12% lower than ALS Chemex results. Overall, the duplicate results show good correlation. Molybdenite mineralization was observed in quartz veins in the drill core and it is possible that the 8 erratic values are reflecting a molybdenum “nugget effect”, where there is a variability of molybdenite concentration between samples.

The results of analyses from the sample standards, blanks and duplicates provide for acceptable Quality Assurance and Quality Control (QA-QC) for the geochemical programs at Casino from 2008 through 2010. The results also indicate that there is no evidence of tampering during the sample collection process, shipping or at the laboratory. There is also no evidence of systemic errors in the sample preparation and analytical processes.

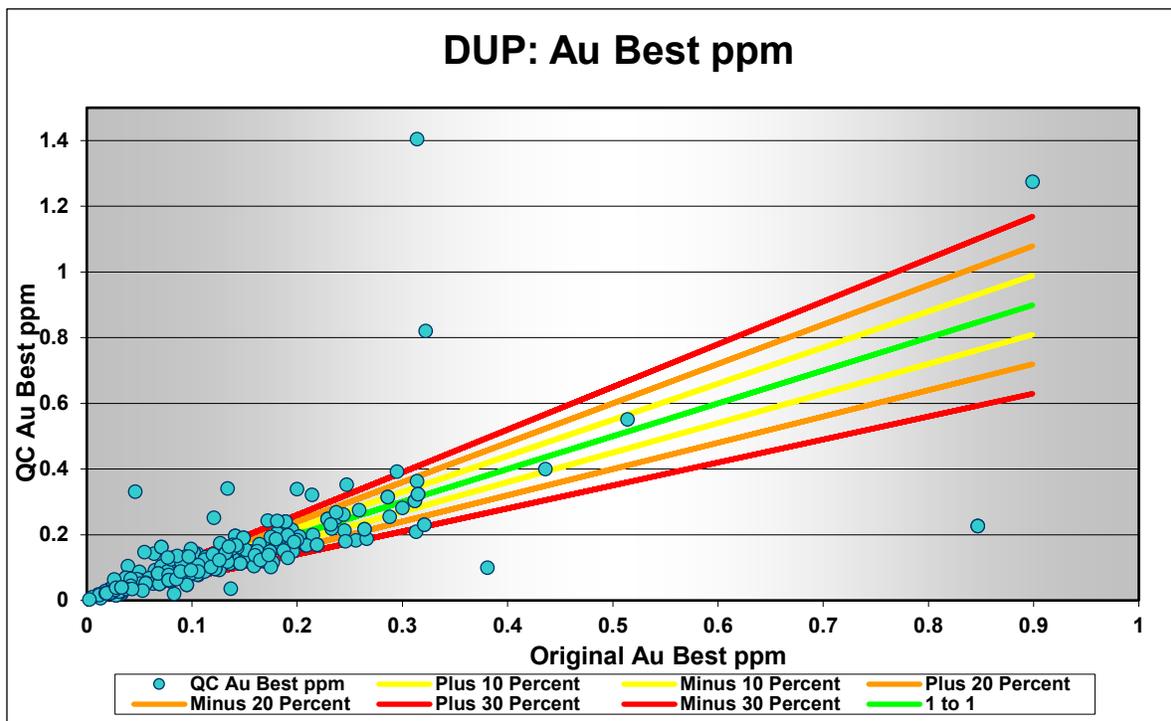
**2019**

In 2019, insertion of both field duplicates and pulp check duplicates were part of the overall sampling protocol at Casino.

Field Duplicates

Similar to standards and blanks, 1 field duplicate was inserted randomly within every 20 samples. The duplicate would be quarter-cored by the core cutter and placed in a separate bag from the original sample with its own sample tag. This duplicate quarter-core sample would be set aside in a bin to be sent to ALS Global for analysis in a separate batch at a later date than its corresponding original sample. The purpose of this kind of duplicate is to test the reproducibility of the lab’s analytical methods.

Figure 11-25 through Figure 11-28 show the comparison between the original core sample results and the duplicate core sample results for Gold, Silver, Copper and Molybdenum.



**Figure 11-25: Comparison Plot Between Original Gold Values and Duplicate Gold Values**

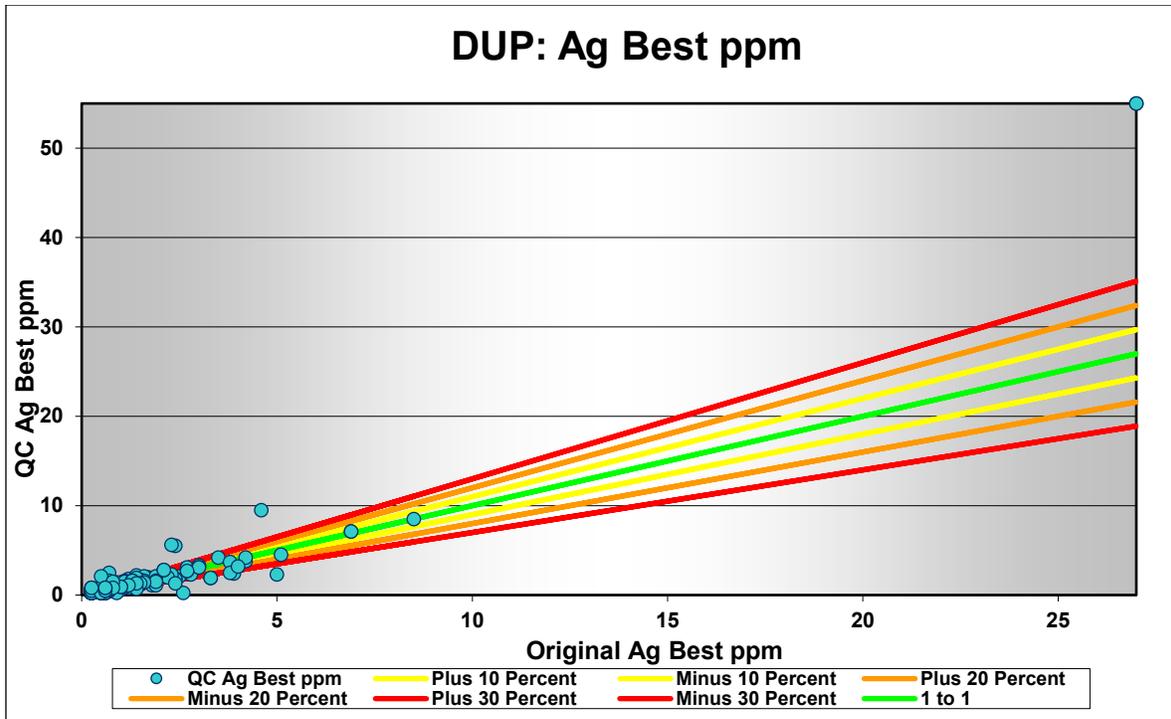


Figure 11-26: Comparison Plot Between Original Silver Values and Duplicate Silver Values

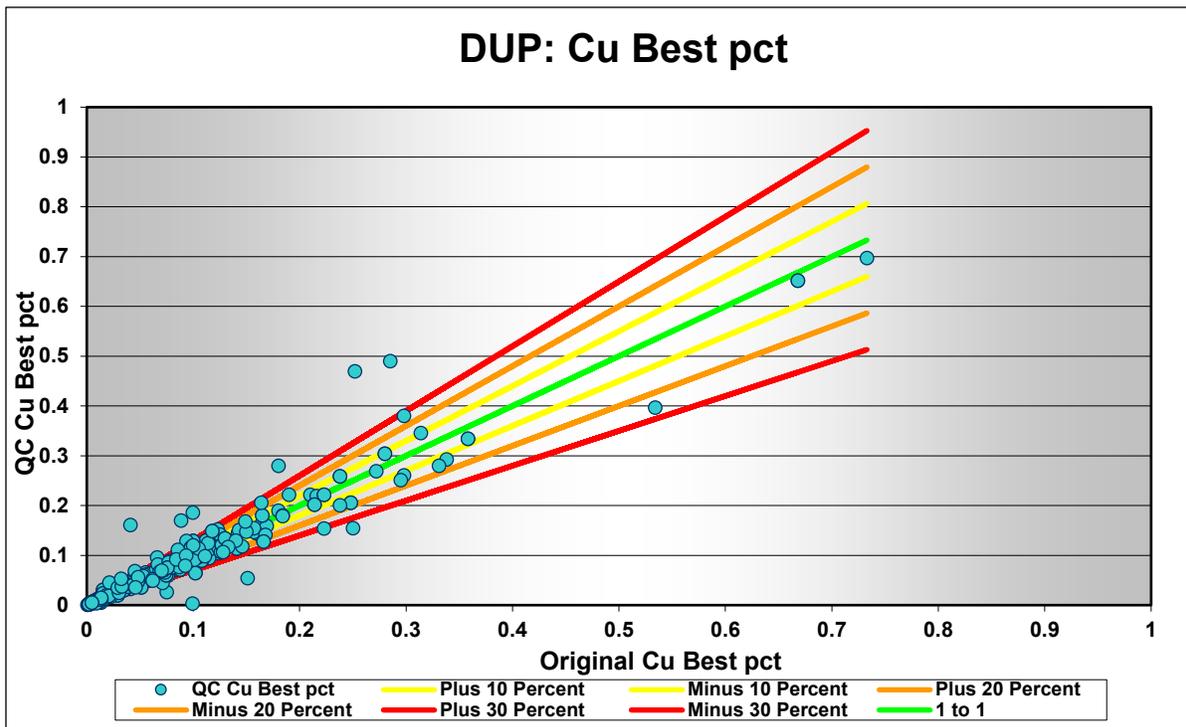


Figure 11-27: Comparison Plot Between Original Copper Values and Duplicate Copper Values

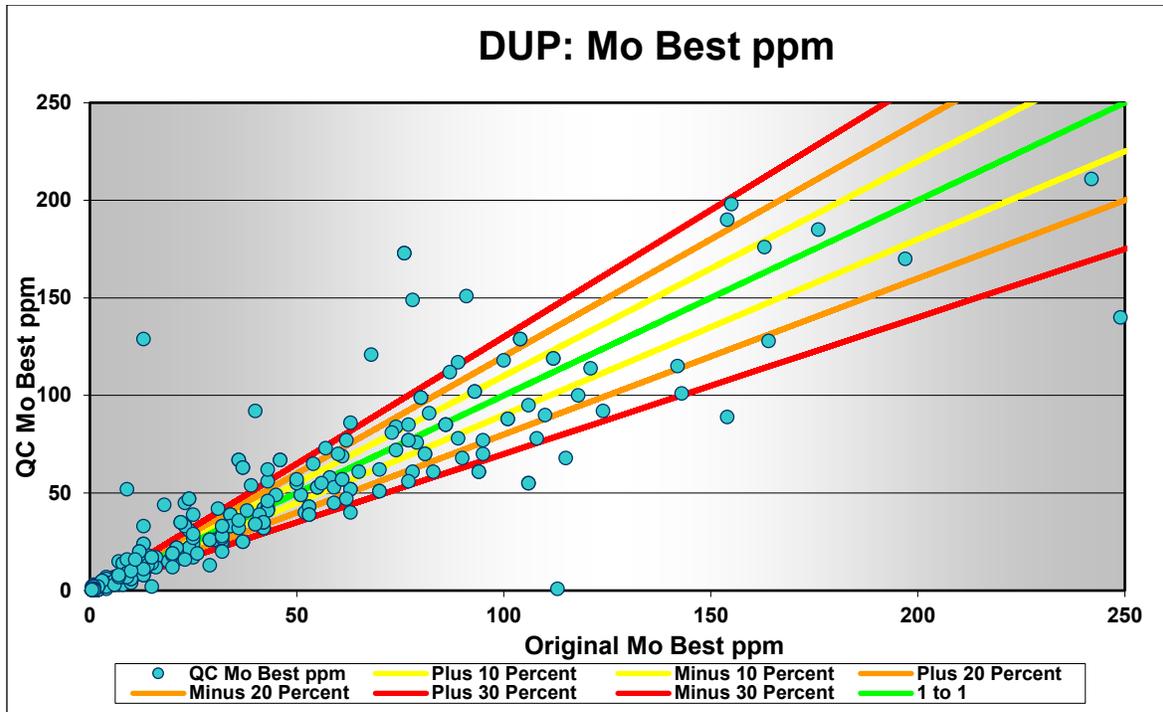


Figure 11-28: Comparison Plot Between Original Copper Values and Duplicate Copper Values

Field duplicates for 2019 performed well, but not without issue. The problem with field duplicates in this type of deposit is the difficulty to accurately cut a piece of core into two identical quarters. While it is a good method to test the reproducibility of a lab, it might be better served to have the primary lab split the pulp after the preparation process and set aside one split to process at a later date. An alternate, and perhaps better method, is to have the project manager send a list of pulps to the primary lab to re-assess as duplicates. In this way a pulp duplicate would more effectively test the reproducibility of results.

Table 11-5: Summary of Duplicate (Core) Pair Performance During 2019 Drill Program Sampling

Element	Duplicate Pairs Within 10% Difference	% total pairs within 10%	Duplicate Pairs Within 20% Difference	% total pairs within 20%	Duplicate Pairs Within 30% Difference	% total Duplicates within 30%
Au	120	34.9	211	61.3	269	78.2
Ag	141	41	214	62.2	240	69.8
Cu	181	52.6	276	80.2	308	89.5
Mo	109	31.7	166	48.3	215	62.5

Check duplicates

Check samples were selected at random from the entire sample population once the primary lab, ALS Global, had reported all the final assay results for the 2019 Casino Project. A list of 973 sample numbers (using a random selection in Excel) was sent to ALS Global in Whitehorse from the project manager/senior geologist, requesting ALS to pull the pulps for the samples listed and send them directly to SGS Canada Inc. in Burnaby, BC for processing. This represents a little over 20% of the entire 2019 sample population. Once received by SGS, these pulps were logged into their system, re-homogenized non-mechanically, then dry-screened randomly (1/100 samples were checked) to various

mesh sizes to verify fineness. No major issues were found regarding fineness, and SGS proceeded with the full assay protocol.

The purpose of this kind of duplicate/check is to test the methodology of the primary lab to ensure there is no bias or systemic errors, and that other labs using similar methods can reproduce their results within a predetermined degree of variance.

Figure 11-29 through Figure 11-32 show the comparison between the original core sample results from ALS Global in Whitehorse and the check pulp sample results from SGS in Burnaby for gold, silver, copper and molybdenum.

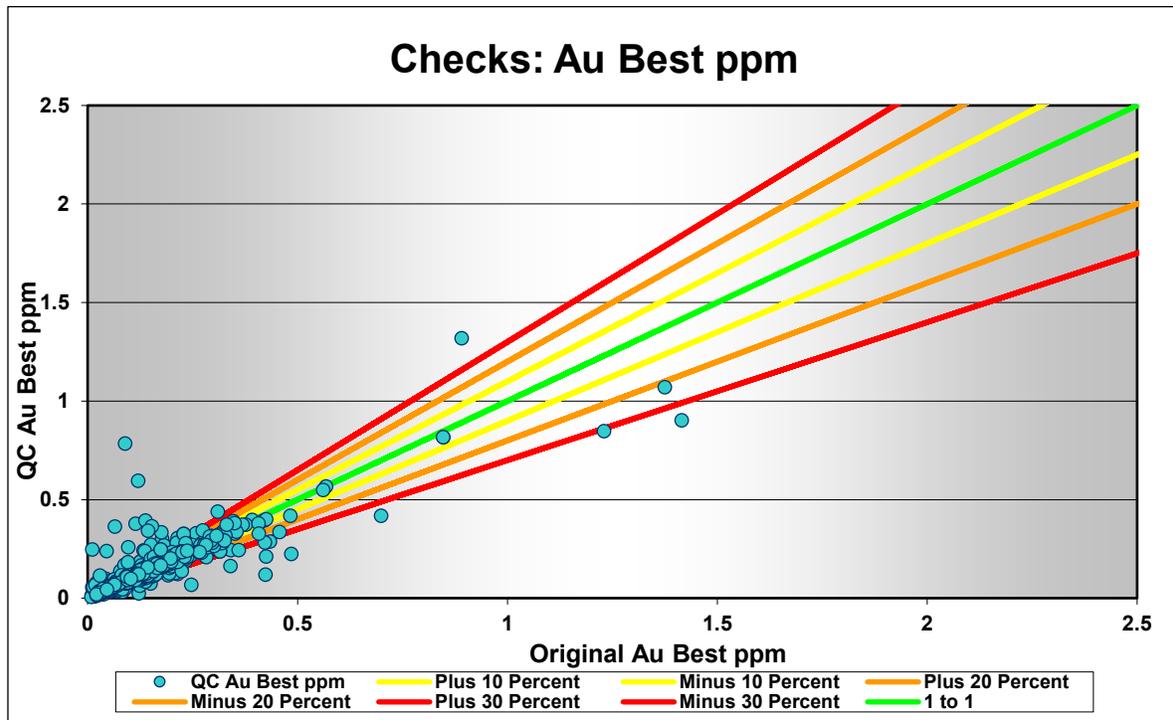


Figure 11-29: Comparison Plot Between Gold Values from ALS Chemex and Gold Values from SGS

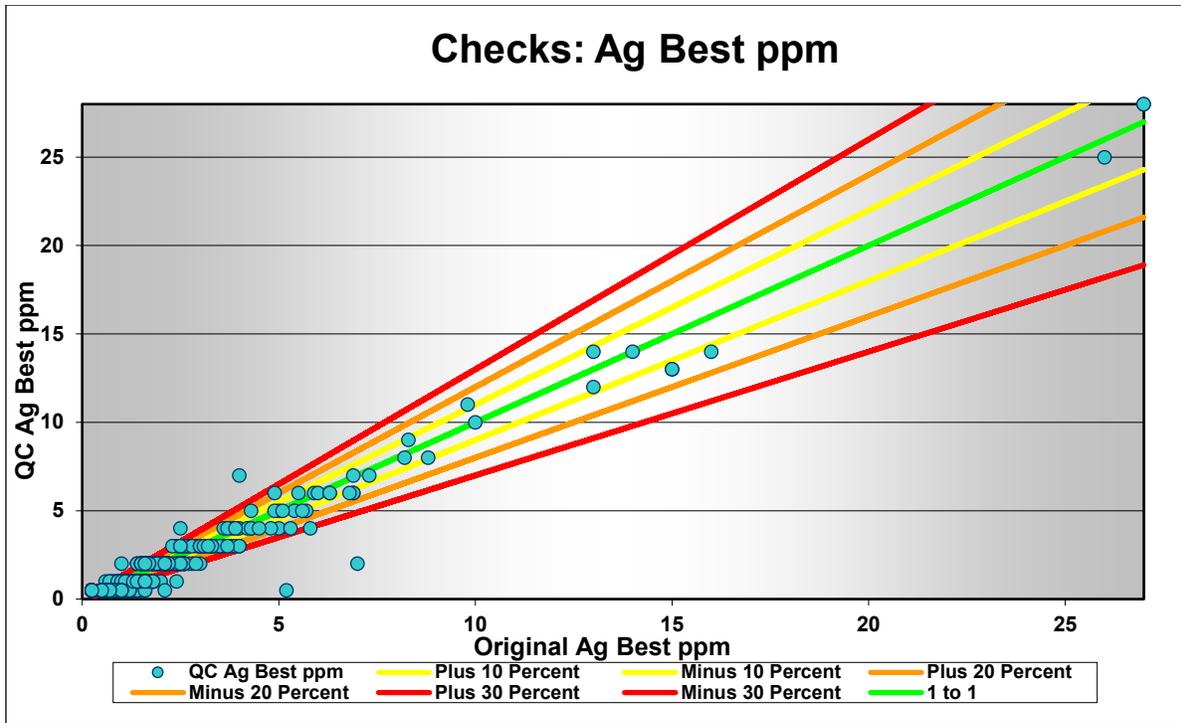


Figure 11-30: Comparison Plot Between Silver Values from ALS Global and Silver Values from SGS

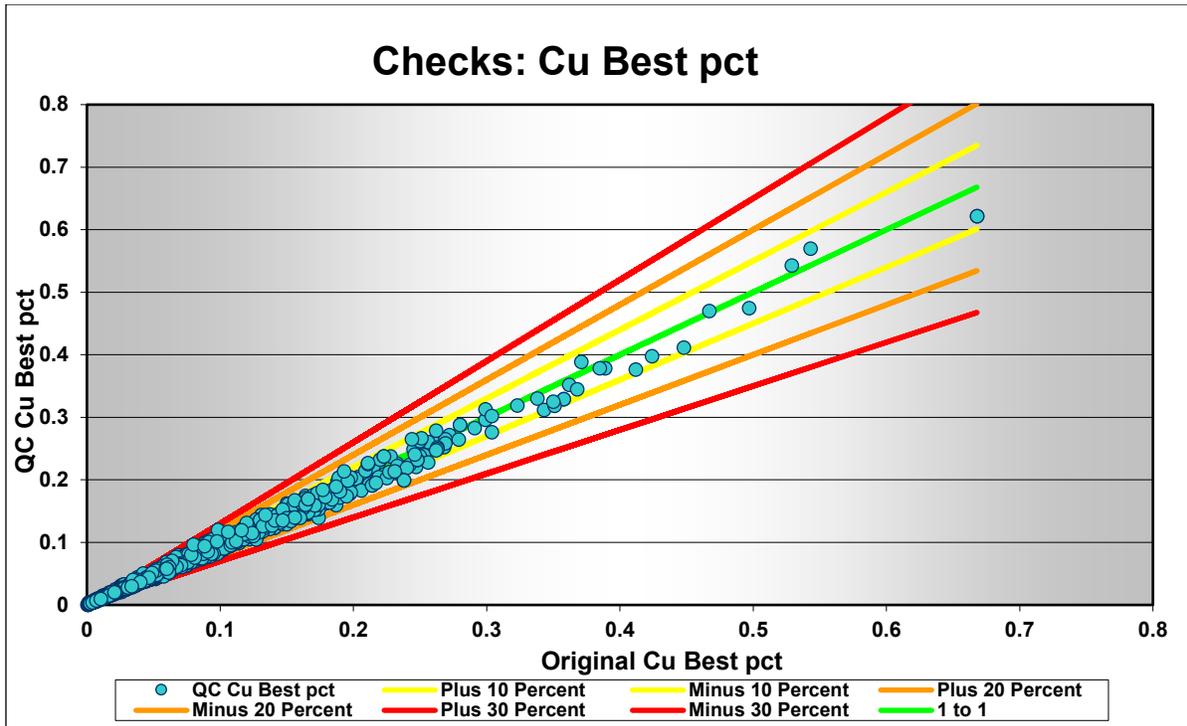


Figure 11-31: Comparison Plot Between Copper Values from ALS Global and Copper Values from SGS

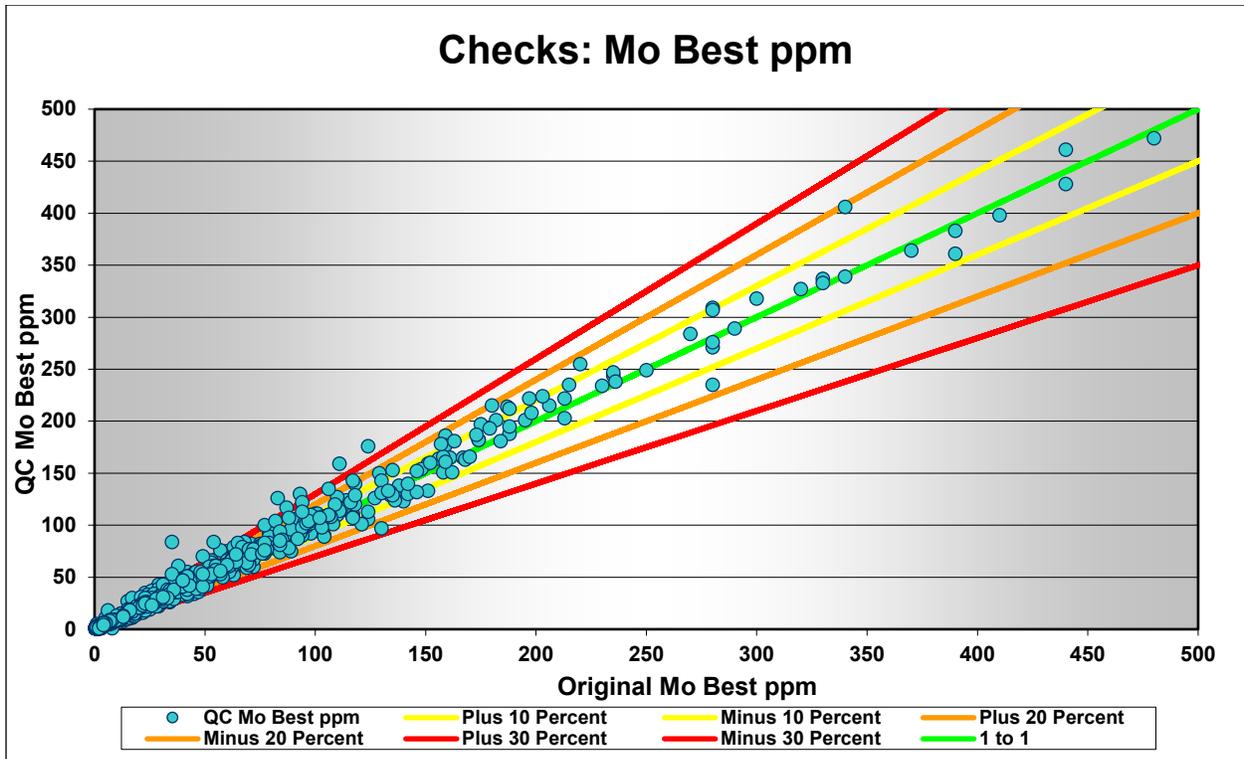


Figure 11-32: Comparison Plot Between Molybdenum Values from ALS Global and Molybdenum Values from SGS

Check samples for 2019 performed well, better than most duplicates overall, but still not without issue. In general, gold and silver showed lower correlation between pairs of pulps analyzed for all elements of interest than did copper and molybdenum. Silver showed the worst correlation with less than 20% of samples having under a 10% variation. At more than 20%, the number of 2019 check samples sent to the secondary lab represented a much larger population of samples than is industry practice, which is about 5%. The high percentage delivered in 2019 was partially due to utilization of a new laboratory for check samples, and to proven past success.

Table 11-6: Summary of Check (Pulps) Pair Performance During 2019 Drill Program Sampling

Element	Check Pairs Within 10% Difference	% total pairs within 10%	Check Pairs Within 20% Difference	% total pairs within 20%	Check Pairs Within 30% Difference	% total Duplicates within 30%
Au	465	47.8	711	73.1	817	84
Ag	187	19.2	351	36	469	48.2
Cu	692	71.1	953	97.9	961	98.8
Mo	596	61.3	757	77.8	812	83.5

## **12 DATA VERIFICATION**

This section contains a summary and review of the data entry and data verification related to the Casino Project. Several phases of exploration have taken place related to the project and the data entry and verification processes will be discussed for each phase. The phases of exploration included diamond drilling programs dated 1992 through 1994 performed by PSG Exploration, then exploration by Western dated 2008 through 2010, and under Western a transition to a new data system was implemented in 2013 and has continued since. The most recent exploration phase relevant to this report is dated 2019.

Data entry and verification for the 1992 through 1994 programs was reviewed. Further, the author has reviewed a selection of original scanned drill logs and analytical certificates as compared with data in the current Casino Project database.

Data collection, entry and verification for the drilling programs conducted by Western from 2008 through 2010 has been reviewed. In addition, the author has reviewed original reports about the programs, and compared a selection of original drill logs and analytical results to the data within the current database.

A transition to an updated database system, GeoSpark Core, was implemented in 2013 by Western to streamline the data flow and provide automated data validation and checking. All data ranging from 1960's RC drill data to 2013 drill core logging details were merged and imported to the new database system. The author has performed a validation of the current database against a selection of original scanned drill logs and analytical certificates, allowing for confidence in the data entry and data validation.

In 2019 the database system, GeoSpark Core, was used to combine core logging and assay data during the field season. Following the field season, a full audit/verification was done of all 2019 Collar, Survey and Assay, Alteration, Metallurgical and Lithology data. The 2019 data validation effort has been reviewed and, for this report, the author has also performed a review on the data entry and data validation related to the 2019 drilling program through comparison of original reports, original scans of drill logs, and analytical results to the data in the database.

Ultimately this section of this report includes a comprehensive review of the data within the Casino Project database, thus confirming that the data has been generated using proper procedures, has been correctly entered digitally from the source files, and is suitable for use. Data validated to the database includes original scanned drill logs, and analytical certificates signed by an authorized individual.

### **12.1 DATA ENTRY**

#### **12.1.1 1992-1994**

Original 1992 and 1993 field data was entered by Archer, Cathro and Assoc. and by Nowak and Assoc., both of Vancouver, B.C. Data was entered to a database on site and in the Vancouver office, by PSG personnel.

Assay, ICP, copper leach data, check assays and specific gravities were downloaded from the Chemex Labs computer-based data access system.

Pacific Sentinel Gold Corp. personnel entered the down hole surveys and the collar surveys and were responsible for making corrections from the data verification process.

#### **12.1.2 2008-2012**

For the 2008 through 2012 exploration programs, field data processing and reporting was contracted to Casselman Geological Services Ltd. of Whitehorse, YT by Western.

Drill hole logging, sampling and geotechnical data was entered directly by the geologist or geotechnical logger working on the core in a Microsoft Excel spreadsheet. Upon completion of each hole these files were submitted to the Project Manager for checking. Upon receipt of analytical data from the lab, the data was merged with the sample intervals by the Project Manager and the data was then verified.

All data was entered into Microsoft Excel spreadsheets organized into a standardized format. Once the data was checked it was posted on the Western FTP site. The data was then merged into Geosoft Target software for creation of drill plans, drill sections, and 3D modelling.

### **12.1.3 2013- 2019**

A transition to an updated database system, GeoSpark Core, was implemented in 2013 by Western to streamline the data flow and provide automated data validation and checking. All data ranging from 1960's RC drill data to 2013 drill core logging details were merged and imported to the new database system.

Similar procedures to those used from 2008 through 2010 were used to collect the hydrogeological and water well drill data in 2013.

In 2019, all data was initially transcribed onto paper. Each part of the data logging was captured on a different piece of paper formatted for that specific data. Sample interval data was written directly onto the portion of the sample tag books that does not go into the sample bags during cutting.

The completed sample books were then checked by the Project Manager and stored in a secure cabinet in the geology office. The core logger was responsible for collecting all the data sheets in a file folder and scanning to digital files upon completion of the hole. These digital files were then uploaded to the Western remote server. Original paper copies were then filed in a secure cabinet in the geology office at the Casino Project site. The Project Manager would then ensure that each file folder for each hole had all the required data sheets, including Downhole Survey forms submitted by the drillers.

Down hole survey information was recorded digitally by the DeviShot downhole survey tool and then downloaded directly from the digital recorder by the Project Manager. This data was checked by the Project Manager and the digital files were uploaded to the Western server. Collar surveying was performed by surveyors from CAP Engineering and this data was provided to the Project Manager for addition to the main Casino Project database.

Upon completion of the field season, all 2019 data was entered into GeoSpark Core using the digital scans of the original core logging data. GeoSpark Core contains built in checks to ensure a clean and usable dataset. Libraries of all data (e.g. lithology codes) link to each portion of the data entry so only codes that are checked and used by the project are accepted. Digital survey files that are downloaded from the downhole survey tool can be directly imported into GeoSpark. Assay files directly from the lab were also directly imported without manipulation.

## **12.2 DATA VERIFICATION**

For the purposes of this report, the author has visually verified five percent of original, scanned paper drill logs, and original, drill hole sample assay certificates, compared to the digital data used in the resource assessment. This verification amounted to review of 26 original drill logs and one excel file (containing re-logged primary lithologies and alterations), as well as 32 original, signed, assay certificates gold, silver, copper, and molybdenum analytical results, compared to the digital data within the project database.

The author has found no errors in the data transcription. This infers that errors mentioned below have been addressed and provides further confidence in the data within the database.

### **12.2.1 1992-1994**

The data verification process was performed under the supervision of a geologist familiar with the site logging procedures. In teams of two, one person read the original certificate, information sheet or logging form out loud while the other visually scanned the database printouts. Differences between the two were noted and corrected on the printout and the digital database. When required, a second pass was done on selected data.

The procedure for correcting errors was to highlight the value in question and to write the correct value beside it. Occasionally, the verification of field logs was followed up by a geologist familiar with logging and sampling techniques.

In addition, validations occurred throughout the exploration programs with ongoing monitoring and validation of field logs and analytical results, during the entire PSG Exploration endeavors.

### **12.2.2 2008-2013**

The data verification process was performed under the supervision of the Project Manager. When errors were observed in geological, geotechnical, or sample intervals, the Project Manager and geologist or technician would go back to the core and/or original notes or sample tag booklets and sort out the error and make necessary corrections.

Data verification was performed on an ongoing basis. At times where data were first recorded on paper, original copies of the hand notes were kept for future reference.

In verification of field logs, when it was unclear which value was correct, a decision was made by a geologist familiar with logging and sampling techniques.

### **12.2.3 2019**

The data verification process was performed under the supervision of the Project Manager/Senior Geologist on site. Digital scans of all the original core logs and related data were used to compare directly to the data that had been entered into GeoSpark Core software. The core log data was split up into sections (e.g. Assays were one section and Lithology was another) and assigned to two separate people to verify. Each person was also given a full Excel export of the master database, with which they would be comparing the original log scans. After each section was verified, the person who performed the work would submit a memo outlining the errors encountered and possible solutions to these errors to the Database Manager. The Database Manager would then work through the errors and make changes, when warranted. A complete review (100% of the records) was done for Assays, Alteration, Metallurgy, Lithology, Collars and Surveys. Assays were compared directly to the original assay certificates. Collar data was compared directly to the surveys performed by CAP Engineering and the logging forms and Downhole Survey data was compared directly to the exports from the DeviShot survey tool; all other data was compared directly to the core log scans. A partial (approximately 20%) review was then completed by the database manager for Geotechnical and Specific Gravity data by comparing the master database records to the original log scans.

Upon completion of 2019 data verification, the Project Manager reviewed the errors found and made changes where warranted. In cases where it was unclear what data was correct, the Project Manager would review related information (e.g. notes/comments on the logs and core photos) and make a final decision based on that related data and on extensive knowledge of the project itself. Overall, the data was in good shape, with occasional missing records or incorrect codes (e.g. POT instead of PRO for an alteration interval) entered during the first phase of data transcribing from original logs to GeoSpark. There were very few errors found during the partial review of the Geotechnical and Specific Gravity data; a complete review (100%) of this data was not conducted at the time due to the initial 20% pass finding so few errors and because a 20% verification is considered acceptable by the manager for this data.

### **12.3 VERIFICATION ERRORS**

For the purposes of this report, the author has verified five percent of original drill logs and drill sample assays to the data used in the resource assessment. This involved visually comparing the analytical results for gold, silver, copper, and molybdenum within the original scans of signed assay certificates with assay data in the database, and visual comparison of scanned, paper drill logs primary lithology and alteration data and the corresponding intervals to the data in the database, as well as review of re-logged data where applicable. There were no discrepancies found during this verification. This infers that errors noted below related to earlier reviews have been addressed.

#### **12.3.1 1992-1994**

The geological logs had some errors introduced when the data entry personnel were unclear of the recording method the geologist was using. Additionally, changing definitions of many of the lithology types required re-logging of many of the holes in the 1992 and 1993 programs. The process of combining the information from the old and new logs introduced some errors into the database. Due to the number of discrepancies encountered in the Geolog data of the 1992 and 1993 programs, a second verification of lithologies and alteration was performed after the errors detected in the first pass were corrected. Since the re-logging of the historic core in 2010, these errors associated with geological, mineralogical or alteration, have been eliminated.

#### **12.3.2 2008-2012**

There were very few errors in the database. The most common error observed was in geological or sample intervals, where the “To” recording of a previous sample did not match the “From” recording of the subsequent sample. These were generally easy to sort out by the geologist or geotechnical logger.

Discrepancies with the assay, ICP and copper leach data involved values below the detection limit. Occasionally less than signs (<) were misplaced for the lower detection limit values. Anomalously high ICP values were occasionally rounded off differently in the assay certificates than in the assay data downloaded from the computer bulletin board.

The geotechnical logs were checked by the computer to find intervals with combinations of parameters that were suspect. These intervals were extracted from the database and the suspect values were checked against the originals and against other available information, such as core photos, to determine if they were in error. A large majority of the extracted parameters were correct and considered to be caused by normal variance of geotechnical characteristics.

Errors detected in the field data of the geological logs, geotechnical logs, synoptic logs, specific gravity logs and down-hole survey data were often a result of human error in recording the original or in transcription. Wherever possible computer checks were done on the data; several types of errors were detected this way.

Errors found in the specific gravity data were due to the geotechnician assigning the wrong sample number to the interval from which the specific gravity was taken. These errors were detected by a computer check and confirmed by the data verification personnel.

#### **12.3.3 2019**

A complete data audit took place following the 2019 exploration program at the Casino Project. The data audit included a 100% audit of: Assay Data, Alteration Data, Metallurgical Data, Lithography Data, Survey Data and Collar Location.

The audit was performed using exported data from the Geospark Core database.

There were two main types of errors encountered during the verification process: missing records that had not been imported or entered and incorrect codes/typos. Overall, there were very few errors in the data entry, and all could be

easily corrected by the project manager. Missing data was imported in the case of assay certificates or entered from original logs in the case of logging information.

Because GeoSpark Core catches the inherent errors that crop up from manual entry into Excel or Access, the 2019 dataset was ready for import into other software for maps, cross sections and 3D modeling directly after the audit and verification process.

#### **12.4 OPINION OF QUALIFIED PERSON**

It is the author's opinion, as the Qualified Person responsible for this section of this report, that the data for the Casino Project meets NI 43-101 standards and is adequate for the purposes of resource estimation and for use in this technical report.

All parts of the data collection process from drilling, sampling, and logging to shipping, assaying and verification have been reviewed by the author. It is the author's opinion that the Casino Project database has been maintained at high quality.

In addition, the author has performed a five percent verification on scanned, original drill logs and signed, original assay certificates compared to the data in the Casino Project database; the author has found no errors in the data transcription.

## **13 MINERAL PROCESSING AND METALLURGICAL TESTING**

The Casino Project will produce copper flotation concentrates with contained gold and silver values, and molybdenite flotation concentrates. Gold in the form of doré, and a high-grade copper sulphide product will also be produced from an oxide ore heap leach. All products will be shipped offsite for sale or further processing.

### **13.1 METALLURGICAL SAMPLES**

In the testwork commissioned by Pacific Sentinel Gold in the mid 90's, all of the samples used were assay rejects that were nominally -10 mesh in particle size. These assay rejects were combined to prepare a number of composites that were sent to Lakefield Research for flotation and other testing under the direction of Melis Engineering, Ltd., to Brenda Process Technology for flotation testing, and to Kappes, Cassiday and Associates for copper and gold leaching.

The source of samples for all the 2008 work was split HQ core that was retrieved from site in September 2007. The core had been at site since it was drilled in 1993 and 1994 but was stored under cover.

Samples for the G&T Metallurgical Services test program reported in early 2011 were split from fresh core from the 2010 drill program.

Samples for the comminution testing performed by Starkey and Associates, and comminution and flotation testing by G&T Metallurgical reported in early 2012 were retrieved from the 1993 to 2010 drill programs and consisted of split core.

A drill program to retrieve fresh hypogene core was completed in early 2012 and split core from this drilling campaign was used for the flotation tests reported by G&T Metallurgical in December 2012.

In June 2013 bulk samples of different lithologies were taken by from just below the surface of the deposit using and excavator and were used for heap leaching studies performed by SGS E&S Engineering Solutions Inc. reported in October 2014.

### **13.2 LEACHING TESTS**

#### **13.2.1 Kappes, Cassiday and Associates**

Kappes, Cassiday and Associates performed two studies in 1995 on the leaching of the oxide cap and supergene material. In the first study they leached a selection of oxide cap material with cyanide. In the second study they examined pre-leaching both oxide cap and supergene material with acid followed by cyanidation of the residue.

Gold extraction was affected by the amount of copper leached during cyanidation and ranged from 10-97.4%. Average gold extraction was 79.9%.

Lime consumption during cyanidation averaged 3.9 kg/t without the acid pre-leach, and 4.1 kg/t with the acid pre-leach. Cyanide consumption was significant, averaging 5.5 kg/t without the acid pre-leach. There was not a significant difference between the lime consumption for the oxide copper composites and copper oxide composites.

#### **13.2.2 SGS E&S Engineering Solutions Inc.**

SGS E&S Engineering Solutions Inc. (at the time METCON) ran two column tests on a composite sample blended to create gold and copper concentrations similar to the average reserve concentrations in 2008.

The ore was crushed coarsely to -3.8 cm (-1.5 inch), placed in 15 cm by 6 metre columns, and irrigated at 12 L/h/m<sup>2</sup>. One column was leached "open cycle" – a 0.5 g/L NaCN solution was fed to the top of the column and the pregnant

solution was collected and assayed. The second column was “locked cycle” and solution was recycled. In the locked cycle column when the copper concentration in solution exceeded 50 mg/L, the solution was treated through a SART pilot plant discussed in the next section, and the gold was recovered on activated carbon.

The gold, silver, and copper extractions from the open and locked cycle tests compare favourably. Although the gold extraction was slightly higher for the open cycle test, both tests produced good gold recovery considering the coarse crush size.

Cyanide consumptions were similar based on titrations and the amount of cyanide added to the system for the locked cycle column at approximately 0.5 kg/t. Lime consumptions were similar to the bottle roll test work at approximately 3 kg/t.

**Table 13-1: Extractions and Reagent Consumptions from Open Cycle and Locked Cycle Cyanidation**

	Assays (calculated head) (g/t)			Percent Extraction			Reagent Consumption (kg/t)		
	Au	Ag	Cu	Au	Ag	Cu	NaCN*	NaCN**	CaO
<b>Open</b>	0.47	1.92	693	69.52	25.14	17.4	0.39		2.83
<b>Locked</b>	0.42	1.61	654	65.79	27.31	18.2	0.48	0.54	3.06

\*based on titrations

\*\*based on additions

A second set of testing was performed in 2013 which investigated metal recovery as a function of lithology. Based on the mine plan from the 2013 Feasibility Study, it was determined that the heap leach would be primarily composed of Granodiorite (WR), Intrusive Breccia (IX) and Patton Porphyry (PP) ore types with argillic (ARG) alteration.

The ore was crushed coarsely to -3.8 cm (-1.5 inch), placed in 15 cm by 3 metre columns, and irrigated at 9.78 L/h/m<sup>2</sup>. Each column was run in duplicate. The columns were operated in “open cycle”. Solution containing 0.75 g/L free NaCN and 300 mg/L Cu (added to approximate that steady state Cu concentration that would be used to leach the ore in practice) was added to the top of the column to irrigate.

**Table 13-2: Extractions and Reagent consumptions from Column Tests Investigating Lithology**

Ore Type	Head Assays (g/t)			Percent Extraction		Reagent Consumption (kg/t)	
	Au	Ag	Cu	Au	Ag	NaCN	CaO
<b>WR</b>	0.27	0.85	72.3	82.56	27.97	0.26	4.34
<b>(dup)</b>	0.27	0.85	72.3	81.90	27.78	0.20	4.18
<b>IX</b>	0.54	2.70	46.2	64.55	22.71	0.68	3.11
<b>(dup)</b>	0.54	2.70	46.2	62.10	16.63	0.44	3.10
<b>PP</b>	0.63	2.76	73.0	75.09	26.29	0.47	3.51
<b>(dup)</b>	0.63	2.77	73.0	73.28	26.01	0.19	3.38

Gold extraction for WR and PP lithologies are higher than the gold recoveries in previous testing, and gold recovery for IX lithology is higher indicating that there is some variability in gold extraction based on lithology. Cyanide and lime consumption are more variable but are similar to what was obtained in previous work.

### 13.3 SART COPPER RECOVERY

SART stands for Sulphidization, Acidification, Recycling and Thickening. In this process, a cyanide solution containing copper is treated to remove copper—gold is not affected.

In the locked cycle test described previously, the pregnant leach solution from the column was treated using a SART pilot plant several times before removing the gold with carbon and recycling the treated fluid to the column. The SART results are summarized in Table 13-3.

**Table 13-3: SART Results**

Pregnant Solution				Barren Solution after SART & Carbon				Copper	Reagent Consumption		
Free NaCN (g/L)	Cu (ppm)	Au (ppm)	Ag (ppm)	Free NaCN (g/L)	Cu (ppm)	Au (ppm)	Ag (ppm)	Removal (%)	(g/L solution treated)		
									S <sup>2-</sup>	H <sub>2</sub> SO <sub>4</sub>	CaO
0.25	81	0.21	0.30	0.39	6.8	0.04	0.02	91.3	0.024	0.64	0.37

### 13.4 COMMINUTION TESTING

SGS Lakefield, under the direction of SGS Minnovex, performed a comprehensive comminution study. Fifty (50) split drill core samples, representing the first 6 years of production were sent to SGS and subjected to the several tests.

A summary of the grinding results appears in Table 13-4. As SGS reports, the samples tested were characterized as medium in hardness from the perspective of semi-autogenous milling and of medium in hardness with respect to ball milling.

**Table 13-4: Summary of Comminution Results**

Test Name	CEET CI	SPI (min)	RWI (kWh/t)	BWI (kWh/t)	MBWI (kWh/t)	AI (g)
<b>Average</b>	29.2	52.9	9.9	14.5	14.30	0.265
<b>Std. Dev.</b>	13.9	20.8	5.6	2.6	1.60	0.046
<b>Rel. Std. Dev.</b>	47.5	39.3	56.5	18.1	11.30	17.0
<b>Minimum</b>	13.5	12.6	0.0	11.2	11.40	0.226
<b>10th Percentile</b>	15.3	31.4	4.4	12.1	12.50	0.232
<b>25th Percentile</b>	19.1	37.4	11.1	13.3	13.00	0.242
<b>Median</b>	24.1	50.3	12.5	14.1	14.10	0.252
<b>75th Percentile</b>	38.0	63.4	13.0	15.9	15.60	0.275
<b>90th Percentile</b>	52.3	82.5	13.0	17.3	16.30	0.309
<b>Maximum</b>	66.9	114.1	13.0	18.2	18.30	0.332

Additional comminution testing was performed in 2012 under the direction of FLSmidth and Starkey and Associates at G&T Metallurgical Services and FLSmidth laboratories. This program tested 11 composites of ore representing a combination of different zones, lithologies and alterations. The 11 composites represent over 80% of the material that will be processed through the mill.

Ore composite types that were not tested were mapped to similar composites that were tested by CMC geologists.

The 11 comminution composites were subjected to a series of tests at G&T Metallurgical's laboratory and FLSmidth's laboratory. The test results are summarized in the following tables.

**Table 13-5: Summary of SMC Tests and JK Parameters**

Sample ID	DWi, kWh/m <sup>3</sup>	DWi, %	Mia, kWh/t	Mih, kWh/t	Mic, kWh/t	A	B	SG	t <sub>a</sub>
Composite 1	4.90	39	15.5	10.8	5.6	56.7	0.95	2.64	0.53
Composite 2	4.35	32	14.1	9.6	5.0	56.3	1.07	2.63	0.59
Composite 3	6.05	55	18.6	13.5	7.0	61.8	0.70	2.60	0.43
Composite 4	6.62	63	19.8	14.6	7.6	62.3	0.64	2.63	0.39
Composite 5	6.69	64	19.9	14.7	7.6	63.4	0.62	2.64	0.39
Composite 6	3.92	26	13.3	8.8	4.6	62.9	1.05	2.58	0.66
Composite 7	5.75	51	18.1	13	6.7	66.4	0.67	2.58	0.45
Composite 8	5.60	49	16.9	12.1	6.2	64.1	0.75	2.69	0.46
Composite 9	5.00	40	16.1	11.3	5.8	67.9	0.76	2.58	0.52
Composite 10	9.63	90	26.3	20.9	10.8	91.3	0.30	2.67	0.27
Composite 11	5.69	50	17.6	12.6	6.5	66.4	0.69	2.62	0.46

**Table 13-6: Summary of SAGDesign Results and Crushed Bond Test Results**

Sample ID	DML SAGDesign Test Results			G&T Crushed Bond Test Results			
	Relative Density	Calc W <sub>SAG</sub> to 1.7 mm (kWh/t)	SAG Dis. Bond BWi (kWh/t)	BWi (kWh/t)	RWi (kWh/t)	Ai (g)	CWi
Composite 1	2.66	8.19	16.18	13.5	12.9	0.162	9.41
Composite 2	2.60	6.78	17.26	14.1	12.3	0.176	10.00
Composite 3	2.66	9.39	15.70	14.1	14.5	0.198	13.62
Composite 4	2.72	12.41	18.36	15.5	15.5	0.199	13.84
Composite 5	2.64	9.56	18.26	15.3	14.6	0.156	11.20
Composite 6	2.67	5.05	16.37	13.7	10.4	0.118	10.22
Composite 7	2.69	7.45	16.12	13.4	12.4	0.155	14.57
Composite 8	2.82	7.71	17.82	15.2	14.1	0.170	12.27
Composite 9	2.57	6.48	14.35	12.9	11.4	0.158	11.03
Composite 10	2.71	11.68	18.93	16.6	14.9	0.161	13.23
Composite 11	2.67	8.50	17.23	15.1	13.5	0.170	10.33
Average	2.67	8.47	16.96	14.5	13.3	0.166	11.79

A circuit consisting of one 40 ft diameter (12.2 m) SAG mill and two 28 ft diameter (8.2 m) ball mills in closed circuit with three pebble crushers was selected, based on discussions with M3 and FLSmidth, as a circuit that would likely meet the design tonnage. This circuit was modeled by FLSmidth using the parameters developed by SGS, G&T Metallurgical, and FLSmidth. The results of this exercise are shown in Table 13-7.

**Table 13-7: Predicted Production Rate**

Project Sample Number	Client Sample Information	BWi	Production Rate (mtpd)
		G&T (kWh/t)	
1	Composite 1	13.5	133,805
2	Composite 2	14.1	128,064
3	Composite 3	14.1	128,064
4	Composite 4	15.5	116,582
5	Composite 5	15.3	118,018
6	Composite 6	13.7	131,818
7	Composite 7	13.4	134,798
8	Composite 8	15.2	118,790
9	Composite 9	12.9	139,987
10	Composite 10	16.6	108,854
11	Composite 11	15.1	119,674
Average		14.5	125,314

### 13.5 FLOTATION

#### 13.5.1 2008 G&T Metallurgical Work

In 2008 Western Copper and G&T Metallurgical reviewed the previous metallurgical work and developed a new flotation program. In order to prevent oxidation, the program used split drill core rather than assay rejects as had been done for the previous work.

The new work focused on two composites at two different levels of oxide copper – an “oxide composite” and a “sulphide composite”. The composites were prepared to be close to the average grade of ore received for the first 5 years. Assays for these composites are shown in Table 13-8.

**Table 13-8: G&T Flotation Composite Assays**

	Cu(%)			Mo (%)		Fe (%)	Au (g/t)
	Total	WAS	CNS	Total	AS		
<b>Oxide Composite</b>	0.275	0.132	0.042	0.019	0.006	3.225	0.345
<b>Sulphide Composite</b>	0.260	0.016	0.032	0.021	0.002	3.525	0.255

##### 13.5.1.1 Oxide Composite

Copper recovery and grade from the oxide composite was very poor. Various combinations of sulphidizing the ore, changing grind size, using different reagents were attempted. Based on the poor performance of the oxide flotation, no further testing on the oxide composite was performed.

##### 13.5.1.2 Sulphide Composite

Copper recovery from the sulphide composite was much better than that achieved for the oxide composite. Copper concentrate grades greater than 28% were routinely achieved.

Copper recoveries of 70-82% were obtained into concentrates grading from 26.8 to 32.2% copper in cleaner tests. Good recovery of copper was obtained with both a primary grind with K80's of 147 and 121  $\mu\text{m}$  and regrinds with K80's less than 22  $\mu\text{m}$ . A coarser grind with a K80 of 209  $\mu\text{m}$  was examined in rougher tests and shown to be less favourable than the finer particle sizes selected for cleaner testing.

#### 13.5.1.3 Locked Cycle Tests

Duplicate locked cycle tests at both primary grind K80's of 121  $\mu\text{m}$  and 147  $\mu\text{m}$  were performed as well as one locked cycle at a primary K80 of 209  $\mu\text{m}$ . The results from these tests indicate that a grind with a K80 of 147  $\mu\text{m}$ , 85.6% copper can be recovered into a 28.5% copper concentrate. Molybdenum recovery was variable and ranged from 26.5% to 69.4%. Gold recovery was more consistent and averaged 64.0%.

#### 13.5.1.4 Variability Testing

A total of 63 individual split drill core intervals were tested for variability. These samples were chosen to primarily represent the first 6 years of production and covered a broad range of total copper, acid soluble copper, molybdenum and gold values. Each of these samples was individually ground and floated in a cleaner test with regrind under the conditions determined from the locked cycle tests.

### 13.5.2 2009-2011 G&T Metallurgical Work

#### 13.5.2.1 2009 Fresh Core Tests

In 2009, a new drilling campaign was initiated which included two holes in the middle of the deposit – CAS-002 and CAS-003. A composite from CAS-002 had 92% copper recovery into a concentrate grading about 28% copper in cleaner tests. Similarly, a composite from CAS-003 had 87% of the copper in the feed recovered into a concentrate grading 26% copper. Moly recoveries were high in both tests at approximately 90%.

#### 13.5.2.2 2010 Supergene Sulphide Composite Tests

The material tested in the 2010 test program (reported at the beginning of 2011) was a composite of supergene material that was obtained from the drilling campaigns in 2009 and 2010. This material represented ore that will be fed to the mill in the later years of the operation. The feed grade averaged 0.30% copper and 0.037% molybdenum.

One of the main objectives of the 2010 test program was to evaluate coarser grinds than were tested in the 2008 test program. Results of this evaluation indicate that copper flotation response is virtually unaffected by primary grind size between 142 and 253  $\mu\text{m}$  for this composite. Molybdenum flotation recovery to the bulk rougher concentrate was lower at grinds coarser than 179  $\mu\text{m}$ . Molybdenum recovery was also reduced at elevated pH levels.

#### 13.5.2.3 2010 Supergene Sulphide Composite Locked Cycle Tests

Locked cycle tests at primary grind K80's of 142  $\mu\text{m}$  and 222  $\mu\text{m}$  were performed. The results from these tests are presented in Table 13-9. The effect of regrind size on bulk concentrate copper grade and the effect of primary grind and regrind size on moly recovery are indicated in the table.

Table 13-9: Locked Cycle Test Results

Test	P. Grind K80 µm	Regrind K80 µm	Cycle	Assay - percent or g/t				Distribution - percent			
				Cu	Mo	Fe	Au	Cu	Mo	Fe	Au
KM2721-33	222	19	IV	30.8	1.6	23.6	20.2	82.9	34.7	5.2	71.9
KM2721-33	222	19	V	28.2	1.4	26.5	19.9	81.6	34.2	6.2	69.7
KM2721-34	222	20	IV	26.1	1.6	25.7	17.8	88.6	48.8	7.0	68.4
KM2721-34	222	20	V	25.7	1.5	26.6	19.9	86.6	45.1	7.5	64.7
KM2721-35	142	19	IV	26.3	1.9	27.8	18.6	87.3	57.1	7.1	71.4
KM2721-35	142	19	V	25.1	1.7	27.6	16.1	86.4	54.3	7.6	66.1
KM2721-36	222	37	IV	17.8	1.4	31.1	13.1	81.7	55.7	9.6	67.0
KM2721-36	222	37	V	18.8	1.4	30.4	10.1	82.8	51.2	10.9	61.5
KM2721-37	222	31	IV	21.2	1.4	31.1	11.7	83.2	54.1	9.2	62.4
KM2721-37	222	31	V	20.8	1.7	31.3	11.7	83.9	59.7	9.9	65.7

#### 13.5.2.4 Pyrite Flotation

Pyrite flotation was examined as a process to produce tailings samples that had low levels of residual sulphur, and thus could be deemed “not acid generating”.

The locked cycle tests outlined in Table 13-9 included a pyrite rougher to reduce the sulphide concentration of the tailings. Pyrite flotation tailings from these tests obtained tailings averaging less than 0.08% sulphur.

### 13.5.3 2011-2012 G&T Metallurgical Work

Western retained International Metallurgical and Environmental to assist in the metallurgical testing and continued to perform the testing at G&T Metallurgical Services (name changed to ALS Metallurgy in late 2012).

#### 13.5.3.1 New Flowsheet Development

In previous testing campaigns, in order to achieve acceptable recoveries from the conventional copper flotation flowsheet's tested, 15-20% of the feed material needed to be regrind. The focus of the new flowsheet development was to reduce the material sent to the regrind mills.

The new flowsheet development centered on a flowsheet where rougher concentrate was sent to the first cleaning stage prior to regrinding, the first cleaner concentrate went to regrinding and the second and third cleaner tails were returned to the first cleaner. By utilizing this flowsheet, the amount of feed material that needed to be regrind dropped from 15-20% to 3 to 5%.

Locked cycle test results from the composites tested using this flowsheet are shown in Table 13-10. The results show similar recoveries to previous test work using a conventional copper flotation flowsheet.

**Table 13-10: Locked Cycle Test Results**

Composite	Tests	P. Grind K80 µm	Regrind K80 µm	Assay - percent or g/t				Distribution - percent			
				Cu	Mo	S	Au	Cu	Mo	S	Au
HYP1	38, 42	218	19	26.0	1.98	33.1	24.6	82.1	64.9	24.9	61.1
HYP2	39, 43	216	16	26.3	1.31	32.8	23.9	81.7	37.1	14.6	56.1
SUS1	44, 46	192	17.5	21.8	1.77	33.9	23.6	77.7	59.5	24.9	75.9
SUS2	47	190	14	24.1	0.85	38.1	28.3	62.8	32.8	20.4	64.4

### 13.5.3.2 Tests using Fresh Core

While supergene flotation tests were performed on fresh core obtained during the 2010 campaign, no flotation tests had been performed on fresh hypogene core with the exception of a limited number of tests performed in 2009.

In 2012, a drilling campaign was executed to obtain fresh hypogene core from the first years of mining that represented the predominate mineralization that would be fed to the mill. In total five holes were drilled (CAS-088 to CAS-093), and from these five holes, three composites were made representing lithologies: Patton porphyry (PP), Intrusion breccia (IX), and Dawson range batholith (WR).

**Table 13-11: Hypogene Composites**

	Cu(%)			Mo	Fe	Au
	Total	WAS	CNS	(%)	(%)	(g/t)
<b>PP Composite</b>	0.14	0.004	0.008	0.030	2.95	0.22
<b>IX Composite</b>	0.17	0.006	0.012	0.071	2.39	0.22
<b>WR Composite</b>	0.19	0.005	0.013	0.019	2.50	0.18

Locked Cycle Recoveries using these fresh composites were significantly better than previous testing on oxidized core and are shown in Table 13-12. Note that the primary grind size for these tests was also higher than the target of 200 µm, in some cases significantly, so it would be expected that actual plant recovery would be better than these tests indicate.

**Table 13-12: Locked Cycle Test Results**

Composite	Tests	P. Grind K80 µm	Regrind K80 µm	Assay - percent or g/t				Distribution - percent			
				Cu	Mo	Ag	Au	Cu	Mo	Ag	Au
PP	23	234	31	18.6	7.5	126	15.6	89.9	77.9	46.5	57.3
IX	24	254	32	24.6	4.3	107	24.3	87.2	78.6	46.0	55.4
WR	25	211	31	17.5	1.50	82	13.5	91.9	89.4	53.8	67.2

### 13.5.3.3 Pilot Plant Testing and Copper/Molybdenum Separation

A pilot plant was performed on hypogene and supergene composites taken from the drilling campaign to produce representative tailings for environmental testing, geotechnical testing and thickener testing and to produce sufficient copper/molybdenum concentrate for copper moly separation tests. Unfortunately, there was not sufficient feed material to obtain operating information from the pilot plant.

Although suitable copper/molybdenum concentrate was produced to perform several copper/molybdenum separation tests, only one cleaner test was performed as the results from this test were sufficiently good to warrant no further testing. The results from this test are shown in Table 13-13.

**Table 13-13: Copper/Molybdenum Separation Cleaner Test**

Cumulative Product	Cum. Weight		Assay - percent or g/t				Distribution - percent			
	%	grams	Cu	Mo	Fe	S	Cu	Mo	Fe	S
Final Conc.	3.1	31.2	0.39	57.4	0.8	37.9	0.1	94.1	0.1	2.6
Second Conc.	3.5	35.5	2.38	51.3	3.8	37.6	0.5	95.7	0.4	3.0
Rougher Conc.	6.1	62.5	9.04	29.7	15.3	38.0	3.5	97.4	2.9	5.3
Tails	93.9	953.8	16.5	0.05	33.9	44.3	96.5	2.6	97.1	94.7
Feed	100.0	1016.3	16.0	1.87	32.8	43.9	100	100	100	100

### 13.5.4 Interpretation of Flotation Test Results

The most current work at G&T Metallurgical has shown good copper recovery to copper concentrates that routinely achieve 28% or greater for various drill core samples from the deposit using the reagent scheme developed. The conclusions from this work are unambiguous and will be used as the basis of this study.

#### 13.5.4.1 Supergene – Copper

It was difficult to achieve good copper concentrate grades from supergene oxide material that had copper oxide concentrations greater than 25-30% of the total copper. For this reason, during operation of the mill, supergene oxide ore should be blended in with the other ore to achieve an oxide copper percentage less than 25%.

The supergene ore contains a certain percentage of oxide copper minerals (this is what defines it as being supergene material). Oxide copper minerals will be poorly recovered by the flotation process, so in the interpretation of the results, it is important to examine the recovery of *sulphide copper* to a copper concentrate. Sulphide copper can be calculated by subtracting the concentration of oxide copper from the total copper. Supergene mineralization at Casino has been assayed for *weak acid soluble copper*, which is approximately equal to the amount of oxide copper in the sample assayed but may under or over represent the amount of oxide copper present depending on the specifics of the mineralization.

Sulphide copper recovery as a function of and sulphide copper grade is shown in Table 13-14 for the supergene locked cycle tests by G&T Metallurgical. Recovery appears to be fairly consistent.

Table 13-14: Supergene Locked Cycle Recoveries to Concentrate

Test	Feed Assays					Recovery to Concentrate			
	Total	Cu (%)		Au (g/t)	Mo (%)	Total Cu	Sulphide Cu	Au	Mo
KM2721									
33	0.3	0.03	0.27	0.25	0.036	82.3	91.4	70.7	34.5
34	0.3	0.03	0.27	0.25	0.036	87.6	97.3	66.4	46.9
35	0.3	0.03	0.27	0.25	0.036	86.8	96.4	68.8	55.7
36	0.3	0.03	0.27	0.25	0.036	82.3	91.4	64.4	53.3
37	0.3	0.03	0.27	0.25	0.036	83.5	92.8	64.1	57
KM3134									
44	0.3	0.056	0.244	0.37	0.022	79.9	98.2	75.5	64.6
46	0.3	0.056	0.244	0.47	0.022	75.6	93.0	76.1	54.6
47	0.3	0.094	0.206	0.47	0.028	62.8	91.5	64.4	32.8

Averaging the locked cycle tests results indicates that an average of 94% of the sulphide copper was recovered to a copper concentrate. This result also closely mirrors the variability results. Thus, the overall copper recovery for the supergene material will be:

$$\text{Cu Recovery} = 94 \times (\text{Cu}_{\text{total}} - \text{Cu}_{\text{WAS}}) / (\text{Cu}_{\text{total}})$$

#### 13.5.4.2 Supergene – Gold

Averaging the gold recovery from Table 13-14, an average gold recovery of 69% to copper concentrate is obtained:

$$\text{Au Recovery} = 69\%$$

#### 13.5.4.3 Supergene Molybdenum

In most of the tests, no attempt was made to optimize the molybdenum recovery. For this reason, the molybdenum recovery is quite variable.

Examining the locked cycle tests in Table 13-13, an average molybdenum recovery of 55% to copper concentrate was chosen, which represents the average molybdenum recovery when the two low outliers are removed.

Recovery of molybdenum from the copper-molybdenum concentrate to a molybdenum concentrate was not specifically tested for the supergene material, but it is expected to be similar to that obtained in hypogene tests that achieved approximately 95% molybdenum recovery to a molybdenum concentrate. Molybdenum recovery throughout the plant is equal to the recovery to the copper-molybdenum concentrate multiplied by recovery to a molybdenum concentrate and is shown below:

$$\text{Mo Recovery} = 52.25\%$$

#### 13.5.4.4 Supergene – Silver

Unfortunately, silver recovery was not determined in all test programs. The 2011 test program followed silver. Averaging the silver recovery from these locked cycle tests indicates that a silver recovery of 60% should be achievable:

Ag Recovery = 60%

13.5.4.5 Hypogene

Hypogene recoveries are based on the December 2012 flotation work performed by ALS Metallurgy on “fresh” core that had been drilled earlier specifically for flotation test work.

The following table shows cleaner circuit recoveries for both copper and molybdenum for all three locked cycle tests with hypogene material. Copper concentrate grades have been corrected to reflect the removal of molybdenum and represent final concentrate grades in terms of copper.

**Table 13-15: Cleaner Circuit Recoveries for Locked Cycle Test Results**

Test and Cycle no.	Cu Con Grade %Cu	Cu Recovery %	Mo Recovery %	Au Recovery %
WR Composite				
Cycle 4	17.8	96.4	95.0	86.0
Cycle 5	17.9	96.9	95.6	88.0
IX Composite				
Cycle 4	22.8	96.9	81.7	83.3
Cycle 5	21.2	96.7	80.8	80.6
PP Composite				
Cycle 4	26.1	97.1	90.4	88.0
Cycle 5	26.5	97.1	91.1	84.9

Copper, molybdenum and gold recovery, when a primary grind size of 200 to 220 µm is used is summarized in Table 13-15 and is based on both locked cycle testing and open circuit rougher flotation tests. Molybdenum recovery was variable and the higher grade molybdenum sample (IX) had the lowest molybdenum recovery indicating that reagent conditions could possibly improve this recovery. Within the cleaning circuit copper and gold recoveries were very constant, irrespective of the final copper concentrate grade.

**Table 13-16: Predicted Recoveries to Copper/Molybdenum Concentrate**

Process Stream	Cu	Mo	Au
Rougher Circuit Recovery	95	92	78
Cleaner Circuit Recovery	97	90	85
Metal Recovery	92.15	82.8	66

13.5.4.6 Hypogene – Copper Molybdenum Separation

One test was performed to determine how well molybdenum could be separated from a copper/molybdenum concentrate, which indicated that approximately 95% molybdenum recovery could be achieved. Thus, the overall recovery of molybdenum will be equal to:

Mo Recovery = 78.6%

13.5.4.7 Hypogene – Silver Recovery

Hypogene silver recovery was followed in the last set of tests on fresh core. Reviewing these recoveries, a silver recovery of 50% was chosen.

Ag Recovery = 50.0%

13.5.4.8 Concentrate Quality

Estimates of the chemistry of the copper concentrate are summarized in Table 13-17, formed from best estimates of analysis of concentrates produced in test work. Concentrate chemistry estimation is based on detailed analysis of test products, conducted at various metallurgical test facilities.

**Table 13-17: Copper Concentrate Chemistry**

Element	Average Expected Value	High Range	Low Range
Copper - %	28	30	25
Gold – g/t	25	30	15
Silver – g/t	120	180	80
Molybdenum -%	0.05	0.1	0.02
Iron - %	26	30	24
Sulphur - %	36	40	28
Arsenic – g/t	200	500	100
Antimony – g/t	250	400	100
Mercury – g/t	1	2	0.1
Cadmium – g/t	40	80	20
Fluorine – g/t	100	200	50
Silica - %	2	5	1

Key analytical results for the Casino project molybdenum concentrate are summarized in Table 13-20. Limited test work allows for only an average chemistry estimate to be made for the molybdenum concentrate at this time.

**Table 13-18: Molybdenum Concentrate Chemistry**

Element	Average Expected Value
Molybdenum -%	56.0
Copper - %	0.25
Gold – g/t	1
Silver – g/t	10
Iron - %	1
Sulphur - %	38
Arsenic – g/t	1500
Antimony – g/t	100
Mercury – g/t	<1
Cadmium – g/t	30
Silica - %	1.5
Rhenium – g/t	130

### 13.6 DEWATERING TESTS

Flotation tailing from the 2008 test program piloting were submitted to Outotec for dynamic high rate thickening tests. Results were favourable and a thickener underflow of over 55 percent solids was achieved. Flocculant addition was 22 g/t. The solids loading rate of 1.05 t/m<sup>2</sup>h was demonstrated. Rheology on the thickened material was low.

### 13.7 DETERMINATION OF RECOVERIES AND REAGENT AND OTHER CONSUMABLE CONSUMPTIONS

As described in the preceding sections, the following recoveries, reagent and other consumable consumptions will be used. Where values were unknown, typical values based on M3's experience were used:

**Table 13-19: Heap Leach Operational Parameters**

Parameter	Value	Units
Gold recovery	66	Percent
Copper recovery	18	Percent
Silver recovery	26	Percent
Crush size	-1	inch
Irrigation rate	12	L/h/m <sup>2</sup>
Lift height	8	m
<i>Reagent consumptions</i>		
NaHS	0.025	kg/t ore
Sulfuric acid	0.328	kg/t ore
Hydrochloric acid	0.010	kg/t ore
Lime (CaO)	3.270	kg/t ore
Sodium hydroxide	0.130	kg/t ore
Sodium cyanide (NaCN)	0.500	kg/t ore
Activated Carbon	0.500	g/t ore
Anti-scalant	0.003	kg/t ore
Flocculent	0.350	g/t ore
Primary crusher liners	0.040	kg/t
Secondary crusher liners	0.085	kg/t

Table 13-20: Flotation Operational Parameters.

Parameter	Value	Units
Copper recovery		
Supergene	Recovery = $94 \times (Cu_{total} - Cu_{WAS}) / (Cu_{total})$	percent
Hypogene	92.15	percent
Gold recovery		
Supergene	69	percent
Hypogene	66	percent
Molybdenum recovery (final conc)		
Supergene	52.25	percent
Hypogene	78.6	percent
Silver recovery		
Supergene	60	percent
Hypogene	50	percent
Bond work index	14.5	kWh/t
Primary grind size (P80)	200	µm
Regrind size (P80)	25	µm
<i>Reagent consumptions</i>		
Lime		
Supergene	2.5	kg/t ore
Hypogene	1.0	kg/t ore
Aerophine 3418A		
Supergene	8.4	g/t ore
Hypogene	4.0	g/t ore
Aerofloat 208		
Supergene	16.7	g/t ore
Hypogene	8.0	g/t ore
MIBC	10	g/t ore
Fuel Oil	7.44	g/t ore
PAX	40	g/t ore
NaSH	0.053	kg/t ore
Flocculent	25.4	g/t ore
SAG Mill – Liners	0.040	kg/t ore
Ball Mill – Liners	0.048	kg/t ore
SAG Mill – Balls	0.400	kg/t ore
Ball Mill – Balls	0.400	kg/t ore
Regrind – Balls	0.0410	kg/t ore

**14 MINERAL RESOURCE ESTIMATES**

**14.1 MINERAL RESOURCE**

The Mineral Resource for the Casino Project includes Mineral Resources amenable to milling and flotation concentration methods (mill material) and Mineral Resource amenable to heap leach recovery methods (leach material). Table 14-1 presents the Mineral Resource for mill material. Mill material includes the supergene oxide (SOX), supergene sulphide (SUS) and hypogene sulphide (HYP) mineral zones. Measured and Indicated Mineral Resources amount to 2.17 billion tonnes at 0.16% total copper, 0.18 g/t gold, 0.017% moly and 1.4 g/t silver and contained metal amounts to 7.43 billion pounds of copper, 12.7 million ounces gold, 811.6 million pounds of moly and 100.2 million ounces of silver. Inferred Mineral Resource is an additional 1.43 billion tonnes at 0.10% total copper, 0.14 g/t gold, 0.010% moly and 1.2 g/t silver and contained metal amounts to 3.24 billion pounds of copper, 6.4 million ounces of gold, 322.8 million pounds moly and 53.5 million ounces of silver for the Inferred Mineral Resource in mill material.

Table 14-2 presents the Mineral Resource for leach material. Leach material is oxide dominant leach cap (LC) mineralization. The emphasis of leaching is the recovery of gold in the leach cap. Copper grades in the leach cap are low, but it is expected some metal will be recovered. Measured and Indicated Mineral Resources amount to 217.4 million tonnes at 0.03% total copper, 0.25 g/t gold and 1.9 g/t silver and contained metal amounts to 166.5 million pounds of copper, 1.8 million ounces gold and 13.3 million ounces of silver. Inferred Mineral Resource is an additional 31.1 million tonnes at 0.03% total copper, 0.17 g/t gold and 1.7 g/t silver and contained metal amounts to 17.2 million pounds of copper, 200,000 ounces of gold and 1.7 million ounces of silver for the Inferred Mineral Resource in leach material.

Table 14-3 presents the Mineral Resource for combined mill and leach material for copper, gold, and silver. Measured and Indicated Mineral Resources amount to 2.39 billion tonnes at 0.14% total copper, 0.19 g/t gold and 1.5 g/t silver. Contained metal amounts to 7.60 billion pounds copper, 14.5 million ounces gold and 113.5 million ounces of silver for Measured and Indicated Mineral Resources. Inferred Mineral Resource is an additional 1.46 billion tonnes at 0.10% total copper, 0.14 g/t gold and 1.2 g/t silver. Contained metal amounts to 3.26 billion pounds of copper, 6.6 million ounces of gold and 55.2 million ounces of silver for the Inferred Mineral Resource. The Mineral Resource for moly is as shown with mill material since it will not be recovered for leach material.

The Mineral Resources are based on a block model developed by IMC during June 2020. This updated model incorporated the 2019 Western drilling and updated geologic models. It also includes some 2010 through 2012 Western drilling that was not available for the previous Mineral Resource estimate done in 2010.

The Measured, Indicated, and Inferred Mineral Resources reported herein are contained within a floating cone pit shell to demonstrate “reasonable prospects for eventual economic extraction” to meet the definition of Mineral Resources in NI 43-101.

Figure 14-1 shows the constraining pit shell that is based on Measured, Indicated, and Inferred Mineral Resource.

**Table 14-1: Mineral Resource for Mill Material at C\$5.70 NSR Cutoff**

Resource Class	Tonnes Mt	NSR (\$/t)	Copper (%)	Gold (g/t)	Moly (%)	Silver (g/t)	CuEq %	Copper (mlbs)	Gold (moz)	Moly (mlbs)	Silver (moz)
Measured	145.3	38.08	0.31	0.40	0.025	2.1	0.74	985.8	1.9	80.6	9.8
Indicated	2,028.0	19.10	0.14	0.17	0.016	1.4	0.33	6,448.5	10.9	731.0	90.4
M+I	2,173.3	20.37	0.16	0.18	0.017	1.4	0.36	7,434.3	12.7	811.6	100.2
Inferred	1,430.2	14.50	0.10	0.14	0.010	1.2	0.24	3,240.4	6.4	322.8	53.5

Table 14-2: Mineral Resource for Leach material at C\$5.46 NSR Cutoff

Resource Class	Tonnes Mt	NSR (\$/t)	Copper (%)	Gold (g/t)	Silver (g/t)	AuEq (g/t)	Copper (mlbs)	Gold (moz)	Silver (moz)
Measured	37.2	19.72	0.05	0.45	2.8	0.48	39.3	0.5	3.3
Indicated	180.2	9.54	0.03	0.21	1.7	0.23	127.2	1.2	10.0
M+I	217.4	11.28	0.03	0.25	1.9	0.27	166.5	1.8	13.3
Inferred	31.1	7.60	0.03	0.17	1.7	0.18	17.2	0.2	1.7

Table 14-3: Mineral Resource for Copper, Gold, and Silver (Mill and Leach)

Resource Class	Tonnes Mt	NSR (\$/t)	Copper (%)	Gold (g/t)	Silver (g/t)	Copper (mlbs)	Gold (moz)	Silver (moz)
Measured	182.4	34.34	0.25	0.41	2.2	1,025.1	2.4	13.1
Indicated	2,208.3	18.32	0.14	0.17	1.4	6,575.6	12.1	100.5
M+I	2,390.7	19.54	0.14	0.19	1.5	7,600.7	14.5	113.5
Inferred	1,461.3	14.35	0.10	0.14	1.2	3,257.6	6.6	55.2

Notes:

- The Mineral Resources have an effective date of 3 July 2020 and the estimate was prepared using the definitions in CIM Definition Standards (10 May 2014).
- All figures are rounded to reflect the relative accuracy of the estimate and therefore numbers may not appear to add precisely.
- Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
- Mineral Resources for leach material are based on prices of US\$2.75/lb copper, US\$1500/oz gold and US\$18/oz silver.
- Mineral Resources for mill material are based on prices of US\$2.75/lb copper, US\$1500/oz gold, US\$18/oz silver, and US\$11.00/lb moly.
- Mineral Resources are based on NSR Cutoff of C\$5.46/t for leach material and C\$5.70/t for mill material.
- NSR value for leach material is as follows:  

$$\text{NSR (C\$/t)} = \$12.65 \times \text{copper (\%)} + \$41.55 \times \text{gold (g/t)} + \$0.191 \times \text{silver (g/t)}$$
, based on copper recovery of 18%, gold recovery of 66% and silver recovery of 26%.
- NSR value for hypogene sulphide mill material is:  

$$\text{NSR (C\$/t)} = \$60.18 \times \text{copper (\%)} + \$41.01 \times \text{gold (g/t)} + \$214.94 \times \text{moly (\%)} + \$0.355 \times \text{silver (g/t)}$$
, based on recoveries of 92.2% copper, 66% gold, 50% silver and 78.6% moly.
- NSR value for supergene (SOX and SUS) mill material is:  

$$\text{NSR (C\$/t)} = \$65.27 \times \text{recoverable copper (\%)} + \$42.87 \times \text{gold (g/t)} + \$142.89 \times \text{moly (\%)} + \$0.425 \times \text{silver (g/t)}$$
, based on recoveries of 69% gold, 60% silver and 52.3% moly. Recoverable copper =  $0.94 \times (\text{total copper} - \text{soluble copper})$ .
- Table 14-6 accompanies this Mineral Resource statement and shows all relevant parameters.
- Mineral Resources are reported in relation to a conceptual constraining pit shell in order to demonstrate reasonable prospects for eventual economic extraction, as required by the definition of Mineral Resource in NI 43-101; mineralization lying outside of the pit shell is excluded from the Mineral Resource.
- AuEq and CuEq values are based on prices of US\$2.75/lb copper, US\$1500/oz gold, US\$18/oz silver, and US\$11.00/lb moly, and account for all metal recoveries and smelting/refining charges.

## 14.2 SENSITIVITY TO NSR CUTOFF

Table 14-4 shows resources at varying NSR Cutoffs for mill material. All tabulations are contained by the constraining pit shell used for the base case Mineral Resource at C\$5.70 per tonne (highlighted). Increasing the NSR Cutoff by 40% to C\$8/t has only a modest effect on the size of the Mineral Resource amenable to milling, decreasing resource tonnes by 6% and the contained copper and gold by 1.6% and 2.6% respectively.

Table 14-5 shows resources at varying NSR Cutoffs for leach material. Again, all tabulations are contained by the constraining pit shell used for the base case Mineral Resource. The base case resource at an NSR Cutoff of C\$5.46 per tonne is highlighted. Increasing the NSR Cutoff of leach material to C\$8/t only reduces the contained gold by 20%.

**Table 14-4: Mineral Resource – Mill Material by Various NSR Cutoffs (C\$)**

NSR Cog (\$/t)	Resource Category	Tonnes Mt	NSR (\$/t)	Copper (%)	Gold (g/t)	Moly (%)	Silver (g/t)	CuEq (%)	Copper (mlbs)	Gold (moz)	Moly (mlbs)	Silver (moz)
5.70	Measured	145.3	38.08	0.31	0.40	0.025	2.1	0.74	986.5	1.9	80.7	9.8
	Indicated	2,028.0	19.10	0.14	0.17	0.016	1.4	0.33	6,438.2	10.8	733.2	90.6
	<b>M+I</b>	<b>2,173.3</b>	<b>20.37</b>	<b>0.15</b>	<b>0.18</b>	<b>0.017</b>	<b>1.4</b>	<b>0.36</b>	<b>7,424.7</b>	<b>12.7</b>	<b>813.9</b>	<b>100.4</b>
	Inferred	1,430.2	14.50	0.10	0.14	0.010	1.2	0.24	3,247.6	6.4	324.8	53.3
8	Measured	144.6	38.22	0.31	0.40	0.025	2.1	0.74	985.2	1.9	80.7	9.7
	Indicated	1,898.4	19.93	0.15	0.17	0.017	1.4	0.34	6,319.6	10.5	724.0	87.3
	<b>M+I</b>	<b>2,043.0</b>	<b>21.22</b>	<b>0.16</b>	<b>0.19</b>	<b>0.018</b>	<b>1.5</b>	<b>0.37</b>	<b>7,304.8</b>	<b>12.4</b>	<b>804.7</b>	<b>97.0</b>
	Inferred	1,181.0	16.11	0.12	0.15	0.012	1.2	0.27	3,020.3	5.7	309.8	47.1
16	Measured	139.3	39.19	0.32	0.41	0.026	2.1	0.76	973.4	1.8	80.1	9.5
	Indicated	1,182.3	24.61	0.19	0.21	0.022	1.7	0.42	4,900.0	7.8	583.8	64.2
	<b>M+I</b>	<b>1,321.5</b>	<b>26.15</b>	<b>0.20</b>	<b>0.23</b>	<b>0.023</b>	<b>1.7</b>	<b>0.46</b>	<b>5,873.4</b>	<b>9.6</b>	<b>664.0</b>	<b>73.8</b>
	Inferred	390.0	24.95	0.19	0.21	0.021	1.6	0.42	1,625.0	2.6	180.6	20.6
30	Measured	101.3	44.77	0.36	0.47	0.030	2.3	0.87	799.4	1.5	67.2	7.6
	Indicated	229.6	36.14	0.28	0.31	0.032	2.3	0.62	1,402.1	2.3	163.0	16.9
	<b>M+I</b>	<b>330.9</b>	<b>38.78</b>	<b>0.30</b>	<b>0.36</b>	<b>0.032</b>	<b>2.3</b>	<b>0.70</b>	<b>2,201.5</b>	<b>3.8</b>	<b>230.2</b>	<b>24.5</b>
	Inferred	74.4	39.26	0.32	0.32	0.029	2.4	0.65	521.3	0.8	47.0	5.6

**Table 14-5: Mineral Resource – Leach Material by Various NSR Cutoffs (C\$)**

NSR Cog (\$/t)	Resource Category	Tonnes Mt	NSR (\$/t)	Copper (%)	Gold (g/t)	Silver (g/t)	AuEq (g/t)	Copper (mlbs)	Gold (moz)	Silver (moz)
5.46	Measured	37.2	19.72	0.05	0.45	2.8	0.48	39.3	0.53	3.29
	Indicated	180.2	9.54	0.03	0.21	1.7	0.23	127.2	1.23	10.03
	<b>M+I</b>	<b>217.4</b>	<b>11.28</b>	<b>0.03</b>	<b>0.25</b>	<b>1.9</b>	<b>0.27</b>	<b>166.5</b>	<b>1.76</b>	<b>13.31</b>
	Inferred	31.1	7.60	0.03	0.17	1.7	0.18	17.2	0.17	1.70
8	Measured	35.4	20.36	0.05	0.46	2.8	0.49	38.2	0.53	3.21
	Indicated	107.3	11.43	0.03	0.26	2.0	0.28	71.0	0.89	6.83
	<b>M+I</b>	<b>142.7</b>	<b>13.64</b>	<b>0.03</b>	<b>0.31</b>	<b>2.2</b>	<b>0.33</b>	<b>109.2</b>	<b>1.41</b>	<b>10.04</b>
	Inferred	10.6	9.84	0.02	0.22	2.3	0.24	4.7	0.08	0.79
12	Measured	29.5	22.45	0.05	0.51	3.0	0.54	33.8	0.48	2.88
	Indicated	36.3	14.76	0.03	0.34	2.4	0.36	24.0	0.39	2.83
	<b>M+I</b>	<b>65.8</b>	<b>18.21</b>	<b>0.04</b>	<b>0.41</b>	<b>2.7</b>	<b>0.44</b>	<b>57.8</b>	<b>0.88</b>	<b>5.72</b>
	Inferred	1.1	12.77	0.01	0.30	1.2	0.31	0.1	0.01	0.04
14	Measured	26.6	23.50	0.05	0.54	3.1	0.57	31.0	0.46	2.68
	Indicated	17.9	16.63	0.03	0.38	2.6	0.40	12.3	0.22	1.52
	<b>M+I</b>	<b>44.5</b>	<b>20.73</b>	<b>0.04</b>	<b>0.47</b>	<b>2.9</b>	<b>0.50</b>	<b>43.3</b>	<b>0.68</b>	<b>4.20</b>
	Inferred	0.0	0.00	0.00	0.00	0.0	0.00	0.0	0.00	0.00

### 14.3 MINERAL RESOURCE PARAMETERS

#### 14.3.1 Metal Prices

Table 14-6 shows the economic and recovery parameters for the Mineral Resource estimate. Metal prices for the Mineral Resource estimate are US\$2.75 per pound copper, US\$1,500 per ounce gold, US\$18 per ounce silver and US\$11 per pound moly. A conversion of US\$0.75 = C\$1.00 was used to convert the prices to C\$. IMC believes these prices to be reasonable based on the following: 1) historical 3-year trailing averages, 2) prices used by other companies for comparable projects, and 3) long range consensus price forecasts prepared by various bank economists.

#### 14.3.2 Cost and Recovery Estimates

##### *Mining Cost*

The base mining cost of C\$1.75 per total tonne was estimated by IMC. This estimate was based on likely production rates and equipment requirements and considered typical prices for fuel, blasting agents, equipment parts, and labor, etc.

##### *Processing of Mill Material*

Mill material refers to the supergene oxide, supergene sulphide, and hypogene sulphide zones of the mineral deposit. The processing will be in a conventional sulphide flotation plant that will produce copper and moly concentrates that will be sold to commercial copper smelters and moly roasting plants. The base unit costs for processing and G&A are estimated at C\$5.33 and C\$0.37 per tonne, respectively, provided by M3. The estimated plant recoveries for gold, moly, and silver in the supergene and hypogene zones are shown on Table 14-6. Copper recovery is estimated at 92.2% for hypogene sulphide material. The plant recovery for supergene material is estimated as follows:

$$\text{Copper recovery} = 94\%(\text{Cut}\% - \text{Cuw}\%) / \text{Cut}\%$$

Where,

Cut% = Total copper grade

Cuw% = Weak acid soluble copper grade

The copper, gold, and silver payable percentages shown on Table 14-6 are typical terms for copper concentrates, assuming a clean concentrate with a copper concentrate grade of 28% copper or greater. The off-site cost per pound of copper is estimated at US\$0.437 or C\$0.583. This is based on payment for 96.5% of the copper in concentrate, smelting cost at US\$ 80 per tonne, refining at US\$ 0.80 per pound, and concentrate freight of US\$ 133 per tonne. The moisture content was estimated at 8.0% and 0.5% concentrate loss during shipping. Gold and silver refining is estimated at US\$6.00 per ounce gold and US\$0.50 per ounce silver which amounts to C\$8.00 and C\$0.667 respectively.

Note that the off-site cost for moly is assumed to be accounted in the 85% payable percentage for molybdenum in concentrate, i.e. this is assumed to be the net payable after treatment and transportation charges. This is applicable to a clean moly concentrate with a moly grade of about 50% or greater.

##### *Processing of Leach Material*

Leach material refers to the leach capping of the mineral deposit. Processing is by crushing and heap leaching with cyanide. Gold and silver from the heap leach will report to a typical doré which will be sent to a refinery. The SART process will be used to extract copper from the cyanide solution and produce a copper concentrate that can be sold to

conventional copper smelters. Heap leach ore processing is estimated at C\$5.09 per tonne. The G&A cost of C\$0.37 per tonne is also applied to leach material.

Heap leach recoveries are estimated at 18% for copper, 66% for gold, and 26% for silver. Typical terms for refining costs are shown on Table 14-6. The C\$1.733 per ounce for gold and C\$0.667 for silver are based on US\$1.30 and \$0.50 respectively. The payable percentage is estimated at 98% for gold and silver.

It is also assumed that the SART process will produce a copper concentrate with a grade of about 60% copper. Smelting and refining terms are assumed the same as for the flotation concentrate. This results in a smelting, refining, and freight charge of about US\$0.260 per pound copper or C\$0.346 per pound.

### 14.3.3 NSR Calculations

Due to multiple mineral products and also the variable recovery for copper in the supergene zones, NSR values, in Canadian Dollars, were calculated for each model block to use to classify blocks into potential resource and waste. For the leach material:

$$NSR_{au} = (\$2000 - \$1.733) \times 0.66 \times 0.98 \times \text{gold(g/t)} / 31.103 = C\$41.55 \times \text{gold (g/t)}$$

$$NSR_{cu} = (\$3.67 - \$0.346) \times 0.18 \times 0.965 \times 0.995 \times \text{copper(\%)} \times 22.046 \\ = C\$12.65 \times \text{copper (\%)}$$

$$NSR_{ag} = (\$24.00 - \$0.667) \times 0.26 \times 0.98 \times \text{silver (g/t)} / 31.103 = C\$0.191 \times \text{silver (g/t)}$$

$$NSR = NSR_{au} + NSR_{cu} + NSR_{ag}$$

The internal NSR cutoff for leach material is the processing + G&A cost of C\$5.46 per tonne since all the recoveries and refining costs are accounted for in the NSR calculation. Internal cutoff grade applies to blocks that have to be removed from the pit, so the mining cost is a sunk cost. Internal cutoff is also generally the minimum cutoff that would be evaluated for mine scheduling. The Mineral Resource tabulation for leach material on Table 14-2 is based on the internal cutoff. The breakeven NSR cutoff grade for leach material is C\$7.21 per tonne (mining plus processing and G&A).

For processing of hypogene sulphide material the NSR values are calculated as:

$$NSR_{cu} = (\$3.67 - \$0.583) \times 0.922 \times 0.965 \times 0.995 \times \text{copper(\%)} \times 22.046 \\ = C\$60.18 \times \text{copper(\%)}$$

$$NSR_{au} = (\$2000 - \$8.00) \times 0.66 \times 0.975 \times 0.995 \times \text{gold(g/t)} / 31.103 \\ = C\$41.01 \times \text{gold (g/t)}$$

$$NSR_{mo} = \$14.67 \times 0.786 \times 0.85 \times 0.995 \times \text{moly(\%)} \times 22.046 = C\$214.94 \times \text{moly(\%)}$$

$$NSR_{ag} = (\$24.00 - \$0.667) \times 0.50 \times 0.95 \times 0.995 \times \text{silver(g/t)} / 31.103 \\ = C\$0.355 \times \text{silver(g/t)}$$

$$NSR = NSR_{cu} + NSR_{au} + NSR_{mo} + NSR_{ag}$$

For processing of supergene material, the NSR values are calculated as:

$$NSR_{cu} = (\$3.67 - \$0.583) \times 0.965 \times 0.995 \times \text{rec}_{cu}(\%) \times 22.046 \\ = C\$65.27 \times \text{rec}_{cu}(\%)$$

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$$\begin{aligned} \text{NSR}_{\text{au}} &= (\$2000 - \$8.00) \times 0.69 \times 0.975 \times 0.995 \times \text{gold(g/t)} / 31.103 \\ &= \text{C\$}42.87 \times \text{gold (g/t)} \end{aligned}$$

$$\text{NSR}_{\text{mo}} = \$14.67 \times 0.523 \times 0.85 \times 0.995 \times \text{moly(\%)} \times 22.046 = \text{C\$}142.89 \times \text{moly(\%)}$$

$$\begin{aligned} \text{NSR}_{\text{ag}} &= (\$24.00 - \$0.667) \times 0.60 \times 0.95 \times 0.995 \times \text{silver(g/t)} / 31.103 \\ &= \text{C\$}0.425 \times \text{silver(g/t)} \end{aligned}$$

$$\text{NSR} = \text{NSR}_{\text{cu}} + \text{NSR}_{\text{au}} + \text{NSR}_{\text{mo}} + \text{NSR}_{\text{ag}}$$

where,

$$\text{rec}_{\text{cu}} = 0.94 \times (\text{Cut\%} - \text{Cuw\%})$$

The internal NSR cutoff for flotation is the processing plus G&A cost of C\$5.70. Breakeven NSR cutoff is C\$7.45. The stockpile re-handle cutoff grade is estimated at C\$7.00 per tonne which covers processing plus G&A costs plus mining re-handle estimated at about C\$1.30 per tonne.

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**Table 14-6: Economic Parameters for Mineral Resource (C\$)**

Parameter	Units	Mill Material			Heap Leach
		SOX	SUS	HYP	
<b>Commodity Prices and Exchange Rate:</b>					
Copper Price Per Pound (US\$)	(US\$)	2.75	2.75	2.75	2.75
Gold Price Per Ounce (US\$)	(US\$)	1500.00	1500.00	1500.00	1500.00
Silver Price Per Ounce (US\$)	(US\$)	18.00	18.00	18.00	18.00
Molybdenum Price Per Pound (US\$)	(US\$)	11.00	11.00	11.00	11.00
Exchange Rate (CAD to US\$)	(none)	0.75	0.75	0.75	0.75
Copper Price Per Pound (C\$)	(C\$)	3.67	3.67	3.67	3.67
Gold Price Per Ounce (C\$)	(C\$)	2000.00	2000.00	2000.00	2000.00
Silver Price Per Ounce (C\$)	(C\$)	24.00	24.00	24.00	24.00
Molybdenum Price Per Pound (C\$)	(C\$)	14.67	14.67	14.67	14.67
<b>Mining Cost Per Total Tonne:</b>					
Base Mining Cost	(C\$)	1.750	1.750	1.750	1.750
Sustaining Capital Allowance	(C\$)	0.000	0.000	0.000	0.000
Total Mining Cost	(C\$)	1.750	1.750	1.750	1.750
<b>Processing and G&amp;A Per Ore Tonne</b>					
Processing	(C\$)	5.330	5.330	5.330	5.090
G&A	(C\$)	0.370	0.370	0.370	0.370
Total Processing and G&A	(C\$)	5.700	5.700	5.700	5.460
<b>Average Plant Recoveries:</b>					
Copper Recovery (Note 1)	(%)	61.4%	80.9%	92.2%	18.0%
Gold Recovery	(%)	69.0%	69.0%	66.0%	66.0%
Silver Recovery	(%)	60.0%	60.0%	50.0%	26.0%
Moly Recovery	(%)	52.3%	52.3%	78.6%	N.A.
<b>Refinery Payables:</b>					
Copper Payable	(%)	96.5%	96.5%	96.5%	96.5%
Gold Payable	(%)	97.5%	97.5%	97.5%	98.0%
Silver Payable	(%)	95.0%	95.0%	95.0%	98.0%
Molybdenum Payable	(%)	85.0%	85.0%	85.0%	N.A.
Payable Concentrate (0.5% Conc Loss)	(%)	99.5%	99.5%	99.5%	Cu Only
<b>Offsite Costs:</b>					
Copper SRF Cost Per Pound	(C\$)	0.583	0.583	0.583	0.346
Gold Refining Per Ounce	(C\$)	8.000	8.000	8.000	1.733
Silver Refining Per Ounce	(C\$)	0.667	0.667	0.667	0.667
Molybdenum Freight/Treatment Per Pound	(C\$)	Note 2	Note 2	Note 2	N.A.
<b>NSR Factors:</b>					
Copper Factor (Note 3)	(C\$/t)	40.08	52.81	60.18	12.65
Gold Factor (Note 3)	(C\$/t)	42.87	42.87	41.01	41.55
Silver Factor (Note 3)	(C\$/t)	0.425	0.425	0.355	0.191
Moly Factor (Note 3)	(C\$/t)	142.89	142.89	214.94	N.A.
<b>Equivalency Factors:</b>					
Copper		CuEq	CuEq	CuEq	AuEq
Gold		1.00	1.00	1.00	0.304
Silver		1.070	0.812	0.681	1.00
Moly		0.0106	0.0081	0.0059	0.0046
		3.565	2.706	3.572	N.A.
<b>NSR Cutoff Grades:</b>					
Breakeven Cutoff (C\$/t)	(C\$/t)	7.45	7.45	7.45	7.21
Internal Cutoff (C\$/t)	(C\$/t)	5.70	5.70	5.70	5.46
Stockpile Cutoff (C\$/t) (\$1.30 Rehandle)	(C\$/t)	7.00	7.00	7.00	N.A.
Note 1: Average Recovery based on Recovery = 94% x (Cutotal – CuWAS)/(Cutotal) for SOX and SUS					
Note 2: Moly offsite costs are accounted in payable percentage					
Note 3: NSR factors are applied to model grades, copper factor for SOX and SUS is based on average recovery.					

The copper and gold equivalent grades on the tables account for all metal recoveries and smelting/refining charges. The equivalency factors shown on Table 14-6 are derived from the NSR factors as follows for hypogene sulphide mill material:

$$\text{CuEq\%} = \text{copper(\%)} + (41.01/60.18) \times \text{gold(g/t)} + (214.94/60.18) \times \text{moly(\%)} + (0.355/60.18) \times \text{silver(g/t)}$$
$$\text{CuEq\%} = \text{copper(\%)} + 0.681 \times \text{gold(g/t)} + 3.572 \times \text{moly(\%)} + 0.0059 \times \text{silver (g/t)}$$

The calculations are similar for the other material types.

#### **14.3.4 Slope Angles**

Slope angles recommendations were developed by Knight Piésold Ltd. (KP) and documented in the report “Open Pit Geotechnical Design”, dated October 12, 2012.

Forty-five-degree inter-ramp angles were recommended for most of the slope sectors. The north sectors of the main pit and west pit were recommended to be designed at 42-degree inter-ramp angles. For the small amount of overburden on the north wall the recommended angle was 27 degrees. The slope angle recommendations also specified that there be no more than 200m of vertical wall at the inter-ramp angle without an extra wide catch bench (16 m instead of 8 m).

IMC used an overall slope angle of 41 degrees in the floating cone runs to approximate overall slope angles with the KP inter-ramp angles.

#### **14.4 ADDITIONAL INFORMATION**

The Mineral Resources are classified in accordance with the May 2014 Canadian Institute of Mining, Metallurgy and Petroleum (“CIM”) “CIM Definition Standards – For Mineral Resources and Mineral Reserves” adopted by the CIM Council (as amended, the “CIM Definition Standards”) in accordance with the requirements of NI 43-101. Mineral Reserve and Mineral Resource estimates reflect the reasonable expectation that all necessary permits and approvals will be obtained and maintained.

There is no guarantee that any of the Mineral Resources will be converted to Mineral Reserve. The Inferred Mineral Resources included in this Technical Report meet the current definition of Inferred Mineral Resources. The quantity and grade of Inferred Mineral Resources are uncertain in nature and there has been insufficient exploration to define these inferred Mineral Resources as an Indicated Mineral Resource. It is, however, expected that the majority of Inferred Mineral Resource could be upgraded to Indicated Mineral Resource with continued exploration.

IMC does not believe that there are significant risks to the Mineral Resource estimates based on environmental, permitting, legal, title, taxation, socio-economic, marketing, or political factors. The Project is in a jurisdiction friendly to mining. The most significant risks to the Mineral Resource are related to economic parameters such as prices lower than forecast, recoveries lower than forecast, or costs higher than the current estimates.

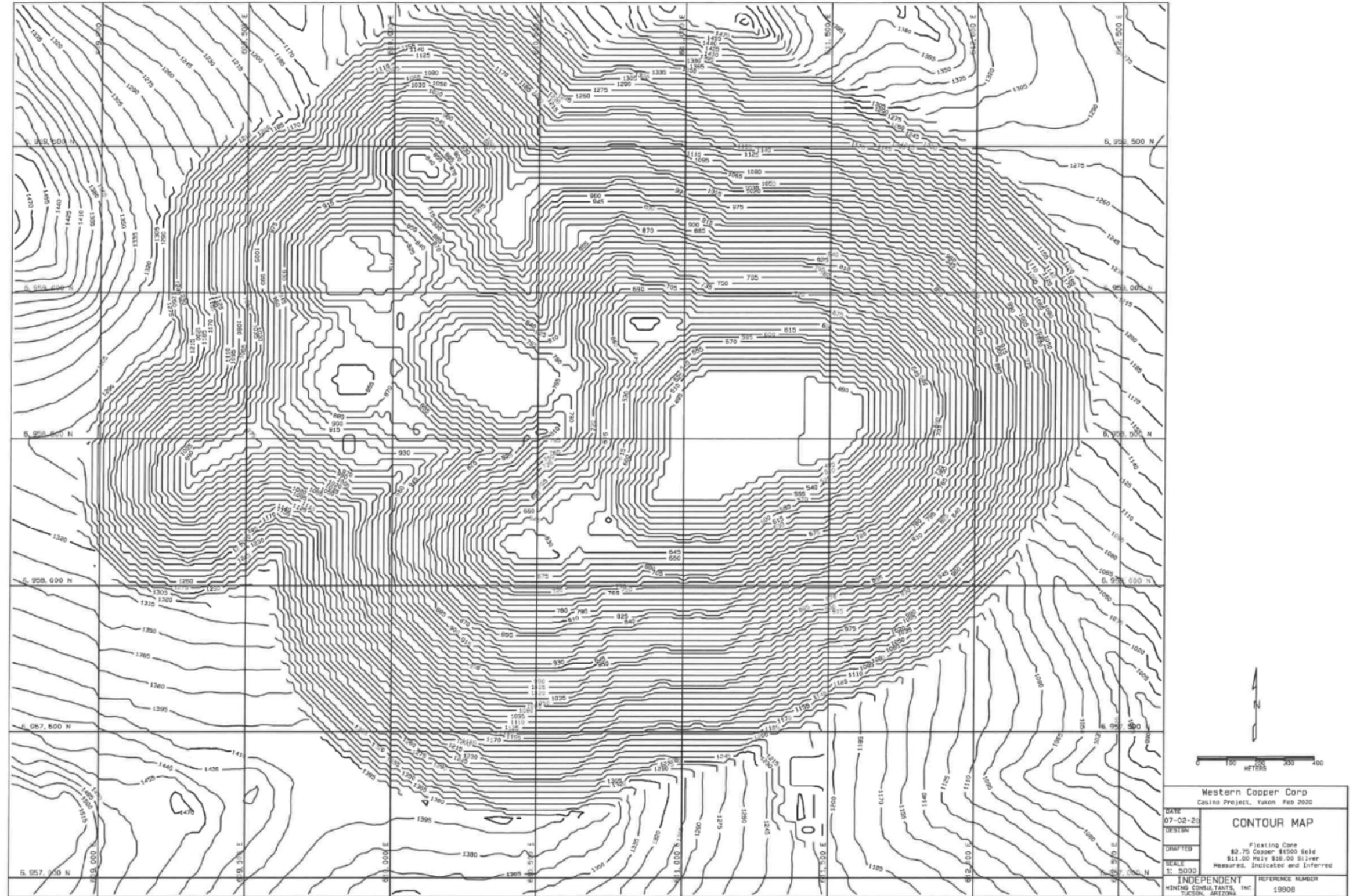


Figure 14-1: Floating Cone Shell for Mineral Resource

**14.5 DESCRIPTION OF THE BLOCK MODEL**

**14.5.1 General**

A 3D block model was developed by IMC during June 2020. The block model is based on 20 m by 20 m by 15 m high blocks. The model is not rotated. The previous resource model of record was developed by G. Giroux during 2010 and was the model used for the most recent Technical Report for the project, dated January 25, 2013.

**14.5.2 Drilling Data**

The drillhole database provided to IMC included 420 holes that represented 116,447 meters of drilling. Table 14-7 summarizes the drilling by date and company.

**Table 14-7: Casino Drilling by Date and Company**

<b>Years</b>	<b>Company</b>	<b>No. of Holes</b>	<b>Metres</b>
1992-1994	Pacific Sentinel Gold Corp.	236	73,085
2008-2012	Western Copper and Gold	112	29,775
2019	Western Copper and Gold	72	13,587
TOTAL		420	116,447

Figure 14-2 shows the hole locations and also the location of cross sections that will be presented for this report. The breakout of the data is slightly different on Figure 14-2 than the table. It is reported to IMC that the 2010 resource model was based on 305 holes and 95,655 meters of drilling. These are the holes marked in blue and termed the “historical” holes. The holes marked in red include geotechnical drilling conducted during 2011 and 2012 and also some 2010 drilling that did not make the cutoff date for the resource model. The holes in green are the new holes added to the database during 2019. It is also noted that the database includes 29 holes and 1,690 meters of drilling that are outside the model limits and not shown on Figure 14-2. These are mostly geotechnical drilling for the foundations of the tailings embankment, the plant, the leach pad and various stockpiles.

The analyses of interest for the study included total copper, weak acid soluble copper, gold, moly, and silver. Also available in the database is a complete suite of multi-element analyses. IMC’s scope of work did not include a detailed review of the drilling data.

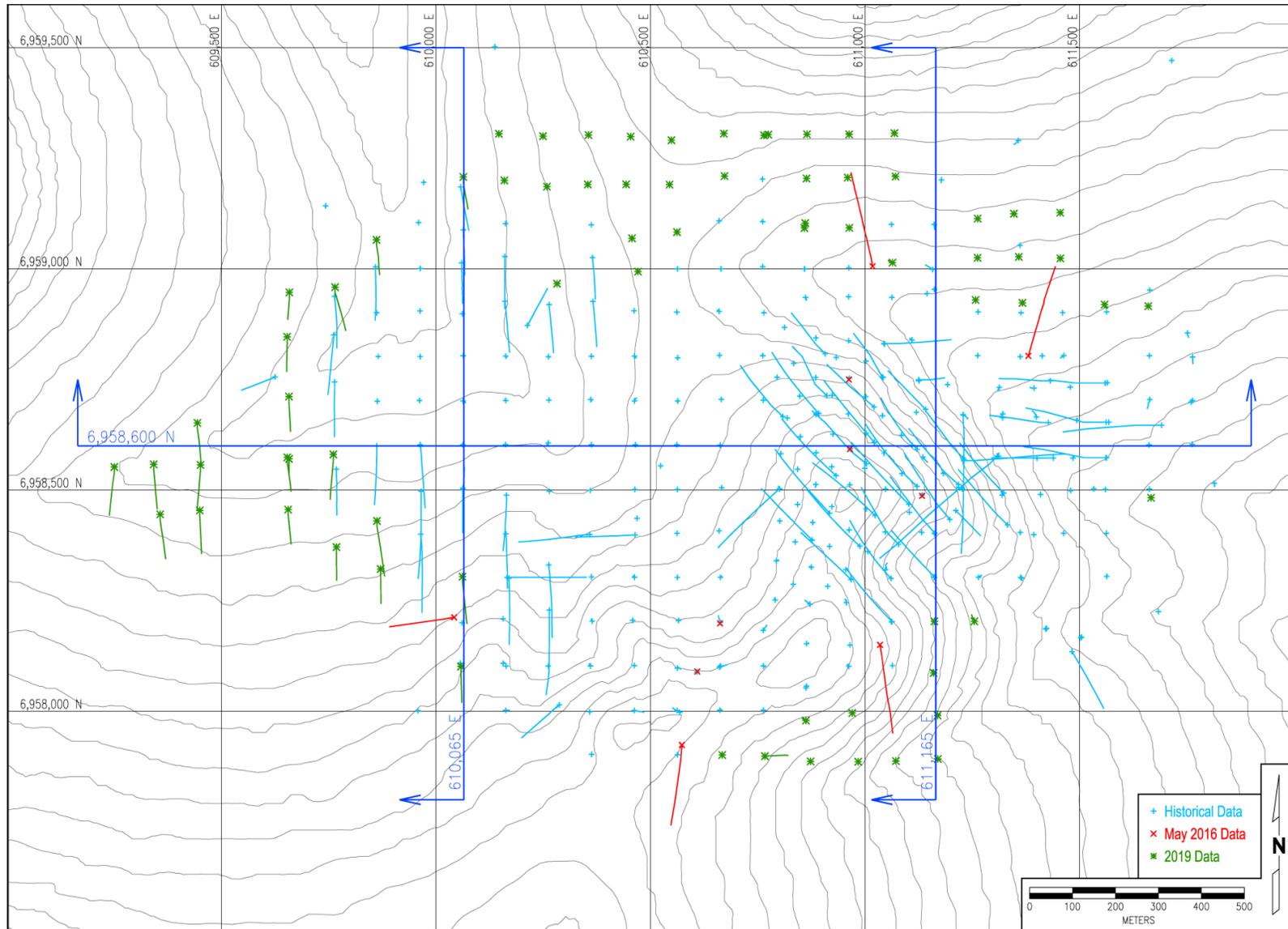


Figure 14-2: Hole Location Map

### 14.5.3 Geologic Controls

#### *Oxidation Zone Types*

The most important geologic control, particularly for copper mineralization, is the oxidation zones. Table 14-8 shows the zone names, codes used for modeling, and a description. The overburden is a relatively thin, highly weathered zone, near the top of current topography. There are some mineralized intervals in the overburden. The leach cap (LC) is a highly oxidized domain where the copper mineralization has largely been dissolved in acids over time and transported to the underlying supergene zones. The gold, silver, and molybdenum mineralization was not subject to the dissolution, at least to any significant degree; in particular there are significant gold values in the LC. The supergene domains have been divided into oxide dominant supergene oxide (SOX) and sulphide dominant supergene sulphide (SUS). Copper from the LC has been deposited in those zones, elevating the copper grade compared to the other domains. The hypogene sulphide (HYP) zone underlies the LC, SOX, and SUS zones. Mineralization is sulphidic in nature; percent of oxidation is very low, typically less than 10%.

Western personnel provided IMC with solids to represent the LC, SOX, SUS, and HYP domains. IMC used these solids to assign oxidation zone types to model blocks. Code 6, waste, was used to denote blocks outside the provided solids. A surface was provided to denote the bottom of overburden. IMC assigned blocks above the leach cap as overburden.

**Table 14-8: Oxidation Zone Types**

Zone	Code	Description
OVB	1	Overburden
LC	2	Leach Cap
SOX	3	Supergene Oxide
SUS	4	Supergene Sulphide
HYP	5	Hypogene Sulphide
WST	6	Waste – Peripheral to Above Solids

IMC also used the solids to back-assign the oxide domain codes to the assay database. It is noted that the assay database did include an oxide domain assignment from logging, but IMC used the back-assigned values for modeling so assay intervals would be consistent with the domains they are located.

Figure 14-3 and Figure 14-4 show the oxide zones on east-west and north-south cross sections, respectively. It can be seen that most of the Mineral Resource is in hypogene sulphide material.

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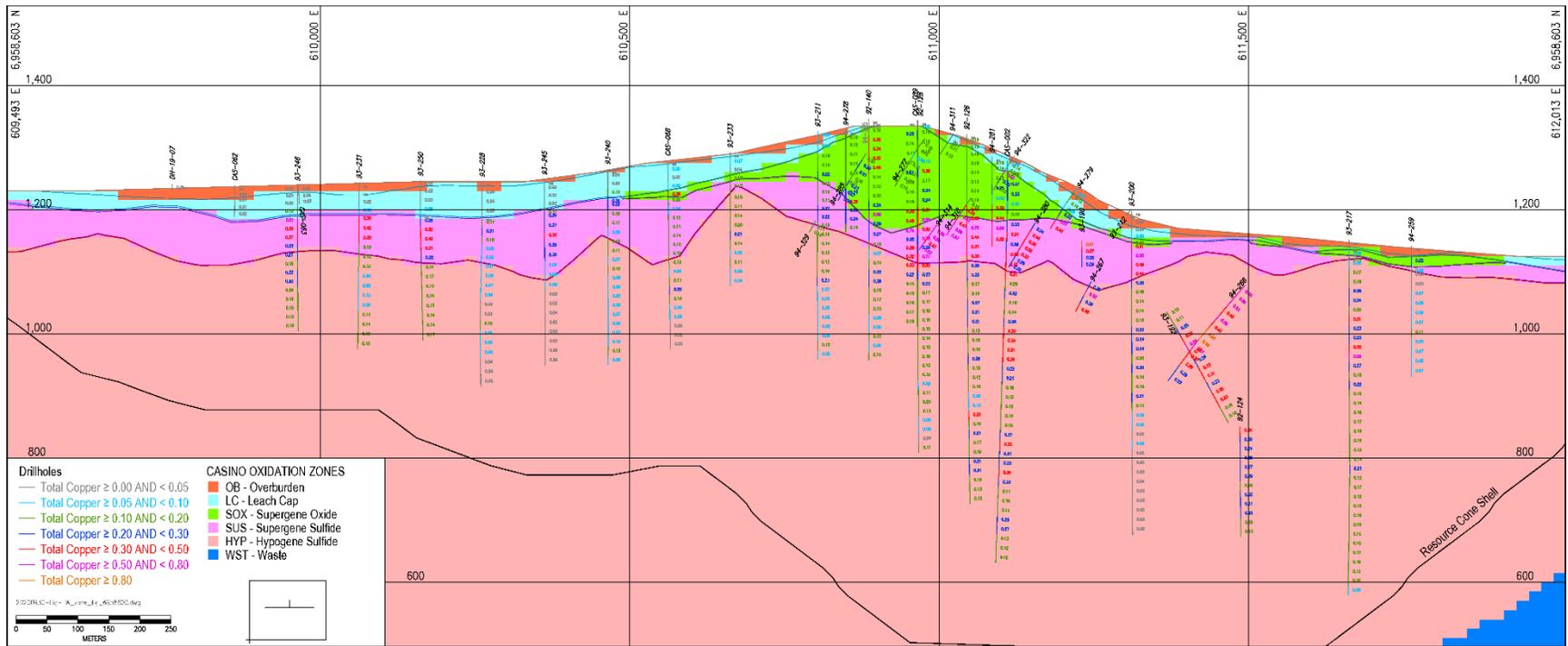


Figure 14-3: Oxidation Domains on East-West Section 6,958,600N

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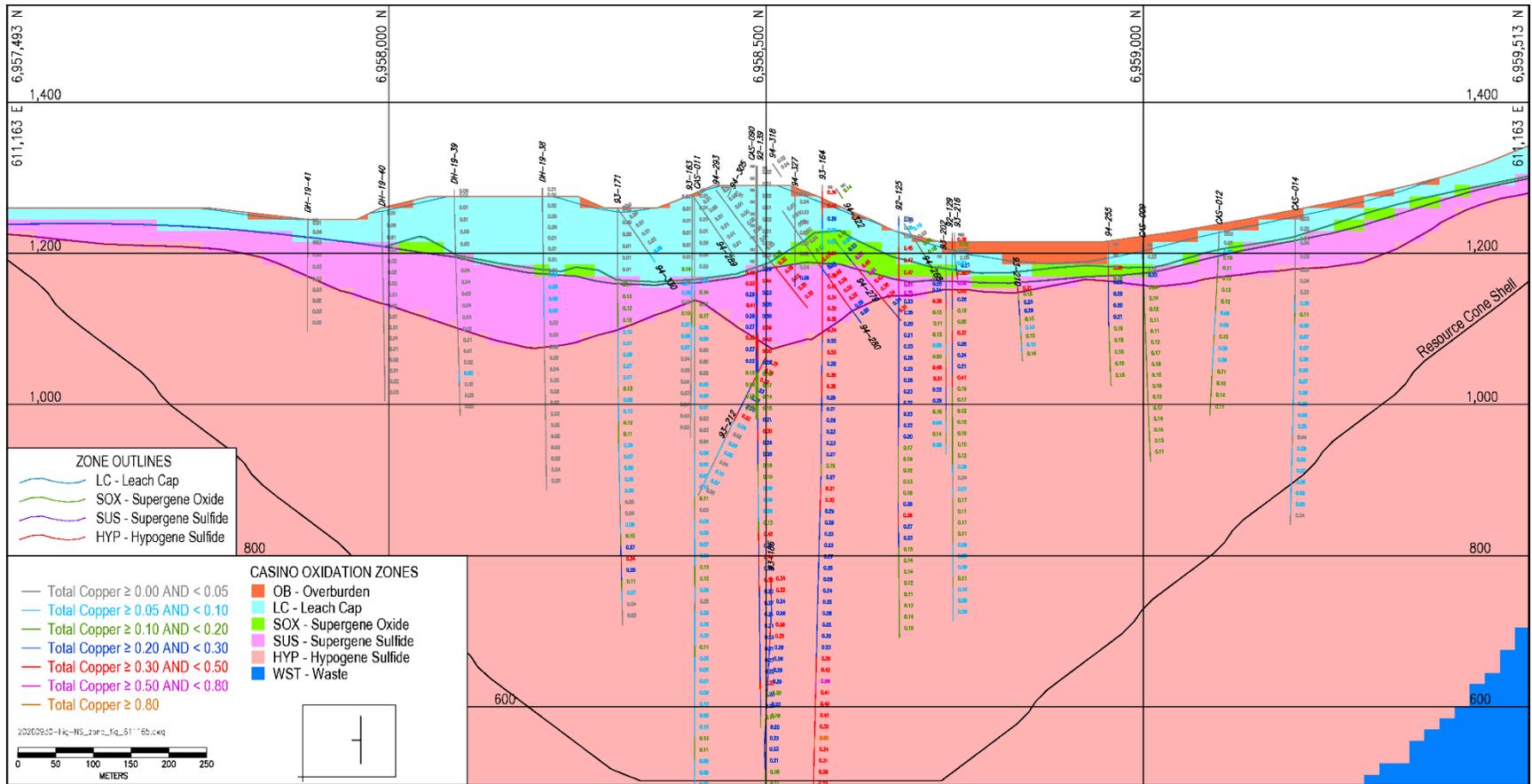


Figure 14-4: Oxidation Domains on North-South Section 611,165E

*Rock Types*

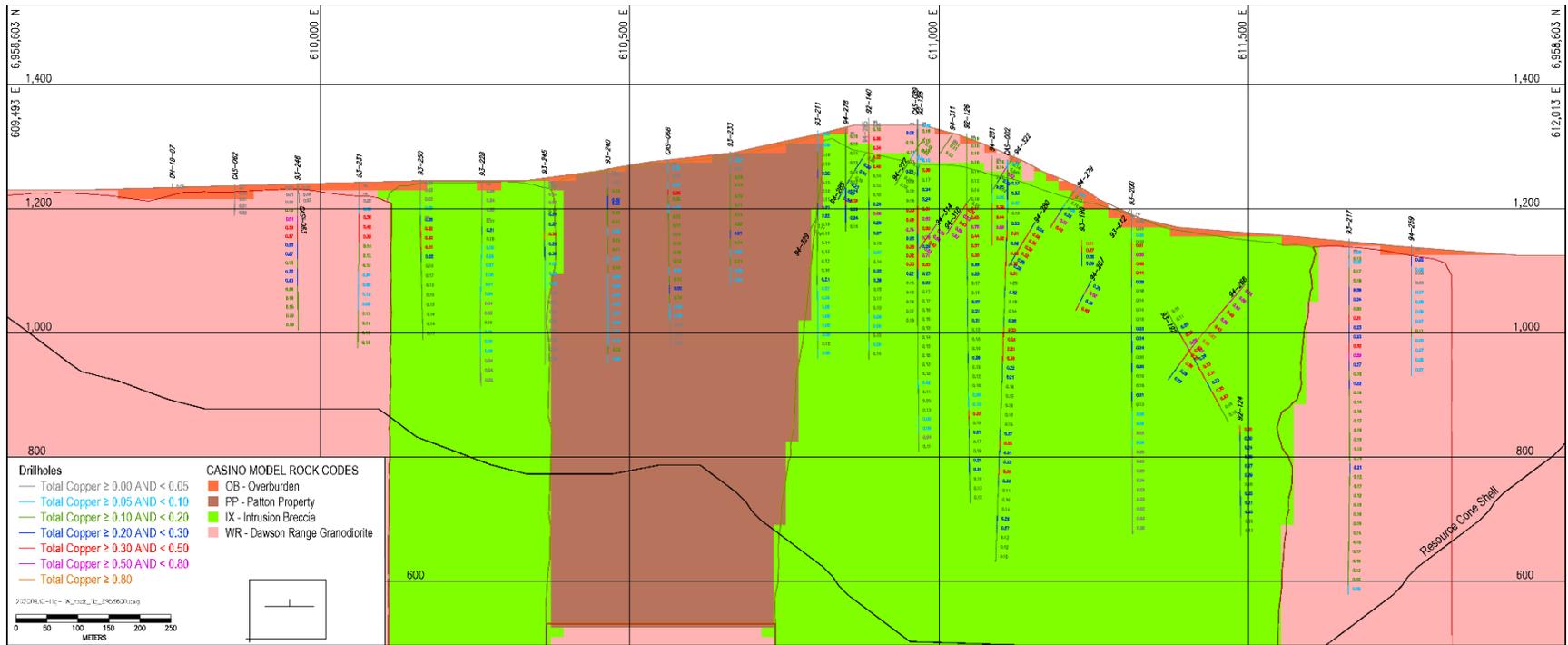
Rock type interpretations for four major rock types plus the overburden have been developed as 3D solids or a surface for the overburden. Table 14-9 shows the rock types. Figure 14-5 shows the rock types on east-west cross section 6,958,600N. It can be seen that the main host rock is the Dawson Range Granodiorite which has been intruded by the Intrusion Breccia and the Patton Porphyry. The third intrusion, the Post Mineral Explosive Breccia (MX) to the southwest of the pit, is post mineral in character.

IMC used the solids to assign rock codes to the model blocks. Rock codes were also assigned to the assay database by back-assignment from the solids. Note that there were rock type designations in the assay database, but the back-assigned values were used for the resource model so the assay assignments would be consistent with the block they were located.

**Table 14-9: Model Rock Types**

<b>Rock</b>	<b>Code</b>	<b>Description</b>
OVB	1	Overburden
PP	2	Patton Porphyry
IX	3	Intrusion Breccia
WR	4	Dawson Range Granodiorite
MX	5	Post Mineral Explosive Breccia

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**Figure 14-5: Rock Types on East-West Section 6,958,600N**

#### 14.5.4 Cap Grades and Compositing

IMC reviewed the database to determine cap grades for the various minerals. The distribution of the length of sample intervals, when copper is assayed, is approximately as follows:

- About 24% are less than 3 m in length,
- About 69% are 3 m or 3.05 m (10 US ft), and
- About 7% are longer than 3.05 m.

IMC considers that a relatively consistent 3 m sample interval was used for the drilling and that cap grades may reasonably be applied to the assays.

IMC examined probability plots and sorted lists of the higher-grade assay intervals for copper, gold, moly, and silver by oxidation zones to determine cap grades. Table 14-10 shows the cap grades in the upper portion of the table and number of assays capped in the lower portion of the table. It can be seen that relatively small numbers of assays were capped for each metal in each population. The cap grades generally correspond to the upper 99.8 to 99.9 percentile of the populations.

The assay database was composited to nominal 7.5 m downhole composites, respecting the oxidation zones. It is noted this is one-half of the 15 m bench height used for the model. The smaller composite length allows capturing some of the narrowing zones and also tends to result in less grade smoothing during block grade estimation. Composited values included the total copper, weak acid soluble copper, gold, moly, and silver assays, the soluble copper to total copper ratio, and the rock type and oxidation zone codes.

The interpretation of nominal 7.5 m composites is described next. As noted, the composites do not cross oxidation zone boundaries. Composites within a zone are divided into equal length composites as close as possible to the target length. For example, a 28 m zone of supergene sulfide is composited into four 7 m composites. With this algorithm 93% of the composites are between 7 m and 8 m in length and 97.4% of the composites are between 6.5 m and 8.5 m in length; IMC does not consider the slight difference in the lengths of the composite's material for grade estimation purposes.

**Table 14-10: Cap Grades and Number of Assays Capped**

<b>Metal</b>	<b>Units</b>	<b>OB</b>	<b>LC</b>	<b>SOX</b>	<b>SUS</b>	<b>HYP</b>	<b>WST</b>
Copper	(%)	none	0.70	1.60	2.00	1.70	none
Gold	(g/t)	none	2.00	2.10	3.20	3.75	1.50
Moly	(%)	none	0.20	0.17	0.70	0.26	0.10
Silver	(g/t)	none	35.0	25.0	25.0	95.0	33.0
Number of Assays Capped							
<b>Metal</b>	<b>Units</b>	<b>OB</b>	<b>LC</b>	<b>SOX</b>	<b>SUS</b>	<b>HYP</b>	<b>WST</b>
Copper	(none)	0	5	5	3	12	0
Gold	(none)	0	8	8	7	11	4
Moly	(none)	0	9	8	6	9	1
Silver	(none)	0	11	8	5	12	4

#### 14.5.5 Descriptive Statistics

Table 14-11 shows descriptive statistics for total copper, gold, moly and silver for the assay intervals. The table shows values by the oxidation zones. The left side of the table shows uncapped values and the right side shows capped values. For copper it can be seen that values in the overburden and leach cap are very low, values in the SOX and SUS are somewhat elevated, and values in the hypogene tend to be lower than the supergene. Gold, moly, and silver do not have the corresponding depletion of values in the leach cap. Mean gold and moly grades are slightly elevated in the SOX compared to SUS. The table includes only non-zero values for each population, though many have placeholders for below detection limit values.

Table 14-12 shows descriptive statistics for the 7.5 m composites. The table includes only non-zero values, but zero value assays are incorporated into the composites.

Figure 14-6 shows a probability plot of total copper grades for the composites for the various oxidation type domains. Figure 14-7 shows the probably plot for gold.

Table 14-11: Summary Statistics of Assays

Metal/Domain	Not Capped					Capped				
	No. of Samples	Mean (%)	Std Dev (%)	Max (%)	Min (%)	No. of Samples	Mean (%)	Std Dev (%)	Max (%)	Min (%)
Copper:										
All Samples	38,968	0.154	0.175	5.63	0.000	38,968	0.154	0.170	2.00	0.000
Overburden	343	0.035	0.048	0.34	0.001	343	0.035	0.048	0.34	0.001
Leach Cap	6,246	0.045	0.068	1.36	0.000	6,246	0.045	0.065	0.70	0.000
Supergene Oxide	3,088	0.216	0.226	2.90	0.001	3,088	0.215	0.220	1.60	0.001
Supergene Sulfide	7,308	0.245	0.228	2.70	0.000	7,308	0.245	0.226	2.00	0.000
Hypogene	21,333	0.152	0.148	5.63	0.000	21,333	0.151	0.138	1.70	0.000
Waste	650	0.022	0.046	0.41	0.000	650	0.022	0.046	0.41	0.000
Metal/Domain	No. of Samples	Mean (g/t)	Std Dev (g/t)	Max (g/t)	Min (g/t)	No. of Samples	Mean (g/t)	Std Dev (g/t)	Max (g/t)	Min (g/t)
Gold:										
All Samples	38,744	0.233	0.696	99.96	0.003	38,744	0.227	0.246	3.75	0.003
Overburden	343	0.203	0.237	1.85	0.011	343	0.203	0.237	1.85	0.011
Leach Cap	6,238	0.293	1.290	99.96	0.003	6,238	0.277	0.265	2.00	0.003
Supergene Oxide	3,088	0.380	0.329	2.64	0.003	3,088	0.380	0.326	2.10	0.003
Supergene Sulfide	7,305	0.248	0.356	18.79	0.003	7,305	0.244	0.259	3.20	0.003
Hypogene	21,206	0.194	0.572	55.10	0.003	21,206	0.188	0.208	3.75	0.003
Waste	564	0.089	0.256	3.29	0.003	564	0.082	0.194	1.50	0.003
Metal/Domain	No. of Samples	Mean (%)	Std Dev (%)	Max (%)	Min (%)	No. of Samples	Mean (%)	Std Dev (%)	Max (%)	Min (%)
Moly:										
All Samples	38,588	0.0175	0.0293	1.240	0.0001	38,588	0.0174	0.0274	0.700	0.0001
Overburden	343	0.0124	0.0167	0.110	0.0001	343	0.0124	0.0167	0.110	0.0001
Leach Cap	6,230	0.0157	0.0224	0.363	0.0001	6,230	0.0156	0.0210	0.200	0.0001
Supergene Oxide	3,086	0.0218	0.0285	0.815	0.0001	3,086	0.0214	0.0231	0.170	0.0001
Supergene Sulfide	7,302	0.0190	0.0450	1.240	0.0001	7,302	0.0188	0.0420	0.700	0.0001
Hypogene	21,113	0.0174	0.0242	0.707	0.0001	21,113	0.0173	0.0233	0.260	0.0001
Waste	514	0.0035	0.0108	0.157	0.0001	514	0.0034	0.0095	0.100	0.0001
Metal/Domain	No. of Samples	Mean (g/t)	Std Dev (g/t)	Max (g/t)	Min (g/t)	No. of Samples	Mean (g/t)	Std Dev (g/t)	Max (g/t)	Min (g/t)
Silver:										
All Samples	38,552	1.92	51.09	9999.9	0.10	38,552	1.63	3.18	95.0	0.10
Overburden	344	1.25	1.47	18.0	0.10	344	1.25	1.47	18.0	0.10
Leach Cap	6,235	2.03	4.84	200.0	0.10	6,235	1.94	2.47	35.0	0.10
Supergene Oxide	3,086	1.96	2.91	70.2	0.10	3,086	1.91	2.20	25.0	0.10
Supergene Sulfide	7,298	1.63	2.31	116.0	0.10	7,298	1.61	1.79	25.0	0.10
Hypogene	21,060	1.99	69.02	9999.9	0.10	21,060	1.51	3.79	95.0	0.10
Waste	529	1.91	13.57	290.0	0.10	529	1.32	4.16	33.0	0.10

Table 14-12: Summary Statistics of 7.5m Composites

Metal/Domain	Not Capped					Capped				
	No. of Samples	Mean (%)	Std Dev (%)	Max (%)	Min (%)	No. of Samples	Mean (%)	Std Dev (%)	Max (%)	Min (%)
Copper:										
All Samples	14,910	0.155	0.162	3.70	0.000	14,910	0.155	0.157	1.94	0.000
Overburden	109	0.033	0.042	0.30	0.001	109	0.033	0.042	0.30	0.001
Leach Cap	2,425	0.045	0.060	0.82	0.001	2,425	0.045	0.058	0.63	0.001
Supergene Oxide	1,163	0.219	0.201	1.61	0.002	1,163	0.218	0.198	1.35	0.002
Supergene Sulfide	2,738	0.249	0.209	2.26	0.000	2,738	0.249	0.207	1.94	0.000
Hypogene	8,237	0.153	0.135	3.70	0.000	8,237	0.153	0.127	1.59	0.000
Waste	238	0.024	0.047	0.33	0.000	238	0.024	0.047	0.33	0.000
Metal/Domain	No. of Samples	Mean (g/t)	Std Dev (g/t)	Max (g/t)	Min (g/t)	No. of Samples	Mean (g/t)	Std Dev (g/t)	Max (g/t)	Min (g/t)
Gold:										
All Samples	14,879	0.233	0.348	24.24	0.000	14,879	0.228	0.213	3.16	0.000
Overburden	109	0.197	0.232	1.41	0.015	109	0.197	0.232	1.41	0.015
Leach Cap	2,424	0.286	0.541	24.24	0.003	2,424	0.276	0.236	1.74	0.003
Supergene Oxide	1,163	0.385	0.296	1.99	0.005	1,163	0.384	0.294	1.99	0.005
Supergene Sulfide	2,737	0.253	0.286	8.80	0.011	2,737	0.249	0.227	2.53	0.011
Hypogene	8,216	0.194	0.292	14.41	0.000	8,216	0.189	0.168	3.16	0.000
Waste	230	0.079	0.180	1.64	0.001	230	0.072	0.139	1.00	0.001
Metal/Domain	No. of Samples	Mean (%)	Std Dev (%)	Max (%)	Min (%)	No. of Samples	Mean (%)	Std Dev (%)	Max (%)	Min (%)
Moly:										
All Samples	14,833	0.0177	0.0257	0.715	0.0000	14,833	0.0176	0.0247	0.630	0.0000
Overburden	109	0.0131	0.0177	0.078	0.0001	109	0.0131	0.0177	0.078	0.0001
Leach Cap	2,422	0.0156	0.0207	0.316	0.0001	2,422	0.0154	0.0194	0.200	0.0001
Supergene Oxide	1,163	0.0219	0.0234	0.349	0.0001	1,163	0.0215	0.0205	0.160	0.0001
Supergene Sulfide	2,737	0.0195	0.0403	0.715	0.0001	2,737	0.0193	0.0388	0.630	0.0001
Hypogene	8,190	0.0176	0.0208	0.317	0.0001	8,190	0.0176	0.0203	0.237	0.0001
Waste	212	0.0031	0.0074	0.066	0.0000	212	0.0031	0.0069	0.053	0.0000
Metal/Domain	No. of Samples	Mean (g/t)	Std Dev (g/t)	Max (g/t)	Min (g/t)	No. of Samples	Mean (g/t)	Std Dev (g/t)	Max (g/t)	Min (g/t)
Silver:										
All Samples	14,807	1.78	16.40	1962.5	0.00	14,807	1.62	2.38	91.8	0.00
Overburden	109	1.31	1.39	9.8	0.20	109	1.31	1.39	9.8	0.20
Leach Cap	2,424	2.03	4.25	175.7	0.10	2,424	1.94	2.16	35.0	0.10
Supergene Oxide	1,163	1.97	2.26	35.2	0.10	1,163	1.92	1.79	18.0	0.10
Supergene Sulfide	2,734	1.64	1.62	40.7	0.10	2,734	1.62	1.40	17.8	0.10
Hypogene	8,161	1.75	21.93	1962.5	0.10	8,161	1.50	2.76	91.8	0.10
Waste	216	1.12	3.19	29.3	0.00	216	0.92	1.83	13.6	0.00

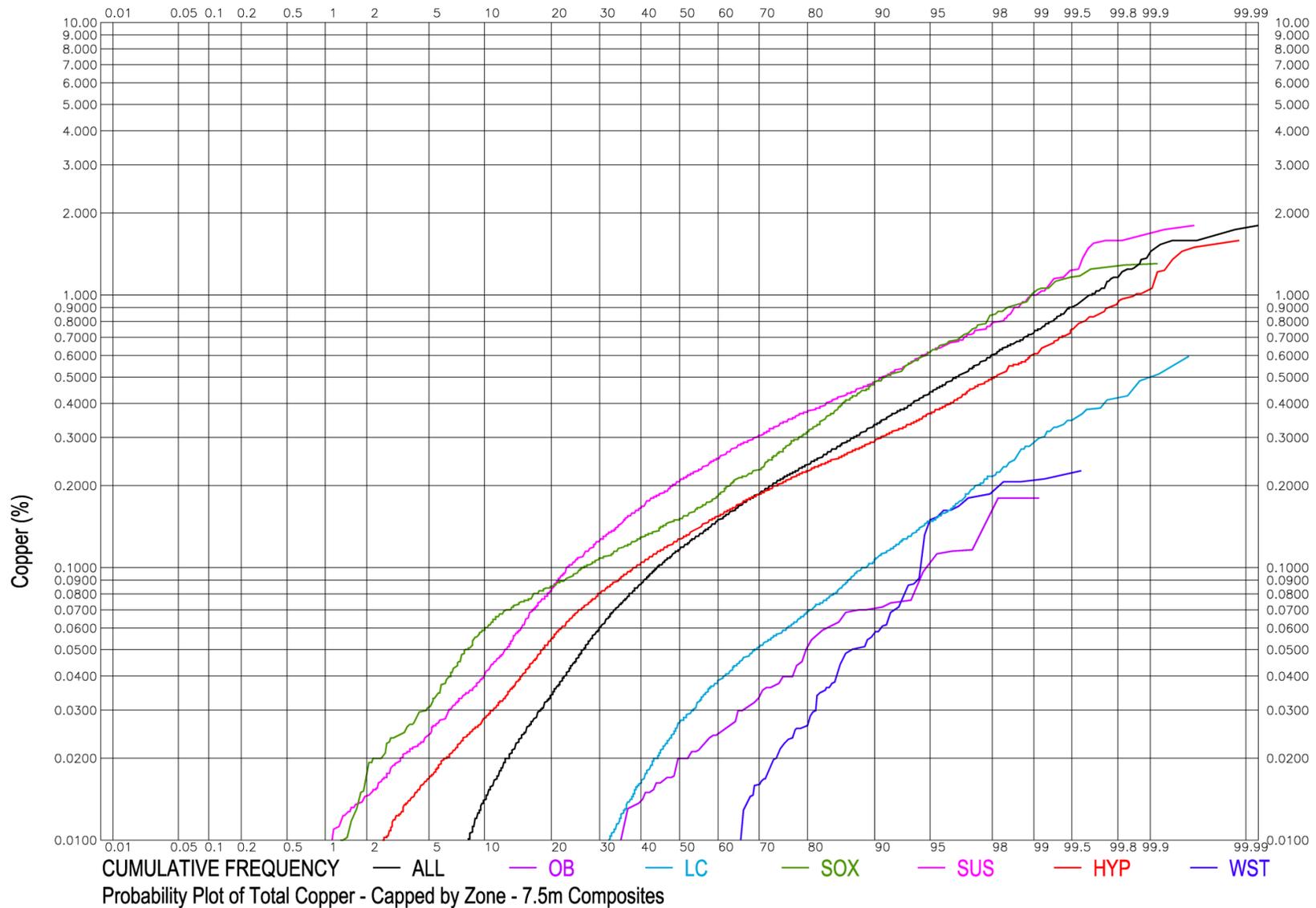


Figure 14-6: Probability Plot of Total Copper Composites by Oxidation Type

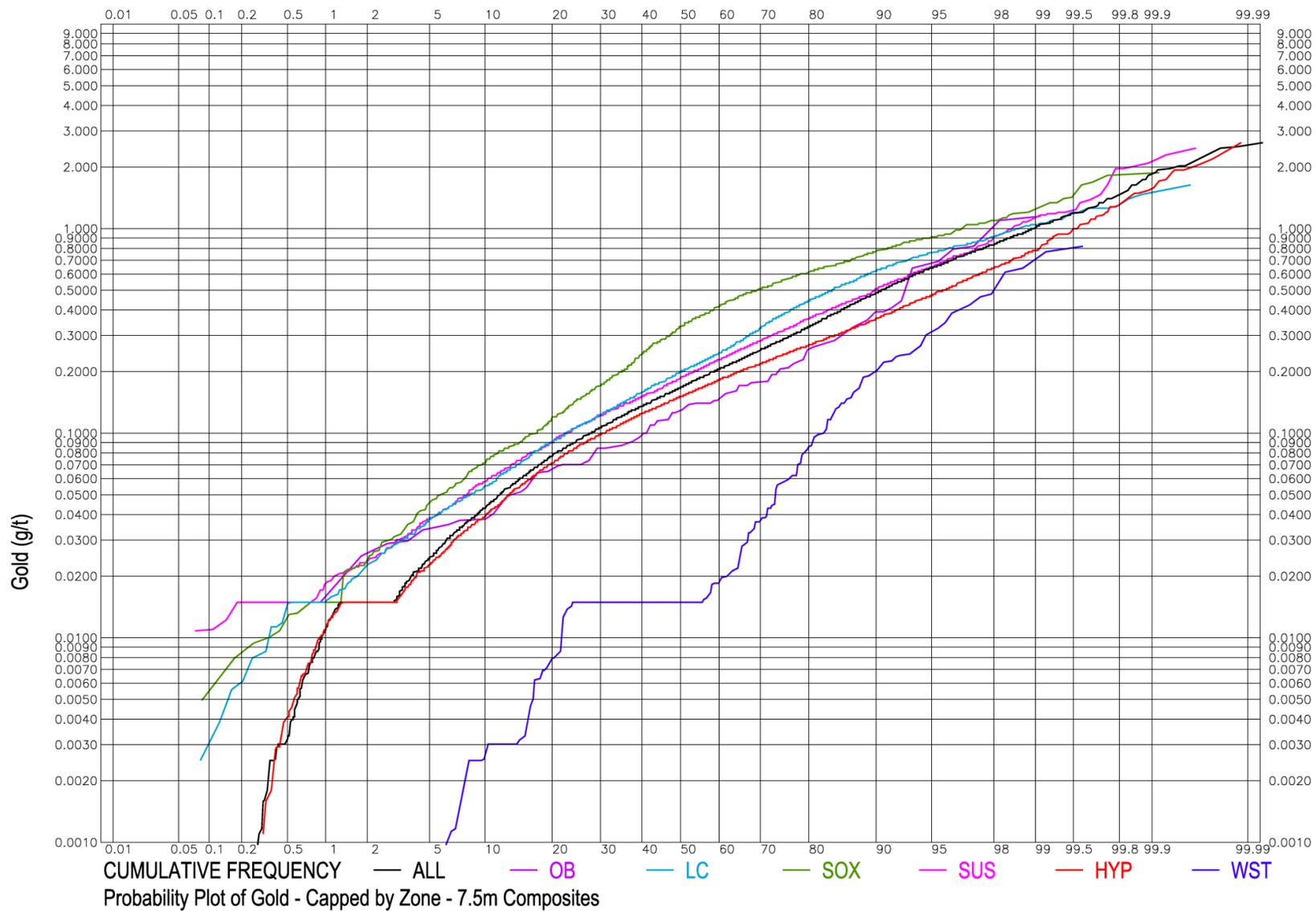


Figure 14-7: Probability Plot of Gold Composites by Oxidation Type

#### 14.5.6 Variogram Analysis

##### *Copper*

IMC conducted variogram analyses of total copper by oxidation type domains. The analysis was based on the 7.5m composites. The leach cap, supergene oxide, and supergene sulphide domains are relatively flat lying and the distribution of copper mineralization appears to not vary much by direction. Figure 14-8 and Figure 14-9 show variograms for supergene oxide and supergene sulphide respectively. These variograms are calculated as the average of all horizontal directions which is consistent with the relatively flat lying mineralization in these domains. The ranges of the first variogram structures are 172 m for supergene oxide and 263 m for supergene sulphide. The variograms are of good clarity.

For the hypogene sulphide, IMC ran variograms in many directions. The various directional variograms tended to be similar, indicating a somewhat isotropic distribution of copper mineralization. Figure 14-10 shows the variogram for hypogene sulphide copper calculated as the average in all directions. The variogram has good clarity and the range of the first structure is 293 m. Geologic inference suggests that the range of influence should be slightly longer in the east-west direction than the north-south direction. This is indicated in the variograms. Figure 14-11 and Figure 14-12 show variograms for hypogene sulphide in the east-west and north-south directions respectively.

The variograms were calculated with the pairwise relative variogram method. The variogram values shown on the graphs would be multiplied by the mean squared to convert them to % total copper units.

##### *Gold, Moly and Silver*

Variograms were also calculated for gold, moly and silver. For these metals there no evidence of significant grade changes across oxidation domain boundaries, so the calculations combined the data for all zones. As with copper, mineralization tends to be somewhat isotropic. Figure 14-13 shows the variogram for gold. The variogram has good clarity and the range of influence of the first structure is over 200 m. Though not shown, the moly and silver variograms are also of good clarity and reasonably long ranges.

PAIRWISE RELATIVE VARIOGRAM OF: cap\_cu  
 GLOBAL VARIOGRAM (AVG. OF ALL DIRECTIONS)  
 Azimuth: 0.0 Dip: 0.0 MARCH 9, 2020

Pairwise Relative Variogram  
 \* variogram analysis of : cap\_cu  
 data transformation : none  
 lag option : 1 class size 50.  
 file/variogram number : gamm-pairSOX-50-cap\_ 3

azimuth	0.0	direction	North
dip angle	0.0	mean	0.2460
horizontal window	90.0	variance	0.0418
vertical window	90.0	no. of samples	995

spherical: c 0.1730E+00 range0.1725E+03  
 spherical: c 0.5920E-01 range0.7275E+03  
 nugget 0.1791E+00 sill 0.4113E+00

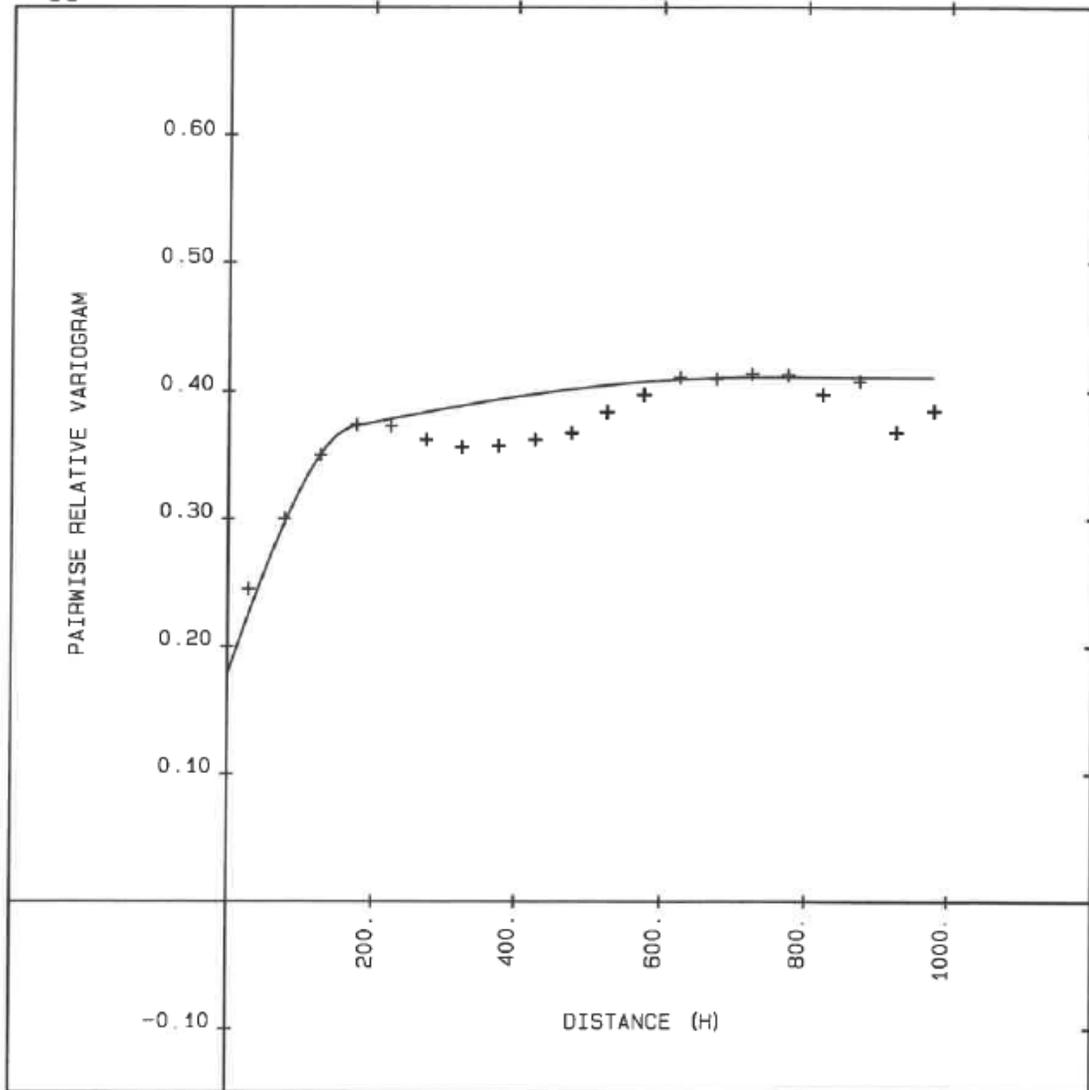


Figure 14-8: Total Copper Variogram – Supergene Oxide

PAIRWISE RELATIVE VARIOGRAM OF: cap\_cu  
 GLOBAL VARIOGRAM (AVG. OF ALL DIRECTIONS)  
 Azimuth: 0.0 Dip: 0.0 MARCH 9, 2020

Pairwise Relative Variogram  
 \* variogram analysis of : cap\_cu  
 data transformation : none  
 lag option : 1 class size 50.  
 file/variogram number : gamm-pair-SUS-50-cap 3

azimuth	0.0	direction	North
dip angle	0.0	mean	0.2520
horizontal window	90.0	variance	0.0411
vertical window	90.0	no. of samples	2885

spherical: c 0.1463E+00 range 0.2631E+03  
 spherical: c 0.2252E+00 range 0.8831E+03  
 nugget 0.1106E+00 sill 0.4821E+00

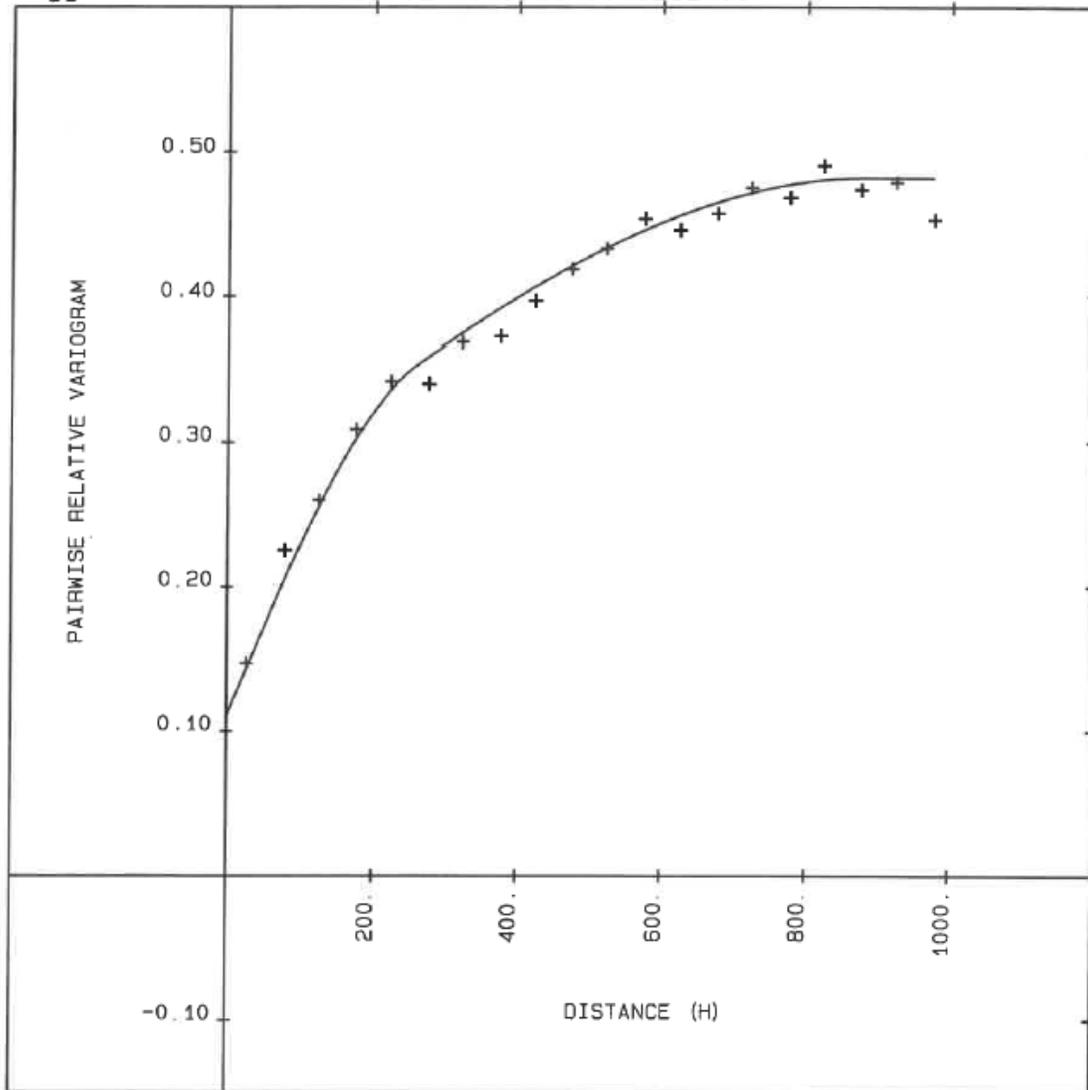


Figure 14-9: Total Copper Variogram – Supergene Sulphide

Total Copper in Hypogene  
 GLOBAL VARIOGRAM (AVG. OF ALL DIRECTIONS)  
 Azimuth: 0.0 Dip: 90.0 APRIL 3, 2020

Pairwise Relative Variogram  
 \* variogram analysis of : cap\_cu  
 data transformation : none  
 lag option : 1 class size 50.  
 file/variogram number : gamm-pairHYP-50.avg 3

azimuth 0.0 direction North  
 dip angle 90.0 mean 0.1580  
 horizontal window 90.0 variance 0.0155  
 vertical window 90.0 no. of samples 7560

spherical: c 0.2276E+00 range0.2933E+03  
 spherical: c 0.1335E+00 range0.6416E+03  
 nugget 0.8509E-01 sill 0.4462E+00

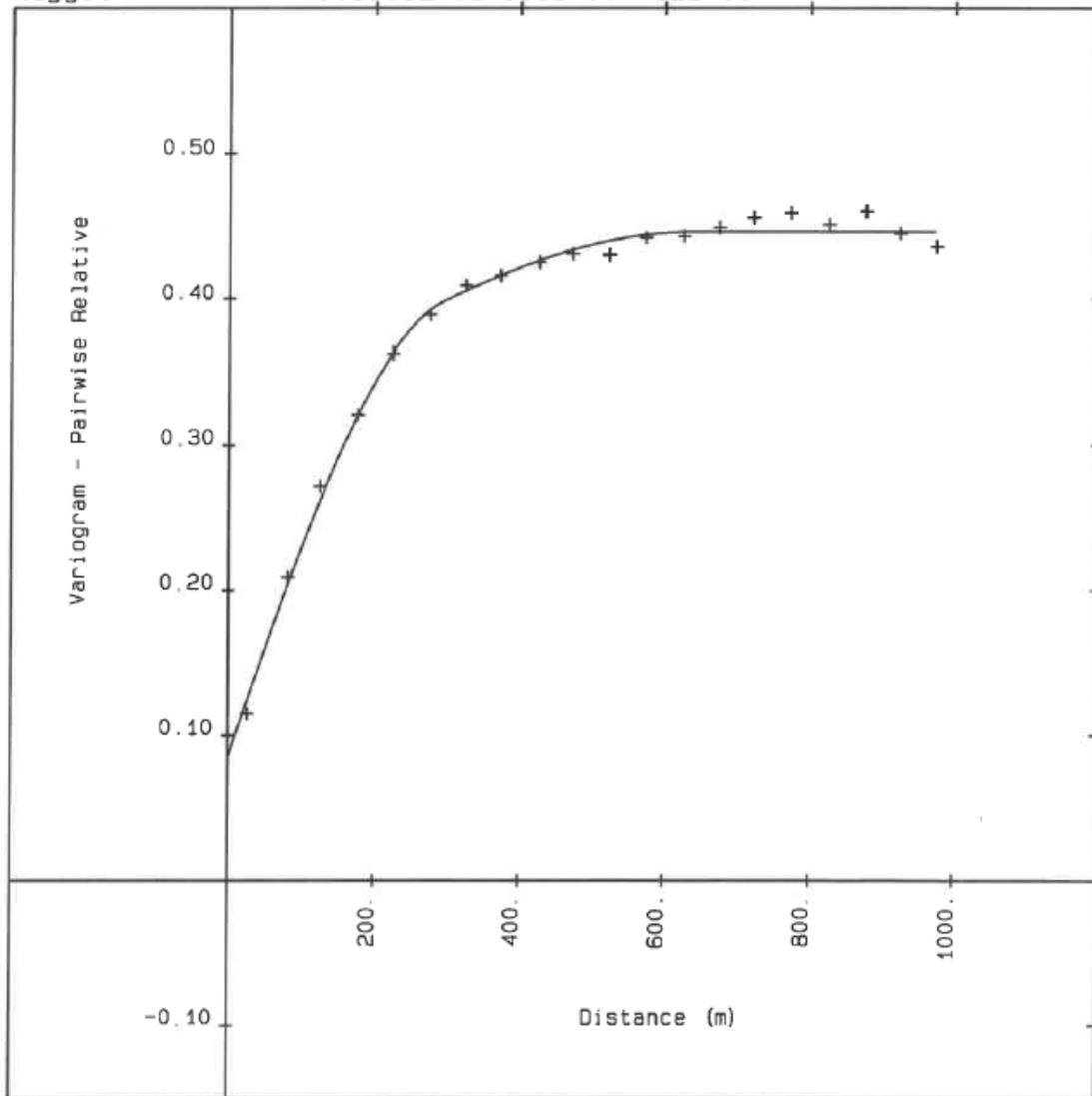


Figure 14-10: Total Copper Variogram – Hypogene Sulphide - Global

Total Copper in Hypogene  
 East - NO DIP  
 Azimuth: 90.0 Dip: 0.0 APRIL 3, 2020

Pairwise Relative Variogram  
 \* variogram analysis of : cap\_cu  
 data transformation : none  
 lag option : 1 class size 50.  
 file/variogram number : gamm-pairHYP-50.avg 8

azimuth 90.0 direction East  
 dip angle 0.0 mean 0.1580  
 horizontal window 15.0 variance 0.0155  
 vertical window 15.0 no. of samples 7560

spherical: c 0.2508E+00 range0.3188E+03  
 spherical: c 0.1509E+00 range0.7716E+03  
 nugget 0.7464E-01 sill 0.4764E+00

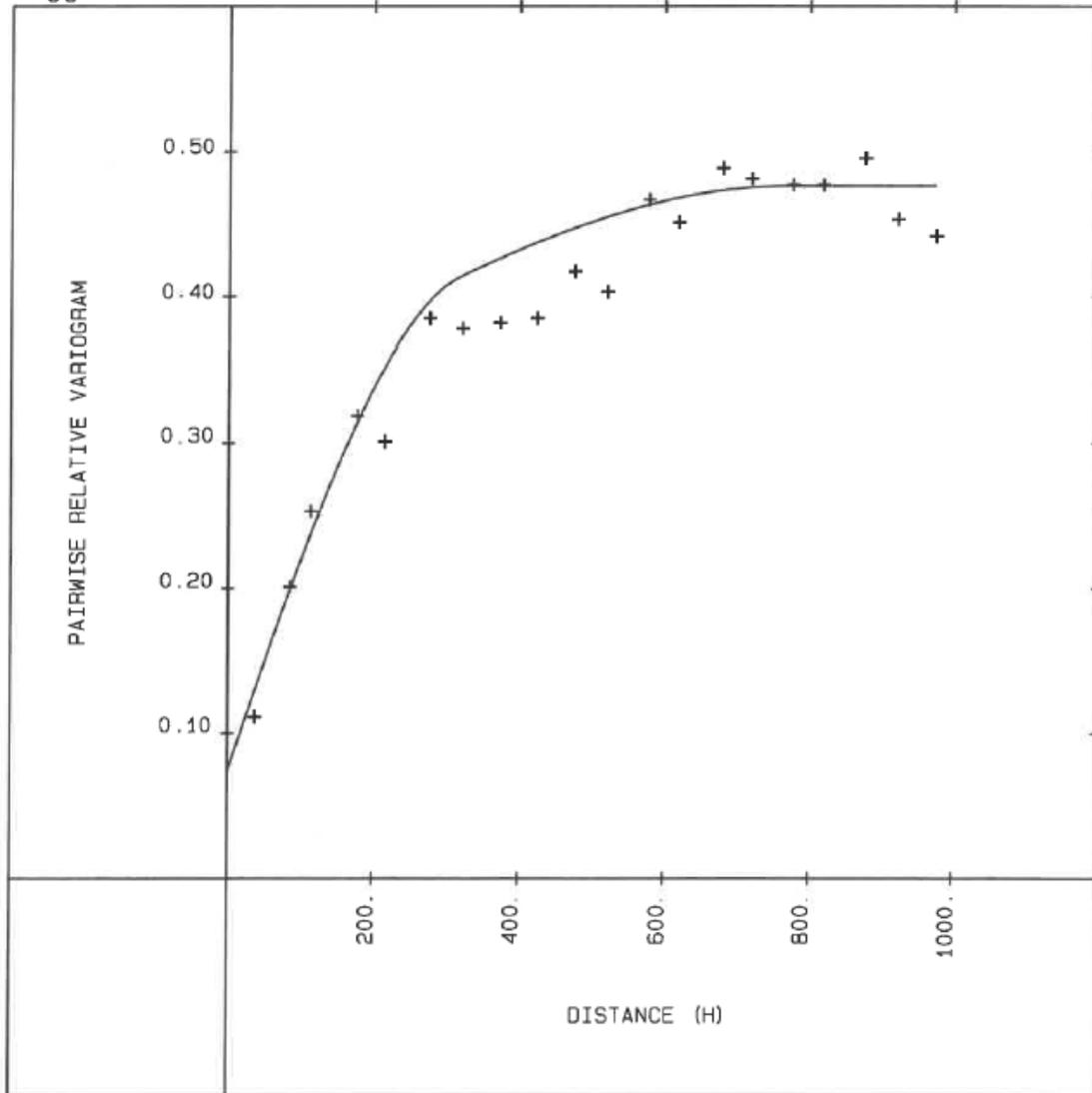


Figure 14-11: Total Copper Variogram – Hypogene Sulphide – East-West

Total Copper in Hypogene  
 North - NO DIP  
 Azimuth: 0.0 Dip: 0.0 APRIL 3, 2020

Pairwise Relative Variogram  
 \* variogram analysis of : cap\_cu  
 data transformation : none  
 lag option : 1 class size 50  
 file/variogram number : gamm-pairHYP-50.avg 4

azimuth 0.0 direction North  
 dip angle 0.0 mean 0.1580  
 horizontal window 15.0 variance 0.0155  
 vertical window 15.0 no. of samples 7560

spherical: c 0.2589E+00 range0.2724E+03  
 spherical: c 0.1834E+00 range0.5510E+03  
 nugget 0.7813E-01 sill 0.5205E+00

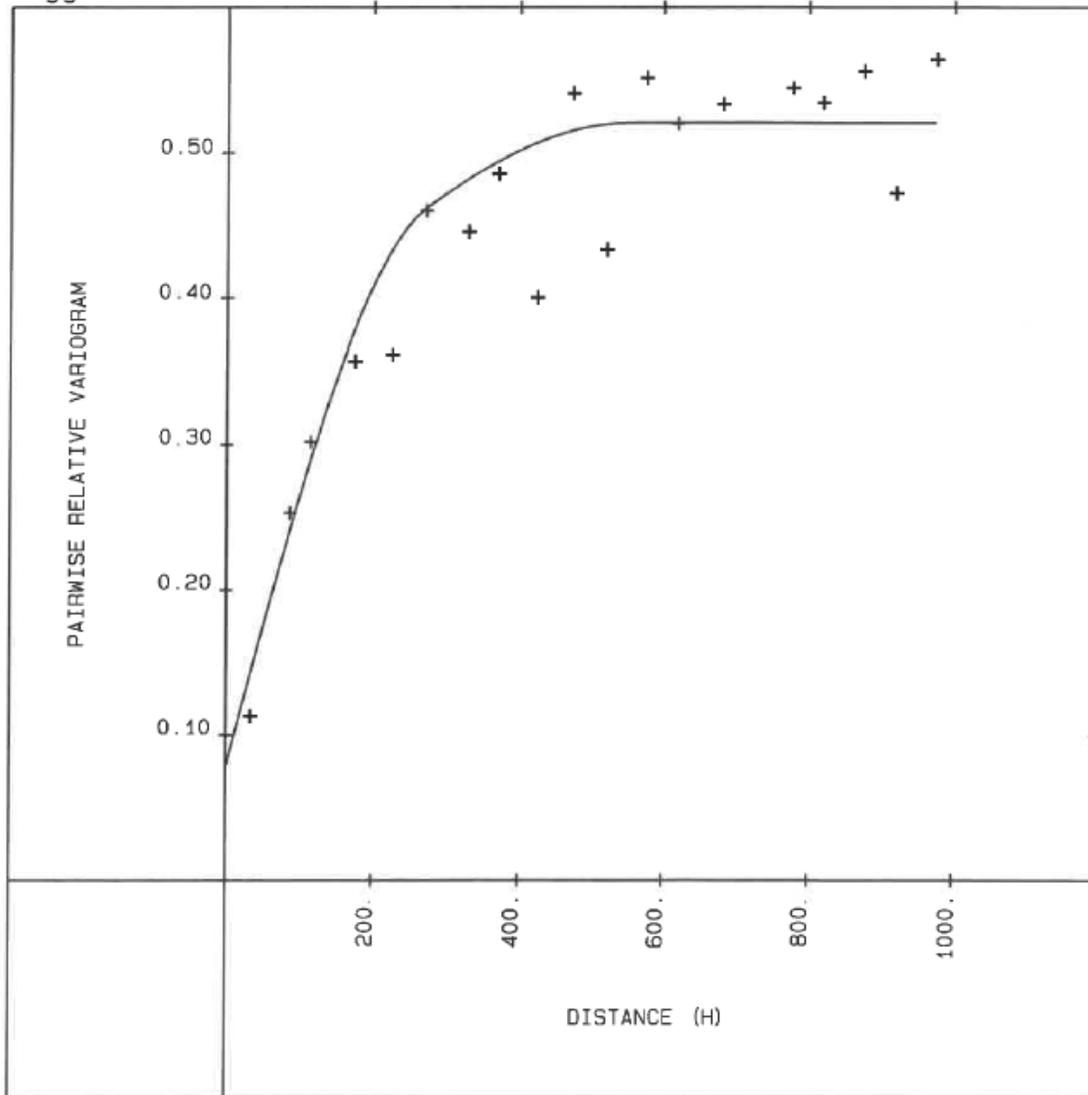


Figure 14-12: Total Copper Variogram – Hypogene Sulphide – North-South

PAIRWISE RELATIVE VARIOGRAM OF: cap\_au  
 GLOBAL VARIOGRAM (AVG. OF ALL DIRECTIONS)  
 Azimuth: 0.0 Dip: 0.0 MARCH 10, 2020

Pairwise Relative Variogram  
 \* variogram analysis of : cap\_au  
 data transformation : none  
 lag option : 1 class size 50.  
 file/variogram number : gamm-pairALL-cap\_au. 3

azimuth	0.0	direction	North
dip angle	0.0	mean	0.2370
horizontal window	90.0	variance	0.0456
vertical window	90.0	no. of samples	13908

spherical: c 0.7369E-01 range0.2073E+03  
 spherical: c 0.2987E+00 range0.5348E+03  
 nugget 0.1217E+00 sill 0.4941E+00

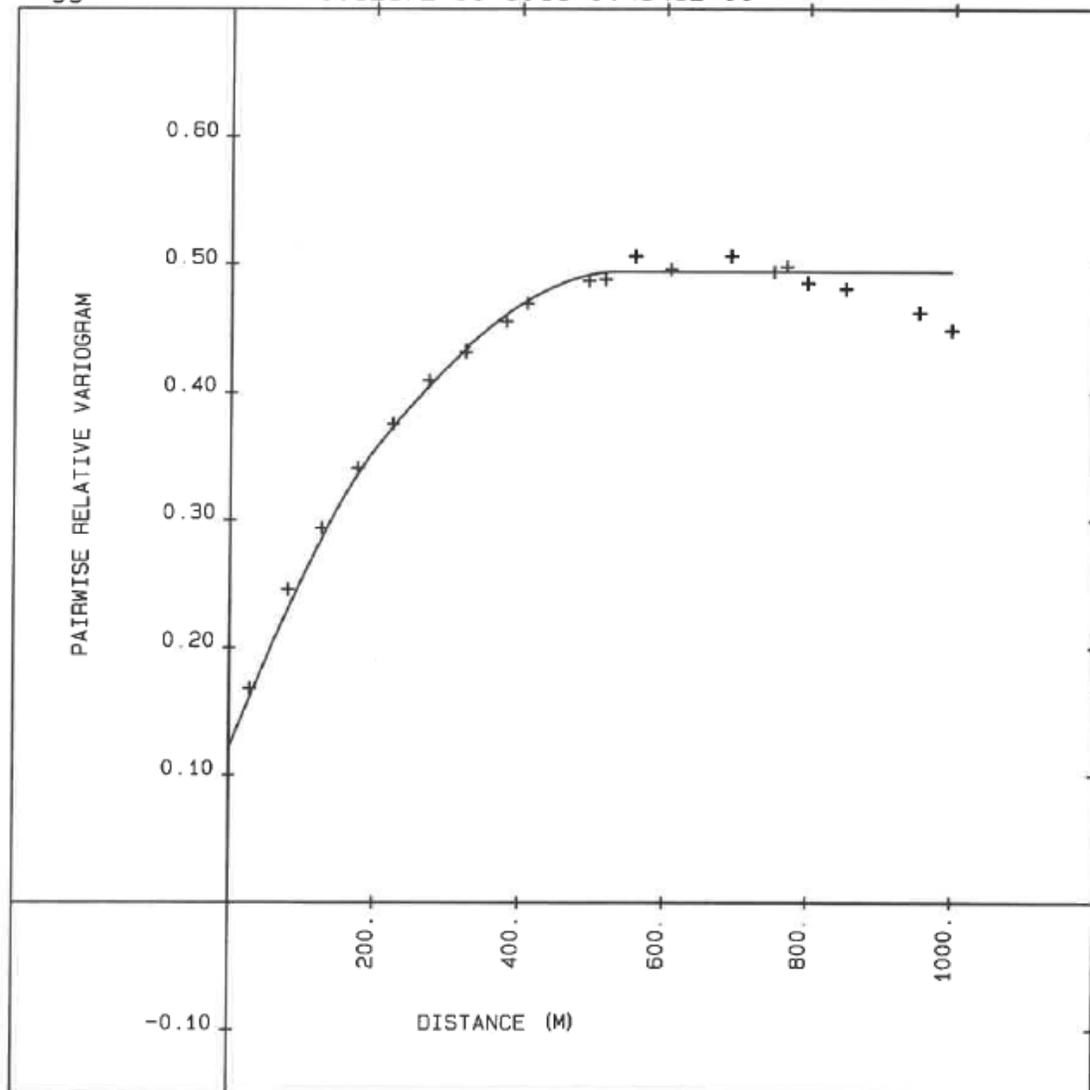


Figure 14-13: Gold Variogram

#### 14.5.7 Block Grade Estimation

Block grades for total copper, weak acid soluble copper, gold, moly and silver were estimated with inverse distance with a power weight of 2 (ID2). The ID2 method was chosen because it generally results in less grade smoothing (smearing) than ordinary kriging (OK). Estimates were also done by OK, inverse distance with a power weight of 3 (ID3), and nearest neighbor (NN) for comparison purposes. The ID2, OK, and ID3 estimates were done with the 7.5 m composites. 15 m composites were used for the NN estimate.

##### *Total and Soluble Copper*

The leach cap, supergene oxide, supergene sulphide, and hypogene sulphide oxidation type boundaries were all considered hard boundaries for the estimation of total copper and weak acid soluble copper. The waste domain was not estimated; it is well outside the drilling data. Grades were also not estimated for overburden blocks. For the 2010 model supergene oxide and supergene sulphide were lumped into a single domain for total and soluble copper based on consideration of total copper grades. IMC believes this assumption was reasonable for total copper, but there are differences in soluble copper in the domains that indicate they should not be combined.

In terms of rock types, the Post Mineral Explosive Breccia was considered a separate domain, but the Patton Porphyry, Intrusion Breccia, and Dawson Range Granodiorite were combined into a single population. This was also the assumption for the 2010 work, and IMC agrees with it.

For leach cap, supergene oxide, and supergene sulphide the search radii for the estimations were 200 m (circular) in the horizontal direction and 30 m in the vertical direction. These search radii are well within the variogram ranges and are adequate to fill in the block grades. A maximum of 15 composites, a minimum of one composite, and a maximum of three composites per hole were used.

For hypogene sulphide the search radii were 220 m in the east-west direction, 180 m in the north-south direction, and 100 m in the vertical direction. A maximum of 24 composites, a minimum of two composites, and a maximum of six composites per hole were used.

Figure 14-14 and Figure 14-15 show copper grades on an east-west and north-south cross section respectively.

Soluble copper block grade estimates were also conducted for the leach cap, supergene oxide, and supergene sulphide domains. Soluble copper estimates were not done for hypogene sulphide. Soluble copper assays were generally not done for hypogene material. There were some slight adjustments to the database for the soluble copper estimates. There were 97 assay intervals where soluble copper exceeded total copper; these were capped at the total copper grade. After estimation there were 213 blocks with the soluble copper estimate higher than total copper; these were capped at the total copper grade.

##### *Gold, Moly, and Silver*

For gold, moly and silver the oxidation type boundaries were not considered hard boundaries for estimation. There is no evidence of significant changes in grade across the boundaries. The rock type populations were the same as for copper, the Post Mineral Explosive Breccia was considered a separate domain from the other rock types.

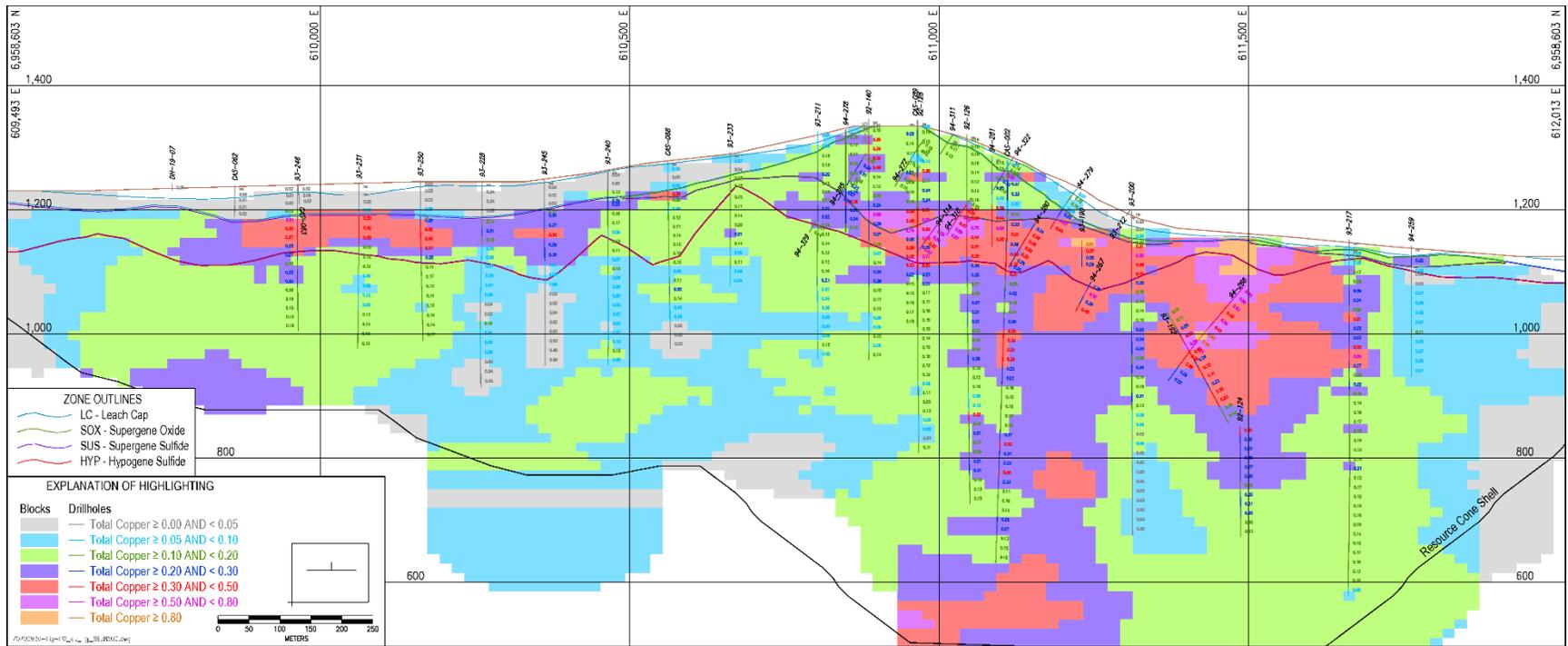
Search radii parameters were the same as for copper. For leach cap, supergene oxide, and supergene sulphide the search radii were 200 m (circular) in the horizontal direction and 30 m in the vertical direction. A maximum of 15 composites, a minimum of one composite, and a maximum of three composites per hole were used. For hypogene sulphide the search radii were 220 m in the east-west direction, 180 m in the north-south direction, and 100 m in the vertical direction and maximum of 24 composites, a minimum of two composite, and a maximum of six composites per hole were used.

Figure 14-16 and Figure 14-17 show gold grades on an east-west and north-south section respectively.

*Arsenic, Antimony, and Bismuth*

Block grade estimates were also conducted for arsenic, antimony, and bismuth. The methodology and search parameters were the same as for gold, moly, and silver, i.e. there is no indication of significant changes in mineralization across the oxidation type domains. The Post Mineral Explosive Breccia was considered as a separate domain from the other rock types. Minor capping of the assays was conducted. Arsenic was capped at 3,000 ppm, antimony at 1,000 ppm, and bismuth at 400 ppm.

**CASINO PROJECT  
FORM 43-101F1 TECHNICAL REPORT – MINERAL RESOURCE STATEMENT**



**Figure 14-14: Total Copper Grades on East-West Cross Section 6,958,600N**

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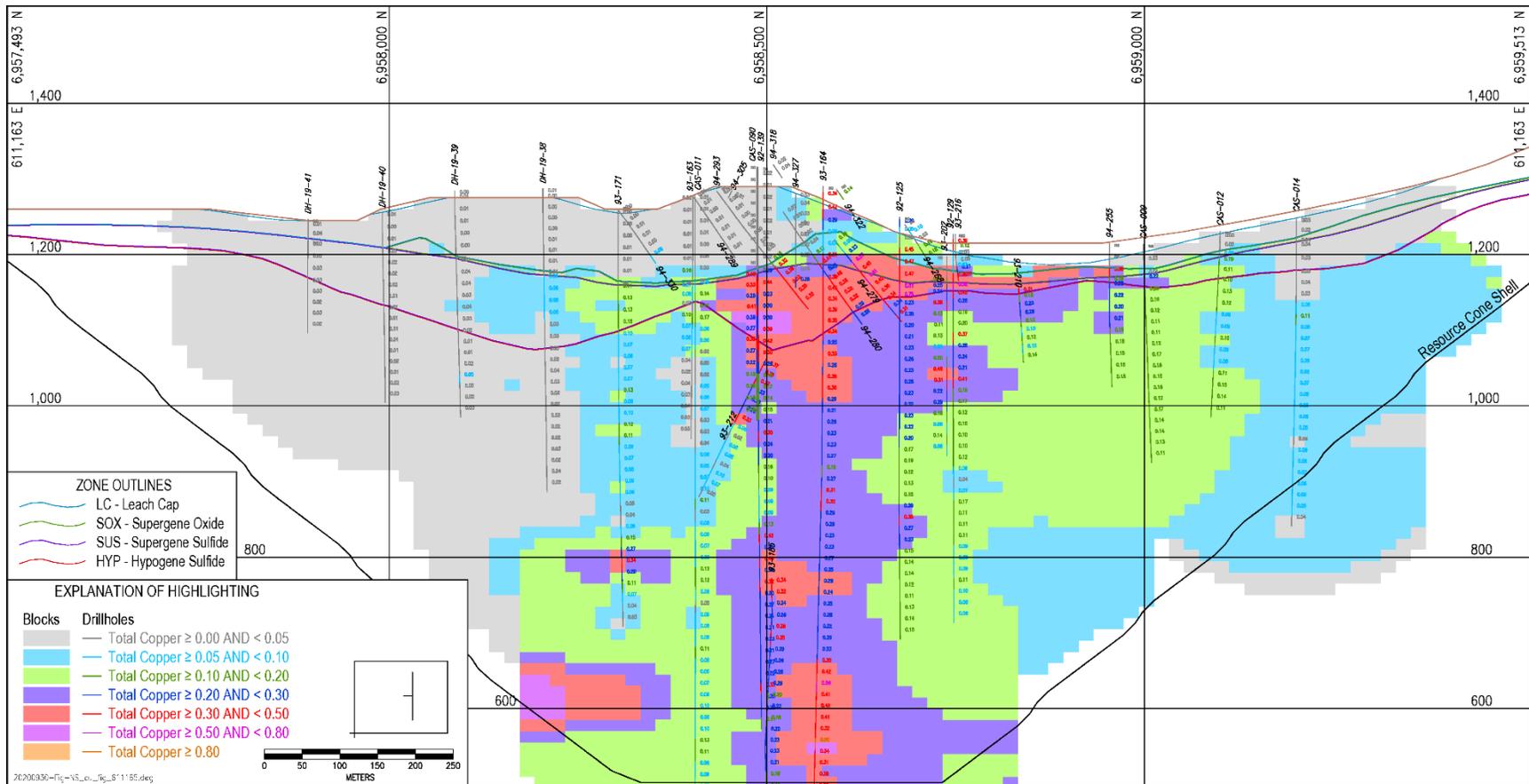
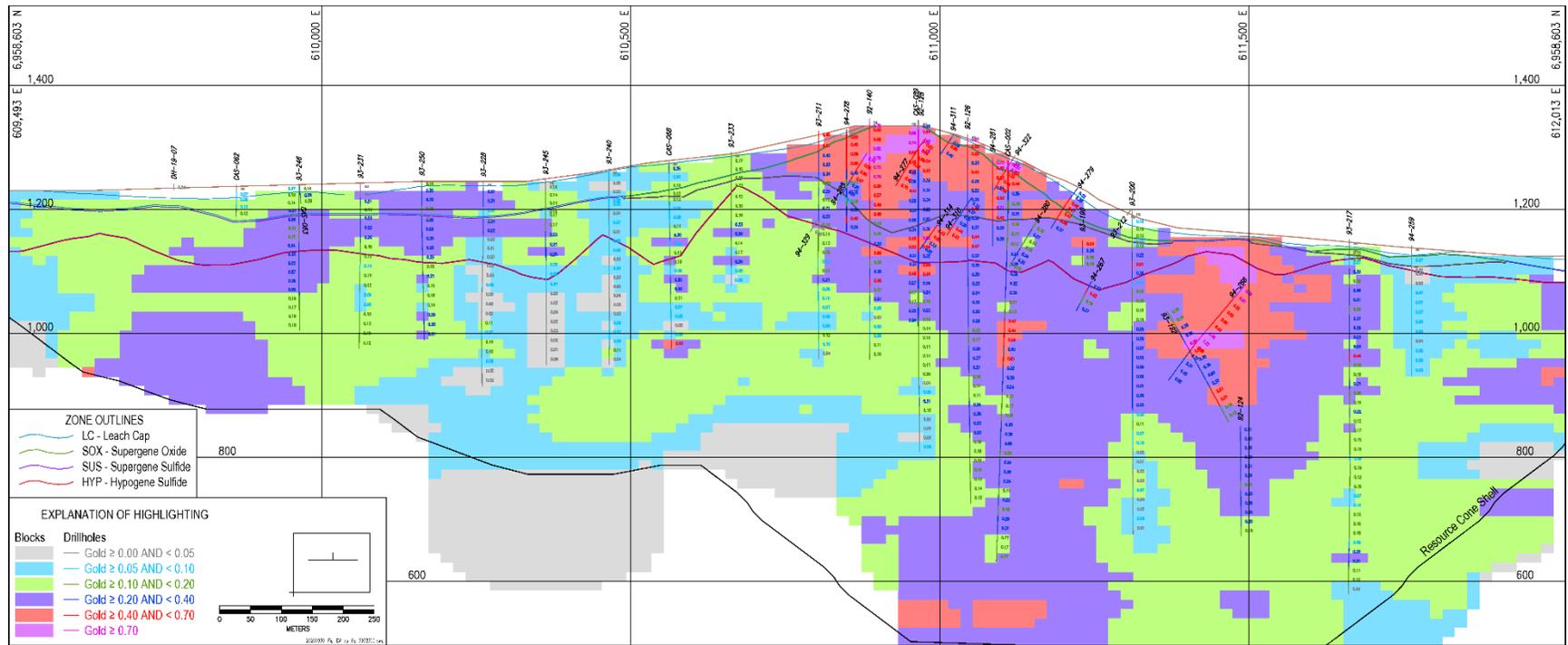


Figure 14-15: Total Copper Grades on North-South Cross Section 611,165E

**CASINO PROJECT  
FORM 43-101F1 TECHNICAL REPORT – MINERAL RESOURCE STATEMENT**



**Figure 14-16: Gold Grades on East-West Cross Section 6,958,600N**

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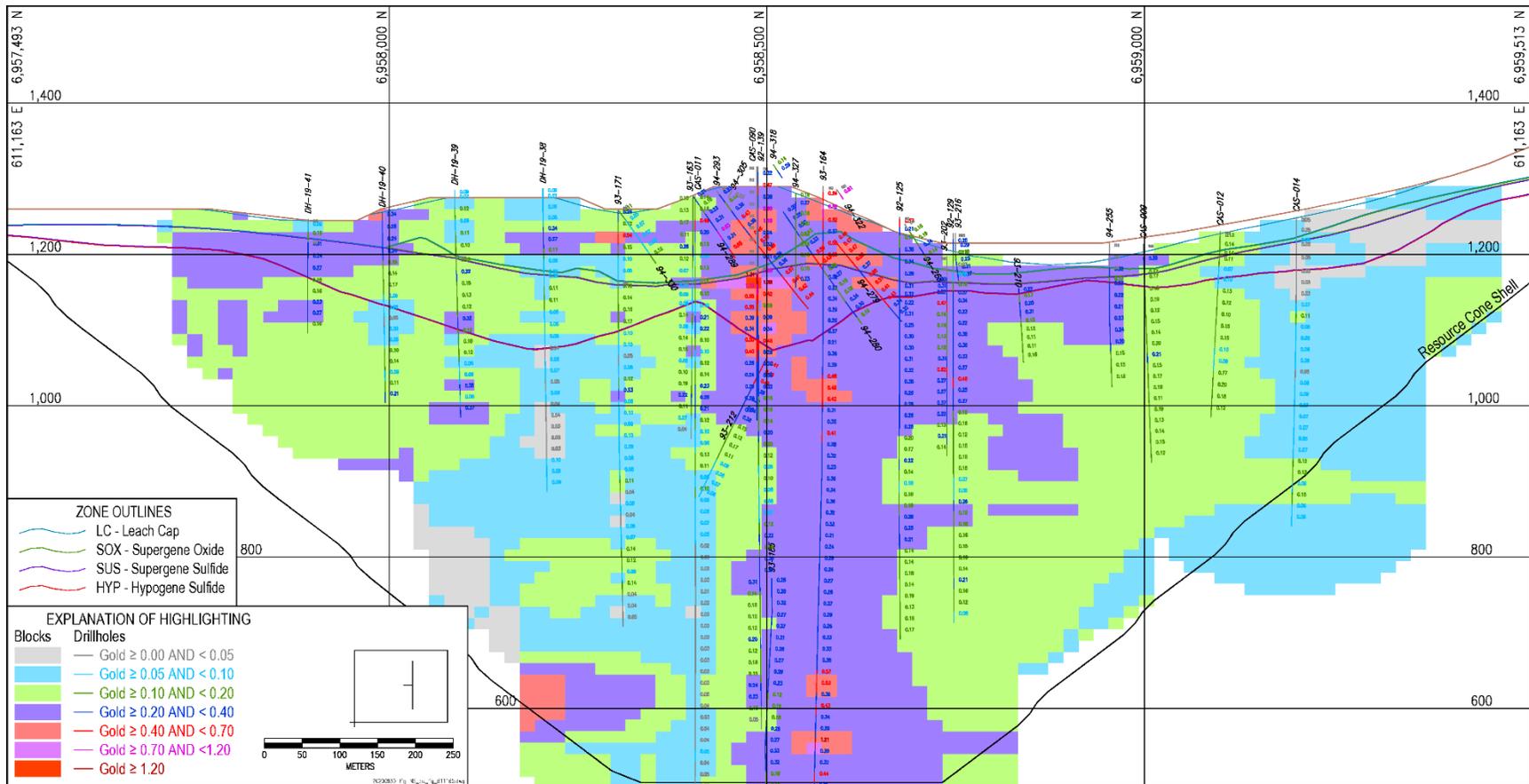


Figure 14-17: Gold Grades on North-South Cross Section 611,165E

### 14.5.8 Bulk Density

Over 13,000 specific gravity measurements on core samples were included with the Casino assay database. IMC excluded four measurements that exceeded 4.0 and 6 measurements less than 1.25 and tabulated the remaining values by oxidation type as shown in Table 14-13.

**Table 14-13: Statistics of Specific Gravity Measurement by Oxidation Zone**

Oxidation Zone	Zone Code	No. of Samples	Mean S.G.	Std. Dev. S.G.
OVB	1	92	2.496	0.170
LC	2	2,199	2.518	0.128
SOX	3	937	2.580	0.132
SUS	4	2,532	2.624	0.137
HYP	5	7,198	2.651	0.114
WST	6	104	2.684	0.095
TOTAL		13,062	2.617	0.132

It can be seen the mean values increase from OVB to LC to SOX to SUS to HYP to WST, i.e. the higher the level of oxidation the lower the specific gravity.

IMC also examined the specific gravity measurements by rock type, but other than the overburden, the averages by rock type are very similar to each other, ranging from 2.612 to 2.637; it is more meaningful to group the data by oxidation type.

The average specific gravity values on the table were also assumed to represent bulk density measurements, in tonnes per cubic meter, without any adjustments, and assigned to the block model based on oxidation type.

There are sufficient measurements that IMC also investigated estimating values in a similar manner as the grade estimates. The means shown on the table were used as background values for blocks without sufficient close data to estimate them. The averages of blocks done by estimation tended to exceed the table values by a percent or so. Because of this IMC assigned values as the average zone values rather than estimation of the individual blocks.

### 14.5.9 Resource Classifications

For the purpose of classifying measured and indicated versus inferred mineral resources, an additional block estimate was done. This was based on the same search orientations and search radii as the grade estimates. The estimate was based on a maximum of three composites, a minimum of three, and a maximum of one composite per hole. This estimate provides the average distance to the nearest three holes to each block and was put into the block model. Note the grades from this estimate were not used.

Blocks with an average distance to the nearest three holes less than 100 m were assigned as indicated mineral resource. Blocks with an average distance to three holes greater than 100 m were assigned to inferred mineral resource. Generally (not specific to Casino) an average distance to the nearest three holes of 100 m corresponds to an average drill spacing of about 133 m. These estimates are approximate. It is noted that the nominal spacing for much of the Casino drilling is about 100 m.

Figure 14-18 shows the probability plots of the average distances to the nearest 3 holes for the supergene sulphide. Figure 14-19 shows the plot for the hypogene sulphide.

On Figure 14-2 it can be seen that there is an area on the eastern side of the deposit where there is a combination of vertical and angle holes that reduce the average sample spacing in the area to about 70 m or so. A solid was designed in this area to define measured mineral resources. Figure 14-20 and Figure 14-21 show the resource classification on an east-west and north-south cross section respectively.

The analytical method of distinguishing between indicated and inferred mineral resources resulted in some small groupings of inferred blocks surrounded by indicated blocks. Some filtering was done to remove many, but not all, of these blocks. The filters identified inferred blocks that contacted two, three, or four indicated blocks and set them to indicated blocks. Several passes of filtering were done.

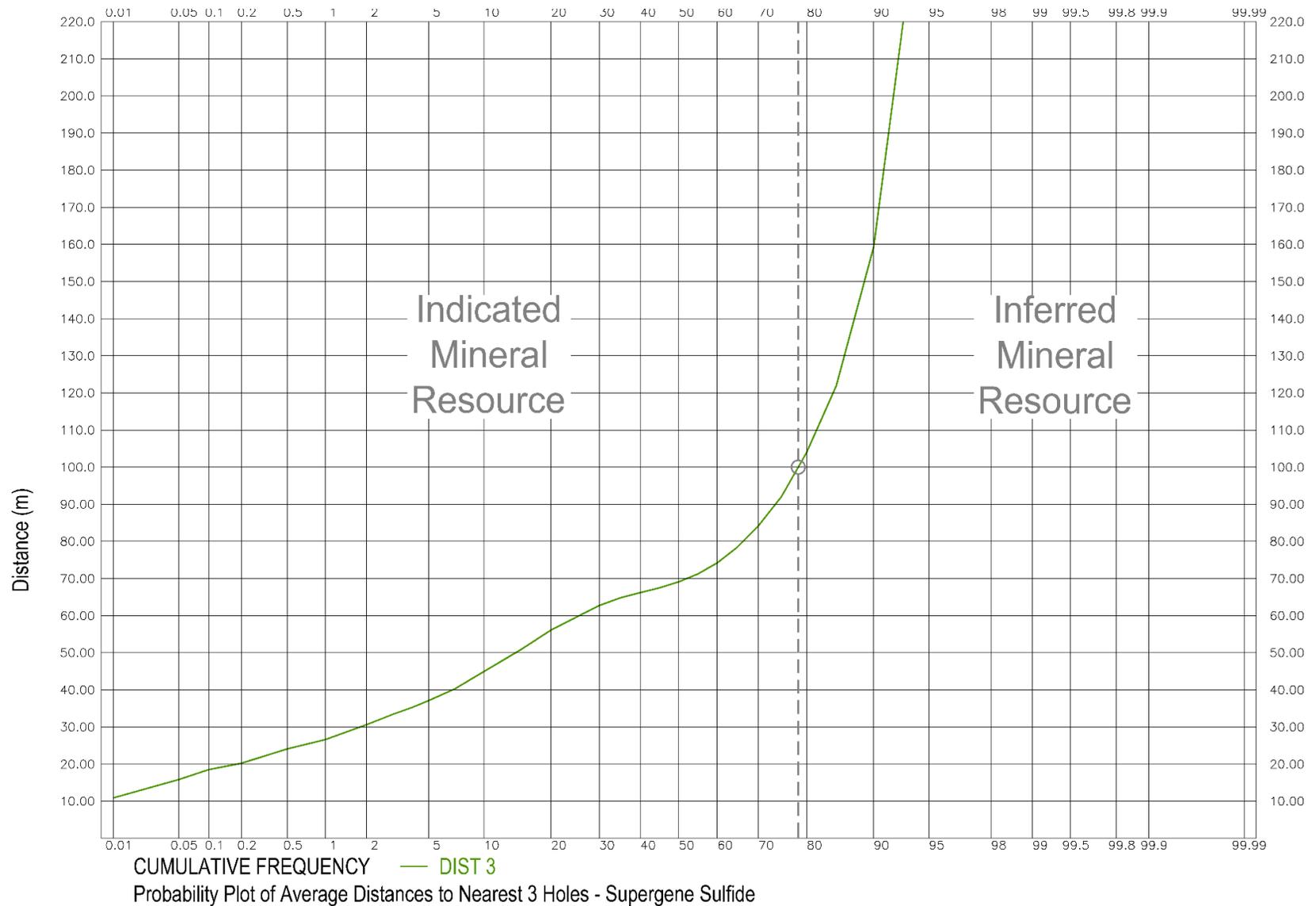


Figure 14-18: Probability Plot of Average Distance to Nearest 3 Holes – Supergene Sulphide

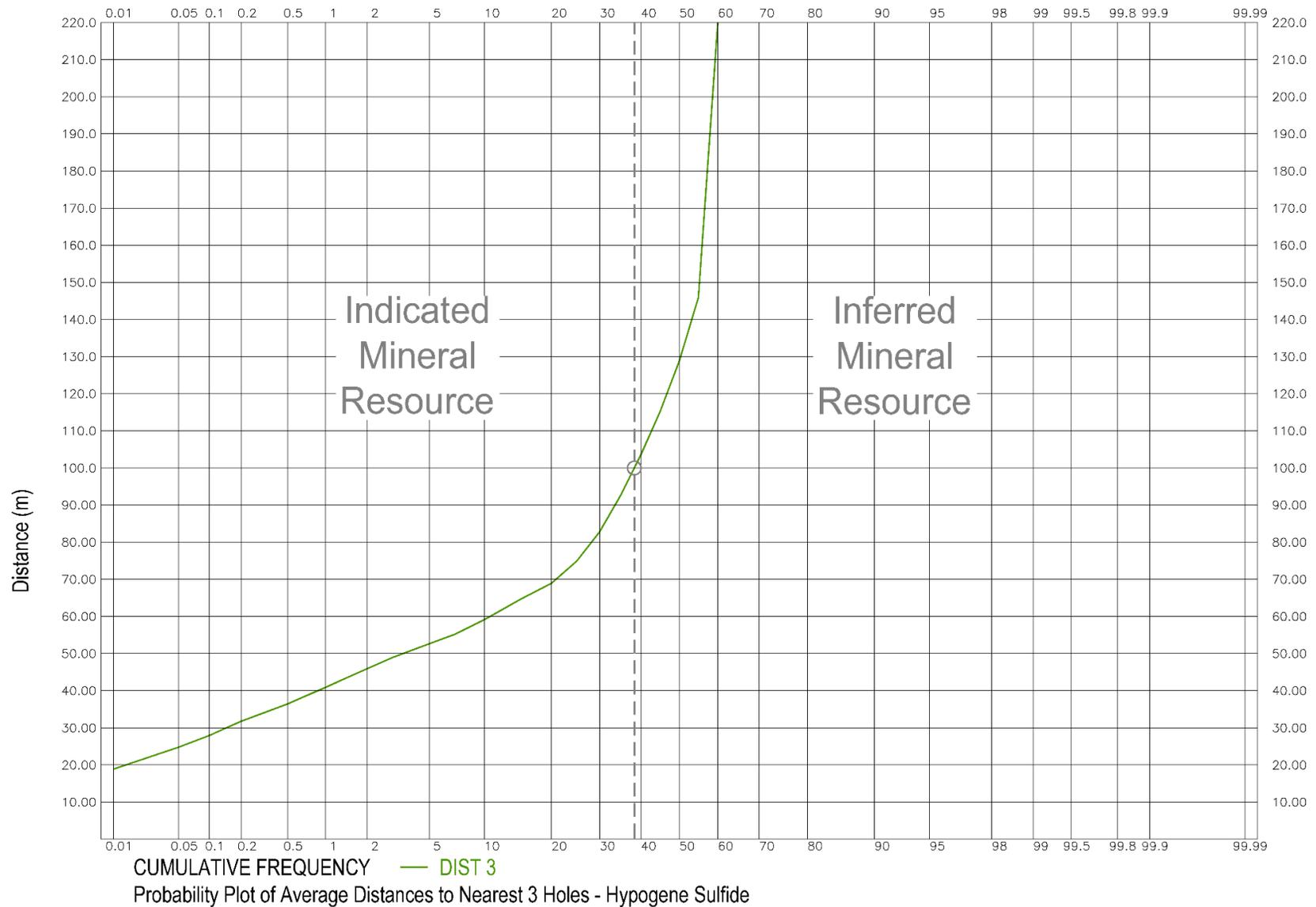
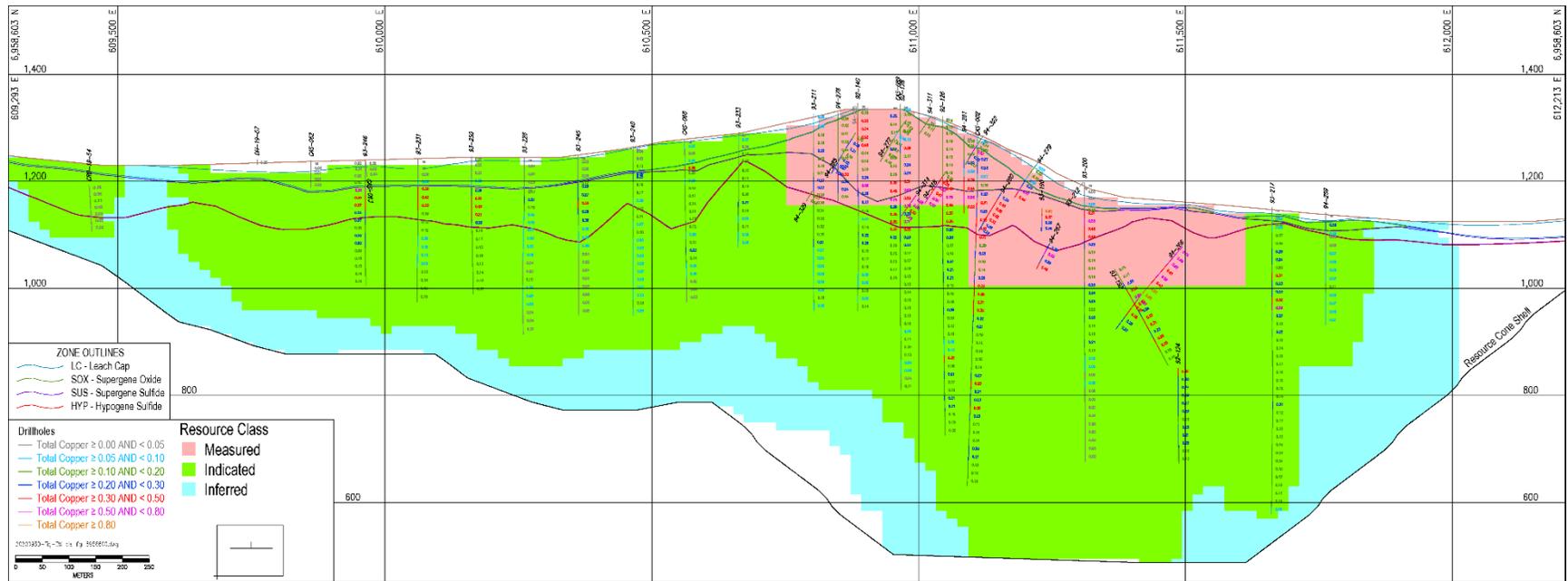


Figure 14-19: Probability Plot of Average Distance to Nearest 3 Holes – Hypogene Sulphide

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**Figure 14-20: Resource Classification on East-West Cross Section 6,958,600N**

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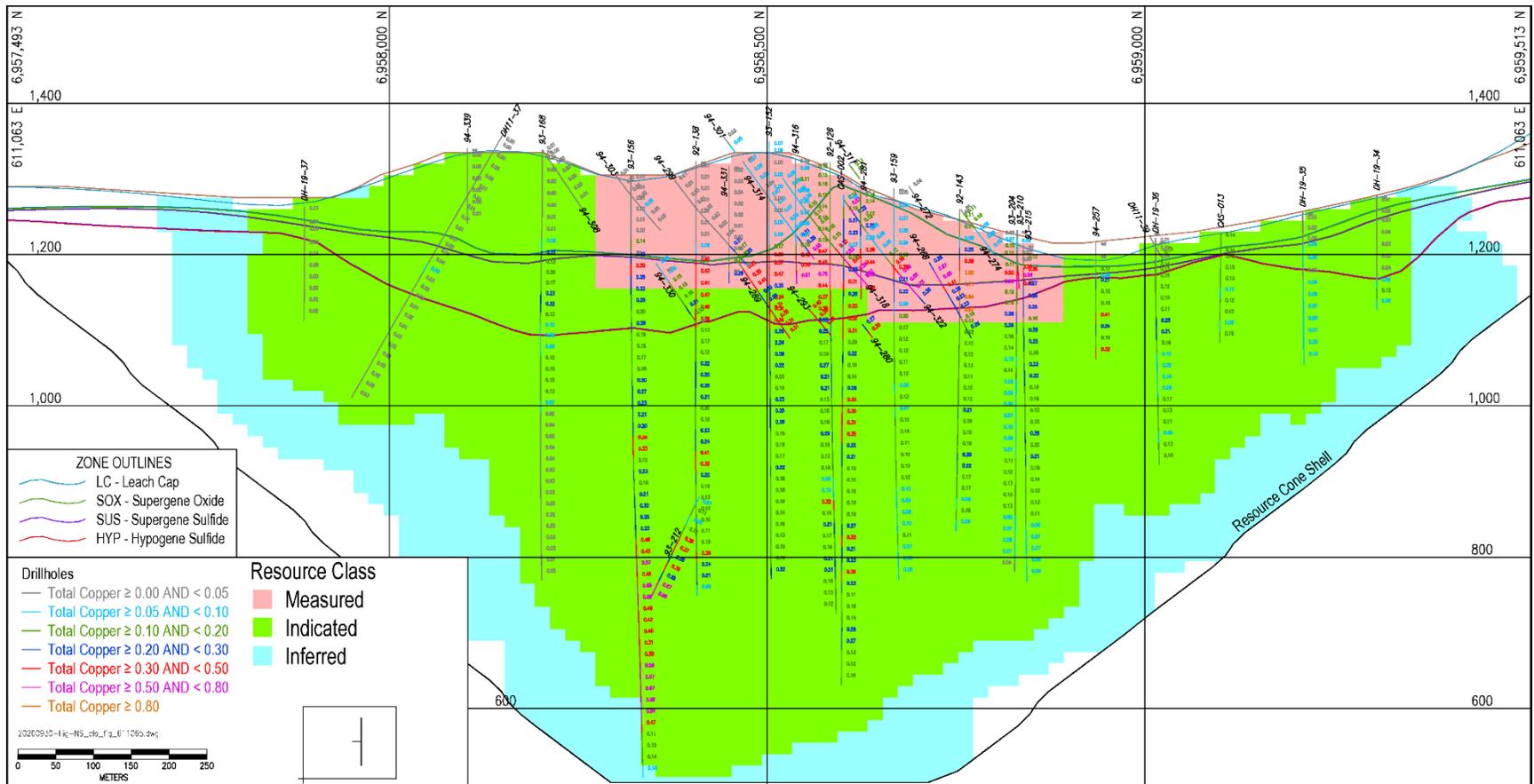


Figure 14-21: Resource Classification on North-South Cross Section 611,065E

#### 14.5.10 Comparison of 2010 and 2020 Mineral Resource

Table 14-4 compares mineral resources amenable to milling. These include the supergene oxide, supergene sulphide and hypogene sulphide materials. For the 2010 mineral resource, measured and indicated mineral resources amounted to 1.06 billion tonnes at 0.20% total copper, 0.23 g/t gold, 0.022% moly and 1.7 g/t silver. This amounted to 4.7 billion pounds of contained copper, 7.9 million ounces of contained gold, 522.1 million pounds of contained moly and 58.0 million ounces of contained silver. Inferred mineral resources was an additional 1.70 billion tonnes at 0.15% total copper, 0.16 g/t gold, 0.019% moly and 1.4 g/t silver.

The 2010 mineral resource estimate was not contained within a potential mining pit shell, it was a tabulation of all the blocks in the resource model. The mineral resource was also tabulated at a 0.25% copper equivalent cutoff grade, where copper equivalent was defined as:

$$\text{Copper Equivalent (\%)} = \text{Total Copper (\%)} + 0.638 \times \text{Gold (g/t)} + 5.625 \times \text{Moly (\%)} + 0.0082 \times \text{Silver (g/t)}$$

An economic justification of the cutoff grade was not included in the available documentation. The factors for the copper equivalency calculation were based on relative commodity prices only and did not consider potential recoveries or treatment charges. The commodity prices used were US\$ 2.00 per pound copper, US\$ 875 per ounce gold, US\$ 11.25 per pound moly, and \$11.25 per ounce silver.

For the 2020 mineral resource, measured and indicated mineral resources amounted to 2.17 billion tonnes at 0.16% total copper, 0.18 g/t gold, 0.017% moly, and 1.4 g/t silver. This amounted to 7.4 billion pounds of contained copper, 12.7 million ounces of contained gold, 811.6 million pounds of contained moly and 100.2 million ounces of contained silver. Inferred mineral resources was an additional 1.43 billion tonnes at 0.10% total copper, 0.14 g/t gold, 0.010% moly, and 1.2 g/t silver.

Compared to the 2010 mineral resource, the current measured and indicated mineral resource has 105.7% more tonnes, at a 22.9% lower copper grade, a 21.1% lower gold grade, a 24.4% lower moly grade, and a 16.0% lower silver grade. This amounts to 58.7% more contained copper, 62.0% more contained gold, 55.4% more contained moly, and 72.8% more contained silver.

The 2020 mineral resource estimate is contained within a floating cone pit shell and is tabulated at an NSR cutoff grade of C\$ 5.70 per tonne. Due to higher commodity prices than were prevalent during 2010 the effective cutoff grade for the 2020 mineral resource is lower, resulting in the significant increase in tonnage at lower grades. There is also a significant increase in indicated mineral resources due to conversion of inferred mineral resources. This is partly due to new drilling. It is also the opinion of IMC that the resource classification of indicated mineral resource for 2010 was overly conservative for a copper porphyry system.

Table 14-15 compares mineral resources for material amenable to leaching. This includes the leach cap material. For the 2010 mineral resource, measured and indicated mineral resource amounts to 83.8 million tonnes at 0.40 g/t gold, 0.04% total copper, and 2.6 g/t silver. This amounts to 1.1 million ounces of contained gold, 68.9 million pounds of contained copper and 6.9 million ounces of contained silver. Moly will not be recovered in the leaching process. The 2010 mineral resource estimate was based on a gold cutoff grade of 0.25 g/t gold.

For the 2020 mineral resource estimate, measured and indicated mineral resource amounts to 217.4 million tonnes at 0.25 g/t gold, 0.03% total copper, and 1.9 g/t silver. This amounts to 1.8 million ounces of contained gold, 166.5 million pounds of contained copper and 13.3 million ounces of contained silver. This estimate is based on an NSR cutoff grade of C\$ 5.46 per tonne. As with the mill material, a portion of the increased resource is due to higher commodity prices which reduce the effective cutoff. The new drilling is also a significant factor in the increased mineral resource.

Table 14-14: Comparison of 2010 and 2020 Mineral Resource – Mill Material

Mineral Resource Estimate	Ktonnes	Cu Eq (%)	Copper (%)	Gold (g/t)	Moly (%)	Silver (g/t)	Copper (mlbs)	Gold (moz)	Moly (mlbs)	Silver (moz)
2010 Mineral Resource										
Measured Mineral Resource	93.7	0.78	0.34	0.42	0.027	2.2	695	1.3	56.1	6.7
Indicated Mineral Resource	963.0	0.46	0.19	0.21	0.022	1.7	3,991	6.6	466.0	51.3
<b>Meas/Ind Mineral Resource</b>	<b>1,056.7</b>	<b>0.49</b>	<b>0.20</b>	<b>0.23</b>	<b>0.022</b>	<b>1.7</b>	<b>4,686</b>	<b>7.9</b>	<b>522.1</b>	<b>58.0</b>
Inferred Mineral Resource	1,696.4	0.37	0.15	0.16	0.019	1.4	5,440	8.8	719.7	74.7
2020 Mineral Resource										
Measured Mineral Resource	145.3	0.74	0.31	0.40	0.025	2.1	986	1.9	80.6	9.8
Indicated Mineral Resource	2,028.0	0.33	0.14	0.17	0.016	1.4	6,448	10.9	731.0	90.4
<b>Meas/Ind Mineral Resource</b>	<b>2,173.3</b>	<b>0.36</b>	<b>0.16</b>	<b>0.18</b>	<b>0.017</b>	<b>1.4</b>	<b>7,434</b>	<b>12.7</b>	<b>811.6</b>	<b>100.2</b>
Inferred Mineral Resource	1,430.2	0.24	0.10	0.14	0.010	1.2	3,240	6.4	322.8	53.5
Percent Difference										
Measured Mineral Resource	55.1%	-5.4%	-8.5%	-5.8%	-7.4%	-5.4%	41.8%	46.1%	43.6%	46.7%
Indicated Mineral Resource	110.6%	-28.8%	-23.3%	-21.5%	-25.5%	-16.3%	61.6%	65.3%	56.9%	76.2%
<b>Meas/Ind Mineral Resource</b>	<b>105.7%</b>	<b>-27.4%</b>	<b>-22.9%</b>	<b>-21.1%</b>	<b>-24.4%</b>	<b>-16.0%</b>	<b>58.7%</b>	<b>62.0%</b>	<b>55.4%</b>	<b>72.8%</b>
Inferred Mineral Resource	-15.7%	-34.7%	-29.3%	-14.2%	-46.8%	-15.0%	-40.4%	-27.7%	-55.1%	-28.3%

Table 14-15: Comparison of 2010 and 2020 Mineral Resource – Leach Material

Mineral Resource Estimate	Tonnes Mt	Gold (g/t)	Copper (%)	Silver (g/t)	Gold (moz)	Copper (mlbs)	Silver (moz)
2010 Mineral Resource							
Measured Mineral Resource	30.6	0.52	0.05	2.9	0.5	33.7	2.9
Indicated Mineral Resource	53.2	0.33	0.03	2.4	0.6	35.2	4.0
<b>Meas/Ind Mineral Resource</b>	<b>83.8</b>	<b>0.40</b>	<b>0.04</b>	<b>2.6</b>	<b>1.1</b>	<b>68.9</b>	<b>6.9</b>
Inferred Mineral Resource	17.1	0.31	0.01	1.9	0.2	3.8	1.1
2020 Mineral Resource							
Measured Mineral Resource	37.2	0.45	0.05	2.8	0.5	39.3	3.3
Indicated Mineral Resource	180.2	0.21	0.03	1.7	1.2	127.2	10.0
<b>Meas/Ind Mineral Resource</b>	<b>217.4</b>	<b>0.25</b>	<b>0.03</b>	<b>1.9</b>	<b>1.8</b>	<b>166.5</b>	<b>13.3</b>
Inferred Mineral Resource	31.1	0.17	0.03	1.7	0.2	17.2	1.7
Percent Difference							
Measured Mineral Resource	21.4%	-14.0%	-4.0%	-6.5%	4.4%	16.6%	13.6%
Indicated Mineral Resource	238.8%	-35.8%	6.7%	-26.7%	117.7%	261.4%	148.4%
<b>Meas/Ind Mineral Resource</b>	<b>159.4%</b>	<b>-36.9%</b>	<b>-6.9%</b>	<b>-26.0%</b>	<b>63.8%</b>	<b>141.6%</b>	<b>92.1%</b>
Inferred Mineral Resource	82.1%	-46.1%	150.0%	-11.9%	-1.9%	355.2%	60.4%

**15 MINERAL RESERVE ESTIMATES**

This section is not relevant to this report.

**16 MINING METHODS**

This section is not relevant to this report.

**17 RECOVERY METHODS**

This section is not relevant to this report.

**18 PROJECT INFRASTRUCTURE**

This section is not relevant to this report.

**19 MARKET STUDIES AND CONTRACTS**

This section is not relevant to this report.

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

### **20.1 INTRODUCTION**

This section provides further details on environmental studies conducted to date, the environmental assessment process, territorial and federal regulatory approvals required to bring this property into production, and the status of First Nations' consultation and agreements.

### **20.2 ENVIRONMENTAL STUDIES**

Numerous environmental studies have been completed on the Casino property to support previous submissions to the Yukon Environmental and Socio-economic Assessment Board (YESAB), under the Yukon Environmental and Socioeconomic Assessment Act (YESAA). The majority of these studies were completed from 2012 through 2014, with bi-annual surface and groundwater monitoring and climate monitoring programs on-going. Environmental studies were conducted on terrain and terrain hazards, water quality and hydrology, geochemistry, hydrogeology, air quality, noise, fish and aquatic resources, rare plants and vegetation and wildlife. The details of, and reports on, these studies can be found on both the YESAB registry (<https://yesabregistry.ca/projects/815c7843-b66d-469f-b9d3-5b62e2c276d4/>) and on the CMC website (<https://casinomining.com/project/yesab-proposal/>).

### **20.3 PERMITTING**

Mining projects in the Yukon require several permits and licences issued either by the Yukon Government or by the various departments of the Government of Canada. The primary regulatory approvals are a Water Licence, issued under the Waters Act, and a Quartz Mining Licence, issued under the Quartz Mining Act. Federal authorizations are required under the Fisheries Act and Navigable Waters Act, amongst others. In advance of licence applications, mining projects require a screening report issued by the YESAB. The environmental assessment and permitting requirements are further detailed below.

#### **20.3.1 Existing Assessments and Permits**

Exploration activities at mining projects in the Yukon are undertaken under a Mining Land Use approval, issued by the Yukon Government, Department of Energy, Mines & Resources. Current exploration at the Casino property is approved under Class 4 Quartz Mining Land Use Approval LQ00510, and Class 3 Quartz Mining Land Use Approval LQ00320c. CMC recently underwent assessment through YESAB to combine these two approvals (YESAB project 2020-0083), and a decision document approving this assessment was issued in September 2020. Other existing permits include Waste Management Permit 81-079.

The Yukon Government currently holds \$672 in security for the Casino property.

#### **20.3.2 Environmental and Socio-Economic Assessment Process**

Larger quartz mining projects (i.e., those that begin mining as opposed to just exploration activities) are typically categorized as assessable activities under the Assessable Activities, Exceptions and Executive Committee Projects Regulations (SOR/2005-379), and require an Executive Committee screening. There is no fee for an assessment to be conducted. Upon completion of the assessment, YESAB issues a screening report and a recommendation, which is sent to federal, territorial and/or First Nation governments who act as Decision Bodies. The recommendation will include one of four options. YESAB will recommend that the project:

- Be allowed to proceed;
- Be allowed to proceed with terms and conditions;

- Not proceed; or
- The Executive Committee can recommend that the project be required to undergo a review by a Panel of the Board.

The Decision Body for the assessment will be a regulating body or authority. Decision Bodies can be federal, territorial or First Nation governments and agencies that regulate and permit the proposed activity. The Decision Body will issue, in writing, a Decision Document that accepts, varies or rejects the recommendation. Once the Decision Document has been issued, an agency can issue authorizations or permits in accordance with their process.

A Project Proposal for the Casino Mine was submitted to the executive committee of the YESAB in January 2014 and underwent several rounds of adequacy review information requests from 2014 through 2016. On February 18, 2016, the Executive Committee determined that the Casino Mine Project requires a Panel Review, the highest level of environmental and socio-economic assessment under YESAA. A Panel Review is an assessment process by which a Panel of the Board (comprised of one YESAB board member nominated by the Council of Yukon First Nations, and two YESAB board members nominated by the territorial or federal governments) conducts technical analysis of an Environmental and Socio-economic Effects Statement submitted by CMC, followed by public hearings. The Panel of the Board then issues their recommendations (similar to the other levels of assessment under YESAA) to the relevant Decision Body(s), which can be federal, territorial and/or First Nation governments. The Decision Body(s) will then decide whether to accept, reject or vary the recommendation of YESAB and issue a Decision Document. The Decision body has 60 days to issue a decision document, or 45 days in which to refer the recommendations back to the Panel of the Board for reconsideration. Regulatory permitting, discussed in the following section, would follow on the heels of a positive decision document being issued. All documents issued and submitted during the environmental assessment are placed on the YESAB Online Registry and are available to the public (<https://yesabregistry.ca/>).

Guidelines for the Environmental and Socio-economic Effects Statement were issued by YESAB on June 20, 2016. The next steps would be for CMC to prepare and submit the Environmental and Socio-economic Effects Statement in accordance with those guidelines.

### **20.3.3 Licensing**

The mining project will be regulated under the legislation of federal and territorial boundaries thus requiring many permits and approvals. A Quartz Mining Licence will be required and must adhere to the regulations of the Quartz Mining Act particularly as per section 135, issued and administered by the Yukon Government. Additionally, CMC will be required to obtain a Type A Water Licence under the Waters Act for mine operations with use of water and deposit of waste, as well as considerations of tailings creation and storage according to the project design. The Yukon Water Board would administer this licence.

The following federal legislation will also be considered, including:

- Section 35(2) Authorization under the Fisheries Act (harmful alteration, disruption or destruction (HADD) of fish habitat).
- Section 36(4) Regulation or Order in Council under the Fisheries Act (deposit of deleterious substances).
- Section 5(2) Approval under the Navigable Waters Protection Act.
- Blasting Permit under the Explosives Act and Regulations and the Occupational Health and Safety Act.

Other applicable territorial legislation includes:

- Energy and Operating Certificates under the Public Utilities Act.

- Work in Highway Right-of-Way Permit, Access Permit, and Highways Hauling Permit under the Highways Act.
- Land Use, Quarry, and Timber Permits under the Lands Act.
- Air Emissions, Special Waste, and Storage Tank Systems Permits under the Environment Act.
- Burning Permit under the Forest Protection Act.
- Archaeological Sites Permit under the Historic Resources Act.
- Sewage Disposal System Permit under the Public Health and Safety Act.
- Certificate for Transport of Dangerous Goods under the Dangerous Goods Transportation Act.
- Building and Plumbing Permits under the Building Standards Act / Electrical Protection Act.
- Gas Installation Permit under the Gas Burning Devices Act.
- Pressure Vessel Boiler Permit under the Boiler and Pressure Vessel Act.
- Compliance with the Public Health and Safety Act.

#### **20.3.4 Environmental and Mine Operation Plans**

Environmental management plans will be assembled under an Environmental Management Plan, which provides overarching direction for environmental and development management at the Casino Project. It is supported by a suite of project-specific mitigation, monitoring and/or management plans that set out the Project's standards and requirements under the Quartz Mining Licence and/or Water Licence for particular areas of environmental management.

#### **20.3.5 Reclamation and Closure**

A reclamation and closure plan must be prepared by the mine owner and submitted for review and approval by the government prior to receiving a Quartz Mining License. The reclamation and closure plan must be updated periodically throughout the operating mine life (minimum every five years). A conceptual plan will be expected to support the environmental assessment process, while a detailed plan is expected to be required as a condition for the Quartz Mine License. Provisions for changes and updates as mining progresses are also expected. The Yukon Government will require the company to post security for this project. Both the Yukon Waters Act and the Yukon Quartz Mining Act have provisions for security to be held by government.

A reclamation and closure plan (RCP) will be submitted with the Environmental and Socio-economic Effects Statement. The RCP will include a liability estimate for reclaiming and closing the mine. The RCP will demonstrate how CMC has considered and addressed the expectations and concerns throughout the mine planning process. Over the life of the mine, successive iterations of the plan may be expected every two years, each iteration providing more detail and greater certainty regarding the sequence of events to occur during reclamation and closure.

### **20.4 FIRST NATIONS AND COMMUNITY ENGAGEMENT**

CMC is committed to developing and operating the Casino Project (the "Project") in a safe, ethical and socially responsible manner. CMC has been sharing information and consulting with First Nations, local communities, Yukon government and federal agencies, non-government organizations (NGOs), and individuals since 2008.

The property has components that are located within the Traditional Territories of three of the Yukon First Nations that entered into Final Agreements under the 1993 Yukon Land Claims Umbrella Final Agreement among the Governments of Yukon and Canada and the Yukon First Nations (UFA): the Selkirk First Nation, the Little Salmon/Carmacks First

Nation, and the Tr'ondëk Hwëch'in First Nation. The term 'Traditional Territory' refers to those lands that were historically used by the First Nation for traditional pursuits and were recognized and accepted as such by the Governments of Canada and Yukon in the UFA.

The main deposit and camp infrastructure, and most of the proposed Freegold Road Extension falls within the Traditional Territory of the Selkirk First Nation. The existing Freegold Road and some of the proposed Freegold Extension falls within the Traditional Territory of the Little Salmon/Carmacks First Nation. The barge landing on the Yukon River falls within the Traditional Territory of the Tr'ondëk Hwëch'in First Nation.

In addition to the Selkirk First Nation, the Little Salmon/Carmacks First Nation, and the Tr'ondëk Hwëch'in First Nation, the Kluane First Nation and White River First Nation have also been identified by YESAB as being potentially affected due to potential downstream effects, and require individual consideration within the Environmental and Socio-economic Effects Statement. Kluane First Nation are also a signatory to the UFA, whereas the White River First Nation is an Indian Act band who have not entered into a land claim or a self-government agreement with the Crown.

CMC has signed cooperation agreements with the Selkirk First Nation, the Little Salmon/Carmacks First Nation, and the Tr'ondëk Hwëch'in First Nation, which provided funding for participation in the Executive Committee review of the Project Proposal. Agreements were also reached with Selkirk First Nation, Tr'ondëk Hwëch'in First Nation and White River First Nation for the funding of nation specific Traditional Land Use studies, which were completed in 2018 and 2019. Subsequent updated agreements will be required to facilitate participation in the Panel Review process or in any other processes to be conducted under the proposed mining project. CMC is in regular communication with all five First Nations and meets with leadership regularly.

**21 CAPITAL AND OPERATING COSTS**

This section is not relevant to this report.

**22 ECONOMIC ANALYSIS**

This section is not relevant to this report.

**23 ADJACENT PROPERTIES**

This section is not relevant to this report.

**24 OTHER RELEVANT DATA AND INFORMATION**

This section is not relevant to this report.

## 25 INTERPRETATION AND CONCLUSIONS

### 25.1 CONCLUSIONS

#### 25.1.1 Mineral Resource

This study has resulted in an updated Mineral Resource estimate for the Casino Project. Measured and Indicated Mineral Resources amenable to milling amounts to 2.17 billion tonnes at 0.16% total copper, 0.18 g/t gold, 0.017% moly and 1.4 g/t silver and contained metal amounts to 7.43 billion pounds of copper, 12.7 million ounces gold, 811.6 million pounds of moly and 100.2 million ounces of silver. Inferred Mineral Resource is an additional 1.43 billion tonnes at 0.10% total copper, 0.14 g/t gold, 0.010% moly and 1.2 g/t silver and contained metal amounts to 3.24 billion pounds of copper, 6.4 million ounces of gold, 322.8 million pounds moly and 53.5 million ounces of silver for the Inferred Mineral Resource in mill material.

In addition, Measured and Indicated Mineral Resources amenable to leaching amounts to 217.4 million tonnes at 0.03% total copper, 0.25 g/t gold and 1.9 g/t silver and contained metal amounts to 166.5 million pounds of copper, 1.8 million ounces gold and 13.3 million ounces of silver. Inferred Mineral Resource is an additional 31.1 million tonnes at 0.03% total copper, 0.17 g/t gold and 1.7 g/t silver and contained metal amounts to 17.2 million pounds of copper, 200,000 ounces of gold and 1.7 million ounces of silver for the Inferred Mineral Resource in leach material.

The combined Measured and Indicated Mineral Resources for copper, gold and silver amounts to 2.39 billion tonnes at 0.14% total copper, 0.19 g/t gold and 1.5 g/t silver. Contained metal amounts to 7.60 billion pounds copper, 14.5 million ounces gold and 113.5 million ounces of silver for Measured and Indicated Mineral Resources. Inferred Mineral Resource is an additional 1.46 billion tonnes at 0.10% total copper, 0.14 g/t gold and 1.2 g/t silver. Contained metal amounts to 3.26 billion pounds of copper, 6.6 million ounces of gold and 55.2 million ounces of silver for the Inferred Mineral Resource. The Mineral Resource for moly is as shown with mill material since it will not be recovered for leach material.

Measured and Indicated Mineral Resources amenable to milling have increased about 106% from the previous, December 2010, estimate. The increase is due to higher commodity prices and new drilling that converted previous Inferred Mineral Resource to Indicated Mineral Resource.

### 25.2 OPPORTUNITIES

#### 25.2.1 Mineral Resources and Mineral Reserves

The expanded Measured and Indicated Mineral Resource may result in a significant Mineral Reserve if additional study takes place at a Pre-Feasibility or Feasibility level.

The Casino deposit includes a significant Mineral Resource amenable to heap leaching. One possible development path for Casino is to develop the heap leach project as a standalone project to commence development of the deposit.

### 25.3 RISKS

#### 25.3.1 Mineral Resources

The most significant risks to the Mineral Resource are related to economic parameters such as prices lower than forecast, recoveries lower than forecast, or costs higher than the current estimates.

## **26 RECOMMENDATIONS**

CMC launched a new drilling program in June 2020 to build upon the results of the 2019 drilling campaign. The 2020 drilling campaign will consist of 43 drill holes between 150 to 500 m in depth and will target the High Gold Zone, Northern Porphyry, and Canadian Creek Targets identified by the 2019 drilling program. Costs are expected to be \$3-5 million.

Upon completion of the drilling campaign, it is recommended that CMC consider developing a Feasibility Study, the cost of which is expected to be \$3-5 million.

After completion of the Feasibility Study, CMC should consider restarting permitting of the project. Permitting costs are variable, but are likely in the \$20-30 million range.

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## Appendix A – Mineral Resource Update Contributors and Professional Qualifications

## CERTIFICATE OF QUALIFIED PERSON

I, Daniel Roth, P.E., P. Eng. do hereby certify that:

1. I am currently employed as a project manager and civil engineer at M3 Engineering & Technology Corp. located at 2051 West Sunset Rd, Suite 101, Tucson, AZ 85704.
2. I graduated with a Bachelor of Science degree in Civil Engineering from The University of Manitoba in 1990.
3. I am a registered professional engineer in good standing in the following jurisdictions:
  - British Columbia, Canada (No. 38037)
  - Alberta, Canada (No. 62310)
  - Ontario, Canada (No. 100156213)
  - Yukon, Canada (No. 1998)
  - New Mexico, USA (No. 17342)
  - Arizona, USA (No. 37319)
  - Alaska, USA (No. 102317)
  - Minnesota, USA (No. 54138)
4. I have worked continuously as a design engineer, engineering and project manager since 1990, a period of 30 years. I have worked in the minerals industry as a project manager for M3 Engineering & Technology Corporation since 2003, with extensive experience in hard rock mine process plant and infrastructure design and construction, environmental permitting review, as well as development of capital cost estimates, operating cost estimates, financial analyses, preliminary economic assessments, pre-feasibility and feasibility studies.
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.
6. I am responsible for Sections 2, 3, 4, 5, 15, 16, 17, 18, 19, 20, 21, 22 and corresponding sections of 1, 25, 26, and 27 of the technical report titled “Western Copper and Gold Corporation, Casino Project, Form 43-101F1 Technical Report, Mineral Resource Statement, Yukon, Canada” dated effective July 3, 2020 (the “Technical Report”).
7. I have prior involvement with the property that is the subject of the Technical Report. I have developed various capital and operating cost tradeoff studies for Western Copper and Gold Corporation (“Western”) from 2014 through 2020. I have not visited the project site.
8. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
9. I am independent of Western and its subsidiaries as defined by Section 1.5 of NI 43-101.
10. I have read NI 43-101 and Form 43-101F1. The sections of the Technical Report that I am responsible for have been prepared in compliance with that instrument and form.
11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their website accessible by the public, of the Technical Report.

Dated this 26<sup>th</sup> day of October, 2020.

“Signed”

Signature of Qualified Person

Daniel Roth

Print Name of Qualified Person

## CERTIFICATE OF QUALIFIED PERSON

I, Michael G. Hester, do hereby certify that:

1. I am currently employed as Vice President and Principal Mining Engineer by Independent Mining Consultants, Inc. ("IMC") of 3560 E. Gas Road, Tucson, Arizona, 84714, USA.
2. I graduated with a Bachelor of Science degree in Mining Engineering from the University of Arizona in 1979 and a Master of Science degree in Mining Engineering from the University of Arizona in 1982.
3. I am a Fellow of the Australasian Institute of Mining and Metallurgy (FAusIMM #221108), a professional association as defined by National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101").
4. I have worked in the minerals industry as an engineer continuously since 1979, a period of 41 years. I am a founding partner, Vice President, and Principal Mining Engineer for IMC, a position I have held since 1983. I have been employed as an Adjunct Lecturer at the University of Arizona (1997-1998) where I taught classes in open pit mine planning and mine economic analysis. I have also been a member of the Resources and Reserves Committee of the Society of Mining, Metallurgy, and Exploration since March 2012. During my career I have had extensive experience developing mineral resource models, developing open pit mine plans, estimating equipment requirements for open pit mining operations, developing mine capital and operating cost estimates, performing economic analysis of mining operations and managing various preliminary economic assessments, pre-feasibility, and feasibility studies.
5. I have read the definition of "qualified person" set out in 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.
6. I am responsible for Section 14 and corresponding sections of 1, 25, 26 and 27 of the technical report titled "Western Copper and Gold Corporation, Casino Project, Form 43-101F1 Technical Report, Mineral Resource Statement, Yukon, Canada" dated effective July 3, 2020 (the "Technical Report").
7. I have prior involvement with the property that is the subject of the Technical Report. I worked on the feasibility study for Western Copper and Gold Corporation ("Western") in or about January 2013. I also worked on preliminary feasibility studies conducted by Western in or around April 2011 and August 2008. I also worked on studies of the property for Pacific Sentinel Corporation in or around September 1995. I most recently inspected the property on July 22, 2008 for a period of one day.
8. As of the date of this certificate, to the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
9. I am independent of Western and its subsidiaries as defined by Section 1.5 of NI 43-101.
10. I have read NI 43-101 and Form 43-101F1. The sections of the Technical Report that I am responsible for have been prepared in compliance with that instrument and form.
11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their website accessible by the public, of the Technical Report.

Dated this 26<sup>th</sup> day of October, 2020.

"Signed"

\_\_\_\_\_  
Signature of Qualified Person

Michael G. Hester, FAusIMM

\_\_\_\_\_  
Print Name of Qualified Person

## CERTIFICATE OF QUALIFIED PERSON

I, Laurie M. Tahija, MMSA-Q.P. do hereby certify that:

1. I am currently employed as Vice President by M3 Engineering & Technology Corporation, 2051 W. Sunset Road, Ste. 101, Tucson, Arizona 85704, USA.
2. I am a graduate of Montana College of Mineral Science and Technology, in Butte, Montana and received a Bachelor of Science degree in Mineral Processing Engineering in 1981.
3. I am recognized as a Qualified Professional (QP) member (#01399QP) with special expertise in Metallurgy/Processing by the Mining and Metallurgical Society of America (MMSA).
4. I have practiced mineral processing for 39 years. I have over twenty (20) years of plant operations and project management experience at a variety of mines including both precious metals and base metals. I have worked both in the United States (Nevada, Idaho, California) and overseas (Papua New Guinea, China, Chile, Mexico) at existing operations and at new operations during construction and startup. My operating experience in precious metals processing includes heap leaching, agitation leaching, gravity, flotation, Merrill-Crowe, and ADR (CIC & CIL). My operating experience in base metal processing includes copper heap leaching with SX/EW and zinc recovery using ion exchange, SX/EW, and casting. I have been responsible for process design for new plants and the retrofitting of existing operations. I have been involved in projects from construction to startup and continuing into operation. I have worked on scoping, pre-feasibility and feasibility studies for mining projects in the United States and Latin America, as well as worked on the design and construction phases of some of these projects.
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.
6. I am responsible for Section 13 and the corresponding sections of 1, 25, 26, and 27 of the technical report titled "Western Copper and Gold Corporation, Casino Project, Form 43-101F1 Technical Report, Mineral Resource Statement, Yukon, Canada" dated effective July 3, 2020 (the "Technical Report").
7. I have not had prior involvement with the property that is the subject of the Technical Report and have not visited the Project site.
8. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
9. I am independent of Western Copper and Gold Corporation and its subsidiaries as defined by Section 1.5 of NI 43-101.
10. I have read NI 43-101 and Form 43-101F1. The sections of the Technical Report that I am responsible for have been prepared in compliance with that instrument and form.
11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their website accessible by the public, of the Technical Report.

Dated this 26<sup>th</sup> day of October, 2020.

"Signed"

\_\_\_\_\_  
Signature of Qualified Person

Laurie M. Tahija

\_\_\_\_\_  
Print Name of Qualified Person

### CONSENT OF QUALIFIED PERSON

I, Carl Schulze, with a business address at 34A Laberge Rd, Whitehorse, Yukon Y1A 5Y9, hereby certify that:

1. I am a Project Manager employed by: Aurora Geosciences Ltd., 34A Laberge Rd, Whitehorse, Yukon Y1A 5Y9.
2. This certificate applies to the technical report titled: "Western Copper and Gold Corporation, Casino Project, Form 43-101F1 Technical Report, Mineral Resource Statement, Yukon, Canada", dated effective July 3, 2020 (the "Technical Report").
3. I am a graduate of Lakehead University, Bachelor of Science Degree in Geology, 1984. I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia (EGBC), Lic. No. 25393. I have worked as a geologist for a total of 35 years since my graduation from Lakehead University. I have worked extensively in Yukon, British Columbia, northern Ontario and Alaska, as well as the Northwest Territories, Saskatchewan and Manitoba. I served as President of the Yukon Chamber of Mines, where I was also a Director from 2003 to 2015. I have acted in various capacities with numerous private and publicly-traded mining and exploration companies, and also served as the Resident Geologist for the Government of Nunavut from 2000 to 2002.
4. I performed a site visit for 18 days from Sept 9 through 26, 2020.
5. I am responsible for sections 6, 7, 8, 9, 10 and 11, and corresponding portions of Sections 1, 2, 25 and 26 of the Technical Report.
6. I have had no involvement with Western Copper and Gold Corp, its predecessors or subsidiaries. I am independent of the issuer applying the test in section 1.5 of National Instrument 43-101;
7. I have not received nor expect to receive any interest, direct or indirect, in Western Copper and Gold Corp, its subsidiaries, affiliates and associates;
8. I have read "Standards of Disclosure for Mineral Projects", National Instrument 43-101 and Form 43-101F1, and the aforementioned sections of the Technical Report has been prepared in compliance with this Instrument and that Form;
9. As of the date of this certificate, to the best of my knowledge, information and belief, the aforementioned sections of the Technical Report contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading, and;
10. This certificate applies to the NI 43-101 compliant technical report titled "Western Copper and Gold Corporation, Casino Project, Form 43-101F1 Technical Report, Mineral Resource Statement, Yukon, Canada", dated effective July 3, 2020.
11. I consent to the public filing of this technical report with any stock exchange and any regulatory authority and consent to the publication for regulatory purposes, including electronic publication in the public company files of their websites accessible to the public, of extracts from the Technical Report by Western Copper and Gold Corp.

Dated at Whitehorse, Yukon this 26<sup>th</sup> day of October, 2020.

"Signed"

\_\_\_\_\_  
Signature of Qualified Person

Carl Schulze

\_\_\_\_\_  
Name of Qualified Person

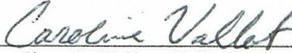
## CERTIFICATE OF QUALIFIED PERSON

I, Caroline J. Vallat, P.Ge., residing at 505 Waterwood Place, Nanaimo, BC, V9T 0J6, do hereby certify that:

1. I am an independent geological consultant contracted by Western Copper Corporation;
2. This certificate applies to the Technical Report titled, "Western Copper and Gold Corporation, Casino Project, Form 43-101F1 Technical Report, Mineral Resource Statement, Yukon, Canada" dated effective July 3, 2020 (the "Technical Report");
3. I am a graduate of the University of Victoria, Vancouver Island, British Columbia with a B.Sc. in Geological Sciences (2004) and have worked continuously since that time;
4. I am a geological consultant currently licensed with the Association of Professional Engineers and Geoscientists of British Columbia (License No. 35680);
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 and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101. My relevant experience for the purpose of the Technical Report is:
  - Geological consultant and business owner/operator specializing in QA/QC and database management, GeoSpark Consulting Inc., 2007 – current.
  - Senior Geological Database Manager / Project Manager / Supervisor, Maxwell GeoServices Canada Inc., 2005 – 2007.
  - Independent Geological Consultant, 2004 – 2005.
6. I am responsible for Section 12 and corresponding sections of 1, 25, 26, and 27 of the Technical Report;
7. I did not visit the Casino Project site;
8. I have not had prior involvement with the Casino Project that is the subject of this Technical Report;
9. I am independent of the issuer applying the test in Section 1.5 of NI 43-101;
10. I have read NI 43-101 and Form 43-101F1. The sections of the Technical Report that I am responsible for have been prepared in compliance with that instrument and form;
11. As of the date of this certificate, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 26<sup>th</sup> day of October, 2020.

{Caroline Vallat}

  
Caroline J. Vallat, P.Ge.



## Appendix B – Casino Placer Claims and Casino Quartz claims

## Casino Property

### List of Casino Placer Claims

District: Whitehorse

Status: Active

Claim owner: Casino Mining Corp.

#	GRANT NUMBER	TENURE TYPE	CLAIM NAME	CLAIM NUMBER	RECORDED DATE	EXPIRY DATE
1	P 508065	Placer	CAS PL	4	2011-08-11	2022-02-11
2	P 508066	Placer	CAS PL	5	2011-08-11	2022-02-11
3	P 508067	Placer	CAS PL	6	2011-08-11	2022-02-11
4	P 508068	Placer	CAS PL	7	2011-08-11	2022-02-11
5	P 508069	Placer	CAS PL	8	2011-08-11	2022-02-11
6	P 508070	Placer	CAS PL	9	2011-08-11	2022-02-11
7	P 508071	Placer	CAS PL	10	2011-08-11	2022-02-11
8	P 508072	Placer	CAS PL	11	2011-08-11	2022-02-11
9	P 508073	Placer	CAS PL	12	2011-08-11	2022-02-11
10	P 508074	Placer	CAS PL	13	2011-08-11	2022-02-11
11	P 508075	Placer	CAS PL	14	2011-08-11	2022-02-11
12	P 508076	Placer	CAS PL	15	2011-08-11	2022-02-11
13	P 508077	Placer	CAS PL	16	2011-08-11	2022-02-11
14	P 508078	Placer	CAS PL	17	2011-08-11	2022-02-11
15	P 508079	Placer	CAS PL	18	2011-08-11	2022-02-11
16	P 508080	Placer	CAS PL	19	2011-08-11	2022-02-11
17	P 508081	Placer	CAS PL	20	2011-08-11	2022-02-11
18	P 508082	Placer	CAS PL	21	2011-08-11	2022-02-11
19	P 508083	Placer	CAS PL	22	2011-08-11	2022-02-11
20	P 508084	Placer	CAS PL	23	2011-08-11	2022-02-11
21	P 508085	Placer	CAS PL	24	2011-08-11	2022-02-11
22	P 508086	Placer	CAS PL	25	2011-08-11	2022-02-11
23	P 508087	Placer	CAS PL	26	2011-08-11	2022-02-11
24	P 508088	Placer	CAS PL	27	2011-08-11	2022-02-11
25	P 508089	Placer	CAS PL	28	2011-08-11	2022-02-11
26	P 508090	Placer	CAS PL	29	2011-08-11	2022-02-11
27	P 508091	Placer	CAS PL	30	2011-08-11	2022-02-11
28	P 508092	Placer	CAS PL	31	2011-08-11	2022-02-11
29	P 508093	Placer	CAS PL	32	2011-08-11	2022-02-11
30	P 508094	Placer	CAS PL	33	2011-08-11	2022-02-11
31	P 508095	Placer	CAS PL	34	2011-08-11	2022-02-11
32	P 508096	Placer	CAS PL	35	2011-08-11	2022-02-11
33	P 508097	Placer	CAS PL	36	2011-08-11	2022-02-11
34	P 508098	Placer	CAS PL	37	2011-08-11	2022-02-11
35	P 508099	Placer	CAS PL	38	2011-08-11	2022-02-11
36	P 508100	Placer	CAS PL	39	2011-08-11	2022-02-11
37	P 509301	Placer	CAS PL	40	2011-08-11	2022-02-11
38	P 509302	Placer	CAS PL	41	2011-08-11	2022-02-11
39	P 509303	Placer	CAS PL	42	2011-08-11	2022-02-11
40	P 509304	Placer	CAS PL	43	2011-08-11	2022-02-11
41	P 509305	Placer	CAS PL	44	2011-08-11	2022-02-11
42	P 509306	Placer	CAS PL	45	2011-08-11	2022-02-11
43	P 509307	Placer	CAS PL	46	2011-08-11	2022-02-11
44	P 509308	Placer	CAS PL	47	2011-08-11	2022-02-11
45	P 509309	Placer	CAS PL	48	2011-08-11	2022-02-11
46	P 509310	Placer	CAS PL	49	2011-08-11	2022-02-11
47	P 509311	Placer	CAS PL	50	2011-08-11	2022-02-11
48	P 509312	Placer	CAS PL	51	2011-08-11	2022-02-11
49	P 509313	Placer	CAS PL	52	2011-08-11	2022-02-11
50	P 509314	Placer	CAS PL	53	2011-08-11	2022-02-11
51	P 509315	Placer	CAS PL	54	2011-08-11	2022-02-11
52	P 509316	Placer	CAS PL	55	2011-08-11	2022-02-11
53	P 509317	Placer	CAS PL	56	2011-08-11	2022-02-11
54	P 509318	Placer	CAS PL	57	2011-08-11	2022-02-11
55	P 509319	Placer	CAS PL	58	2011-08-11	2022-02-11

## Casino Property

### List of Casino Quartz Claims

District: Whitehorse

Status: Active

Claim owner: Casino Mining Corp.

#	Grant Number	Claim Name	Claim Number	Staking date	Expiry Date	NTS Map	Non Standard Size
1	95740	CAT	63	1965-12-05	2025-03-25	115J10	
2	95741	CAT	64	1965-12-05	2025-03-25	115J10	
3	95742	CAT	65	1965-12-05	2025-03-25	115J10	
4	95743	CAT	66	1965-12-05	2025-03-25	115J10	
5	95745	CAT	68	1965-12-05	2025-03-25	115J10	
6	95747	CAT	70	1965-12-05	2025-03-25	115J10	
7	Y 35195	MOUSE	4	1969-06-04	2025-03-25	115J10	
8	Y 35197	MOUSE	6	1969-06-04	2025-03-25	115J10	
9	Y 35484	MOUSE	90	1969-06-22	2025-03-25	115J10	
10	YD04376	FLY	2	2011-02-02	2025-03-25	115J10	
11	YD04377	FLY	3	2011-02-02	2025-03-25	115J10	
12	YD04378	FLY	4	2011-02-02	2025-03-25	115J10	
13	YD04379	FLY	5	2011-02-02	2025-03-25	115J10	
14	YD04380	FLY	6	2011-02-02	2025-03-25	115J10	
15	YD04381	FLY	7	2011-02-02	2025-03-25	115J10	
16	YD04382	FLY	8	2011-02-02	2025-03-25	115J10	
17	YD04383	FLY	9	2011-02-02	2025-03-25	115J10	
18	YD04384	FLY	10	2011-02-02	2025-03-25	115J10	
19	YD04385	FLY	11	2011-02-02	2025-03-25	115J10	
20	YD04386	FLY	12	2011-02-02	2025-03-25	115J10	
21	YD04387	FLY	13	2011-02-02	2025-03-25	115J10	
22	YD04388	FLY	14	2011-02-02	2025-03-25	115J10	
23	YD04399	FLY	15	2011-02-02	2025-03-25	115J10	
24	YD04400	FLY	16	2011-02-02	2025-03-25	115J10	
25	YD04401	FLY	17	2011-02-02	2025-03-25	115J10	
26	YD04402	FLY	18	2011-02-02	2025-03-25	115J10	
27	YD04375	FLY	1	2011-02-02	2025-03-26	115J10	
28	YC82855	BL	1	2008-07-31	2025-08-01	105 E12	
29	YC82856	BL	2	2008-07-31	2025-08-01	105 E12	
30	YC82857	BL	3	2008-07-31	2025-08-01	105 E12	
31	YC82858	BL	4	2008-07-31	2025-08-01	105 E12	
32	YC82859	BL	5	2008-07-31	2025-08-01	105 E12	
33	YC82860	BL	6	2008-07-31	2025-08-01	105 E12	
34	YC82861	BL	7	2008-07-31	2025-08-01	105 E12	
35	YC82862	BL	8	2008-07-31	2025-08-01	105 E12	
36	YE94141	CAS19	1	2019-08-28	2025-09-03	115J10	
37	YE94142	CAS19	2	2019-08-28	2025-09-03	115J10	
38	YE94143	CAS19	3	2019-08-28	2025-09-03	115J10	
39	YE94144	CAS19	4	2019-08-28	2025-09-03	115J10	
40	YE94145	CAS19	5	2019-08-28	2025-09-03	115J10	
41	YE94146	CAS19	6	2019-08-28	2025-09-03	115J10	
42	YE94147	CAS19	7	2019-08-28	2025-09-03	115J10	
43	YE94148	CAS19	8	2019-08-28	2025-09-03	115J10	
44	YE94149	CAS19	9	2019-08-28	2025-09-03	115J10	
45	YE94150	CAS19	10	2019-08-28	2025-09-03	115J10	
46	YE94151	CAS19	11	2019-08-28	2025-09-03	115J10	
47	YE94152	CAS19	12	2019-08-28	2025-09-03	115J10	
48	YE94153	CAS19	13	2019-08-28	2025-09-03	115J10	
49	YE94154	CAS19	14	2019-08-28	2025-09-03	115J10	Full Quartz fraction (25+ acres)
50	YE94155	CAS19	15	2019-08-28	2025-09-03	115J10	Full Quartz fraction (25+ acres)
51	YE94156	CAS19	16	2019-08-28	2025-09-03	115J10	
52	YE94157	CAS19	17	2019-08-28	2025-09-03	115J10	
53	YE94158	CAS19	18	2019-08-28	2025-09-03	115J10	
54	YE94159	CAS19	19	2019-08-28	2025-09-03	115J10	

**List of Casino Quartz Claims**

District: Whitehorse  
 Status: Active

Claim owner: Casino Mining Corp.

#	Grant Number	Claim Name	Claim Number	Staking date	Expiry Date	NTS Map	Non Standard Size
55	YE94160	CAS19	20	2019-08-28	2025-09-03	115J10	
56	YE94161	CAS19	21	2019-08-28	2025-09-03	115J10	
57	YE94162	CAS19	22	2019-08-28	2025-09-03	115J10	
58	YE94163	CAS19	23	2019-08-28	2025-09-03	115J10	
59	YE94164	CAS19	24	2019-08-28	2025-09-03	115J10	
60	YE94165	CAS19	25	2019-08-28	2025-09-03	115J10	
61	YE94166	CAS19	26	2019-08-28	2025-09-03	115J10	
62	YE94167	CAS19	27	2019-08-28	2025-09-03	115J10	
63	YE94168	CAS19	28	2019-08-28	2025-09-03	115J10	
64	YE94169	CAS19	29	2019-08-28	2025-09-03	115J10	
65	YE94170	CAS19	30	2019-08-28	2025-09-03	115J10	
66	YE94171	CAS19	31	2019-08-28	2025-09-03	115J10	
67	YE94172	CAS19	32	2019-08-28	2025-09-03	115J10	Full Quartz fraction (25+ acres)
68	YE94173	CAS19	33	2019-08-28	2025-09-03	115J10	Full Quartz fraction (25+ acres)
69	YE94174	CAS19	34	2019-08-28	2025-09-03	115J10	
70	YE94175	CAS19	35	2019-08-28	2025-09-03	115J10	
71	YE94176	CAS19	36	2019-08-28	2025-09-03	115J10	
72	YE94177	CAS19	37	2019-08-27	2025-09-03	115J10	
73	YE94178	CAS19	38	2019-08-27	2025-09-03	115J10	
74	YE94179	CAS19	39	2019-08-27	2025-09-03	115J10	
75	YE94180	CAS19	40	2019-08-27	2025-09-03	115J10	
76	YE94181	CAS19	41	2019-08-27	2025-09-03	115J10	
77	YE94182	CAS19	42	2019-08-27	2025-09-03	115J10	
78	YE94183	CAS19	43	2019-08-27	2025-09-03	115J10	
79	YE94184	CAS19	44	2019-08-27	2025-09-03	115J10	
80	YE94185	CAS19	45	2019-08-27	2025-09-03	115J10	
81	YE94186	CAS19	46	2019-08-27	2025-09-03	115J10	
82	YE94187	CAS19	47	2019-08-27	2025-09-03	115J10	
83	YE94188	CAS19	48	2019-08-27	2025-09-03	115J10	
84	YE94189	CAS19	49	2019-08-27	2025-09-03	115J10	Full Quartz fraction (25+ acres)
85	YE94190	CAS19	50	2019-08-27	2025-09-03	115J10	
86	YE94191	CAS19	51	2019-08-27	2025-09-03	115J10	
87	YE94192	CAS19	52	2019-08-27	2025-09-03	115J10	
88	YE94193	CAS19	53	2019-08-27	2025-09-03	115J10	Full Quartz fraction (25+ acres)
89	YC99925	KANA	46	2010-06-05	2026-06-08	115J15	Full Quartz fraction (25+ acres)
90	YB37540	AZTEC	1	1992-09-12	2026-09-21	115J10	
91	YB37541	AZTEC	2	1992-09-12	2026-09-21	115J10	
92	YB37542	AZTEC	3	1992-09-12	2026-09-21	115J10	
93	YB37543	AZTEC	4	1992-09-12	2026-09-21	115J10	
94	YB37544	AZTEC	5	1992-09-12	2026-09-21	115J10	
95	YB37545	AZTEC	6	1992-09-12	2026-09-21	115J10	
96	YB37546	AZTEC	7	1992-09-12	2026-09-21	115J10	
97	YB37547	AZTEC	8	1992-09-12	2026-09-21	115J10	
98	YB37548	AZTEC	9	1992-09-12	2026-09-21	115J10	
99	YB37549	AZTEC	10	1992-09-12	2026-09-21	115J10	
100	YB37622	MAYA	31	1992-09-12	2026-09-21	115J10	
101	YB37623	MAYA	32	1992-09-12	2026-09-21	115J10	
102	YB37624	MAYA	33	1992-09-12	2026-09-21	115J10	
103	YB37625	MAYA	34	1992-09-12	2026-09-21	115J10	
104	YB37626	MAYA	35	1992-09-12	2026-09-21	115J10	
105	YB37627	MAYA	36	1992-09-12	2026-09-21	115J10	
106	YB37628	MAYA	37	1992-09-12	2026-09-21	115J10	
107	YB37629	MAYA	38	1992-09-12	2026-09-21	115J10	
108	YB37630	MAYA	39	1992-09-12	2026-09-21	115J10	
109	YB37631	MAYA	40	1992-09-12	2026-09-21	115J10	
110	YC99915	KANA	37	2009-09-01	2026-09-29	115J10	Partial Quartz fraction (<25 acres)

**List of Casino Quartz Claims**

District: Whitehorse  
 Status: Active

Claim owner: Casino Mining Corp.

#	Grant Number	Claim Name	Claim Number	Staking date	Expiry Date	NTS Map	Non Standard Size
111	YC99916	KANA	38	2009-09-01	2026-09-29	115J10	Partial Quartz fraction (<25 acres)
112	YC99917	KANA	39	2009-09-01	2026-09-29	115J10	Partial Quartz fraction (<25 acres)
113	YC99918	KANA	40	2009-09-01	2026-09-29	115J10	Partial Quartz fraction (<25 acres)
114	YC99919	KANA	41	2009-09-01	2026-09-29	115J10	Partial Quartz fraction (<25 acres)
115	YC99920	KANA	42	2009-09-01	2026-09-29	115J10	Partial Quartz fraction (<25 acres)
116	YC99921	KANA	43	2009-09-01	2026-09-29	115J10	Partial Quartz fraction (<25 acres)
117	YC99922	KANA	44	2009-09-01	2026-09-29	115J10	Partial Quartz fraction (<25 acres)
118	YC99923	KANA	45	2009-09-01	2026-09-29	115J10	Partial Quartz fraction (<25 acres)
119	YB37830	ICE	30	1993-01-22	2027-01-27	115J11	
120	YB37831	ICE	31	1993-01-22	2027-01-27	115J11	
121	YB37832	ICE	32	1993-01-22	2027-01-27	115J11	
122	YB37833	ICE	33	1993-01-22	2027-01-27	115J11	
123	YB37841	ICE	41	1993-01-22	2027-01-27	115J10	
124	YB37842	ICE	42	1993-01-22	2027-01-27	115J10	
125	YB37843	ICE	43	1993-01-22	2027-01-27	115J11	
126	YB37844	ICE	44	1993-01-22	2027-01-27	115J11	
127	YB37845	ICE	45	1993-01-22	2027-01-27	115J11	
128	YB37846	ICE	46	1993-01-22	2027-01-27	115J11	
129	YB37847	ICE	47	1993-01-22	2027-01-27	115J11	
130	YD17559	AXS	1	2009-10-05	2027-03-25	115J15	
131	YD17560	AXS	2	2009-10-05	2027-03-25	115J15	
132	YD17561	AXS	3	2009-10-05	2027-03-25	115J15	
133	YD17562	AXS	4	2009-10-05	2027-03-25	115J15	
134	YD17563	AXS	5	2009-10-05	2027-03-25	115J15	
135	YD17564	AXS	6	2009-10-05	2027-03-25	115J15	
136	YD17565	AXS	7	2009-10-05	2027-03-25	115J10	
137	YD17566	AXS	8	2009-10-05	2027-03-25	115J10	
138	YD17567	AXS	9	2009-10-05	2027-03-25	115J10	
139	YD17568	AXS	10	2009-10-05	2027-03-25	115J10	
140	YD17569	AXS	11	2009-10-06	2027-03-25	115J10	
141	YD17570	AXS	12	2009-10-06	2027-03-25	115J10	
142	YD17571	AXS	13	2009-10-06	2027-03-25	115J10	
143	YD17572	AXS	14	2009-10-06	2027-03-25	115J10	
144	YD17573	AXS	15	2009-10-06	2027-03-25	115J10	
145	YD17574	AXS	16	2009-10-06	2027-03-25	115J10	
146	YD17575	AXS	17	2009-10-06	2027-03-25	115J10	
147	YD17576	AXS	18	2009-10-06	2027-03-25	115J10	
148	YD17577	AXS	19	2009-10-05	2027-03-25	115J10	
149	YD17578	AXS	20	2009-10-05	2027-03-25	115J10	
150	YD17579	AXS	21	2009-10-05	2027-03-25	115J10	
151	YD17580	AXS	22	2009-10-05	2027-03-25	115J10	
152	YD17581	AXS	23	2009-10-05	2027-03-25	115J10	
153	YD17582	AXS	24	2009-10-05	2027-03-25	115J10	
154	YD17583	AXS	25	2009-10-05	2027-03-25	115J10	
155	YD17584	AXS	26	2009-10-05	2027-03-25	115J10	
156	YD17585	AXS	27	2009-10-05	2027-03-25	115J10	
157	YD17586	AXS	28	2009-10-05	2027-03-25	115J10	
158	YD17587	AXS	29	2009-10-05	2027-03-25	115J10	
159	YD17588	AXS	30	2009-10-05	2027-03-25	115J10	
160	YD17589	AXS	31	2009-10-05	2027-03-25	115J10	
161	YD17590	AXS	32	2009-10-05	2027-03-25	115J10	
162	YD17591	AXS	33	2009-10-05	2027-03-25	115J10	
163	YD17592	AXS	34	2009-10-05	2027-03-25	115J10	
164	YD17593	AXS	35	2009-10-05	2027-03-25	115J10	
165	YD17594	AXS	36	2009-10-05	2027-03-25	115J10	
166	YD17595	AXS	37	2009-10-05	2027-03-25	115J10	

**List of Casino Quartz Claims**

District: Whitehorse  
 Status: Active

Claim owner: Casino Mining Corp.

#	Grant Number	Claim Name	Claim Number	Staking date	Expiry Date	NTS Map	Non Standard Size
167	YD17596	AXS	38	2009-10-05	2027-03-25	115J10	
168	YD17597	AXS	39	2009-10-05	2027-03-25	115J10	
169	YD17598	AXS	40	2009-10-05	2027-03-25	115J10	
170	YD17599	AXS	41	2009-10-05	2027-03-25	115J10	
171	YD17600	AXS	42	2009-10-05	2027-03-25	115J10	
172	YD17601	AXS	43	2009-10-05	2027-03-25	115J10	
173	YD17602	AXS	44	2009-10-05	2027-03-25	115J10	
174	YD17603	AXS	45	2009-10-05	2027-03-25	115J10	
175	YD17604	AXS	46	2009-10-05	2027-03-25	115J10	
176	YD17605	AXS	47	2009-10-05	2027-03-25	115J10	
177	YD17606	AXS	48	2009-10-05	2027-03-25	115J10	
178	YD17607	AXS	49	2009-10-06	2027-03-25	115J10	
179	YD17608	AXS	50	2009-10-06	2027-03-25	115J10	
180	YD17609	AXS	51	2009-10-06	2027-03-25	115J10	
181	YD17610	AXS	52	2009-10-06	2027-03-25	115J10	
182	YD17611	AXS	53	2009-10-06	2027-03-25	115J10	
183	YD17612	AXS	54	2009-10-06	2027-03-25	115J10	
184	YD17613	AXS	55	2009-10-05	2027-03-25	115J10	
185	YD17614	AXS	56	2009-10-05	2027-03-25	115J09	
186	YD17615	AXS	57	2009-10-05	2027-03-25	115J10	
187	YD17616	AXS	58	2009-10-05	2027-03-25	115J10	
188	YD17617	AXS	59	2009-10-05	2027-03-25	115J10	
189	YD17618	AXS	60	2009-10-05	2027-03-25	115J10	
190	YD17619	AXS	61	2009-10-05	2027-03-25	115J09	
191	YD17620	AXS	62	2009-10-05	2027-03-25	115J09	
192	YD17621	AXS	63	2009-10-05	2027-03-25	115J09	
193	YD17622	AXS	64	2009-10-05	2027-03-25	115J09	
194	YD17623	AXS	65	2009-10-05	2027-03-25	115J09	
195	YD17624	AXS	66	2009-10-05	2027-03-25	115J09	
196	YD17625	AXS	67	2009-10-05	2027-03-25	115J09	
197	YD17626	AXS	68	2009-10-05	2027-03-25	115J09	
198	YD17627	AXS	69	2009-10-06	2027-03-25	115J09	
199	YD17628	AXS	70	2009-10-06	2027-03-25	115J09	
200	YD17629	AXS	71	2009-10-06	2027-03-25	115J09	
201	YD17630	AXS	72	2009-10-06	2027-03-25	115J09	
202	YD17631	AXS	73	2009-10-06	2027-03-25	115J09	
203	YD17632	AXS	74	2009-10-06	2027-03-25	115J09	
204	YD17633	AXS	75	2009-10-05	2027-03-25	115J09	
205	YD17634	AXS	76	2009-10-05	2027-03-25	115J09	
206	YD17635	AXS	77	2009-10-05	2027-03-25	115J09	
207	YD17636	AXS	78	2009-10-05	2027-03-25	115J09	
208	YD17637	AXS	79	2009-10-05	2027-03-25	115J09	
209	YD17638	AXS	80	2009-10-05	2027-03-25	115J09	
210	YD17639	AXS	81	2009-10-05	2027-03-25	115J09	
211	YD17640	AXS	82	2009-10-05	2027-03-25	115J09	
212	YD17641	AXS	83	2009-10-05	2027-03-25	115J09	
213	YD17642	AXS	84	2009-10-05	2027-03-25	115J09	
214	YD17643	AXS	85	2009-10-05	2027-03-25	115J09	
215	YD17644	AXS	86	2009-10-05	2027-03-25	115J09	
216	YD17645	AXS	87	2009-10-06	2027-03-25	115J09	
217	YD17646	AXS	88	2009-10-06	2027-03-25	115J09	
218	YD17647	AXS	89	2009-10-06	2027-03-25	115J09	
219	YD17648	AXS	90	2009-10-06	2027-03-25	115J09	
220	YD17649	AXS	91	2009-10-06	2027-03-25	115J09	
221	YD17650	AXS	92	2009-10-06	2027-03-25	115J09	
222	YD17651	AXS	103	2009-10-07	2027-03-25	115J09	

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 Status: Active

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#	Grant Number	Claim Name	Claim Number	Staking date	Expiry Date	NTS Map	Non Standard Size
223	YD17652	AXS	102	2009-10-07	2027-03-25	115J16	
224	YD17653	AXS	101	2009-10-07	2027-03-25	115J16	
225	YD17654	AXS	100	2009-10-06	2027-03-25	115J16	
226	YD17655	AXS	99	2009-10-06	2027-03-25	115J16	
227	YD17656	AXS	98	2009-10-06	2027-03-25	115J16	
228	YD17657	AXS	97	2009-10-06	2027-03-25	115J16	
229	YD17658	AXS	96	2009-10-06	2027-03-25	115J16	
230	YD17659	AXS	95	2009-10-06	2027-03-25	115J16	
231	YD17660	AXS	94	2009-10-06	2027-03-25	115J16	
232	YD17661	AXS	93	2009-10-06	2027-03-25	115J16	
233	YD17662	AXS	104	2009-10-07	2027-03-25	115J09	
234	YD17663	AXS	105	2009-10-07	2027-03-25	115J09	
235	YD17664	AXS	106	2009-10-07	2027-03-25	115J09	
236	YD17665	AXS	107	2009-10-07	2027-03-25	115J09	
237	YD17666	AXS	108	2009-10-07	2027-03-25	115J09	
238	YD17667	AXS	109	2009-10-07	2027-03-25	115J09	
239	YD17668	AXS	110	2009-10-07	2027-03-25	115J09	
240	YD17669	AXS	111	2009-10-07	2027-03-25	115J09	
241	YD17670	AXS	112	2009-10-07	2027-03-25	115J09	
242	YD17694	AXS	136	2009-10-06	2027-03-25	115J09	
243	YD17671	AXS	113	2009-10-06	2027-03-25	115J09	
244	YD17672	AXS	114	2009-10-06	2027-03-25	115J09	
245	YD17673	AXS	115	2009-10-06	2027-03-25	115J09	
246	YD17674	AXS	116	2009-10-06	2027-03-25	115J09	
247	YD17675	AXS	117	2009-10-06	2027-03-25	115J09	
248	YD17676	AXS	118	2009-10-06	2027-03-25	115J09	
249	YD17677	AXS	119	2009-10-06	2027-03-25	115J09	
250	YD17678	AXS	120	2009-10-06	2027-03-25	115J09	
251	YD17679	AXS	121	2009-10-06	2027-03-25	115J09	
252	YD17680	AXS	122	2009-10-06	2027-03-25	115J09	
253	YD17681	AXS	123	2009-10-06	2027-03-25	115J09	
254	YD17682	AXS	124	2009-10-06	2027-03-25	115J09	
255	YD17683	AXS	125	2009-10-06	2027-03-25	115J09	
256	YD17684	AXS	126	2009-10-06	2027-03-25	115J09	
257	YD17685	AXS	127	2009-10-06	2027-03-25	115J09	
258	YD17686	AXS	128	2009-10-06	2027-03-25	115J09	
259	YD17687	AXS	129	2009-10-06	2027-03-25	115J09	
260	YD17688	AXS	130	2009-10-06	2027-03-25	115J09	
261	YD17689	AXS	131	2009-10-06	2027-03-25	115J09	
262	YD17690	AXS	132	2009-10-06	2027-03-25	115J09	
263	YD17691	AXS	133	2009-10-06	2027-03-25	115J09	
264	YD17692	AXS	134	2009-10-06	2027-03-25	115J09	
265	YD17693	AXS	135	2009-10-06	2027-03-25	115J09	
266	YD08825	BERG	3	2010-06-06	2027-06-08	115J15	
267	YD08824	BERG	4	2010-06-06	2027-06-08	115J15	
268	YD08823	BERG	5	2010-06-06	2027-06-08	115J15	
269	YD08822	BERG	6	2010-06-06	2027-06-08	115J15	
270	YD08821	BERG	7	2010-06-06	2027-06-08	115J14	
271	YD08820	BERG	8	2010-06-06	2027-06-08	115J14	
272	YD08819	BERG	9	2010-06-06	2027-06-08	115J14	
273	YD08818	BERG	10	2010-06-06	2027-06-08	115J14	
274	YD08817	BERG	11	2010-06-06	2027-06-08	115J14	
275	YD08816	BERG	12	2010-06-06	2027-06-08	115J14	
276	YD08815	BERG	13	2010-06-06	2027-06-08	115J14	
277	YD08814	BERG	14	2010-06-06	2027-06-08	115J14	
278	YD08813	BERG	15	2010-06-06	2027-06-08	115J14	

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District: Whitehorse  
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#	Grant Number	Claim Name	Claim Number	Staking date	Expiry Date	NTS Map	Non Standard Size
279	YD08812	BERG	16	2010-06-06	2027-06-08	115J14	
280	YD08811	BERG	17	2010-06-06	2027-06-08	115J14	
281	YD08810	BERG	18	2010-06-06	2027-06-08	115J14	
282	YD08809	BERG	19	2010-06-07	2027-06-08	115J14	
283	YD08808	BERG	20	2010-06-07	2027-06-08	115J14	
284	YD08807	BERG	21	2010-06-07	2027-06-08	115J14	
285	YD08806	BERG	22	2010-06-07	2027-06-08	115J14	
286	YD08827	BERG	27	2010-06-06	2027-06-08	115J15	
287	YD08828	BERG	28	2010-06-06	2027-06-08	115J15	
288	YD08829	BERG	29	2010-06-06	2027-06-08	115J15	
289	YD08830	BERG	30	2010-06-06	2027-06-08	115J15	
290	YD08831	BERG	31	2010-06-06	2027-06-08	115J14	
291	YD08832	BERG	32	2010-06-06	2027-06-08	115J14	
292	YD08833	BERG	33	2010-06-06	2027-06-08	115J14	
293	YD08834	BERG	34	2010-06-06	2027-06-08	115J14	
294	YD08835	BERG	35	2010-06-06	2027-06-08	115J14	
295	YD08836	BERG	36	2010-06-06	2027-06-08	115J14	
296	YD08837	BERG	37	2010-06-06	2027-06-08	115J14	
297	YD08838	BERG	38	2010-06-06	2027-06-08	115J14	
298	YD08839	BERG	39	2010-06-06	2027-06-08	115J14	
299	YD08840	BERG	40	2010-06-06	2027-06-08	115J14	
300	YD08841	BERG	41	2010-06-06	2027-06-08	115J14	
301	YD08842	BERG	42	2010-06-06	2027-06-08	115J14	
302	YD08847	BERG	47	2010-06-05	2027-06-08	115J11	
303	YD08848	BERG	48	2010-06-05	2027-06-08	115J11	
304	YD08849	BERG	49	2010-06-05	2027-06-08	115J11	
305	YD08850	BERG	50	2010-06-05	2027-06-08	115J11	
306	YD08854	BERG	54	2010-06-05	2027-06-08	115J11	
307	YD08855	BERG	55	2010-06-05	2027-06-08	115J11	
308	YD08856	BERG	56	2010-06-05	2027-06-08	115J11	
309	YD08853	BERG	53	2010-06-05	2027-06-08	115J11	Partial Quartz fraction (<25 acres)
310	YD08802	BERG	59	2010-06-07	2027-06-08	115J11	Full Quartz fraction (25+ acres)
311	YC99926	KANA	47	2010-06-05	2027-06-08	115J15	Partial Quartz fraction (<25 acres)
312	YC99924	KANA	58	2010-06-04	2027-06-08	115J10	Partial Quartz fraction (<25 acres)
313	YC99927	KANA	48	2010-06-08	2027-06-08	115J15	
314	YC99928	KANA	49	2010-06-08	2027-06-08	115J15	
315	YC99929	KANA	50	2010-06-08	2027-06-08	115J15	
316	YC99930	KANA	51	2010-06-08	2027-06-08	115J15	
317	YC99931	KANA	52	2010-06-08	2027-06-08	115J15	
318	YC99932	KANA	53	2010-06-08	2027-06-08	115J15	
319	YC99933	KANA	54	2010-06-08	2027-06-08	115J15	
320	YC99934	KANA	55	2010-06-08	2027-06-08	115J15	
321	YC99935	KANA	56	2010-06-05	2027-06-08	115J15	
322	YC99936	KANA	57	2010-06-05	2027-06-08	115J15	
323	YC99879	KANA	1	2009-06-20	2027-06-22	115J15	
324	YC99880	KANA	2	2009-06-20	2027-06-22	115J15	
325	YC99881	KANA	3	2009-06-20	2027-06-22	115J15	
326	YC99882	KANA	4	2009-06-20	2027-06-22	115J15	
327	YC99883	KANA	5	2009-06-20	2027-06-22	115J15	
328	YC99884	KANA	6	2009-06-20	2027-06-22	115J15	
329	YC99885	KANA	7	2009-06-20	2027-06-22	115J15	
330	YC99886	KANA	8	2009-06-20	2027-06-22	115J15	
331	YC99887	KANA	9	2009-06-20	2027-06-22	115J15	
332	YC99888	KANA	10	2009-06-20	2027-06-22	115J15	
333	YC99889	KANA	11	2009-06-20	2027-06-22	115J15	
334	YC99890	KANA	12	2009-06-20	2027-06-22	115J15	

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District: Whitehorse  
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#	Grant Number	Claim Name	Claim Number	Staking date	Expiry Date	NTS Map	Non Standard Size
335	YC99891	KANA	13	2009-06-20	2027-06-22	115J15	
336	YC99892	KANA	14	2009-06-20	2027-06-22	115J15	
337	YC99893	KANA	15	2009-06-20	2027-06-22	115J15	
338	YC99894	KANA	16	2009-06-20	2027-06-22	115J15	
339	YC99895	KANA	17	2009-06-20	2027-06-22	115J15	
340	YC99896	KANA	18	2009-06-20	2027-06-22	115J15	
341	YC99897	KANA	19	2009-06-20	2027-06-22	115J15	
342	YC99898	KANA	20	2009-06-20	2027-06-22	115J15	
343	YC99899	KANA	21	2009-06-20	2027-06-22	115J15	
344	YC99900	KANA	22	2009-06-20	2027-06-22	115J15	
345	YC99901	KANA	23	2009-06-20	2027-06-22	115J15	
346	YC99902	KANA	24	2009-06-20	2027-06-22	115J15	
347	YC99903	KANA	25	2009-06-20	2027-06-22	115J15	
348	YC99904	KANA	26	2009-06-20	2027-06-22	115J15	
349	YC99905	KANA	27	2009-06-20	2027-06-22	115J15	
350	YC99906	KANA	28	2009-06-20	2027-06-22	115J15	
351	YC99907	KANA	29	2009-06-20	2027-06-22	115J15	
352	YC99908	KANA	30	2009-06-20	2027-06-22	115J15	
353	YC99909	KANA	31	2009-06-20	2027-06-22	115J15	
354	YC99910	KANA	32	2009-06-20	2027-06-22	115J15	
355	YC99911	KANA	33	2009-06-20	2027-06-22	115J15	
356	YC99912	KANA	34	2009-06-20	2027-06-22	115J15	
357	YC99913	KANA	35	2009-06-20	2027-06-22	115J15	
358	YD08861	BERG F	61	2010-08-09	2027-08-13	115J10	Full Quartz fraction (25+ acres)
359	YD08862	BERG F	62	2010-08-09	2027-08-13	115J10	Full Quartz fraction (25+ acres)
360	YD08863	BERG F	63	2010-08-09	2027-08-13	115J10	Full Quartz fraction (25+ acres)
361	YD08864	BERG F	64	2010-08-09	2027-08-13	115J10	Full Quartz fraction (25+ acres)
362	YD08865	BERG F	65	2010-08-09	2027-08-13	115J11	Full Quartz fraction (25+ acres)
363	YD08866	BERG F	66	2010-08-09	2027-08-13	115J11	Full Quartz fraction (25+ acres)
364	YD08867	BERG F	67	2010-08-09	2027-08-13	115J14	Partial Quartz fraction (<25 acres)
365	YB37482	KOFFEE	1	1992-09-12	2027-09-21	115J10	
366	YB37483	KOFFEE	2	1992-09-12	2027-09-21	115J10	
367	YB37484	KOFFEE	3	1992-09-12	2027-09-21	115J10	
368	YB37485	KOFFEE	4	1992-09-12	2027-09-21	115J10	
369	YB37486	KOFFEE	5	1992-09-12	2027-09-21	115J10	
370	YB37487	KOFFEE	6	1992-09-12	2027-09-21	115J10	
371	YB37488	KOFFEE	7	1992-09-12	2027-09-21	115J10	
372	YB37489	KOFFEE	8	1992-09-12	2027-09-21	115J10	
373	YB37490	KOFFEE	9	1992-09-12	2027-09-21	115J10	
374	YB37491	KOFFEE	10	1992-09-12	2027-09-21	115J10	
375	YB37492	KOFFEE	11	1992-09-12	2027-09-21	115J10	
376	YB37493	KOFFEE	12	1992-09-12	2027-09-21	115J10	
377	YB37494	KOFFEE	13	1992-09-12	2027-09-21	115J10	
378	YB37495	KOFFEE	14	1992-09-12	2027-09-21	115J10	
379	YB37496	KOFFEE	15	1992-09-12	2027-09-21	115J10	
380	YB37497	KOFFEE	16	1992-09-12	2027-09-21	115J10	
381	YB37498	KOFFEE	17	1992-09-12	2027-09-21	115J10	
382	YB37499	KOFFEE	18	1992-09-12	2027-09-21	115J10	
383	YB37500	KOFFEE	19	1992-09-12	2027-09-21	115J10	
384	YB37501	KOFFEE	20	1992-09-12	2027-09-21	115J10	
385	YB37502	KOFFEE	21	1992-09-12	2027-09-21	115J10	
386	YB37503	KOFFEE	22	1992-09-12	2027-09-21	115J10	
387	YB37504	KOFFEE	23	1992-09-12	2027-09-21	115J10	
388	YB37505	KOFFEE	24	1992-09-12	2027-09-21	115J10	
389	YB37506	KOFFEE	25	1992-09-12	2027-09-21	115J10	
390	YB37507	KOFFEE	26	1992-09-12	2027-09-21	115J10	

**List of Casino Quartz Claims**

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#	Grant Number	Claim Name	Claim Number	Staking date	Expiry Date	NTS Map	Non Standard Size
391	YB37508	KOFFEE	27	1992-09-12	2027-09-21	115J10	
392	YB37509	KOFFEE	28	1992-09-12	2027-09-21	115J10	
393	YB37510	KOFFEE	29	1992-09-13	2027-09-21	115J10	
394	YB37511	KOFFEE	30	1992-09-13	2027-09-21	115J10	
395	YB37512	KOFFEE	31	1992-09-13	2027-09-21	115J10	
396	YB37513	KOFFEE	32	1992-09-13	2027-09-21	115J10	
397	YB37514	KOFFEE	33	1992-09-13	2027-09-21	115J10	
398	YB37515	KOFFEE	34	1992-09-13	2027-09-21	115J10	
399	YB37516	KOFFEE	35	1992-09-13	2027-09-21	115J10	
400	YB37517	KOFFEE	36	1992-09-13	2027-09-21	115J10	
401	YB37518	KOFFEE	37	1992-09-13	2027-09-21	115J10	
402	YB37519	KOFFEE	38	1992-09-13	2027-09-21	115J10	
403	YB37520	KOFFEE	39	1992-09-13	2027-09-21	115J10	
404	YB37521	KOFFEE	40	1992-09-13	2027-09-21	115J10	
405	YB37522	KOFFEE	41	1992-09-13	2027-09-21	115J10	
406	YB37523	KOFFEE	42	1992-09-13	2027-09-21	115J10	
407	YB37524	KOFFEE	43	1992-09-13	2027-09-21	115J10	
408	YB37525	KOFFEE	44	1992-09-13	2027-09-21	115J10	
409	YB37526	KOFFEE	45	1992-09-13	2027-09-21	115J10	
410	YB37527	KOFFEE	46	1992-09-13	2027-09-21	115J10	
411	YB37528	KOFFEE	47	1992-09-13	2027-09-21	115J10	
412	YB37529	KOFFEE	48	1992-09-13	2027-09-21	115J10	
413	YB37530	KOFFEE	49	1992-09-13	2027-09-21	115J10	
414	YB37531	KOFFEE	50	1992-09-13	2027-09-21	115J10	
415	YB37532	KOFFEE	51	1992-09-13	2027-09-21	115J10	
416	YB37533	KOFFEE	52	1992-09-13	2027-09-21	115J10	
417	YB37534	KOFFEE	53	1992-09-13	2027-09-21	115J10	
418	YB37535	KOFFEE	54	1992-09-13	2027-09-21	115J10	
419	YB37536	KOFFEE	55	1992-09-13	2027-09-21	115J10	
420	YB37537	KOFFEE	56	1992-09-13	2027-09-21	115J10	
421	YB37538	KOFFEE	57	1992-09-13	2027-09-21	115J10	
422	YB37539	KOFFEE	58	1992-09-13	2027-09-21	115J10	
423	YC99914	KANA	36	2009-09-01	2027-09-29	115J15	Partial Quartz fraction (<25 acres)
424	YB37801	ICE	1	1993-01-21	2028-01-27	115J10	
425	YB37802	ICE	2	1993-01-21	2028-01-27	115J11	
426	YB37803	ICE	3	1993-01-21	2028-01-27	115J11	
427	YB37804	ICE	4	1993-01-21	2028-01-27	115J11	
428	YB37805	ICE	5	1993-01-21	2028-01-27	115J11	
429	YB37809	ICE	9	1993-01-22	2028-01-27	115J10	
430	YB37810	ICE	10	1993-01-22	2028-01-27	115J10	
431	YB37811	ICE	11	1993-01-22	2028-01-27	115J11	
432	YB37812	ICE	12	1993-01-22	2028-01-27	115J11	
433	YB37813	ICE	13	1993-01-22	2028-01-27	115J11	
434	YB37814	ICE	14	1993-01-22	2028-01-27	115J11	
435	YB37815	ICE	15	1993-01-22	2028-01-27	115J11	
436	YB37816	ICE	16	1993-01-22	2028-01-27	115J11	
437	YB37817	ICE	17	1993-01-22	2028-01-27	115J11	
438	YB37818	ICE	18	1993-01-22	2028-01-27	115J11	
439	YB37825	ICE	25	1993-01-22	2028-01-27	115J10	
440	YB37826	ICE	26	1993-01-22	2028-01-27	115J10	
441	YB37827	ICE	27	1993-01-22	2028-01-27	115J11	
442	YB37828	ICE	28	1993-01-22	2028-01-27	115J11	
443	YB37829	ICE	29	1993-01-22	2028-01-27	115J11	
444	YA86735	ANA	1	1985-04-25	2028-02-17	115J10	
445	YA86736	ANA	2	1985-04-25	2028-02-17	115J10	
446	YA86737	ANA	3	1985-04-25	2028-02-17	115J10	

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#	Grant Number	Claim Name	Claim Number	Staking date	Expiry Date	NTS Map	Non Standard Size
447	YA86738	ANA	4	1985-04-25	2028-02-17	115J10	
448	YA86739	ANA	5	1985-04-25	2028-02-17	115J10	
449	YA86740	ANA	6	1985-04-25	2028-02-17	115J10	
450	YA86741	ANA	7	1985-04-25	2028-02-17	115J10	
451	YA86742	ANA	8	1985-04-25	2028-02-17	115J10	
452	YA86743	ANA	9	1985-04-25	2028-02-17	115J10	
453	YA86744	ANA	10	1985-04-25	2028-02-17	115J10	
454	YA86749	ANA	15	1985-04-25	2028-02-17	115J10	
455	YA86750	ANA	16	1985-04-25	2028-02-17	115J10	
456	YA86751	ANA	17	1985-04-25	2028-02-17	115J10	
457	YA86752	ANA	18	1985-04-25	2028-02-17	115J10	
458	YA86753	ANA	19	1985-04-25	2028-02-17	115J10	
459	YA86754	ANA	20	1985-04-25	2028-02-17	115J10	
460	YA86755	ANA	21	1985-04-25	2028-02-17	115J10	
461	YA86756	ANA	22	1985-04-25	2028-02-17	115J10	
462	YA86757	ANA	23	1985-04-25	2028-02-17	115J10	
463	YA86758	ANA	24	1985-04-25	2028-02-17	115J10	
464	YA86759	ANA	25	1985-04-25	2028-02-17	115J10	
465	YA86760	ANA	26	1985-04-25	2028-02-17	115J10	
466	YA86763	ANA	29	1985-04-25	2028-02-17	115J10	
467	YA86764	ANA	30	1985-04-25	2028-02-17	115J10	
468	YA86765	ANA	31	1985-04-25	2028-02-17	115J10	
469	YA86766	ANA	32	1985-04-25	2028-02-17	115J10	
470	YA86767	ANA	33	1985-04-25	2028-02-17	115J10	
471	YA86768	ANA	34	1985-04-25	2028-02-17	115J10	
472	YA86769	ANA	35	1985-04-25	2028-02-17	115J10	
473	YA86770	ANA	36	1985-04-25	2028-02-17	115J10	
474	YA86771	ANA	37	1985-04-25	2028-02-17	115J10	
475	YA86772	ANA	38	1985-04-25	2028-02-17	115J10	
476	YA86773	ANA	39	1985-04-25	2028-02-17	115J10	
477	YA86774	ANA	40	1985-04-25	2028-02-17	115J10	
478	YA86777	ANA	43	1985-04-25	2028-02-17	115J10	
479	YA86778	ANA	44	1985-04-25	2028-02-17	115J10	
480	YA86779	ANA	45	1985-04-25	2028-02-17	115J10	
481	YA86780	ANA	46	1985-04-25	2028-02-17	115J10	
482	YA86781	ANA	47	1985-04-25	2028-02-17	115J10	
483	YA86782	ANA	48	1985-04-25	2028-02-17	115J10	
484	YA86783	ANA	49	1985-04-25	2028-02-17	115J10	
485	YA86784	ANA	50	1985-04-25	2028-02-17	115J10	
486	YA86785	ANA	51	1985-04-25	2028-02-17	115J10	
487	YA86786	ANA	52	1985-04-25	2028-02-17	115J10	
488	YA86787	ANA	53	1985-04-25	2028-02-17	115J10	
489	YA86788	ANA	54	1985-04-25	2028-02-17	115J10	
490	YE32245	PAL	1	2016-05-17	2028-03-25	115J10	
491	YE32246	PAL	2	2016-05-17	2028-03-25	115J10	
492	YE32247	PAL	3	2016-05-17	2028-03-25	115J10	
493	YE32248	PAL	4	2016-05-17	2028-03-25	115J10	
494	YE32249	PAL	5	2016-05-17	2028-03-25	115J10	
495	YE32138	PAL	6	2016-05-16	2028-03-25	115J10	
496	YE32139	PAL	7	2016-05-16	2028-03-25	115J10	
497	YE32140	PAL	8	2016-05-16	2028-03-25	115J10	
498	YE32141	PAL	9	2016-05-16	2028-03-25	115J10	
499	YE32142	PAL	10	2016-05-16	2028-03-25	115J10	
500	YE32143	PAL	11	2016-05-16	2028-03-25	115J10	
501	YE32144	PAL	12	2016-05-16	2028-03-25	115J10	
502	YE32145	PAL	13	2016-05-16	2028-03-25	115J10	

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#	Grant Number	Claim Name	Claim Number	Staking date	Expiry Date	NTS Map	Non Standard Size
503	YE32146	PAL	14	2016-05-17	2028-03-25	115J10	
504	YE32147	PAL	15	2016-05-17	2028-03-25	115J10	
505	YE32148	PAL	16	2016-05-17	2028-03-25	115J10	
506	YE32149	PAL	17	2016-05-17	2028-03-25	115J10	
507	YE32150	PAL	18	2016-05-17	2028-03-25	115J10	
508	YE32151	PAL	19	2016-05-17	2028-03-25	115J10	
509	YE32152	PAL	20	2016-05-17	2028-03-25	115J10	
510	YE32153	PAL	21	2016-05-17	2028-03-25	115J10	
511	YE32154	PAL	22	2016-05-17	2028-03-25	115J10	
512	YE32155	PAL	23	2016-05-17	2028-03-25	115J10	
513	YE32156	PAL	24	2016-05-17	2028-03-25	115J10	
514	YE32157	PAL	25	2016-05-17	2028-03-25	115J10	
515	YE32196	PAL	26	2016-05-17	2028-03-25	115J10	
516	YE32197	PAL	27	2016-05-17	2028-03-25	115J10	
517	YE32178	PAL	28	2016-05-17	2028-03-25	115J10	
518	YE32179	PAL	29	2016-05-17	2028-03-25	115J10	
519	YE32180	PAL	30	2016-05-16	2028-03-25	115J10	
520	YE32181	PAL	31	2016-05-16	2028-03-25	115J10	
521	YE32182	PAL	32	2016-05-16	2028-03-25	115J10	
522	YE32183	PAL	33	2016-05-16	2028-03-25	115J10	
523	YE32184	PAL	34	2016-05-16	2028-03-25	115J10	
524	YE32185	PAL	35	2016-05-16	2028-03-25	115J10	
525	YE32186	PAL	36	2016-05-16	2028-03-25	115J10	
526	YE32187	PAL	37	2016-05-16	2028-03-25	115J10	
527	YE32101	PAL	38	2016-05-16	2028-03-25	115J10	
528	YE32102	PAL	39	2016-05-16	2028-03-25	115J10	
529	YE32103	PAL	40	2016-05-16	2028-03-25	115J10	
530	YE32104	PAL	41	2016-05-16	2028-03-25	115J10	
531	YE32106	PAL	42	2016-05-16	2028-03-25	115J10	
532	YE32105	PAL	43	2016-05-16	2028-03-25	115J10	
533	YE32108	PAL	44	2016-05-16	2028-03-25	115J10	
534	YE32107	PAL	45	2016-05-16	2028-03-25	115J10	
535	YE32110	PAL	46	2016-05-16	2028-03-25	115J10	
536	YE32109	PAL	47	2016-05-16	2028-03-25	115J10	
537	YE32112	PAL	48	2016-05-17	2028-03-25	115J10	
538	YE32111	PAL	49	2016-05-17	2028-03-25	115J10	
539	YE32114	PAL	50	2016-05-17	2028-03-25	115J10	
540	YE32113	PAL	51	2016-05-17	2028-03-25	115J10	
541	YE32115	PAL	52	2016-05-17	2028-03-25	115J10	
542	YE32116	PAL	53	2016-05-17	2028-03-25	115J10	
543	YE32118	PAL	54	2016-05-17	2028-03-25	115J10	
544	YE32117	PAL	55	2016-05-17	2028-03-25	115J10	
545	YE32232	PAL	56	2016-05-17	2028-03-25	115J10	
546	YE32231	PAL	57	2016-05-17	2028-03-25	115J10	
547	YE32233	PAL	58	2016-05-17	2028-03-25	115J10	
548	YE32234	PAL	60	2016-05-17	2028-03-25	115J10	
549	YE32235	PAL	62	2016-05-17	2028-03-25	115J10	
550	YE32236	PAL	64	2016-05-17	2028-03-25	115J10	
551	YE32237	PAL	65	2016-05-17	2028-03-25	115J10	
552	YE32135	PAL	66	2016-05-17	2028-03-25	115J10	
553	YE32136	PAL	67	2016-05-17	2028-03-25	115J10	
554	YE32133	PAL	68	2016-05-17	2028-03-25	115J10	
555	YE32134	PAL	69	2016-05-17	2028-03-25	115J10	
556	YE32119	PAL	70	2016-05-16	2028-03-25	115J10	
557	YE32120	PAL	71	2016-05-16	2028-03-25	115J10	
558	YE32121	PAL	72	2016-05-16	2028-03-25	115J10	

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559	YE32122	PAL	73	2016-05-16	2028-03-25	115J10	
560	YE32123	PAL	74	2016-05-16	2028-03-25	115J10	
561	YE32124	PAL	75	2016-05-16	2028-03-25	115J10	
562	YE32125	PAL	108	2016-05-17	2028-03-25	115J10	
563	YE32126	PAL	109	2016-05-17	2028-03-25	115J10	
564	YE32127	PAL	110	2016-05-17	2028-03-25	115J10	
565	YE32128	PAL	111	2016-05-17	2028-03-25	115J10	
566	YE32129	PAL	112	2016-05-17	2028-03-25	115J10	
567	YE32130	PAL	113	2016-05-17	2028-03-25	115J10	
568	YE32131	PAL	114	2016-05-17	2028-03-25	115J10	
569	YE32132	PAL	115	2016-05-17	2028-03-25	115J10	
570	YE32188	PAL	143	2016-05-17	2028-03-25	115J10	
571	YE32200	PAL	150	2016-05-17	2028-03-25	115J10	
572	YE32189	PAL	151	2016-05-17	2028-03-25	115J10	
573	YE32190	PAL	152	2016-05-17	2028-03-25	115J10	
574	YE32191	PAL	153	2016-05-17	2028-03-25	115J10	
575	YE32192	PAL	154	2016-05-17	2028-03-25	115J10	
576	YE32193	PAL	155	2016-05-17	2028-03-25	115J10	
577	YD60030	AXS	137	2010-05-11	2028-03-25	115J09	
578	YD60031	AXS	138	2010-05-11	2028-03-25	115J09	
579	YD60032	AXS	139	2010-05-11	2028-03-25	115J09	
580	YD60033	AXS	140	2010-05-11	2028-03-25	115J09	
581	YD60034	AXS	141	2010-05-11	2028-03-25	115J09	
582	YD60035	AXS	142	2010-05-11	2028-03-25	115J09	
583	YD60036	AXS	143	2010-05-11	2028-03-25	115J10	
584	YD60037	AXS	144	2010-05-11	2028-03-25	115J10	
585	YD60038	AXS	145	2010-05-11	2028-03-25	115J10	
586	YD60039	AXS	146	2010-05-11	2028-03-25	115J10	
587	YD60040	AXS	147	2010-05-11	2028-03-25	115J10	
588	YD60041	AXS	148	2010-05-11	2028-03-25	115J10	
589	YD60042	AXS	149	2010-05-11	2028-03-25	115J10	
590	YD60043	AXS	150	2010-05-11	2028-03-25	115J10	
591	YD60044	AXS	151	2010-05-11	2028-03-25	115J10	
592	YD60045	AXS	152	2010-05-11	2028-03-25	115J10	
593	YD60046	AXS	154	2010-05-11	2028-03-25	115J10	
594	YD60047	AXS	153	2010-05-11	2028-03-25	115J10	
595	YD60048	AXS	155	2010-05-11	2028-03-25	115J10	
596	YD60049	AXS	156	2010-05-11	2028-03-25	115J10	
597	YD60050	AXS	157	2010-05-11	2028-03-25	115J10	
598	YD60051	AXS	158	2010-05-11	2028-03-25	115J10	
599	YD60052	AXS	159	2010-05-11	2028-03-25	115J10	
600	YD60053	AXS	160	2010-05-11	2028-03-25	115J10	
601	YD60054	AXS	161	2010-05-11	2028-03-25	115J10	
602	YD60055	AXS	162	2010-05-11	2028-03-25	115J10	
603	YD60056	AXS	163	2010-05-11	2028-03-25	115J10	
604	YD60057	AXS	164	2010-05-11	2028-03-25	115J10	
605	YD60058	AXS	165	2010-05-11	2028-03-25	115J10	
606	YD60059	AXS	166	2010-05-11	2028-03-25	115J10	
607	YD60060	AXS	167	2010-05-11	2028-03-25	115J10	
608	YD60061	AXS	168	2010-05-11	2028-03-25	115J10	
609	YD60062	AXS	169	2010-05-11	2028-03-25	115J10	
610	YD60063	AXS	170	2010-05-11	2028-03-25	115J10	
611	YD60064	AXS	171	2010-05-11	2028-03-25	115J10	
612	YD60065	AXS	172	2010-05-11	2028-03-25	115J10	
613	YD60066	AXS	173	2010-05-11	2028-03-25	115J09	
614	YD60067	AXS	174	2010-05-11	2028-03-25	115J09	

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#	Grant Number	Claim Name	Claim Number	Staking date	Expiry Date	NTS Map	Non Standard Size
615	YD60068	AXS	175	2010-05-11	2028-03-25	115J09	
616	YD60069	AXS	176	2010-05-11	2028-03-25	115J09	
617	YD60070	AXS	177	2010-05-11	2028-03-25	115J09	
618	YD60071	AXS	178	2010-05-11	2028-03-25	115J09	
619	YD60072	AXS	179	2010-05-11	2028-03-25	115J09	
620	YD60073	AXS	180	2010-05-11	2028-03-25	115J09	
621	YD60074	AXS	181	2010-05-11	2028-03-25	115J09	
622	YD60075	AXS	182	2010-05-11	2028-03-25	115J09	
623	YD60076	AXS	183	2010-05-11	2028-03-25	115J09	
624	YD60077	AXS	184	2010-05-11	2028-03-25	115J09	
625	YD60078	AXS	185	2010-05-11	2028-03-25	115J09	
626	YD60079	AXS	186	2010-05-11	2028-03-25	115J09	
627	YD61120	AXS	187	2010-05-11	2028-03-25	115J10	
628	YD61121	AXS	188	2010-05-11	2028-03-25	115J10	
629	YD61122	AXS	189	2010-05-11	2028-03-25	115J10	
630	YD61123	AXS	190	2010-05-11	2028-03-25	115J10	
631	YD61124	AXS	191	2010-05-11	2028-03-25	115J10	
632	YD61125	AXS	192	2010-05-11	2028-03-25	115J10	
633	YD61126	AXS	193	2010-05-11	2028-03-25	115J10	
634	YD61127	AXS	194	2010-05-11	2028-03-25	115J10	
635	YD61128	AXS	196	2010-05-11	2028-03-25	115J10	
636	YD61129	AXS	195	2010-05-11	2028-03-25	115J10	
637	YD61130	AXS	197	2010-05-11	2028-03-25	115J10	
638	YD61131	AXS	198	2010-05-11	2028-03-25	115J10	
639	YD61132	AXS	199	2010-05-11	2028-03-25	115J10	
640	95744	CAT	67	1965-12-05	2031-03-25	115J10	
641	95746	CAT	69	1965-12-05	2031-03-25	115J10	
642	Y 35194	MOUSE	3	1969-06-04	2031-03-25	115J10	
643	Y 35196	MOUSE	5	1969-06-04	2031-03-25	115J10	
644	Y 35198	MOUSE	7	1969-06-04	2031-03-25	115J10	
645	Y 35199	MOUSE	8	1969-06-04	2031-03-25	115J10	
646	Y 35200	MOUSE	9	1969-06-04	2031-03-25	115J10	
647	Y 35201	MOUSE	10	1969-06-04	2031-03-25	115J10	
648	Y 35202	MOUSE	11	1969-06-04	2031-03-25	115J10	
649	Y 35203	MOUSE	12	1969-06-04	2031-03-25	115J10	
650	Y 35204	MOUSE	13	1969-06-04	2031-03-25	115J10	
651	Y 35205	MOUSE	14	1969-06-04	2031-03-25	115J10	
652	Y 35206	MOUSE	15	1969-06-04	2031-03-25	115J10	
653	Y 35207	MOUSE	16	1969-06-04	2031-03-25	115J10	
654	Y 35483	MOUSE	89	1969-06-22	2031-03-25	115J10	
655	Y 35491	MOUSE	97	1969-06-22	2031-03-25	115J10	
656	Y 35492	MOUSE	98	1969-06-22	2031-03-25	115J10	
657	Y 35517	MOUSE	123	1969-06-22	2031-03-25	115J10	
658	Y 35518	MOUSE	124	1969-06-22	2031-03-25	115J10	
659	Y 35519	MOUSE	125	1969-06-22	2031-03-25	115J10	
660	Y 35520	MOUSE	126	1969-06-22	2031-03-25	115J10	
661	Y 35521	MOUSE	127	1969-06-22	2031-03-25	115J10	
662	Y 35522	MOUSE	128	1969-06-22	2031-03-25	115J10	
663	YB36618	CAS	31	1991-11-28	2031-03-25	115J10	
664	YB36619	CAS	32	1991-11-28	2031-03-25	115J10	
665	YB36620	CAS	33	1991-11-28	2031-03-25	115J15	
666	YB36621	CAS	34	1991-11-28	2031-03-25	115J15	
667	YB36622	CAS	35	1991-11-28	2031-03-25	115J15	
668	YB36623	CAS	36	1991-11-28	2031-03-25	115J15	
669	YB37242	E	23	1992-09-01	2031-03-25	115J15	
670	YB37243	E	24	1992-09-01	2031-03-25	115J15	

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#	Grant Number	Claim Name	Claim Number	Staking date	Expiry Date	NTS Map	Non Standard Size
671	YB37244	E	25	1992-09-01	2031-03-25	115J15	
672	YB37246	E	27	1992-09-01	2031-03-25	115J10	
673	YB37247	E	28	1992-09-01	2031-03-25	115J10	
674	YB37248	E	29	1992-09-01	2031-03-25	115J15	
675	YB37249	E	30	1992-09-01	2031-03-25	115J15	
676	YB37250	E	31	1992-09-01	2031-03-25	115J15	
677	YB37251	E	32	1992-09-01	2031-03-25	115J15	
678	YB37278	F	27	1992-08-30	2031-03-25	115J10	
679	YB37279	F	28	1992-08-30	2031-03-25	115J10	
680	YB37640	I	1	1992-09-09	2031-03-25	115J10	
681	YB37641	I	2	1992-09-09	2031-03-25	115J10	
682	YB37642	I	3	1992-09-09	2031-03-25	115J10	
683	YB37643	I	4	1992-09-09	2031-03-25	115J10	
684	YB37658	I	19	1992-09-09	2031-03-25	115J10	
685	YB37659	I	20	1992-09-09	2031-03-25	115J10	
686	YC81316	BRIT	1	2008-06-10	2034-03-05	115J15	
687	YC81317	BRIT	2	2008-06-10	2034-03-05	115J15	
688	YC81318	BRIT	3	2008-06-10	2034-03-05	115J15	
689	YC81319	BRIT	4	2008-06-10	2034-03-05	115J15	
690	YC81320	BRIT	5	2008-06-10	2034-03-05	115J15	
691	YC81321	BRIT	6	2008-06-10	2034-03-05	115J15	
692	YC81322	BRIT	7	2008-06-10	2034-03-05	115J15	
693	YC81323	BRIT	8	2008-06-10	2034-03-05	115J15	
694	YC81324	BRIT	9	2008-06-10	2034-03-05	115J15	
695	YC81325	BRIT	10	2008-06-10	2034-03-05	115J15	
696	YC81326	BRIT	11	2008-06-10	2034-03-05	115J15	
697	YC81327	BRIT	12	2008-06-10	2034-03-05	115J15	
698	YC81328	BRIT	13	2008-06-10	2034-03-05	115J15	
699	YC81329	BRIT	14	2008-06-10	2034-03-05	115J15	
700	YC81330	BRIT	15	2008-06-10	2034-03-05	115J15	
701	YC81331	BRIT	16	2008-06-10	2034-03-05	115J15	
702	YC81332	BRIT	17	2008-06-10	2034-03-05	115J15	
703	YC81333	BRIT	18	2008-06-10	2034-03-05	115J15	
704	YC81334	BRIT	19	2008-06-10	2034-03-05	115J15	
705	YC81335	BRIT	20	2008-06-10	2034-03-05	115J15	
706	YC81336	BRIT	21	2008-06-10	2034-03-05	115J15	
707	YC81337	BRIT	22	2008-06-10	2034-03-05	115J15	
708	YC81338	BRIT	23	2008-06-10	2034-03-05	115J15	
709	YC81339	BRIT	24	2008-06-10	2034-03-05	115J15	
710	YC81340	BRIT	25	2008-06-10	2034-03-05	115J15	
711	YC81341	BRIT	26	2008-06-10	2034-03-05	115J15	
712	YC81342	BRIT	27	2008-06-10	2034-03-05	115J15	
713	YC81343	BRIT	28	2008-06-10	2034-03-05	115J15	
714	YC81344	BRIT	29	2008-06-10	2034-03-05	115J15	
715	YC81345	BRIT	30	2008-06-10	2034-03-05	115J15	
716	YC81346	BRIT	31	2008-06-10	2034-03-05	115J15	
717	YC81347	BRIT	32	2008-06-10	2034-03-05	115J15	
718	YC81348	BRIT	33	2008-06-10	2034-03-05	115J15	
719	YC81349	BRIT	34	2008-06-10	2034-03-05	115J15	
720	YC81350	BRIT	35	2008-06-10	2034-03-05	115J15	
721	YC81351	BRIT	36	2008-06-10	2034-03-05	115J15	
722	YC81352	BRIT	37	2008-06-10	2034-03-05	115J15	
723	YC81353	BRIT	38	2008-06-10	2034-03-05	115J15	
724	YC81354	BRIT	39	2008-06-10	2034-03-05	115J15	
725	YC81355	BRIT	40	2008-06-10	2034-03-05	115J15	
726	YC81356	BRIT	41	2008-06-10	2034-03-05	115J15	

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#	Grant Number	Claim Name	Claim Number	Staking date	Expiry Date	NTS Map	Non Standard Size
727	YC81357	BRIT	42	2008-06-10	2034-03-05	115J15	
728	YC81358	BRIT	43	2008-06-10	2034-03-05	115J15	
729	YC81359	BRIT	44	2008-06-10	2034-03-05	115J15	
730	YC81360	BRIT	45	2008-06-10	2034-03-05	115J15	
731	YC81361	BRIT	46	2008-06-10	2034-03-05	115J15	
732	YC81362	BRIT	47	2008-06-10	2034-03-05	115J15	
733	YC81363	BRIT	48	2008-06-10	2034-03-05	115J15	
734	YC81364	BRIT	49	2008-06-10	2034-03-05	115J15	
735	YC81365	BRIT	50	2008-06-10	2034-03-05	115J15	
736	YC81366	BRIT	51	2008-06-10	2034-03-05	115J15	
737	YC81367	BRIT	52	2008-06-10	2034-03-05	115J15	
738	YC81368	BRIT	53	2008-06-10	2034-03-05	115J15	
739	YC81369	BRIT	54	2008-06-10	2034-03-05	115J15	
740	YC81370	BRIT	55	2008-06-10	2034-03-05	115J15	
741	YC81371	BRIT	56	2008-06-10	2034-03-05	115J15	
742	YC81372	BRIT	57	2008-06-10	2034-03-05	115J15	
743	YC81373	BRIT	58	2008-06-10	2034-03-05	115J15	
744	YC81374	BRIT	59	2008-06-10	2034-03-05	115J15	
745	YC81375	BRIT	60	2008-06-10	2034-03-05	115J15	
746	YC81376	BRIT	61	2008-06-10	2034-03-05	115J15	
747	YC81377	BRIT	62	2008-06-10	2034-03-05	115J15	
748	YC81378	BRIT	63	2008-06-10	2034-03-05	115J15	
749	YC81379	CC	1	2008-06-12	2034-03-05	115J10	
750	YC81380	CC	2	2008-06-12	2034-03-05	115J10	
751	YC81381	CC	3	2008-06-12	2034-03-05	115J10	
752	YC81382	CC	4	2008-06-12	2034-03-05	115J10	
753	YC81383	CC	5	2008-06-12	2034-03-05	115J10	
754	YC81384	CC	6	2008-06-12	2034-03-05	115J10	
755	YC81385	CC	7	2008-06-11	2034-03-05	115J10	
756	YC81386	CC	8	2008-06-11	2034-03-05	115J10	
757	YC81387	CC	9	2008-06-11	2034-03-05	115J10	
758	YC81388	CC	10	2008-06-11	2034-03-05	115J10	
759	YC81389	CC	11	2008-06-11	2034-03-05	115J10	
760	YC81390	CC	12	2008-06-11	2034-03-05	115J10	
761	YC81391	CC	13	2008-06-11	2034-03-05	115J10	
762	YC81392	CC	14	2008-06-11	2034-03-05	115J10	
763	YC81393	CC	15	2008-06-11	2034-03-05	115J10	
764	YC81394	CC	16	2008-06-11	2034-03-05	115J10	
765	YC81395	CC	17	2008-06-11	2034-03-05	115J10	
766	YC81396	CC	18	2008-06-11	2034-03-05	115J10	
767	YC81397	CC	19	2008-06-11	2034-03-05	115J10	
768	YC81398	CC	20	2008-06-11	2034-03-05	115J10	
769	YC81399	CC	21	2008-06-12	2034-03-05	115J10	
770	YC81400	CC	22	2008-06-12	2034-03-05	115J10	
771	YC81401	CC	23	2008-06-12	2034-03-05	115J10	
772	YC81402	CC	24	2008-06-12	2034-03-05	115J10	
773	YC81403	CC	25	2008-06-12	2034-03-05	115J10	
774	YC81404	CC	26	2008-06-12	2034-03-05	115J10	
775	YC81405	CC	27	2008-06-12	2034-03-05	115J10	
776	YC81406	CC	28	2008-06-12	2034-03-05	115J10	
777	YC81407	CC	29	2008-06-12	2034-03-05	115J10	
778	YC81408	CC	30	2008-06-11	2034-03-05	115J10	
779	YC81409	CC	31	2008-06-11	2034-03-05	115J10	
780	YC81410	CC	32	2008-06-11	2034-03-05	115J10	
781	YC81411	CC	33	2008-06-11	2034-03-05	115J10	
782	YC81412	CC	34	2008-06-11	2034-03-05	115J10	

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#	Grant Number	Claim Name	Claim Number	Staking date	Expiry Date	NTS Map	Non Standard Size
783	YC81413	CC	35	2008-06-11	2034-03-05	115J10	
784	YC81414	CC	36	2008-06-11	2034-03-05	115J10	
785	YC81415	CC	37	2008-06-11	2034-03-05	115J10	
786	YC81416	CC	38	2008-06-11	2034-03-05	115J10	
787	YC81417	CC	39	2008-06-11	2034-03-05	115J10	
788	YC81418	CC	40	2008-06-12	2034-03-05	115J10	
789	YC81419	CC	41	2008-06-12	2034-03-05	115J10	
790	YC81420	CC	42	2008-06-12	2034-03-05	115J10	
791	YC81421	CC	43	2008-06-12	2034-03-05	115J10	
792	YC81422	CC	44	2008-06-12	2034-03-05	115J10	
793	YC81423	CC	45	2008-06-12	2034-03-05	115J10	
794	YC81424	CC	46	2008-06-12	2034-03-05	115J10	
795	YC81425	CC	47	2008-06-12	2034-03-05	115J10	
796	YC81426	CC	48	2008-06-12	2034-03-05	115J10	
797	YC81427	CC	49	2008-06-12	2034-03-05	115J10	
798	YC81428	CC	50	2008-06-12	2034-03-05	115J10	
799	YC81429	CC	51	2008-06-12	2034-03-05	115J10	
800	YC81430	CC	52	2008-06-12	2034-03-05	115J10	
801	YC81431	CC	53	2008-06-12	2034-03-05	115J10	
802	YC81432	CC	54	2008-06-12	2034-03-05	115J10	
803	YC81433	CC	55	2008-06-12	2034-03-05	115J10	
804	YC81434	CC	56	2008-06-12	2034-03-05	115J10	
805	YC81435	CC	57	2008-06-11	2034-03-05	115J10	
806	YC81436	CC	58	2008-06-11	2034-03-05	115J10	
807	YC81437	CC	59	2008-06-11	2034-03-05	115J10	
808	YC81438	CC	60	2008-06-11	2034-03-05	115J10	
809	YC81439	CC	61	2008-06-11	2034-03-05	115J10	
810	YC81440	CC	62	2008-06-11	2034-03-05	115J10	
811	YC81441	CC	63	2008-06-12	2034-03-05	115J10	
812	YC81442	CC	64	2008-06-12	2034-03-05	115J10	
813	YC81443	CC	65	2008-06-12	2034-03-05	115J10	
814	YC81444	CC	66	2008-06-12	2034-03-05	115J10	
815	YC81445	CC	67	2008-06-12	2034-03-05	115J10	
816	YC81446	CC	68	2008-06-12	2034-03-05	115J10	
817	YC81447	CC	69	2008-06-12	2034-03-05	115J10	
818	YC81448	CC	70	2008-06-12	2034-03-05	115J10	
819	YC81449	CC	71	2008-06-12	2034-03-05	115J10	
820	YC81450	CC	72	2008-06-12	2034-03-05	115J10	
821	YC81451	CC	73	2008-06-12	2034-03-05	115J10	
822	YC81452	CC	74	2008-06-12	2034-03-05	115J10	
823	YC81453	CC	75	2008-06-12	2034-03-05	115J10	
824	YC81454	CC	76	2008-06-12	2034-03-05	115J10	
825	YC81455	CC	77	2008-06-12	2034-03-05	115J10	
826	YC81456	CC	78	2008-06-12	2034-03-05	115J10	
827	YC81457	CC	79	2008-06-12	2034-03-05	115J10	
828	YC81458	CC	80	2008-06-11	2034-03-05	115J10	
829	YC81459	CC	81	2008-06-11	2034-03-05	115J10	
830	YC81460	CC	82	2008-06-11	2034-03-05	115J10	
831	YC81461	CC	83	2008-06-13	2034-03-05	115J10	
832	YC81462	CC	84	2008-06-13	2034-03-05	115J10	
833	YC81463	CC	85	2008-06-13	2034-03-05	115J10	
834	YC81464	CC	86	2008-06-13	2034-03-05	115J10	
835	YC81465	CC	87	2008-06-13	2034-03-05	115J10	
836	YC81466	CC	88	2008-06-13	2034-03-05	115J10	
837	YC81467	CC	89	2008-06-13	2034-03-05	115J10	
838	YC81468	CC	90	2008-06-13	2034-03-05	115J10	

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#	Grant Number	Claim Name	Claim Number	Staking date	Expiry Date	NTS Map	Non Standard Size
839	YC81469	CC	91	2008-06-13	2034-03-05	115J10	
840	YC81470	CC	92	2008-06-13	2034-03-05	115J10	
841	YC81471	CC	93	2008-06-13	2034-03-05	115J10	
842	YC81472	CC	94	2008-06-13	2034-03-05	115J10	
843	Y 10693	JOE	89	1966-09-24	2036-03-05	115J10	
844	Y 10694	JOE	90	1966-09-24	2036-03-05	115J10	
845	Y 10695	JOE	91	1966-09-24	2036-03-05	115J10	
846	Y 10696	JOE	92	1966-09-24	2036-03-05	115J10	
847	Y 10697	JOE	93	1966-09-24	2036-03-05	115J10	
848	Y 10698	JOE	94	1966-09-24	2036-03-05	115J10	
849	Y 10699	JOE	95	1966-09-24	2036-03-05	115J10	
850	Y 10700	JOE	96	1966-09-24	2036-03-05	115J10	
851	Y 10702	JOE	98	1966-09-24	2036-03-05	115J10	
852	Y 10703	JOE	99	1966-09-24	2036-03-05	115J10	
853	Y 10705	JOE	101	1966-09-24	2036-03-05	115J10	
854	Y 10706	JOE	102	1966-09-24	2036-03-05	115J10	
855	Y 10707	JOE	103	1966-09-24	2036-03-05	115J15	
856	Y 10708	JOE	104	1966-09-24	2036-03-05	115J15	
857	Y 35192	MOUSE	1	1969-06-04	2036-03-05	115J10	
858	Y 35193	MOUSE	2	1969-06-04	2036-03-05	115J10	
859	Y 51850	JOE	91	1970-03-29	2036-03-05	115J10	Partial Quartz fraction (<25 acres)
860	Y 51851	JOE	92	1970-03-29	2036-03-05	115J10	Partial Quartz fraction (<25 acres)
861	Y 51852	JOE	93	1970-03-29	2036-03-05	115J10	Partial Quartz fraction (<25 acres)
862	Y 51853	JOE	94	1970-03-29	2036-03-05	115J10	Partial Quartz fraction (<25 acres)
863	Y 51854	JOE	95	1970-03-29	2036-03-05	115J10	Partial Quartz fraction (<25 acres)
864	Y 51855	JOE	96	1970-03-29	2036-03-05	115J10	Partial Quartz fraction (<25 acres)
865	YC64893	VIK	1	2007-05-27	2036-03-05	115J10	
866	YC64894	VIK	2	2007-05-27	2036-03-05	115J10	
867	YC64895	VIK	3	2007-05-27	2036-03-05	115J10	
868	YC64896	VIK	4	2007-05-27	2036-03-05	115J10	
869	YC64897	VIK	5	2007-05-27	2036-03-05	115J10	
870	YC64898	VIK	6	2007-05-27	2036-03-05	115J10	
871	YC64899	VIK	7	2007-05-27	2036-03-05	115J10	
872	YC64900	VIK	8	2007-05-27	2036-03-05	115J10	
873	YC64901	VIK	9	2007-05-27	2036-03-05	115J10	
874	YC64902	VIK	10	2007-05-27	2036-03-05	115J10	
875	YC64903	VIK	11	2007-05-27	2036-03-05	115J10	
876	YC64904	VIK	12	2007-05-27	2036-03-05	115J10	
877	YC64905	VIK	13	2007-05-27	2036-03-05	115J10	
878	YC64906	VIK	14	2007-05-27	2036-03-05	115J10	
879	YC64907	VIK	15	2007-05-27	2036-03-05	115J10	
880	YC64908	VIK	16	2007-05-27	2036-03-05	115J10	
881	YC64909	VIK	17	2007-05-27	2036-03-05	115J10	
882	YC64910	VIK	18	2007-05-28	2036-03-05	115J10	
883	YC64911	VIK	19	2007-05-28	2036-03-05	115J10	
884	YC64912	VIK	20	2007-05-28	2036-03-05	115J10	
885	YC64913	VIK	21	2007-05-28	2036-03-05	115J10	
886	YC64914	VIK	22	2007-05-25	2036-03-05	115J10	
887	YC64915	VIK	23	2007-05-25	2036-03-05	115J10	
888	YC64916	VIK	24	2007-05-25	2036-03-05	115J10	
889	YC64917	VIK	25	2007-05-25	2036-03-05	115J10	
890	YC64918	VIK	26	2007-05-25	2036-03-05	115J10	
891	YC64919	VIK	27	2007-05-25	2036-03-05	115J10	
892	YC64920	VIK	28	2007-05-25	2036-03-05	115J10	
893	YC64921	VIK	29	2007-05-25	2036-03-05	115J10	
894	YC64922	VIK	30	2007-05-25	2036-03-05	115J10	

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#	Grant Number	Claim Name	Claim Number	Staking date	Expiry Date	NTS Map	Non Standard Size
895	YC64923	VIK	31	2007-05-25	2036-03-05	115J10	
896	YC64924	VIK	32	2007-05-25	2036-03-05	115J10	
897	YC64925	VIK	33	2007-05-25	2036-03-05	115J10	
898	YC64926	VIK	34	2007-05-25	2036-03-05	115J10	
899	YC64927	VIK	35	2007-05-25	2036-03-05	115J10	
900	YC64928	VIK	36	2007-05-25	2036-03-05	115J10	
901	YC64929	VIK	37	2007-05-25	2036-03-05	115J10	
902	YC64930	VIK	38	2007-05-25	2036-03-05	115J10	
903	YC64931	VIK	39	2007-05-25	2036-03-05	115J10	
904	YC64932	VIK	40	2007-05-25	2036-03-05	115J10	
905	YC64933	VIK	41	2007-05-31	2036-03-05	115J10	
906	YC64934	VIK	42	2007-05-31	2036-03-05	115J10	
907	YC64935	VIK	43	2007-06-05	2036-03-05	115J10	
908	YC64936	VIK	44	2007-06-05	2036-03-05	115J10	
909	YC64937	VIK	45	2007-06-05	2036-03-05	115J10	
910	YC64938	VIK	46	2007-06-05	2036-03-05	115J10	
911	YC64939	VIK	47	2007-06-05	2036-03-05	115J10	
912	YC64940	VIK	48	2007-06-05	2036-03-05	115J10	
913	YC64941	VIK	49	2007-05-25	2036-03-05	115J10	
914	YC64942	VIK	50	2007-05-25	2036-03-05	115J10	
915	YC64943	VIK	51	2007-05-25	2036-03-05	115J10	
916	YC64944	VIK	52	2007-05-25	2036-03-05	115J10	
917	YC64945	VIK	53	2007-05-25	2036-03-05	115J10	
918	YC64946	VIK	54	2007-05-25	2036-03-05	115J10	
919	YC64947	VIK	55	2007-05-25	2036-03-05	115J10	
920	YC64948	VIK	56	2007-05-24	2036-03-05	115J10	
921	YC64949	VIK	57	2007-05-24	2036-03-05	115J10	
922	YC64950	VIK	58	2007-05-24	2036-03-05	115J10	
923	YC64951	VIK	59	2007-05-24	2036-03-05	115J10	
924	YC64952	VIK	60	2007-05-24	2036-03-05	115J10	
925	YC64953	VIK	61	2007-05-24	2036-03-05	115J10	
926	YC64954	VIK	62	2007-05-24	2036-03-05	115J10	
927	YC64955	VIK	63	2007-05-24	2036-03-05	115J10	
928	YC64956	VIK	64	2007-05-24	2036-03-05	115J10	
929	YC64958	VIK	66	2007-05-24	2036-03-05	115J10	
930	YC64959	VIK	67	2007-05-24	2036-03-05	115J10	
931	YC64960	VIK	68	2007-05-24	2036-03-05	115J10	
932	YC64961	VIK	69	2007-05-24	2036-03-05	115J10	
933	YC64962	VIK	70	2007-05-24	2036-03-05	115J10	
934	YC64963	VIK	71	2007-05-24	2036-03-05	115J10	
935	YC64964	VIK	72	2007-05-24	2036-03-05	115J10	
936	YC64965	VIK	73	2007-05-24	2036-03-05	115J10	
937	YC64966	VIK	74	2007-05-24	2036-03-05	115J10	
938	YC64967	VIK	75	2007-05-24	2036-03-05	115J10	
939	YC64968	VIK	76	2007-05-24	2036-03-05	115J10	
940	YC64969	VIK	77	2007-05-24	2036-03-05	115J10	
941	YC64970	VIK	78	2007-05-24	2036-03-05	115J10	
942	YC64971	VIK	79	2007-05-24	2036-03-05	115J10	
943	YC64972	VIK	80	2007-05-27	2036-03-05	115J10	
944	YC64973	VIK	81	2007-05-25	2036-03-05	115J10	
945	YC64974	VIK	82	2007-05-26	2036-03-05	115J10	
946	YC64975	VIK	83	2007-05-26	2036-03-05	115J10	
947	YC64976	VIK	84	2007-05-26	2036-03-05	115J10	
948	YC64977	VIK	85	2007-05-26	2036-03-05	115J10	
949	YC64978	VIK	86	2007-05-26	2036-03-05	115J10	
950	YC64979	VIK	87	2007-05-26	2036-03-05	115J10	

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#	Grant Number	Claim Name	Claim Number	Staking date	Expiry Date	NTS Map	Non Standard Size
951	YC64980	VIK	88	2007-05-26	2036-03-05	115J10	
952	YC64981	VIK	89	2007-05-26	2036-03-05	115J10	
953	YC64982	VIK	90	2007-05-26	2036-03-05	115J10	
954	YC64983	VIK	91	2007-05-26	2036-03-05	115J10	
955	YC64984	VIK	92	2007-05-26	2036-03-05	115J10	
956	YC64985	VIK	93	2007-05-26	2036-03-05	115J10	
957	YC64986	VIK	94	2007-05-26	2036-03-05	115J10	
958	YC64987	VIK	95	2007-05-26	2036-03-05	115J10	
959	YC64988	VIK	96	2007-05-28	2036-03-05	115J10	
960	YC64989	VIK	97	2007-05-28	2036-03-05	115J10	
961	YC64990	VIK	98	2007-05-28	2036-03-05	115J10	
962	YC64991	VIK	99	2007-05-28	2036-03-05	115J10	
963	YC64992	VIK	100	2007-05-28	2036-03-05	115J10	
964	YC64993	VIK	101	2007-05-28	2036-03-05	115J10	
965	YC64994	VIK	102	2007-05-28	2036-03-05	115J10	
966	YC64995	VIK	103	2007-05-28	2036-03-05	115J10	
967	YC64996	VIK	104	2007-05-26	2036-03-05	115J10	
968	YC64997	VIK	105	2007-05-26	2036-03-05	115J10	
969	YC64998	VIK	106	2007-05-26	2036-03-05	115J10	
970	YC64999	VIK	107	2007-05-26	2036-03-05	115J10	
971	YC65000	VIK	108	2007-05-26	2036-03-05	115J10	
972	YC65001	VIK	109	2007-05-26	2036-03-05	115J10	
973	YC65002	VIK	110	2007-05-26	2036-03-05	115J10	
974	YC65003	VIK	111	2007-05-26	2036-03-05	115J10	
975	YC65004	VIK	112	2007-05-26	2036-03-05	115J10	
976	YC65005	VIK	113	2007-05-26	2036-03-05	115J10	
977	YC65006	VIK	114	2007-05-26	2036-03-05	115J10	
978	YC65007	VIK	115	2007-05-26	2036-03-05	115J10	
979	YC65008	VIK	116	2007-05-26	2036-03-05	115J10	
980	YC65009	VIK	117	2007-05-26	2036-03-05	115J10	
981	YC65010	VIK	118	2007-05-26	2036-03-05	115J15	
982	YC65011	VIK	119	2007-05-26	2036-03-05	115J15	
983	YC65012	VIK	120	2007-05-26	2036-03-05	115J15	
984	YC65013	VIK	121	2007-05-26	2036-03-05	115J15	
985	YC65014	VIK	122	2007-05-26	2036-03-05	115J15	
986	YC65015	VIK	123	2007-05-26	2036-03-05	115J15	
987	YC65016	VIK	124	2007-05-26	2036-03-05	115J15	
988	YC65017	VIK	125	2007-05-26	2036-03-05	115J15	
989	YC65018	VIK	126	2007-05-29	2036-03-05	115J15	
990	YC65019	VIK	127	2007-05-29	2036-03-05	115J15	
991	YC65020	VIK	128	2007-05-29	2036-03-05	115J15	
992	YC65021	VIK	129	2007-05-29	2036-03-05	115J15	
993	YC65022	VIK	130	2007-05-29	2036-03-05	115J15	
994	YC65023	VIK	131	2007-05-29	2036-03-05	115J15	
995	YC65024	VIK	132	2007-05-29	2036-03-05	115J15	
996	YC65025	VIK	133	2007-05-29	2036-03-05	115J15	
997	YC65026	VIK	134	2007-05-29	2036-03-05	115J15	
998	YC65027	VIK	135	2007-05-29	2036-03-05	115J15	
999	YC65028	VIK	136	2007-05-29	2036-03-05	115J15	
1000	YC65029	VIK	137	2007-05-29	2036-03-05	115J15	
1001	YC65030	VIK	138	2007-05-29	2036-03-05	115J15	
1002	YC65031	VIK	139	2007-05-29	2036-03-05	115J15	
1003	YC65032	VIK	140	2007-05-29	2036-03-05	115J15	
1004	YC65033	VIK	141	2007-05-29	2036-03-05	115J15	
1005	YC65034	VIK	142	2007-05-29	2036-03-05	115J15	
1006	YC65035	VIK	143	2007-05-29	2036-03-05	115J15	

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1007	YC65036	VIK	144	2007-05-29	2036-03-05	115J15	
1008	YC65037	VIK	145	2007-05-29	2036-03-05	115J15	
1009	YC65038	VIK	146	2007-05-29	2036-03-05	115J15	
1010	YC65039	VIK	147	2007-05-29	2036-03-05	115J15	
1011	YC65040	VIK	148	2007-05-29	2036-03-05	115J15	
1012	YC65041	VIK	149	2007-05-29	2036-03-05	115J15	
1013	YC65042	VIK	150	2007-05-29	2036-03-05	115J15	
1014	YC65043	VIK	151	2007-05-29	2036-03-05	115J15	
1015	YC65044	VIK	152	2007-05-29	2036-03-05	115J15	
1016	YC65045	VIK	153	2007-05-29	2036-03-05	115J15	
1017	YC65046	VIK	154	2007-05-29	2036-03-05	115J15	
1018	YC65047	VIK	155	2007-05-29	2036-03-05	115J15	
1019	YC65048	VIK	156	2007-05-29	2036-03-05	115J15	
1020	YC65049	VIK	157	2007-05-29	2036-03-05	115J15	
1021	YC65050	VIK	158	2007-05-29	2036-03-05	115J15	
1022	YC65051	VIK	159	2007-05-29	2036-03-05	115J15	
1023	YC65052	VIK	160	2007-05-29	2036-03-05	115J15	
1024	YC65053	VIK	161	2007-05-29	2036-03-05	115J15	
1025	YC65054	VIK	162	2007-05-29	2036-03-05	115J15	
1026	YC65055	VIK	163	2007-05-29	2036-03-05	115J15	
1027	YC65056	VIK	164	2007-05-29	2036-03-05	115J15	
1028	YC65057	VIK	165	2007-05-29	2036-03-05	115J15	
1029	YC65058	VIK	166	2007-05-29	2036-03-05	115J15	
1030	YC65059	VIK	167	2007-05-29	2036-03-05	115J15	
1031	YC65060	VIK	168	2007-05-29	2036-03-05	115J15	
1032	YC65061	VIK	169	2007-05-29	2036-03-05	115J15	
1033	YC65062	VIK	170	2007-05-30	2036-03-05	115J15	
1034	YC65063	VIK	171	2007-05-30	2036-03-05	115J15	
1035	YC65064	VIK	172	2007-05-30	2036-03-05	115J15	
1036	YC65065	VIK	173	2007-05-30	2036-03-05	115J15	
1037	YC65066	VIK	174	2007-05-30	2036-03-05	115J15	
1038	YC65067	VIK	175	2007-05-30	2036-03-05	115J15	
1039	YC65068	VIK	176	2007-05-30	2036-03-05	115J15	
1040	YC65069	VIK	177	2007-05-30	2036-03-05	115J15	
1041	YC65070	VIK	178	2007-05-30	2036-03-05	115J15	
1042	YC65071	VIK	179	2007-05-30	2036-03-05	115J15	
1043	YC65072	VIK	180	2007-05-30	2036-03-05	115J15	
1044	YC65073	VIK	181	2007-05-30	2036-03-05	115J15	
1045	YC65074	VIK	182	2007-05-30	2036-03-05	115J15	
1046	YC65075	VIK	183	2007-05-30	2036-03-05	115J15	
1047	YC65076	VIK	184	2007-05-28	2036-03-05	115J15	
1048	YC65077	VIK	185	2007-05-28	2036-03-05	115J15	
1049	YC65078	VIK	186	2007-05-28	2036-03-05	115J15	
1050	YC65079	VIK	187	2007-05-29	2036-03-05	115J15	
1051	YC65080	VIK	188	2007-05-29	2036-03-05	115J15	
1052	YC64957	VIK	65	2007-05-26	2036-03-05	115J10	
1053	4252	HELICOPTER		1943-09-04	2036-03-25	115J10	
1054	56979	#1 BOMBER GROUP		1947-08-07	2036-03-25	115J10	
1055	56980	#3 BOMBER GROUP		1947-08-07	2036-03-25	115J10	
1056	56981	#5 BOMBER GROUP		1947-08-07	2036-03-25	115J10	
1057	56983	#1 AIRPORT GROU		1947-08-07	2036-03-25	115J10	
1058	56984	#3 AIRPORT GROU		1947-08-07	2036-03-25	115J10	
1059	56985	#5 AIRPORT GROU		1947-08-07	2036-03-25	115J10	
1060	56987	#2 BOMBER GROUP		1947-08-07	2036-03-25	115J10	
1061	56988	#6 BOMBER GROUP		1947-08-07	2036-03-25	115J10	
1062	56990	#2 AIRPORT GROU		1947-08-07	2036-03-25	115J10	

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1063	56991	#4 AIRPORT GROU		1947-08-07	2036-03-25	115J10	
1064	56992	#6 AIRPORT GROU		1947-08-07	2036-03-25	115J10	
1065	56993	#8 AIRPORT GROU		1947-07-07	2036-03-25	115J10	
1066	92201	CAT	1	1965-06-29	2036-03-25	115J10	
1067	92202	CAT	2	1965-06-29	2036-03-25	115J10	
1068	92203	CAT	3	1965-06-29	2036-03-25	115J10	
1069	92204	CAT	4	1965-06-29	2036-03-25	115J10	
1070	92205	CAT	5	1965-06-29	2036-03-25	115J10	
1071	92206	CAT	6	1965-06-29	2036-03-25	115J10	
1072	92207	CAT	7	1965-06-29	2036-03-25	115J10	
1073	92208	CAT	8	1965-06-29	2036-03-25	115J10	
1074	92209	CAT	9	1965-06-29	2036-03-25	115J10	
1075	92210	CAT	10	1965-06-29	2036-03-25	115J10	
1076	92211	CAT	11	1965-06-29	2036-03-25	115J10	
1077	92212	CAT	12	1965-06-29	2036-03-25	115J10	
1078	92213	CAT	13	1965-06-29	2036-03-25	115J10	
1079	92214	CAT	14	1965-06-29	2036-03-25	115J10	
1080	92215	CAT	15	1965-06-30	2036-03-25	115J10	
1081	92216	CAT	16	1965-06-30	2036-03-25	115J10	
1082	92217	CAT	17	1965-06-30	2036-03-25	115J10	
1083	92218	CAT	18	1965-06-30	2036-03-25	115J10	
1084	92219	CAT	19	1965-06-30	2036-03-25	115J10	
1085	92220	CAT	20	1965-06-30	2036-03-25	115J10	
1086	92221	CAT	21	1965-06-30	2036-03-25	115J10	
1087	92222	CAT	22	1965-06-30	2036-03-25	115J10	
1088	92764	CAT	23	1965-09-10	2036-03-25	115J10	
1089	92765	CAT	24	1965-09-10	2036-03-25	115J10	
1090	92766	CAT	25	1965-09-10	2036-03-25	115J10	
1091	92776	CAT	35	1965-09-11	2036-03-25	115J10	
1092	92777	CAT	36	1965-09-11	2036-03-25	115J10	
1093	92778	CAT	37	1965-09-11	2036-03-25	115J10	
1094	92779	CAT	38	1965-09-11	2036-03-25	115J10	
1095	92780	CAT	39	1965-09-12	2036-03-25	115J10	
1096	92781	CAT	40	1965-09-12	2036-03-25	115J10	
1097	92782	CAT	41	1965-09-12	2036-03-25	115J10	
1098	92783	CAT	42	1965-09-12	2036-03-25	115J10	
1099	95724	CAT	47	1965-12-02	2036-03-25	115J10	
1100	95725	CAT	48	1965-12-02	2036-03-25	115J10	
1101	95726	CAT	49	1965-12-02	2036-03-25	115J10	
1102	95727	CAT	50	1965-12-02	2036-03-25	115J10	
1103	95728	CAT	51	1965-12-02	2036-03-25	115J10	
1104	95729	CAT	52	1965-12-02	2036-03-25	115J10	
1105	95730	CAT	53	1965-12-02	2036-03-25	115J10	
1106	95731	CAT	54	1965-12-02	2036-03-25	115J10	
1107	95732	CAT	55	1965-12-02	2036-03-25	115J15	
1108	95733	CAT	56	1965-12-02	2036-03-25	115J15	
1109	95734	CAT	57	1965-12-02	2036-03-25	115J10	
1110	95735	CAT	58	1965-12-02	2036-03-25	115J10	
1111	95736	CAT	59	1965-12-02	2036-03-25	115J10	
1112	95737	CAT	60	1965-12-02	2036-03-25	115J10	
1113	95738	CAT	61	1965-12-02	2036-03-25	115J10	
1114	95739	CAT	62	1965-12-02	2036-03-25	115J10	
1115	Y 10701	JOE	97	1966-09-24	2036-03-25	115J10	
1116	Y 10704	JOE	100	1966-09-24	2036-03-25	115J10	
1117	Y 35582	MOUSE	161	1969-06-25	2036-03-25	115J10	Full Quartz fraction (25+ acres)
1118	Y 35583	MOUSE	162	1969-06-25	2036-03-25	115J10	Full Quartz fraction (25+ acres)

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1119	Y 35584	MOUSE	163	1969-06-25	2036-03-25	115J10	Full Quartz fraction (25+ acres)
1120	Y 35585	LOST FR.	1	1969-06-25	2036-03-25	115J10	
1121	Y 35586	LOST FR.	2	1969-06-25	2036-03-25	115J10	
1122	Y 35587	LOST FR.	3	1969-06-25	2036-03-25	115J10	
1123	Y 36686	CAT	22	1969-08-12	2036-03-25	115J10	Full Quartz fraction (25+ acres)
1124	Y 36687	CAT	47	1969-08-12	2036-03-25	115J10	Full Quartz fraction (25+ acres)
1125	Y 36688	CAT	48	1969-08-12	2036-03-25	115J10	Full Quartz fraction (25+ acres)
1126	Y 36690	CAT	62	1969-08-12	2036-03-25	115J10	Full Quartz fraction (25+ acres)
1127	Y 39601	CAT	3	1969-10-23	2036-03-25	115J10	Full Quartz fraction (25+ acres)
1128	Y 39602	CAT	4	1969-10-23	2036-03-25	115J10	Full Quartz fraction (25+ acres)
1129	Y 39603	CAT	23	1969-10-23	2036-03-25	115J10	Full Quartz fraction (25+ acres)
1130	Y 51846	CAT	1	1970-03-29	2036-03-25	115J10	Partial Quartz fraction (<25 acres)
1131	Y 51847	CAT	2	1970-03-29	2036-03-25	115J10	Full Quartz fraction (25+ acres)
1132	Y 51849	CAT	26	1970-03-30	2036-03-25	115J10	Partial Quartz fraction (<25 acres)
1133	YB37280	F	29	1992-08-30	2036-03-25	115J10	
1134	YB37282	F	31	1992-08-30	2036-03-25	115J10	
1135	YB37284	F	33	1992-08-30	2036-03-25	115J10	
1136	Y 36689	CAT	57	1969-08-12	2036-06-05	115J10	Full Quartz fraction (25+ acres)